

White's Seahorse – Hippocampus whitei

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Introduction

White's Seahorse (*Hippocampus whitei*), also known as the Sydney Seahorse, is a medium-sized seahorse that is endemic to the east coast of Australia. The species is named after John White, Surgeon General to the First Fleet, and is one of four species of seahorses known to occur in NSW waters.



Figure 1 White's Seahorse in sponge habitat

Favouring shallow-water estuarine habitats, it is currently known to occur in

eight estuaries on the NSW Coast, but is most abundant in Port Stephens, Sydney Harbour and Port Hacking. Its northern limit is Hervey Bay in Queensland and it has been historically recorded as far south as St Georges Basin in NSW. White's Seahorse, along with all syngnathids (seahorse, pipehorses, pipefish and seadragons) have been totally protected in NSW since 2004. White's Seahorse has experienced large population declines over the past two decades as a result of the loss of natural habitats across its range.

In NSW, White's Seahorse is listed as an endangered species. There are heavy penalties for harming, possessing, buying or selling them, or for harming their habitat (see 'Legal Implications').

Description

The White's Seahorse grows to a maximum length of 16 cm (from the tip of the tail to the top of the seahorse crown). The species colour is highly variable as the species is known to change colour depending on their mood and the habitat colouration it is living on. Male seahorses can be recognised by the presence of a pouch below the abdomen which is absent in females.

Some of the morphological characteristics of the White's Seahorse are:

- 17-18 dorsal-fin rays,
- 16 pectoral-fin rays
- 34-35 tail-rings
- coronet is tall arranged in five pointed star at apex
- spines are variable ranging from low to moderately developed and from round to quite sharp
- a long snout

They have a very small anal fin which is used for propulsion, however, they are known to be one of the slowest swimming fishes in the ocean.

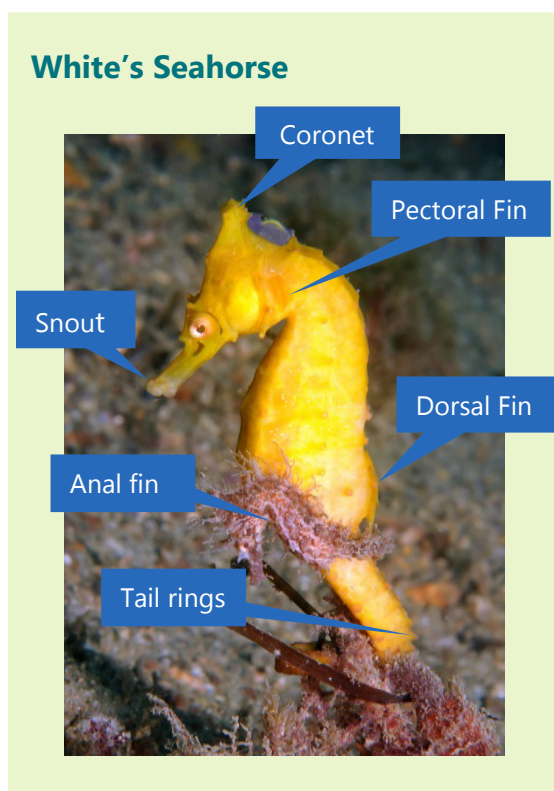


Figure 2 White's Seahorse anatomy

Habitat and ecology

The White's Seahorse is considered to be endemic to the waters of southern Queensland (Hervey Bay) to Sussex Inlet NSW where it can be found occurring in

coastal embayments and estuaries. It is known to occur from depths of 1 m to 18 m. Habitats that are considered important habitat for the White's Seahorse include natural habitats such as sponge gardens, seagrass meadows and soft corals. It is also known to use artificial habitats such as protective swimming net enclosures and jetty pylons.

In Port Stephens, adult White's Seahorses show a preference for sponge, soft coral and *Posidonia australis* seagrass habitats. Juveniles prefer gorgonian fan habitats as well as sponges and soft corals. In the Sydney region they are most likely to be found occurring on the artificial protective swimming net habitats.

In the wild they are known to live for up to six years and the breeding season is from September to around February. They display long-term monogamy to their partners and the pregnancy period is about 3 weeks. The male seahorse gives birth to 100 – 250 babies and can reproduce up to 8 times during the breeding season.

Why is the White's Seahorse threatened?

The primary cause for the decline in abundance of White's Seahorse is the loss of natural habitats across their range in eastern Australia. The seahorses occur within coastal estuaries and embayments which are areas subject to population pressure.

Within Port Stephens, over 90% of the soft coral and sponge habitats have declined at sites where the seahorse used to be abundant. Habitats in Port Stephens have

been destroyed through the installation of boat moorings, boat anchors and the inundation of habitat by sand movement.

Within Sydney Harbour, population pressure has caused their natural habitats to decline and, as a result the species is now predominantly found on man-made swimming nets within the harbour. These nets are periodically cleaned to remove the marine growth and repair the structural integrity of the nets which can lead to further displacement of seahorses and cause populations to dramatically decline. DPI Fisheries has been working with councils to develop practices which avoid damage to seahorses during net cleaning and repair.

Conservation and recovery actions

- Continue to monitor the distribution and abundance of White's Seahorse at important sites (Port Stephens and Sydney Harbour) to inform population status and to assist in determining the effectiveness of recovery actions.
- Work with relevant authorities to encourage the identification, assessment and modification of natural resource management plans and policies to minimise impacts on White's Seahorse habitats and water quality.
- Reduce the impact of public and private boat moorings that impact on White's Seahorse habitats.
- Develop and trial artificial habitats to promote recovery of White's Seahorse populations.

- Assess the viability of a captive breeding program to allow release of captive bred animals back into the wild.
- Report any sightings of the species via DPI's Threatened Species Sighting Program online form: <https://www.dpi.nsw.gov.au/fishing/threatened-species/report-it>, as well as through iSeahorse and iNaturalist.

A full list of strategies to be adopted for promoting the recovery of the White's Seahorse is set out in the NSW DPI Priorities Action Statement: www.dpi.nsw.gov.au/fisheries/speciesprotection/priorities-action-statement

Legal implications

It is illegal to catch and keep, buy, sell, possess or harm White's Seahorse (or any other threatened species in NSW) without a specific permit, licence or other appropriate approval, and significant penalties apply. For endangered species, these penalties can include fines of up to \$220,000 and up to two years in prison.

There can also be significant penalties for causing damage to the habitat of a threatened species without approval through actions such as boat anchoring, dredging, construction and maintenance works.

The impacts of developments or activities that require consent or approval in accordance with the Environmental Planning and Assessment Amendment Act 2017 must be assessed and considered by consent or determining authorities. Where such actions are likely to result in

significant impact on a threatened species or its habitat, a detailed species impact statement must be prepared.

Strategies to be adopted for promoting the recovery of the White's Seahorse must be set out in the NSW DPI Priorities Action Statement.

Bibliography and further reading

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For further information

See the NSW DPI website:
www.dpi.nsw.gov.au

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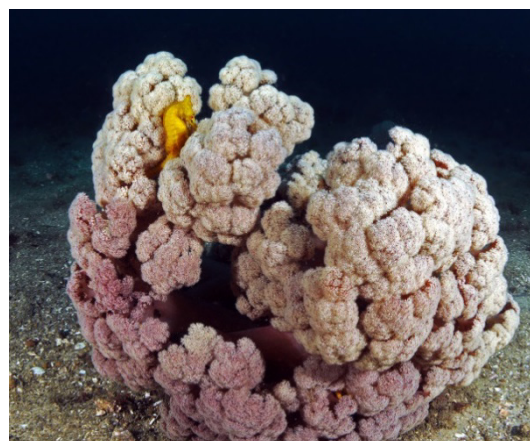


Figure 3 White's Seahorse on Cauliflower coral

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