

# ROCKWEED

## What's the controversy?

### What is rockweed?

Rockweed is an intertidal habitat-forming seaweed whose scientific name is *Ascophyllum nodosum*. On the Maine coast rockweed "trees" provide shelter for 100+ marine animals, including lobsters, crabs, and juvenile cod and pollock. Rockweed also provides feeding areas for shorebirds, waders, ducks, and seabirds, such as sandpipers, black ducks, eiders, puffins, and terns. In the last decade, Rockweed has also become the target of a growing industry that cuts and alters this habitat: ~17 million pounds removed in 2014. Often mis-labeled as "kelp", Rockweed habitat is processed into products including cat food, soil amendments, and cattle feed.



### Controversy: (see back side)

1. Ecological sustainability?
2. Impacts on fisheries and wildlife?
3. Conservation area protection?
4. Landowner rights?





# The controversy

## 1. Ecological sustainability? <sup>1</sup>

Is rockweed harvesting “sustainable”? The correct standard for rockweed harvest sustainability is ecological sustainability: determining whether repeat harvests allow ecological functions to continue. Full physical recovery (regaining rockweed bed biomass, stature, density) indicates that pre-harvest ecological function has likely recovered. But if rockweed height and bed density do not recover, the harvest cannot be said to be sustainable. Because of rockweed’s slow rate (2-3” / year<sup>2</sup>) of re-growth in stature, a 4’ tall rockweed needs 11 to 16 years to fully recover from harvest. **Biomass sustainability**, a standard used by industry (“how many tons of rockweed can be removed to allow a re-harvest in x years?”) is insufficient for a seaweed that forms habitat.



Machine-harvested ledge, 2014

## 2. Impacts on commercial fisheries and wildlife?

NOAA (Fish Habitat office) expressed its concern for rockweed as juvenile cod and pollock habitat in a letter to the state of Maine<sup>3</sup>. A Canadian government report concluded that “it is possible to argue that large scale... harvesting of seaweed constitutes a Harmful Alteration, Disruption or Destruction of fish habitat under the Fisheries Act.”<sup>4</sup>. Maine’s Dept. of Inland Fisheries and Wildlife recommended conservation closures (where rockweed cutting would be prohibited) to protect declining species of shorebirds, waterfowl, waders and seabirds<sup>5</sup>. One study of periwinkle bycatch in rockweed harvests provided data indicating 10,273 lbs. of periwinkle snails were taken as bycatch<sup>6</sup> in the 2008 Cobscook Bay

harvest. A Maine state legislator reported seeing baby lobsters and fish left behind in the harvester boats<sup>7</sup>. A 3 yr study found that harvesting decreased biodiversity<sup>8</sup>; another documented a decrease in numbers of eider duck chicks in harvested, compared to unharvested areas<sup>9</sup>.

## 3. Why are coastal conservation areas not protected?

Outside of Cobscook Bay, no coastal conservation areas are protected, except federal wildlife refuges and Acadia National Park.

## 4. Landowner vs. public rights?

Most Maine coastal landowners own the intertidal zone, from the high water mark to low water<sup>12</sup>. The current legal dispute is “who owns attached intertidal seaweed ‘trees’?”. Taking of shellfish and worms in the intertidal zone is an established legal right in Maine, and deciding rockweed ownership will not affect these established public rights. Three Maine landowners have filed a legal complaint against a foreign-based seaweed company for taking rockweed from their land<sup>13</sup>.

Normal rockweed ledge, not harvested



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