



# The Inlet

Newsletter for the Guardians of Pauatahanui Inlet

APRIL

2014

*The Inlet* is a newsletter that brings together local and regional news affecting the Pauatahanui Inlet and its environs.

*The Inlet* comes out three times a year and current or back issues can be downloaded from our website.

The newsletter includes items of concern that affect the area as well as general interest topics for everyone.

Please contact us if you would like to contribute to *The Inlet*.

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## FROM THE CHAIRPERSON

In the last few months two comprehensive and informative reports have been released on the current state of the Inlet and progress on the Porirua Harbour and Catchment Strategy and Action Plan. We have also now received the draft report from NIWA analysing the results of our own cockle survey in December last year.

We will comment on all these reports in a little more detail in this edition of *The Inlet* but I would like to say something here about the general picture they give, a picture that is consistent across them all.

The results of the draft cockle survey are encouraging at this stage but we still await the final outcome after further analysis. The other commentaries all include confirmed results that are definitely good news and provide reasons to feel positive about the future of the Inlet. However, they also call attention to some results that are not so rosy and indicate that there is still a long way to go in restoring the Inlet to the healthy state we all want to see.

On the committee we believe one of our most important functions is that of keeping you, the members, and the wider community, aware of the state of the Inlet and what is being done to restore it. We strongly recommend you take the time to read the reports in full.

My final thought is that the existence of these reports, and the considerable amount of work that has clearly gone into their preparation, is heartening in itself as it shows that the Inlet's importance is widely appreciated by many people and organizations.

*Tony Shaw*

## THE 2013 COCKLE SURVEY ANALYSIS

You will be well aware that the 2013 Cockle Survey was undertaken in December and after submitting the results to NIWA for analysis we have been waiting patiently for the results of their work on the data, due out this month.

Today we can at least advise that a draft report has been received from NIWA and the results are very encouraging. Although we don't yet have the final report and can't comment on the results in any detail we can say, with great pleasure, that the upward trend that we have observed since 2004 has continued. If the result shown in the accompanying

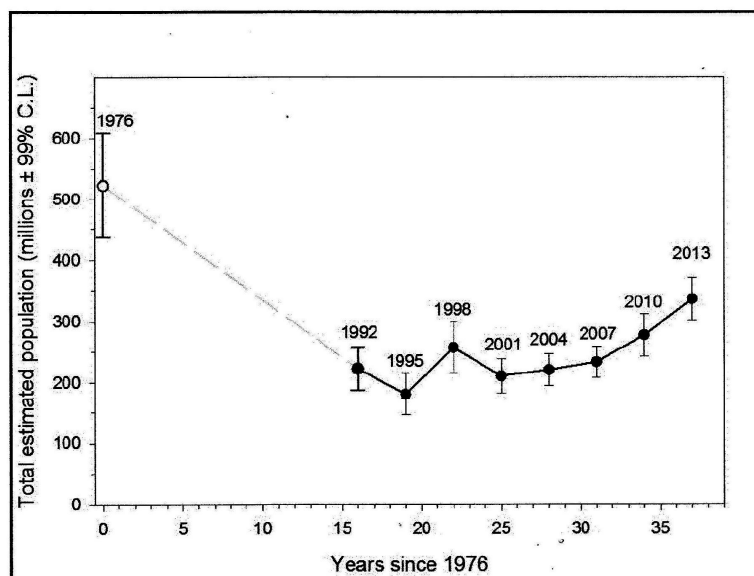


chart is confirmed we can at least say that the environment for cockles in the intertidal area of the Inlet is improving steadily. The actions taken by local authorities, farmers and urban developers to drastically reduce the amount of sediment entering the Inlet is undoubtedly having a positive effect.

## AT LAST - A SCORECARD FOR PORIRUA HARBOUR

While there has been much talk about the health of Porirua Harbour there has been no easy-to-read tool available to record its current status and monitor trends as action is taken to improve the environment in and around the area. Porirua Harbour Trust (PHACCT) has now given a commitment to report annually on the health of the harbour with a tool called 'State of the Harbour Scorecard'. The scorecard measures five criteria, applying a value from 1 to 5 according to how well each criterion meets a desired aim. The first criterion assesses progress in implementing the Porirua Harbour and Catchment Strategy and Action Plan. The others are important indicators of health, such as sedimentation, recreational water quality and waste removal. These criteria are not fixed but will evolve as improvements are made to the reporting techniques which are part of the Porirua Harbour strategy.

The first scorecard has just been released. It can be found at <http://poriruarharbourtrust.org.nz/annual-state-of-the-harbour-scorecard/>

Having an independent and objective annual assessment of progress on the Porirua Harbour and Catchment Strategy and Action Plan gives the community a clear and readily understood picture of changes in the health of the Inlet and the effectiveness of the plan. It will also be very useful for the councils in providing information to assist in the management of their programmes.

We believe this is a positive development in the progress towards improving the ecology of the Inlet and congratulate Porirua Harbour Trust on an excellent initiative.



## ANOTHER CLEAN-UP OPERATION

Sunday 9 March saw an exceptional effort from a group of volunteers who undertook another worthwhile clean-up exercise of Pauatahanui Inlet. Run by Conservation Volunteers NZ, and organised by their Programme Manager Bridie Gough, the clean-up saw 25 keen volunteers give a good workover to a section of Mana beach from Dolly Varden carpark to the Camborne walkway. The area under the rail and road bridges was also included in this operation and altogether the group collected enough rubbish in just a few hours to fill a pick-up truck, all separated into recyclable and non-recyclable components. The event was supported partly by the Lions Club, who supplied a barbeque at the finish, and partly by Porirua City Council and Porirua Harbour Trust (PHACCT).



Photographs provided by Bridie Gough

Conservation Volunteers NZ runs conservation and environmental programmes, including habitat regeneration, enhancing waterways, and protecting New Zealand’s special habitats and wildlife. This particular exercise was part of New Zealand’s annual ‘Sea Week’ promoted by PHACCT, and The Guardians fully support this initiative. GOPI believes that more frequent clean-ups of the Inlet are highly desirable, especially in those parts of the harbour where rubbish tends to accumulate and in areas subject to high public use. Our committee would like to work with PHACCT to promote further exercises of this kind.

## PHOTOGRAPHIC COMPETITION 2014

After last year’s highly successful Photographic Competition we are all eagerly waiting to see what the 2014 event will bring. Entries closed on 9 April and as usual Geoff Marshall is looking forward to judging the entries and picking the winners. There has been a dramatic increase in the number of prints entered this year and a 100% increase in the number of Youth and Junior entries. We wish all entrants every success with their photographs and warmly invite you, your friends and family, to the prize giving and any of the subsequent display venues.

The key dates to remember are:

Judging completed	Thursday 17 April								
Prize giving ceremony	Sunday 11 May, 2pm at Helen Smith Community Room, Pataka								
Display dates:	<table border="0"> <tr> <td>Porirua Library</td> <td>11 May - 25 May</td> </tr> <tr> <td>Palmers Garden centre</td> <td>25 May - 8 June</td> </tr> <tr> <td>Whitby Mall</td> <td>8 June - 22 June</td> </tr> <tr> <td>Lighthouse Cinema</td> <td>22 June - 6 July</td> </tr> </table>	Porirua Library	11 May - 25 May	Palmers Garden centre	25 May - 8 June	Whitby Mall	8 June - 22 June	Lighthouse Cinema	22 June - 6 July
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## ARE WE BEING CHOKED?

Recently the *Dominion Post* published an article headlined ‘**More layers of ‘choking’ mud smother harbour**’. Is this correct, or is it just journalistic over-dramatisation?

The article in question was reporting on the study ‘Porirua Harbour Broad Scale Habitat Mapping’ but its headline dealt with only one aspect of the report and interpreted it rather too dramatically. This study contrasts the condition of the harbour sea bed as seen in 2008 and 2013. With respect to sedimentation in Pauatahanui Inlet it concluded that the depth of soft mud on the intertidal flats between the Kakaho and Horokiri streams had increased significantly. We know this to be true because our volunteers, counting cockles during the recent population survey, noted a great difference between now and what was seen during the 2010 survey in the depth of mud around the mouth of the Horokiri stream.

However, what this report does not state is that a more detailed study of very recent sedimentation, the ‘Porirua Harbour sediment monitoring 2012-13’, shows that, while rates of fine mud deposition remain high around the Kakaho and Horokiri stream mouths, it is negligible on the flats in front of the Pauatahanui Wildlife Reserve and is actually eroding around the mouth of Duck Creek. This second report considers that the very high build-up is caused by mud that is initially deposited elsewhere in the Inlet – mostly sub-tidally – being redistributed by wave action caused by the prevailing westerly and north-westerly winds.

A more balanced view of the situation is given in an excellent article in the April edition of the Whitby Newsbrief ([www.whitbynewsbrief.co.nz](http://www.whitbynewsbrief.co.nz)) which is more sensibly headlined ‘Harbour sediment continues to be a problem’. We would also like to point out another article in this same Newsbrief edition, ‘Major planting at Pauatahanui’, which describes the work being done under the Porirua Harbour Strategy to eliminate excess erosion in the harbour catchment. This is a long term programme but it is the only really effective way of reducing the input of sediment into the Inlet. Also in the paper is an excellent article by Jenny Brash in which she says that ‘The future of the inlet is in our hands!’ She is dead right.

The two sediment reports are available on the Greater Wellington website. Links to these reports are:

<http://www.gw.govt.nz/document-library-2/detail/1228>

<http://www.gw.govt.nz/document-library-2/detail/1206>



*Soft muds on previously sandy tidal flats near the Horokiri Stream mouth.*

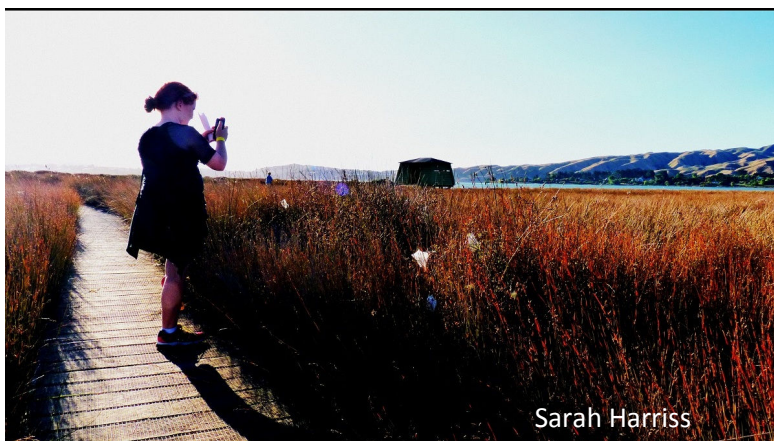
**Photo provided by Wriggle Limited, PO Box 1622, Nelson 7001**



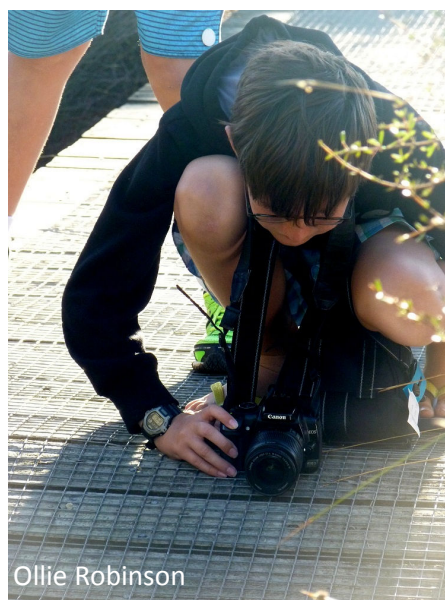
## A PHOTOWORKSHOP FOR YOUNG PEOPLE

When 10 young people turn up for a 3-hour workshop on a Sunday afternoon something good must be going on. And there were certainly lots of good things happening at the youth photography workshop we ran in February to encourage younger entrants into our photo competition. Our grateful thanks go to Destina Munro, President of Kapiti Camera Club, who showed the youngsters what to look for in composing a photo, then took them out on the Inlet with a challenging task sheet.

Such was the enthusiasm that several camera batteries ran out, to the great disappointment of the youngsters who were completely engrossed in their tasks. Back in Stout Cottage after the practical work, photos were shared and admired, before Destina briefly illustrated what could be done 'post-field' to crop, sharpen and brighten the photos. We're looking forward to seeing the results when these young folk submit their prints for scrutiny by our photo competition judge.



Sarah Harriss



Ollie Robinson

*Photographs by Gabrielle Pascoe*

## ITEMS OF CURRENT INTEREST

### THE GOPI WEBSITE

We have recently added a new page to our website which is called 'GOPI in the News': <http://www.gopi.org.nz/gopi-in-the-news/>. Here we have combined a number of ideas that are all linked by one fact, that 'The Guardians' is making a name for itself in the community and the local press.

If you have any other ideas for the creation of new pages to the website we'd love to hear from you. Our email address is: [pauainlet@gmail.com](mailto:pauainlet@gmail.com).

### PORIRUA HARBOUR FAQ

Porirua City Council has recently added a very informative 'FAQ webpage' for the Porirua Harbour Strategy programme.

After 6 years in the job, Porirua Harbour Strategy Coordinator, Keith Calder, has listed and succinctly answered some of the most recurring questions from either the public or media. Topics covered include dredging, smells, safe for swimming, fishing, TGM, & what you can do to help.

Written in a non-technical and very chatty style, it makes interesting and very useful reading. Other questions will be added as the need arises.

The FAQ includes weblinks to the key environmental groups in the catchment, including GOPI.

<http://www.pcc.govt.nz/Community/Community-Projects/Porirua-Harbour-and-Catchment-News/Porirua-Harbour-FAQs>

## FEATURE ARTICLE

Several members who responded to our questionnaire on Canada geese also asked what effect black swans have on the Inlet environment as they appear to be present in much greater numbers than the geese. That is a valid observation. This year 150-170 swans have been feeding together on the offshore sand banks of the Inlet, while only 30-40 Canada geese were observed, mostly in Browns Bay. Also, it seems that the swans feed almost exclusively on sea grass, a vital component of the Inlet ecosystem. Our feature article this time explores the threat posed by black swans as well as giving you some general information about this beautiful and stately bird.

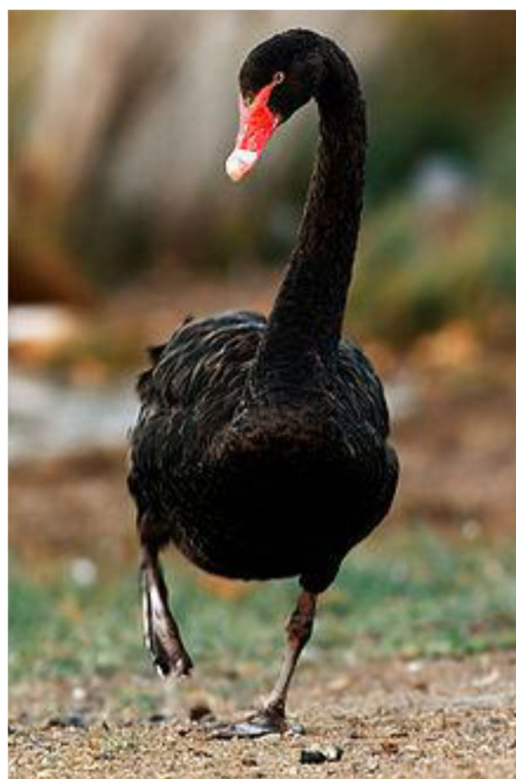
### *Black Swan* (kakistanau)

The black swan, unlike the Canada goose, is a native New Zealand species. It was present here at the time of first human settlement but became extinct prior to European contact. The 1860s saw a deliberate re-introduction of 100 of the same species from Australia and by the late 1800s there were once again considerable numbers throughout the country. This rapid spread and increase in swan numbers was far greater than expected and suggests that natural re-colonisation may also have occurred. This may still be happening today. It is now estimated that there are about 60,000 swans in New Zealand which is below a peak of 100,000 in the 1960s due almost entirely to the *Wahine* storm of 1968. Its disastrous effect on the vegetation of Lake Ellesmere caused the population of 70,000 swans that lived there to crash to just 10,000 by 1978.

*Cygnus atratus*, the black swan, is New Zealand's largest wetland bird, around 1.2 metres long and weighing 5-6 kilograms. Breeding begins at 2-4 years old and, while they do not mate for life, a mating pair may stay together for more than one breeding season. It has been estimated that in large colonies only about 25% of the population breed in any one year. Breeding occurs between July and September. If food is abundant, a pair may nest again in summer. (This has been seen in the lower lake at Whitby.) On average 6 eggs are laid. Cygnets hatch in 4-6 weeks and fledge in about 4 months, though the family may remain together for several months longer. Eggs and young cygnets are vulnerable to predators, especially rats and black-backed gulls. Total lifespan can be up to 30 years.

Black swans are herbivorous, feeding mainly on submerged vegetation. In Pauatahanui Inlet they feed almost exclusively on sea grass, preferring to crop sub-tidal and intertidal areas when low tide is cycling between mid-ebb and mid-flow. Using their long neck to advantage they eat both leaves and rhizomes.

Recent research in Golden Bay and Tauranga Harbour shows that swans can have a significant impact on the physical sea floor environment and on biodiversity. Cropping of sea grass leaves directly impacts the food chain by diminishing the food source of herbivorous fish while reducing the surface area for growth of minute algae and fungi that are food to small crustaceans and juvenile fish – the base of the food chain for larger carnivorous fish.





**FEATURE ARTICLE cont....**

Potentially more serious is the effect of grubbing up rhizomes on local biodiversity. This denudes the sediment making it less suitable for several invertebrate species. In Tauranga Harbour swans frequently create barren patches of sand equivalent to a circle of 30 cm diameter. Because full recovery can take up to three years persistent overgrazing must severely degrade sea grass meadows and have a permanent adverse effect on biodiversity of the area. Further research is needed to assess the impact of grazing swans on sea grass viability in our Inlet.

Finally black swans are not very efficient feeders. A Golden Bay survey estimated food intake at around half a kg/swan/day but, with only about 14% assimilated, most is ejected as faeces. This wasteful feeding regime has an upside, releasing large quantities of finely broken down plant material into the environment to be consumed by other bottom dwelling species, e.g. cockles. However, a potential adverse factor is the impact of swan faecal material (high in nitrogen and phosphorus) on nutrient levels in the Inlet. This can affect water quality and clarity (a process known as eutrophication), impeding photosynthesis by sea grass and algae. For Pauatahanui Inlet it is not known how significant the swans' contribution to nutrient levels is compared with rural and urban runoff.

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## THE POLICIES OF GOPI

On 18 December 2013 we sent all members of GOPI a summary of the responses to our questionnaire about possible action for the control of Canada geese populations in the Inlet. Together with this was a draft policy reflecting the views of the majority of those who responded. As all the subsequent feedback received was in agreement with that draft policy we have now made the Canada geese policy official and placed it online in the GOPI webpage at: <http://www.gopi.org.nz/canada-geese-policy/>.

As part of our newsletter feature on the policies of the Guardians of Pauatahanui Inlet we have also included this new policy here for your information.

### GUARDIANS OF PAUATAHANUI INLET

## Canada Geese Policy

The Guardians of Pauatahanui Inlet (GOPI) recognize that the significantly increasing numbers of Canada geese in Pauatahanui Inlet and its surrounding areas threaten the ecological values of the Inlet. Consistent with its ecological values, GOPI aims to encourage, promote, protect, maintain and foster the natural, historic and cultural values of the Pauatahanui Inlet. We therefore support action to control the numbers of Canada geese in the Inlet and its surrounding areas.

GOPI does not hold a view on any specific method of control .

*Policy formulated December 2013.*

## FAMILY CORNER

### BLACK SWAN QUIZ

Having read our feature article on the black swan in this issue of the newsletter you should now be more familiar with the biology of this bird and with some of the effects its presence may have on the Inlet environment.

Below is a series of questions about black swans in Pauatahanui. See how many you can answer at first without looking back at the article. If you get stuck all the answers are to be found at the bottom, placed upside down.

- Q.1 What is the scientific name of the black swan?
- Q.2 How many black swan were estimated to have existed in New Zealand at their peak?
- Q.3 How long can a black swan live for?
- Q.4 What is the main diet of black swan in the Pauatahanui Inlet?
- Q.5 Which feature of a swan enables it to feed deep under water?
- Q.6 Which is the most serious feeding activity likely to have a detrimental effect on the health of the Inlet?
- Q.7 What percentage of food intake is expelled in faeces?
- Q.8 Which animal may benefit from this wasteful use of food?

ANSWERS: 1 - *Cygnus atratus*; 2 - 100,000; 3 - 30yrs; 4 - sea grass; 5 - long neck; 6 - rubbing up rhizomes; 7 - 86%; 8 - Cockerle.

## PLEASE SIGN UP A FRIEND OR NEIGHBOUR

Sign up a neighbour, friend, or another family member. Just explain to them that membership numbers really count in giving us a strong voice to argue for what we all value about the Inlet. Membership forms can be downloaded from our website [www.gopi.org/nz/membership-form](http://www.gopi.org/nz/membership-form) or copied from the one at the back of this newsletter. Better still, if you've received this newsletter by email, just forward it to others with a note encouraging them to join.

### EMERGENCY NUMBERS FOR THE PAUATAHANUI INLET

**Pollution:** Discharges of contaminants to air, land, storm-water drains, streams, rivers or sea and for after hours consent enquiries: Greater Wellington 0800 496 734 (24 hours)

**Boating infringements:** Greater Wellington 384 5708 (24 hours)

**Illegal fishing activity:** Ministry for Primary Industries 0800 476 224 (24 hours)

**Pauatahanui Wildlife Reserve:** Department of Conservation 0800 362 468

Let us know what you have reported so we can keep an accurate record and follow up if necessary.

**233 9391 (Chairman, GOPI) or [pauainlet@gmail.com](mailto:pauainlet@gmail.com).**





# Guardians of Pauatahanui Inlet

[www.gopi.org.nz](http://www.gopi.org.nz)  
[pauainlet@gmail.com](mailto:pauainlet@gmail.com)

## Membership Form: new members

To join the Guardians of Pauatahanui Inlet, you can pay your subscription either online or by post. **IF YOU ARE PAYING ONLINE, PLEASE REMEMBER TO FILL IN THIS FORM WITH ALL DETAILS, AND EMAIL OR POST IT TO US.**

Online payment	Postal payment
1. Pay your sub via e-banking into our Westpac account 03-1533-0009387-00. In the 'Particulars' or 'Reference' columns, <b>YOU MUST</b> write your surname <b>AND</b> initials <b>AND</b> the period of your sub (1-yr or 5-yr). 2. Then fill in this form and either email it to us at <a href="mailto:pauainlet@gmail.com">pauainlet@gmail.com</a> or post it (see next column for our postal address)	1. Write a cheque made payable to 'Guardians of Pauatahanui Inlet'. 2. Then fill in this form and send it, along with your cheque, to: Membership Secretary, Guardians of Pauatahanui Inlet, Box 57034, Mana, Porirua 5247.

Please fill in your details for our records. If you are filling in this form electronically, **click** at the beginning of a dotted line and then type.

Name: .....

Address: .....

.....

E-mail: ..... Phone: .....

Please put  next to the subscription you are paying (electronic completion – **highlight** the box and type lower case x.) We are also very grateful for donations. (We are a registered charity for tax purposes: registration number CC47523.)

One-year individual (\$12.00)	<input type="checkbox"/>	Five-year individual (\$50.00)	<input type="checkbox"/>
One-year family (\$15.00)	<input type="checkbox"/>	Five-year family (\$60.00)	<input type="checkbox"/>
Donation: \$ .....	Do you require a receipt for your sub? <input type="checkbox"/> or your donation? <input type="checkbox"/>		<input type="checkbox"/>
Date subs paid: .....	Reference appears as: .....		
<i>(e-banking only)</i>			
We'd like to send you newsletters and notices via email. May we do this? <input type="checkbox"/>			

Please tell us which of our activities you would like to be part of.

Annual Clean-up day	<input type="checkbox"/>	Submissions to local bodies	<input type="checkbox"/>
Three-yearly cockle survey	<input type="checkbox"/>	Our educational programmes for schools	<input type="checkbox"/>
Website and video clips	<input type="checkbox"/>	Other:	

**NOW EMAIL OR POST THE FORM. THANK YOU AND WELCOME**