

ISSUE 173 - \$9.90 inc GST
February / March 2020

NEW ZEALAND'S DIVE MAGAZINE

DIVE

PACIFIC

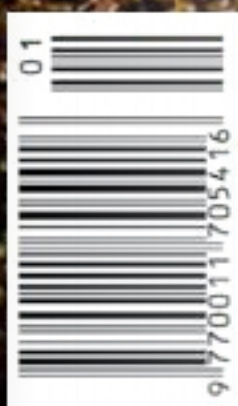
**The GREAT
New Zealand
discovery puzzle**

**Alien?
Paranormal?
The Octopus**

How to Adopt-A-Wreck

- Four big answers for women who Scuba
- How to join the Coast Care action
- Russell's road crash. *What can we learn?*
- Spearfishers Notebook: *the low down on Boarfish*
- **PLUS: Diving in Niue, Vanuatu, Madang, Wakatobi...**

www.Dive-Pacific.com



Greek Hippocampus Institute set up to study seahorses

There are 47 species of the seahorse, the extraordinary and charismatic marine creature in the scientific genus, *Hippocampus*. In Greek, hippos is "horse" and kampos is "sea monster".

Over the past decade, 14 additional species have been discovered. However, identifying them is always a challenge as seahorses have the ability to change their colour and shape in order to blend in with their environments.

Now, in Greece, the Hippocampus Marine Institute, has been set up mainly to study and protect seahorses. Vasilis Mentogiannis, a founder of the Institute, explains.

In November 2007, a group of the Marine Antiquities Ephorate diving crew visited Stratoni to inspect an underwater harbour installation for a mining company. After finishing that we decided to continue exploring and that was when we spotted our first seahorse, and it was of a species that was quite rare. The excitement was intense. As we continued we spotted another, and another, and yet another; the area was thriving with seahorses! It was



Photo: Hippocampus Marine Institute

such a unique experience!. When we returned later in 2008 we had the same experience; there were a plethora of seahorses living in a hypertrophic, underwater habitat!

How rare was the Seahorse you encountered?

Seahorses have been listed as "Vulnerable" on the Red List of Threatened Species, of the

International Union for Conservation of Nature (IUCN), since 1996. Since 2003, seahorses have been categorized as "Data Deficient" worldwide, with the exception of the Mediterranean species which was re-classified as "Near Threatened" in 2016. Greece has signed four



European and international treaties protecting these species. The latest documented populations of seahorses in the Mediterranean Sea are in Stratoni, Spain, Italy, and France and a population also exists in southern Portugal.

Why did you decide to conduct research in the Chalkidiki, Stratoni area?

For the past decade, in this specific area of Chalkidiki, Stratoni, we have always encountered this magnificent phenomenon. What's more, we occasionally find both of the seahorse species normally found in Greek waters: the *Hippocampus hippocampus* and *Hippocampus guttulatus*.

Over the past 10 years, we have been systematically monitoring, observing, measuring water and sand samples, conducting surveys and many other initiatives. And we have tried to establish "citizen science" by sharing this spectacular

phenomenon through many publications. All this resulted in the creation of the marine research centre specifically for the monitoring and protection of the seahorse.

We believe that the protection and overall communication of this rare population of seahorses in Stratoni will benefit the whole area by creating an underwater "theme park" focused on this mythical, dragon-like underwater species.

The technical challenge

One of the biggest difficulties was in scientifically proving and documenting the seahorse populations. We had to cover a large underwater area and take a multitude of measurements. The Freedom computer, which each diver from the institute uses, helped incredibly with its O-led big screen.

It was very easy to use and provided the data we needed with the single push of a button.

Another critical piece of equipment was the Liberty Rebreather, as we could make observations that couldn't be done with open-circuit scuba. The use of this rebreather ensured absolute silence so we didn't disturb the underwater environment.

Its reliability, user-friendliness and state of the art technology is important as it can be very easy to make mistakes under pressure. The SOLO Analyzer is an excellent example: it's very easy to use and exhibits cutting-edge technology.

