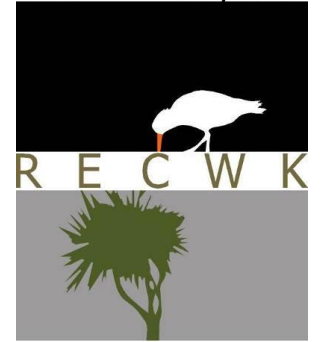


# River Estuary Watch

River-Estuary Care: Waikouaiti – Karitane

JULY 2018

River - Estuary Care



Waikouaiti - Karitane

## Nurdle Hunting on the Karitane Beach

- Elizabeth Vanderburg

Nurdles, small lentil-shaped pre-production plastic pellets, are used to make common plastic items. They shouldn't be in the environment but, due to mishandling, have found their way into waterways, oceans and adjacent ecosystems. Nurdles are usually shipped in large bags which can leak or fall overboard and, because they float, can be easily transported by currents.

These tiny beads can also be washed from manufacturing plants through stormwater systems to natural waterways. Nurdles have found their way into natural environments all around the world. Once they have entered water ways, birds and marine wildlife can mistake nurdles for natural food sources, causing digestive blockages and loss of appetite, eventually leading to starvation.

For four days in April my family were out on the Karitane beach collecting, counting, and sending our findings to a nurdle hunting website: <https://www.nurdlehunt.org.uk/>

We found 1,352 nurdles in approximately four hours of hunting. During our excursions we also collected other plastic rubbish ranging from single use plastics (straws, utensils, food packaging and water bottles) to sports, farm, and fishing gear.

During our nurdle hunting excursions people showed genuine interest in what we were doing. Beach walkers came over to find out what we were up to and had their own stories and pockets full of rubbish found on their walks.



*Above: Just a few of the nurdles found during our four-day family hunting expedition on the Karitane beach.*

It's great to see so many people switched on to global issues that impact our little community.



*Some of the other rubbish found on Karitane beach during the four days of nurdle hunting. Can you identify any of the items?*

#### WHAT CAN WE DO ABOUT IT?

- 1) Use alternatives to plastic products
- 2) Recycle and properly dispose of plastic
- 3) Pick up rubbish when you go for walks and dispose of it properly.
- 4) You too can hunt for nurdles! Forget Pokemon - nurdle hunting is a true family sport

**We are proud to launch the River Estuary Care website!**

Many thanks to Struan Stringer-Wright and Elizabeth Vanderburg for all their help in making it happen.

Have a look: <https://riverestuarycare.wixsite.com/riverestuarycare>



## Waikouaiti Resources at the Hocken

- Nā Jacinta Beckwith

*Kaitiaki Mātauranga Māori, Uare Taoka o Hākena – Hocken Collections, University of Otago*

It was great to be part of the Ki Uta ki Tai Volunteer Week in April, pitching in with Chanel, Tom, the student volunteers and local community members working towards restoration and conservation of our beautiful awa and whenua. I enjoy contributing to this kaupapa and was grateful to be hosted so generously by the Rūnaka and Waikouaiti-Karitāne community. Part of my aspiration for joining in was also to make connections with some of the unique related resources we have at the Hocken Collections that might benefit the community. Being able to connect interested parties with relevant taonga is one of the more meaningful and fulfilling parts of my role.

At the Hocken we are fortunate to care for a wide variety of rich resources including art, photographs, books, journals, newspapers, archives, manuscripts, maps, posters, ephemera, music and film. Some items date from as early as the 17th century. We specialise in Otago-Southland but we have resources from all over Aotearoa New Zealand, as well as Australia, Antarctica, and the Pacific.

A search for 'Waikouaiti' results in 397 items across our artworks, photographs and archival resources. These include baptism and burial registers, letters, family papers, school records, papers relating to land lease and sale, land blocks, and architectural and town plans. As an example of one of the 17,000+ artworks in our collections, the watercolour of Otago Heads, Waikouaiti Bay painted by Fanny Brunton in 1869 is one of fifty topographic landscapes in a tiny sketchbook that also includes scenes of Moeraki, Dunedin, Bluff, Riverton, Lake Wakatipu, Kakanui and Timaru.



*Fanny W. Brunton 19th century New Zealand. Otago Heads, Waikouaiti Bay, R.C. Chapel, and Maori Reserve, 1869. From a sketchbook of watercolours painted between 1869-1885. Watercolour on paper 60x185 mm (paper and image size) Acc: 21,101 09. Given to the Hocken by Mrs M. B. Anderson in 1963.*

We have more than two million photographs across the collections! Two examples from these show, firstly, Edward Shortland's 1843 map of the Bay of Waikouaiti, which includes notations of where moa bones were found and the 'supposed ancient course of the river'. This map was reproduced in Shortland's *Southern Districts of New Zealand*, 1851. The second photo by Muir & Moodie shows Whakapatukutu (Orbell's Crossing) in 1907. Both are part of our digitised photographs collection available online at: <http://hockensnapshop.ac.nz/>



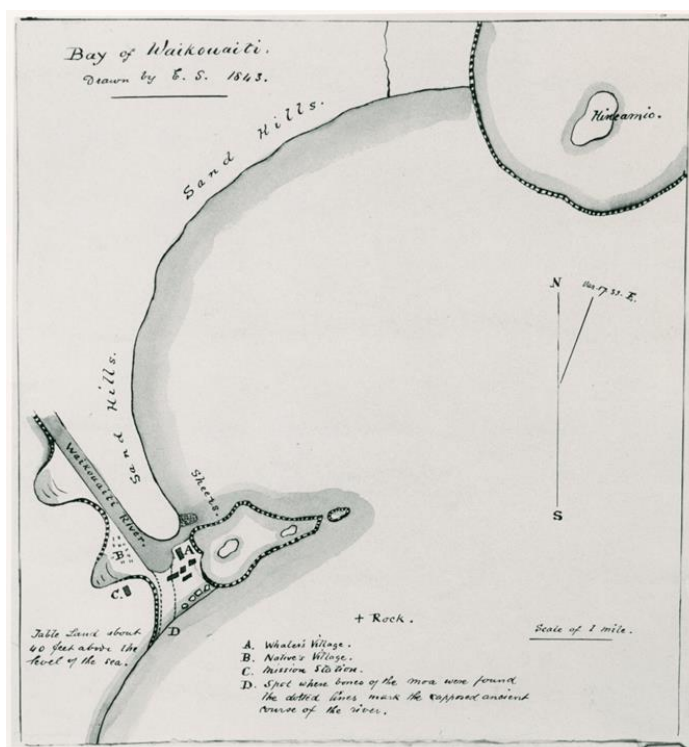
Left: Orbell's Ford,  
Waikouaiti River, 1907.  
Muir & Moodie  
photograph, Box-174-001.

Below: Bay of Waikouaiti,  
1843. Drawn by Edward  
Shortland.

The Hocken Collections are used by a diverse range of researchers including iwi and whānau, university and polytechnic staff and students, local historians, authors, artists, genealogists, and school students. The Hocken welcomes anyone on a quest to find out more about local stories!

We are open from 10am to 5pm Monday to Saturday, and can be contacted by email for specific research enquiries at: [hocken@otago.ac.nz](mailto:hocken@otago.ac.nz)

On-site, staff are happy to assist visitors to the collections at all times and we offer free general tours including our behind-the-scenes on Wednesdays at 11am and 2pm.



We also welcome enquiries from individuals and community groups wishing to donate or deposit material with us. We store all archives in a secure, temperature and humidity-controlled area in packaging designed to protect from deterioration and damage. Examples of items donated to us include letters, memoirs, diaries, awards and certificates, scrapbooks, photograph albums, and research papers. A big part of our kaupapa at the Hocken fits with a Kāi Tahu whakataukī: Mō tātou ā mō kā uri a muri ake nei – for us and our children after us. We follow the legacy set by our founder, Dr Thomas Morland Hocken, who gifted his collected taonga freely to the people of Aotearoa New Zealand and we continue to grow the collections with both heritage and contemporary material for the benefit of our researchers and visitors.

Read more about the Hocken at: <https://www.otago.ac.nz/library/hocken/index.html> Have a look through artworks, photographs and archives at: <http://hakena.otago.ac.nz/index.html>  
Contact Jacinta at [jacinta.beckwith@otago.ac.nz](mailto:jacinta.beckwith@otago.ac.nz)

## Loving the river

- Helen Hillis

There is a lot to love about the Waikouaiti River and estuary.

When returning to Karitane via Coast Road, down goes the car window so that I can breathe in the fresh sea air. The bird life is wonderful and sometimes I attempt to help with the six-weekly bird count.

We gather cockles and pipi every few months and have been night floundering three times in three years without much success. We have taken several children for their first kayak rides on the estuary, including taking our grandson for a night paddle. Using a strong underwater light, we saw lots of crabs and piper fish. It is a wonderful, safe area for them to play and learn about the birds, sea creatures and tides.

At low tide I often wade across to the spit and have a beautiful walk along the beach and lagoons to the town of Waikouaiti. The estuary gives us safe passage to the sea when we go out fishing on our double kayak and, when tide and weather allow, to paddle to the magnificent sea caves at Matainaka (for experienced sea kayakers only).

Joining in with restoration planting along the river has allowed us to meet many lovely, caring people and the planting trip to the spit in the waka was very special.

We congratulate the Estuary Care group on all their work done to date and hope that the beautiful river and estuary continue to sustain abundant bird and sea life.



*Grandson Mason sailing his homemade claddie waka*



## The Birds – cake, counting and curlew

- Derek Onley

Sustained for the last ten years or so by the thought of afternoon tea, coffee and cake at Ailsa's, the Rivercare Bird Counters (RBCs) have been out with their binoculars and telescopes in all but the very worst weather for the last 17 years. Every six weeks or so the Waikouaiti River estuary birds have been counted at low tide at 12 vantage points from the sea to the railway bridge, then upstream past the Merton arm to Round Hill Road.

We ignore those little brown birds, sparrows, silvereyes and the like that flit around the margins and concentrate on the ducks, shags, waders and herons that feed out in the open on the mudflats and channels at low tide. We are rather fond of kingfishers and swallows and count those as well, and also the harriers that would eat any of them given half a chance.

In 133 counts over approximately 350 hours of observation, we have recorded 39 species. We are not "twitchers" (bird watchers who seek out rarities), so were not at all disappointed to record only two rare birds during all that effort and hard slog.

A couple of endemic wrybill were picked out amongst the scurrying banded dotterels on two occasions, and a curlew (a wader from eastern Asia with a migration almost as long as the godwit) was seen way back in July 2008. The impromptu dance that resulted was of course mere frivolity and not typical of the rigorous scientific approach adopted by the RBCs. Nobody celebrated the two sightings of a pukeko, which surprisingly makes it as rare as a wrybill.



Of those 39 species recorded, only 22 could be called regulars (species that are present year after year in some numbers.) A further 14 species sneak into the counts every now and then. They mostly consist of marine species spending a little time in freshwater near the wharf: spotted & Stewart Island shags, gannets, white-fronted and black-fronted terns, or farmland species holidaying at the seaside: feral geese, farmyard ducks of various hues and the stray cattle egret.

Of the regulars only pied stilt, mallard & black-backed gull nest in any numbers, though several pairs of black (variable) oystercatchers nest on the sandspit opposite the wharf. Little shags have nested on and off in the macrocarpa trees by the hall; white-faced herons nest in tall trees bordering the estuary; Canada geese, spur-winged plover, the odd harrier and banded dotterel and pied oystercatcher in adjacent paddocks. Kingfishers nest in holes in the banks of the estuary, and swallows under the wharf.

Recently I compiled the results for the following regular species that occur in any numbers for the years 2001 -2017:

- The waders:
  - Banded dotterel
  - Bar-tailed godwit
  - Pied oystercatcher
  - Pied stilt
  - Spur-winged plover
  - Variable (black) oystercatcher
- Ducks, swans and geese:
  - Black swan
  - Canada goose
  - Grey teal
  - Mallard/grey duck hybrid
- Herons:
  - Royal spoonbill
  - White-faced heron
- Shags:
  - Little shag
  - Black shag
- Gulls and terns:
  - red-billed gull
  - Black-billed gull
  - Black-backed gull
  - Caspian tern.

For each species I looked at the habitat preference as a percentage of the total counted at each site over the 16 years, the seasonal occurrence as the monthly average over the years, and the trends shown by the count at each site on each visit over the years. There's a bit of fiddling about, assessing the validity of the data, accounting for seasonal differences and vagaries of duck identification, but each species account in the report will look something like this:

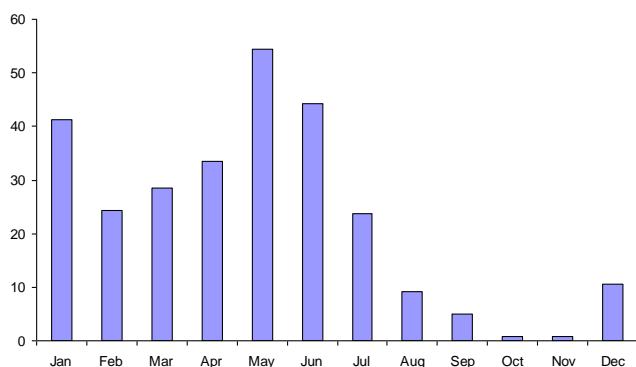
### Banded Dotterel



#### *Habitat Preference*

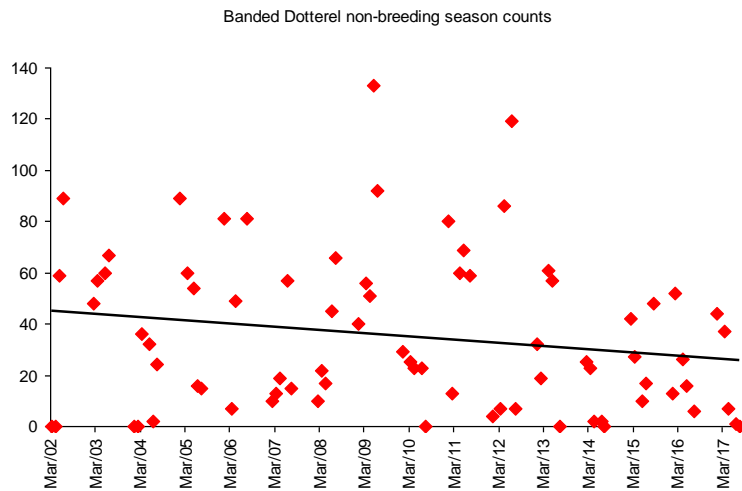
Dotterels prefer to feed on the drier low tide sand and mudbanks and adjacent saltmarsh in the estuary below the railway bridge.

**Banded Dotterel**



#### *Seasonal Occurrence*

Dotterels breed in Central Otago and return to the coast in late December, leaving for their breeding grounds in late July and August



*Counts in the non-breeding season:  
January - July.*

Counts in the last 4 years have been  
20% lower than previously.

So what has changed over the years?

Surprisingly little considering the anxiety about the state of our birdlife. Recent national counts for bar-tailed godwit and pied oystercatchers continue to show declines.

Our godwits have remained pretty steady at around 100 or so. Except for the years 2005-2009 when the estuary was particularly popular, with peak summer counts in the 300s and over wintering juveniles and "lazy" non-migratory adults in the 50s-70s.

Pied oystercatchers have also done well locally compared with the national trend, increasing slightly in line with the other Otago coastal sites.

Banded dotterels (see above) have not fared so well in the last few years but variable (black) oystercatchers have increased in line with the national trend and recently are feeding further up the estuary from the sea.

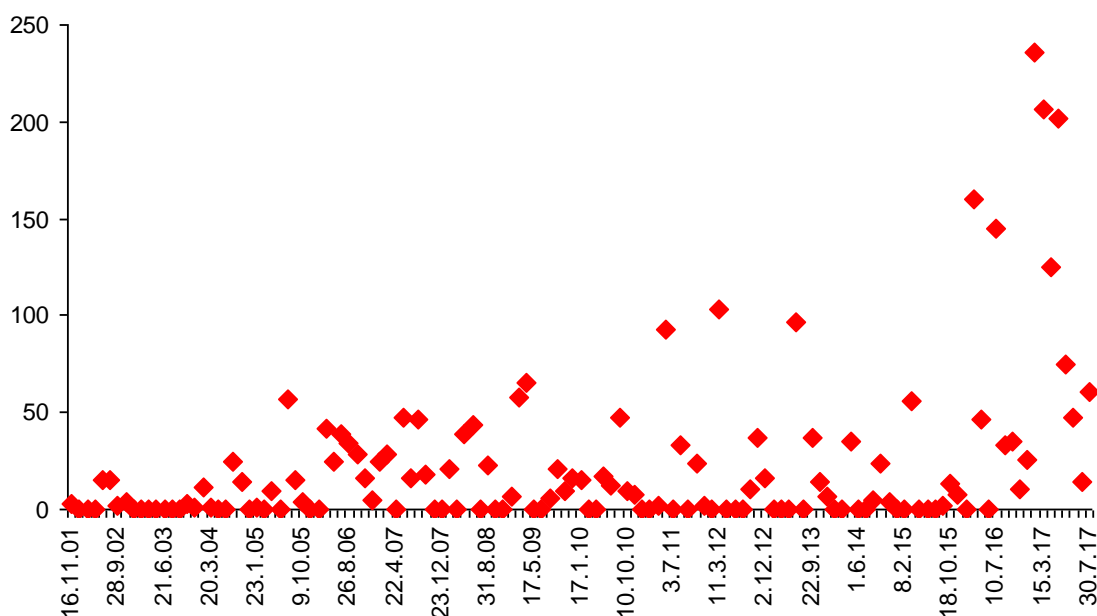
Pied stilts appear to have declined slightly but the breeding season numbers vary from around 15 to 60 in no regular manner so the decrease is unlikely to be significant.

Many of the rest potter along with good and poor years. Late summer/autumn counts of Royal spoonbills for example, were high in 2003-04 and again from 2010-12 but recently have returned to levels similar to 2005-10. We have not seen black swans in numbers well over 100 since 2007 but otherwise, on average, numbers have not changed much over the last 10 years.

And the real winners and losers? Calling Canada geese a winner is somewhat akin to celebrating a plague of rats but you cannot deny that they are successful. Here's the graph (please see the following page):

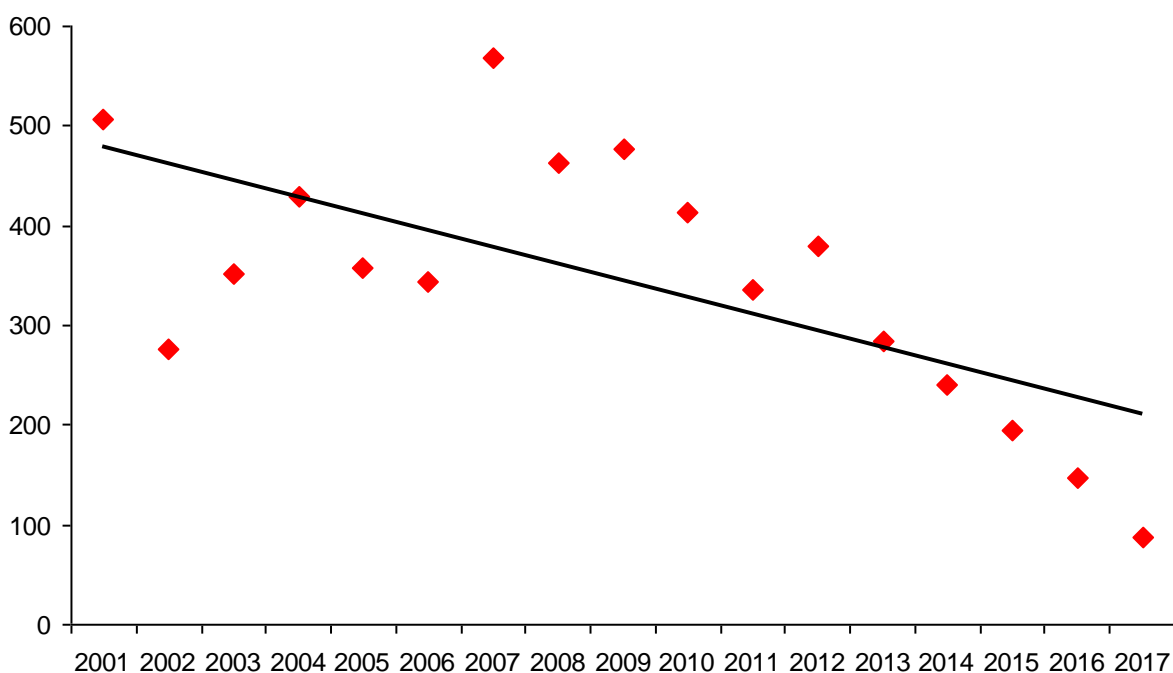


### Canada Goose



The losers? Black-backed gulls have never taken out, or even seriously challenged, Forest and Bird's bird of the year award, so there might be mixed feelings about their impending demise as a breeding bird in the saltmarsh in the Merton arm of the estuary. They still do ok out on the estuary but breeding numbers have declined dramatically over the last five years. From counts of 3-550 birds at the nesting colony until 2012, they are now down at the last count to less than 100. Here's the graph:

### Black-backed Gull Max count at colony



The conclusion? Keep counting for another 20 years? To do so we will need some younger keen counters as many of the present bunch will be struggling to lift their binoculars up to their eyes by that time. Baking skills and an acquaintance with local gossip will be an asset. Please contact Dave Yeoman 022 099 1202 you're interested.

## Do you want to help out?



### Would you like to volunteer?

Rivercare projects work because people volunteer time, advice, and donate funds, plants & materials.

- Would you like to be notified if we are having a planting day in the field or a potting-up day at the shade house?
- Are you keen to help in other ways?

Please contact Patti Vanderburg [yburg8113@gmail.com](mailto:yburg8113@gmail.com)

To become a friend of the River and Estuary Care: Waikouaiti—Karitane	Phone or email Brad – 03 4658334 or <a href="mailto:brad126@xtra.co.nz">brad126@xtra.co.nz</a>
Should you wish to kindly make a donation	<p>Online:</p> <ul style="list-style-type: none"> <li>▪ Enter our name: Waikouaiti-Karitane Rivercare Group Inc) (this will appear on your statement)</li> <li>▪ Enter our bank account number 060942 0190792 00</li> <li>▪ Enter your name and reason for payment e.g. donation to friend of Waikouaiti-Karitane Rivercare Group (Inc) (this will appear on our statement)</li> </ul> <p>or post donation to 1333 Coast Rd, Karitane</p>

### **River-Estuary Care Waikouaiti - Karitane**

Active since 1999 – Incorporated in 2001

Coastal Otago Conservation Award for 2005

#### **Objectives**

- To restore balance to Papatuanuku (Mother Earth).
- To have a well-informed community about our river and estuary.
- To have our community participating in sustainable resource practices.
- To have a healthy, productive river and estuary ecosystem (fishing, biodiversity, general health).
- To promote an understanding of the inter-relatedness of our river and estuary ecosystem with adjacent ecosystems.

**Anyone interested in supporting the above objectives may join!**

**Would you like to help with a project this year? Then contact**

- Newsletter – Hilary Yeoman ph 465 7687
- Revegetation project – contact Andy Barratt ph 021 890 048
- Education, information and advocacy project – contact Patti Vanderburg ph 465 811
- Birdwatching – contact convener Dave Yeoman ph 0220991202