

Date and Time: Tuesday, April 19, 2022 6:26:00 PM EDT

Job Number: 169312401

Documents (100)

1. Are we an invasive species?

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

2. Are we an invasive species?

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

3. DNR PREVENTION EFFORT FOCUSES ON INVASIVE SPECIES PURCHASES

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

4. DNR prevention effort focuses on invasive species purchases

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

5. Mississauga Taking Action Against Invasive Species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

6. Alert about invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

7. Invasive species week encourages education, advocacy

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

8. RDCK to develop invasive species strategy

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

9. New invasive species rules

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

10. Invasive species week encourages education, advocacy

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

11. VOLUNTEERS SOUGHT FOR INVASIVE SPECIES PROJECT

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language



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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

12. Rapid response team tackles invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

13. Springtime reminder to help stop spread of invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

14. STATE AWARDS \$3.6 MILLION FOR INVASIVE SPECIES PROJECTS

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

15. STATE AWARDS \$3.6 MILLION FOR INVASIVE SPECIES PROJECTS

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

16. Stefanik introduces bill to combat invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

17. Hippopotamus declared an invasive species in Colombia

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

18. MARYLAND OFFERS GRANTS FOR AQUATIC INVASIVE SPECIES REMOVAL

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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19. Talking invasive species with the U of M

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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20. WISCONSIN INVASIVE SPECIES COUNCIL SEEKS 2022 INVADER CRUSADER NOMINATIONS

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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21. Governor Jay Inslee proclaims Invasive Species Awareness Week

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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22. Environmental imperialism: invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

23. Climate Change Plans 'Fail to Tackle Invasive Species'

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

24. Governor Jay Inslee proclaims Invasive Species Awareness Week

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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25. Governor Jay Inslee proclaims Invasive Species Awareness Week

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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26. Tourist link to invasive species in Ireland

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

27. Governor Jay Inslee proclaims Invasive Species Awareness Week

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

28. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

29. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

30. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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31. HELP STOP THE SPREAD OF AQUATIC INVASIVE SPECIES

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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32. Court raps Centre for refusing to fund removal of 'invasive species'

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

33. Rep. Stefanik Introduces Bill to Combat Invasive Species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

34. MSU Extension helps to educate on and prevent invasive species

Client/Matter: -None-

Search Terms: invasive species

Search Type: Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

35. New Ontario watercraft regulations fight invasive species

Client/Matter: -None-

Search Terms: invasive species Search Type: Natural Language

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Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English News

36. Jersey students learn about Guernsey 's invasive species

Client/Matter: -None-

Search Terms: invasive species Search Type: Natural Language

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Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English News

37. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species Search Type: Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

38. Pests be gone: Watershed group highlights invasive species

Client/Matter: -None-

Search Terms: invasive species Search Type: Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

39. Climate Change Plans 'Fail To Tackle Invasive Species'

Client/Matter: -None-

Search Terms: invasive species Search Type: Natural Language

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40. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

41. TALKING INVASIVE SPECIES WITH THE U OF M

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

42. MSU Extension helps to educate on and prevent invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

43. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

44. Interior revives invasive species advisory panel

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

45. \$50K grant to fight invasive species in Red Run Drain received

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

46. Ulster boat launch to have invasive species inspections

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

47. Pilot program enlists ORV users in invasive species fight

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

48. Battle vs. invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

49. Prevention strategies for invasive species could save trillions

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

50. Protections proposed for coastal herb assailed by invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

51. Prevention strategies for invasive species could save trillions

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

52. Aberdeen Township bans planting of invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

53. Ind. Cooperative Agreements Make \$100,000 Available for Invasive Species Control

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

54. Invasive species: Nelson to increase penalties and education

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

55. Drink up, and learn about invasive species in Northern Michigan

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

56. Youths encouraged to enter California Invasive Species art contest

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

57._-Prevention strategies for invasive species could save trillions

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

58. Federal Grant: Great Lakes Invasive Species Control Monitoring Project

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

59. -Prevention strategies for invasive species could save trillions

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

60. Saginaw CISMA presentation hopes to educate on invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

61. Opinion: House bill would help protect state from invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

62. Local student creates comic book to educate children about invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

63. Grant to raise awareness about invasive species in Michigan

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

64. Grant to raise awareness about invasive species in Michigan

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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Content Type Narrowed by

News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

65. Grant to raise awareness about invasive species in Michigan

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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Content Type Narrowed by

News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

66. Grant to raise awareness about invasive species in Michigan

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

67. FEBRUARY IS HAWAI'I INVASIVE SPECIES AWARENESS MONTH

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

68. Saginaw Bay CISMA looking to be active in fighting invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

69. Invasive Species Advisory Committee; Request for Nominations

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

70. Webinar on invasive species in SE Michigan set for Saturday

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

71. Hawai'i Invasive Species Awareness Month kicks off

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

72. Webinar on invasive species in SE Michigan set for Saturday

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

73. New invasive species rules for boaters, anglers

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

74. New rules in place for invasive species

Client/Matter: -None-

Search Terms: invasive species

Search Type: Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

75. University of Richmond Professor Receives NIH Grant for Invasive Species Research

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

76. Web events focused on invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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77. Invasive species now called spongy moth

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

78. Adding fungi to soil may introduce invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

79. Web event focused on invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

80. Web event dealt with invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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81. Youth art contest rallies Californians to 'Unite to Fight Invasive Species'

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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82. Kaua'i extension agent 'MVP' for invasive-species work

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

83. WID invasive species eradication efforts

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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84. Rep. Stefanik introduces Stamp Out Invasive Species Act to help local ecosystems

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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85. Invasive species swat team in the works in Norfolk

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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86. Towns discuss invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

87. Invasive species swat team in the works in Norfolk County

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

88. Youth art contest rallies californians to unite to fight invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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89. Michigan research boat gets new Great Lakes mission with invasive species grant

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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90. YOUTH ART CONTEST RALLIES CALIFORNIANS TO UNITE TO FIGHT INVASIVE SPECIES

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

91. YOUTH ART CONTEST RALLIES CALIFORNIANS TO UNITE TO FIGHT INVASIVE SPECIES

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

Narrowed by:

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

92. Michigan research boat gets new Great Lakes mission with invasive species grant

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

93. Native plant alternatives to non-native invasive species

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

94. Michigan research boat gets new Great Lakes mission with invasive species grant

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

95. Invasive species spread even in winter

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

96. Michigan research boat gets new Great Lakes mission with invasive species grant

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

97. Colombia to include hippopotamus on invasive species list

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

98. Md. Natural Resources Dept.: Maryland Offers Grants for Aquatic Invasive Species Removal

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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99. Refuge Notebook: Protecting Alaska from invasive species: A common goal near and far

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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News Timeline: Apr 19, 2021 to Apr 19, 2022; Language: English

100. Michigan research boat gets new Great Lakes mission with invasive species grant

Client/Matter: -None-

Search Terms: invasive species **Search Type:** Natural Language

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The Daily Cardinal: University of Wisconsin - Madison

March 31, 2022 Thursday

University Wire

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Section: SCIENCE; Pg. 1

Length: 1132 words

Byline: Joyce Riphagen

Body

It seems not a single undergraduate discussion of <u>invasive species</u> can pass without some philosophically-inclined baby biologist pondering aloud, "You know... maybe humans are the <u>invasive species</u>."

It's worth noting that <u>invasive</u> is a negatively connotated description, which has the unfortunate effect of anthropomorphizing plants and animals that are not good or evil - they just are. There are beneficial <u>invasive</u> <u>species</u>; Wisconsin has not had native earthworms since its glaciation. The familiar friends wriggling in your yard were introduced by settlers. So were honeybees.

Our burgeoning biologist's grave pronouncement can quickly sweep a somber shadow over the group, as many intone their agreement. Humans are destructive. Humans are a plague upon the earth, which would - with the way things are going - thrive without us. Humans are the problem.

Humans aren't not the problem. But really, it's just a handful of humans causing the problem while billions of other, poorer humans suffer the consequences - a 2021 report from Oxfam International found that the richest 1% of people use approximately 30 times more carbon than the poorest 50%. The average citizen of a poor, undeveloped country's carbon footprint is nearly negligible, and that of an average American is just a very small fraction when compared to the billionaires and fossil fuel executives who actively profit from watching the world burn.

The impacts of climate change are far-reaching - even if your experience with biology extends no further than 10th grade frog dissections, you're probably familiar with the idea of <u>invasive species</u> - introduced organisms that, by means of novel weapons or defenses, wreak havoc on native ecosystems.

As our mobility has increased, going from legs to wheels, horses to cars and boats and trains to planes, so have the opportunities for exotic <u>species</u> to be introduced to new niches. Many of Wisconsin's most prolific invasives, such as garlic mustard, were introduced by white settlers as they colonized previously indigenous land. Humans often directly facilitate the introduction of <u>invasive species</u>. But decrying humankind as an <u>invasive species</u> ignores thousands of years of co-evolution between mankind and nature, not to mention indigenous cultures that have a deep, mutual relationship with the land.

In Wisconsin, we face a large variety of <u>invasive species</u>, many of which you have probably seen. The aforementioned garlic mustard abounds in our forests, poisoning the soil and choking out native vegetation. <u>Invasive</u> carp swim our streams, muddying the water and increasing the incidence of harmful algae. Buckthorn, honeysuckle, rusty crayfish... the list goes on and on.

These invasives arrived with settlers, and like settlers, they haven't and won't go home. The lack of widespread invasives before colonization demonstrates that humans are not the problem.

But if not humans, what is the problem? At risk of sounding too much like a hippy-dippy ecologist (which I honestly am), it is the unchecked federal and private disregard for the environment in favor of profit. It is imperialism and greed. The emergence of the emerald ash borer in North America absolutely epitomizes this dismissal; the borer made its way to North America in untreated, unregulated wood imported from Asia, and it proliferated under a lack of decisive action against invasion.

Humans are not an *invasive species*. Colonizers are, and this can be a difficult truth to parse, especially for those who may not be Native, but have grown up in Wisconsin - if you are, in some way, the problem, what's next? What keeps you from being an *invasive species*?

The answer lies in responsibility and mutual respect; caring for the land and people in your ecosystem allows you to make an actively positive impact that works to counteract the negative effects of colonization.

There is another popular witticism among undergraduates flexing their remarkable acumen: "Ecosystems are constantly in flux, perhaps we should let nature take its course. Survival of the fittest." That's definitely an option. We could completely give up attempts at restoration, abandon our ecosystems and wait for a new regime of **species** to take over.

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It's true that attempts to define exactly what constitutes an <u>invasive species</u> must conquer complicated questions - ecosystems are shifting poleward as global warming makes their prior habitats unsuitable. Are these ecosystems <u>invasive</u> in their new high-latitude homes? Should beneficial invasives, like our dear worms, be sent packing with little worm suitcases, back to Europe?

The solution many biologists have reached is a case-by-case approach that fully considers the ecological effects of *invasive species*, positive and negative. Is an introduced *species* of bird perhaps decimating a local toad population, while also dispersing the seeds of a plant whose original disperser is now functionally extinct? Then perhaps the solution is to find ways to mediate predation on the toads, rather than fully excommunicating the birds. We can let nature take its course in an intentional, guided way - just like we've been doing for millennia!

The problem with the just-let-it-happen ideology, then, is the apathy and lack of responsibility it instills. If we just let supposed-nature take its course, we remove any obligation to make personal efforts to protect native ecosystems, and we save ourselves the grief of a struggle that often feels pointless. We separate ourselves from nature, severing the millennia-long connection between humans and land.

It's understandable. But we need our native ecosystems. Humans are part of these ecosystems, like it or not, and the loss of our ecological communities would have catastrophic consequences on all our lives and livelihoods. Gone would be the joys of days spent fishing, or hunting, or smelling Wisconsin's beautiful wildflowers - and beyond simple pleasures, gone would be the pollinators who help in crop production, the frogs who keep us from being even more surrounded by bugs than we already are, the wetlands that keep our cities from flooding. We rely on our ecosystems to protect us just as much as they rely on us to protect them.

It's understandable for our little baby biologists to feel rather put-upon, or guilty - human activities have done an almost unimaginable amount of ecological damage, and the road ahead will be difficult to navigate, but it won't be impossible. Humans are not an *invasive species*, and yes, nature does turn on change; but we are not without responsibility - we too are nature, and have power to change our situation. We have the knowledge needed to save our ecosystems. We just need to put it into practice.

Load-Date: April 7, 2022



The Daily Cardinal: University of Wisconsin - Madison

March 31, 2022 Thursday

University Wire

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Section: SCIENCE; Pg. 1

Length: 1132 words

Byline: Joyce Riphagen

Body

It seems not a single undergraduate discussion of <u>invasive species</u> can pass without some philosophically-inclined baby biologist pondering aloud, "You know... maybe humans are the <u>invasive species</u>."

It's worth noting that <u>invasive</u> is a negatively connotated description, which has the unfortunate effect of anthropomorphizing plants and animals that are not good or evil - they just are. There are beneficial <u>invasive</u> <u>species</u>; Wisconsin has not had native earthworms since its glaciation. The familiar friends wriggling in your yard were introduced by settlers. So were honeybees.

Our burgeoning biologist's grave pronouncement can quickly sweep a somber shadow over the group, as many intone their agreement. Humans are destructive. Humans are a plague upon the earth, which would - with the way things are going - thrive without us. Humans are the problem.

Humans aren't not the problem. But really, it's just a handful of humans causing the problem while billions of other, poorer humans suffer the consequences - a 2021 report from Oxfam International found that the richest 1% of people use approximately 30 times more carbon than the poorest 50%. The average citizen of a poor, undeveloped country's carbon footprint is nearly negligible, and that of an average American is just a very small fraction when compared to the billionaires and fossil fuel executives who actively profit from watching the world burn.

The impacts of climate change are far-reaching - even if your experience with biology extends no further than 10th grade frog dissections, you're probably familiar with the idea of <u>invasive species</u> - introduced organisms that, by means of novel weapons or defenses, wreak havoc on native ecosystems.

As our mobility has increased, going from legs to wheels, horses to cars and boats and trains to planes, so have the opportunities for exotic <u>species</u> to be introduced to new niches. Many of Wisconsin's most prolific invasives, such as garlic mustard, were introduced by white settlers as they colonized previously indigenous land. Humans often directly facilitate the introduction of <u>invasive species</u>. But decrying humankind as an <u>invasive species</u> ignores thousands of years of co-evolution between mankind and nature, not to mention indigenous cultures that have a deep, mutual relationship with the land.

In Wisconsin, we face a large variety of <u>invasive species</u>, many of which you have probably seen. The aforementioned garlic mustard abounds in our forests, poisoning the soil and choking out native vegetation. <u>Invasive</u> carp swim our streams, muddying the water and increasing the incidence of harmful algae. Buckthorn, honeysuckle, rusty crayfish... the list goes on and on.

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Load-Date: March 31, 2022



DNR PREVENTION EFFORT FOCUSES ON INVASIVE SPECIES PURCHASES

States News Service April 5, 2022 Tuesday

Copyright 2022 States News Service

Length: 399 words

Byline: States News Service

Dateline: ST. PAUL, MN

Body

The following information was released by the Minnesota Department of Natural Resources (DNR):

The Minnesota Department of Natural Resources invites aquarium hobbyists, gardeners and anglers to an informational webinar at noon, April 12 about preventing the introduction and spread of *invasive species*. The webinar will focus on recently completed DNR projects that assessed risks of *invasive species* introduction through live organism trades, as well as steps hobbyists and sellers can take to help reduce those risks.

Businesses and activities that involve live organisms such as the pet, horticulture, seafood, bait, and classroom and laboratory biological supply tradeshave led to <u>invasive species</u> introductions. For example, the DNR recently discovered football-sized goldfish in Keller Lake, in Burnsville.

<u>Invasive species</u> are non-native <u>species</u> that may cause harm to Minnesota's wildlife, plants, environment, recreation or human health. Some aquatic <u>invasive species</u> are illegal to possess, import, purchase, sell, propagate or transport. These are known as prohibited *invasive species*.

The DNR <u>Invasive Species</u> Program conducted surveys of sellers and consumers, and also hired a contractor to assess the availability of <u>invasive species</u> at Minnesota pet stores and seafood markets. The research found multiple aquarium stores selling prohibited <u>invasive</u> crayfish and other risky <u>species</u>. Many sellers also reported receiving "hitchhiker" organisms that arrived unexpectedly in shipments. A survey showed most aquarium and water garden hobbyists are concerned about <u>invasive species</u> and want to help prevent their introduction and spread. The DNR's survey work was funded through the Great Lakes Restoration Initiative administered by the U.S. Fish and Wildlife Service and will help inform proactive approaches to <u>invasive species</u> management in Minnesota.

When it comes to managing *invasive species*, an ounce of prevention is worth a pound of cure. Follow these steps to protect Minnesota waters:

Never release non-native animals or plants into the environment, outside of residential and commercial landscape settings.

Choose low-risk or native **species** when making purchases.

Dispose of unwanted bait in the trash and unwanted aquatic plants in the trash or compost.

DNR PREVENTION EFFORT FOCUSES ON INVASIVE SPECIES PURCHASES

Contact a local pet store, vet or hobbyist club for re-homing options if you have a pet or plant you can no longer care for.

Load-Date: April 6, 2022



DNR prevention effort focuses on invasive species purchases

Grand Rapids Herald-Review (Minnesota)

April 8, 2022

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Section: NEWS

Length: 435 words

Byline: Staff Writer

Body

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To sign up for the webinar or to join the responsible buyers email list, visit the responsible buyers page of the DNR website (mndnr.gov/Invasives/Responsible-Consumers.html). More information is available on the DNR page on trade pathways for *invasive species* (mndnr.gov/Invasives/Trade-Pathways.html).

Load-Date: April 9, 2022



Mississauga Taking Action Against Invasive Species

Impact News Service
March 3, 2022 Thursday

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Length: 528 words

Body

Mississauga: The City of Mississauga has issued the following news release:

The City of Mississauga is recognizing <u>Invasive Species</u> Awareness Week from February 28 to March 4, 2022. The week is about creating awareness and educating residents about <u>invasive species</u> and early detection to protect our urban tree canopy and natural spaces.

<u>Invasive species</u> online webinarInvasive <u>species</u> are plants, animals or micro-organisms that are not native to Mississauga and cause harm to our natural environment with their aggressive colonisation of new spaces. <u>Invasive</u> <u>species</u> threaten our parks, forests, woodlots, green spaces and wildlife habitats.

The City is hosting an online webinar on Wednesday, March 2 at 6 p.m Interested participants will learn more about *invasive species* management in Mississauga. If you are interested in participating, make sure you register in advance of the session.

<u>Invasive species</u> in MississaugaWhether its Oak Wilt affecting our oak trees, Garlic Mustard crowding native plants, the toxic Giant Hogweed growing along ravines, Lymantria dispar dispar (LDD) affecting our hardwoods or the Emerald Ash Borer (EAB) destroying our ash trees – <u>invasive species</u> of all kinds are a major problem in Mississauga. These plants and pests put pressure on our environment because they often have no natural predators.

Last year, the City launched its first-ever <u>Invasive Species</u> Management Plan and Implementation Strategy to respond to the threat of <u>invasive species</u>. The plan and strategy provides a phased, city-wide approach to managing <u>invasive species</u> like LDD, Emerald Ash Borer, Garlic Mustard, Wild Parsnip, Dog-strangling Vine and Giant Hogweed. It also helps ensure that these <u>invasive species</u> are no longer a threat to our community and budget.

The City has seen success with its mitigation efforts including eliminating the <u>invasive</u> Asian Long-horned Beetle and managing the EAB population in Mississauga. In 2013, the City allocated \$54.2 million over 12 years to replace Ash trees and remove or treat those affected by EAB.

Mississauga Taking Action Against Invasive Species

2022 Aerial SprayThis spring, an aerial spray is planned to manage the LDD caterpillar population in affected neighbourhoods. This *invasive* pest affects trees by eating away at leaves, making them more susceptible to diseases and extreme weather events.

The aerial spray program will cover City-owned and private property across Mississauga using a Bacillus thuringiensis subspecies kurstaki (BTK) spray treatment widely used in forestry, agriculture and urban settings. According to Health Canada, there are no health or significant environmental concerns. BTK is only toxic in the caterpillar stage of the LDD life cycle and does not affect adult moths or butterflies, or other insects and wildlife. What can you do? Residents can protect trees on their property with additional measures like removing egg masses before the end of April. Egg masses can be found on trees, windowsills, under eavestroughs, patio furniture, fences or mailboxes. Watch the video on how to remove LDD egg masses. Use the interactive map to check for sightings of LDD or report sightings of LDD in Mississauga by using the online reporting form.

Load-Date: March 4, 2022



Alert about invasive species

Irish Examiner

January 20, 2022 Thursday

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Section: NEWS; Pg. 9

Length: 456 words

Byline: Pádraig Hoare

Body

A national campaign to arm the public with knowledge of <u>invasive species</u> has been launched, after they increased 183% from 1961 to 2010 in Ireland.

The Leave No Trace Ireland campaign has partnered with Waterways Ireland, the National Biodiversity Data Centre, Inland Fisheries Ireland, and the Marine Institute, as well as water sporting bodies throughout the Republic and the North, to warn about the impact of *invasive species*.

The impact has caused around 2.5bn in damage to the UK and Ireland annually, according to 2013 research, the Department of Housing, Local Government and Heritage said as the campaign launched.

According to <u>Invasive Species</u> Ireland (ISI), creatures not native to ecosystems are the second greatest threat to biodiversity worldwide, after habitat destruction.

<u>Invasive species</u> can negatively impact on native <u>species</u>, transforming habitats and threatening whole ecosystems, causing serious problems to the environment and the economy, ISI said.

Since the 17th century, <u>invasive species</u> have contributed to nearly 40% of all animal extinctions for which the cause is known, according to the ISI.

Annual environmental losses caused by introduced pests in the US, UK, Australia, South Africa, India, and Brazil have been calculated at over \$ 100bn (85.5bn).

An example of <u>invasive species</u> causing havoc in Ireland in recent years is Japanese knotweed, rated among the 100 worst in the world by the Global *Invasive Species* Programme.

On Ireland's waterways, they include the water soldier plant, a type of carp fish called a chub, and pink salmon, Leave No Trace Ireland ecologist Padraic Cree-don said.

Alert about invasive species

"These are non-native <u>species</u> that have been introduced by human intervention, outside their natural range, that can threaten our native wildlife, cause damage to our environment, economy, and human health."

Chief executive of Waterways Ireland, John McDonagh, said inland waterways are "rich ecological and heritage corridors", but that invasion can cause huge damage.

"The introduction or spread of *invasive species*, both terrestrial and aquatic, is of key concern.

"We would strongly urge our users to adopt the Check, Clean, Dry approach, so we can all work together to preserve this valuable resource for current and future generations."

Check, Clean, Dry refers to: Checking boats, equipment, clothing, and footwear for any plant or animal material, including seeds, spores and soil, with particular attention to damp or hard to inspect areas.

- * Cleaning and washing all equipment, footwear, and clothes thoroughly;
- * Drying all equipment and clothing for at least 48 hours, as some <u>species</u> can live for many days or weeks in moist conditions.

The National Parks and Wildlife Service is also supporting the campaign.

Load-Date: February 1, 2022



Invasive species week encourages education, advocacy

Benzie County Record Patriot (Frankfort, Michigan)
February 12, 2022

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Section: NEWS

Length: 432 words

Byline: Compiled by Colin Merry, STAFF WRITER

Body

BEULAH -- Despite the thick layers of snow and ice on nearly every surface, the Aquatic <u>Invasive Species</u> Pathways Program , a program of the Benzie Conservation District, will soon be recognizing an important event -- National <u>Invasive Species</u> Awareness Week.

The week is held from Feb. 28 through March 4 and is meant to raise awareness about *invasive species*, the threat they pose and what can be done to prevent their spread.

Organized by the North American <u>Invasive Species</u> Management Association, the week encourages representatives from local, state, federal and regional organizations to discuss legislation, policies, resources and improvements that can be made to prevent and manage *invasive species*.

"Climate change, agricultural stability, and the loss of wild places are all made worse when <u>invasive species</u> alter the natural balance of our waters and lands," said Belle Bergner, director of the North American <u>Invasive Species</u> Management Association, in a news release. "Fortunately, there's hope. As policymakers take more serious action to address these concerns, now is the time to educate and advocate for the inclusion of <u>invasive species</u> management as part of the solution for our biggest worries about climate, food security and biodiversity. Everyone can do something to prevent the spread of <u>invasive species</u>. We encourage organizations and individuals to advocate for increased capacity, improved collaboration and financial support for <u>invasive species</u> prevention and management nationally in coordination with states, tribes and local governments."

All week, the conservation district's pathways program social media platforms (Facebook and Instagram) will be featuring educational material and <u>invasive species</u> management highlights specific to northwest Michigan. They can be found at facebook.com/aispathwaysproject and on Instragram at @aispathways.

Additionally, Jane Perrino, aquatic <u>invasive species</u> coordinator at the conservation district, encourages water lovers in Benzie, Grand Traverse, Leelanau and Manistee counties to consider having their summer crew set up a mobile boat-washing station at a local launch site.

Decontaminating boats before they enter local lakes and rivers is one way the pathways program helps preserve the region's natural resources and biodiversity. Scheduling is happening now. Contact Jane for more information at jane@benziecd.org

Invasive species week encourages education, advocacy

Find resources like *invasive species* profiles and free coloring pages for children at benziecd.org. There is also additional information on the pathways program and the Benzie Conservation District.

Load-Date: February 13, 2022



RDCK to develop invasive species strategy

Nelson Star February 24, 2022

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Section: NEWS; Pg. A12

Length: 403 words

Byline: Local Journalism Initiative Reporter

Body

One of the greatest threats to biodiversity in the West Kootenay is *invasive species*.

A detailed regional <u>invasive species</u> plan will be developed this year by Regional District of Central Kootenay staff — with the help of the Central Kootenay <u>Invasive Species</u> Society (CKISS) — to better determine the extent of <u>invasive species</u> on all RDCK owned or leased properties.

According to an RDCK release, "The objective is to implement prevention and management, as well as improve awareness and community engagement."

<u>Invasive species</u> have a significant impact on ecosystem health, and the International Union for the Conservation of Nature considers them one of the greatest threats to biodiversity globally.

In the West Kootenay, <u>invasive species</u> are non-native plants, such as knotweed, that do not have natural predators or controls, allowing them to become established. One of the major dangers of a non-native plant or animal <u>species</u> is it can spread quickly and impact the local ecosystem, outcompeting the native plants and **species**.

"Tourism, recreation, agriculture, energy infrastructure and property values are all vulner- able to the impacts of <u>invasive species</u>," wrote RDCK sustainability planner Paris Marshall Smith in her report to the RDCK board of directors.

Under the Weed Control Act the RDCK is required as a landholder to "... control noxious weeds growing or located on land and premises, and on any other property located on land and premises, occupied by that person."

Regional district departments' <u>invasive species</u> management was inconsistent year to year, noted Marshall Smith in her report, so department staff requested clear organizational policy and guidelines that would "enable consistent funding and activity.

"It is therefore recommended that action be taken in 2022 to inventory our properties/lands to understand the full scope of and develop a regional implementation plan to ensure the RDCK is keeping within the bounds of provincial legislation concerning *invasive species*," Marshall Smith wrote.

Across the regional district there are 93 properties to be inventoried, which works out to an average of \$386 per location.

RDCK to develop invasive species strategy

Overall, \$35,972.82 is budgeted to inventory RDCK lands. Parks holds the largest slice of the budget (\$19,502.80) because of the scale of lands to be inventoried, said Marshall Smith.

In addition to the inventory costs, there is a cost for developing the plan itself (\$8,500).

Load-Date: February 24, 2022



New invasive species rules

Brockville Recorder & Times
January 8, 2022 Saturday
Final Edition

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Section: LOCAL; Pg. A3; Local Journalism Initiative

Length: 619 words

Byline: Jessica Munro, The Brockville Recorder &; Times

Body

New Ontario regulations, aimed to help prevent the spread of *invasive species* in Ontario waters, came into effect on Jan. 1 and will affect anglers and recreational boaters.

The Ministry of Northern Development, Mines, Natural Resources and Forestry's newly-implemented regulations now classify regulated watercraft, such as boats, canoes and kayaks, as potential carriers of *invasive species*, under the *Invasive Species* Act.

"Letting <u>invasive species</u> aboard your boat helps them spread in our lakes, rivers and streams and costs us millions to repair their damage," said ministry officials on the <u>invasive species</u> action plan website.

Boaters are now required to follow "clean, drain, dry" practices to prevent the spread of <u>invasive</u> aquatic plants, animals and algae.

Watercraft owners will have to clean any mud, algae, vegetation and mussels or other animals off their boats and other equipment, such as motors, trailers, anchors and more, before transporting the boat overland.

The new measures require boaters to "take reasonable precautions to remove all aquatic plants (weeds), animals and algae from any boat, boat equipment, vehicle or trailer," said the ministry.

According to the ministry, the measures also require boaters to drain all water by opening or removing the drain plug, pulling the plug on the transom, bilge, livewell or any other water containing devices before transporting the watercraft overland.

However, this does not apply to drinking water systems, marine sanitary systems or closed-engine cooling systems or a livewell, if the person transporting the livewell overland is transporting live fish in the livewell pursuant to a licence to transport live fish issued under the Fish and Wildlife Conservation Act, 1997, said the Ministry.

"Some aquatic <u>invasive species</u> can survive up to two weeks out of water and not every invader attached to your boat can be seen with the naked eye," ministry officials noted.

Owners are required to dry or disinfect their watercraft before transporting. The ministry recommends the owner either dries the boat in the sunlight or cleans the boat from top to bottom with hot or pressurized water.

New invasive species rules

"It is illegal to place a boat, boating equipment or any vehicle or trailer into any body of water if there are any aquatic plants, animals or algae attached to it," added the ministry.

Jamie Lemery, president of Kingston Avid Anglers, said he and other tournament anglers have already been following these recommendations to help reduce the spread of <u>invasive species</u> from one body of water to another.

Lemery hosts fishing tournaments throughout Eastern Ontario, including on Big Rideau Lake, Charleston Lake, Lower Beverley Lake and other sites.

The revisions to the <u>Invasive Species</u> Act also include 13 new <u>invasive species</u>, which will be regulated under the act to help prevent their introduction and spread within the province, and include many aquatic <u>species</u>, such as the red swamp crayfish, New Zealand mud snail, Tench Fish, Prussian carp and marbled crayfish.

The act also now includes the Bohemian knotweed, Carolina fanwort, yellow floating heart, giant knotweed and the Himalayan knotweed as *invasive species*.

"The reality is a lot of <u>invasive species</u> that are in the Great Lakes, like zebra mussels and gobies, have already moved, unfortunately, to other bodies of water through transporting and boats," said Lemery.

More information on the regulations can be found at www.ontario.ca/page/invasive-species-ontario. Jessica Munro is a Local Journalism Initiative reporter who works out of the Brockville Recorder and Times. The Local Journalism Initiative is funded by the Government of Canada. !@COPYRIGHT=© 2022 Sun Media Corporation. All rights reserved.

Load-Date: January 8, 2022



Invasive species week encourages education, advocacy

Benzie County Record Patriot (Frankfort, MI)
February 12, 2022 Saturday

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Length: 431 words

Byline: Compiled by Colin Merry, Staff Writer

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Organized by the <u>North American Invasive Species Management Association</u>, the week encourages representatives from local, state, federal and regional organizations to discuss legislation, policies, resources and improvements that can be made to prevent and manage *invasive species*.

"Climate change, agricultural stability, and the loss of wild places are all made worse when <u>invasive species</u> alter the natural balance of our waters and lands," said Belle Bergner, director of the North American <u>Invasive Species</u> Management Association, in a news release. "Fortunately, there's hope. As policymakers take more serious action to address these concerns, now is the time to educate and advocate for the inclusion of <u>invasive species</u> management as part of the solution for our biggest worries about climate, food security and biodiversity. Everyone can do something to prevent the spread of <u>invasive species</u>. We encourage organizations and individuals to advocate for increased capacity, improved collaboration and financial support for <u>invasive species</u> prevention and management nationally in coordination with states, tribes and local governments."

All week, the conservation district's pathways program social media platforms (Facebook and Instagram) will be featuring educational material and <u>invasive species</u> management highlights specific to northwest Michigan. They can be found at <u>facebook.com/aispathwaysproject</u> and on Instragram at @aispathways.

Additionally, Jane Perrino, aquatic <u>invasive species</u> coordinator at the conservation district, encourages water lovers in Benzie, Grand Traverse, Leelanau and Manistee counties to consider having their summer crew set up a mobile boat-washing station at a local launch site.

Decontaminating boats before they enter local lakes and rivers is one way the pathways program helps preserve the region's natural resources and biodiversity. Scheduling is happening now. Contact Jane for more information at jane@benziecd.org.

Find resources like <u>invasive species</u> profiles and free coloring pages for children at <u>benziecd.org</u>. There is also additional information on the pathways program and the Benzie Conservation District.

Load-Date: April 7, 2022



VOLUNTEERS SOUGHT FOR INVASIVE SPECIES PROJECT

Daily Citizen (Beaver Dam, Wisconsin)

March 29, 2022 Tuesday

ALL Edition

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Section: LOCAL; Pg. A2

Length: 293 words

Body

Volunteers sought for invasive species project

JEFFERSON - The Rock River Coalition, Neighborhood House Nature Center, Lake Ripley Management District, and Jefferson County Land & Water Conservation Department, with support from Wisconsin Department of Natural Resources and Lake Koshkonong Wetland Association are partnering to work with public and private landowners to control purple loosestrife on their properties. The organizations will find and catch Galerucella beetles from the wild, allow the beetles to lay eggs on enclosed purple loosestrife plants, and release the newly hatched beetles into large purple loosestrife patches.

Purple loosestrife, dark pink or purple flowers blooming along the road, is an <u>invasive species</u> that can be harmful to wetlands and crowd out native plants.

With each mature plant producing more than a million seeds per year, Purple loosestrife is found in almost every state and will likely never be fully eradicated.

The beetles have been used to control purple loosestrife in Wisconsin since the 1990s, following extensive testing to ensure that the beetles would not have unintended negative effects.

In the decades since, the beetles have safely controlled purple loosestrife in many parts of the state, but there are still many other places where the weed is growing unchecked.

Volunteers may join in any stage of the process, which will begin with work parties on Thursday in Beaver Dam and on Friday in Koshkonong.

These work parties will focus on digging up and potting purple loosestrife plants that will be used as food for the growing beetles. Anyone interested in volunteering can contact Rock River Coalition aquatic <u>invasive species</u> coordinator Addie Schlussel at <u>addie@rockrivercoalition.org</u> or 920-541-6766.

Load-Date: March 29, 2022



Rapid response team tackles invasive species

Impact News Service
February 23, 2022 Wednesday

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Length: 552 words

Body

Turner: The Australian Greens has issued the following news release:

The newly established Rapid Response Biosecurity Team is targeting new incursions of <u>invasive species</u> in the ACT and combatting the impacts of climate change.

"Our precious environment is important to all Canberrans, but it is under threat by climate change and <u>invasive</u> **species**," Minister for the Environment Rebecca Vassarotti said.

"A detailed assessment of the reported economic costs of <u>invasive species</u> in Australia highlights that in the last 60 years, <u>invasive species</u> have cost the Australian economy \$389.59 billion. These costs are expected to increase under the impacts of climate change unless we take action.

"That is why we have established the new Rapid Response Biosecurity Team, operating across all land tenure, to protect and enhance our local environment. The team will respond to a range of biosecurity threats, working closely with land managers, building on current <u>invasive species</u> programs and improving <u>invasive species</u> management.

"Integrated weeds management will be a key focus, which takes an ecological approach and uses a coordinated variety of control methods, reducing reliance on herbicides alone.

"The changing climate gives <u>invasive species</u>, like the yellow flag iris, a competitive advantage to outcompete native <u>species</u>. Lack of specific natural diseases and pests in Australia mean that the yellow flag iris has extra resources for growth, seeding and spread, therefore, it has become <u>invasive</u>.

"It has been assessed as a high risk to the ACT environment, with a major impact on riparian native plants, spreading from urban ponds into creeks and Lake Burley Griffin. A containment project is underway by our Rapid Response Biosecurity Team to stop it spreading downstream of Scrivener Dam and Googong Dam.

Rapid response team tackles invasive species

"We know that there will continue to be a considerably greater occurrence of <u>invasive species</u> and that they will have a detrimental impact on our native plants, animals, food and fibre production, and economy. Acting quickly is paramount in preventing *invasive species* establishing within the natural landscape.

"The Rapid Response Biosecurity Team will enhance partnerships between government, community and volunteer groups in the protection of our local environment and provide greater opportunity for citizen science in tackling biosecurity issues as they arise.

"Biosecurity is everyone's responsibility. We all have a role to play."

The Rapid Response Biosecurity Team was established after the 2021-22 ACT Budget provided \$3 million over four years to rapidly respond to biosecurity threats accelerated by recent bushfires, extended dry periods, and current La Nina conditions.

Quotes attributable to Kirsten Tasker, Program Manager of the Biosecurity Rapid Response Team:

"Our team have been hard at work preventing and responding to incursions in of *invasive species* in the ACT, and we'll be very busy heading into the cold Autumn and Winter months.

"We know that Canberrans love to take an active role in helping protect our unique native biodiversity and take action on climate change. You can help us identify and treat biosecurity threats by joining local volunteer groups or reporting sightings of our most -wanted weeds through Canberra Nature Map or by phoning Access Canberra on 13 22 81."

Load-Date: February 26, 2022



Springtime reminder to help stop spread of invasive species

The Journal Times (Racine, WI)

March 25, 2022 Friday

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Section: LOCAL Length: 466 words

Byline: Scott McComb

Body

With the snow gone and the lakes thawing, southeast Wisconsin is quickly approaching spring and the open water season. This is an important time of year to remind community members of the role they play in preventing aquatic *invasive species*.

Whether you are a boater, angler, paddler, water gardener, pond owner, waterfront property owner or water-loving community member, knowing a little about <u>invasive species</u> and following a few simple prevention steps can go a long way in helping to keep our community lakes and rivers healthy.

An <u>invasive species</u> is any non-native <u>species</u> whose introduction causes economic or environmental harm or harm to human health. With over 3,000 acres of lakes and ponds, almost 200 miles of rivers and 14 miles of Lake Michigan coastline in Racine County, it can be easy for an *invasive species* to spread quickly.

<u>Invasive species</u> are typically spread by clinging to watercraft that are then moved from one lake to another without being properly cleaned. Another common way that <u>invasive species</u> are introduced into our waters is when exotic or non-native fish from a different environment is released, like goldfish.

If we are not careful, new types of <u>invasive species</u> can easily infest a body of water. Currently, 13 different aquatic <u>invasive species</u> have been documented in the county, including Eurasian watermilfoil, curly-leaf pondweed and zebra mussels.

In southeast Wisconsin, the aquatic <u>invasive species</u> starry stonewort is becoming a nuisance. First discovered in Wisconsin in 2014, starry stonewort is a green algal that grows in tall and dense colonies, often forming mats on the water surface. These mats can interfere with recreation and outcompete native plant <u>species</u>. Infestations are typically found near boat accesses and spread by fragmentation caused by boat propellers.

Fortunately, the spread of starry stonewort like many other aquatic <u>invasive species</u> can be prevented by taking a minute or two to follow a few simple prevention steps. Not only will these steps help keep your equipment running well but can also help prevent <u>invasive species</u> from spreading among our waters.

INSPECT

boats, trailers and equipment for attached aquatic plants or animals

REMOVE

all attached plants and animals

DRAIN

all water from boats, vehicles and equipment

NEVER MOVE

live fish away from a waterbody

DISPOSE

of unwanted bait in the trash

This year as you are out enjoying our beautiful lakes and rivers, join the thousands of other Wisconsinites from around the state in preventing the spread of aquatic *invasive species*.

For more information about aquatic <u>invasive species</u> or to get involved in protecting your favorite lakes and rivers in southeast Wisconsin, contact Scott McComb, aquatic invasives coordinator, at <u>mccomb@wisc.edu</u> or 608-890-0977.

Load-Date: March 28, 2022



States News Service March 1, 2022 Tuesday

Copyright 2022 States News Service

Length: 726 words

Byline: States News Service

Dateline: LANSING, MI

Body

The following information was released by the Michigan Department of Natural Resources (DNR):

The state of Michigan today announced that 31 projects will share \$3.6 million in grants through the Michigan *Invasive Species* Grant Program.

The program - cooperatively implemented by the Michigan departments of Agriculture and Rural Development; Environment, Great Lakes, and Energy; and Natural Resources - addresses prevention, detection, eradication and control of aquatic (water-based) and terrestrial (land-based) *invasive species* in Michigan through four key objectives:

Preventing the introduction of new invasive species.

Strengthening the statewide *invasive species* early detection and response network.

Limiting the spread of recently confirmed invasive species.

Managing and controlling widespread, established *invasive species*.

This year's grantees have offered \$541,500 in matching funds and services to support these projects, leveraging a total investment of \$4,141,500.

Improving prevention and management

This year's grants will provide funding for a range of efforts targeting aquatic *invasive species*:

Continuing Michigan's RIPPLE (Reduce <u>Invasive</u> Pet and PLant Escapes) program to prevent introductions of aquarium and water garden pets and plants to Michigan waters.

Incorporating the retired DNR research vessel Chinook as an exhibit for education on Great Lakes aquatic <u>invasive</u> **species** issues at the Besser Museum in Alpena.

Limiting the spread of aquatic <u>invasive species</u> by engaging watercraft inspectors and purchasing and deploying two boat-wash units at boating access sites across Schoolcraft and Delta counties in the Upper Peninsula.

Developing an effective, systematic surveying design for European frog-bit that can be used to guide surveying for similar **species** of concern.

Increasing recreational boaters' adoption of "Clean, Drain, Dry" practices by leveraging boating industry partnerships in a statewide messaging campaign.

Funding also will support projects to prevent and manage terrestrial invasive species:

Piloting an <u>invasive species</u> education and prevention program for off-road vehicle enthusiasts in northern Michigan.

Increasing releases of the leaf-feeding moth Hypena opulenta in Lower Michigan for biological control of <u>invasive</u> swallow-wort vines.

Testing airborne environmental DNA to detect hemlock woolly adelgid to aid in detection of new populations and evaluate current treatment measures.

Support in every Michigan county

This year's grants also will support 21 regional cooperative <u>invasive species</u> management areas, the network of partnership organizations working to manage and control <u>invasive species</u> and provide service to all 83 counties in the state. CISMA projects include enhanced education and outreach, technical assistance to landowners, and survey and treatment of high-priority <u>invasive species</u>.

Program background and progress

In 2014 the state Legislature designated \$5 million in annual funding to address <u>invasive species</u>. This support substantially enhanced Michigan's <u>Invasive Species</u> Program for aquatic organisms, supported a formal program for terrestrial **species** and initiated the Michigan **Invasive Species** Grant Program.

This cycle marks the eighth year of program funding. To date, over \$29 million has been awarded to support 202 projects undertaken by units of government, nonprofits and institutions. Because of this program:

More than 548,000 acres of land and water have been surveyed for *invasive species*.

More than 44,000 acres have been treated for *invasive* terrestrial and aquatic plants.

Through direct contact, including face-to-face interactions at boat washes, workshops, trainings and other events, 257,000 people have been reached with information about *invasive species*.

An additional 35 million people were reached through grantees' "passive impression" efforts, including mail, newspapers, social media and handouts.

Highlights of the 2021 program are available in the Michigan *Invasive Species* Program Annual Report, which includes program-funded projects.

Nearly \$6 million requested

The program began accepting grant applications for this funding cycle in September 2021. A total of 43 applications were received, requesting approximately \$5.8 million in support. Grant applicants were asked to commit to providing at least 10% of the total project cost in the form of a local match.

Load-Date: March 2, 2022



US Fed News

March 1, 2022 Tuesday 9:32 AM EST

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Length: 876 words

Body

LANSING, Mich., March 1 -- The Michigan Department of Natural Resources issued the following news release:

The state of Michigan today announced that 31 projects will share \$3.6 million in grants through the Michigan *Invasive Species* Grant Program.

The program - cooperatively implemented by the Michigan departments of Agriculture and Rural Development; Environment, Great Lakes, and Energy; and Natural Resources - addresses prevention, detection, eradication and control of aquatic (water-based) and terrestrial (land-based) <u>invasive species</u> in Michigan through four key objectives:

- * Preventing the introduction of new invasive species.
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- * Limiting the spread of recently confirmed *invasive species*.
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- * Continuing Michigan's RIPPLE (Reduce <u>Invasive</u> Pet and PLant Escapes) program to prevent introductions of aquarium and water garden pets and plants to Michigan waters.
- * Incorporating the retired DNR research vessel Chinook as an exhibit for education on Great Lakes aquatic *invasive species* issues at the Besser Museum in Alpena.
- * Limiting the spread of aquatic <u>invasive species</u> by engaging watercraft inspectors and purchasing and deploying two boat-wash units at boating access sites across Schoolcraft and Delta counties in the Upper Peninsula.
- * Developing an effective, systematic surveying design for European frog-bit that can be used to guide surveying for similar **species** of concern.
- * Increasing recreational boaters' adoption of "Clean, Drain, Dry" practices by leveraging boating industry partnerships in a statewide messaging campaign.

Funding also will support projects to prevent and manage terrestrial invasive species:

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- * Increasing releases of the leaf-feeding moth Hypena opulenta in Lower Michigan for biological control of <u>invasive</u> swallow-wort vines.
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- * More than 548,000 acres of land and water have been surveyed for invasive species.
- * More than 44,000 acres have been treated for *invasive* terrestrial and aquatic plants.
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Highlights of the 2021 program are available in the Michigan <u>Invasive Species</u> Program Annual Report, which includes program-funded projects.

Nearly \$6 million requested

The program began accepting grant applications for this funding cycle in September 2021. A total of 43 applications were received, requesting approximately \$5.8 million in support. Grant applicants were asked to commit to providing at least 10% of the total project cost in the form of a local match.

The fulllist of grant recipients, project descriptions and award amountsis available on the Michigan <u>Invasive</u> <u>Species</u> Grant Program website atMichigan.gov/MISGP.

Michigan's <u>Invasive Species</u> Program is cooperatively implemented by the Michigan departments of Agriculture and Rural Development; Environment, Great Lakes and Energy; and Natural Resources.

/Note to editors: Accompanying photos are available below for download. Suggested captions and photo credit information follow:

Wash: A portable boat wash operating at Lake Ovid in Clinton County. Photo courtesy of EGLE.

Cattails:Volunteers assist in removing <u>invasive</u> cattails and European frog-bit from the Duck Park shoreline in Alpena. Photo courtesy of Chris Engle, Huron Pines./ For any query with respect to this article or any other content requirement, please contact Editor at <u>contentservices@htlive.com</u>

Load-Date: March 2, 2022



Stefanik introduces bill to combat invasive species

The Saratogian (Saratoga Springs, New York)

March 7, 2022 Monday

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Section: NEWS

Length: 259 words **Byline:** Staff report

Body

WASHINGTON Rep. Elise Stefanik of Schuylerville recently reintroduced the Stamp Out <u>Invasive Species</u> Act to help combat and raise awareness about the threat <u>invasive species</u> pose to Upstate New York and North Country ecosystems.

Specifically, this bill would direct the United States Postal Service to issue a "Combating *Invasive Species* Semipostal Stamp." Net proceeds from the sale of this stamp would be directed to the United States Department of Agriculture and the Department of the Interior for programs that combat *invasive species*.

"Upstate New York and the North Country are home to the largest and most diverse ecosystem in New York State, including the Adirondacks, multiple lakes and rivers, and thousands of miles of trails, and I am committed to preserving it for our future generations," Stefanik said. "I am proud to lead this effort in Congress to help raise awareness about the threat these <u>invasive species</u> pose to our natural ecosystems and fund research that will help combat these predators."

An estimated 50,000 non-native <u>invasive</u> animal and plant <u>species</u> have been introduced to the United States, costing up to \$100 billion annually. Additionally, every state and U.S. territory has at least some form of <u>invasive</u> plant or animal tremendously impacting the natural biodiversity of our homes.

This bipartisan bill is supported by Representatives Garret Graves (R-LA), Ed Case (D-HI), Rick Crawford (R-AR), Mike Thompson (D-CA), Don Young (R-AK), Raul Grijalva (D-AZ), Aumua Amata Radewagen (R-American Samoa), and Darren Soto (D-FL).

Load-Date: March 8, 2022



Hippopotamus declared an invasive species in Colombia

CE Noticias Financieras English March 26, 2022 Saturday

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Length: 257 words

Body

The Minister of Environment, Carlos Correa, after receiving the recommendation of the National Technical Committee of Introduced and Transplanted *Invasive Species*, as well as academics, experts and former ministers of the sector, announced that Colombia declares hippopotamus as an *invasive species*. Read: Hippopotamus will be declared an *invasive species* in Colombia

He explained that the study was made by the Alexander von Humboldt Institute and the Institute of Natural Sciences of the National University, which showed the environmental risk of hippopotamus invasion in strategic ecosystems and that it would impact some native **species** in Colombia.

With this declaration, the Ministry of the Environment and the entities of the National Environmental System will now be able to define prevention, control and management measures for this **species** in the country.

Official figures indicate that there are around 133 loose specimens of the <u>species</u> Hipopotamus amphibius, in the Magdalena river basin, from Puerto Triunfo to the town of Magangué, which have damaged the ecosystem because their feces are contaminants, with high concentrations of phosphate and nitrogen, which change the chemical structure of the water, favoring the growth of bacteria potentially toxic to many <u>species</u>. When the bacteria grow in the water, they consume a lot of oxygen that they extract from it, but the amphibians and plants that are there live on that same oxygen, which causes them to begin to die from lack of oxygen and puts humans and other <u>species</u> at risk.

Load-Date: March 27, 2022



MARYLAND OFFERS GRANTS FOR AQUATIC INVASIVE SPECIES REMOVAL

States News Service
March 23, 2022 Wednesday

Copyright 2022 States News Service

Length: 244 words

Byline: States News Service **Dateline:** ANNAPOLIS, Md.

Body

The following information was released by the Maryland Department of Natural Resources:

Department Providing up to \$10,000 to Community Based Programs

Zebra mussels that were intercepted by the Deep Creek Lake Launch Steward Program. Photo by Julie Bortz, Maryland Department of Natural Resources

The Maryland Department of Natural Resources (DNR) announces a new grant program to aid in the removal of aquatic *invasive species* in Maryland waters.

The <u>Invasive Species</u> Control Proposal Solicitation is searching for community-based programs or individuals to help the department engage with the public and organizational partners in the control and removal efforts of <u>invasive</u> aquatic <u>species</u> in the Chesapeake Bay watershed.

A <u>species</u> is defined as <u>invasive</u> if its introduction does or is likely to cause environmental or economic harm, or harm to human health. Currently, there are an estimated 120 different aquatic <u>species</u> that have been introduced in Maryland waters, and 18% of those are <u>invasive</u>. Examples of aquatic <u>invasive species</u> include water chestnut, zebra mussel, and northern snakehead.

Interested applicants are invited to apply for grants between \$500 to \$10,000. Projects may start June 1, 2022, and last one day, or multiple days. Projects should be completed by November 30, 2022.

The objectives of a proposal should address how a local community will be engaged; and how the prioritized aquatic *invasive species* will be removed from Maryland waters.

Load-Date: March 23, 2022



Talking invasive species with the U of M

Grand Rapids Herald-Review (Minnesota)
February 28, 2022

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Section: NEWS

Length: 1210 words **Byline:** Staff Writer

Body

This year, National <u>Invasive Species</u> Awareness Week begins Monday, February 28, and lasts through Friday, March 4. The goal of this week is to raise awareness about the spread of <u>invasive species</u>, the potential threat they pose to our ecosystems and resources, and the work researchers are doing to find solutions.

Amy Morey, a researcher with the Minnesota <u>Invasive</u> Terrestrial Plants and Pests Center (MITPPC) in the College of Food, Agricultural and Natural Resource Sciences answers questions about terrestrial (land-dwelling) <u>invasive</u> <u>species</u> and the latest interdisciplinary research helping to slow their spread.

Q: What are terrestrial <u>invasive species</u> and which <u>species</u> are prevalent in Minnesota? "Terrestrial" refers to the land. The terrestrial habitats that MITPPC focuses on are prairies, forests, wetlands and agricultural systems. An "<u>invasive</u>" <u>species</u> is one that does not historically occur in an area and can harm the environment, economy and/or human health. Terrestrial <u>invasive species</u> are estimated to cost Minnesotans an estimated \$3 billion each year by threatening the health of our ecosystems, recreation, natural resources and food systems. Terrestrial <u>invasive species</u> Minnesotans may be particularly familiar with are common and glossy buckthorn, emerald ash borer, spotted knapweed and Dutch elm disease. However, there are hundreds of others and additional <u>species</u> continue to regularly arrive into the state.

Q: Are *invasive species* found in Minnesota all year round?

There are many <u>invasive species</u> that have established in Minnesota and live here year-round. But like humans, most tend to be less active when it is cold and, as result, are less likely to be seen during winter. Often <u>species</u> go dormant in sheltered places, like in the soil, under leaves or within the wood of trees. A few <u>species</u>, though, can be easier to spot during winter. For example, the yellow and red berries of <u>invasive</u> bittersweet stay on the plant during winter and make the plant more visible on the landscape. The brown marmorated stink bug will often overwinter in houses and other buildings, and though they are much less active, you might find one (or a hundred!) walking across your floor or hanging out in your attic. For some <u>species</u>, like the spotted lanternfly, we don't yet know if they do (or could, if given the chance) stick around all year. The cold winters in Minnesota help keep many <u>invasive species</u> from surviving here, but that is changing with climate change.

Q: What types of terrestrial invasive species research does MITPPC conduct?

At MITPPC, we currently fund research on terrestrial <u>invasive</u> plants, plant pathogens and invertebrates (like insects and worms) that harm valued plants. So, **species** that are primarily human or animal health concerns are

outside of our scope. We support research projects that are practical and science-based in their approach to managing <u>invasive species</u>, whether innovating new methods of early detection, like for Palmer amaranth, or finding new solutions for <u>species</u> that have been around for a long time, like Dutch elm disease. We strongly encourage interdisciplinary work, and our researchers often collaborate with stakeholders outside the university and across the state. This short video highlights many of our recent research projects. You can also learn more about **invasive species** research and new discoveries through our monthly newsletter, Twitter and website.

Q: With hundreds of terrestrial <u>invasive species</u> in the state, how does MITPPC prioritize where to focus research efforts?

The state legislature asked MITPPC to focus our efforts on the most threatening terrestrial <u>invasive species</u> to Minnesota. To do this, we brought in a group of 15 experts on terrestrial <u>invasive species</u> in Minnesota and asked them to come up with criteria they would use to describe how threatening an <u>invasive species</u> is. Their list, which included 17 criteria related to the likelihood that a <u>species</u> could arrive and survive in Minnesota and the kind of harm their presence could cause, serves as the framework we use to evaluate the riskiness of each <u>species</u> we consider. Based on our evaluation, a numerical score is calculated for each <u>species</u> and they are ranked relative to each other, with <u>species</u> that are more threatening to Minnesota getting higher scores. Projects that involve at least one of the top 15 most risky plants, plant pathogens or invertebrates are where we direct our research funds. However, we regularly reassess the rankings of <u>species</u> based on new discoveries or if new <u>species</u> are evaluated, so the top <u>species</u> can change over time. You can see our current <u>species</u> rankings and details about our prioritization process on MITPPC's website.

In addition to focusing on a prioritized list of <u>invasive species</u>, MITPPC projects must be applied research that clearly impacts the management of <u>invasive species</u> in the state. We have four research themes for projects to choose from to demonstrate their management impact: early detection, management alternatives, response to climate change and socio-economic issues.

Q: How can I help in the fight against terrestrial *invasive species*?

Awareness is a great place to start. Learn how to recognize <u>species</u> that might be in your area and then report any that you find to an online database, like Report a Pest or EDDMapS. Simply keeping tabs on the whereabouts of <u>species</u> can be a big help to researchers and land managers. A lot of <u>species</u> are moved around unintentionally by human activity, so also become aware of how slight changes in your behavior can help reduce spreading <u>invasive</u> <u>species</u>. There is a national campaign (with Minnesota roots!) directed at reducing the spread of <u>invasive species</u> that has a lot of helpful information.

Additionally, multiple MITPPC research projects have opportunities for people to be involved as citizen scientists. The MN Department of Agriculture and MN Department of Natural Resources are also great places to find opportunities to learn about and participate in activities related to Minnesota *invasive species*. Lastly, contact your legislators to tell them how important *invasive species* research is to you – without support from the Environmental and Natural Resources Trust Fund, MITPPC's work would not be possible.

Amy Morey is a staff researcher at MITPPC. Her areas of expertise include entomology, pest management and ecological risk assessment.

About the Minnesota Invasive Terrestrial Plants and Pests Center

The Minnesota <u>Invasive</u> Terrestrial Plants and Pests Center (MITPPC) was founded in 2015 by the Minnesota Legislature to research the prevention, detection and control of terrestrial <u>invasive species</u>. MITPPC researchers use transformative science to prevent and minimize the threats posed by land-based <u>invasive</u> plants, pathogens, and pests. MITPPC is the only research center of its kind in the country, and the center's work to protect the state's native prairies, forests, wetlands, and agricultural resources benefits all of Minnesota and beyond. Funding for MITPPC is provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR). Learn more at mitppc.umn.edu.

Load-Date: February 28, 2022



WISCONSIN INVASIVE SPECIES COUNCIL SEEKS 2022 INVADER CRUSADER NOMINATIONS

States News Service March 11, 2022 Friday

Copyright 2022 States News Service

Length: 211 words

Byline: States News Service

Dateline: MADISON, WI

Body

The following information was released by the Wisconsin Department of Natural Resources:

The Public Is Encouraged To Nominate Residents Who Protected Lands And Wildlife From Invasive Species

MADISON, Wis. The Wisconsin Department of Natural Resources (DNR) today announced that the Wisconsin *Invasive Species* Council is now accepting nominations for the Invader Crusaders Awards through March 29, 2022.

Invader Crusaders are Wisconsin residents and organizations who made significant contributions to prevent, control or eradicate *invasive species* that harm Wisconsin's native wildlife and wetlands, forests, prairies, lakes and rivers.

The Wisconsin <u>Invasive Species</u> Council, an advisory council to the DNR, presents Invader Crusader Awards for volunteer and professional categories. A panel of Wisconsin <u>Invasive Species</u> Council members will review the nomination materials and select the award winners. All nominators and winners will be notified by mid-May and award recipients will be recognized in June during <u>Invasive Species</u> Action Month.

<u>Invasive species</u> are non-native plants and animals that cause great ecological, environmental or economic harm, and some can affect human health. Once an <u>invasive species</u> establishes in an area, it can be difficult to control.

Load-Date: March 11, 2022



The Islands' Sounder (Washington)
February 27, 2022

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Section: NEWS

Length: 1096 words

Body

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Graphic

Photo courtesy of Washington State Department of Agriculture Asian Giant Hornet.

Load-Date: March 5, 2022



Environmental imperialism: invasive species

The Peak: Simon Fraser February 11, 2022 Friday

University Wire

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Section: OPINIONS; Pg. 1

Length: 481 words

Body

By Luke Faulks, Staff Writer

While BC has made some important steps on Indigenous reconciliation, the process has been slow. BC's apparent reticence to pursue reconciliation becomes more galling once one realizes there's a piece missing from the conversation: environmental imperialism. Environmental imperialism can roughly be defined as the process of altering a native landscape to suit a colonial project. Alongside land usage in agriculture and energy sourcing, **invasive species** are a way colonies solidify their presence on foreign land.

Historian Alfred Crosby argues much of the influence of colonizers was due to their ability to alter native ecosystems. This process can be deliberate, like with the importing of decorative fauna (SFU's epidemic of English Ivy), or inadvertent, as in the spread of rats. Even more difficult to classify are the impacts on the environment of the spread of European diseases, which weakened resistance and led to deaths among Indigenous populations during colonial expansions.

The impacts of early land-use changes still resonate today. Colonies were in part formed to cultivate crops and raise livestock - broadly; to siphon the wealth of the land. Often, this exploitation came at the expense of the native environment. According to author Mary Lyn Stoll, historic colonies are now "the largest exporters of grains and animal products once utterly foreign to the colonized landscape 500 years ago."

Globally, cultures are influenced by the ecosystems that surround them. Whether by the types of foods that are available, the access to materials for crafting, or in the allusion to animal behaviours, culture and nature are closely linked. In importing *invasive species* and the subsequent replacement of native flora and fauna, we can see an uncomfortable parallel to the colonial mindset.

It's worth asking, then, how do we incorporate the decolonization of landscapes into the reconciliation process?

On an individual level, helping remove <u>invasive species</u> can be a benefit, both for your community and to reconciliation efforts. The 2018 #Next150 movement, aimed at providing participants with concrete steps to support reconciliation efforts, suggested "learning about <u>invasive</u> or introduced plant <u>species</u> in your community or region."

Further, learning about native <u>species</u> can help inform your choices when planting a garden or going grocery shopping. Although foods like wheat and beef are <u>invasive</u>, blueberries, corn, squash, and tomatoes all originate from North America, as do bison, turkey, and many types of fish.

Environmental imperialism: invasive species

Environmental imperialism is a dominant feature of colonial projects - the alteration of Indigenous territories is essential to the success of colonial endeavors, and continues to ripple through BC. Resolving the legacy of environmental imperialism will take time and effort. The least we can do is to start talking about it.

Load-Date: February 12, 2022



Climate Change Plans 'Fail to Tackle Invasive Species'

SciDev.Net

March 25, 2022

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Length: 671 words

Byline: Eldon Opiyo

Dateline: Nairobi

Body

Countries are making little effort to link <u>climate change</u> adaptation plans with <u>invasive species</u> management, a <u>study</u> says, despite the potential financial benefits of doing so.

Climate change facilitates the spread and establishment of many <u>invasive alien species</u> - animals, plants or other organisms that are introduced into places outside their natural range - and creates new opportunities for them to flourish, according to the International Union for Conservation of Nature.

But the study, which involved a review of 48 *policy* documents and strategies in Ghana, Kenya, Pakistan and Zambia, identified both policy and capacity gaps in responding to the important links between climate action on mitigation and adaptation, *invasive species* management and *biodiversity*.

The <u>Glasgow Climate Pact</u> agreed at the UN climate summit COP26 last year requires countries to "revisit and strengthen" their 2030 targets by the end of 2022 to align them with the Paris Agreement's temperature goals.

"As countries look to develop new biodiversity action plans, <u>invasive species</u> management plans, and submit enhanced climate actions [to meet Paris Agreement goals], there is an opportunity for more coordinated policy approaches and implementation strategies," says Jonathan Casey, study author and climate change manager at CABI, the <u>parent organisation</u> of SciDev.Net.

Casey adds that the current lack of coordination undermines effective action, and can lead to duplication of activities, inefficient use of resources, and conflicts between different sectoral policy approaches.

A more coordinated response could provide excellent opportunities for locally-led action and decentralised *governance*, and potentially boost funding for tackling *invasive species*, says the study published in the journal CABI Agriculture and Bioscience.

According to the study, while there are fairly strong policy responses to climate change, <u>invasive species</u> and biodiversity, policies are mostly crafted and enacted separately, with little consideration of the links between these issues and the opportunities for strengthening implementation across the policy areas.

Casey says that his findings are in line with those of the recent <u>Sixth Assessment Report</u> on climate adaptation by the Intergovernmental Panel on Climate Change (IPCC), which highlights the deep interconnections between climate and biodiversity.

Climate Change Plans 'Fail to Tackle Invasive Species'

Kenneth Kemucie Mwangi, climate monitoring and early warning expert with the Intergovernmental Authority on Development's Climate Prediction and Applications Centre in Kenya, says that many countries and sectors address the impacts of climate change - pest and disease invasion, droughts, floods - as isolated <u>environmental challenges</u> before recognising climate change as one of the causes of the challenges.

"Policies [over] years have been created in isolation, addressing the symptoms but not the cause. Climate change national adaptation plans are, however, being revised to have sectors such as biodiversity, <u>agriculture</u>, <u>energy</u>, <u>water</u> included," Mwangi tells SciDev.Net.

Mwangi believes that the implementation of the national climate change funds, as an adaptation tool that is integrated in a country's fiscal planning, could lead to centralised coordination even though certain interventions may be prioritised over others.

Innocent Ngare, research fellow in climate education and urbanism at the School of Environmental Studies at Kenya's Kenyatta University, says that while there are efforts to address climate change shocks through national adaption plans, little is done to include the dangers of *invasive species*.

"As invasives check in and spread, the worst-case scenario is exposure of food crops to more climate shocks if invasives weaken them further. Productivity will plunge by 30 per cent and could deepen further in the next decade," Ngare explains. "Every country should gear towards having critical *invasive species* control pathways linked to climate change."

This piece was produced by SciDev.Net's Sub-Saharan Africa English desk.

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The Journal of the San Juan Islands (Washington)
February 27, 2022

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Section: NEWS

Length: 1104 words

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Journal of the San Juan Islands (Friday Harbor, Washington)
February 27, 2022

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Graphic

Photo courtesy of Washington State Department of Agriculture Asian Giant Hornet.

Load-Date: March 3, 2022



Tourist link to invasive species in Ireland

Irish Examiner February 14, 2022 Monday

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Section: NEWS; Pg. 20

Length: 545 words

Byline: Pádraig Hoare

Body

Researchers say harmful **species** arrive via luggage and footwear

Tourists and returning residents may be contributing to the plague of <u>invasive species</u> in countries such as Ireland, inadvertently bringing in harmful <u>species</u> in luggage and footwear, new research suggests.

A study examined insects, spiders, mites, snails, plants, and round worms being reported at accommodation in NewZealand and researchers found what they called a "significant correlation".

Andrew Robinson of the Centre of Excellence for Biosecurity Risk Analysis at the University of Melbourne and Mark McNeill of AgResearch New Zealand found the number of nights spent in hotels and the detection of *invasive species* had a direct relationship.

The researchers said: "Between-country tourism is established as a facilitator of the spread of <u>invasive</u> alien <u>species</u>; however, little attention has been paid to the question of whether tourism contributes to the arrival and subsequent dispersal of exotic organisms within national borders.

"We suggest that this study provides conditional evidence that international tourism contributes to the introduction of exotic organism, and within-country movement of both international and domestic tourists aids the secondary dispersal of exotic organisms.

"The results also reinforce the need for biosecurity authorities to continue to allocate resources to managing the tourism pathway."

Like Ireland, New Zealand has a thriving international and domestic tourism industry, and if similar results were extrapolated here, it may go some way to explaining the growing problem of *invasive species*.

According to <u>Invasive Species</u> Ireland, creatures not native to ecosystems are the second greatest threat to biodiversity worldwide, after habitat destruction. <u>Invasive species</u> can negatively impact on native <u>species</u>,

Tourist link to invasive species in Ireland

transforming habitats and threatening whole eco-systems, causing serious problems to the environment and the economy, said *Invasive Species* Ireland,.

Since the 17th century, *invasive species* have contributed to nearly 40% of all animal extinctions for which the cause is known, according to *Invasive Species* Ireland. Annual environmental losses caused by introduced pests in the US, UK, Australia, South Africa, India, and Brazil have been calculated at over \$100bn (85.5bn), it said.

Last month, a national campaign to arm the public with knowledge of <u>invasive species</u> was launched after an increase of 183% from 1961 to 2010 in Ireland.

The Leave No Trace Ireland campaign has partnered with Water ways Ireland, the National Biodiversity Data Centre, Inland Fisheries Ireland, and the Marine Institute, as well as water sporting bodies throughout the Republic and the North, to warn about the impact of *invasive species*.

On Ireland's waterways, they include the water soldier plant, a type of carp fish called a chub, and pink salmon, Leave No T race Ireland ecologist Padraic Creedon said.

"These are non-native <u>species</u> that have been introduced by human intervention, outside their natural range that can threaten our native wild life, cause damage to our environment, economy and human health."

Waterways Ireland chief executive John McDonagh said that inland waterways are "rich ecological and heritage corridors" but that invasion can cause huge damage.

Load-Date: April 2, 2022



Governor Jay Inslee proclaims Invasive Species Awareness Week

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February 27, 2022

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Governor Jay Inslee proclaims Invasive Species Awareness Week

Being alert and reporting suspected problems is just one action that anyone can take. Other simple actions to prevent and stop <u>invasive species</u> include the following:
□ Clean your hiking boots, bikes, waders, boats, trailers, off-road vehicles and other gear before you venture outdoors to stop <i>invasive species</i> from hitching a ride to a new location. Learn about pathways that spread <i>invasive species</i> .
□ On your next walk, look out for noxious weeds. Visit the Washington State Noxious Weed Control Board's website to learn about noxious weeds and if you spot some in your yard or while walking in your neighborhood, notify your county noxious weed control board.
□ Dispose of unwanted pets, aquarium plants and water, science kits and live bait the proper way and NOT by dumping them into waterways. Released pets often suffer a slow death in winter or may become <i>invasive</i> and damage wildlife and crops. Visit the council's "Don't Let It Loose" web page to learn the proper ways to dispose of unwanted pets and plants.
□ Buy firewood where you'll burn it or gather it on site when permitted. Remember not to move firewood from the local area where harvested. Learn more about the potential dangers of moving firewood.
□ Protect salmon and steelhead by not moving any fish from one waterbody into another. This will prevent the spread of fish diseases and protect salmon and steelhead fisheries from non-native predatory fish. Visit the Washington Department of Fish and Wildlife's website to learn more about moving fish.
\square Use weed-free, certified forage, hay or mulch. Visit the Washington Department of Agriculture website to see details of its certification program.
☐ Plant only non- <i>invasive</i> plants in your garden and remove any known <i>invasive</i> plants.
□ Volunteer to survey public lands and trails as a Citizen Science <u>Invasive</u> Plant Monitor with the Pacific Northwest <u>Invasive</u> Plant Council. Learn more on the plant council's Facebook page.
□ Become a Washington State University Master Gardener and help your community identify, report and properly manage exotic and <i>invasive</i> pests.
□ Volunteer to help remove <u>invasive species</u> from public lands and natural areas. Contact your state, county or city parks and recreation department, land trust, conservation district, or Washington State University's Extension Office to learn more.
□ Don't pack a pest. When traveling internationally, review travel guidelines on items that should not be brought back to the United States. Learn more about Don't Pack a Pest.
"We know how to prevent and stop <u>invasive species</u> ," said Justin Bush, executive coordinator of the Washington <u>Invasive Species</u> Council. "No action is very complicated and each just takes a few minutes. If we all integrate these activities into our daily lives and work, we will protect what we know and love about this place we call home."
Webinars and Virtual Events
Register for the Webinars because spots are limited.
☐ February 28: Noxious Weeds That Impact Riparian Habitat: Integrated Pest Management and Best Practices
□ March 1: Washington Conservation Corps: Creating Future Leaders Through Community Involvement and Mentorship
☐ March 2: Partners in Prevention—Protecting our Waters from Aquatic <i>Invasive Species</i>

□ March 3: Pacific European Green Crab Management /March 3: <i>Invasive Species</i> and Exotic Pest Virtual Workshop
☐ March 4: Giant Hornet 2 Years Later–What We've Learned and What We Still Don't Know
The Legislature created the Washington <u>Invasive Species</u> Council in 2006 and tasked it with providing policy-level direction, planning and coordination for combating harmful <u>invasive species</u> throughout the state and preventing the introduction of others that may be potentially harmful.
Copyright 2022 Islands Sounder
Load-Date: February 27, 2022



Lake County Star (Baldwin, Michigan)

March 31, 2022

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Section: NEWS

Length: 820 words

Byline: Cathie Crew, STAFF WRITER

Body

MECOSTA, OSCEOLA, LAKE COUNTY The North Country Cooperative <u>Species</u> Management Area, which includes Mecosta, Osceola and Lake counties, has been awarded two grants totaling \$334,000 from the Michigan <u>Invasive Species</u> grant program.

The Mecosta County Conservation District will act as the fiduciary for the funding on behalf of NCCISMA, according to program coordinator Vicki Sawicki.

One of the grants for \$234,000 will fund a pilot program to engage off-road vehicle users in stopping the spread of *invasive species*, Sawicki said in a news release.

"This is a pilot program that will test the efficacy of our outreach efforts and see if the program has applications statewide," Sawicki told the Pioneer. "We think ORV'ers are a resource that hasn't been tapped into. We are seeing *invasive species* spread down trails and spread from one trail to another, and obviously no one wants that to happen, but many don't realize how it happens. So, a big part it is awareness. We think the ORV'ers, once they are empowered with the knowledge of identification of these *species*, will be our eyes into the deep regions of the forest."

The three-year program will consist of meeting ORV users where they are sometimes that will be in local bars.

"We are starting with going to bars to talk to ORV'ers," Sawicki said. "We have been challenged in the past to find the audience. We know they are out there, we know the numbers are huge. It is one of the biggest outdoor recreations in the state judging by the number of permits the state sells.

"We have tried to reach them by staging outreach at trailheads, but the problem is many people do not go to the trailheads. They don't have to because they can go straight from their cabin to the trail," she continued. "We would go to the trailheads, and as we would leave, we would drive the bars nearby and there would be a bunch of ORVs. So, this was born out of the question of how we reach that audience."

The program will involve interviewing ORV users to get their opinion about how to reach out to that cohort. There will also be a survey shared on Facebook pages and other sites where ORV groups post that will measure the current level of awareness, knowledge and attitudes about <u>invasive species</u> among trail users, Sawicki said.

The outreach portion of the program will consist of getting the message out there and making it cool to clean your vehicle before you go home, because it is often a matter of tiny seeds in the mud on your vehicle that can spread the *invasive species*, Sawicki said.

"We want to get the message out there in as many ways as we can," she said. "Part of it will be billboard messaging, and we are going to try to get refrigerator magnets in rental units and Airbnbs. We will put posters in park stores, liquor stores and gas stations all the places that ORV'ers need to go that are recreating in that way.

"And then we will be going back to the bars," she added. "We will be hosting <u>invasive species</u> trivia nights and there will be prizes, such as gift certificates to car washes to wash their vehicles."

In addition, she said, they will be starting a hashtag movement something like #bringithomeclean where people can post a photo of the ORV muddy and a photo of it clean and there will be prizes for that, as well.

SURVEYING THE TRAILS

Once the outreach program is complete, a second survey will be conducted to determine the effectiveness of the program, Sawicki said.

A large component of the grant will involve surveying the 527 linear miles of ORV trails for <u>invasive species</u>, Sawicki said. The results of that survey will be used to create educational signs to inform trail users.

"We will make signs to go at the trailheads of each trail to inform riders of the locations of the <u>invasive species</u> and what they look like so that they can try to avoid them," she said. "We will also have information about the nearest car washes to the trail."

This region is a destination for ORV users because of its many great trails. Maintaining quality trails and healthy native ecology are both critical to this area, for keeping businesses that depend on this area being a destination for ORV users, and also for hunting, fishing and wildlife viewing, as well as to maintain the expected quality of life for area residents, Sawicki said in the news release.

Whenever trail riders encounter <u>invasive species</u>, they can report it by using the Midwest <u>Invasive Species</u> Information Network, she said.

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Load-Date: March 31, 2022



Lake County Star (Baldwin, MI)

March 31, 2022 Thursday

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Length: 818 words

Byline: Cathie Crew, Staff writer

Body

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Load-Date: April 7, 2022



Herald Review (Reed City, MI) March 30, 2022 Wednesday

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Length: 818 words

Byline: Cathie Crew, Staff writer

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Load-Date: April 7, 2022



HELP STOP THE SPREAD OF AQUATIC INVASIVE SPECIES

States News Service March 7, 2022 Monday

Copyright 2022 States News Service

Length: 345 words

Byline: States News Service

Dateline: CHEYENNE, WY

Body

The following information was released by the Wyoming Game and Fish Department:

The Wyoming Game and Fish Department is offering training for members of the public to become a certified Wyoming aquatic <u>invasive species</u> inspector. The free, day-long session is open to anyone interested in preventing the spread of AIS through watercraft inspection.

The training includes information on basic biology of <u>invasive species</u>, the impacts of AIS, transport vectors and distribution of AIS. It includes classroom instruction, a question-and-answer session and a hands-on watercraft inspection exercise. Those who complete the class will be certified to inspect watercraft.

Aquatic <u>invasive species</u> are animals like zebra and quagga mussels, rusty crayfish or vegetation such as curly pondweed. These organisms can wreak havoc when introduced into a water system. Many <u>invasive species</u> permanently change stream and lake ecology, negatively affecting native <u>species</u> and prized sport fisheries.

Thorough watercraft inspections continue to be the best defense against aquatic <u>invasive species</u>, said Josh Leonard, Game and Fish aquatic <u>invasive species</u> coordinator. Our goal is to certify more people to assist with these inspections when Game and Fish check stations are not available and help keep AIS and Clean, Drain, Dry procedures for boats top of mind.

Trainings are offered as a one-day course from 9 a.m. to 4 p.m. throughout the spring in statewide locations. Registration deadline is one week prior to the class start date. The course schedule is:

DateCityLocation

March 19Scottsbluff, NebraskaPlatte Valley Bank

March 26Keyhole ReservoirPine Haven Town Hall

April 9LaramieLaramie Game and Fish Regional Office

April 23EvanstonPatterson Visitor Center

April 16Green RiverGreen River Game and Fish Regional Office

April 23CasperCasper Game and Fish Regional Office

HELP STOP THE SPREAD OF AQUATIC INVASIVE SPECIES

April 9Rapid City, South DakotaThe Outdoor Campus West, 4130 Adventure Trail

April 2SheridanSheridan Game and Fish Regional Office

May 13CodyCody Game and Fish Regional Office

June 11JacksonJackson Game and Fish Regional Office

Load-Date: March 8, 2022



Court raps Centre for refusing to fund removal of 'invasive species'

Times of India (Electronic Edition)

April 19, 2022 Tuesday

Bangalore Edition

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Section: TIMES SPORT

Length: 284 words

Byline: TIMES NEWS NETWORK

Body

Chennai: Are Mahatma Gandhi National Rural Employment Guarantee (MNREGA) funds meant only to pay people sitting idle without doing anything, Madras high court asked on Monday, miffed at the Un ion government's stand that the funds could n ot be spared for removing *invasive species*, including seemai karuvelam, in forests and hills. After special government pleader T Seenivasan informed the court that Tamil Nadu had been disallowed by the Centre from using the fund for removing *invasive species*, a division bench of Justice V Bharathidasan and Justice N Sathish Kumar said: "If such work is not permitted we will record that the scheme is not utilised properly." "Come with a positive response and be informed that anyway we would order sanction of MNREGA funds for such work," the bench said to senior standing counsel for central government V Chandrasekaran.

The issue pertains to an order passed by the court in 2014 directing the state government to take immediate steps to remove <u>invasive</u> <u>species</u> including Seemai Karuvelam. In March, the bench expressed displeasure over the state's lethargic approach towards removing <u>invasive species</u> as per the direction of the court. The court further suggested the state to involve locals, including the trib al community, in the removal work through MNREGA scheme. When the plea came up for hearing on Monday, court-appointed amicus curiae T Mohan informed the court that the Centre was wrong in rejecting permission to commence the work through MNREGA scheme, as the National Rural Employment Guarantee Act provided for doing afforestation work under the scheme. Removal of <u>invasive species</u> is part of afforestation work, he added.

Load-Date: April 19, 2022



Rep. Stefanik Introduces Bill to Combat Invasive Species

Targeted News Service

March 4, 2022 Friday 9:00 AM EST

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Length: 305 words

Byline: Targeted News Service

Dateline: WASHINGTON

Body

Rep. Elise Stefanik, R-New York, issued the following news release on March 3, 2022:

Congresswoman Elise Stefanik today reintroduced the Stamp Out <u>Invasive Species</u> Act to help combat and raise awareness about the threat <u>invasive species</u> pose to Upstate New York and North Country ecosystems.

Specifically, this bill would direct the United States Postal Service to issue a "Combating <u>Invasive Species</u> Semipostal Stamp." Net proceeds from the sale of this stamp would be directed to the United States Department of Agriculture and the Department of the Interior for programs that combat *invasive species*.

"Upstate New York and the North Country are home to the largest and most diverse ecosystem in New York State, including the Adirondacks, multiple lakes and rivers, and thousands of miles of trails, and I am committed to preserving it for our future generations," Stefanik said. "I am proud to lead this effort in Congress to help raise awareness about the threat these <u>invasive species</u> pose to our natural ecosystems and fund research that will help combat these predators."

An estimated 50,000 non-native <u>invasive</u> animal and plant <u>species</u> have been introduced to the United States, costing up to \$100 billion annually. Additionally, every state and U.S. territory has at least some form of <u>invasive</u> plant or animal tremendously impacting the natural biodiversity of our homes.

This bipartisan bill is supported by Representatives Garret Graves (R-LA), Ed Case (D-HI), Rick Crawford (R-AR), Mike Thompson (D-CA), Don Young (R-AK), Raul Grijalva (D-AZ), Aumua Amata Radewagen (R-American Samoa), and Darren Soto (D-FL).

Read full bill text here (https://stefanik.house.gov/cache/files/8/f/8f642a08-4b73-495c-b5d7-5b6d757544de/DF20795ECFCBA8001AEC2A9666C957CE.invasive-species.pdf).

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Load-Date: March 4, 2022



MSU Extension helps to educate on and prevent invasive species

The Huron Daily Tribune (Bad Axe, MI)

March 14, 2022 Monday

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Length: 667 words

Byline: Connor Veenstra, Staff Writer

Body

<u>Invasive species</u> of plants and animals have been a problem in Michigan waters for hundreds of years, ever since they were introduced through international trips between America and Europe between the <u>1800s to 1900s</u>. It wasn't until the early 1990s that the government decided to do something about it, with ballast water regulations to keep <u>invasive species</u> from hitching a ride on boats.

In 2018, there was an estimated 187 non-native <u>species</u> that were considered established in the Great Lakes system, according to aquatic <u>invasive species</u> educator with MSU Extension Kelsey Bockelman. And because there are water bodies in Michigan without <u>invasive species</u>, there's always a threat of further invasion, if boaters aren't careful to inspect their ships for stowaway plants and fish.

<u>Invasive species</u> have the ability to greatly alter their environment. The Eurasian watermilefoil, for example, displaces native <u>species</u> in its environment by blocking out the sunlight as it grows in large mats, as well as affecting oxygen levels in the water. However, fully removing it or other <u>invasive species</u> after a certain amount of time would be incredibly difficult if it's been allowed to permanently change its environment.

"Fully removing an <u>invasive species</u> can also take large amounts of time, money, and resources as well," Bockelman said. "Conservation managers would need to weigh the pros and cons of each control action that they're proposing to conduct in that specific location to determine potential effects."

However, with certain programs and ballast water laws, scientists and educators help to curb the <u>invasive species</u> populations in Michigan waters. Transoceanic ships are banned from transporting and selling known <u>invasive species</u>, which has helped reduce the introduction of new <u>species</u>.

State laws also require boaters to pull their drain plugs, drain all the water from their bilges or ballast tanks (two places *invasive species* often hitch a ride), and remove all plants and debris from their watercraft and trailer.

In addition, a variety of outreach programs from MSU Extension have worked to provide accessible resources on *invasive species*.

With the help of other partners, like the Department of Environment, Great Lakes, and Energy, MSU Extension has been working for years to educate and encourage boaters and independent organizations to help stop the spread of *invasive species*.

These include the Clean Boats, Clean Waters program, which offers smaller grant opportunities for lake organizations and non-profits that applied for <u>invasive</u> outreach assistance. MSU Extension also hosts a Mobile Boat Wash, providing free educational boat washing events at launches across the state. And thirdly, they have the

MSU Extension helps to educate on and prevent invasive species

Reduce <u>Invasive</u> Pet and Plant Escpaes initiative, which helps people to find different ways of dealing with unwanted plants and aquatic animals other than releasing them into the nearest body of water.

MSU Extension has also been connected with more groups and non-profits like Exotic Aquatic Plant Watch, a citizen science program aimed at the early detection of aquatic <u>invasive</u> plants. These citizen-based groups are invaluable to the study of <u>invasive species</u>, according to Bockelman.

"Citizens provide valuable data on first sightings which lets scientists and conservationists act quickly and successfully on the control of *invasive species*," she said.

Boaters and anglers can also do their part by practicing the clean, drain, dry, dispose of steps for their boats, said Bockelman, helping to stop the spread of *invasive species*.

While <u>invasive species</u> in Michigan aren't as prevalent now as they were before, citizens and scientists should still be on the lookout for <u>invasive species</u> in our waters.

"<u>Invasive species</u> continue to pose both short and long-term concerns for Michigan's waterways," Bockelman said. "There is always a threat of new <u>species</u> entering the state from neighboring areas or international water bodies, such as the looming threat of Asian carp <u>species</u>."

Load-Date: April 7, 2022



New Ontario watercraft regulations fight invasive species

Great Lakes Echo: Michigan State University (MI)

March 3, 2022 Thursday

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Section: RECREATION

Length: 399 words **Byline:** Arya Dara

Body

New legislation in Ontario can result in a fine if boats are not cleaned properly when they are moved from one body of water and into another.

Ontario recently designated watercraft as vectors of <u>invasive species</u> transmission under the provincial <u>invasive</u> <u>species</u> act. That means that boats and other watercraft are legally recognized as ways <u>invasive species</u> move from waterbody to waterbody.

All boaters in Ontario are now required by law to clean their boats before they take them out on the water. This legislation was put in place Jan. 1 to control any aquatic plant, animal or algae, such as the spiny water flea, Eurasian water-milfoil and zebra and quagga mussels.

Letting <u>invasive species</u> aboard your boat helps them spread in lakes, rivers and streams, according to the Ontario government. It costs millions of dollars to repair the damage.

Boaters are now required to drain water from their boat and equipment and remove aquatic plants, animals and algae from boats, equipment, vehicles and trailers, according to the new rules. It is now illegal to place a boat in any body of water if there are aquatic weeds, animals or algae still on it.

Violators can be fined up to \$350.

These regulations don't apply to anything that is not circulating lake water, said Jeremy Downe, the senior <u>invasive</u> <u>species</u> policy adviser with the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry. That includes drinking water systems, marine sanitary systems or closed engine cooling systems.

Conservation officers can inspect and stop boats, and impose fines from \$100 to \$350, based on severity of the offense. A very serious offense can lead to a court summons, Downe said.

"But the primary focus is education and awareness," Downe said.

The legislation recognizes that it isn't possible to completely clean watercraft, said Downe, which should make it easier for people to follow.

Boaters can more thoroughly clean their boats with pressure washers at a more suitable place, Ontario officials said.

New Ontario watercraft regulations fight invasive species

There hasn't been any significant concern or pushback from boaters, Downe said. The government, along with the Ontario Federation of Anglers and Hunters has been working on education and outreach with local boaters before the legislation passed, so that local boaters were ready for the regulations.

"It wasn't really a new thing," Downe said, "everyone's pretty supportive."

Graphic

View of Toronto from Lake Ontario. Image: Berkay Gumustekin on Unsplash

Load-Date: March 3, 2022



Jersey students learn about Guernsey's invasive species

Guernsey Press

March 21, 2022 Monday

Edition 1, National Edition

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Section: NEWS; Pg. 5 **Length:** 221 words

Body

GUERNSEY'S <u>invasive species</u> and how to tackle them is at the core of an educational trip to the island for Jersey students.

The Guernsey Biological Records Centre is hosting masters students from the Jersey International Centre for Advanced Studies for a module on <u>species</u> including sour fig, Asian hornets, black and brown rats and signal crayfish.

We are delighted to be in Guernsey to discover more about *invasive species* control on the island.

'We are very grateful to GBRC, the States of Guernsey Inns team and the Guernsey Conservation Volunteers for making us so welcome,' said Jicas programme co-ordinator Amy Louise Hall.

The Guernsey Asian Hornet Team, Guernsey Conservation Volunteers and Guernsey Water have given their expertise on horizon scanning and <u>species</u> eradication. While in the island, the students will be investigating habitats on Belle Greve Bay, Lihou Island, Les Tielles and the marshes on Victoria Avenue.

'It is fantastic to host Jicas and with the States of Guernsey <u>Invasive Species</u> help educate the next generation of scientists. Pan-island partnerships benefit us all and I look forward to more projects like this in the future,' said Liz Sweet, GBRC manager.

A Darwin Plus application will be written by each person on the course to apply and assess the knowledge they have gained during the trip.

Graphic

Jersey students are visiting Guernsey to study the island's *invasive species*. (30631202)

Load-Date: March 21, 2022



Herald Review (Reed City, MI)

March 30, 2022

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Section: NEWS

Length: 820 words

Byline: Cathie Crew, STAFF WRITER

Body

MECOSTA, OSCEOLA, LAKE COUNTY The North Country Cooperative <u>Species</u> Management Area, which includes Mecosta, Osceola and Lake counties, has been awarded two grants totaling \$334,000 from the Michigan <u>Invasive Species</u> grant program.

The Mecosta County Conservation District will act as the fiduciary for the funding on behalf of NCCISMA, according to program coordinator Vicki Sawicki.

One of the grants for \$234,000 will fund a pilot program to engage off-road vehicle users in stopping the spread of *invasive species*, Sawicki said in a news release.

"This is a pilot program that will test the efficacy of our outreach efforts and see if the program has applications statewide," Sawicki told the Pioneer. "We think ORV'ers are a resource that hasn't been tapped into. We are seeing *invasive species* spread down trails and spread from one trail to another, and obviously no one wants that to happen, but many don't realize how it happens. So, a big part it is awareness. We think the ORV'ers, once they are empowered with the knowledge of identification of these *species*, will be our eyes into the deep regions of the forest."

The three-year program will consist of meeting ORV users where they are sometimes that will be in local bars.

"We are starting with going to bars to talk to ORV'ers," Sawicki said. "We have been challenged in the past to find the audience. We know they are out there, we know the numbers are huge. It is one of the biggest outdoor recreations in the state judging by the number of permits the state sells.

"We have tried to reach them by staging outreach at trailheads, but the problem is many people do not go to the trailheads. They don't have to because they can go straight from their cabin to the trail," she continued. "We would go to the trailheads, and as we would leave, we would drive the bars nearby and there would be a bunch of ORVs. So, this was born out of the question of how we reach that audience."

The program will involve interviewing ORV users to get their opinion about how to reach out to that cohort. There will also be a survey shared on Facebook pages and other sites where ORV groups post that will measure the current level of awareness, knowledge and attitudes about <u>invasive species</u> among trail users, Sawicki said.

The outreach portion of the program will consist of getting the message out there and making it cool to clean your vehicle before you go home, because it is often a matter of tiny seeds in the mud on your vehicle that can spread the *invasive species*, Sawicki said.

"We want to get the message out there in as many ways as we can," she said. "Part of it will be billboard messaging, and we are going to try to get refrigerator magnets in rental units and Airbnbs. We will put posters in park stores, liquor stores and gas stations all the places that ORV'ers need to go that are recreating in that way.

"And then we will be going back to the bars," she added. "We will be hosting <u>invasive species</u> trivia nights and there will be prizes, such as gift certificates to car washes to wash their vehicles."

In addition, she said, they will be starting a hashtag movement something like #bringithomeclean where people can post a photo of the ORV muddy and a photo of it clean and there will be prizes for that, as well.

SURVEYING THE TRAILS

Once the outreach program is complete, a second survey will be conducted to determine the effectiveness of the program, Sawicki said.

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"We will make signs to go at the trailheads of each trail to inform riders of the locations of the <u>invasive species</u> and what they look like so that they can try to avoid them," she said. "We will also have information about the nearest car washes to the trail."

This region is a destination for ORV users because of its many great trails. Maintaining quality trails and healthy native ecology are both critical to this area, for keeping businesses that depend on this area being a destination for ORV users, and also for hunting, fishing and wildlife viewing, as well as to maintain the expected quality of life for area residents, Sawicki said in the news release.

Whenever trail riders encounter <u>invasive species</u>, they can report it by using the Midwest <u>Invasive Species</u> Information Network, she said.

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Sawicki said the program is still in the planning stages and that the bar trivia will likely take place during the free ORV weekends, which are in June and August. The first one is planned for August 2022.

Load-Date: March 30, 2022



Pests be gone: Watershed group highlights invasive species

The Telegraph-Journal (New Brunswick)
February 17, 2022 Thursday
Final Edition

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Section: TIMESGLOBE; Pg. B3

Length: 214 words

Body

The Kennebecasis Watershed Restoration Committee is inviting residents to take part in an open house to learn about the *invasive species* in the area.

Taking place on Tuesday, Feb. 22 and Wednesday, Feb. 23 at 6:30 p.m., the Virtual <u>Invasive Species</u> Open House will discuss what <u>invasive species</u> are, how they affect the environment, how to report them, and how to reduce their spread.

"We want to really start the conversation of <u>invasive species</u> within the watershed," said Laura Lavigne, Kennebecasis Watershed Restoration committee <u>invasive species</u> coordinator. "Especially with climate change on the rise, the <u>species</u> are easily adaptable, so they tend to out compete the natural resources and invade areas. They overall decrease our biodiversity."

Presentations will be held by Maritime experts discussing Eurasian Watermilfoil, Emerald Ash Borer, and Hemlock Woolly Adelgid. The New Brunswick *Invasive Species* Council will also be in attendance.

There will be a question period for attendees to ask questions, seek advice, and learn more about <u>invasive</u> species.

For more information or to register for the event visit the Kennebecasis Watershed Restoration Committee's Facebook or Instagram page or email info@kennebecasiseriver.org !@COPYRIGHT=© 2022 Telegraph-Journal (New Brunswick)

Graphic

Photo: Submitted; Kennebecasis Watershed Restoration Committee member Micah Lea is seen placing an Emerald Ash Borer Trap in this submitted photo.;

Load-Date: February 17, 2022



Climate Change Plans 'Fail To Tackle Invasive Species'

Eurasia Review

March 28, 2022 Monday

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Length: 710 words **Byline:** Eldon Opiyo*

Body

Countries are making little effort to link climate change adaptation plans with <u>invasive species</u> management, a study says, despite the potential financial benefits of doing so.

Climate change facilitates the spread and establishment of many <u>invasive</u> alien <u>species</u> - animals, plants or other organisms that are introduced into places outside their natural range - and creates new opportunities for them to flourish, according to the International Union for Conservation of Nature.

But the study, which involved a review of 48 policy documents and strategies in Ghana, Kenya, Pakistan and Zambia, identified both policy and capacity gaps in responding to the important links between climate action on mitigation and adaptation, *invasive species* management and biodiversity.

The Glasgow Climate Pact agreed at the UN climate summit COP26 last year requires countries to "revisit and strengthen" their 2030 targets by the end of 2022 to align them with the Paris Agreement's temperature goals.

"As countries look to develop new biodiversity action plans, <u>invasive species</u> management plans, and submit enhanced climate actions [to meet Paris Agreement goals], there is an opportunity for more coordinated policy approaches and implementation strategies," says Jonathan Casey, study author and climate change manager at CABI, theparent organisationofSciDev.Net.

Casey adds that the current lack of coordination undermines effective action, and can lead to duplication of activities, inefficient use of resources, and conflicts between different sectoral policy approaches.

A more coordinated response could provide excellent opportunities for locally-led action and decentralised governance, and potentially boost funding for tackling *invasive species*, says the study published in the journal CABI Agriculture and Bioscience.

Climate Change Plans 'Fail To Tackle Invasive Species'

According to the study, while there are fairly strong policy responses to climate change, <u>invasive species</u> and biodiversity, policies are mostly crafted and enacted separately, with little consideration of the links between these issues and the opportunities for strengthening implementation across the policy areas.

Casey says that his findings are in line with those of the recent Sixth Assessment Report on climate adaptation by the Intergovernmental Panel on Climate Change (IPCC), which highlights the deep interconnections between climate and biodiversity.

Kenneth Kemucie Mwangi, climate monitoring and early warning expert with the Intergovernmental Authority on Development's Climate Prediction and Applications Centre in Kenya, says that many countries and sectors address the impacts of climate change - pest and disease invasion, droughts, floods - as isolated environmental challenges before recognising climate change as one of the causes of the challenges.

"Policies [over] years have been created in isolation, addressing the symptoms but not the cause. Climate change national adaptation plans are, however, being revised to have sectors such as biodiversity, agriculture, energy, water included," Mwangi tells SciDev.Net.

Mwangi believes that the implementation of the national climate change funds, as an adaptation tool that is integrated in a country's fiscal planning, could lead to centralised coordination even though certain interventions may be prioritised over others.

Innocent Ngare, research fellow in climate education and urbanism at the School of Environmental Studies at Kenya's Kenyatta University, says that while there are efforts to address climate change shocks through national adaption plans, little is done to include the dangers of invasive species.

"As invasives check in and spread, the worst-case scenario is exposure of food crops to more climate shocks if invasives weaken them further. Productivity will plunge by 30 per cent and could deepen further in the next decade," Ngare explains. "Every country should gear towards having critical <u>invasive species</u> control pathways linked to climate change."

*Dan Eldon Opiyo is a hardworking and creative minded man with great interest in science journalism. He is a Kenyan journalist contributing to SciDev.Net's Sub-Saharan Africa English Edition having ventured into journalism in November 2016.

This piece was produced by SciDev.Net's Sub-Saharan Africa English desk.

Load-Date: April 13, 2022



The Pioneer (Big Rapids, Michigan)

March 25, 2022 Friday

Big Rapids News Edition

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Section: Pg. A001 Length: 822 words

Byline: Cathie Crew, STAFF WRITER

Body

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Graphic

1) PHOTO: The North Country Cooperative <u>Invasive Species</u> Management Area will use grant funding from the Michigan <u>Invasive Species</u> Grant Program to recruit ORV trail riders to aid them in their fight to prevent the spread of *invasive species*.

Load-Date: March 25, 2022



TALKING INVASIVE SPECIES WITH THE U OF M

States News Service February 22, 2022 Tuesday

Copyright 2022 States News Service

Length: 1391 words

Byline: States News Service

Dateline: MINNEAPOLIS/ST. PAUL

Body

The following information was released by the University of Minnesota - Twin Cities:

This year, National <u>Invasive Species</u> Awareness Week begins Monday, February 28, and lasts through Friday, March 4. The goal of this week is to raise awareness about the spread of <u>invasive species</u>, the potential threat they pose to our ecosystems and resources, and the work researchers are doing to find solutions.

Amy Morey, a researcher with the Minnesota <u>Invasive</u> Terrestrial Plants and Pests Center (MITPPC) in the College of Food, Agricultural and Natural Resource Sciences answers questions about terrestrial (land-dwelling) <u>invasive</u> <u>species</u> and the latest interdisciplinary research helping to slow their spread.

Q: What are terrestrial invasive species and which species are prevalent in Minnesota?

"Terrestrial" refers to the land. The terrestrial habitats that MITPPC focuses on are prairies, forests, wetlands and agricultural systems. An "*invasive*" *species* is one that does not historically occur in an area and can harm the environment, economy and/or human health. Terrestrial *invasive species* are estimated to cost Minnesotans an estimated \$3 billion each year by threatening the health of our ecosystems, recreation, natural resources and food systems. Terrestrial *invasive species* Minnesotans may be particularly familiar with are common and glossy buckthorn, emerald ash borer, spotted knapweed and Dutch elm disease. However, there are hundreds of others and additional *species* continue to regularly arrive into the state.

Q: Are *invasive species* found in Minnesota all year round?

There are many <u>invasive species</u> that have established in Minnesota and live here year-round. But like humans, most tend to be less active when it is cold and, as result, are less likely to be seen during winter. Often <u>species</u> go dormant in sheltered places, like in the soil, under leaves or within the wood of trees.

A few <u>species</u>, though, can be easier to spot during winter. For example, the yellow and red berries of <u>invasive</u> bittersweet stay on the plant during winter and make the plant more visible on the landscape. The brown marmorated stink bug will often overwinter in houses and other buildings, and though they are much less active, you might find one (or a hundred!) walking across your floor or hanging out in your attic. For some <u>species</u>, like the spotted lanternfly, we don't yet know if they do (or could, if given the chance) stick around all year. The cold winters in Minnesota help keep many <u>invasive species</u> from surviving here, but that is changing with climate change.

Q: What types of terrestrial invasive species research does MITPPC conduct?

TALKING INVASIVE SPECIES WITH THE U OF M

At MITPPC, we currently fund research on terrestrial <u>invasive</u> plants, plant pathogens and invertebrates (like insects and worms) that harm valued plants. So, <u>species</u> that are primarily human or animal health concerns are outside of our scope. We support research projects that are practical and science-based in their approach to managing <u>invasive species</u>, whether innovating new methods of early detection, like for Palmer amaranth, or finding new solutions for <u>species</u> that have been around for a long time, like Dutch elm disease. We strongly encourage interdisciplinary work, and our researchers often collaborate with stakeholders outside the university and across the state. This short video highlights many of our recent research projects. You can also learn more about <u>invasive species</u> research and new discoveries through our monthly newsletter, Twitter and website.

Q: With hundreds of terrestrial <u>invasive species</u> in the state, how does MITPPC prioritize where to focus research efforts?

The state legislature asked MITPPC to focus our efforts on the most threatening terrestrial <u>invasive species</u> to Minnesota. To do this, we brought in a group of 15 experts on terrestrial <u>invasive species</u> in Minnesota and asked them to come up with criteria they would use to describe how threatening an <u>invasive species</u> is. Their list, which included 17 criteria related to the likelihood that a <u>species</u> could arrive and survive in Minnesota and the kind of harm their presence could cause, serves as the framework we use to evaluate the riskiness of each <u>species</u> we consider. Based on our evaluation, a numerical score is calculated for each <u>species</u> and they are ranked relative to each other, with <u>species</u> that are more threatening to Minnesota getting higher scores. Projects that involve at least one of the top 15 most risky plants, plant pathogens or invertebrates are where we direct our research funds. However, we regularly reassess the rankings of <u>species</u> based on new discoveries or if new <u>species</u> are evaluated, so the top <u>species</u> can change over time. You can see our current <u>species</u> rankings and details about our prioritization process on MITPPC's website.

In addition to focusing on a prioritized list of <u>invasive species</u>, MITPPC projects must be applied research that clearly impacts the management of <u>invasive species</u> in the state. We have four research themes for projects to choose from to demonstrate their management impact: early detection, management alternatives, response to climate change and socio-economic issues.

Q: How can I help in the fight against terrestrial *invasive species*?

Awareness is a great place to start. Learn how to recognize <u>species</u> that might be in your area and then report any that you find to an online database, like Report a Pest or EDDMapS. Simply keeping tabs on the whereabouts of <u>species</u> can be a big help to researchers and land managers. A lot of <u>species</u> are moved around unintentionally by human activity, so also become aware of how slight changes in your behavior can help reduce spreading <u>invasive</u> <u>species</u>. There is a national campaign (with Minnesota roots!) directed at reducing the spread of <u>invasive species</u> that has a lot of helpful information.

Additionally, multiple MITPPC research projects have opportunities for people to be involved as citizen scientists. The MN Department of Agriculture and MN Department of Natural Resources are also great places to find opportunities to learn about and participate in activities related to Minnesota <u>invasive species</u>. Lastly, contact your legislators to tell them how important <u>invasive species</u> research is to you without support from the Environmental and Natural Resources Trust Fund, MITPPC's work would not be possible.

Amy Morey is a staff researcher at MITPPC. Her areas of expertise include entomology, pest management and ecological risk assessment.

-30-

About the Minnesota *Invasive* Terrestrial Plants and Pests Center

The Minnesota <u>Invasive</u> Terrestrial Plants and Pests Center (MITPPC) was founded in 2015 by the Minnesota Legislature to research the prevention, detection and control of terrestrial <u>invasive species</u>. MITPPC researchers use transformative science to prevent and minimize the threats posed by land-based <u>invasive</u> plants, pathogens, and pests. MITPPC is the only research center of its kind in the country, and the center's work to protect the state's

TALKING INVASIVE SPECIES WITH THE U OF M

native prairies, forests, wetlands, and agricultural resources benefits all of Minnesota and beyond. Funding for MITPPC is provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR). Learn more at mitppc.umn.edu.

About the College of Food, Agricultural and Natural Resource Sciences

The University of Minnesota's College of Food, Agricultural and Natural Resource Sciences (CFANS) strives to inspire minds, nourish people, and sustainably enhance the natural environment. CFANS has a legacy of innovation, bringing discoveries to life through science and educating the next generation of leaders. Every day, students, faculty, and researchers use science to address the grand challenges of the world today and the future. CFANS offers an unparalleled expanse of experiential learning opportunities for students and the community, with 12 academic departments, 10 research and outreach centers across the state, the Minnesota Landscape Arboretum, the Bell Museum of Natural History, and dozens of interdisciplinary centers.

About "Talking...with U of M"

"Talking...with U of M" is a resource whereby University of Minnesota faculty answer questions on current and other topics of general interest. Feel free to republish this content.

Load-Date: February 23, 2022



MSU Extension helps to educate on and prevent invasive species

The Huron Daily Tribune, Bad Axe, Mich.

March 14, 2022 Monday

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Distributed by Tribune Content Agency

Section: STATE AND REGIONAL NEWS

Length: 696 words

Byline: Connor Veenstra, The Huron Daily Tribune, Bad Axe, Mich.

Body

Mar. 14—<u>Invasive species</u> of plants and animals have been a problem in Michigan waters for hundreds of years, ever since they were introduced through international trips between America and Europe between the 1800s to 1900s. It wasn't until the early 1990s that the government decided to do something about it, with ballast water regulations to keep <u>invasive species</u> from hitching a ride on boats.

In 2018, there was an estimated 187 non-native <u>species</u> that were considered established in the Great Lakes system, according to aquatic <u>invasive species</u> educator with MSU Extension Kelsey Bockelman. And because there are water bodies in Michigan without <u>invasive species</u>, there's always a threat of further invasion, if boaters aren't careful to inspect their ships for stowaway plants and fish.

<u>Invasive species</u> have the ability to greatly alter their environment. The Eurasian watermilefoil, for example, displaces native <u>species</u> in its environment by blocking out the sunlight as it grows in large mats, as well as affecting oxygen levels in the water. However, fully removing it or other <u>invasive species</u> after a certain amount of time would be incredibly difficult if it's been allowed to permanently change its environment.

"Fully removing an <u>invasive species</u> can also take large amounts of time, money, and resources as well," Bockelman said. "Conservation managers would need to weigh the pros and cons of each control action that they're proposing to conduct in that specific location to determine potential effects."

However, with certain programs and ballast water laws, scientists and educators help to curb the <u>invasive species</u> populations in Michigan waters. Transoceanic ships are banned from transporting and selling known <u>invasive species</u>, which has helped reduce the introduction of new <u>species</u>.

State laws also require boaters to pull their drain plugs, drain all the water from their bilges or ballast tanks (two places *invasive species* often hitch a ride), and remove all plants and debris from their watercraft and trailer.

In addition, a variety of outreach programs from MSU Extension have worked to provide accessible resources on *invasive species*.

With the help of other partners, like the Department of Environment, Great Lakes, and Energy, MSU Extension has been working for years to educate and encourage boaters and independent organizations to help stop the spread of *invasive species*.

MSU Extension helps to educate on and prevent invasive species

These include the Clean Boats, Clean Waters program, which offers smaller grant opportunities for lake organizations and non-profits that applied for <u>invasive</u> outreach assistance. MSU Extension also hosts a Mobile Boat Wash, providing free educational boat washing events at launches across the state. And thirdly, they have the Reduce <u>Invasive</u> Pet and Plant Escpaes initiative, which helps people to find different ways of dealing with unwanted plants and aquatic animals other than releasing them into the nearest body of water.

MSU Extension has also been connected with more groups and non-profits like Exotic Aquatic Plant Watch, a citizen science program aimed at the early detection of aquatic <u>invasive</u> plants. These citizen-based groups are invaluable to the study of <u>invasive species</u>, according to Bockelman.

"Citizens provide valuable data on first sightings which lets scientists and conservationists act quickly and successfully on the control of *invasive species*," she said.

Boaters and anglers can also do their part by practicing the clean, drain, dry, dispose of steps for their boats, said Bockelman, helping to stop the spread of *invasive species*.

While <u>invasive species</u> in Michigan aren't as prevalent now as they were before, citizens and scientists should still be on the lookout for <u>invasive species</u> in our waters.

"<u>Invasive species</u> continue to pose both short and long-term concerns for Michigan's waterways," Bockelman said. "There is always a threat of new <u>species</u> entering the state from neighboring areas or international water bodies, such as the looming threat of Asian carp **species**."

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Load-Date: March 15, 2022



The Pioneer: Web Edition Articles (Big Rapids, MI)

March 25, 2022

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Section: NEWS

Length: 820 words

Byline: Cathie Crew, STAFF WRITER

Body

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The outreach portion of the program will consist of getting the message out there and making it cool to clean your vehicle before you go home, because it is often a matter of tiny seeds in the mud on your vehicle that can spread the *invasive species*, Sawicki said.

"We want to get the message out there in as many ways as we can," she said. "Part of it will be billboard messaging, and we are going to try to get refrigerator magnets in rental units and Airbnbs. We will put posters in park stores, liquor stores and gas stations all the places that ORV'ers need to go that are recreating in that way.

"And then we will be going back to the bars," she added. "We will be hosting <u>invasive species</u> trivia nights and there will be prizes, such as gift certificates to car washes to wash their vehicles."

In addition, she said, they will be starting a hashtag movement something like #bringithomeclean where people can post a photo of the ORV muddy and a photo of it clean and there will be prizes for that, as well.

SURVEYING THE TRAILS

Once the outreach program is complete, a second survey will be conducted to determine the effectiveness of the program, Sawicki said.

A large component of the grant will involve surveying the 527 linear miles of ORV trails for <u>invasive species</u>, Sawicki said. The results of that survey will be used to create educational signs to inform trail users.

"We will make signs to go at the trailheads of each trail to inform riders of the locations of the <u>invasive species</u> and what they look like so that they can try to avoid them," she said. "We will also have information about the nearest car washes to the trail."

This region is a destination for ORV users because of its many great trails. Maintaining quality trails and healthy native ecology are both critical to this area, for keeping businesses that depend on this area being a destination for ORV users, and also for hunting, fishing and wildlife viewing, as well as to maintain the expected quality of life for area residents, Sawicki said in the news release.

Whenever trail riders encounter <u>invasive species</u>, they can report it by using the Midwest <u>Invasive Species</u> Information Network, she said.

"They have a free phone app that wherever you are, if you see an <u>invasive species</u>, you stand next to it and press a couple of buttons," Sawicki said. "This is where we pull the data for our grant writing. This information helps us inform our decisions."

Sawicki said the program is still in the planning stages and that the bar trivia will likely take place during the free ORV weekends, which are in June and August. The first one is planned for August 2022.

Load-Date: March 25, 2022



Interior revives invasive species advisory panel

Greenwire

January 24, 2022 Monday

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Section: TODAY'S STORIES; Vol. 10; No. 9

Length: 533 words

Body

By Michael Doyle The Interior Department is replanting an <u>Invasive Species</u> Advisory Committee that the Trump administration yanked out by the roots. Following up on President Biden's formal revival of the panel last September, Interior today announced it will be appointing up to 20 members to the committee that will provide expert advice to inform federal government activities related to <u>invasive species</u>. "<u>Invasive species</u> pose a significant threat, and sometimes cause irreversible damage, to the ecological, economic and cultural integrity of America's lands and waters, and they can reduce the resilience to climate change of natural habitats, agricultural systems and urban areas," Interior Secretary Deb Haaland said in a statement.

Haaland added that "because controlling them can be a complex, expensive, and long-lasting effort, we seek the expertise of stakeholders to help us successfully resolve or forestall invasive species impacts." In particular, the committee provides advice to support the National *Invasive Species* Council, an interagency body that is supposed to coordinate and expand federal efforts to prevent, eradicate and control *invasive species*. The NISC is made up of the senior leadership of 12 federal departments and agencies and four executive offices. The co-chairs of NISC are the secretaries of the Interior, Agriculture and Commerce departments. The advisory committee was active for nearly two decades, until the Trump administration defunded and disbanded it in 2019. The move was part of a larger campaign to reevaluate - and in some cases shrink - the role of advisory committees. By some estimates, invasive species cause about \$120 billion in environmental damages and losses annually in the United States. They can squeeze out native species, accelerate wildfire threats, undermine infrastructure and increase the cost of delivering water and power. Interior said the committee will "consist of up to 20 members who will have a broad range of expertise and stakeholder interests." These would include people from nonfederal government agencies, academia, industry associations and public interest groups, among others. Ex officio members from several national organizations and associations engaged in addressing *invasive species* and their impacts may also be appointed. In a sweeping executive order that covered multiple federal agencies last September, Biden also reestablished advisory committees for the Grand Staircase-Escalante, Bears Ears and Gold Butte national monuments, among others. An executive order in the Trump administration's first year ordered the elimination of "at least" a third of advisory committees established under the Federal Advisory Committee Act. Trump's order also capped the total number of advisory bodies across the government at 350. That marked a sharp decrease from approximately 1,000 total committees at federal agencies at any given time, according to the General Services Administration (Greenwire, June 17, 2019). At the time, the Interior Department had more than 100 discretionary and mandatory committees - from the Aquatic Nuisance **Species** Task Force to the National Wild Horse and Burro Advisory Board.

Load-Date: February 21, 2022



\$50K grant to fight invasive species in Red Run Drain received

The Macomb Daily (Michigan)

April 11, 2022 Monday

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Section: NEWS

Length: 606 words

Byline: Jameson Cook

Body

A \$50,000 grant will help local water officials combat <u>invasive species</u> and restore native vegetation in the Red Run Drain in Warren and Sterling Heights.

The Six Rivers Land Conservancy in Rochester Hills received the grant from the U.S. Forest Service Great Lakes Initiative to improve the 8.2-long-long drain that starts in Oakland County and flows into Macomb County.

The project's goal is to restore resilience to the Drain by blocking and controlling <u>invasive species</u>, environmental officials said in a news release. That will help increase biodiversity and enhance watershed stability and wildlife habitat for <u>species</u> such as the Great Blue Heron and Northern Map Turtle, officials said. It will also allow the officials to monitor what is taking place.

The activities will be managed by the Lake St. Clair Cooperative <u>Invasive Species</u> Management Area, which has been preparing for several weeks and will begin eradication efforts in May, said Kirsten Lyons, CISMA director.

The CISMA, which also operates in Rochester Hills, will contract with an expert who will spray herbicide in specific areas, Lyons said.

"We will be starting in early May as the *invasive species* break dormancy and start to grow," she said.

She said the Red Run has a high number and volume of <u>invasive</u> plant life because of its environs, its relatively long length and water flow.

"It's kind of in an urban area and it is a long drain with so many spots for seed input," she said. "It's a flowing waterway so the seeds drop in and flow downstream."

The efforts will occur in Macomb County because the Oakland portion of the Red Run Drain is mostly underground and has a different environment, she said.

Prevention and eradification activities will take place this year, and restoration will take place next year, she said.

In addition to Six Rivers and the CISMA, stakeholders include the Macomb County Public Works Office, Oakland County Resources Commission and Red Run Inter-County Drainage Board. Six Rivers is the fiduciary for the the CISMA.

\$50K grant to fight invasive species in Red Run Drain received

"This project will improve the ecology of the Red Run Drain, including water quality," said Macomb County Public Works Commissioner Candice S. Miller.

Chris Bunch, Six River's executive director said: "*Invasive species* degrade natural habitat. Through its support of the Lake St. Clair CISMA, Six Rivers is improving the natural value of lands in southeastern Michigan. Thanks to this funding, the Lake St. Clair CISMA will continue to expand the reach of the program and educate the public about *invasive species* impacts."

Red Run provides drainage for approximately 91,145 acres of Southeast Michigan, officials said.

The project also will engage communities and residents surrounding the Red Run and its drainage area through education and outreach activities about <u>invasive species</u> identification, impacts, management and restoration, officials said. Integrated best management practices, prevention and identification resources will be made available to keep a more people engaged and knowledgeable in practical applications to strengthen their natural communities, they said.

Following is a list of *invasive species* and the anticipated months of application:

Poison Hemlock - May

Garlic Mustard - May or June

Bull & Canada Thistle - June

Japanese Knotweed & Giant Knotweed, Yellow Clover - August

Phragmites, Reed Canary Grass - September

Japanese hops, Multiflora rose, Teasel, Wild Parsnip – September

The state of Michigan and the U.S. Forest Service awarded a total of \$5.5 million in grants to 47 projects across seven states to combat *invasive species* through the GLRI program in 2022, officials said.

Load-Date: April 12, 2022



Ulster boat launch to have invasive species inspections

Daily Freeman (Kingston, New York)

March 7, 2022 Monday

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Section: NEWS

Length: 372 words

Byline: William J. Kemble

Body

TOWN OF ULSTER, N.Y. – Town Board members agreed last week to allow a program to conduct voluntary boat inspections at Charles Rider Park in an effort to halt the spread of *invasive species*.

Supervisor James Quigley said after the Thursday meeting that Cornell Cooperative Extension has administered the Teatown Lake Reservation Watercraft Inspection Steward Program for the past six years.

"They basically set up an inspection station at Rider Park boat launch and they talk to the boat owners who come in and out of the Hudson River and educate them on the various coruscations that attach themselves to the bottom of the boat," he said.

In a letter, coordinator Brent Boscarino said someone would be at the launch two or three days per week for up to eight hours per day between May and October.

"These programs provide free voluntary boat inspections ... and remove any animal or plant material that is found," he wrote.

"The steward would also be there to teach basic plant identification and to answer any questions that boaters might have about aquatic *invasive species*," Boscarino wrote. "Our primary goal is to educate boaters, anglers, and all recreational users about aquatic *invasive species* and how clean boating practices can minimize their spread."

Boscarino noted that about 90% of boaters allow the inspections, which have been conducted on about 15,000 boats since 2015.

The Teatown Lake Reservation Watercraft Inspection Steward Program is part of the Lower Hudson Partnership for Regional *Invasive Species* Management.

Among concerns for the group has been the plant hydrilla, which is toxic for bald eagles, that was discovered in the Croton River during a 2013 rare plant survey. When a second survey was conducted in 2015, it had increased by 55% and had spread into the Hudson River.

The program's website at <u>www.lhprism.org/aquatic-invasive-species</u> list 161 plant and animals that are problematic to rivers, lakes and creeks in the region.

Ulster boat launch to have invasive species inspections

"Aquatic <u>invasive species</u> are plants or animals not native to our ecosystems and can threaten the ecology of our waterways, economy, or human health," it says. "These <u>species</u> are a huge threat to New York's waterways that can cost millions of dollars annually if ignored."

Load-Date: March 8, 2022



Pilot program enlists ORV users in invasive species fight

The Pioneer (Big Rapids, MI)

March 25, 2022 Friday

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Length: 818 words

Byline: Cathie Crew, Staff writer

Body

MECOSTA, OSCEOLA, LAKE COUNTY — The North Country Cooperative <u>Species</u> Management Area, which includes Mecosta, Osceola and Lake counties, has been awarded two grants totaling \$334,000 from the Michigan <u>Invasive Species</u> grant program.

The Mecosta County Conservation District will act as the fiduciary for the funding on behalf of NCCISMA, according to program coordinator Vicki Sawicki.

One of the grants for \$234,000 will fund a pilot program to engage off-road vehicle users in stopping the spread of *invasive species*, Sawicki said in a news release.

"This is a pilot program that will test the efficacy of our outreach efforts and see if the program has applications statewide," Sawicki told the Pioneer. "We think ORV'ers are a resource that hasn't been tapped into. We are seeing *invasive species* spread down trails and spread from one trail to another, and obviously no one wants that to happen, but many don't realize how it happens. So, a big part it is awareness. We think the ORV'ers, once they are empowered with the knowledge of identification of these *species*, will be our eyes into the deep regions of the forest."

The three-year program will consist of meeting ORV users where they are — sometimes that will be in local bars.

"We are starting with going to bars to talk to ORV'ers," Sawicki said. "We have been challenged in the past to find the audience. We know they are out there, we know the numbers are huge. It is one of the biggest outdoor recreations in the state judging by the number of permits the state sells.

"We have tried to reach them by staging outreach at trailheads, but the problem is many people do not go to the trailheads. They don't have to because they can go straight from their cabin to the trail," she continued. "We would go to the trailheads, and as we would leave, we would drive the bars nearby and there would be a bunch of ORVs. So, this was born out of the question of how we reach that audience."

The program will involve interviewing ORV users to get their opinion about how to reach out to that cohort. There will also be a survey shared on Facebook pages and other sites where ORV groups post that will measure the current level of awareness, knowledge and attitudes about *invasive species* among trail users, Sawicki said.

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Pilot program enlists ORV users in invasive species fight

"We want to get the message out there in as many ways as we can," she said. "Part of it will be billboard messaging, and we are going to try to get refrigerator magnets in rental units and Airbnbs. We will put posters in park stores, liquor stores and gas stations — all the places that ORV'ers need to go that are recreating in that way.

"And then we will be going back to the bars," she added. "We will be hosting *invasive species* trivia nights and there will be prizes, such as gift certificates to car washes to wash their vehicles."

In addition, she said, they will be starting a hashtag movement — something like #bringithomeclean — where people can post a photo of the ORV muddy and a photo of it clean and there will be prizes for that, as well.

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Sawicki said the program is still in the planning stages and that the bar trivia will likely take place during the free ORV weekends, which are in June and August. The first one is planned for August 2022.

Load-Date: April 7, 2022



Battle vs. invasive species

Prairie Post

January 28, 2022 Friday

Final Edition

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Section: NEWS; Pg. D9

Length: 906 words

Byline: Anna Smith, Prairie Post East

Body

From moss balls to herds of wild swine, the Alberta <u>Invasive Species</u> Council is looking forward to another year of taking a stand against destructive wildlife.

The Alberta <u>Invasive Species</u> Council is hard at work preparing for their annual conference, said Megan Evans, Executive Director. The weeklong virtual event hosts a series of talks on new and pressing issues that were seen over the course of 2021, and what members should be on the lookout for in the new year.

"It's \$100 to attend for members. We will have pesticide applicator credits available for those certified pesticide applicators that can be a really helpful aspect of their professional development. And we're going to have a really strong agenda, we're going to have a draft agenda posted right away, but we have sessions on aquatic <u>invasive species</u>," said Evans. "For example, this past year, there was a fiasco with contaminated moss balls. So they're these aquarium plants that people can buy."

These moss balls, also known as marimo, were found to be contaminated with <u>invasive</u> zebra mussels early on in 2021 while being sold in pet stores across the country. Those who had purchased them were advised to freeze, boil, or bleach the plants to kill them prior to disposing of them to prevent the small mussels from escaping into the waterways.

"This was an absolute disaster and like a pathway of introduction that was totally unexpected. So we're going to hear all about Alberta's response and how they plan to deal with that potential introductory pathway moving forward. We're going to hear a bunch of different talks on the economic impacts of *invasive species*," said Evans. "We know that *invasive species* are a major risk to Alberta's economy and our environment. And so we're going to get some numbers on those economic impacts. We're going to hear about the latest research in biological control, which is the use of insects that originate where these *invasive* plant *species* originate.

That researchers study to make sure they're host specific, and they're not going to get away on us. And we have two potential agents being researched to address common tansy and oxeye daisy, which are two major problems in Alberta, so getting some more options for control of those **species** is going to be really great."

Talks on chronic wasting disease, as well as exotic diseases found in fish in Montana are also being included, as well as three separate presentations in regards to the wild pig populations of Alberta and how these animals are being dealt with in the counties where they've been spotted.

Battle vs. invasive species

"It's gonna be a really good event. And there's so much to take in. And we know that everybody's schedules are all over the place. But for all of the people that register for the conference, we will record the sessions and then make them available to all registrants after so they can watch them on demand at a later date should they choose to do so. So that's our conference," said Evans.

In addition to the conference, AB Invasives has a few webinars in the early stages of planning that Evans is excited to bring forward for everyone interested.

"This will be a free event for everybody, and it's going to talk about our Squeal on Pigs campaign. So that is also focused on the issue of wild boar at large in Alberta. So we have these feral pigs or that we refer to as wild boar at large, that are on the landscape and that are very problematic. So we're going to hear about Alberta's approach to addressing them, we're going to hear from university researchers and we're going to try to secure a speaker from down in the states where they've been dealing with these things for literally hundreds of years. And, and get an understanding of you know, the situation down there and what the approach is. So that's going to be a really good event," said Evans.

Other topics for their webinars include information on Alberta's Weed Free Forage program, which they hope to revitalize, allowing for producers to get their fields inspected and possibly certified as weed free, and tap into a market for forage free of noxious or *invasive species*.

"We know there's a market for this certified weed free product, we know national parks make it a requirement for anyone bringing forage on to their land," said Evans. "The same should be the case for public land. And you know, for a lot of landowners who don't want surprises, and therefore it, they should be requiring this as well."

In addition, AB Invasives will be putting focus into their "Don't Let It Loose" campaign, reminding pet owners not to release any aquatic life into stormwater retention ponds or other waterways. This is partially in response to the moss balls from earlier this year, but also with a much more mundane issue: goldfish.

"Not only are we concerned that these goldfish can, you know, potentially survive and reproduce in our natural water bodies, but they could also spread diseases to our native fish, which would be a big problem or desirable fish that we want to have in those systems. The messaging needs to get out to don't let it loose. People need to not release any aquarium pets or plants into the wild," said Evans.

"Invasives are considered the second biggest threat to biodiversity after habitat loss. And a 2004 estimate in Alberta suggests that basic <u>species</u> were costing Albertans a billion dollars a year then. So there is a real serious issue, they have tremendous impacts," said Evans.

Graphic

/ (See hardcopy for photo);

Load-Date: January 28, 2022



Prevention strategies for invasive species could save trillions

IANS-English

February 10, 2022 Thursday

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TANGERINE 凝 🍮

Length: 654 words

Dateline: New Delhi, 2022-02-10 14:08:00

Body

New Delhi, Feb 10 (IANS) A new research has found that the damage costs by <u>invasive species</u> are at least 10 times the management expenditure and that their prevention could save trillions.

The research shows that since 1960, the global management of <u>invasive species</u> has cost at least 74 billion pounds (\$95 billion, in 2017 values) worldwide. In comparison, damage costs were calculated to be at least 878 billion pounds (\$1,131 billion) over the same 60-year period.

This has caused huge losses to both agriculture and forestry sectors through production declines, infrastructural damages, as well as damage to healthcare systems through the spreading of diseases.

Human activities cause the spread of <u>invasive species</u>. Humans may deliberately move animals and plants around for several reasons, including hunting, to keep as pets and horticultural specimens, or for pest control.

It can also be unintentional, for example, when <u>species</u> wash up on shores on human-made objects or through cargo and other transport.

<u>Invasive species</u> are a significant threat to biodiversity and have a harmful effect on ecosystems, including changing habitats and starving native animals of food and resources.

Until very recently, there has been limited research into the economic impacts of *invasive species*.

The study, published in Science of the Total Environment, highlights the huge economic burden of <u>invasive</u> <u>species</u>. Compared to 878 billion pounds in damage costs, only 74 billion pounds was spent on managing <u>invasive</u> <u>species</u>, of which merely 2.1 billion pound was spent proactively on prevention measures.

The vast majority of the management bill, 56 billion pounds (\$73 billion), was spent on control or eradication measures, which are often only conducted once **invasive species** have become well established.

The research also estimated that the average management delay observed across all <u>species</u> (11 years) resulted in the payment of over a trillion extra costs compared to a situation where all <u>invasive species</u> were managed immediately.

Prevention strategies for invasive species could save trillions

Ross Cuthbert, lead researcher from the School of Biological Sciences at Queen's University Belfast, explains: "It is unsurprising that delays to management have cost hundreds of billions of pounds.

"By the time we see the impact that <u>invasive species</u> are having on the environment, it is often too late as they have already established and spread widely. It is difficult to convince decision makers to invest in something that is not yet a problem, but our research clearly shows the value in taking a preventative approach.

"We've seen an annual increase in spending towards management of <u>invasive species</u>, with over \$3.3 billion spent in 2020 worldwide. Investing earlier to prevent or control biological invasions before <u>invasive species</u> spread uncontrollably could save trillions on a global scale.

"It goes without saying that this would also be of huge benefit to preserving our ecosystems. Conservation strategies should focus on how to intervene efficiently at an early stage to prevent *invasive species*."

The research team, which involved 17 institutions worldwide, constructed and used a new, global database compiling economic costs caused by *invasive species* allowing for relevant comparisons across different scales and contexts.

Unlike previous studies, the team quantified costs according to different management types using this database at a global scale.

They also developed and applied a new model to predict the additional costs of management delay with the available data.

The team hopes that the findings will stimulate more timely management of biological invasions, save money while supporting ecosystem conservation.

Cuthbert said: "Once <u>invasive species</u> have established and are spreading, it can be difficult to eradicate them. Delayed control measures are often not only costly, but are also frequently unsuccessful in the long-term."

--IANS vg/sks/ksk/

Load-Date: February 10, 2022



Protections proposed for coastal herb assailed by invasive species

Greenwire

March 21, 2022 Monday

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Section: TODAY'S STORIES; Vol. 10; No. 9

Length: 857 words

Body

By Michael Doyle Eight years after receiving a petition, the Fish and Wildlife Service today proposed Endangered <u>Species</u>. Act protections for a rare coastal herb called the sand dune phacelia. Besieged by <u>invasive species</u>, the federal agency declared that the native herb, which lives on the southern Oregon and Northern California coasts, deserves listing as a threatened <u>species</u> along with the designation of 252 acres as critical habitat. "The primary threat currently acting upon sand dune phacelia populations is that of <u>invasive species</u>, which is expected to continue impacting the <u>species</u> into the future," the Fish and Wildlife Service said. Other potential threats stem from sea-level rise, coastal development, off-road vehicle use and human trampling, among others.

None of these, though, compare to invasive species. A 2017 survey documented 16 sites in Oregon and 10 in California, with the plant inhabiting open sand above the high tide line, as well as further inland on semi-stabilized and open dunes and on coastal bluffs. Currently, approximately 33,858 naturally occurring sand dune phacelia plants exist along about 100 miles of coast Invasive species including European beachgrass and gorse outcompete the sand dune phacelia throughout its range. European beachgrass was introduced to the Pacific Northwest and California in the 1800s. An aggressive perennial, it was intended to stabilize sand and build dunes parallel to the shore to protect roads and buildings from ocean storms and tides. It's good at that job, but the Fish and Wildlife Service noted that it also "captures sand with its deep roots and spreading shoots, forming dense monocultures of grass that outcompete many native dune species, including sand dune phacelia, for growing space, sunlight, and moisture." "According to population surveys conducted in California, European beachgrass poses the most consequential threat to sand dune phacelia populations in that state," FWS said. Gorse is an introduced spiny shrub that, as FWS reports, "forms impenetrable thickets that overtake dune habitats." FRS also describes gorse as "highly flammable" and says it "produces copious amounts of seed that can persist in the environment for 30 years or more." Both invasive species are part of a larger problem for which the Interior Department is mobilizing anew. Earlier this year, Interior revived an *Invasive Species* Advisory Committee that had been eliminated by the Trump administration. Interior will be appointing up to 20 members to the committee, which will provide expert advice to inform federal government activities related to *invasive species* (Greenwire, Jan. 24). In particular, the committee advises the National *Invasive Species* Council, an interagency body that is supposed to coordinate and expand federal efforts to prevent, eradicate and control invasive species. The advisory committee was active for nearly two decades, until the Trump administration defunded and disbanded it in 2019. By some estimates, invasive species cause about \$120 billion in environmental damages and losses annually in the United States. They can squeeze out native species, accelerate wildfire threats, undermine infrastructure and increase the cost of delivering water and power. And they hurt the sand dune phacelia, which is also called the silvery phacelia. Environmental groups petitioned FWS to protect the phacelia in 2014, noting at the time that the plant's flowers provide nectar and pollen for bees and that research that found that the number of bees and the variety of bee species were higher when the plant was present (E&E News PM, March 7, 2014). It had been a

Protections proposed for coastal herb assailed by invasive species

candidate for ESA protections in 1990, but FWS dropped it from the list in 1996. "Protecting silvery phacelia will not only ensure a future for this one plant <u>species</u>, but will also help safeguard our coastal environment for the quiet enjoyment of humans and for other rare <u>species</u>," Doug Heiken, conservation and restoration coordinator at Oregon Wild, said when the petition was filed in 2014. The plant is listed as a threatened <u>species</u> under Oregon law. In California, it is considered a sensitive <u>species</u>, though it is not listed under the state's endangered <u>species</u> law. Other groups that signed on to the petition are the Center for Biological Diversity, Friends of Del Norte, the Oregon Coast Alliance, the Native Plant Society of Oregon, the California Native Plant Society, the Environmental Protection Information Center and the Klamath-Siskiyou Wildlands Center. Most populations of sand dune phacelia occur on public lands where protections are in place. The two primary private land parcels that currently support sand dune phacelia are the Pacific Shores subdivision in California and the Bandon Dunes Golf Resort in Oregon. Seventy-five percent of the undeveloped, privately owned lots at Pacific Shores have been acquired by the California Department of Fish and Wildlife for inclusion into a conservation area. At the Bandon Dunes Golf Resort, FWS said, "a stated goal of the conservation-minded owner is to protect and enhance the sand dune phacelia population there."

Load-Date: April 18, 2022



Prevention strategies for invasive species could save trillions

MENAFN - Business & Finance News (English)
February 10, 2022 Thursday

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Length: 658 words

Body

Link to Story

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<u>Invasive species</u> are a significant threat to biodiversity and have a harmful effect on ecosystems, including changing habitats and starving native animals of food and resources.

Until very recently, there has been limited research into the economic impacts of *invasive species*.

The study, published in Science of the Total Environment, highlights the huge economic burden of <u>invasive</u> <u>species</u>. Compared to 878 billion pounds in damage costs, only 74 billion pounds was spent on managing <u>invasive</u> <u>species</u>, of which merely 2.1 billion pound was spent proactively on prevention measures.

Prevention strategies for invasive species could save trillions

The vast majority of the management bill, 56 billion pounds (\$73 billion), was spent on control or eradication measures, which are often only conducted once *invasive species* have become well established.

The research also estimated that the average management delay observed across all <u>species</u> (11 years) resulted in the payment of over a trillion extra costs compared to a situation where all <u>invasive species</u> were managed immediately.

Ross Cuthbert, lead researcher from the School of Biological Sciences at Queen's University Belfast, explains: 'It is unsurprising that delays to management have cost hundreds of billions of pounds.

By the time we see the impact that <u>invasive species</u> are having on the environment, it is often too late as they have already established and spread widely. It is difficult to convince decision makers to invest in something that is not yet a problem, but our research clearly shows the value in taking a preventative approach.

'We've seen an annual increase in spending towards management of <u>invasive species</u>, with over \$3.3 billion spent in 2020 worldwide. Investing earlier to prevent or control biological invasions before <u>invasive species</u> spread uncontrollably could save trillions on a global scale.

'It goes without saying that this would also be of huge benefit to preserving our ecosystems. Conservation strategies should focus on how to intervene efficiently at an early stage to prevent *invasive species*.'

The research team, which involved 17 institutions worldwide, constructed and used a new, global database compiling economic costs caused by <u>invasive species</u> allowing for relevant comparisons across different scales and contexts.

Unlike previous studies, the team quantified costs according to different management types using this database at a global scale.

They also developed and applied a new model to predict the additional costs of management delay with the available data.

The team hopes that the findings will stimulate more timely management of biological invasions, save money while supporting ecosystem conservation.

Cuthbert said: 'Once *invasive species* have established and are spreading, it can be difficult to eradicate them. Delayed control measures are often not only costly, but are also frequently unsuccessful in the long-term.'

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Load-Date: February 10, 2022



Aberdeen Township bans planting of invasive species

The Independent (Middletown, New Jersey)

March 30, 2022

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Section: INDEPENDENT

Length: 475 words

Byline: TYLER BROWN

Body

ABERDEEN – The members of the Township Council have adopted ordinances that will address the issue of *invasive* plants and provide volunteer incentives for members of fire companies and first aid squads in Aberdeen Township.

During a March 17 meeting, council members unanimously voted "yes" on separate motions to adopt the two ordinances. Mayor Fred Tagliarini was absent from the meeting.

According to municipal officials, ordinance No. 2-2022 was adopted as a preventative measure to protect the township's property and native plants from <u>invasive</u> plant <u>species</u>.

The ordinance states that due to the proximity of homes and businesses, the planting of <u>invasive species</u> poses a threat to private and public property. The ordinance aims to control and limit the spread of bamboo and other intrusive plants.

"The township seeks to prohibit any new plantings of bamboo and other <u>invasive species</u>, and to establish standards to govern existing ... <u>invasive species</u> ... to better protect native <u>species</u> and surrounding property owners.

"The purpose of this ordinance is to preserve and protect private and public property from the damaging spread of bamboo and other <u>invasive</u> plants and to protect indigenous plants and the wildlife they support from the spread of <u>invasive</u> plants from any neighboring property line," the ordinance states.

The council members also adopted ordinance No. 3-2022, which provides incentives for volunteer first responders who are in good standing.

The ordinance states that "a member in 'good standing' is hereby defined as an active member or active life member volunteer who has served at least one year of continuous service in his respective company or squad or has been certified, in writing, by the chief executive officer of his respective company or squad to have served the required percentage of activity or participation to qualify as a bona fide member of such organization.

"A member in good standing ... shall be entitled to certain benefits within the township as follows ... Exemption from payment up to \$500 per year for township fees for certain activities, licenses, permits and rentals, provided the

Aberdeen Township bans planting of invasive species

fee is for the personal and nonprofit use of the member in good standing or a member of his immediate family residing in the same household."

Township Manager Bryan A. Russell said the council's adoption of the ordinance is a token of appreciation that acknowledges and rewards volunteer first responders in Aberdeen.

"It gives an incentive to volunteer first responders who give back their time to the township, which the mayor and council are extremely grateful for. This is an exemption of payment of up to \$500 per year for certain licenses or permits issued by the township. As it has been, the volunteer member must be in good standing (as reported) by both fire companies and Bayshore EMS," Russell said.

Load-Date: April 2, 2022



Ind. Cooperative Agreements Make \$100,000 Available for Invasive Species Control

Targeted News Service

April 5, 2022 Tuesday 12:37 PM EST

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Length: 322 words

Byline: by MYRA TUGADE, Targeted News Service

Dateline: WASHINGTON

Body

WASHINGTON, April 5 -- The U.S. Department of Agriculture's Natural Resources Conservation Service announced that it expects to award up to two cooperative agreements for <u>invasive species</u> control in the Indiana portion of Great Lakes watersheds.

The agency description of the cooperative agreement states: "The Natural Resources Conservation Service (NRCS), an agency under the U.S. Department of Agriculture (USDA), is announcing availability of funding to assess the impact of prior *invasive species* funding on agriculture and forested lands, and develop workplans for continued control if needed. This work will be conducted in the Indiana portion of the Great Lakes watersheds.

Awardees will work cooperatively with NRCS to conduct site visits with landowner permission of sites previously funded for <u>invasive species</u> control, assess current conditions, and create plans if needed for continued treatment/maintenance. Applicants must have knowledge of <u>invasive species</u> identification, native <u>species</u> identification, forest management, GIS mapping, developing treatment recommendations, and good communication skills."

The estimated total program funding available was cited as \$100,000. The categories of funding activity are a) agriculture, b) environment and c) natural resources.

The funding opportunity (USDA-NRCS-IN-CTA-22-NOFO0001175, CFDA 10.902), was posted on April 1 with an application closing date of May 31.

For more information, contact Shynika E. Loften, shynika.loften@usda.gov

[Category: CoopAgree]

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Load-Date: April 5, 2022



Invasive species: Nelson to increase penalties and education

Nelson Star February 28, 2022

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Section: NEWS

Length: 693 words

Body

Should the penalties for failing to remove <u>invasive species</u> from Nelson private property be stiffer? How thoroughly are the present regulations enforced?

Is the city doing enough to control weeds on municipal property?

These questions arose at a Feb. 22 meeting at which Nelson City Council heard a presentation by Erin Bates, executive director of the Central Kootenay *Invasive Species* Society (CKISS).

An <u>invasive</u> animal or plant <u>species</u> is one that causes economic, environmental or social harm in an environment where they are not native. They are known for destroying complex ecosystems by crowding out all other <u>species</u>.

<u>Invasive</u> plants clog waterways, destroy natural ecosystems including rare and endangered <u>species</u>, destroy natural wildlife and fish habitat, increase wildfire danger, increase soil erosion, degrade water quality and decrease land values.

In 2021 the CKISS did a baseline inventory of all <u>invasive</u> plant infestations in the city. The resulting map, which Bates presented to council, shows 32 infested sites located within the city limits but not on private property. These include the city's public works yard, its gravel storage yard, and Nelson Hydro's generating facility. The latter hosts a serious infestation of Scotch broom, Bates said.

The city intends to develop a five-year management plan jointly with CKISS starting this year. It will update regulations and enforcement as well as increase training for city staff and the community.

Bates recommended using the District of Squamish's bylaw as a model. That municipality has prohibited the sale, spread, and cultivation of *invasive species* and instituted a penalty of \$10,000.

Nelson's current penalty for not controlling *invasive species* is \$250 and it has no rules against selling them.

<u>Invasive</u> plants such as flowering rush, periwinkle, English ivy, yellow archangel, mountain bluet, and yellow flag iris are often spread by gardening and water landscaping.

Bates said Nelson is moving in the right direction and is far ahead of many municipalities in the province.

She suggested incentive programs such as a subsidy for landowners to eradicate weeds on their properties to offset the onerous cost of hiring a herbicide contractor.

Invasive species: Nelson to increase penalties and education

The most high-priority <u>species</u> for eradication in Nelson is knotweed. It's the worst <u>invasive species</u> worldwide, and Bates said eradicating it from Nelson should be an immediate goal. The removal of <u>invasive species</u> is a goal stated in Nelson's Official Community Plan.

Knotweed can grow through concrete and reach several metres in height. It can damage concrete walls, pavement, bridge and building foundations, drainage works, and flood prevention structures.

Bates said knotweed is followed in destructiveness in the Kootenays by heart-podded hoary cress, bighead knapweed, blueweed, teasel, yellow iris, cutleaf blackberry, Scotch broom, hoary alyssum, and common tansy.

Eradication of <u>invasive species</u> on city property only goes so far, she said. Private property owners need to act as well.

"It does not matter if you manage it on property A if it is still on property B. Long-term management suffers, so owners have to co-operate to manage their sites effectively."

City parks and trails should be a priority because of the potential spread by people and dogs, she said.

Small areas of <u>invasive species</u> can be eradicated by hand or mechanical means but with some <u>species</u>, such as knotweed and tansy, these methods make the problem worse and so the plants need to be treated with herbicides, Bates said.

The City of Nelson has informed the Nelson Star by email that it uses the herbicide Milestone, applied by a licensed contractor, and only for knotweed.

Meanwhile, the Regional District of Central Kootenay plans to develop a management plan for <u>invasive species</u> in its rural areas, and an inventory of infested sites on RDCK land will be done this year.

The second-last paragraph of this article was altered on March 1 to add the name of the herbicide.

Related:

□ <u>Invasive</u> plant <u>species</u> for sale in Kootenay region
☐ Nelson to remove <i>invasive</i> knotweed
bill.metcalfe@nelsonstar.com
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Load-Date: March 1, 2022



Drink up, and learn about invasive species in Northern Michigan

Capital News Service: Michigan State University (MI)

March 18, 2022 Friday

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Section: ARTS & ENTERTAINMENT

Length: 545 words

Byline: JACK FALINSKI, CAPITAL NEWS SERVICE

Body

LANSING When you think of common spots to learn about Michigan's <u>invasive species</u>, some that come to mind are schools, museums, zoos and aquariums.

Not bars ... or at least not until now.

A new project in Northwest Michigan will bring awareness to the impact of off-road vehicles (ORVs) in transporting *invasive species* from one area to another.

These lessons won't be taught just on the trails, though.

"In our area, there's a certain number of bars and restaurants that really cater to ORV recreationists, so we would be leaving our ORV trailhead event where we talked to 11 people, and we'd drive by a bar where we saw 50 ORVs," said Vicki Sawicki, the program coordinator for the North Country Cooperative *Invasive Species* Management Area, headquartered in Cadillac.

"Now, we're going into those bars and doing *invasive species* trivia and giving cool prizes," Sawicki said.

Earlier this month, the state awarded \$3.6 million in grants to 31 invasive species projects.

The fledgling ORV program received \$234,400 and will serve Lake, Mason, Mecosta, Missaukee, Osceola and Wexford counties.

As with boats being moved from one body of water to another, Sawicki said riders should wash their vehicles after traversing trails that can go deep into the backcountry. That can prevent any lingering invasives, like garlic mustard or wild parsnip, from catching a ride to another part of the state.

"It's kind of a badge," Sawicki said. "People like getting their vehicles all muddy. It shows what a wild time they had on the trail.

"But it's really risky to take that mud home."

In addition to trivia games at local bars, Sawicki said project members will survey 500 miles of trails in the six counties to look for *invasive species*, plant signs along trails indicating where local car washes are and create a hashtag movement to engage communities in safe trail practices.

Drink up, and learn about invasive species in Northern Michigan

Joanne Foreman, the communications coordinator for the <u>Invasive Species</u> Program with the Michigan Department of Natural Resources, said such programs are important because they can be implemented further throughout the state if they're successful..

Michigan has 21 regional cooperative <u>invasive species</u> management areas, or CISMAs, that serve all 83 counties.

Collaboration among these regional agencies, Foreman said, has increased research, engagement and awareness of *invasive species*.

"The nice thing about the grant program and the CISMAs themselves is that they share results," Foreman said. "I'm sure that North Country CISMA, as their project progresses, it's going to be sharing what it's doing with all the other 20 in the state."

The program started in 2014 when the Legislature provided it with \$5 million. Since then, it has garnered \$29 million to support 202 projects and has allowed recipients to survey over 548,000 acres, treat over 44,000 acres infested by invasives and directly contact more than 257,000 people about ways to prevent transmission.

Foreman said the goals of these grants remain funding research, promoting outreach and education and enhancing the work of local CISMAs, which she described as "boots on the ground" for controlling *invasive species* in Michigan.

The post Drink up, and learn about *invasive species* in Northern Michigan appeared first on Spartan Newsroom.

Load-Date: March 19, 2022



Youths encouraged to enter California Invasive Species art contest

Corning Observer (California) February 15, 2022 Tuesday

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Section: STATE AND REGIONAL NEWS

Length: 419 words

Byline: Corning Observer, Calif.

Body

Feb. 15—The California Department of Fish and Wildlife (CDFW)if hosting its ninth annual California <u>Invasive</u> <u>Species</u> Youth Art Contest. This year's theme, "Unite to Fight <u>Invasive Species</u>," reflects the need for all Californians to work together to prevent the spread and impacts of <u>invasive species</u>.

"The Youth Art Contest is an opportunity for students to combine science with artistic expression while learning about an important environmental issue," said Elizabeth Brusati, an environmental scientist with CDFW's <u>Invasive Species</u> Program. "We want young people to look for ways to stop the spread of <u>invasive species</u>. Helpful actions could include choosing native plants for landscaping, not releasing unwanted pets into the wild, reporting <u>invasive species</u> sightings and cleaning clothing and gear to prevent unintentionally moving organisms from one location to another."

The contest is offered by CDFW's <u>Invasive Species</u> Program in conjunction with California <u>Invasive Species</u> Action Week, which is June 4-12.

There are three age divisions for youths — grades 2-4, 5-8 and 9-12. All types of media are welcome and encouraged, including, but not limited to, drawings, paintings, animations, comic strips, videos and public service announcements. Entries must reflect the 2022 theme, "Unite to Fight *Invasive Species*."

The top three winners in each division will receive awards and have their entries announced on CDFW's social media.

Additional details and inspiration, including prior year's winning entries can be found on the CDFW website.

The deadline for art contest entries is April 1. Completed entries and entry forms should be submitted electronically. Submission instructions can be found on the CDFW website.

The goal of California <u>Invasive Species</u> Action Week is to increase public awareness of <u>invasive species</u> issues and encourage public participation in the fight against California's <u>invasive species</u> and their impacts on our state's natural resources and biodiversity.

The mission of CDFW's *Invasive Species* Program is to reduce the impacts of *invasive species* on the wildlands and waterways of California. The program is involved in efforts to prevent the introduction of these *species* into the

Youths encouraged to enter California Invasive Species art contest

state, detect and respond to introductions when they occur, and prevent the spread of those **species** that have established.

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Load-Date: February 18, 2022



-Prevention strategies for invasive species could save trillions

M2 PressWIRE

February 10, 2022 Thursday

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Length: 657 words

Body

February 10, 2022

Release date- 09022022 - New research has found that the damage costs by <u>invasive species</u> are at least ten times the management expenditure and that their prevention could save trillions.

The research shows that since 1960, the global management of <u>invasive species</u> has cost at least GBP74 billion (\$ 95 billion, in 2017 values) worldwide. In comparison, damage costs were calculated to be at least GBP878 billion (\$ 1,131 billion) over the same 60 year period. This has caused huge losses to both agriculture and forestry sectors through production declines, infrastructural damages, as well as damage to healthcare systems through the spreading of diseases.

Human activities cause the spread of <u>invasive species</u>. Humans may deliberately move animals and plants around for several reasons including hunting, to keep as pets and horticultural specimens, or for pest control. It can also be unintentional, for example, when <u>species</u> wash up on shores on human-made objects or through cargo and other transport.

<u>Invasive species</u> are a significant threat to biodiversity and have a harmful effect on ecosystems, including changing habitats and starving native animals of food and resources.

Until very recently, there has been limited research into the economic impacts of *invasive species*.

The study, published in Science of the Total Environment, highlights the huge economic burden of <u>invasive</u> <u>species</u>. Compared to GBP878 billion in damage costs, only GBP74 billion was spent on managing <u>invasive</u> <u>species</u>, of which merely GBP2.1 billion was spent proactively on prevention measures. The vast majority of the

-Prevention strategies for invasive species could save trillions

management bill, GBP56 billion (\$ 73 billion), was spent on control or eradication measures, which are often only conducted once <u>invasive species</u> have become well-established. The research also estimated that the average management delay observed across all <u>species</u> (11 years) resulted in the payment of over a trillion in extra economic costs compared to a situation where all **invasive species** were managed immediately.

Dr Ross Cuthbert, lead researcher from the School of Biological Sciences at Queen's University Belfast, explains: 'It is unsurprising that delays to management have cost hundreds of billions of pounds. By the time we see the impact that *invasive species* are having on the environment, it is often too late as they have already established and spread widely. It is difficult to convince decision makers to invest in something that is not yet a problem, but our research clearly shows the value in taking a preventative approach.

The research team, which involved 17 institutions worldwide, constructed and used a new, global database compiling economic costs caused by <u>invasive species</u> (InvaCost) allowing for relevant comparisons across different scales and contexts. Unlike previous studies, the team quantified costs according to different management types using this database at a global scale. They also developed and applied a new model to predict the additional costs of management delay with the available data.

The team hopes that the findings will inform and stimulate more timely management of biological invasions, saving money while supporting ecosystem conservation.

Dr Cuthbert added: 'Once <u>invasive species</u> have established and are spreading, it can be difficult to eradicate them. Delayed control measures are often not only costly, but are also frequently unsuccessful in the long-term. Preventing <u>invasive species</u> from arriving in the first place means that the trillions in damages or losses they cause will not be incurred by sectors of the economy such as agriculture, fisheries and forestry, among others. We hope that this work will influence policy and decision makers to invest earlier in the management of <u>invasive species</u>, to safeguard both ecosystems and economies from their negative impacts.'

[Editorial queries for this story should be sent to newswire@enpublishing.co.uk]

Load-Date: February 10, 2022



Federal Grant: Great Lakes Invasive Species Control Monitoring Project

US State News

April 2, 2022 Saturday 12:04 PM EST

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Length: 422 words

Body

WASHINGTON, April 2 -- U.S. Department of Agriculture, Natural Resources Conservation Service issues a grants notice (USDA-NRCS-IN-CTA-22-NOFO0001175) titled "Great Lakes *Invasive Species* Control Monitoring Project" on April 1.

Award Ceiling: \$100,000

Opportunity Category: Discretionary

Funding Instrument Type: Cooperative Agreement

Expected Number of Awards: 2

Category of Funding Activity: Agriculture Environment Natural Resources

Eligible Applicants: Unrestricted

Funding Opportunity Description: Notice of Funding Opportunity Summary The Natural Resources Conservation Service (NRCS), an agency under the U.S. Department of Agriculture (USDA), is announcing availability of funding to assess the impact of prior invasive species funding on agriculture and forested lands, and develop workplans for continued control if needed. This work will be conducted in the Indiana portion of the Great Lakes watersheds. Awardees will work cooperatively with NRCS to conduct site visits with landowner permission of sites previously funded for invasive species control, assess current conditions, and create plans if needed for continued treatment/maintenance. Applicants must have knowledge of *invasive species* identification, native *species* identification, forest management, GIS mapping, developing treatment recommendations, and good communication skills. For new users of Grants.gov, see Section D. for information about steps required before submitting an application via Grants.gov. Key Dates Applicants must submit their applications via Grants.gov by 11:59 pm Eastern Time on May 31, 2022. For technical issues with Grants.gov, contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov Awarding agency staff cannot support applicants regarding Grants.gov accounts. For inquiries specific to the content of the NFO requirements, contact the federal awarding agency contact (section G of this NFO). Please limit questions to those regarding specific information contained in this NFO (such as dates, page numbers, clarification of discrepancies, etc.) Questions related to eligibility or the merits of a specific proposal will not be addressed. The agency anticipates making selections by July 1, 2022 and expects to execute awards by August 1, 2022. These dates are estimates and are subject to change.

For more Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=339133 For any query with respect to this article or any other content requirement, please contact Editor at contentservices@httlive.com

Federal Grant: Great Lakes Invasive Species Control Monitoring Project

Load-Date: April 2, 2022



-Prevention strategies for invasive species could save trillions

ENP Newswire

February 10, 2022 Thursday

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Length: 650 words

Body

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[Editorial queries for this story should be sent to newswire@enpublishing.co.uk]

Load-Date: February 10, 2022



Saginaw CISMA presentation hopes to educate on invasive species

The Huron Daily Tribune (Bad Axe, MI)

March 15, 2022 Tuesday

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Length: 340 words

Byline: Connor Veenstra, Staff writer

Body

The Saginaw Cooperative **Invasive Species** Management Area will be hosting its quarterly partner meeting via Zoom on Wednesday, March 16. The meeting will mainly be focusing on **invasive** pests and diseases in forests, according to CISMA head Gadi Krasner. The meeting is open to the public and anyone who wants to tune in is encouraged to.

The Saginaw CISMA's current concerns surrounding forests include spongy moths, a pest responsible for defoliating trees and bushes, beech bark disease, and other problems like thousand cankers disease, which hasn't yet reached Michigan, but might in the future.

"Unfortunately, it's impossible to 100% control everything and some <u>species</u> have been here for a really long time," Krasner said.

Despite <u>state laws and guidelines</u> to reduce the introduction of <u>invasive species</u> to Michigan, many still find their way here anyway. Many aquatic <u>species</u> come over on the ballast of boats and eggs can easily slip through unnoticed.

Some <u>species</u> also move to the state through unpredictable, natural means. It's rare, according to Krasner, but it does happen, such as when frog-bit, an <u>invasive</u> mat-like water plant, will cling to passing ducks and be carried from one body of water to another, where it will immediately take root.

"Some things don't get recognized as *invasive*, so those can be easy to fly under the radar," Krasner said.

Some <u>invasive species</u> have even been introduced on purpose, such as the garlic mustard plant or autumn olives. Some are introduced through carelessness, such as when goldfish are released into nearby bodies of water.

"All of these are issues we're constantly dealing with," Krasner said.

With this conference being open to the public, Krasner hopes that those who attend will have a better idea of what <u>invasive species</u> are in their area and how they can best help their environment, from forests to waters, in stopping the spread or introduction of more <u>invasive species</u>.

The meeting will be from 10 a.m. to noon and the link can be found at the top of the Saginaw CISMA Facebook page.

Load-Date: April 7, 2022



Opinion: House bill would help protect state from invasive species

Juneau Empire (Alaska) February 22, 2022

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Section: LETTERS Length: 414 words

Body

Next week, Feb. 28 - March 4, 2022, is National <u>Invasive Species</u> Awareness Week. <u>Invasive species</u> are the plants, animals, fish, insects, mollusks and diseases that arrive in Alaska and aggressively out-compete the native <u>species</u> of Alaska's ecosystems that we all value. To prevent and rapidly respond to <u>invasive species</u> before they cause unwanted harm to the environment, economy, or human health, collaboration and coordination is critical across stakeholders and jurisdictions. House Bill 54 provides mechanisms to improve the effectiveness of <u>invasive species</u> management in Alaska through the establishment of an Alaska <u>Invasive Species</u> Council and a rapid response fund.

<u>Invasive species</u> can arrive in Alaska via many ways, such as vehicles, trailered boats, commercial shipping, the pet trade, seaplanes, ornamental plants, and even the soles of our shoes. Often, <u>invasive species</u> are difficult to manage because their impacts go unnoticed until the populations are well established and the problem is too large to solve effectively and affordably. Alaska is in a fortunate situation, compared to Outside, because we have relatively few invaders. We have the rare opportunity to prioritize early detection of new, harmful <u>invasive species</u> and efficiently allocate our limited resources when eradication is still possible. With climate change and new infrastructure development, <u>invasive species</u> are becoming an increasingly substantial threat that demands our attention.

House Bill 54 will guarantee broad representation at the table (across land managers, Native organizations, science, industry, and commercial interests) to advise our state departments on consistent management of *invasive species*. The sale of an *invasive species* management decal to the public (voluntary purchase) will generate funds, and the development of a biannual 5-year *invasive species* strategic plan will prioritize *invasive species* response and address their economic effects. The Alaska *Invasive Species* Partnership supports this bill and what it will do for our state. We encourage Alaskans to contact their legislators and express their support for this bill for the benefit of our natural resources now and in the future.

Katherine Schake,

Chair for the Alaska *Invasive Species* Partnership

□ Columns, My Turns and Letters to the Editor represent the view of the author, not the view of the Juneau Empire. Have something to say? Here's how to submit a My Turn or letter.

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Load-Date: February 23, 2022



Local student creates comic book to educate children about invasive species

Hopewell Valley News (NJ)

March 29, 2022

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Section: HOPEWELL NEWS

Length: 938 words

Byline: ANDREW HARRISON

Body

Through three friends in a comic book, using humor, a Hopewell Valley Central High School (HVCHS) senior is educating youth about *invasive species* in New Jersey.

Sophia Noto has created an 18-page comic book called <u>Invasive Species</u> of New Jersey, which follows three children who learn about five *invasive species* in the region and the solutions to prevent them.

"Well a few summers ago, there was this huge problem of spotted lanternfly in New Jersey and I remember thinking this is a really big issue," Noto said. "There has been a big problem for a long time in general with <u>invasive species</u>, so that is how I got the idea to do a comic book about <u>invasive species</u>, because it is problem that is so pervasive."

Through a forest, lake and backyard, the children specifically come across the spotted lanternfly, hydrilla, multiflora rose, garlic mustard and Japanese honeysuckle.

"I spoke with the STEM coordinator at HVCHS and Pat Heaney from the Watershed Institute and they gave me some ideas about some of the *invasive species* that are in the area," Noto said. "I felt those were best because they had solutions that kids could carry out to prevent the *invasive species*."

She said the goal is to help minimize the effect of these five **species** as a whole.

"Part of that is education and another part of that is action. I wanted to include both of those parts in the comic book from the very beginning," Noto said. "The creation of the comic book itself if I had to estimate I'd say it took about 100 hours or maybe more. It was a big time investment."

The project's conception began two summers ago in 2020.

"Since then it has been hard actually doing the work and communicating with my team members because of the pandemic, so at first the development was really slow," Noto said. "This past summer and winter is when the biggest chunks of progress were made" writing the script, doing the art, coming up with the information and research.

Noto, who is a Girl Scout, earned the Girl Scout's Gold award with the comic book. The Gold Award is the highest award in Girl Scouting and is earned through developing and carrying out lasting solutions to issues in the girl scout's neighborhood or beyond it, according to Girl Scouts of the United States of America.

"The overall goal with the Gold Award is to make a meaningful contribution to your community that is sustainable. With choosing to educate children about these <u>invasive species</u> I chose the comic book format, because it is easier for them to learn and is more engaging," she said. "It is also more interesting."

Noto stressed she could have made a brochure or posters about the spotted lanternfly, hydrilla, multiflora rose, garlic mustard and Japanese honeysuckle with their impacts and how to prevent them. "But it is so more engaging when it is in an entertaining format. I wanted to make a comic book for those reasons," she said.

Note had help to finish her vision of the <u>invasive species</u> comic book from Heaney, assistant director of Education at The Watershed Institute, to HVCHS's STEM coordinator, to her sixth grade science teacher, and peers from her art class at HVCHS.

"I also got to meet a lot of new people such as Seth Siditsky from the Watershed, who actually did a lot of work with the website and putting together of the final project on the Watershed Institute's website," she said. "I also had some help from a few artists from an online community over the internet, because of the pandemic I had reach out for some extra help."

For Noto, the challenging part of the comic book was trying to find people who had the specific skill to help out with the project.

"Specifically, with digital art. It is a very new medium and not as prevalent as traditional art forms," she said. "It was hard to get help in that respect, but luckily I knew a few people in my art class that could help. That is where reaching out to other artists over the internet came in handy, because it is more well practiced over the internet."

Noto's <u>Invasive Species</u> of New Jersey comic book is available online at the Watershed Institute's website and will eventually be printed into a hard copy book, according to the Watershed Institute.

"I am really impressed by Sophia's work on this project. Her creativity makes the critical issue of *invasive species* approachable and interesting," said Jim Waltman, executive director of The Watershed Institute. "I am sure that more people will get engaged in our efforts to remove *invasive species* and plant native ones as a result of her work."

Heaney said Sophia was able to adapt her idea to what was pertinent and important in the area, which includes the Watershed Institute.

"The amount of research she did to make sure she got it right was really impressive. It is on the website. Anyone can see the comic book there, which was her original idea. She wanted it to be web-based," she added. "But, we are also going to be using it for programs. We will be printing it out, for example, for a program we have called H2O Quest: Alien Invaders in May and we are going to have this available for them when they learn about *invasive species*."

The comic book would also be used to help volunteers who come into the Watershed Institute and help the stewardship department with management of *invasive species*.

"Having this fun comic book format really brings it alive for people who are not going to sit and read a more serious paper. The artwork is beautiful and fun to look at. There are children in it and the book is really engaging," Heaney said.

To view the *Invasive Species* of New Jersey comic book, visit www.thewatershed.org.

Graphic

Photo Courtesy of The Watershed Institute

Load-Date: March 30, 2022



Grant to raise awareness about invasive species in Michigan

The Oakland Press (Pontiac, Michigan)

March 9, 2022 Wednesday

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Section: NEWS

Length: 334 words

Byline: Gina Joseph

Body

All of the Great Lakes connect to the ocean via the Saint Lawrence River and that has enabled Michigan boaters to enjoy a variety of adventures. Unfortunately, what many boaters might not know is that traveling from one body of water to the other has also brought a number of *invasive species* including zebra mussels, ruffes and gobies to the largest freshwater system in the world.

The Michigan Clean Marina Foundation (CMF) and the Michigan Boating Industries Association (MBIA) have been awarded \$302,700 in grant funding from an application to increase awareness with boaters to prevent the spread of Aquatic *Invasive Species* in Michigan. Funding was announced March 1, during National *Invasive Species* Awareness Week.

"With this funding we're able to utilize our events, resources, and connections to help stop the spread of AIS in Michigan by engaging and educating the boating public with the steps they need to take when moving vessels from one body of water to another," said Nicki Polan, executive director of MBIA.

This effort by the CMF/MBIA is one of more than 30 projects selected to share in \$3.6 million in grants through the Michigan *Invasive Species* Grant program.

The program – cooperatively implemented by the Michigan departments of Agriculture and Rural Development; Environment, Great Lakes, and Energy; and Natural Resources – addresses prevention, detection, eradication, and control of aquatic (water-based) and terrestrial (land-based) *invasive species* in Michigan. This year's grantees have offered \$541,500 in matching funds and services to support these projects, leveraging a total investment of \$4,141,500.

"Michigan has the world's greatest resource of freshwater with the Great Lakes and thousands of inland lakes and streams. We all have a part to do in keeping them clean and available for generations to come. The CMF and MBIA are happy to do our part in spreading awareness to boaters," said Polan.

For more information on grant programs and funding //Michigan.gov/MISGP.

Load-Date: March 10, 2022



Grant to raise awareness about invasive species in Michigan

The Morning Sun (Mount Pleasant - Alma, Michigan)

March 9, 2022 Wednesday

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Section: NEWS

Length: 334 words

Byline: Gina Joseph

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Load-Date: March 10, 2022



Grant to raise awareness about invasive species in Michigan

The Macomb Daily (Michigan)

March 9, 2022 Wednesday

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Section: NEWS

Length: 334 words

Byline: Gina Joseph

Body

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Load-Date: March 10, 2022



Grant to raise awareness about invasive species in Michigan

The Daily Tribune (Royal Oak, Michigan)

March 9, 2022 Wednesday

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Section: NEWS

Length: 334 words

Byline: Gina Joseph

Body

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Load-Date: March 10, 2022



FEBRUARY IS HAWAI'I INVASIVE SPECIES AWARENESS MONTH

States News Service
January 31, 2022 Monday

Copyright 2022 States News Service

Length: 477 words

Byline: States News Service

Dateline: HONOLULU, HI

Body

The following information was released by the Hawaii Department of Land and Natural Resources:

<u>Invasive species</u> have a devastating effect on the state's agriculture, food self-sufficiency, freshwater quality and quantity, human health, and on the health of native <u>species</u> and ecosystems. February 1st marks the start of Hawai'i <u>Invasive Species</u> Awareness Month (HISAM).

HISAM is an event designed to raise awareness of these impacts while also recognizing the work being done to protect against them. HISAM is hosted by the Department of Agriculture (DOA) and the Department of Land and Natural Resources (DLNR), with both agencies serving as co-leads of the Hawai'i *Invasive Species* Council (HISC).

Due to the ongoing pandemic, HISAM will continue to offer virtual opportunities, with most events being livestreamed or shared via social media. On February 1st, the month will kick-off with an opening ceremony hosted by HÄlau 'ÅŒhi'a on Facebook Live. Educational webinars are also scheduled throughout the month and will explore the work and <u>species</u> in the different landscapes. Each week features talks starting in the upper reaches of the mountains in the "wao akua" and ending in the ocean at the "wao kahakai". The HISC support program will also be announcing awards to recognize individuals, projects, or businesses whose efforts have helped reduce <u>invasive</u> <u>species</u> impacts in their communities. Videos announcing these awards will be featured on social media as well as special live streaming events. Social media content will be searchable by the hashtag #HISAM22.

"Invasive species are often insidious and may go undetected for substantial periods of time," said Phyllis Shimabukuro-Geiser, chairperson of the Hawai'i Board of Agriculture. "Once established, invasive species are extremely difficult or even impossible to eradicate. To protect Hawai'i's agriculture and unique environment, we urge everyone to become more aware and be on the lookout for invasive plants, pests and animals and to help stop the invasions."

"This is an issue that highlights how people are part of the environment, not separate from it," said Suzanne Case, DLNR chairperson. "One of the major impacts we see from *invasive species* is the reduced production of fresh water from native forests. That's a problem that impacts every living thing in Hawai'i, whether it's a native bird, a pet dog, our crops, ourselves, or our loved ones."

For the past decade, the HISC and its partners have coordinated an annual recognition of <u>invasive species</u> impacts. This event was originally designed as Hawai'i <u>Invasive Species</u> Awareness Week, around the same time as the U.S. National <u>Invasive Species</u> Awareness Week. However, partners found that there was so much topics

FEBRUARY IS HAWAI'I INVASIVE SPECIES AWARENESS MONTH

to discuss and numerous projects for everyone to celebrate, that in 2018 the event was expanded to last the entire month.

Load-Date: February 1, 2022



Saginaw Bay CISMA looking to be active in fighting invasive species

The Huron Daily Tribune (Bad Axe, MI)

March 13, 2022 Sunday

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Length: 612 words

Byline: Robert Creenan, Staff Writer

Body

The Saginaw Bay Cooperative <u>Invasive Species</u> Management Area is looking to expand its presence in Huron County as it informs about the dangers of <u>invasive species</u>.

The Saginaw Bay CISMA's coverage area includes Arenac, Bay, Saginaw, Huron, Tuscola, and Sanilac counties. It was founded in 2017 under the Michigan *Invasive Species* Grant program as part of a 16-county CISMA based around the Saginaw Bay Watershed, which split into three separate CISMAs.

Gedaliah Krasner, a program coordinator who spoke about what the group does during this week's Huron County Board of Commissioners meeting, said that CISMA relied heavily on active partners to help identify problem areas and inform the public on these issues. Most of the organization's activities have taken place in Arenac, Bay, and Saginaw counties and it wants to get more involved in the Thumb.

"<u>Invasive species</u> don't respect boundaries, they are widespread throughout the state," Krasner said. "Due to a lack of reporting, partnership, or general collaboration not present, we have not been able to provide services to the Thumb."

An <u>invasive species</u> is defined by the federal government as a non-native organism whose introduction is likely to cause economic or environmental harm or harm the health of humans, plants, and animals.

Such <u>invasive species</u> that threaten the region include spotted lanternflies that can feed on over 70 crops, aquatic weeds that can impede boat traffic and threaten fish stocks, common reeds, or phragmites, that can drain natural wetlands, increase risk of wildfire damage, and block waterfront access, swallow-wort vines that can poison livestock, and Asian carp that can overtake habitats in the Great Lakes.

The Saginaw Bay is lined with Japanese knotweed that prevents other plants from getting sunlight and its roots are strong enough to grow through concrete. It is also experiencing defoliation from spongy moths, whose caterpillars can consume up to one meter of leaves a day.

"That doesn't seem like a lot, but you can get 100,000 caterpillars from a single egg mass," Krasner said.

Past efforts from this CISMA have focused on buckthorn and garlic mustard plants, but its current priorities are on spongy moths, Japanese knotweed, phragmites, swallow-wort, and frogbits.

Saginaw Bay CISMA has provided information to Huron County boaters and anglers, done sprayings for private landowners, and worked with wildlife services in Caseville and Sebewaing

Saginaw Bay CISMA looking to be active in fighting invasive species

According to Krasner, <u>invasive species</u> can cause \$120 billion in environmental damage and related losses nationwide each year. Crop loss from <u>invasive species</u> costs farmers \$40 billion per year nationwide. Cleaning up the Great Lakes region for aquatic <u>invasive species</u> costs \$5.6 billion.

He also stated that 42% of threatened or endangered <u>species</u> are at risk because of <u>invasive species</u>, which are the second-leading cause of extinctions and loss of biodiversity. The number of <u>invasive species</u> is also expected to increase by 36% by 2050.

The CISMA offers training for landowners to control <u>invasive species</u> and best management practices, grant writing, and connections to partner organizations at the local, state, and federal levels.

The organization is also rolling out grant opportunities for dealing with <u>invasive</u> plants. \$60,000 will be available, with the past minimum grant amounts of \$2,500 and maximum of \$40,000 may change.

Krasner encourages residents to use services like the Midwest <u>Invasive Species</u> Network and EDDMapS to track any <u>invasive species</u> in the area and to direct any concerns people have to Saginaw Bay CISMA.

The organization can be reached by email at <u>sbcisma@gmail.com</u> or by phone at 989-846-4565.

Load-Date: April 7, 2022



Invasive Species Advisory Committee; Request for Nominations

Interior Department Documents and Publications

January 25, 2022

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Section: OFFICE OF THE SECRETARY

Length: 1411 words

Body

Agency: "Office of the Secretary, Interior."

SUMMARY: The U.S. Department of the Interior, on behalf of the interdepartmental National <u>Invasive Species</u> Council (NISC), proposes to appoint new members to the <u>Invasive Species</u> Advisory Committee (ISAC). The Secretary of the Interior, acting as administrative lead, is requesting nominations for qualified persons to serve as members of the ISAC.

DATES: Nominations must be received by March 28, 2022.

ADDRESSES: Electronic nomination packages are preferred and should be sent to <u>invasive species@ios.doi.gov</u> As necessary, hard copy nominations can be sent to Stanley W. Burgiel, Executive Director, National <u>Invasive Species</u> Council (OS/NISC), Regular/Express Mail: Department of the Interior, 1849 C Street NW (Mailstop 3530), Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: Kelsey Brantley, NISC Operations Director, at (202) 208-4122, or by email at Kelsey Brantley@ios.doi.gov

SUPPLEMENTARY INFORMATION:

Advisory Committee Scope and Objectives Executive Order (E.O.) 13112 authorized the National <u>Invasive Species</u> Council (NISC) to provide interdepartmental coordination, planning, and leadership for the Federal Government on the prevention, eradication, and control of <u>invasive species</u>. This authorization was reiterated in E.O. 13751. NISC is currently comprised of the senior-most leadership of twelve Federal Departments/Agencies and four Executive Offices of the President. The Co-chairs of NISC are the Secretaries of the Interior, Agriculture, and Commerce.

NISC provides high-level interdepartmental coordination of Federal <u>invasive species</u> actions and works with other Federal and non-Federal groups to address <u>invasive species</u> issues at the national level. NISC duties, consistent with E.O. 13751, are to provide the vision and national leadership necessary to coordinate, sustain, and expand federal efforts to safeguard the interests of the United States through the prevention, eradication, and control of <u>invasive species</u>, and through the restoration of ecosystems and other assets impacted by <u>invasive species</u>. These duties and work priorities are further identified and outlined in NISC's annual Work Plans.

The <u>Invasive Species</u> Advisory Committee (ISAC) advises NISC. ISAC is chartered under the Federal Advisory Committee Act (FACA; 5 U.S.C. appendix 2). At the request of NISC, ISAC provides advice to NISC members on topics related to NISC's aforementioned duties, as well as emerging issues prioritized by the Administration. As a

multi-stakeholder advisory committee, ISAC is intended to play a key role in recommending plans and actions to be taken in different sectors, geographies, and/or scales to accomplish the activities set forth in NISC Work Plans. It is hoped that, collectively, ISAC will represent the views of the broad range of stakeholders, communities, and individuals knowledgeable of and affected by *invasive species*. NISC is requesting nominations for individuals to serve on the ISAC.

Membership Criteria: Prospective members of ISAC must have knowledge in the prevention, eradication, and/or control of *invasive species*, as well as demonstrate a high degree of capacity for: Advising individuals in leadership positions, teamwork, project management, tracking relevant Federal government programs and policy making procedures, and networking with and representing their peer-community of interest. ISAC members need not be scientists. Membership from a wide range of disciplines and professional sectors is encouraged.

At this time, we are particularly interested in applications from representatives of: Non-federal government agencies (e.g., state, territorial, tribal, local); academia, research institutions, and scientific societies; the private sector and industry/trade associations; conservation and land management organizations; landowners, farmers, ranchers, foresters, and other resource users; public health specialists; education and outreach specialists; regional organizations; and citizen scientists, recreationists, and other public interest groups. Additionally, ISAC membership will include one representative from each of the following organizations, serving in a non-voting ex officio capacity: The Association of Fish and Wildlife Agencies (AFWA); the National Association of Conservation Districts (NACD); the National Association of State Departments of Agriculture (NASDA); the National Plant Board (NPB); the Native American Fish and Wildlife Society (NAFWS); and the North American *Invasive Species* Management Association (NAISMA).

After consultation with the other members of NISC, the Secretary of the Interior will appoint members to ISAC. Members will be selected based on their individual qualifications as detailed in their nomination package, as well as the overall need to achieve a balanced representation of viewpoints, subject matter expertise, regional knowledge, and communities of interest.

ISAC will hold approximately one or two in-person or virtual meetings per year. Between meetings, ISAC members are expected to participate in committee and subcommittee work via web-based meetings, teleconferences, and email exchanges. Members of the ISAC and its subcommittees serve without pay. However, while away from their homes or regular places of business in the performance of services of the ISAC, members may be reimbursed for travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the government service, as authorized by section 5703 of title 5, United States Code. Employees of the Federal Government ARE NOT eligible for nomination or appointment to ISAC.

Individuals who are federally registered lobbyists are ineligible to serve on all FACA and non-FACA boards, committees, or councils in an individual capacity. The term "individual capacity" refers to individuals who are appointed to exercise their own individual best judgment on behalf of the government, such as when they are designated special Government employees, rather than being appointed to represent a particular interest.

As appropriate, certain ISAC members may be appointed as special Government employees (SGEs). Please be aware that applicants selected to serve as SGEs will be required, prior to appointment, to file a Confidential Financial Disclosure Report in order to avoid involvement in real or apparent conflicts of interest. You may find a Confidential the copy of the Financial Disclosure Report at following website: https://oge.gov/web/OGE.nsf/OGE%20Forms/2026049D943E0C34852585B6005A23CE/\$FILE/OGE%20Form%20 450%20Aug%202020 accessible.pdf?open.

Additionally, after appointment, members appointed as SGEs will be required to meet applicable financial disclosure and ethics training requirements. Please contact (202) 202-208-7960 or <u>DOI Ethics@sol.doi.gov</u> with any questions about the ethics requirements for members appointed as SGEs.

How to Nominate: Nominations should include a resume that provides an adequate description of the nominee's qualifications, including information that will enable the Department of the Interior to make an informed decision

Invasive Species Advisory Committee; Request for Nominations

regarding meeting the membership requirements of the ISAC and permit the Department of the Interior to contact a potential member. Nominees are strongly encouraged to include supporting letters from employers, associations, professional organizations, and/or other organizations that indicate support by a meaningful constituency for the nominee.

All nominations must designate which stakeholder group or community the nominee will represent (for stakeholder groups and required qualifications, please refer to Membership Criteria above). All required documents must be submitted in a single nomination package. Incomplete packages, or those with documents submitted piecemeal will not be considered.

Nominations must be received no later than March 28, 2022. Electronic nomination packages are preferred and should be sent to *invasive species@ios.doi.gov* As necessary, hard copy nominations can be sent to Stanley W. Burgiel, Executive Director, National *Invasive Species* Council (OS/NISC), Regular Mail: 1849 C Street NW (Mailstop 3530), Washington, DC 20240.

Authority: 5 U.S.C. appendix 2.

Stanley W. Burgiel,

Executive Director, National *Invasive Species* Council.

Notice of request for nominations.

Citation: "87 FR 3839"

Document Number: "22XD4523WS/DWSN0000.000000/DS61500000/DP.61501"

Federal Register Page Number: "3839"

"Notices"

Load-Date: January 25, 2022



Webinar on invasive species in SE Michigan set for Saturday

The Huron Daily Tribune (Bad Axe, MI)

March 15, 2022 Tuesday

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Length: 448 words

Byline: Angela Mulka, Staff writer

Body

As things begin to thaw out, a virtual meeting to discuss the spread of <u>invasive species</u> in Michigan has been scheduled for this weekend by the Oakland County Cooperative <u>Invasive Species</u> Management Area.

The agency announced the meeting, which is free and open to the public, in a press release on March 9. It is set for Saturday, March 19 from 10 a.m. to 12:30 p.m. Registration is required and available <u>here</u>. Once registered, you will receive a confirmation email. A couple of days before the summit, you will receive a Zoom link via the email you registered from to join.

The meeting is the fourth annual <u>invasive species</u> summit organized by the Oakland County CISMA and the second year of the summit's expansion to include six neighboring CISMAs in southeastern Michigan, including Huron's organization, according to the release.

At this year's summit, experts plan to discuss how <u>invasive species</u> are introduced, how you can identify them and stop their spread and why you should use native plants in your yard and at your business.

Once people know how <u>invasive species</u> get here, an important next step is to minimize and prevent their spread, according to McKenzi Waliczek, the coordinator of Lake St Clair CISMA.

"People often don't think about what happens to unwanted pets and plants that are released or escape into the wild," Waliczek said in the release. "It's important for people to know that these <u>species</u> can become <u>invasive</u> and harm our native <u>species</u>."

Attendees will learn how to report *invasive species* that they might encounter.

"Knowing where these <u>species</u> are is a really important first step," Matthew Lindauer, the coordinator of Central Michigan CISMA, said in the release. "When people report a <u>species</u>, it gives us information like 'how much is there,' and 'how widespread it is.' This information is essential in making management decisions about these <u>invasive species</u> moving forward."

Additionally, attendees can plan to learn what plants they should plant for a healthy, native environment to support butterflies, birds and bees.

"Native plants are those that have naturally occurred within a certain region for hundreds of years, prior to extensive human intervention," Melissa Kivel, for Friends of the St. Clair River, said in the release. "They provide specific nectar, pollen and food sources for local wildlife, including the pollinators that ensure we have successful crops and

Webinar on invasive species in SE Michigan set for Saturday

other beneficial insects that keep pest populations under control. By planting native plants rather than <u>invasive</u> ornamentals, individuals are supporting the butterflies, birds and bees that depend on them for survival."

Find the full meeting schedule and more information <u>here</u>.

Load-Date: April 7, 2022



Hawai'i Invasive Species Awareness Month kicks off

The Garden Island (Lihue, Hawaii)
February 1, 2022 Tuesday

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Section: HAWAII NEWS

Length: 493 words **Byline:** gardenisland

Body

HONOLULU February marks Hawai'i *Invasive Species* Awareness Month (HISAM).

<u>Invasive species</u> have a devastating effect on the state's agriculture, food self-sufficiency, freshwater quality and quantity, human health, and on the health of native <u>species</u> and ecosystems.

HISAM is an event designed to raise awareness of these impacts while also recognizing the work being done to protect against them. HISAM is hosted by the state departments of Agriculture and Land and Natural Resources, with both agencies serving as co-leads of the Hawai'i *Invasive Species* Council (HISC).

Due to the ongoing pandemic, HISAM will continue to offer virtual opportunities, with most events being livestreamed or shared via social media.

Today, an opening ceremony will be hosted by Halau 'Ohi'a on Facebook Live at 9 a.m. Join via https://www.facebook.com/halauohia/live.

Today from 11 a.m. to noon, a panel discussion is on the Maui watershed. See dlnr.hawaii.gov/hisc/2022hisam/ to ioin the webinar.

Educational webinars are scheduled throughout the month and will explore the work and **species** in the different landscapes.

Each week features talks, starting in the upper reaches of the mountains "wao akua" and ending in the ocean "wao kahakai."

The HISC support program will also be announcing awards to recognize individuals, projects or businesses whose efforts have helped reduce <u>invasive-species</u> impacts in their communities. Videos announcing these awards will be featured on social media as well as special livestreaming events. Social-media content will be searchable by the hashtag #HISAM22.

"Invasive species are often insidious and may go undetected for substantial periods of time," said Phyllis Shimabukuro-Geiser, chair of the state Board of Agriculture.

Hawai'i Invasive Species Awareness Month kicks off

"Once established, <u>invasive species</u> are extremely difficult or even impossible to eradicate. To protect Hawai'i's agriculture and unique environment, we urge everyone to become more aware and be on the lookout for <u>invasive</u> plants, pests and animals and to help stop the invasions."

"This is an issue that highlights how people are part of the environment, not separate from it," said Suzanne Case, chair of the state Board of Land and Natural Resources.

"One of the major impacts we see from <u>invasive species</u> is the reduced production of fresh water from native forests. That's a problem that impacts every living thing in Hawai'i, whether it's a native bird, a pet dog, our crops, ourselves or our loved ones," said Case.

For the past decade, the HISC and its partners have coordinated an annual recognition of <u>invasive species</u> impacts.

This event was originally designed as Hawai'i *Invasive Species* Awareness Week, around the same time as the U.S. National *Invasive Species* Awareness Week. However, partners found that there were so many topics to discuss and numerous projects for everyone to celebrate that in 2018 the event was expanded to last the entire month.

Info: dlnr.hawaii.gov/hisc/2022hisam/

Load-Date: February 2, 2022



Webinar on invasive species in SE Michigan set for Saturday

Midland Daily News (MI) March 15, 2022 Tuesday

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Length: 448 words

Byline: Angela Mulka, Staff writer

Body

As things begin to thaw out, a virtual meeting to discuss the spread of <u>invasive species</u> in Michigan has been scheduled for this weekend by the Oakland County Cooperative *Invasive Species* Management Area.

The agency announced the meeting, which is free and open to the public, in a press release on March 9. It is set for Saturday, March 19 from 10 a.m. to 12:30 p.m. Registration is required and available <u>here</u>. Once registered, you will receive a confirmation email. A couple of days before the summit, you will receive a Zoom link via the email you registered from to join.

The meeting is the fourth annual <u>invasive species</u> summit organized by the Oakland County CISMA and the second year of the summit's expansion to include six neighboring CISMAs in southeastern Michigan, including Midland's organization, according to the release.

At this year's summit, experts plan to discuss how <u>invasive species</u> are introduced, how you can identify them and stop their spread and why you should use native plants in your yard and at your business.

Once people know how <u>invasive species</u> get here, an important next step is to minimize and prevent their spread, according to McKenzi Waliczek, the coordinator of Lake St Clair CISMA.

"People often don't think about what happens to unwanted pets and plants that are released or escape into the wild," Waliczek said in the release. "It's important for people to know that these <u>species</u> can become <u>invasive</u> and harm our native <u>species</u>."

Attendees will learn how to report *invasive species* that they might encounter.

"Knowing where these <u>species</u> are is a really important first step," Matthew Lindauer, the coordinator of Central Michigan CISMA, said in the release. "When people report a <u>species</u>, it gives us information like 'how much is there,' and 'how widespread it is.' This information is essential in making management decisions about these <u>invasive species</u> moving forward."

Additionally, attendees can plan to learn what plants they should plant for a healthy, native environment to support butterflies, birds and bees.

"Native plants are those that have naturally occurred within a certain region for hundreds of years, prior to extensive human intervention," Melissa Kivel, for Friends of the St. Clair River, said in the release. "They provide specific nectar, pollen and food sources for local wildlife, including the pollinators that ensure we have successful crops and

Webinar on invasive species in SE Michigan set for Saturday

other beneficial insects that keep pest populations under control. By planting native plants rather than <u>invasive</u> ornamentals, individuals are supporting the butterflies, birds and bees that depend on them for survival."

Find the full meeting schedule and more information <u>here</u>.

Load-Date: April 7, 2022



New invasive species rules for boaters, anglers

The Gananoque Reporter

January 13, 2022 Thursday

Final Edition

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Section: NEWS; Pg. A8; Local Journalism Initiative

Length: 553 words

Byline: Jessica Munro, The Gananoque Reporter

Body

New Ontario regulations, aimed to help prevent the spread of *invasive species* in Ontario waters, came into effect on Jan. 1 and will affect anglers and recreational boaters.

The Ministry of Northern Development, Mines, Natural Resources and Forestry's newly-implemented regulations now classify regulated watercraft, such as boats, canoes and kayaks, as potential carriers of <u>invasive species</u>, under the <u>Invasive Species</u> Act.

"Letting <u>invasive species</u> aboard your boat helps them spread in our lakes, rivers and streams and costs us millions to repair their damage," said ministry officials on the <u>invasive species</u> action plan website.

Boaters are now required to follow "clean, drain, dry" practices to prevent the spread of <u>invasive</u> aquatic plants, animals and algae.

Watercraft owners will have to clean any mud, algae, vegetation and mussels or other animals off their boats and other equipment, such as motors, trailers, anchors and more, before transporting the boat overland.

The new measures require boaters to "take reasonable precautions to remove all aquatic plants (weeds), animals and algae from any boat, boat equipment, vehicle or trailer," said the ministry.

According to the ministry, the measures also require boaters to drain all water by opening or removing the drain plug, pulling the plug on the transom, bilge, livewell or any other water containing devices before transporting the watercraft overland.

However, this does not apply to drinking water systems, marine sanitary systems or closed-engine cooling systems or a livewell, if the person transporting the livewell overland is transporting live fish in the livewell pursuant to a licence to transport live fish issued under the Fish and Wildlife Conservation Act, 1997, said the Ministry.

"Some aquatic <u>invasive species</u> can survive up to two weeks out of water and not every invader attached to your boat can be seen with the naked eye," ministry officials noted.

Owners are required to dry or disinfect their watercraft before transporting. The ministry recommends the owner either dries the boat in the sunlight or cleans the boat from top to bottom with hot or pressurized water.

New invasive species rules for boaters, anglers

"It is illegal to place a boat, boating equipment or any vehicle or trailer into any body of water if there are any aquatic plants, animals or algae attached to it," added the ministry.

Jamie Lemery, president of Kingston Avid Anglers, said he and other tournament anglers have already been following these recommendations to help reduce the spread of <u>invasive species</u> from one body of water to another.

Lemery hosts fishing tournaments throughout Eastern Ontario, including on Big Rideau Lake, Charleston Lake, Lower Beverley Lake and other sites.

The revisions to the <u>Invasive Species</u> Act also include 13 new <u>invasive species</u>, which will be regulated under the act to help prevent their introduction and spread within the province, and include many aquatic <u>species</u>, such as the red swamp crayfish, New Zealand mud snail, Tench Fish, Prussian carp and marbled crayfish.

"The reality is a lot of *invasive species* that are in the Great Lakes, like zebra mussels and gobies, have already moved, unfortunately, to other bodies of water through transporting and boats," said Lemery.

More information on the regulations can be found at www.ontario.ca/page/invasive-species-ontario.

Load-Date: January 13, 2022



New rules in place for invasive species

Canadian Press

January 7, 2022 Friday 08:26 PM EST

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THE CANADIAN PRESS

Section: SPARE NEWS

Length: 647 words

Byline: Jessica Munro, Local Journalism Initiative Reporter, Brockville Recorder and Times

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The act also now includes the Bohemian knotweed, Carolina fanwort, yellow floating heart, giant knotweed and the Himalayan knotweed as *invasive species*.

"The reality is a lot of *invasive species* that are in the Great Lakes, like zebra mussels and gobies, have already moved, unfortunately, to other bodies of water through transporting and boats," said Lemery.

From his many years on the water, Lemery said he has seen that the St. Lawrence River and Lake Ontario are now "crystal clear" as a result of zebra mussels, and they have spread to "back lakes north of the 401."

More information on the regulations can be found at www.ontario.ca/page/invasive-species-ontario.

(Jessica Munro is a Local Journalism Initiative reporter who works out of the Brockville Recorder and Times. The Local Journalism Initiative is funded by the Government of Canada.)

Load-Date: January 8, 2022



<u>University of Richmond Professor Receives NIH Grant for Invasive Species</u> Research

Targeted News Service
April 15, 2022 Friday 9:30 AM EST

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Length: 275 words

Byline: Targeted News Service **Dateline:** RICHMOND, Virginia

Body

(TNSRes) -- The University of Richmond issued the following news release:

Biology professor Priscilla Erickson has been awarded a \$415K National Institutes of Health Research Enhancement Award for her research on an *invasive* fruit fly.

This three-year project examines the adaptation of an <u>invasive species</u> -- the African fig fly -- which only recently arrived in Virginia, serving as a model for how other potentially harmful <u>invasive species</u> quickly adapt to new habitats.

"This study will allow us to examine the types of mutations and evolutionary processes that enable <u>invasive</u> <u>species</u> to succeed and also test the predictability and repeatability of that evolution," said Erickson. "Characterizing the dynamics of rapid evolution is important for understanding vector-borne diseases, cancer, and disease-causing mutations in humans."

This NIH funding provides a summer stipend for Erickson, as well as a salary for a postbaccalaureate position and equipment and supplies. The funding also will support summer stipends for three undergraduate student researchers, who will be recruited from the University of Richmond Integrated Science Experience program, which is dedicated to underrepresented students pursuing and continuing in STEM majors.

"Last summer's URISE cohort had a great time helping out with our fly collections on a field trip to Carter Mountain Orchard in Charlottesville. I look forward to some of them joining the lab as part of this project," Erickson said.

Erickson joined the faculty in the fall of 2021. She taught as a visiting professor during the 2019-2020 academic year.

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Load-Date: April 15, 2022



Web events focused on invasive species

Kingston Whig-Standard
November 25, 2021 Thursday
Final Edition

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Section: LOCAL; Pg. A4

Length: 684 words

Byline: Jessica Munro, Kingston Whig-Standard

Body

LOCAL JOURNALISM INITIATIVE The Youth Summit on <u>Invasive Species</u> last week taught eastern Ontario youth and young adults the impacts of <u>invasive species</u>.

The <u>Invasive Species</u> Centre and the Early Detection and Rapid Response Network hosted a virtual Youth Summit on <u>Invasive Species</u> Projects and Collaboration last week.

Participants logged on to a virtual youth summit to learn about the impacts of <u>invasive species</u>, flora and fauna, how to prevent, detect and report <u>invasive species</u>, and the types of organizations that work together to protect natural spaces.

The free youth summit began with Derissa Vincentini, community action leader for the <u>Invasive Species</u> Centre, who explained what an *invasive species* is and where it might come from.

An <u>invasive species</u> is an organism that is introduced outside of its native range and causes harm to its newly introduced range. However, a <u>species</u> that is not native to the area isn't always <u>invasive</u>; it has to have a negative impact on the ecology, economy or society in its introduced range to be considered <u>invasive</u>, Vincentini said.

She added that many <u>invasive species</u> tend to be fast-growing and reproducing <u>species</u> that lack natural predators and target native <u>species</u> that have a lack of defence mechanisms. Increased trade and travel promotes the spread of <u>invasive species</u> across the world.

Throughout the summit, attendees learned about different programs and organizations that help tackle the <u>invasive</u> <u>species</u> problem in Ontario, including European water chestnut control and surveillance done by Ducks Unlimited Canada, the Invading <u>Species</u> Awareness Program, Nature Conservancy of Canada, and Rockcliffe Park Residents Association/Ontario <u>Invasive</u> Plant Council, as well as the Sandy Smith Lab at the University of Toronto.

During the day, each organization shared a presentation with a question-and-answer panel following. The various presentations were focused on different *invasive species* threatening Ontario, including aquatic invaders such as the European water chestnut and the water soldier.

The other half of the day was focused on terrestrial invaders such as the hemlock woolly adelgid, <u>invasive</u> knotweed, buckthorn and others, and the work being done to limit their impact on the environment.

Web events focused on invasive species

The European Water Chestnut Control and Surveillance Program does visual surveys of the plant and removes what it can through hand-pulling, using a harvester/cutter boat or chemical control. Once the control efforts are done for the year, it focuses on surveillance for new infestations of the plant, Kyle Borrowman, a biologist for Ducks Unlimited, said.

The Nature Conservancy of Canada is looking at four different priority <u>invasive species</u>: Common buckthorn, dogstrangling vine, garlic mustard and <u>invasive</u> phragmites, while the Rockcliffe Park Residents Association/Ontario <u>Invasive</u> Plant Council also focuses on protecting the land in its jurisdiction area from buckthorn, by different methods of removing and pulling up of the plant.

According to Vincentini, people can reduce the spread of <u>invasive species</u> by not dumping bait into the water, cleaning off boots, gear and boats, buying and burning local firewood, and choosing native <u>species</u> to plant in gardens.

"You can continue to learn about emerging <u>invasive species</u> that are threatening your community and learn to identify them, and as we heard many speakers mention, if you see an <u>invasive species</u>, take a picture and report it to Eddmaps at <u>www.eddmaps.org</u>," Vincentini said.

The <u>Invasive Species</u> Centre is a not-for-profit organization with a mission to prevent the spread of <u>invasive</u> <u>species</u>, plants and other living <u>species</u> in Canada and beyond by connecting with stakeholders to catalyze <u>invasive species</u> management and communicate policy and science knowledge.

The EDRR Network Ontario is co-ordinated by the Centre and the Eastern Ontario Model Forest/Ontario Woodlot Association and the Ontario <u>Invasive</u> Plant Council. It aims to train and equip communities to monitor, report and manage <u>invasive species</u> in Ontario. !@COPYRIGHT=© 2021 Osprey Media Group Inc. All rights reserved.

Load-Date: November 25, 2021



Invasive species now called spongy moth

Great Lakes Echo: Michigan State University (MI)

March 7, 2022 Monday

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Section: HOMEPAGE FEATURED

Length: 326 words

Byline: Max Copeland, CAPITAL NEWS SERVICE

Body

The bothersome gypsy moth will now be known as the spongy moth.

The Entomological Society of America made the change because the word "gypsy" is considered a derogatory slur against the Romani people. The word was dropped from its list of common names last July and the new name was just announced.

The name change is part of the society's Better Common Names Project.

"When you're talking about an <u>invasive species</u>, we think about a <u>species</u> that causes harm," says Joanne Foreman, an *invasive species* communications coordinator for the Department of Natural Resources.

"With spongy moth, it's more of an environmental harm, but we might associate that harm with the culture or the common name that it's attributed to. So, rather than have those negative cultural connections, get rid of that baggage and go forward with a name that is much more friendly."

The name "spongy moth" was chosen because the egg masses look like rough-textured, brown sea sponges.

"The egg mass isn't spongy like a kitchen sponge – it just has that texture and coloration of a sea sponge," Foreman explained. "Except normally you wouldn't find them in the ocean. You're going to find them on tree trunks, your decks, your lawn furniture, etc."

The spongy moth is widespread in Michigan. The caterpillars primarily feed on oak leaves.

According to the DNR, when populations reach a nuisance level, the caterpillars are known to cover just about everything outdoors, and their round waste pellets rain down from the trees.

The department says the spongy moth has been present in Michigan since the 1950s. In the mid-1980s, the state's first widespread outbreaks occurred.

"Today, spongy moth outbreaks are cyclical, peaking every seven to 10 years. In these years, the virus and the fungal disease spread more easily through dense populations, eventually causing a crash," according to the DNR.

This story was produced by Interlochen Public Radio and is posted here with permission.

Graphic

The spongy moth caterpillar was renamed after its old name was banned as an ethnic slur. Image: Haruta Ovidiu, University of Oradea, Bugwood.org

Load-Date: March 7, 2022



Adding fungi to soil may introduce invasive species

Yukon News March 23, 2022

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Section: NEWS; Pg. 7

Length: 991 words

Body

I nvasive, alien <u>species</u> are bad for ecosystems. They reduce bidoversity and disrupt food chains, including our own. History is full of examples of intentional and unintentional introductions of <u>invasive species</u>. The introduction of cane toads to Northern Australia in the 1930s to fight cane beetles led to decline of many native predators. The fungus that causes chestnut blight snuck into North America via infected nursery stock; four billion trees died in 40 years. It's easy enough to see the devastation by <u>invasive species</u> of plants, just look your window:spotted knapweed, Eurasian milfoil and giant hogweed have completely changed communities across North America.

Soil ecosystems What about creatures in the soil? Have they been affected by <u>invasive species</u>? Which <u>species</u> have gone extinct? Which ones are proliferating? It is important to think about soil as an invisible ecosys-tem, because many agricultural practices include the deliberate addition of microbes to the soil, biofertilizers. Biofertilizers are microbes that are grown specifically for application to soil. There are many microbes that are used as biofertilizers, including bacteria and fungi, and the most common application is to improve crop nutrient status. These products are considered by some to be a more sustainable alternative to synthetic fertilizers. The use of mycorrhizal fungi — fungi that grow on plant roots — as biofertilizers is becoming more common. Applying them as a kind of fertilizer makes sense because these fungi grow in plant roots and help plants get more nutrients from the soil. Companies encourage farmers to use biofertilizers with the promise that biofertilizers will lead to healthier soil. The number of companies making mycorrhizal fungi has increased dramatically in the last decade — but there's no easy way to know what they're selling, where it's being used and how much is being released into the environment.

My lab looks at how mycorrhizal biofertilizers move in the environment and how they affect native ecosystems. Because mycorrhizas are an important part of all ecosystems, introducing an alien mycorrhizal fungus may have unintended consequences for native mycorrhizas and ecosystems in general.

Alien <u>species</u>. The application of biofertilizers and mycorrhizal products involves introducing potentially <u>invasive species</u>. These products, which are alien to the environments they are placed in, must establish in a novel environment under a wide range of conditions. To do this, they need to compete against, and replace, native fungi. This is the definition of an <u>invasive species</u>. The use of biofertilzers may not be a big problem if these products stay where we put them, like in the greenhouse or in a farmer's field. But if there is one thing we've learned about microbes in the last 24 months, it is that they move, and they move fast. There is evidence that mycorrhizal fungi can move over long distances, through atmospheric currents or even as passengers on migratory birds. In all ecosystems, mycorrhizal fungi link plants in a community through hyphae — thin strands of fungus that carry nutrients to plants. In this way, mycorrhizal fungi and their plant hosts become a superorganism — with plants belonging to different <u>species</u> linked via mycorrhizal hyphae (the filaments that make up the network of a fungi). This allows plants to sense conditions elsewhere in the network by receiving warning chemicals through hyphae if there is a herbivore somewhere in the network and increasing defence chemicals before an attack occurs.

Adding fungi to soil may introduce invasive species

Mycorrhizal fungi can also change the flow of sugars from the canopy when a seedling is shaded and needs more carbon. The problem is, even though these networks are crucial for ecosystems, science does not understand how they are affected by biofertilizers. There is currently no research on how mycorrhizal networks are affected by the introduction of biofertilizers or what it means for eco-systems. Neither is there research beyond my lab of how far these products are moving. But science is clear on one thing:once we release these organisms into the environment, we lose the ability to control them.

Regulating biofertilizers This is the crux of the matter:we do not know how big of a threat biofertilizers pose to ecosystems. Yet, these products continue to be marketed and released globally, with little or no regulation. In Canada, they are considered soil additives under the Fertilizer Act, which is the federal legislation overseeing the safety of fertilizer and soil supplements. Regulation focuses on the toxicity of biofertilizers to humans and other animals, not their risk as invasive species. A better framework might be the Plant Protection Act, which exists to protect plants, agriculture and forestry from the spread of plant pests. While mycorrhizal fungi are not pests, they are not universally beneficially in all contexts. For example, these fungi can act as a carbon drain for plants, suppressing their growth under certain conditions. It is not a stretch to say that, in some cases, they might act as plant pests. If biofertilizers are not universally beneficial for all plants in all conditions, they pose a real threat to soil biodiversity and perhaps even plant diversity. If biofertilizers outcompete local fungi, this could change the composition and productivity of plant communities. This is a problem for natural systems, but also for agriculture and forestry. We need to better regulate these products to ensure that they are not a threat to ecosystems. The thin skin of soil on our planet is home to the creatures who keep our ecosystems functioning — we must not forget about them in our quest to make agriculture more sustainable. Miranda Hart is a professor of Biochemistry and Molecular Biology at the University of British Columbia. The Conversation is an independent and nonprofit source of news, analysis and commentary from academic experts.

Load-Date: March 24, 2022



Web event focused on invasive species

Brockville Recorder & Times

November 23, 2021 Tuesday

Final Edition

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Section: LOCAL; Pg. A5

Length: 710 words

Byline: Jessica Munro, The Brockville Recorder &; Times

Body

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Throughout the summit, attendees learned about different programs and organizations that help tackle the <u>invasive</u> <u>species</u> problem in Ontario, including European water chestnut control and surveillance done by Ducks Unlimited Canada (DUC), the Invading <u>Species</u> Awareness Program, Nature Conservancy of Canada and Rockcliffe Park Residents Association/Ontario <u>Invasive</u> Plant Council, as well as the Sandy Smith Lab at the University of Toronto.

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Web event focused on invasive species

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Load-Date: November 23, 2021



Web event dealt with invasive species

Canadian Press

November 22, 2021 Monday 09:48 PM EST

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THE CANADIAN PRESS

Section: SPARE NEWS

Length: 702 words

Byline: Jessica Munro, Local Journalism Initiative Reporter, Brockville Recorder and Times

Body

The Youth Summit on <u>Invasive Species</u> last week taught Eastern Ontario youth and young adults on the impacts of <u>invasive species</u>.

The <u>Invasive Species</u> Centre (ISC) and the Early Detection and Rapid Response (EDRR) Network hosted its virtual Youth Summit on <u>Invasive Species</u> Projects and Collaboration on Thursday.

Participants logged onto a virtual youth summit to learn about the impacts of <u>invasive species</u>, flora and fauna, how to prevent, detect and report <u>invasive species</u>, and the types of organizations that work together to protect natural spaces.

The free youth summit began with Derissa Vincentini, community action leader for the <u>Invasive Species</u> Centre, who explained what an *invasive species* is and where it might come from.

An <u>invasive species</u> is an organism that is introduced outside of its native range and causes harm to its newly introduced range. However, a <u>species</u> that is not native to the area isn't always <u>invasive</u>; it has to have a negative impact on the ecology, economy or society in its introduced range to be considered <u>invasive</u>, said Vincentini.

She added that many <u>invasive species</u> tend to be fast-growing and reproducing <u>species</u> that lack natural predators and target native <u>species</u> that have a lack of defense mechanisms. Increased trade and travel promotes the spread of <u>invasive species</u> across the world.

Throughout the summit, attendees learned about different programs and organizations that help tackle the <u>invasive</u> <u>species</u> problem in Ontario, including European water chestnut control and surveillance done by Ducks Unlimited Canada (DUC), the Invading <u>Species</u> Awareness Program, Nature Conservancy of Canada and Rockcliffe Park Residents Association/Ontario <u>Invasive</u> Plant Council, as well as the Sandy Smith Lab at the University of Toronto.

During the day each organization shared a presentation with a question and answer panel following. The various presentations were focused on different <u>invasive species</u> threatening Ontario, including aquatic invaders like the European water chestnut and the water soldier.

Web event dealt with invasive species

The other half of the day was focused on terrestrial invaders like the hemlock woolly adelgid, <u>invasive</u> knotweed, buckthorn and others, and the work being done to limit their impact on the environment.

The European Water Chestnut Control and Surveillance Program does visual surveys of the plant and removes what it can through hand-pulling, using a harvester/cutter boat or chemical control, and once the control efforts are done for the year it focuses on surveillance for new infestations of the plant, said Kyle Borrowman, biologist for DUC.

The Nature Conservancy of Canada is looking at four different priority <u>invasive species</u>: Common buckthorn, dogstrangling vine, garlic mustard and <u>invasive</u> phragmites, while the Rockcliffe Park Residents Association/Ontario <u>Invasive</u> Plant Council also focuses on protecting the land in their jurisdiction area from buckthorn, by different methods of removing and pulling up of the plant.

According to Vincentini, people can reduce the spread of <u>invasive species</u> by not dumping bait into the water, cleaning off boots, gear and boats, buying and burning local firewood and choosing native <u>species</u> to plant in gardens.

"You can continue to learn about emerging <u>invasive species</u> that are threatening your community and learn to identify them and as we heard many speakers mention, if you see an <u>invasive species</u>, take a picture and report it to Eddmaps at <u>www.eddmaps.org</u>," said Vincentini.

The <u>Invasive Species</u> Centre is a not-for-profit organization with a mission to prevent the spread of <u>invasive species</u>, plants and other living <u>species</u> in Canada and beyond by connecting with stakeholders to catalyze <u>invasive species</u> management and communicate policy and science knowledge.

The EDRR Network Ontario is co-ordinated by the Centre and the Eastern Ontario Model Forest/Ontario Woodlot Association and the Ontario <u>Invasive</u> Plant Council; it aims to train and equip communities to monitor, report and manage <u>invasive species</u> in Ontario.

(Jessica Munro is a Local Journalism Initiative reporter who works out of the Brockville Recorder and Times. The Local Journalism Initiative is funded by the Government of Canada.)

Load-Date: November 25, 2021



Youth art contest rallies Californians to 'Unite to Fight Invasive Species'

Mountain Democrat (Placerville, California)
February 21, 2022

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Section: PROSPECTING

Length: 392 words

Byline: California Department of Fish and Wildlife

Body

The California Department of Fish and Wildlife recently announced the ninth annual California <u>Invasive Species</u>. Youth Art Contest. This year's theme, "Unite to Fight <u>Invasive Species</u>," reflects the need for all Californians to work together to prevent the spread and impacts of *invasive species*.

"The Youth Art Contest is an opportunity for students to combine science with artistic expression while learning about an important environmental issue," said Elizabeth Brusati, an environmental scientist with CDFW's Invasive Species Program. "We want young people to look for ways to stop the spread of Invasive species. Helpful actions could include choosing native plants for landscaping, not releasing unwanted pets into the wild, reporting Invasive species sightings and cleaning clothing and gear to prevent unintentionally moving organisms from one location to another."

The contest is offered by CDFW's *Invasive Species* Program in conjunction with California *Invasive Species* Action Week, which will be June 4-12 this year. There are three age divisions for youths in grades 2-4, 5-8 and 9-12. All types of media are welcome and encouraged, including (but not limited to) drawings, paintings, animations, comic strips, videos and public service announcements. Entries must reflect the 2022 theme: "Unite to Fight *Invasive Species*."

The top three winners in each division will receive awards and have their entries announced on CDFW's social media.

Additional details and inspiration, including prior years' winning entries, can also be found on the CDFW website.

The deadline for art contest entries is April 1. Completed entries and entry forms should be submitted electronically. Submission instructions can be found on the CDFW website.

The goal of California <u>Invasive Species</u> Action Week is to increase public awareness of <u>invasive species</u> issues and encourage public participation in the fight against California's <u>invasive species</u> and their impacts on the state's natural resources and biodiversity.

The mission of CDFW's *Invasive Species* Program is to reduce the impacts of *invasive species* on the wildlands and waterways of California. The program is involved in efforts to prevent the introduction of these *species* into the state, detect and respond to introductions when they occur and prevent the spread of those *species* that have established.

Graphic

Student Veronica Cid's 2021 winning entry in the 5th-8th grade category.

Load-Date: February 22, 2022



Kaua'i extension agent 'MVP' for invasive-species work

The Garden Island (Lihue, Hawaii)

March 9, 2022 Wednesday

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Section: HAWAII NEWS

Length: 568 words **Byline:** Scott Yunker

Body

LIHU'E A Kaua'i-based specialist has been recognized for his work protecting the island from the harmful effects of *invasive species*.

The Hawai'i *Invasive Species* Council named University of Hawai'i College of Tropical Agriculture and Human Resources Assistant Extension Agent Dr. Roshan Manandhar as Kaua'i MVP on March 1, at the close of Hawai'i *Invasive Species* Awareness Month in February.

"I'm very thankful. It's an honor for me, and I'm a little bit pumped up," Manandhar told The Garden Island.

Manandhar, who specializes in integrated pest management, holds a doctorate in entomology from UH. On Kaua'i, he coordinates responses to emerging threats, consults landowners and farmers, and conducts surveys across the island.

Rose-ringed parakeets are Kaua'i's most-serious *invasive species*, according to Manandhar, who was confronted by the green-bodied, orange-beaked birds when he began his current job in 2018.

The parakeets are notoriously destructive and long-lived agricultural pests. They were introduced to the Hawaiian Islands in the 1960s as pets, according to HISC.

"It's difficult to recommend a control method, because parakeets are very intelligent," Manandhar said. "You do one thing today, they learn. They know you."

Manandhar also helmed local responses to coffee berry borer and coffee leaf rust, which were detected on the island in 2020 and 2021, respectively.

Working with groups including the Hawai'i Department of Agriculture and the Kaua'i *Invasive Species* Committee, Manandhar and his colleagues eliminated infected plants and educated the public following the pests' arrivals on Kaua'i (the CBB/CLR Response Planning Team still meets on a monthly basis).

The extension agent can also be found at farms across the island, surveying for invasives. He combs Lihu'e Airport and Nawiliwili Harbor, too, for pests not yet detected on Kaua'i.

"I will need to survey for Lantana camara it's a weed sometime very soon," Manandhar said. "And also a type of gall fly."

Kaua'i extension agent 'MVP' for invasive-species work

The work has led to discoveries and experiments.

Manandhar was the first to detect Oriental yellow scale on Kaua'i, in a Kekaha papaya field. He and his team ultimately eliminated the pestilential insect.

The entomologist is also investigating the use of bigheaded ants to combat termites infesting a Moloa'a citrus grove.

"They're a little bit aggressive, and they try to fight with those termites," he said of the ants.

Manandhar used a substance fortified with sugar to attract the groves' ants to infected trees.

"I can see they are disturbing the termites, but I don't know if they will displace the termites," he said. "That's the next step."

In the meantime, Manandhar has plenty of other work to do. He hosts virtual "mini-conferences" featuring <u>invasive-species</u> experts from across Hawai'i and the U.S. mainland, and when visited by The Garden Island on Monday, a bucket of weevil-infected sweet potatoes rested upon his office desk, awaiting inspection.

"I'm hoping to fulfill all the expectations from people," he said when discussing his new MVP status. "I thank the Kaua'i community, especially KISC, for nominating me for this award."

Correction: This story was updated to correct that Manandhar's work in CLR/CBB response planning was with the Hawai'i Department of Agriculture, not the U.S. Department of Agriculture.

Scott Yunker, reporter, can be reached at 245-0437 or syunker@thegardenisland.com

Load-Date: March 10, 2022



WID invasive species eradication efforts

Canadian Press

November 11, 2021 Thursday 04:30 PM EST

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THE CANADIAN PRESS

Section: SPARE NEWS

Length: 483 words

Byline: John Watson, Local Journalism Initiative Reporter, Strathmore Times

Body

The Western Irrigation District (WID) is reporting optimism following their <u>invasive species</u> eradication efforts over the summer and wants to continue to raise public awareness about the issue of <u>invasive species</u> in Wheatland County.

"It's an unfortunate annual ... and constant ... part of our work for the WID. We're making progress on the *invasive* species every year," said Brian Sander, water master for the WID.

He explained that the organization has been working regularly with Wheatland County as well as Ducks Unlimited to contain *invasive* and noxious *species*, as well as to rehabilitate damaged natural areas.

Among the *invasive species* being addressed are flowering rush, purple loosestrife and zebra mussels.

"We're about eight years into the purple loosestrife control project, so that's a really good community ... all together controlling this one noxious *invasive species*," said Sander.

"We continue to battle flowering rush ... it is quite laborious. We found the best way economically and control-wise is to be delicate and remove these plants by hand so as to not let root cuttings and tubers escape."

<u>Invasive</u> weeds have been identified in Wheatland County, particularly along waterways where conditions are favourable for the plants to flourish, especially where there is presence of fertilizer runoff from residential areas.

This year, the WID had the assistance of two post-secondary environmental science students to assist in their efforts. The team reportedly removed around 300 flowering rush specimens and 50 purple loosestrife from the Wheatland County and Chestermere areas.

"The removal of <u>invasive species</u> is an important aspect in maintaining habitats as they often displace native vegetation through competition for nutrients and space," said Rachel Davey, a student at Mount Royal University who aided the WID over the summer season.

"In the WID, <u>invasive species</u> such as flowering rush also will disrupt the flow of water and can increase sedimentation, negatively impacting the overall water quality."

WID invasive species eradication efforts

Sander added the WID will be continuing to monitor for and harvest <u>invasive species</u> for destruction, with a long-term goal being to remove them completely from the area.

"I have a lot of passion for controlling these <u>invasive species</u>. They have a place in the world, but it's not in our geographical location," said Sander.

Regarding public awareness, he advises people to be aware of <u>invasive species</u> as they are a very real issue. Flowering rush for example, tends to be a common seed to purchase in local garden stores because it is a very hardy plant that blooms a pretty flower.

To help aid in keeping Alberta largely free of zebra mussels, stations are being installed locally for checks to be made to watercraft before and after use in local waterways to control and prevent the spread of **species** such as the zebra mussel among other **invasive** aquatic **species**.

Load-Date: November 14, 2021



Rep. Stefanik introduces Stamp Out Invasive Species Act to help local ecosystems

North Country Now (Potsdam, New York)

March 22, 2022 Tuesday

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Section: NEWS

Length: 255 words

Body

Congresswoman Elise Stefanik has reintroduced the Stamp Out <u>Invasive Species</u> Act to help combat and raise awareness about the threat <u>invasive species</u> pose to Upstate New York and North Country ecosystems.

Specifically, this bill would direct the United States Postal Service to issue a "Combating *Invasive Species* Semipostal Stamp." Net proceeds from the sale of this stamp would be directed to the United States Department of Agriculture and the Department of the Interior for programs that combat *invasive species*.

"Upstate New York and the North Country are home to the largest and most diverse ecosystem in New York State, including the Adirondacks, multiple lakes and rivers, and thousands of miles of trails, and I am committed to preserving it for our future generations," Stefanik said. "I am proud to lead this effort in Congress to help raise awareness about the threat these <u>invasive species</u> pose to our natural ecosystems and fund research that will help combat these predators."

An estimated 50,000 non-native <u>invasive</u> animal and plant <u>species</u> have been introduced to the United States, costing up to \$100 billion annually. Additionally, every state and U.S. territory has at least some form of <u>invasive</u> plant or animal tremendously impacting the natural biodiversity of our homes.

This bipartisan bill is supported by Representatives Garret Graves (R-LA), Ed Case (D-HI), Rick Crawford (R-AR), Mike Thompson (D-CA), Don Young (R-AK), Raul Grijalva (D-AZ), Aumua Amata Radewagen (R-American Samoa), and Darren Soto (D-FL).

Load-Date: March 24, 2022



Invasive species swat team in the works in Norfolk

Tillsonburg News
February 17, 2022 Thursday
Final Edition

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Section: LOCAL; Pg. A14

Length: 520 words

Byline: Monte Sonnenberg, Tillsonburg News

Body

Norfolk County and the Nature Conservancy of Canada are teaming up to eliminate <u>invasive species</u> in critical Carolinian habitat in the west half of the municipality.

At no charge to the taxpayer, the county will provide a key element of support which promises to unlock \$364,000 in federal funding. The cash - if approved - will be used to recruit a four-member crew charged with eliminating *invasive* plant *species* from the Long Point-Walsingham Forest complex.

"The <u>invasive species</u> stewardship crew will focus on the removal of <u>invasive</u> shrubs and terrestrial and wetland plants throughout the work area," Adam Biddle, Norfolk's supervisor of forests, said in a report to Norfolk council on Feb. 8.

"Areas of focus will be prioritized to target conservation lands and connecting corridors. Norfolk County road allowances have been identified as an important vector in which <u>invasive species</u> are spread, so control efforts along county roads will be prioritized."

Biddle adds Norfolk's substantial woodlot holdings in the west part of the county will also benefit from a focused eradication campaign.

Norfolk's contribution is allowing NCC to count the DeCloet forest land donation last year as part of its application to the federal government's Canada Nature Fund. Overseen by Environment Canada, the nature fund provides grants on a matching-dollar basis. Administrators of the nature fund have indicated they are prepared to accept the DeCloet donation, which has been appraised at \$476,000, as a qualifying matching donation to the NCC application. Norfolk CAO Al Meneses has prepared a letter for NCC to include with their application.

"The donor of the property - Mr.

Paul DeCloet - is fully supportive of the concept of using the value of the donation to advance NCC's conservation objectives and is very pleased to know his donation will have an even greater impact than originally expected through this proposal," Meneses says.

Eric Cleland, NCC's <u>invasive species</u> specialist in Ontario, provided an update Wednesday on what the eradication crew will be tasked to accomplish. Garlic mustard and tall-reed phragmites are well-documented villains on the local landscape, but Cleland said other contenders have emerged in recent years.

Invasive species swat team in the works in Norfolk

NCC, in particular, is anxious to go after the few isolated patches of dog-strangling vine they have identified.

"It's a nasty one that we don't want in Norfolk," Cleland said. "It's almost out of control in central and eastern Ontario "It's a distant relative of the milkweed family. It will take over a forest canopy. There are a few small patches in Norfolk we'd like to eradicate while it's still a small population."

The road allowances Biddle referred to are a problem, Cleland said, because they provide ample space for <u>invasive species</u> to spread without having to compete with forest cover for sunlight. He added many <u>invasive species</u> give themselves away in late fall because they tend to stay green while native <u>species</u> have faded to brown.

Other <u>invasive species</u> on the hitlist, Cleland said, are celendine, honey-suckle shrub, multi-flora roses, Russian olive, and autumn olive.

Load-Date: February 17, 2022



Towns discuss invasive species

Kennebec Journal

February 22, 2022 Tuesday

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Section: Pg. 1.A; ISSN: 07452039

Length: 1025 words

Byline: Chris Bouchard

Dateline: Augusta, Me.

Body

FULL TEXT

Just one fragment of Eurasian watermilfoil can quickly spread and take over a lake, hurting the aquatic flora and fauna, endangering swimmers, hindering boaters, and reducing property values.

Plant threatens

Cobbossee Lake, surrounding area

LITCHFIELD — Officials in the five towns surrounding Cobbossee Lake are brainstorming solutions to the Eurasian watermilfoil infestation, including working with local marina owners to have a trained <u>invasive species</u> boat inspector on site.

The <u>invasive</u> Eurasian watermilfoil has threatened Cobbossee Lake, also known as Cobbosseecontee, since 2018. Just one fragment of this plant can quickly spread and take over a lake, hurting the aquatic flora and fauna, endangering swimmers, hindering boaters, and reducing property values.

Following a recent meeting between the CYC Lake Association, Friends of the Cobbossee Watershed, and the five towns surrounding the 8.7-square-mile lake (Litchfield, Manchester, Monmouth, West Gardiner and Winthrop), Litchfield officials discussed their options moving forward.

According to the lake association, the combined value of shoreline property along the lake exceeds \$700 million.

A 2010 study showed that the presence of the Eurasian watermilfoil can reduce property values by 16%, meaning a potential \$100 million loss for the Cobbossee Lake properties.

In 2019, the Maine Department of Environmental Protection treated the lake with the herbicide ProcellaCOR, which only targets *invasive* plants. However the watermilfoil was discovered once again in the northeast corner of the lake in 2020 and, in late 2021, a fragment of the plant was discovered as far down as Farr's Cove, which is roughly halfway down the lake.

Towns discuss invasive species

Litchfield Town Manager Kelly Weissenfels said during a Monday selectmen meeting that he and selectperson Rayna Leibowitz attended the joint meeting, and that some of the surrounding towns have begun creating ordinances that would require local marina owners to have a trained <u>invasive species</u> boat inspector on site.

"They thought it would be helpful if they expanded that to include any private organizations with a boat ramp," said Weissenfels, "and for us that would mean Birches (Lakeside Campground)."

Leibowitz said the ordinance would need to be adopted by the community. If the ordinance does require an individual on the site inspecting watercraft, then the campground would need to hire or train staff to inspect boats for the watermilfoil.

Weissenfels on Wednesday said the board considered alternatives to the ordinance.

"There may be a different solution in working with those businesses," he said, "rather than having an ordinance, but being able to get some cooperation from them without having a demand."

He added that all of the board's discussion on Feb. 14 was preliminary, and that no final decisions have been made.

"For Litchfield, it's really a matter of how we can best work with local businesses so we don't put roadblocks in their way, but at the same time making sure everyone is acting responsibly," he said. "Birches Lakeside Campground has been great, and they've been expanding recently. We want to do everything we can, and I'm sure they realize this is in their best interest, so we'll be talking with them as well."

Philip Roy, general manager of Birches Lakeside Campground, said that while the town hasn't been in touch yet, he is very supportive of efforts to eradicate milfoil on the lake.

Roy is particularly close to the issue, as he worked as a milfoil diver with the Little Sebago Lake Association for 18 years.

"I have a very personal knowledge of milfoil, Eurasian and others, so when they were trying to eradicate it on the north end of the lake, we were very much involved in that," he said. "We're very supportive of any efforts to eradicate it sooner than later."

Weissenfels said the second item of discussion brought up during the group meeting was dedicating a portion of the each town's boat excise revenue toward efforts to protect the lakes.

Selectman Gary Parker said Litchfield's boat excise money, which averages out to about \$8,000 a year, likely wouldn't go far, especially considering the amount of time and work required to fight the *invasive* plant.

The CYC Lake Association found that lakes of a similar size with Eurasian watermilfoil have required between \$200,000 and \$400,000 annually to control the infestation.

Weissenfels said the town could consider evaluating the costs of investing in the aforementioned options versus the negative impact the *invasive species* would have on the town's property values.

"I think it's probably a good thing, but I also think that we need to make sure that it's not impacting our tax dollars in a huge way," said Parker, "because I think we have an ample amount of things to spend our money on."

The town, according to Weissenfels, already pays \$3,750 annually to the Tacoma Lakes Association and the CYC Lake Association, in addition to \$5,000 for the FCW's diver-assisted suction harvester (DASH) boat program. The DASH boat, which has a vacuum that ensures broken bits of the plant don't continue to spread, was used on variable leaf milfoil in Litchfield's Pleasant Pond.

Litchfield's future plans regarding the lake will begin to solidify as the selectboard begins discussing the municipal budget. Weissenfels said budget discussions will begin at the board's next meeting.

Towns discuss invasive species

He said that while a date has not been set for the next joint meeting between the communities and lake organizations, it will likely occur within the next month.

"I think it's going to be an interesting discussion," said Leibowitz, "to see everybody come together with suggestions and brainstorming."

As a milfoil diver, Roy said he's seen lakes completely overtaken by <u>invasive</u> plants, and hopes Cobbossee Lake never reaches this point.

"I remember pulling 300 to 400 bags (of milfoil) a day," he said. "I've seen it so that you literally couldn't see your hand in front of your face. I would never want to see Cobbossee in that light; it would just be devastating to the economy, the taxpayers and the towns."

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Load-Date: February 24, 2022



Invasive species swat team in the works in Norfolk County

Tillsonburg News

March 3, 2022 Thursday

Final Edition

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Section: LOCAL; Pg. B9

Length: 521 words

Byline: Monte Sonnenberg, Tillsonburg News

Body

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"Areas of focus will be prioritized to target conservation lands and connecting corridors. Norfolk County road allowances have been identified as an important vector in which <u>invasive species</u> are spread, so control efforts along county roads will be prioritized."

Biddle adds Norfolk's substantial woodlot holdings in the west part of the county will also benefit from a focused eradication campaign.

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Eric Cleland, NCC's <u>invasive species</u> specialist in Ontario, provided an update to council on what the eradication crew will be tasked to accomplish. Garlic mustard and tall-reed phragmites are well-documented villains on the local landscape, but Cleland said other contenders have emerged in recent years.

Invasive species swat team in the works in Norfolk County

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Graphic

Andrew Colton; Norfolk County and the Nature Conservancy of Canada are teaming up to eliminate <u>invasive</u> plant <u>species</u> in Carolinian woodlots and elsewhere in the west half of the municipality. This is a photo of ongoing efforts to eradicate <u>invasive</u> tall-reed phragmites, which has proven to be a serious ecological threat in wetland areas of Turkey Point and Long Point.;

Load-Date: March 3, 2022



Youth art contest rallies californians to unite to fight invasive species

Lake County News (CA) February 11, 2022 Friday

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Section: ARTS & LIFE Length: 394 words

Byline: California Department of Fish and Wildlife

Body

The California Department of Fish and Wildlife is pleased to announce the ninth annual California *Invasive Species* Youth Art Contest.

This year's theme, "Unite to Fight *Invasive Species*," reflects the need for all Californians to work together to prevent the spread and impacts of *invasive species*.

"The Youth Art Contest is an opportunity for students to combine science with artistic expression while learning about an important environmental issue," said Elizabeth Brusati, an environmental scientist with CDFW's <u>Invasive Species</u> Program. "We want young people to look for ways to stop the spread of <u>invasive species</u>. Helpful actions could include choosing native plants for landscaping, not releasing unwanted pets into the wild, reporting <u>invasive species</u> sightings and cleaning clothing and gear to prevent unintentionally moving organisms from one location to another."

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Youth art contest rallies californians to unite to fight invasive species

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Graphic

The 2021 winner in the fifth to eighth grade category, Veronica Cid.

Load-Date: February 12, 2022



Flint Journal, The: Web Edition Articles (Michigan)

March 2, 2022 Wednesday

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Section: PUBLIC INTEREST

Length: 888 words

Byline: Sheri McWhirter, smcwhirter@mlive.com

Body

A retired, 50-foot state research vessel will sail into a new mission as an educational tool in Alpena, where future visitors can learn about aquatic *invasive species* in the Great Lakes and effects on fisheries.

Michigan officials this week announced \$3.6 million in grants to dozens of organizations across the state for programs to limit the spread of <u>invasive species</u> already here, prevent new ones from establishing, and strengthen the state's detection should that happen, along with awareness projects.

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Load-Date: March 2, 2022



YOUTH ART CONTEST RALLIES CALIFORNIANS TO UNITE TO FIGHT INVASIVE SPECIES

US Fed News

February 9, 2022 Wednesday 9:32 AM EST

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Length: 468 words

Body

SACRAMENTO, Calif., Feb. 9 -- The California Department of Fish and Wildlife issued the following press release:

2021 winner in the 5th-8th grade category, Veronica Cid. CDFW Photo

The California Department of Fish and Wildlife (CDFW) is pleased to announce the ninth annual California <u>Invasive</u> <u>Species</u> Youth Art Contest. This year's theme, "Unite to Fight <u>Invasive Species</u>," reflects the need for all Californians to work together to prevent the spread and impacts of <u>invasive species</u>.

"The Youth Art Contest is an opportunity for students to combine science with artistic expression while learning about an important environmental issue," said Elizabeth Brusati, an environmental scientist with CDFW's Invasive Species Program. "We want young people to look for ways to stop the spread of Invasive species. Helpful actions could include choosing native plants for landscaping, not releasing unwanted pets into the wild, reporting Invasive species sightings and cleaning clothing and gear to prevent unintentionally moving organisms from one location to another."

The contest is offered by CDFW's <u>Invasive Species</u> Program in conjunction with California <u>Invasive Species</u> Action Week, which will be June 4-12 this year. There are three age divisions for youths in grades 2-4, 5-8 and 9-12. All types of media are welcome and encouraged, including (but not limited to) drawings, paintings, animations, comic strips, videos and public service announcements. Entries must reflect the 2022 theme: "Unite to Fight <u>Invasive Species</u>."

The top three winners in each division will receive awards and have their entries announced on CDFW's social media.

Additional details and inspiration, including prior years' winning entries, can also be found on the CDFW website.

The deadline for art contest entries is April 1. Completed entries and entry forms should be submitted electronically. Submission instructions can be found on the CDFW website.

The goal of California <u>Invasive Species</u> Action Week is to increase public awareness of <u>invasive species</u> issues and encourage public participation in the fight against California's <u>invasive species</u> and their impacts on our state's natural resources and biodiversity.

The mission of CDFW's *Invasive Species* Program is to reduce the impacts of *invasive species* on the wildlands and waterways of California. The program is involved in efforts to prevent the introduction of these *species* into the

YOUTH ART CONTEST RALLIES CALIFORNIANS TO UNITE TO FIGHT INVASIVE SPECIES

state, detect and respond to introductions when they occur, and prevent the spread of those **species** that have established.

Media Contacts:

Bridget Kennedy, CDFW Education and Outreach, (916) 502-7472

Elizabeth Brusati, CDFW <u>Invasive Species</u> Program, (916) 206-4621 For any query with respect to this article or any other content requirement, please contact Editor at <u>contentservices@htlive.com</u>

Load-Date: February 10, 2022



YOUTH ART CONTEST RALLIES CALIFORNIANS TO UNITE TO FIGHT INVASIVE SPECIES

States News Service February 9, 2022 Wednesday

Copyright 2022 States News Service

Length: 408 words

Byline: States News Service

Dateline: SACRAMENTO, CA

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Kalamazoo Gazette: Web Edition Articles (Michigan)

March 2, 2022 Wednesday

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Section: PUBLIC INTEREST

Length: 888 words

Byline: Sheri McWhirter, smcwhirter@mlive.com

Body

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Load-Date: March 2, 2022



Native plant alternatives to non-native invasive species

Bennington Banner (VT) 14 March 2022

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Section: NEWS; Pg. A06

Length: 479 words

Body

COMMENTARY

BY MARY BETH DELLER Have you removed, or are you planning to remove, some non-native <u>invasive species</u> that you'd like to replace with native alternatives? Or are you simply eager for spring and the opportunity to plant wildflowers, shrubs or trees in your yard?

Beautiful native trees, shrubs, wildflowers and graminoids surround us. Saying that a plant is "native" to a place (state, region, country, continent) means it originated from there and evolved there naturally over time. Native plants are an essential component of a healthy, biologically diverse, balanced and functioning ecosystem. Important pollinators in decline such as bumblebees and monarch butterflies need native plants, as do birds and other animals. In contrast, non-native <u>invasive</u> plants cause problems when they displace native plants, disrupt wildlife habitat, alter soil chemistry or contribute to problems such as erosion.

To decide which native <u>species</u> to plant, first note the conditions in your yard. How much light and soil moisture is available?

Think about designing a space you will enjoy that has native plants that will encourage pollinators, feed the birds and other wildlife, and beautify your yard.

Here are some examples to get you started: If you have *invasive* garlic mustard in your backyard on the edge of your woods, think about replacing it with native trillium or ostrich fern. If you're hoping to replace *invasive* shrubs such as Morrow honeysuckle, consider native black chokeberry, black elderberry or nannyberry, all of which have white flowers and black, blue or purple fruits. To add more color, consider winterberry, with maroon fall foliage and persistent red berries, or highbush blueberry, with blue berries and red fall foliage.

The Audubon Society has a database, audubon. org/native-plants, that indicates what native plants attract what birds in your area. Another great source is the Native Plant Trust, nativeplanttrust.org/ for-your-garden/buy-native-plants/, with online tools to help you plan your garden and native plants for sale. For a list of plants specific to Vermont see the Vermont Invasives website vtinvasives.org/resource/ alternatives-to-common-<u>invasive</u> plants-and-characteristics- of-select-alternatives.

MaryBeth Deller, Botanist with the Green Mountain and Finger Lakes National Forest, <u>mary.deller@usda.gov</u>, and is a member of the Batten Kill Comprehensive <u>Invasive Species</u> Management Association. The Batten Kill Watershed Comprehensive <u>Invasive Species</u> Management Association is a public/private partnership committed to addressing the threat posed by non-native, <u>invasive</u> plants in our area. The CISMA's overarching goal is to

Native plant alternatives to non-native invasive species

leverage our shared knowledge, expertise, and resources to get people in the watershed engaged in the work of *invasive* plant control. facebook. com/CISMA-Batten-Kill-Watershed-635022546649221/.

Graphic

Winterberry LOGEE'S

Load-Date: March 14, 2022



Muskegon Chronicle, The: Web Edition Articles (Michigan)

March 2, 2022 Wednesday

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Section: PUBLIC INTEREST

Length: 888 words

Byline: Sheri McWhirter, smcwhirter@mlive.com

Body

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Load-Date: March 2, 2022



Invasive species spread even in winter

Benzie County Record Patriot (Frankfort, Michigan)

December 8, 2021

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Section: NEWS

Length: 349 words

Byline: Compiled by Colin Merry, STAFF WRITER

Body

BENZIE COUNTY -- While many people worry about the spread of <u>invasive species</u> in the summer months, they can still spread during the snow, ice and cold temperatures of winter.

<u>Species</u> like Eurasian watermilfoil and zebra mussels can tolerate -- and survive -- under the winter ice, according to the Benzie Conservation District.

While people may be wary of accidentally transporting <u>invasive species</u> in the summer, they may not think it can happen in the winter. However, they can be easily spread from place to place and can quickly take over, changing the function of entire ecosystems and depleting native plant and animal populations.

Following these steps in the winter months can prevent new aquatic <u>invasive species</u> from being introduced to freshwater lakes, streams and rivers:

When ice fishing, inspect all of your gear and equipment. This includes your line, hooks, auger, any nets and your boots. If possible, let all of your gear dry for a minimum of five days; before using them again. This ensures any missed plant or animal matter will not survive.

Familiarize yourself with Michigan's bait laws. It is illegal to dump baitfish like wigglers, minnows or crayfish in any body of water. They must be disposed of on land or in the garbage.

Make your purchase from a shop that is properly licensed;

If any water is collected (for buckets, etc.) dump it on site before moving to a new location; and

Pack out any waste from the ice and dispose of it in appropriate containers.

Combating <u>invasive species</u>, whether in waterways or on land, is a community effort, according to the conservation district. Taking just five minutes to clean gear can make an incredible difference.

For additional resources or questions on aquatic <u>invasive species</u>, reach out to AIS Coordinator for the Aquatic <u>Invasive Species</u> Pathways Program (AISPP) Jane Perrino at <u>jane@benziecd.org</u>

The AISPP, a program of the Benzie Conservation District, provides on the ground prevention efforts and outreach on AIS in Benzie, Grand Traverse, Leelanau and Manistee counties.

More details can also be found at benziecd.org.

Load-Date: December 10, 2021



Jackson Citizen Patriot: Web Edition Articles (Michigan)

March 2, 2022 Wednesday

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Section: PUBLIC INTEREST

Length: 951 words

Byline: Sheri McWhirter, smcwhirter@mlive.com

Body

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Related articles:

'Rock snot' algae discovery sparks survey of Michigan's up north rivers

State receives \$5.8 million in grant applications for *invasive species* efforts

Great Lakes governors, lawmakers push for invasive carp project funds

Invasive mudsnails found in 6th Michigan river

Firewood alternative to prevent *invasive species* at Sleeping Bear Dunes gets mixed reviews

Load-Date: March 2, 2022



Colombia to include hippopotamus on invasive species list

CE Noticias Financieras English February 5, 2022 Saturday

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Length: 321 words

Body

Bogota, Feb 4 (EFE) - Colombian authorities announced Friday that they will include hippopotamuses, which were brought to the country by drug trafficker Pablo Escobar, on the list of <u>invasive species</u> based on technical and scientific studies. This decision, detailed the Ministry of Environment in a statement, is the first step to define concrete actions to address the situation of the <u>species</u> in the country and was taken by the National Technical Committee of Introduced and/or Transplanted <u>Invasive Species</u>. "We have been working with scientific and rigorous information on the roadmap for decision making regarding control and management measures for this <u>species</u> in Colombia.

For this reason, the Ministry of Environment will adopt the recommendation to declare the hippopotamus as an *invasive species* by the National Committee of Introduced and/or Transplanted *Invasive Species*," said the Minister of Environment, Carlos Correa. The high official added that a study of hippopotamuses in the country conducted by the Alexander von Humboldt Institute and the Natural Sciences Institute of the National University showed that the environmental risks caused by the invasion of this *species* in strategic ecosystems and that it would impact some native *species*. Hippopotamuses were introduced in Colombia more than 40 years ago and have migrated from the Magdalena Medio to the Momposina Depression, according to a study by the Alexander von Humboldt Institute and the National University, posing a threat to native *species* such as the manatee, as well as to the country's strategic ecosystems. They are descendants of specimens that belonged to the extinct Colombian drug trafficker Pablo Escobar. The drug trafficker imported four hippopotamuses, three females and one male, from a U.S. zoo in 1981 to form part of the exotic animal collection of his Hacienda Nápoles, which have now reproduced without control. EFE jga/cfa

Load-Date: February 6, 2022



Md. Natural Resources Dept.: Maryland Offers Grants for Aquatic Invasive Species Removal

Targeted News Service

March 23, 2022 Wednesday 9:40 AM EST

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Length: 248 words

Byline: Targeted News Service **Dateline:** ANNAPOLIS, Maryland

Body

The Maryland Department of Natural Resources issued the following news:

The Maryland Department of Natural Resources (DNR) announces a new grant program to aid in the removal of aquatic *invasive species* in Maryland waters.

The <u>Invasive Species</u> Control Proposal Solicitation is searching for community-based programs or individuals to help the department engage with the public and organizational partners in the control and removal efforts of <u>invasive</u> aquatic <u>species</u> in the Chesapeake Bay watershed.

A <u>species</u> is defined as <u>invasive</u> if its introduction does or is likely to cause environmental or economic harm, or harm to human health. Currently, there are an estimated 120 different aquatic <u>species</u> that have been introduced in Maryland waters, and 18% of those are <u>invasive</u>. Examples of aquatic <u>invasive species</u> include water chestnut, zebra mussel, and northern snakehead.

Interested applicants are invited to apply for grants between \$500 to \$10,000. Projects may start June 1, 2022, and last one day, or multiple days. Projects should be completed by November 30, 2022.

The objectives of a proposal should address how a local community will be engaged; and how the prioritized aquatic *invasive species* will be removed from Maryland waters.

To apply, interested parties should visit the DNR website and complete the proposal solicitation form by April 15, 2022. A full list of *invasive* aquatic *species* can be found on the DNR website.

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Refuge Notebook: Protecting Alaska from invasive species: A common goal near and far

Homer News (Alaska) March 9, 2022

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Section: SPORTS **Length:** 775 words

Body

Many regard Alaska for its wild and free landscapes and its importance to fish, wildlife, plants and people. However, while most Alaska landscapes are wild and free, *invasive species* threaten these qualities.

<u>Invasive species</u> on land and in the water can disrupt the visual qualities of the places we enjoy visiting and make life hard for the fish and wildlife that we enjoy watching and are fortunate enough to put in our freezers.

Luckily, compared with the Lower 48, Alaska has relatively fewer <u>invasive species</u> problems. This advantage puts us in a unique place to address <u>invasive species</u>.

While they are relatively few and far between, the efforts we are putting in now will cost less in the long run. Additionally, measures put in today have a greater chance of success toward our ultimate goal of a wild and free Alaska.

Partners across the Kenai Peninsula have had great successes collaborating on many <u>invasive species</u> efforts. For example, the Alaska Department of Fish and Game and Cook Inlet Aquaculture Association have managed northern pike to keep our salmon healthy.

In addition, <u>invasive</u> plants, like Elodea and reed canary grass, are being managed by federal agencies and other organizations like Homer Soil and Water Conservation District and the Kenai Watershed Forum in our area to keep our salmon healthy.

Finally, Kachemak Bay National Estuarine Research Reserve keeps an eye on our oceans and bays to ensure that <u>invasive</u> plants and animals like European green crab do not threaten our marine resources. These are only a few examples of the organizations and activities going on in our area.

Even though our <u>invasive species</u> are relatively few and far between, managing them is a group effort because <u>invasive species</u> do not recognize jurisdictional boundaries. The Kenai Peninsula Cooperative <u>Invasive Species</u> Management Area coordinates the efforts of the many organizations working on <u>invasive species</u>.

Given that the Kenai is "Alaska's Playground" and so many people recreate here, we are fortunate to have these partnerships in place to detect and treat <u>invasive species</u>.

Across the inlet and to our southwest, the Alaska Peninsula is not immune from <u>invasive species</u>. Although there are few roads and the towns are smaller than on the Kenai, there are still plenty of opportunities for <u>invasive species</u> to arrive.

Refuge Notebook: Protecting Alaska from invasive species: A common goal near and far

For instance, floatplanes coming from bodies of water in Southcentral Alaska with Elodea can transport it to more remote locations. In addition, seasonal workers coming in annually for the Bristol Bay fishing season have the potential to bring seeds of *invasive* plants from all over the world.

Recreationists from across the globe that visit the Alaska Peninsula for hunting, fishing and wildlife viewing can also unintentionally bring <u>invasive</u> hitchhikers from their points of origin. Finally, ships coming into port from worldwide locations could inadvertently bring European green crab, potentially damaging eelgrass beds important to many migratory birds.

The list of threats is long, and the area of the Alaska Peninsula is vast, making accessibility and management difficult at times compared with the Kenai Peninsula. Luckily, *invasive species* awareness and management have been increasing across the Alaska Peninsula over the last few years and are expected to increase during the foreseeable future.

Some snapshots that exemplify our state's broadening dedication to <u>invasive species</u> management include a newly formed Kodiak Archipelago Cooperative <u>Invasive Species</u> Management Area, a current effort to reinvigorate an Interior Alaska Cooperative <u>Invasive Species</u> Management Area, and sustained work to control <u>invasive</u> knotweed in Southeast.

While we direct more efforts toward <u>invasive species</u> issues, the landscapes we work within Alaska are immense. Thus, everyone needs help to keep an eye out for <u>invasive species</u> to protect the Alaska we all love.

Learn how to identify, prevent, treat and report <u>invasive species</u> from links on the Kenai Peninsula Cooperative <u>Species</u> Management Area's website, Facebook page, and YouTube channel at: <u>https://kenaiinvasives.org</u>.

As this week marks National <u>Invasive Species</u> Awareness Week, let's all commit to a shared vision of keeping Alaska wild and free of <u>invasive species</u> while we watch the snowmelt this spring and plan our summer adventures.

Ben Wishnek is the Early Detection-Rapid Response Project Coordinator for Southern Alaska based out of Kenai NWR. Find more Refuge Notebook articles (1999–present) at https://www.fws.gov/refuge/Kenai/community/refuge notebook.html and stay connected https://www.facebook.com/kenainationalwildliferefuge.

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Grand Rapids Press, The: Web Edition Articles (Michigan)

March 2, 2022 Wednesday

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Section: PUBLIC INTEREST

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Byline: Sheri McWhirter, smcwhirter@mlive.com

Body

A retired, 50-foot state research vessel will sail into a new mission as an educational tool in Alpena, where future visitors can learn about aquatic *invasive species* in the Great Lakes and effects on fisheries.

Michigan officials this week announced \$3.6 million in grants to dozens of organizations across the state for programs to limit the spread of <u>invasive species</u> already here, prevent new ones from establishing, and strengthen the state's detection should that happen, along with awareness projects.

More than 30 projects received funding in this year's grant cycle and when combined with \$541,500 in local matching dollars, will result in more than \$4.1 million in efforts to combat *invasive species* in 2022.

Officials said the second-largest grant went to a unique proposal unlike any before: a nonprofit art, science, and history museum in Alpena received a \$386,500 grant to transform the retired R/V Chinook an old state fishery research ship into an interactive science and history classroom.

Besser Museum for Northeast Michigan offers rotating art exhibits, historical displays, science demonstrations, a planetarium, and exhibits about the wildlife and fish of the region. Its next big project is called the Great Lakes Fisheries Heritage Exhibit and the old research ship will become a centerpiece of the permanent installation.

Grant money will pay for a new museum building to be built around the Chinook, which was previously donated to the museum and craned into position and settled onto boat cradles at the facility in Alpena in 2020.

The new, two-building exhibit will feature two major boat displays, both the Chinook and the historic wooden fishing tugboat the Katherine V. Visitors will be able to walk around and closely inspect the boats, plus learn about the history of fighting *invasive species* in Lake Huron.

"It will be an immersive, interactive exhibit that is really going to educate on what individuals, what visitors can do to help combat *invasive species*," said Christine Witulski, the museum's executive director.

The Chinook was a state commercial fishing enforcement boat from 1947 to 1968, when it was converted into an Alpena-based research vessel to monitor <u>invasive species</u> and related impacts on the fishery, such as <u>invasive</u> sea lamprey's harm to the lake trout population.

"And now after retirement, with the Chinook being donated to the Besser Museum, it's perfectly positioned to continue its mission of management of <u>invasive species</u> by serving as a public platform to educate and combat the ignorance of <u>invasive species</u>," Witulski said.

"It's going to be serving as a public platform to educate and bring awareness of <u>invasive species</u> and what can be done to keep our Great Lakes healthy."

Building construction is expected to begin this summer, followed by the creation and installation of educational displays. The building around the Katherine V is already completed, but educational and interpretive exhibits will be completed through the new state grant.

Witulski said the hope is for the new exhibit to be ready for the public and school field trip attendees by 2024.

The uniqueness of the museum's proposal is part of the reason state officials are so excited about it, said Joanne Foreman, Michigan's *invasive species* communication coordinator.

Other recipients of the \$3.6 million in state grant dollars will spend the money on awareness, prevention, detection, and eradication of both aquatic and land-based *invasive species*. All grant recipients must contribute 10 percent matching funds.

Other major projects funded in this year's grant cycle include:

\$387,100 to Loyola University of Chicago to optimize an early detection method of aquatic <u>invasive species</u>; focusing on European frogbit and using habitat sustainability models to direct surveys, compare methods and develop a mapping tool

\$302,700 to Michigan Clean Marina Foundation and Michigan Boating Industry Association to increase how many recreational boaters decontaminate their boats to reduce the spread of *invasive species*

\$244,900 to Grand Valley State University to use airborne environmental DNA methods to help detect *invasive* hemlock woolly adelgid insects in high-risk locations in Benzie, Leelanau, Manistee, Mason and Oceana counties

\$234,400 to Mecosta Conservation District for a pilot project to encourage off-road vehicle enthusiasts to prevent *invasive species* spread with awareness messaging that respects ORV interests and attitudes

\$182,600 to Michigan State University to do field releases of a leaf-feeding moth to control *invasive* swallow-wort vines in Oakland County

\$127,800 to Michigan State University to continue and expand a program to prevent <u>invasive species</u> releases into Michigan waters through the aquarium and pond industries

Grants awarded this year also continued annual program funding for 21 regional cooperative <u>invasive species</u> management networks to manage and control *invasive species* across all of Michigan's 83 counties.

The annual grant award program launched eight years ago and has so far funded \$29 million in efforts to control the impacts of *invasive species* on Michigan's natural environment.

More details about the state's <u>invasive species</u> efforts can be found at <u>www.michigan.gov/MISGP</u>, including a complete list of this year's grant recipients.

Load-Date: March 2, 2022