



A message from Bec and Ross

So here we go, the results of the 2019

“Annual SealSpotter Challenge”

What was the challenge?

- To count as many pups and seals as we could in two weeks
- To engage Citizen Scientists from across the globe

We learned from Karina’s Honours research (Monash University) and your amazing counting efforts in 2017, that the two best breeding colonies for using the Remote Piloted Aircraft (RPA) were Seal Rocks, near Phillip Island in central Bass Strait and The Skerries, near Mallacoota and the Victorian border with New South Wales. Both sites were surveyed in the 2018 breeding season and counted during the “Annual SealSpotter Challenge”. We are now excited to present the results. To all who participated: thank you so much for your efforts.

Now due to popular demand, we have kept the portal open and added more surveys. Happy counting: we look forward to more collaboration and the 2020 SealSpotter Challenge next year.

Summary of participation:

- 112 Citizen Scientists contributed to the counts
- Participants were from 25 countries
- All continents were represented, including Antarctica
- Users marked 113,039 seals in 16,559 images.

OUR TOP SIX COLLABORATORS 2019 and images counted

Terri H, 2293
Susa, 2003
Jullee, 1927
Larissa I, 1244
Shakira, 1053
Bernhardt L, 1012

Summary of results

- Citizen Scientists did a great job counting this year (Table 1).
- Because more than one person counts each image, we’re able to get the most useful numbers from each image, even where some users struggled. The variability between Citizen Scientist and expert counts in the results was up to 5% for Adults & Juveniles and 10% for pups.
- There was more variation in the pup counts, which we expect since the pups are smaller and more cryptic than adults. This was especially true at Seal Rocks, where the rocks are a very similar colour to the pups.

Table 1. Results of the 2019 Annual SealSpotter Challenge compared to last year. The pup count includes live and dead pups.

Survey location	Survey date	Adult & juv	Entangled	Total pups	Total seals
Seal Rocks	30/11/2018	6122	18	1985	8125
Seal Rocks	27/12/2018	4322	06	2246	6575
The Skerries	24/01/2019	4822	11	1568	6401

Where to next for SealSpotter?

This time we tried counting ‘live pups’ separate from ‘dead pups’ as requested by many of our participants. Interestingly, you counted more pups as dead than our expert did (Bec). For the results shown above, we added live and dead pups together to get a total number of pups. SealSpotter is a collaborative effort between you as Citizen Scientists and us as the lead researchers, so we now need to decide if you liked having this separate category or you preferred it as one ‘pup’ category. Please email us on Research@penguins.org.au if you have an opinion on this.

It’s clear to us that if we can improve the quality of the images, we will improve the precision of the count data, especially for Seal Rocks. We are exploring the possibilities of flying slightly lower over the colonies, and also the possibility of a new camera, which might improve image quality.

What are the Australian fur seals up to at the moment?



The pups have grown a lot and are playing in the water. Females are advancing with their pregnancies while still feeding their pups. Hard work – always lactating, always feeding and always foraging.

Remember – when you see a fur seal ashore, they aren’t lazy, they are tired. Give them a wide berth and let them sleep.

Recent research outcomes from SealSpotter

In collaboration with Monash University, final year students are using the images labelled by you to test whether computers can count the seals. This will not put you out of a job; the aim is to have machines help us focus the efforts of our Citizen Scientists better, so that we can reduce the workload while maintaining the quality of the counts.

Thank you again for all your hard work. Please continue counting, the portal is open.
See you next year for the “Annual SealSpotter Challenge, June 8-23 2019.

Bec and Ross ☺, Conservation Department, Phillip Island Nature Parks



At Wingan Inlet flying the drone over The Skerries



Flying the Matrice to Seal Rocks from the Nobbies



New-born pups at Seal Rocks - image selected by Terri H.



A favourite SealSpotter image from Bec