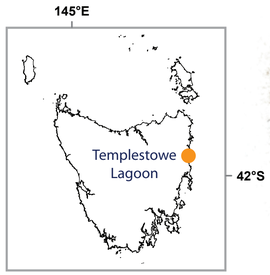
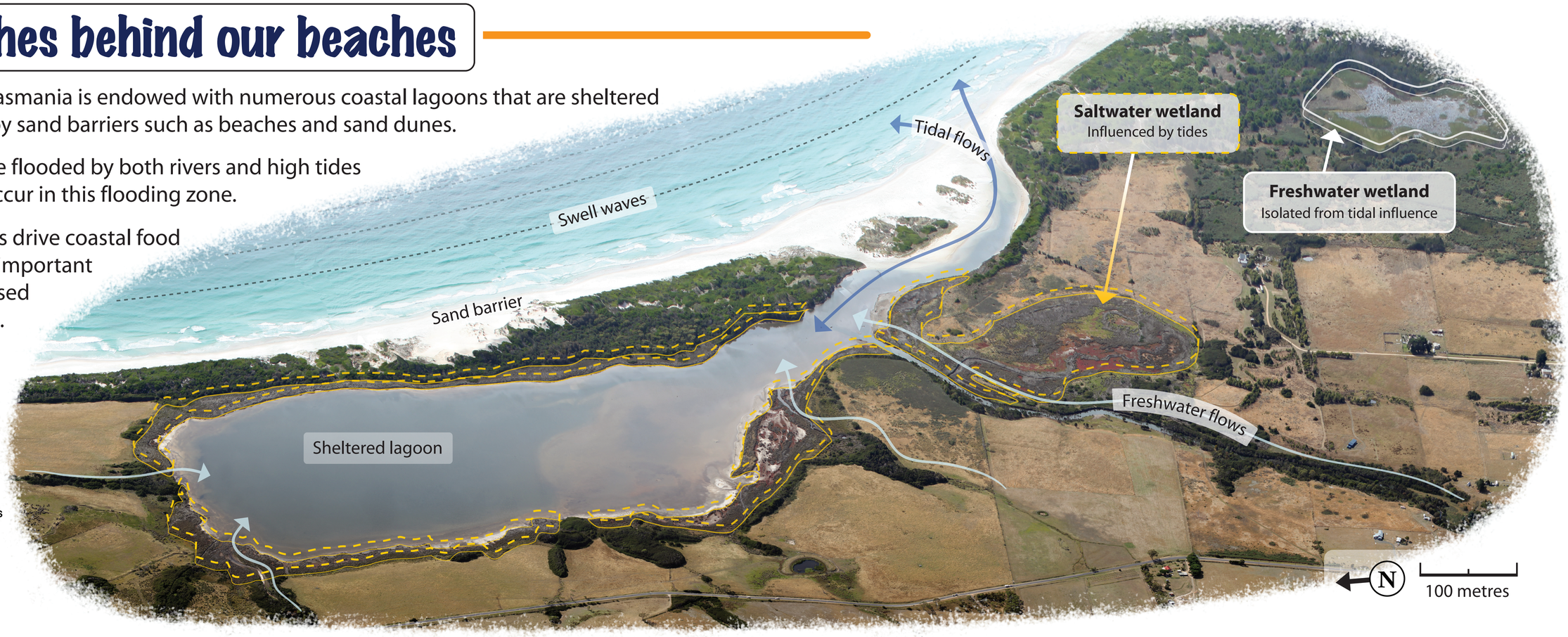
Riches behind our beaches

The east coast of Tasmania is endowed with numerous coastal lagoons that are sheltered from swell waves by sand barriers such as beaches and sand dunes.

Coastal lagoons are flooded by both rivers and high tides and saltmarshes occur in this flooding zone.

Saltmarsh wetlands drive coastal food webs and provide important habitat for specialised plants and animals.





SALTMARSH LIFEFORMS

Grasses, sedges and rushes

- Grasses (*Phragmites*)
- Sedges (*Gahnia*)
- Rushes (*Juncus*)

Succulent herbs and shrubs

- Succulent herbs (*Sarcocornia*)
- Succulent herbs (*Samolus*)
- Succulent shrubs (*Tecticornia, Suaeda*)

Aquatic herbs and grass

- Seagrass (*Zostera, Ruppia*)
- Water milfoil (*Myriophyllum*)

Upland trees

- Paperbark (*Melaleuca*)

Microscopic organisms

Marine animals

- Worms
- Snails
- Crabs
- Fish

Insects and spiders

- Insects
- Spiders

Birds

- Blue Wren
- Chat
- Migratory birds
- Pied Oyster Catcher
- Waterbird
- Black Swan

Native marsupials

Humans

Decaying organic matter (wrack)

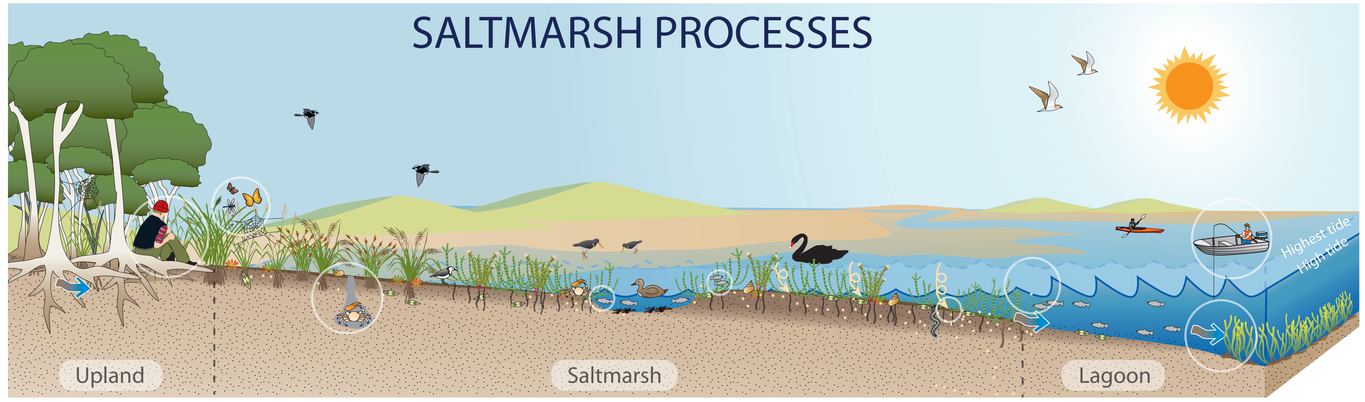
Education and research

Wetlands are live class-rooms for connecting with and learning about nature and provides a rich living laboratory for scientific research and development.

Upland vegetation

Native upland vegetation cover of 100-200 m improves water quality and coastal productivity in the immediate low lying area. Trees also provide habitat for a greater diversity of plants and animals.

SALTMARSH PROCESSES



Birdlife

Many species of birds (especially waterbirds and shorebirds) flock in and around saltmarshes. Their diversity and abundance are a sign of healthy wetlands.

Insects and spiders

A wide variety of insects and spiders can be found in saltmarshes. They form an important part of the saltmarsh food web and their abundance can vary over seasons.

Crabs and snails

Crabs and snails are the most abundant of saltmarsh invertebrates. They are a significant food source for birds and fish, and play an important role in the soil builing process by breaking down plant matter.

Tidal creeks

Tidal creeks are an integral part of salt-marsh and from branched networks within larger marshes. Besides providing habitat for fish and invertebrates, they also channel and dissipate the wave energy.

Fish nursery

Fish shelter and feed in saltmarsh during high tides on food derived from crabs, snails, insects and microalgae. Up to 35 species of fish have been recorded with densities of up to 56 fish found within an area of 100 square metres.

Carbon capture

Saltmarsh soil forms as the plants trap fine sediment (sand and mud) and organic particles generated by both plants and animals. This soil building process contributes to reducing global carbon pollution.

Coastal buffer

Saltmarshes provide a coastal buffer to soak up flooding water and dissipate the wave energy providing protection against extreme weather events and sea level rise.

Supports human use

Saltmarsh processes support human use of coastal areas for a range of recreational and commercial reasons including fishing and tourism.

Benefits nearby habitats

Water running off from the land is slowed down and filtered by saltmarsh and native upland vegetation. This improves coastal water quality and benefits the nearby submerged aquatic vegetation.

Project: Steps to Saltmarsh Conservation in Northern Tasmania, 2014
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Aerial photo: Templestowe Lagoon by Matt Dell
Illustration: Michael Helman, adapted from Jan Tilden (2010)

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