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25th October, 2023

Dr. Linda A. Deegan & Dr. Paul Montagna

Editors-in-Chief

*Estuaries & Coasts*

Dear Drs. Deegan & Montagna

We are submitting an original research article for consideration to *Estuaries & Coasts* entitled “Passive recovery risks invasion of non-native graminoids following intensive herbivory by Canada geese in two Salish Sea estuaries.” In this study, we examine vegetation community recovery trajectories following intensive grazing by Canada geese in two estuaries on Vancouver Island, British Columbia. We compared species composition and abundance in above-ground vegetation and seed banks between actively grazed, two time periods of recovery, and ungrazed tidal marsh plant communities.

Vegetation recovery was supported by grazing exclosures (fenced areas) established by local restoration groups one and 10 years prior to our data collection, providing a snapshot view of recovery as compared to actively grazed (unprotected areas with ongoing herbivory), and ungrazed areas. Overall, we found a dearth of native species important for community stability (graminoids) in the actively grazed areas and exclosures, and evidence for overwhelming non-native, invasive species pressure in 10-year old exclosures. These results suggest that simply excluding herbivores is insufficient to allow native plant communities to recover, with unknown ecosystem consequences.

We feel this work is useful to inform conservationists and land managers of habitat changes following intensive grazing pressure, with implications for active management. We feel it is particularly timely as the region grapples with management response to introduced, hyper-abundant Canada goose populations. Moreover, we feel this study is of broad international interest as it provides an example of alternative habitat recovery trajectories in a relatively understudied ecosystem (as compared to inland wetlands and grasslands).

This work has not been published nor has it been submitted for consideration with any other journal. This work comprises a portion of the lead author’s PhD dissertation, which has not yet been formally submitted to the University of British Columbia. All co-authors have reviewed and approved this manuscript for consideration according to the ESCO Aims & Scope, and Instructions for Authors. Study conception, 2021 data collection, analysis, and interpretation were undertaken by Stefanie L. Lane. Nancy Shackelford assisted with theoretical framework and manuscript revision. Manuscript was drafted by Stefanie L. Lane; Nancy Shackelford, and Tara G. Martin participated in draft revisions on previous versions of this manuscript.

Thank you sincerely for your consideration of our manuscript,

Stefanie L. Lane