# SAVING NEMO NEW SLETTER JUNE 2024

#### Research Update

#### **UPCOMING PROJECT**

Our upcoming research aims to explore the intricate interactions between anemonefish and sea anemones, delving into the fascinating world of symbiosis. In the wild, sea anemones will provide the anemonefish with shelter and protection from predators and the fish cycle nutrients for the sea anemone through their waste.

For our project, we will collect mucus samples from anemonefish, which naturally live with species of sea anemones, and damselfish, which do not have this symbiotic relationship in the wild. By presenting these samples to sea anemones, we aim to observe how the sea anemones react, specifically looking at their nematocyst (stinging cell) firing responses. In addition, we will closely monitor the behaviour of the anemonefish during the early stages of their relationship with the sea anemones. Specifically, we will investigate whether anemonefish exhibit behaviours indicating they have been stung during the establishment of the symbiotic relationship. Our research aims to deepen our understanding of the symbiotic process and identify the protective mechanisms involved.

#### What's New

#### **MEET OUR NEW RESEARCHERS**

We are thrilled to introduce Bella Stratford, who is completing her Honours project in Environmental Sciences at Flinders University, and Olivia McCoy, an Animal Behaviour and Welfare Master's student from Queen's University Belfast, Ireland. Both researchers are joining us for exciting new studies. Supervising the project is Flinders University Molecular Biology Professor, Dr. Cathy Abbott.



**Bella Stratford** Honours Student



Olivia McCoy Masters Student



Dr. Cathy Abbott



### **Upcoming**

We are happy to announce that Saving Nemo will soon receive 12 new sea anemones for our upcoming project, generously provided by Hallett Cove School. These additions will significantly contribute to our research on the symbiosis between anemonefish and sea anemones.

Learn more about our mission and stay connected by visiting our website: www.savingnemo.org

### Partner Spotlight

We're delighted to unveil our latest collaboration with Hallett Cove School, which will be providing Saving Nemo with sea anemones. This partnership not only enriches our research endeavours but also strengthens our commitment to fostering community engagement and inspiring the next generation of marine conservationists. We currently have two bubble-tip sea anemones (*Entacmaea quadricolor*)

from Hallett Cove which are currently thriving in the Flinder's University Animal House.





## **Support Saving Nemo**

Your contributions play a vital role in funding our research projects, conservation efforts, and educational programs. Help us protect marine life and habitats by making a donation today. To contribute visit www.savingnemo.org/shop.

#### **Get Involved**

Can't donate? There are many ways to support our mission beyond monetary donations. Volunteer your time, participate in citizen science projects, or spread the word about marine conservation in your community. Explore opportunities to get involved at www.savingnemo.org/get-involved.

#### **Featured Species**



# MAROON CLOWNFISH (PREMNAS BIACULEATUS)

This month's spotlight is on maroon clownfish (Premnas biaculeatus), known for their rich, deep maroon or burgundy colour, which can sometimes appear almost black in older individuals. They have three narrow white or light-coloured bands across their bodies, which stand out against their dark colouration. Their host sea anemone is the bubble-tip sea anemone (E. quadricolor). Maroon clownfish are among the largest clownfish species, with some females growing up to twice the size of breeding males. They are known for their aggressive and territorial behaviour, and fiercely defend their host sea anemones from intruders, including other fish and even other clownfish species.

Once a pair bond is established, maroon clownfish exhibit strong monogamous relationships, with both the male and female actively participating in the care and protection of their territory and eggs.

Stay tuned for more featured species in future newsletters!

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