Coastal Saltmarsh

An endangered ecological community

Endangered in NSW

Vulnerable nationally



Samphire in front, Sea Rush behind

Photos © Peter Rowland



Mangroves moving in

WHERE IT GROWS
Estuary shores reached only by the higher tides

KEY PLANTS
Samphire, Saltwater Couch and Sea Rush

WHO USES IT
Crabs, fish, prawns, shorebirds and microbats

WHY IT MATTERS
Stores carbon and feeds the estuary

Between the mangroves and the bush

Look along the edges of our estuaries and lagoons, from Lake Illawarra to the far South Coast. Saltmarsh sits in a band behind the mangroves. Fleshy Samphire grows on the lowest, wettest ground, soft Saltwater Couch in the middle, and tall Sea Rush highest up.

The climate connection

As the sea rises, saltmarsh needs room to move inland, but roads, seawalls and houses often block the way. Mangroves are also spreading into saltmarsh along the south-east coast. Yet saltmarsh is one of the best places on Earth for storing carbon in its mud.

Who lives here?

Crabs and snails live in the mud, and when the tide comes in, small fish and prawns swim in to feed. Shorebirds roost here at high tide, and microbats hunt insects over it at night. The shy Buff-banded Rail lives here too, slipping between the rushes and the couch.

Scan to watch a Buff-banded Rail

WONDER QUESTION

Where will the saltmarsh go when the sea rises?

Teacher notes

Curriculum links (NSW syllabuses)

Stage	Outcome	Where the saltmarsh fits
Early Stage 1	STE-SCI-01 (S&T K–6, 2024)	Living things in a special place: plants that live with salty water
Stage 1	ST1-SCI-01 (S&T K–6, 2024)	Changes with the tides: the marsh at high tide and at low tide
Stage 2	ST2-SCI-01 (S&T K–6, 2024)	Habitat and food chains: mud algae to crab to fish to shorebird
Stage 3	ST3-SCI-01 (S&T K–6, 2024)	Adaptations: salt-tolerant, water-storing plants; protecting habitat
Stage 4	SC4-LIV-01 (Science 7–10, 2023)	Interactions: tides, plant zones and the estuary nursery
Stage 5	SC5-ENV-01 (Science 7–10, 2023)	Effects of climate change on ecosystems: sea-level rise and blue carbon
Stage 6	BI-12-03 (Biology 11–12, 2025)	Ecosystem change: mangrove encroachment and coastal squeeze

In the classroom

K–2

Salty survivors

Compare a photo of Samphire with a cucumber slice. Both are full of water. How might storing water help a plant live where the ground is saltier than the sea?

YEARS 3–6

Tide zone transect

On a visit or with photos, run a line from the water's edge inland and record the plants every few metres. Draw the zones: mangroves, Samphire, couch, rush.

YEARS 7–12

Where will it go?

Compare old and new aerial photos of a local estuary. Where have mangroves spread? If the sea rises, where could saltmarsh move, and what is in the way?

Get outside

Visit an estuary boardwalk or foreshore path at low tide. Look for crab holes, snails and the high-tide line of seaweed. Stay on the path: footprints and wheel ruts can last for years.

First Nations perspectives

Through your local AECG or Land Council, invite knowledge holders to share how estuaries, tides and saltmarsh are understood on Dharawal or Yuin Country. *[Local story, added with permission]*

Hope and action

Councils and community groups are fencing saltmarsh, removing drains that block the tide and putting up signs, like Shoalhaven's "Save our saltmarsh" sign at Sussex Inlet. Small things students and schools can do:

- Stay on paths and boardwalks
- Keep bikes and cars off the marsh
- Never dump rubbish or garden waste
- Pick up litter along the shore

Talking tip: lead with wonder and action rather than loss. Saltmarsh is easy to overlook, so helping students notice it is a win.

Scan for the full fact sheet: prpw.com.au/project/coastal-saltmarsh

Words and photos: Peter Rowland · *Wonder through nature* · Version 1.1, November 2026

Sources: Saintilan and Rogers 2013, Marine and Freshwater Research; Saintilan et al. 2019, Wetlands; NSW Scientific Committee final determination (2004, amended 2011); EPBC Conservation Advice (2013); NSW BioNet. Check curriculum links at curriculum.nsw.edu.au.