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Keeping an eye on hoiho

This season, hoiho breeding success has seen a similar low number of nests to last year, about 250. Fledging success was good in the Catlins and Stewart Island/Rakiura, but much lower in Otago and Codfish Island/Whenua Hou.

A table on page two gives a numerical snapshot of the current situation, as monitored by the Trust.

Diphtheria has been a big problem for chicks on Otago Peninsula and in North Otago this year. Although there was some success in debriding lesions, chick losses were still high. We plan to hold a workshop later this year involving vets from DOC, Wildbase, MPI and Dunedin Wildlife Hospital to further develop a treatment and/or research plan ahead of next season.

Investigation into avian malaria is ongoing as more than 20 penguins so far from rehab and wild locations have died. It is likely that severe rain events last winter coupled with higher temperatures this summer led to increased numbers of mosquitoes. We are currently collating all of the information, including birds affected, preventative measures, treatments available and post mortems. Further research and Polymerase Chain Reaction (PCR) testing is being carried out at Massey University.

Chicks that were born in the Catlins and have been through rehabilitation (either because they were underweight (<5kg) at fledging, or their parents were injured) were soft released at Long Point/Irahuka. This is the second season that chicks have been soft-released at this site, and by the end of March fourteen chicks had been successfully released.

Four unexplained adult mortalities occurred this season, exhibiting similar symptoms to previous mortality events in 2012/13 and last year. Response was coordinated by the Trust's Conservation Science Advisor, Dr Trudi Webster, and Amanda Salt and Marcus Simons (DOC) involving searches of beaches, media and informing stakeholders. An unexplained mortality response plan is being developed and will be used for future events.

Several underweight hoiho going into the moult have been brought into rehabilitation, including 12 from the Catlins. As the number of breeding adults declines, each bird is critical to the viability of the population. Hoiho are generally deemed to be healthy when they weigh at least 7.5kg at the start of the moult period. During this stressful time birds are unable to go to sea while they replace their old feathers with new ones as their feathers are no longer water-proof. Through this period of up to four weeks, the Trust help to ensure the birds' survival through this long period ashore with no food.

This season has also seen several crested penguins along our coastline. Fiordland crested penguins breed on the south-west coast of the South Island and Stewart Island/ Rakiura, Snares crested penguins on the Snares Islands 200km south of New Zealand, and erect crested penguins breed on the Bounty and Antipodes Islands. It is unknown why there appears to have been an increase in sightings of these birds on the east coast this season.

Dunedin Wildlife Hospital Trust

The Yellow-eyed Penguin Trust welcomed the opening of the wildlife hospital in January 2018, following the 'pop-up' penguin hospital funded exclusively by the Trust's members for several weeks in both 2016 and 2017. The hospital is providing a vital service to sick and

Penquins





A moulting underweight yep.

Megan Abbot at Penguin Place, one of the rehabilitation centres which are vital to the welfare of hoiho.



A trio of hoiho is released into their original habitat.

injured hoiho and other native wildlife. The hospital provides a range of services and the Trust works with them and rehabilitation centres to triage birds as they present. This combination of intensive treatment, rehabilitation and soft-release back into the wild stretches resources, but is necessary now that we focus on the wellbeing of individual birds as well as on populations. The hospital is operated by the Dunedin Wildlife Hospital Trust.

Rehabilitation centres

In this edition of *Hoiho*, the Trust would like to specifically acknowledge the work of rehabilitation centres, Penguin Rescue (North Otago) and Penguin Place (Otago Peninsula). These centres are vital to the welfare of sick or injured penguins, in particular hoiho. They receive firstclass care until the penguins are deemed well enough and fat enough to survive independently in the wild. They are fed twice daily, sometimes eating as much as Ikg of fish per meal, and treated with veterinary intervention if necessary. The birds are released back to where they were found; the adults are hard-released onto the beach whereas chicks are softreleased which generally takes several days before they are confident to go to sea for the first time.

Penguin transport volunteers

Trust volunteers are an integral part of our work, and their dedication makes it possible for us to deliver our conservation programme across the geographic range of hoiho. This season, a group of specially trained volunteers have been providing a critical ambulance service for sick and injured birds. Volunteers transport birds from beaches, to the Dunedin Wildlife Hospital and rehabilitation centres for care, and then back to their habitats for release once they have passed their health tests and are fit for survival in the wild. Our sincere thanks to this team of volunteers for their time to help save hoiho. Transport has primarily been provided by the Yelloweyed Penguin Trust and the Department of Conservation.

Curio Bay development

Last summer the new Curio Bay Tumu Toka Natural Heritage Visitor Centre in Southland was opened. Built by the South Catlins Environment Trust it offers visitors comprehensive information and education about the history and wildlife of the area (and a cafe!). Curio Bay is home to a petrified forest, and the endangered hoiho and NZ sea lion, and Hector's dolphins at neighbouring Porpoise Bay are often seen. Visitor behaviour at this site has been of concern to our Trust and we receive numerous calls or emails annually from members of the public about negative interactions with the wildlife, usually people being up too close to wildlife for the 'best' photo opportunity. The Trust has helped in the development of signage and consulted on track formation to minimise the impact on penguins. Although the new Centre goes some way to addressing the visitor impacts, there is still more than can be done and the Trust is working with DOC and the SCET to see this happen.

REGION	SITE	NESTS 2017-18	NESTS 2016-17	EGGS	CHICKS HATCHED	CHICKS FLEDGED	FLEDGLINGS/PAIR
North Otago	Tavora	2	I	4	4	I	0.5
Otago Peninsula	Okia	4	2	8	7	3	0.75
	Otapahi	10	8	18	16	8	0.7
	Omihi	2	2	4	2	0	0
	Otekiho	0	0	-	-	-	-
	Allans Beach	0	0	-	-	-	_
	Kaikai	0	0	-	-	-	-
	Fuchsia Gully	3	3	5	3	2	0.67
	Dicks Bush	0	I.	-	-	-	-
Catlins	Long Point/Irahuka	17	17	31	23	23	1.35
	Cosgrove Creek	8	10	16	13	12	1.5
	Helena Falls	2	l I	3	3	2	1.0
	Harts Rock	I	0	2	I	I	1.0
	Purakaunui	l I	0	l I	l I	I. I.	1.0
Stewart Island Rakiura	Anglem Coast	П	13	21	19	12	1.09
	Bravo Islands	13	17	26	25	17	1.21
	The Neck	Not searched	0	-	-	-	-
	Codfish/Whenua Hou	16	24	31	30	8	0.5

Penguins



Proposed marine protection for yellow-eyed penguin/hoiho

The South-East Marine Protection Forum provided its final recommendations on marine protection on the South Island's south-east coast in a report to the Ministers of Conservation and Fisheries.

Consensus within the forum members could not be reached, so two separate networks were suggested, as per the table below.

Network I also included a Marine Reserve at Long Point/Irahuka, however, because this was opposed by Te Rūnaka o Awarua, one of the 18 Papatipu Rūnaka o Te Rūnanga o Ngāi Tahu whose authority is from the Mata-au (Clutha River) to beyond Waipapa Point, it has not been included in the network analysis.

The Yellow-eyed Penguin Trust believes

both proposals are inadequate as they only offer isolated fragmented protection and neither is of sufficient size to make a meaningful difference to hoiho. The endangered hoiho who spend half their life at sea are under threat from many impacts, including marine based fisheries issues. Although the Forum needed to consider whole ecosystems rather than a single species focus, the Trust believes this was an opportunity to make a significant change to the way we, New Zealanders, are treating our precious marine environments for the protection of all marine life, but particularly for endangered species, such as hoiho.

Marine scientists suggest that 30-50% of an area should be fully protected if the ecosystems and species are to flourish and to replenish fisheries long term. Scientists have also called for buffer zones adjoining no-take marine reserves to safeguard the more mobile larger marine species.

The Forum was established in June 2014 by the Ministers of Conservation and Primary Industries, and was tasked to make recommendations to government about what sites, between Timaru and Waipapa Point in Southland, are deserving of marine protection and what type of protection the sites need. Members of the Forum represented the interests of tangata whenua, commercial fishing, recreational fishing, conservation groups, tourism, aquaculture, marine science, local government and communities.

In October 2016, the Forum released its consultation document detailing 20 sites for possible inclusion in a network of marine protected areas and by December that year, 2803 submissions had been received.

Network	Area covered	Area protected	Marine reserves ¹	Type 2 MPA ²	Habitat types	Supported by
I	1267m ²	14.2%	6	5	27	Environment, tourism, community and science sectors, as well as one of the the two recreational fishing representatives
2	366 m ²	4.1%	3	2	12	Commercial fishing representatives and the remaining recreational fishing representative

¹ Marine reserves are generally no-take areas for fishing, established under the Marine Reserves Act, to give the highest possible level of protection to marine environments.

² Type 2 marine protection areas (MPA) generally prohibit trawling, dredging and Danish seining, although this may vary depending on the site.

People

UPDATE – CONSERVATION SCIENCE ADVISOR

Hoiho threat assessments analysed

The year again has been marked by our determination to produce conservation outcomes robust enough to deal effectively with the demands of another poor breeding season.

As part of this, the Trust launched a major piece of work providing a complete assessment of threats in both the terrestrial and marine environments for critically endangered yellow-eyed penguins/hoiho.

Written by the Trust's Conservation Science Advisor Dr Trudi Webster (shown right), The Pathway Ahead for Hoiho Te ara whakamua; Impacts on hoiho: Literature Review and Recommendations is the culmination of two years of her work.

The assessment will inform the Trust's decisions in delivering optimal species management and identifying conservation priorities. It also provides a range of recommendations for the work of the many agencies helping to save this species, including the Department of Conservation (DOC) and Fisheries NZ, (administered under the Ministry for Primary Industries), as well as potential research opportunities for bodies such as Otago and Massey universities.

The Trust is recognised as a Key Programme



Partner to DOC and Te Rūnanga o Ngāi Tahu for hoiho conservation.

Yvette Couch-Lewis, Ngāi Tahu Hoiho Recovery Representative, says Ngāi Tahu truly value the long-standing partnerships that have been developed to help protect hoiho. "We hope this research will help us identify new initiative that will protect this taonga species for further generations of New Zealanders", says Yvette.

"Little is known about the risks in the marine environment for hoiho so I would expect this research will help provide valuable insights we can use in the future," she says.

Aaron Fleming, Director Southern South Island for the Department of Conservation said "the Department is pleased to be able to engage with the Trust on this project as the appointment of a specific science advisor has enabled the necessary focus on this work and ensured its quality."

"DOC welcomes the assessment which comes at a critical time when we are jointly working to save this taonga species whose mainland population is at its lowest for more than 25 years."

This literature review will be a valuable resource which will form the foundation of the next stage in hoiho recovery which includes the

finalisation of a new multi-agency strategic plan.

Dr Webster is employed by the Trust on a three-year contract funded by Otago Regional Council and Otago Museum.



Leave something in paradise

Please remember the Yellow-eyed Penguin Trust in your Will. Your bequest can be invested in restoring penguin habitats and controlling predators to help secure the survival of hoiho.

Charities Commission Registration Number CC22822



People



Okia Reserve on Otago Peninsula

Okia back on track

Flooding restricts access

In July 2017 heavy rains fell flooding many areas including Okia Reserve on Otago Peninsula. The water took months to drain away and in this meant that staff and volunteers had limited and circuitious vehicle access into the reserve. The Dunedin City Council Parks and Recreation Department funded track work which was undertaken by John Clearwater and Clearwater Civil Limited.



"Access" track July 2017



Same track January this year

Grant funds weed control

Over the past year, pest weeds at Okia Reserve have had a dedicated programme of eradication.

Funded through the Department of Conservation's Community Fund, the Yelloweyed Penguin Trust was awarded a grant for 0.5 full-time equivalent staff hours to address the weed issue at this reserve. Ranger Ben spends his time eradicating elder, macrocarpa, red hot pokers, gorse, broom, sycamore and wild roses through either cutting them down or spraying. Increasing use is being made of basal bark herbicide which is quicker than traditional techniques such as felling and treating stumps.

The weed control has helped the regeneration of native vegetation in this reserve.



Volunteer Stephen Bowler removing red hot pokers the old-fashioned way

UPDATE – HOIHO REVIEW

Stage 2 of hoiho recovery begins

Stage One of the hoiho review was completed in 2016 with the release of the Yellow-eyed Penguin Stocktake Report He pūrongo mō te Hoiho.

This report summarised progress against the current Hoiho Recovery Plan Objectives and Actions (DOC 2000), and endeavoured to capture faithfully the perspectives, scientific opinion and matauranga/knowledge of contributors from the penguin community.

Stage 2 has now begun. In February a Hoiho Governance Group (HGG) was established with a multi-partner approach: the Trust, Department of Conservation, Te Rūnanga o Ngāi Tahu, and Fisheries NZ (part of MPI). The aim of the Governance Group is to oversee coordination between agencies and ensure that the strategies for the recovery of hoiho are coordinated and include appropriate recovery vision, goals and timeframes.

The HGG has established a Hoiho Specialist/ Working Group to undertake key tasks; for example, the creation of a spreadsheet of the recommendations for collective agreement about hoiho recovery priorities.

The group is working on a shortlist of additional immediate actions that could be implemented before the next hoiho breeding season.

The group is also assessing a model through which to engage and coordinate the longerterm recovery work across the full range of threats to hoiho, terrestrial and marine, with iwi and stakeholder participation.

HGG is actively engaged in thinking about the style of strategy/tools that are going to deliver recovery of hoiho throughout its range and across a multiplicity of threats in both the marine and terrestrial environments.

People



Volunteer Katrina Symes holds a satellite tag while University of Otago PhD Candidate Mel Young prepares a juvenile hoiho for tag deployment.



Tracking of three juvenile hoiho in March and April 2017 revealed the Canterbury Bight as a significant foraging area.

Tracking juvenile hoiho on big OE

Written by Mel Young, PhD Candidate, University of Otago

I have a very happy memory from about 10 years ago, seeing a plump, pre-moult juvenile hoiho standing proud on a headland at Highcliff, Boulder Beach. Happy, because this was the first pre-moult juvenile I had seen, and because this was the first juvenile that I had marked that had returned.

I snuck up while she stood asleep on her feet, read her band, and left her to it. J19426 went on to become one of the best breeders in Highcliff, a "super-breeder", and I was lucky enough to find her nesting among the Highcliff nettles again this season.

Many of us who have worked with hoiho day to day have had a hard run in the last 20 years. During a breeding season, we debride diphtheria lesions, give rehydration therapy, trap pests, and eventually, mark and assess our fully-fledged chicks, bringing them in for supplementary feeding if necessary. Three months of hard work to maximise productivity, which will hopefully put our birds in good stead to survive their first year at sea. It is a thrill to see a young bird come home and start breeding, but recently, those thrills have been few and far-between.

The University of Otago's research into

life-history of hoiho reveals some startling statistics. Less than 19% of each cohort survives the juvenile year, with approximately 12% of each cohort surviving to breed at least once. Success, however, is a different story. Passing one's genes on to the next generation, by surviving to breed, and having one of these offspring survive to breed at least once, accounts for less than 5% of each cohort. These are some of the lowest recorded seabird life-history statistics in the world, and are at odds with Lance Richdale's research some 70 years prior. Richdale recorded juvenile survival at 32%, and participation in breeding at 26%.

Fledgling hoiho leave their nests for the sea when they are between 90 and 120 days old, with 106 days being the norm. At this point in the season, their parents must fatten up for the moult, and one day, with some trepidation, the chicks will enter the sea, completely alone. Until now, where juveniles disperse to has been a significant gap in our understanding of the hoiho life cycle.

Last season, in collaboration with DOC's Conservation Services Programme, I deployed five chicks with satellite tags to track their dispersal post-fledging. Satellite tags transmit messages to overhead satellites when the bird sits on the surface of the water, and can triangulate the approximate position of the tag as accurately as 250m. Three tags successfully transmitted for six weeks, indicating a swift movement away from the natal area within 4-7 days, to foraging grounds in the Canterbury Bight, some 300km away from their origins.

This season, in collaboration with the Conservation Services Programme, 20 chicks were deployed with satellite tags. These tags were funded by the Antarctic Research Trust, China Travel Services, Birds NZ, Forest & Bird, and members of Save the Otago Peninsula Inc.

So far this season, more than half of the juveniles equipped with satellite tags have ceased transmissions, with two confirmed deaths due to starvation and injury. We expect high juvenile mortality for a longlived seabird like hoiho, as naivety and inexperience in the marine environment make these young birds susceptible to starvation and predation. However, the unsustainable rate of juvenile survival over the last 20 years indicates that there are more complex processes occurring, potentially influenced by industrial activities at sea, including direct and indirect interaction with fisheries, marine pollution, and the discharge of sediments onto the sea floor where hoiho forage. My research will hopefully give us the insight needed to improve juvenile survival, and to prevent the anticipated extinction of mainland hoiho.

Passion



Join the Club

Donate the cost of just one cup of coffee (\$5) per week and help YEPT gain a level of financial independence!

We encourage you to join the Hoiho Coffee Club, or ask a family member or friend to join, and help the Trust continue to protect our endangered hoiho.

See the form posted with this newsletter.



Mark your diary with these upcoming events:

Arbor Day planting

Wednesday 6 June 2018 Come and plant some trees with the Trust at Tavora Reserve, East Otago. More details on Facebook closer to the date.

Yellow-eyed Penguin Annual Symposium

Saturday 4 August 2018 Registrations will be opening soon. More details on Facebook closer to the date.

10th International Penguin Conference 2019

24-28 August 2019 St David Street Theatre, University of Otago, Dunedin. Keep up-to-date as planning for this conference proceeds. Visit www.penguin-conference.com











Mainland continues to support the Yelloweyed Penguin Trust. This year we plan to re-activate a campaign from 2015 which is all about raising awareness of the yellow-eyed penguin.

We have a series of short social videos that talk about issues such as habitat and predators. We also plan to encourage donations in the run-up to Christmas promoting 'gift a tree', asking people to donate towards the planting of new trees.

We had great success last year with a competition encouraging people to create penguin-shaped snacks (see some of the creations above), and some lucky winners enjoyed a trip down to see the penguins.

New board

Following the Annual Meeting in March 2018, the following people were elected or re-elected to the Trust Board:

Eric Shelton, Board Chair Tim Mepham, Treasurer David Smith Euan Kennedy Kate Morrison lesse lames Hoani Langsbury Lala Frazer Margaret Murrell Olaf Nilson Eleanor Linscott Shane Melton **Murray Brass** Peter Simkins Yue Cui

Thank you Pat

Pat Mark (officially Patricia, Lady Mark) joined the Board back in April 1995. However, this year saw her retirement from this position. During her time, Pat not only contributed to the Board, but also sat on several subcommittees that manage or advise on reserve management.

She actively took part in field work and attended many field trips from Banks Peninsula to Stewart Island. Pat advocated for the work of the Trust at a strategic level by attending meetings, often in Wellington, with Ministers and government officials, or by contributing to the Trust's own strategic planning.

Pat will stay involved with the Trust through her sub-committee work, so we are delighted to retain her input into our conservation programme.



Buy Mainland cheese and butter with the Mainland Hero logo on the labels and you are helping to save the endangered yellow-eyed penguin.



7

A note from the Chair



Recently, Trustees have been mulling over some important issues. For environmental NGOs like ours, the government's recent decision to cease granting any further oil and gas exploration permits again brings into focus the issue of ethical investments and scale.

Under what circumstances should an ENGO accept or refuse direct or indirect financial assistance from a business whose environmental practices may be open to criticism on the grounds of their unsustainability?

To what extent should we rely on the government and its agencies to bring about change and when should we act locally or individually?

Many eminent philosophers, economists, ecologists, politicians and business leaders engage in thinking about these matters and then presenting to the world their more-or-lesswell-informed positions through a variety of media. Other thinkers then respond.

There is a word, popular at the moment, to describe this process, taken in its entirety. That word is "churn". This term refers to "attrition or turnover of...users of a service" and is based on the assumption that "in the new economy (which provides unprecedented choice, and instant and global access to products and information) churn rate determines business earnings and growth. A firm has to earn and re-earn every day the loyalty of its customers." (businessdictionary.com/definition/churn.html)

Let's assume for a moment that ENGOs are in the business of providing services, those of environmental protection. People are free to support one or a number of such organisations. One way of determining which individual ENGO is worthy of support is through the application of what may be described as a purity filter; does this ENGO itself behave sustainably and do all the people who contribute to it do so too?

If not, support for that ENGO may be withdrawn and given to another ENGO, or to some other, non-conservation, sector of the global economy. Unfortunately, every ENGO operating within a late-capitalist economic system, and that is all

of us, and every individual person, inevitably will fail the purity test. Such failure throws us back onto ethical systems with which we are familiar, virtue ethics, distributive ethics, utilitarianism, consequentialism and the like, where seemingly simple ideas, rigorously interrogated, turn out to be complex.

There is no way for us completely to avoid using oil and gas, and their derivatives such as plastics, but we can have policies intended to reduce our current and future consumption. Churn, then, turns out to be not as simple an idea as it at first seems; there is no easy ethical way of gaining and maintaining the loyalty of our members and supporters by

Thank you to our regular supporters:

Supporters Group Nursery supporters AdArt Brand Promotion Blackhead Quarries Canon NZ Coffee Club supporters Department of Conservation Downie Stewart DCC (Task Force Green team) Foote Haulage (Woodlands) Forest & Bird South Otago Branch Mainland Brand NZ Deer Stalkers Association (Dunedin Branch) Otago Peninsula Biodiversity Group **Richard Roberts** The Malcam Charitable Trust

Thank you for funding from:

ANZ Staff Foundation DOC Community Fund Distinction Dunedin Hotel **Dunedin Airport** Dunedin City Council Dunedin Casino Charitable Trust DCC Biodiversity Fund EcoWai and partners to the programme Grumitt Sisters Charitable Trust Heseltine Trust Holiday Parks Association NZ Katie Underwood – Tour Aotearoa Landcare Research NHNZ Niagara Sawmilling Otago Museum **Otago Pellet Fires**

claiming we would pass unscathed through the purity filter. At our latest staff meeting everyone contributed ideas to make our conservation operation as sustainable as possible and the Board is working constantly to refine our sustainability policies.

The government's 'no future oil and gas permits' position indicates we all are grappling with the same issues of how to guarantee a positive future for our planet; just at a different scale. In our case, the scale is the yellow-eyed penguin and its habitat.

Eric J. Shelton Yellow-eyed Penguin Trust Board Chair

Otago Regional Council

Pohatu Penguins Akaroa **Quality Hotel Parnell** Scenic Hotel Dunedin City Terracycle Recycling Programme William Downie Stewart Charitable Trust

Special thanks this issue to:

Alan Coster Andy and Melissa Moore Bruce Kyle David Smith DOC – Owaka Dunedin Wildlife Hospital Graham Thurlow Hamish McFarlane Jim and Jane Young Juliette and Jan Parsons Max Affleck Mel Young Penguin Place Penguin Rescue **Richard Seed** Sarah Irvine and Trevor Hewson Stu and Jen Affleck Tony Stewart

Thank you to all the Landowners who have contributed to our habitat protection work

Thank you to all Volunteers:

We are tremendously grateful to all the other volunteers, including the regular Nursery workers and the Habitat Volunteer Team for their valuable contributions to our work.



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The production of this Hoiho newsletter by AdArt Brand Promotion ticks all the green boxes

Penguins. Plants. People. Passion.

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