

Seahorse breeding project aims to recover endangered species from near extinction

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Following a dramatic decline in numbers over the past decade, White's seahorse, also known as the Sydney seahorse, has recently been listed as an endangered species in NSW. It is now Australia's only threatened seahorse species and the second endangered seahorse species worldwide.

To help recover declining populations, SEA LIFE Sydney Aquarium is implementing an exciting new breeding and [conservation project](#) in collaboration with a suite of organizations including the NSW Department of Primary Industries (DPI) Fisheries and the University of Technology Sydney (UTS) who are the two main partners. The [project](#) aims to successfully breed, raise, and release White's [seahorse](#) back into the wild and monitor their success in helping reverse the decline of this iconic endangered [species](#).

Robbie McCracken, Aquarist and Seahorse Expert at SEA LIFE Sydney Aquarium is leading the project and commented, "I'm thrilled with the progress of the breeding project to date. White's seahorse is an interesting animal and sadly, largely due to natural habitat loss, this species is now classified as endangered.

"For the past six months, we have worked closely with experts from DPI Fisheries and UTS to plan this project which kicked off last month when we collected breeding pairs from Sydney Harbour. This included some pregnant males and we're delighted to confirm that we've already witnessed six births.

"A large number of these babies are now on display in the new, custom built facility we have created at SEA LIFE Sydney Aquarium. The facility will accommodate the growing juveniles prior to their release back into the wild and enable visitors to the aquarium to witness first-hand how incredible these creatures are.

"A really unique fact about seahorses is that it's the males that give birth

and it's a really amazing sight. Dozens of babies shoot from the pouch in one go, it's very dramatic! We're now in the process of raising these babies so that they are fit and strong before marking them and releasing into the wild next year," added Robbie.

The long-term aim is to support the overall recovery of the species with the installation of seahorse hotels in Sydney Harbour which will encourage the recovery and ongoing breeding of White's seahorse given so much of their natural seagrass, sponge and soft coral habitat has disappeared.

Dr. David Harasti, Senior Marine Scientist with DPI Fisheries, has over a decade of experience working with seahorses and will oversee the release and follow-up and said, "One of the key aspects of this project is that we will be implementing a monitoring program to assess how the babies go once they are released back into the wild. This will involve lots of diving surveys at the seahorse release sites to assess their growth, survival and if they start breeding in the wild. The installation of the seahorse hotels will also provide a new home for the seahorses within Sydney Harbour and we will closely monitor how this conservation tool helps the species to recover."

DPI Threatened Species Fisheries Manager, Jillian Keating is also thrilled with the project's progress and commented, "We are on the front-foot with implementing real recovery actions for this newly listed species. There's so much enthusiasm and expertise being poured into this collaborative project"

Jillian has also coordinated the behind-the-scenes environmental assessment and permitting for this project to ensure the wild seahorse population remains secure and to gain support for the seahorse hotel installation, which Transport for NSW has been very cooperative in providing.

To help support the husbandry of the seahorses and the long-term research, David Booth, Professor of Marine Ecology at UTS is supervising two marine biology master's research students who are assisting with the onsite care and monitoring of the seahorses. Next year the students will also have the opportunity to dive and check on the progress of the newly released seahorses back in the wild.

Professor Booth added, "We were excited to be invited to work on this important project and I'm thrilled to have two fantastic master's research students that can support the project and contribute to the recovery of the beautiful Sydney seahorses as a long-term initiative."

Seahorse hotels

Following the healthy birth of many juvenile White's seahorses, Robbie and the project team are now ready for the next phase of the project—constructing the seahorse hotels this month.

Inspired by discarded crab traps, seahorse hotels were trialled in Port Stephens in 2018 and 2019 and were found to be very successful in attracting seahorses which led to mating and breeding.

These seahorse hotels start as artificial habitats that grow into natural habitats once they are placed in the marine environment. Over time they are grown over by sponges, algae and animals that colonise these structures, making them the perfect home for seahorses. Seahorse hotels will continue to be constructed over the next few months and placed in Sydney Harbour early in 2020, ahead of the release of the juveniles raised in SEA LIFE Sydney Aquarium.

The SEA LIFE Trust's "Ocean Youth" are helping with the seahorse hotel construction, along with Seadragon Diving Co. and Sydney-based Indigenous Sea Rangers with support from DPI's Marine Estate

Management Strategy (MEMS).

The species was named after John White, Surgeon General to the First Fleet and is endemic to the east coast of Australia. White's seahorses can be found in a variety of colors and they actually can change their color to match what they are living on.

More information: To find out more about the White's seahorse, see www.dpi.nsw.gov.au/fishing/species/whites-seahorse

For more information on the Seahorse Project visit: www.sydneyaquarium.com.au/

Provided by University of Technology, Sydney

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