

Pacific Northwest (PNW) sand dune ecology

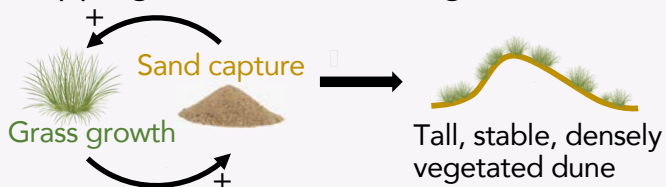
The sand dunes of the PNW are home to 3 dune-building grasses.

Ammophila arenaria
INVASIVE

Leymus mollis
NATIVE

Ammophila breviligulata
INVASIVE

These grasses build dunes via a positive feedback loop between trapping sand and vertical growth.



Ecosystem services:

Both *Ammophila* species build taller dunes than the native *Leymus*. These dunes provide critical **coastal protection**. However the invasive *Ammophila* grasses outcompete native plants and **decrease habitat** for some native birds.

A new hybrid:

In 2012, a **hybrid *Ammophila* beach grass** was discovered in the PNW. The first step in understanding the impact of this hybrid on coastal protection and biodiversity management is to map how much of it exists. **You can help!** Simply upload your beach grass photos to iNaturalist.

Want to learn more?

Scan this code to visit our iNaturalist project!

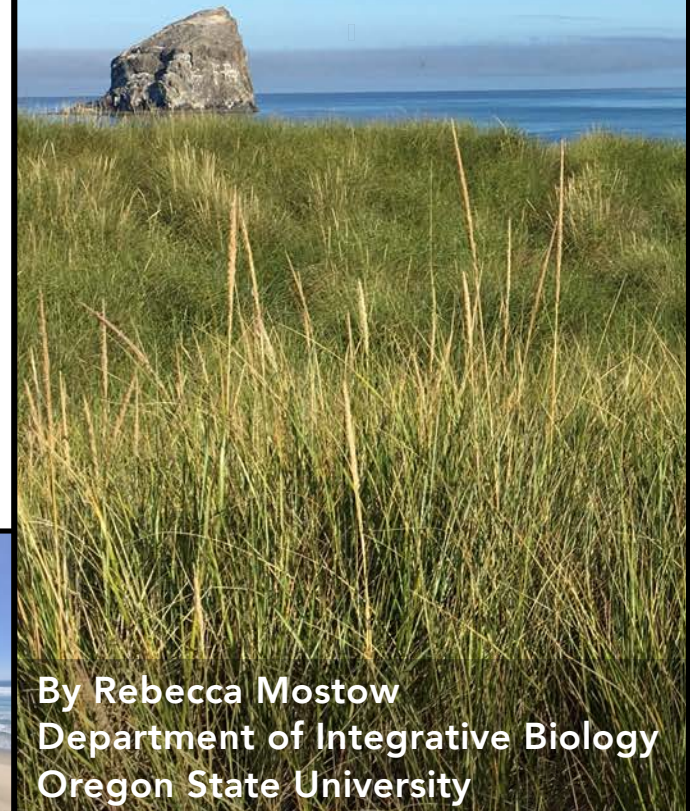


Special thanks to:



A guide to beach grasses of the Pacific Northwest

*Learn to identify
American marram grass,
European marram grass,
and their hybrid grass*



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Ammophila arenaria
European marram grass
(AKA European beachgrass)



Identifying characters:

- Stems tightly clumped
- Leaves rolled
- Ligule long, pointy (~20mm)

Range:

Present in WA, OR, CA but dominant from central OR to southern CA

Ammophila breviligulata
American marram grass
(AKA American beachgrass)



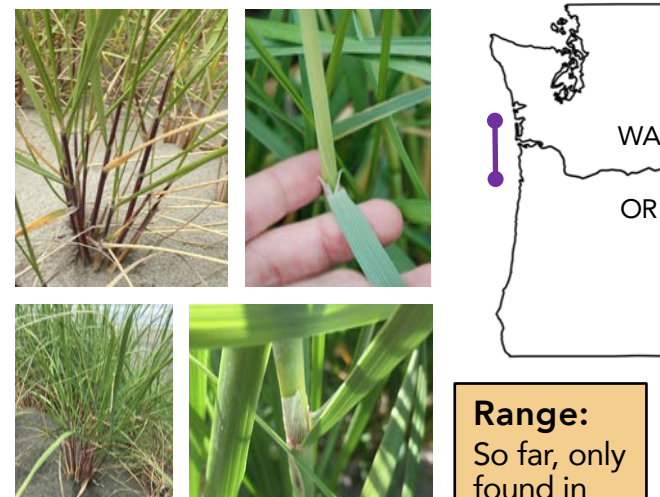
Identifying characters:

- Stems more spread out
- Leaves wider
- Ligule very short and flat (~2mm)

Range:

Dominant from northern OR into WA

A. arenaria x breviligulata
Hybrid marram / beachgrass



Identifying characters:

- Intermediate leaf width
- Intermediate ligule length (~7mm)

Range:

So far, only found in southern WA and northern OR.

ID tips:



Check the ligule!

The easiest way to tell these grasses apart is using their ligule, the small piece of tissue between the base of the leaf and the stem. ***A. arenaria* has a long, pointy ligule while *A. breviligulata* has a short, flat one.**



Where are you?

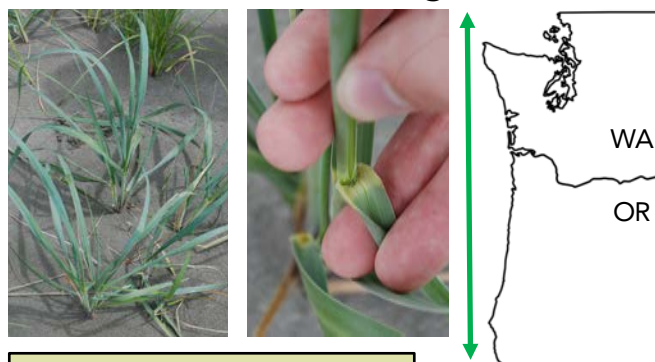
Check the ranges of the species to see which one is most likely. ***A. breviligulata* is dominant in WA. *A. arenaria* is dominant in most of OR.**



Not sure? Submit to iNaturalist!

Submit photos of the ligule, leaves, and flowers as "genus *Ammophila*." The curator will figure out the ID.

Leymus mollis
American dune grass



Identifying characters:

- Leaves very wide leaves with waxy coating
- Prominent midvein
- VERY short ligule (<1mm)

Range:

Present in WA, OR, and CA but never dominant

iNaturalist

How to submit an observation:

- 1) Log on to iNaturalist.org or open the app
- 2) Click the "Upload" or "Observe" button



- 3) Select all your photos of this individual including the:



a) plant



b) ligule



c) flower (if present)

- 4) Fill in your species ID (date and location should auto fill)
- 5) Click "Submit"!

Your observation is automatically uploaded to the Beachgrass Mapping Project.