

*Jaumea carnosa***Jaumea**
Sunflower Family

HABITAT: Found growing in the middle marsh where fewer high tides reach out but where the salt collects in the summer.

APPEARANCE: Jaumea has smaller-than-a-dime yellow sunflowers. The leaves are flat and succulent.

REPRODUCTION: The flowers are insect pollinated. The plants bloom in the summer.

ADAPTATION TO SALT: The swollen leaves show it is succulent. See pickleweed and batis.

ECOLOGICAL RELATIONSHIPS: One of the few plants in the salt marsh which provides nectar and pollen for insects.



JAUMEA

*Salicornia pacifica***Pickleweed**

HABITAT: Found throughout the salt marsh.

APPEARANCE: Stems look like a chain of small pickles.

REPRODUCTION: The flowers of all pickleweeds are pollinated by the wind. The small flowers are hard to see because they have no colorful petals

ADAPTATION TO SALT: Pickleweeds are some of the many marsh plants that use salt **storage** (they are **accumulators**). Also called **succulents**, these plants are swollen with the stored salty water. When the salt concentration becomes too high the cells will die.

ECOLOGICAL RELATIONSHIPS: Frequently the most common plants in the marsh, they provide shelter and food for invertebrates. Belding's Savannah Sparrows, an endangered bird species, build their nests in the glasswort (*Arthrocnemum subterminalis*- another type of pickleweed).



Frankenia salina

Alkali Heath
Frankenia Family

HABITAT: Found in the high marsh. Also found inland in wet salty areas.

APPEARANCE: A small shrubby plant with small pink flowers. The leaves are small and flat. Sometimes the edges are rolled under which gives the leaves a needle shape.

REPRODUCTION: The pink flowers are insect pollinated. The plant blooms in the summer.

ADAPTATION TO SALT: Alkali heath excretes or pumps out salt through glands on the leaf. Look for salt crystals. See sea lavender.

ECOLOGICAL RELATIONSHIPS: Produces nectar for insects; provides shade and a place to hide for invertebrates.



ALKALI HEATH



Distichlis spicata

Salt Grass

Monanthochloe littoralis

Shoregrass

HABITAT:

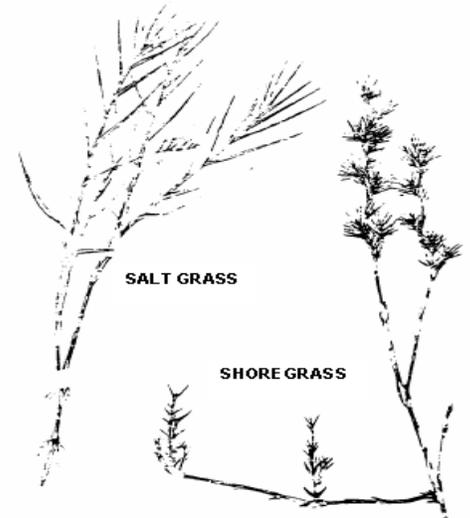
Salt grass grows over a wide area -- from the middle salt marsh to many wet, salty places inland. Shoregrass will be found in the high marsh, where the highest concentrations of salt can be found in the summer months.

APPEARANCE:

Salt grass has a single row of leaves on opposite sides of the main stem. Shoregrass has short tufts of leaves marching up the stem. Put your hands on shoregrass and feel the prickle from the sharp leaf tips.

ADAPTATION TO SALT: All the salt marsh grasses are **salt excreters**. Look for salt crystals on the leaves.

ECOLOGICAL RELATIONSHIPS: Both grasses produce seeds for birds and mammals. The endangered butterfly, the wandering skipper, lays eggs on salt grass leaves.



SALT GRASS

SHORE GRASS



Spartina foliosa

Cordgrass

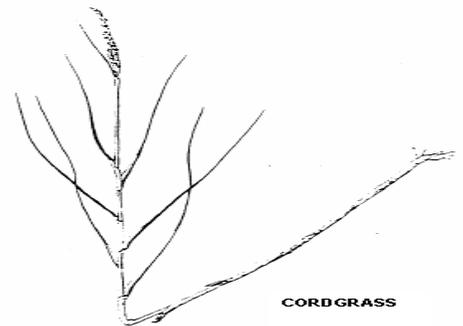
HABITAT: Grows in the low marsh where the roots are continually bathed in ocean water.

APPEARANCE: Look for a tall grass which is higher than the other plants in the salt marsh.

REPRODUCTION: All grasses are wind pollinated. Look for straw colored spikes of densely packed flowers. Male flowers will have pollen and the female flowers will show graceful waving stigmas to catch the pollen.

ADAPTATION TO SALT: All the salt marsh grasses are **salt excreters** using special pores to push out droplets of salty water. Look on the grass blades for salt crystals.

ECOLOGICAL RELATIONSHIPS: Home for the endangered bird, the Light-footed Clapper Rail. A spider lives its whole life inside the blades. Important food for grazing animals.



Batis maritima

Batis or Saltwort

HABITAT: Most frequently found in the low marsh. It grows with cordgrass and pickleweed.

APPEARANCE: Look for bunches of succulent leaves attached to creeping stems. The leaves retain their yellow-green color all year.

REPRODUCTION: This plant is pollinated by the wind like its neighbor pickleweed. The fruits look like a small bumpy potato.

ADAPTATION TO SALT: This plant is a succulent; it stores and dilutes salt within special cells. The leaves drop off when the cells are too full of salt. See pickleweed. It will also grow in soils without salts but in these areas the plants are vulnerable to competition from other non-halophyte species. Although not an aquatic plant, saltwort can endure brief flooding and long periods of waterlogged soil.

ECOLOGICAL RELATIONSHIPS: In late summer thousands of the bright green fruits can be found with other debris left at the high tide line. This plant finds new places to grow by floating with the tide.

