



Great Otago Gull Count

Are red-billed gulls a problem in the school yard?

Although widespread and apparently numerous around New Zealand, red-billed gulls (tarāpunga) are currently assigned as 'At Risk–Declining' in the New Zealand Threat Classification Series ([Conservation status of birds in Aotearoa New Zealand, 2021](#)). In contrast to major decreases further north, numbers at Otago increased from about 5000 nests in 2011 to about 6000 nests in 2020, and now account for about 20% of the national total ([Lalas et al, 2022](#)).

Red-billed gulls spend most of their time around marine habitats. We frequently encounter red-billed gulls scavenging for food scraps in urban areas. However, their most important food source by far is surface-dwelling zooplankton like krill and squat lobsters caught in sheltered waters and at sea within a few kilometres off the coast.

Red-billed gulls are increasingly becoming a nuisance in school yards as they are looking for a free lunch.



Through coordinated data collection with Otago schools, the aim of this project was to improve understanding about the interaction between gulls and people and possible solutions.

Great Otago Gull Count

In March, 2022, primary and secondary schools throughout Otago were encouraged to identify and count the gulls in the school yard over the course of one day. Participation was not dependent on gulls being present, as absence is important data. Preliminary observations by schools suggest that gulls have the behavioural flexibility to adapt their foraging behaviour to human time schedules when beneficial (e.g. a free lunch). This study was designed to investigate where different species of gulls are hanging out and why, so that we can reduce the negative interaction between humans and gulls.

Detailed instructions, data sheets and resource material were distributed to schools. Schools were asked to map their school yard survey site, count the gulls at various times during the day, answer a survey about lunch habits of the students and rubbish disposal practices of the school. Students were then encouraged to review their results and discuss ways to increase public understanding and awareness about gulls and ways to care for these native species. In addition, students were asked to design a poster to discourage people from feeding the gulls.

Science in the School Yard
Great Otago Gull Count 2022 SURVEY SHEET 4

School: _____ Class Level: _____
 School Address: _____
 Teacher Name: _____ email: _____
 Date of Survey: _____

Sampling period	Actual Time	Number of gulls observed			Notes
		Red-billed	Black-backed	Black-billed	
1 Early morning (just after 9 am)					
2 Mid morning tea (when children eating)					
3 Late morning (between morning tea and lunch)					
4 Mid Lunch (when children eating)					
5 Mid afternoon (just before 3 pm)					
6 Late afternoon (after children gone home)					

Try to take photos of any observations that you make!



Science in the School Yard
Great Otago Gull Count 2022 SURVEY QUESTIONS 5

NAME OF SCHOOL: _____

- Do the students eat morning tea outside?
Do the juniors and seniors have the same morning tea time / or different? _____
- Do the students eat lunch outside? _____
- Is there a dairy / fish & chip shop / or area where the gulls have access to food / rubbish nearby?
How do you think it has an influence on the number of gulls you see in the school yard?

- School rubbish bins
Are the rubbish bins outside? _____
Are they located in or near to the survey site? _____
Are they covered? _____
How often are they emptied? _____
Is there an open compost area? _____
- Is rubbish often dropped in the school yard? _____
- Do the students feed the gulls? _____
- Any other reasons why you think the gulls may or may not be present in your school yard?

- What questions are the students interested in investigating further?

Royal Albatross Centre Education



Outcomes

Seventeen schools (>400 students) took part in the Great Otago Gull Count with 15 found within 1 km of the coast or a river or lake. Of these 15 schools, 80% recorded problems with red-billed gulls. Rather surprisingly, none of these schools recorded problems with the larger black-backed gull. Although scavengers, these larger gulls do not seem to be as bold as the red-billed gulls. This is fortuitous because their larger size poses a greater threat to students.

Following the Gull Count, all coastal Otago schools responded to a phone query about whether gulls were a problem in their school yard. Schools closer to the ocean appear to be more likely to have a problem with gulls in the school yard (see maps). However a statistical analysis is required to confirm this observation. And no schools beyond 3.3 km distance from the coast, or a river / lake recorded problems with red-billed gulls.

Many of the schools that didn't have a problem were proactive in their hunt for solutions to minimise the negative interactions between gulls and students. Key to addressing the issue is for students and the wider community to understand that feeding the gulls is not saving the species. Although a few individuals may be reliant on a free lunch, not feeding them will not have an impact on the population. Some schools observed that the problem with gulls on the school yard is not necessarily related to the number of gulls present, as the problems could be attributed to the behaviour of one or two individuals.

Recommendations by Schools

Several of the participating schools proposed and trialled methods to eliminate problems created by the presence of gulls. The outstanding outcome of this project was that schools themselves found some effective methods.

- **Ensure rubbish / compost bins have covers**
- **Don't feed the gulls your lunch leftovers**
- **Educate classmates why they should not feed the gulls**
- **Clean up rubbish from the playground after morning tea and lunch**
- **Eat lunch inside the classroom**

While the last solution is effective, it seeks to escape the problem rather than reduce the negative impact.

Posters and Stickers

Fourty-three entries for the 'Don't feed the gulls' poster competition (from 5 schools) were received. The top 3 entries have been printed as rubbish bin stickers to help schools educate others and the top 12 entries were displayed at the Oamaru Library and at the Royal Albatross Centre. These stickers are available from the Royal Albatross Centre for school and community rubbish bins (see contact details below) or schools may want to make their own signage.

An identification [poster](#) was developed to help schools identify the different species. This poster and other [educational resources](#) about the red-billed gull are available from the Royal Albatross Centre.



Value of Further Monitoring

Regular monitoring of gulls in the school yard or local community is worth considering as an ongoing study. Students may want to investigate seasonal differences in numbers (breeding season vs non breeding season) and ages (juveniles vs adults). Surveys will help students evaluate the impact of their actions to discourage gulls from hanging about. For example the students could survey the number of gulls present over one day in the week before lids are added to the rubbish bins, and then repeat the survey 3 weeks after the rubbish bin lids are installed.

Further monitoring will highlight if there is a widespread problem with gulls among coastal Otago schools. Resources to guide your enquiry are available at <https://albatross.org.nz/education/educational-resources/>.

This project, led by Sally Carson and Chris Lalas, is an example of how schools and communities can contribute valuable information to science. Chris is interested in your observations of red-billed gulls nesting at locations that you think might be new (ithaki@xtra.co.nz). Sally is interested in hear more about how schools have extended their studies of gulls in the school yard (sally.carson@otago.ac.nz).

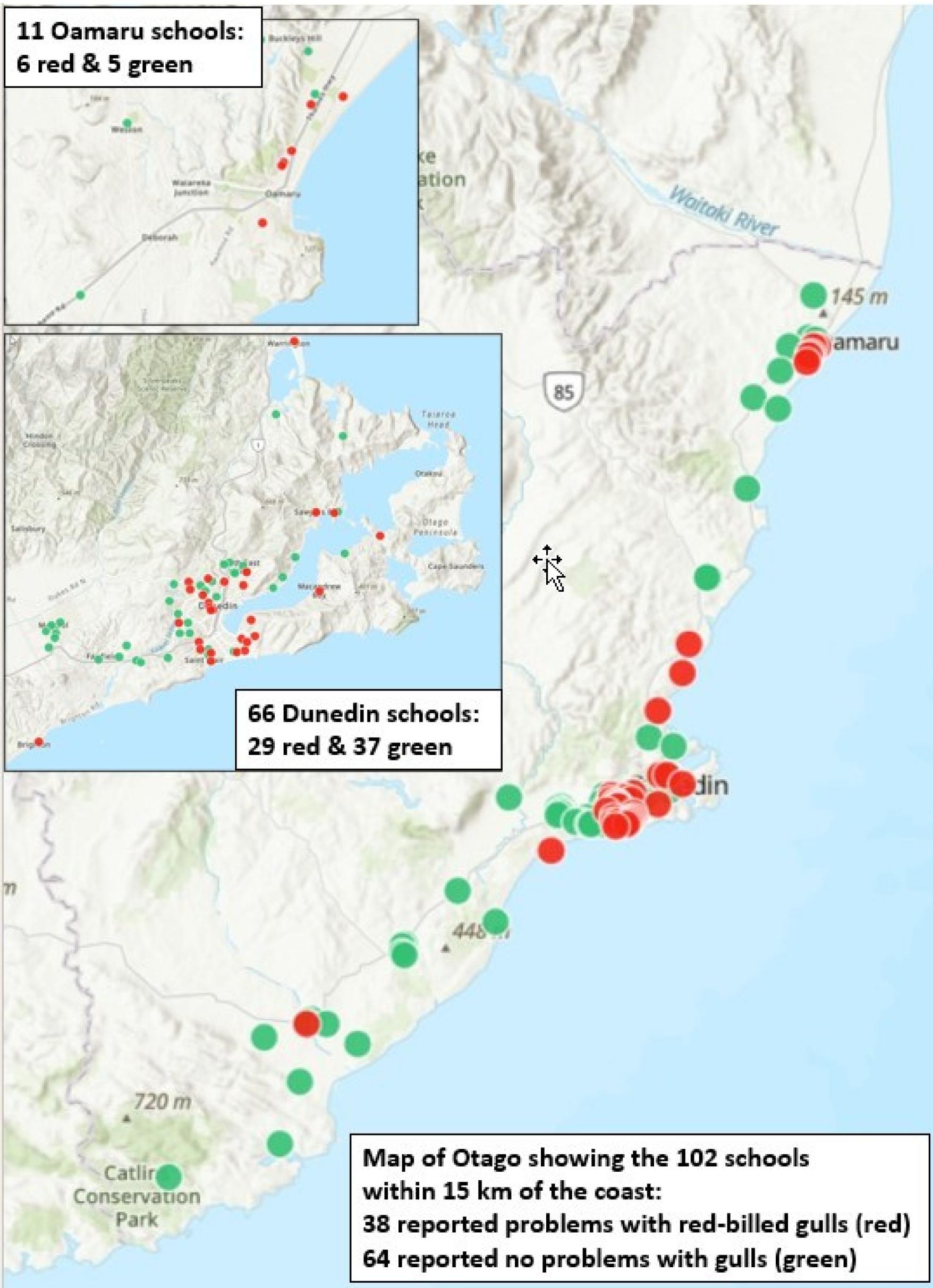


Further Information

For further information, resources and the opportunity to visit a red-billed gull nesting site contact the Education Team at the Royal Albatross Centre (education@albatross.org.nz) or visit www.albatross.org.nz/education.

This project was supported by Curious Minds (NZ Ministry of Business, Innovation and Employment, the Ministry of Education, and the Office of the Prime Minister's Chief Science Advisor) through the Otago Participatory Science Platform, Department of Conservation and the Otago Peninsula Trust.

**11 Oamaru schools:
6 red & 5 green**



**66 Dunedin schools:
29 red & 37 green**

**Map of Otago showing the 102 schools
within 15 km of the coast:
38 reported problems with red-billed gulls (red)
64 reported no problems with gulls (green)**