

WF4313/6613-Fisheries Management

Class 23–Invasives

In the news



SC red snapper season open for these two weekends



BY MAGGIE ANGST
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OCTOBER 28, 2017 10:19 AM

It's been a long time coming, but South Carolina anglers and consumers officially are allowed to catch and eat South Carolina red snapper.

The limited 2017 recreational red snapper fishing season will be open for two consecutive three-day weekends – Nov. 3-5 and Nov. 10-12 – the National Oceanic and Atmospheric Administration announced Friday.

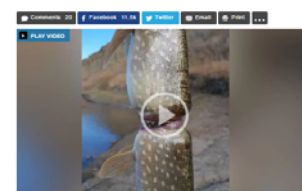
The recreational bag limit is one fish per person per day, and there is no minimum size limit.

The commercial fishery will open Nov. 2 with a 75-pound trip limit and no minimum size limit.

<http://www.islandpacket.com/news/local/community/article181457321.html>

Alberta angler catches fish nearly cut in half by plastic Powerade wrapper

By Karen Bertha
Global Journalist, Global News



WATCH: Alberta angler finds deformed fish with Powerade drink ring around body
An Alberta fisherman is reminding people to properly dispose of garbage after catching a fish that had been trapped in a drink ring for so long the fish had grown around the piece of plastic.

Adam Turnbull — originally from Sarnia, Ont., but now living in southeastern Alberta — works as a cabinet maker in Sturgeon Hat to support his real passion: fishing. The avid angler says he fishes almost daily, all around Alberta but mainly close to home.

<https://globalnews.ca/news/3835007/alberta-fish-powerade-wrapper/>

Chumion – Idaho Releases Groundbreaking Study Claiming that Wild Steelhead Breathe Air

November 1, 2017 · moldychum

On Friday, the world-renowned fish scientists at the Idaho Department of Fish and Game (IDFG) released a groundbreaking study that has sent shockwaves throughout the fish conservation world. The study, which was financed by the Bubbas Bonk Steelhead Foundation, claims that wild steelhead can actually breathe air and that holding fish out of the water for extended periods of time helps revive fish after being caught. The release of this study comes on the heels of IDFG taking heat from the steelhead conservation community about IDFG's refusal to require that imperiled B-run wild steelhead be kept in the water.

In their official press release, the leading scientist of the study Bill Loney said, "This study is proof positive that our decision to allow anglers to hold wild steelhead out of the water is absolutely the right policy. Not only does this policy give Instagram obsessed anglers the opportunity to take dozens of selfies with a species on the brink of extinction before it disappears, but it also improves the chances these fish will be able to reproduce. It really is a win, win for both anglers and steelhead."

<http://www.moldychum.com/chumion-idaho-releases-groundbreaking-study-claiming-that-wild-steelhead-breathe-air/>

Announcements

Exam II not graded yet...

Paddlefish Tomorrow!

Anybody have pics on from Dorman Lake fish please pass them on to me

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Wednesday: Final management brief





Early fish introductions

- 1800-1950
- Revitalize commercial fishing post civil war by importing European sportfishes
 - Common carp
 - Brown trout
- US Fish Commission formed to explore introductions



Second wave fish introductions

- 1950-1975
- advent of intercontinental jet cargo aircraft in the early
- live fish could be rapidly transported from one continent to another
- Ornamental fish
- Ramsey (1985) estimated over 100 million fish were imported by air annually during the early 1980s

Third wave aquatic spp. introductions

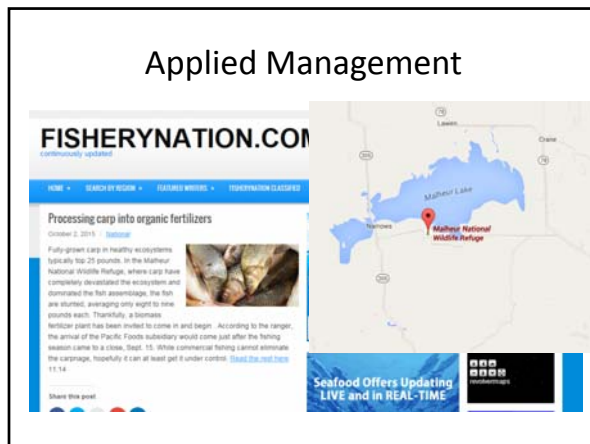
- 1975 to present day
- 3 species of Asian carps were imported into North America
 - biological control of nuisance phytoplankton in sewage treatment ponds
 - enhancement of water quality in aquaculture ponds
 - potential as food fishes

Third wave aquatic spp. introductions

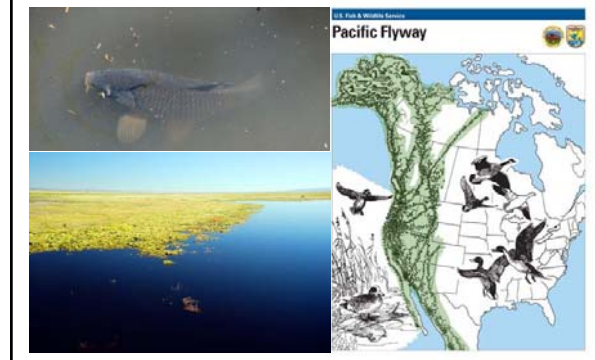
- Zebra and quagga mussels
- Controlling invasive mussels cost electric power generating facilities on the Great Lakes alone an estimated US\$10–30 million annually between 1989 and 2004!



Applied Management



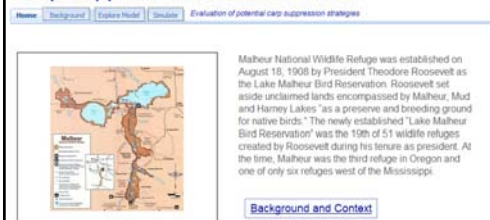
Why is carp management important?



Management Objectives

- Refuge: Duck Use Days
- Carp have a negative effect on water quality and macrophytes
- Ducks do not use poor areas if they don't have to
- Don't meet management objectives...

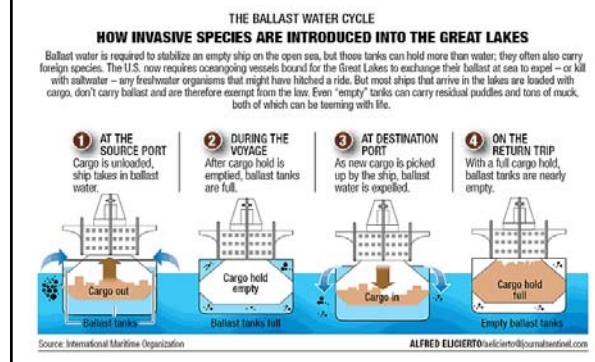
Carp Suppression at Malheur NWR



Vectors of introduction

- Ballast water
- Aquaculture industry & live food fish industry
- Stocking by government agencies
- Water garden and aquarium pets
- Unauthorized stocking (Bait bucket releases)
- Recreational activities
- Research & teaching activities
- Diffusion from neighboring waters

Ballast water



Aquaculture industry & live food fish industry



Stocking by government agencies

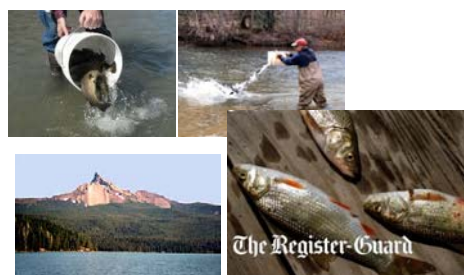


Water garden and aquarium pets

Discarded pet goldfish are multiplying and getting kind of ginormous, officials say



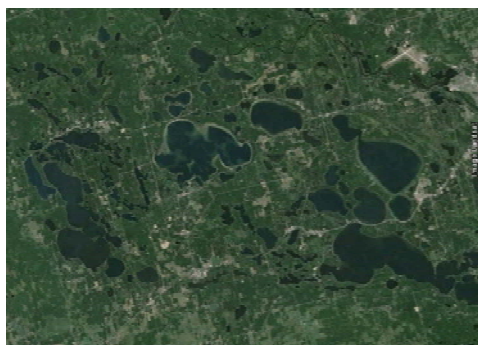
Unauthorized stocking (Bait bucket releases)

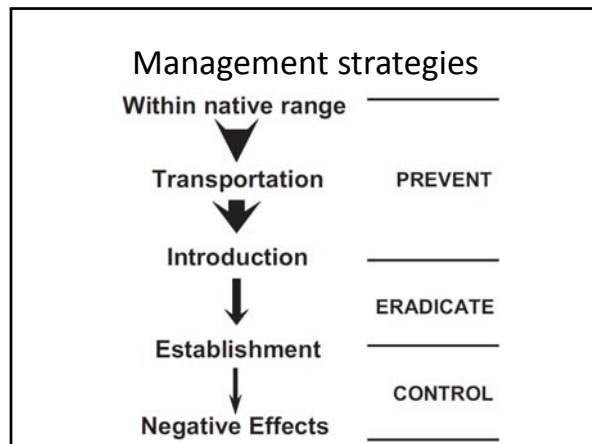


Research & teaching activities



Diffusion from neighboring waters





Prevent-Example

- Baitfish must be from watershed to be used
- No transport across state lines



Prevent-Example

- Eurasian water milfoil



Eradicate

- Rarely effective
- Limited to small, easily-accessible, closed systems

Eradication is best attempted almost immediately upon discovery of the new invader population (Simberloff 2009)

Successful Eradication Elements

Simberloff 2009:

1. early detection of an invasion and quick action to eradicate invader
2. sufficient resources allocated to the project from start to finish (including posteradication surveys and follow-up, if necessary)
3. a person or agency with the authority to enforce cooperation
4. sufficient study of the targeted species to suggest vulnerabilities (often basic natural history suffices);
5. optimistic, persistent, and resilient project leaders.