



2022

# **Paddy Pallin Research Grant**

## **A multidisciplinary approach to assess the impacts of anthropogenic noise on Australian fur seals**

### **University of Sydney**

Jessalyn Taylor  
Supervisor: Dr Rachael Grey

### **Project Summary**

The Australian fur seal is a high-level marine predator endemic to south-eastern Australia. Seal Rocks, Victoria, the largest Australian fur seal breeding colony, is assumed to be habituated to vessel visitation compared to other colonies, as it is close to a busy port and is frequented by tourists, commercial and recreational fishers, and researchers. However, there is currently no research to support this assumption, and the population faces multiple threats that may reduce its resilience to human disturbance. The overall aims of this project are to determine the impact of vessel noise on the colony and assess the effectiveness of the current management strategy by developing an impact model of vessel visitation. This will be achieved using a combination of underwater sound monitoring, visual monitoring of vessels visiting the colony, pup health evaluation, analysis of individual and population stress, including the development of new methods to assess stress in Australian fur seals, and testing the behavioural response of seals to vessel noise. The outcomes of this project will be used to better inform management strategies for this population and will be adaptable to other fur seal colonies and other marine species.

### **Biography of Jessalyn Taylor**

Jessalyn is a PhD candidate at the University of Sydney, researching the impacts of human activity on the health and behaviour of Australian fur seals. Her project is a collaboration between the University of Sydney, University Paris-Saclay, and Phillip Island Nature Parks. Jessalyn completed a Bachelor of Science (Hons) and Master of Agricultural Sciences (Animal Science) at the University of Melbourne, and her previous research examined human-animal interactions in zoo-housed fur seals. Jessalyn's overall research goal is to contribute to our understanding of human impacts on wildlife and how they can be mitigated as part of species conservation management.