

LD 2003 – Legislative Hearing – Marine Resources Committee - January 11, 2024

Testimony: Nancy K. Prentiss, Farmington, Maine; Lecturer Emerita, University of Maine at Farmington

Ought Not to Pass.

Introductory remarks: I am grateful that President Jackson has understood the problems in LD 2003, and as the sponsor, has withdrawn his support for the bill and asked the Marine Resources Committee to vote “ought not to pass” on LD 2003.

Specific topic: The claim of rapid recovery of rockweed beds from harvesting in Maine emerged from a recent scientific article* by a team from the University of Maine. This study was widely publicized in the Maine media and elsewhere. The claim of rapid recovery of rockweed beds from this University of Maine study is refuted by our new scientific paper** which is *in press* at the same journal.

The Editor-in-chief has provided written permission for us to distribute our paper prior to its publication. ***“Comment: A reexamination of Johnston et al. 2023, Bed-scale impact and recovery of a commercially important intertidal seaweed.”*** Robin Hadlock Seeley (Pembroke, ME), Sarah Hardy (Univ. of Maine Farmington), Nancy K. Prentiss (Univ. of Maine Farmington) and Walter H. Adey (Smithsonian Institution).

As biologists who have been studying the Maine rocky intertidal ecosystem, including the effects of rockweed harvest, for decades, we were surprised and curious about the conclusions by Johnston et al. that rockweed recovers within one year of harvest. We reanalyzed the University of Maine team’s data and we were unable to arrive to the same conclusions as they did. The University of Maine rockweed study has two major sets of problems in the design, execution, and interpretation of results. To quote from our summary, the problems are:

“1) Rockweed industry partner conflict of interest and statistically undetectable impact of the harvest treatment on *Ascophyllum nodosum* (rockweed) beds

2) **incomplete statistical analysis** with **inappropriate inferential conclusions** about biomass recovery of harvested rockweed beds.”

Our analysis of their published raw data revealed that the only regions of the coast where rockweed biomass recovered to pre-harvest levels **are the three regions where the harvest treatment was never detectable**. In the one region where the harvest treatment was detectable, rockweed biomass did not recover to pre-harvest levels in a year.

We were especially disappointed with the way the Maine press accounts promoted, and in some cases, exaggerated the conclusions of the University of Maine study without reporting the limitations of the study recognized by the authors and stated in the paper.

As we concluded in our paper:

“Rockweed is a foundational species in the rocky intertidal food web as well as an ecosystem engineer. The improper interpretation by Johnston, et al. of the study data is misleading ecosystem managers and the public about the impacts of commercial rockweed harvests. Most concerning, this paper sets a false foundation for marine policy on commercial rockweed harvesting in Maine.”

*Johnston et al., 2023. Bed-scale impact and recovery of a commercially important intertidal seaweed. *J. Exp. Mar. Biol. Ecol.* 561.

**Seeley et al., 2024. Comment: A reexamination of Johnston et al. 2023, Bed-scale impact and recovery of a commercially important intertidal seaweed. *J. Exp. Mar. Biol. Ecol.* In Press.