Science Seeker

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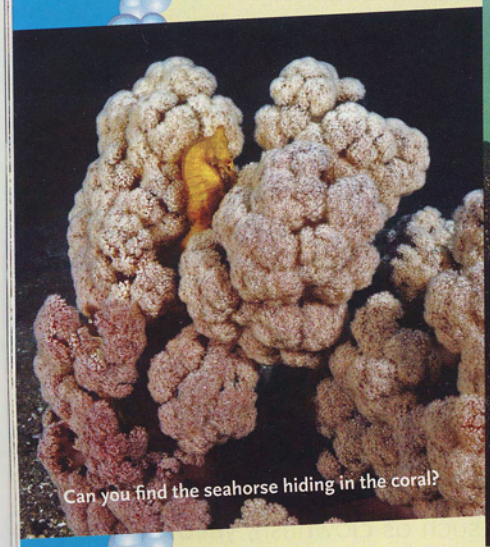
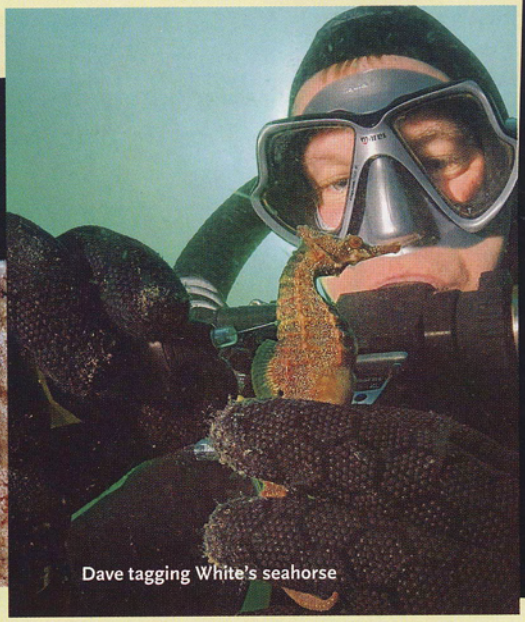


Can you find the seahorse hiding in the coral?



Dave tagging White's seahorse

Eastern Smooth Boxfish on fish survey

THE BEST JOB IN THE WORLD

WHAT DOES A MARINE SCIENTIST DO? IT IS DEFINITELY MORE THAN DIVING AND COUNTING FISH!

FOR the past 12 months I've been working as a research scientist for the Port Stephens Great Lakes Marine Park (PSGLMP) in New South Wales (NSW), Australia. Having spent the last 10 years working on the conservation of threatened marine species (such as seahorses and sharks) for NSW Fisheries, it was refreshing to join the Marine Parks Authority. The PSGLMP is one of six marine parks found in New South Wales and is the largest, extending from Port Stephens to Forster covering an area of 980 square kilometres. That's one and a half times the size of Singapore!

THE MARINE PARK

The marine park is internationally renowned for its fantastic scuba diving, with the Fly Point sanctuary providing some of the best shore dives in the world with its sponges and soft coral gardens. The park has a huge array of marine species that include bottlenose dolphins, green turtles, grey nurse sharks, wandering albatross, southern right and humpback whales and over 300 different species of fish. The waters of the park are also where the temperate and tropical species overlap in NSW, which means it's not uncommon to see a tropical loggerhead turtle swimming around with a coldwater Australian fur seal!

RESEARCH AND PROTECTION

To ensure that the marine protected area is working well, it is important to implement research and monitoring to assess the effectiveness of the marine park zoning and protection measures. This is where my job as a marine scientist becomes very useful. The research work in the marine park is very diverse; one day the focus might be on counting threatened grey nurse sharks whilst the next day it might be conducting sea bird surveys from land. This is what makes the job so interesting and challenging, you never know which marine species you will be researching next!

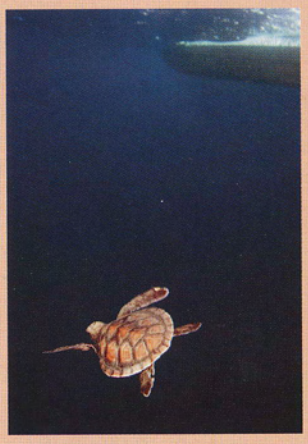
UNDERSTANDING THE FISH

One of the major research projects undertaken in the park involves scuba diving surveys where a team of trained divers swim along tape measure transects over rocky reefs counting all the different species of fish, nudibranchs and other bottom-dwelling invertebrates such as urchins and sea stars. This helps us understand how fish and other marine animals are responding to the protected areas. Other projects might involve the mapping of reef habitats, monitoring localised movements of various fish species by tagging them (such as seahorses and the threatened black cod) and taking photos of the different marine animals to assist with community awareness and education.

Endangered Blackcod

KNOW YOUR FISH

If you are interested in becoming a marine scientist, it's important that you complete a university degree as it's very difficult to get a job without one. A university degree is typically three years. However, completing an honours degree or PhD will increase the chances of getting employed. It's also good to get a lot of diving experience and, whilst you are underwater, try to learn the names of the different fish, corals, crabs and other creatures. A handy hint that I teach other divers and snorkelers is to try and remember the name of at least two fish species on every dive and in no time you'll be able to name everything you see. AGJ



One of my highlights recently was the rescue and release of a baby green turtle. This small baby was only about a month old when it was rescued from seagulls attacking it on the beach. It had a small nick out of its rear dorsal fin so we named the turtle, 'Nick'. After a couple of days feeding and looking after Nick, it was time to return him to the ocean. Instead of releasing him at one of the local beaches, we took him a long way off shore until we reached the East Australian Current (EAC). It was here that Nick was released as baby turtles spend the first couple of years travelling around on the ocean currents, never reaching land. I hopped in the water with him to say goodbye and take one final photo. As I saw him disappear into the blue it reminded me of the turtles cruising the EAC in the movie *Finding Nemo*!

Dave Harasti is a marine scientist who currently works as Research Scientist for the Port Stephens Great Lake Marine Park. In his spare time he's finishing his PhD on the conservation of seahorses and is examining the role that marine protected areas can provide in their protection.
He has been diving for 12 years and in that time he has developed a passion for marine life and underwater photography. He has discovered many new marine species (including 14 new species of nudibranchs from his backyard in Nelson Bay). However, his ultimate goal is to discover a new species of seahorse!