



Exploring new frontiers

Studying the diverse life in our oceans offers a world of adventure, reports ANTIMO IANNELLA.

WHETHER it's diving the deep seas, tracking the planet's diverse wildlife or using satellites to observe the world's oceans, the life of a marine biologist is a big adventure.

Associate Professor of marine biology at the University of Adelaide, Sean Connell, says the role is the "best job on the planet".

"It's just such an exciting environment to work in. No two days are ever the same," he says.

"It's also a really important field of work that influences many areas of society, so we're always right in the thick of the action."

The study of living organisms in the ocean and other bodies of water, marine biology involves understanding where animals live and how they respond to human activity in their habitat.

"We try to understand how the management of the marine environment affects the animals and plants within it," he says.

Dr Connell, 41, says marine biology is an "uncharted frontier", particularly in Australia. "Almost anything you do in a marine environment is new - few people have done it before," he says.

"There are so many parts of our coast that have never been dived on."

He says South Australia has a unique marine ecosystem, with lots of algae, "bizarre" creatures - such as the leafy sea dragon - and an old coastline which is very nutrient-poor.

"But the amount of research that is done here compared to places like the tropics or elsewhere around the country is very small," Dr Connell says.

While the profession has grown in popularity over the past decade, there is still a shortage of marine biologists in SA.

A new program from the SA Government called Marine Innovation SA (MISA) was launched in 2005 to try to improve the situation.

"The aim is to grow the capacity of marine biology in our state by attracting

biologists from other parts of SA and the globe here," Dr Connell says.

Through the program, a new marine biology degree was established at the University of Adelaide. A course is also offered at Flinders University.

To support the subject's growing popularity, Dr Connell and fellow University of Adelaide associate professor Bronwyn Gillanders have co-authored Australia's first marine ecology textbook, *Marine Ecology*.

Dr Connell says that most graduates want to go to Queensland to work on the Great Barrier Reef but they don't realise the opportunities that exist in SA at agencies such as the Environment Protection Authority.

"These types of places are always on the lookout for marine biology graduates and slowly people are starting to understand that," he says.

Now in charge of a team of 30 researchers at the university, Dr Connell's latest research project examines the future sustainability of the giant Australian cuttlefish at Whyalla.

The project looks at the species' movements, their breeding patterns and bone quality.

"The question is whether that population will go extinct or will it remain in the face of the changes brought to the coastline by the BHP desalination plant," Dr Connell says.





MEETING THE LOCALS: Professor Sean Connell with the penguins.

