FACT SHEET

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(03) 6333 7777
info@teer.org.au

Level 2, McKenzie Building
63-65 Cameron Street
Launceston TAS 7250

www.teer.org.au

Marine habitats of the kanamaluka

Where the estuary meets the sea

From Rowella, just north of the Batman Bridge, to Low Head, the estuary transitions to a marine ecosystem, where it joins the sea. This part of the estuary features a broad range of habitat types.

Tasmania has a remarkable diversity of marine ecosystems, and the marine influenced portion of the kanamaluka / Tamar estuary is no exception: exposed reefs, sheltered mudflats, seagrass beds, kelp, soft coral, and sponge gardens provide a diverse range of habitats for species ranging from small invertebrates through to seals, sharks, and dolphins.

KELP AND ROCKY REEFS

Kelp and rocky reef habitats are productive communities. Kelp is a brown algae that requires a rocky bottom and cool water to flourish. Kelp also requires a steady supply of nutrients to support its amazing growth rate – giant kelp is one of the fastest growing organisms in the world, growing up to 500 mm a day in ideal conditions.

Kelp creates an important three-dimensional habitat which is under threat from climate change and pressure from invasive species. Australia-wide, kelp forests have been reduced to just five percent of their original area in the past 35 years.

SPONGE GARDENS AND SOFT CORALS

The strong currents and deeper waters of the estuary channel, where light levels are too low to support plant growth, provide ideal conditions for the development of extensive and spectacular sponge gardens. These gardens host a range of animals that are attached to the substrate (sessile organisms), including sponges and soft corals.

Above: a diver explores a rocky reef habitat in the kanamaluka / Tamar estuary. Photo credit: James Dawson, Tasmanian Divers.

The sessile animals of the sponge gardens filter food out of the water column, and provide food and shelter to many mobile species that live in or visit the gardens.

Top: the diverse habitats of the kanamaluka / Tamar estuary support a wide range of fish species.

Bottom: a seahorse takes shelter amongst the sponge garden.

Photo credit: James Dawson, Tasmanian Divers.

In 2015, researchers Megan Dykman and David Maynard discovered six new species of soft coral amongst the sponge gardens in the kanamaluka / Tamar estuary near Beauty Point. This discovery highlighted just how diverse the communities of the kanamaluka are, and how there is still a lot to learn about this underwater ecosystem.

SAND AND SILT

South of Beauty Point, the substrate (bottom of the estuary) is dominated by sand and silt habitats, also known as 'soft-bottom' communities.

Being unconsolidated, the sand and silt that make up the substrate are quite mobile in the currents and tides of the kanamaluka. Attached (sessile) organisms are relatively uncommon among soft-bottom communities, as they rely on attachment to hard substrates such as rocks, and animals that bury themselves in the sediment (called infauna) dominate this habitat type.

Infauna thrives amongst the sand and silt and provides a food source for transient fish and animals that live on the sediment surface, such as crustaceans.

SEAGRASS BEDS

Seagrass represents one of the most productive ecosystems on Earth, providing important refuges, breeding habitats, and feeding grounds for fish and invertebrates. Five out of the seven seagrass species found in Tasmania occur in the kanamaluka / Tamar estuary, supporting fish species including pipefish and seahorses.

Seagrass meadows also play an important role as a nursery habitat for fish, as well as sharks. The entire kanamaluka / Tamar estuary is a Protected Shark Refuge, hosting numerous seagrass meadows that provide shelter for shark eggs and pups.

Top left: one of the six new species of soft coral discovered by Megan Dykman in the lower kanamaluka / Tamar estuary.

Middle left: seagrass meadows support a range of species from small invertebrates to fish and sharks, acting as nursery habitats.

Bottom row: the different habitat types allow for many different species to thrive in the kanamaluka, including rays (left) and crustaceans (right). Photo credit: James Dawson, Tasmanian Divers.

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