

# Yellow-eyed Penguin Trust Annual Report 2021/22

Reporting period 1<sup>st</sup> April 2021 – 22<sup>nd</sup> March 2022



Tēnā koutou katoa.

It gives me great pleasure to present the Annual Report of the Yellow-eyed Penguin Trust's (YEPT) activities for the period 1<sup>st</sup> April 2021 – 22<sup>nd</sup> March 2022.

The Report stresses the operational progress we have made over this period and again demonstrates just how complex it is to operate a not-for-profit organisation while repeatedly receiving favourable financial audits.

Last year, our COVID 'lessons to be learned' were about being adaptable, with a focus on being nimble. This year, 'pivotal' has been the buzz-word. Whatever the descriptors of adaptability used, we know what science-driven conservation practice looks like and we know how to engage with it. This year, we managed to carry-on, in the office and in the field, despite some challenging organisational demands being put on our bubbles. The staff team split into four separate bubbles to ensure all aspects of our work could continue. The cost of purchasing and operating a fourth vehicle reflected the demands of working in remote situations. Our solution was to purchase the 2WD version, thus saving on capital and on fuel. This vehicle is predominantly used to transport sick or injured penguins, people and gear between Long Point Irahuka and Dunedin or the Otago Peninsula – often more than a 200km round trip. The staff of our organisation work hard to squeeze every last dollar of value out of the money we are granted.

What follows here describes the details of our efforts, contributed by Sue Murray (SM), Trudi Webster (TW), Amanda Salt (AS) and Dave McFarlane (DM).

Please spend some time reading this Annual Report which describes the year 2021-2022 and presents a picture of what we have achieved in these challenging times.

## **HOIHO / YELLOW-EYED PENGUINS** (TW)

For the third consecutive year there are fewer than 200 nests (or breeding pairs) remaining on the South Island and a decline of **72%** since 2008. This season **c.166** pairs bred across Canterbury, Otago and Southland slightly down on last year (189 pairs), but similar to the year before (168).

For the first time since records started there were no chicks hatched at Tavora this season which is a huge blow. Overall nest productivity was good on the Otago Peninsula and in the Catlins (although the hatch rate was very low at Cosgrove Creek, only 57%). Breeding success continues to be low at the majority of monitored sites on Rakiura including the Bravo Islands, Steep Head, the Anglem coast and Whenua Hou, although Little Glory bucked that trend this year.

### ***Summary of the season***

Chicks hatched between 29 October and 14 November at YEPT sites this season (similar to last year). At several nests siblings hatched asynchronously two days apart which was unusual (more typically siblings hatch on the same day). At most nests this year parents stayed to guard chicks for longer than usual which suggests that foraging conditions were good, particularly on Otago Peninsula.

YEPT staff (Ben Goldsworthy, Trudi Webster, Amanda Salt, and new rangers Max Harvey and Cat Lea)

worked hard to monitor and identify young chicks requiring treatment for disease. Diphtheria was observed at all monitored nests. Forty-one chicks were uplifted to the **Wildlife Hospital Dunedin (WHD)** from YEPT sites for treatment for diphtheritic stomatitis (34 chicks were treated in 2020/21). WHD did a fantastic job and treatment was highly successful with 88% of chicks released. Twenty eight chicks were able to go back to natal nests and eight were successfully fostered. Diphtheritic stomatitis was directly implicated in the deaths of only two chicks from the mainland, although it may have been a contributing factor in other deaths.

Unfortunately, an unexplained respiratory disease (URD, aka red lung) caused significant mortality again this year for chicks less than two weeks old. Across the mainland hoiho population twenty seven chicks died with congested red lungs and this was the suspected cause of death for an additional nine chicks. Investigations by **Massey University**, the **Department of Conservation** and **WHD** continue into the underlying reasons for red lung. Aspergillosis, a fungal infection in the respiratory system, was an additional cause of death for one chick at Otapahi.

Unfortunately, a chick at Helena Falls was predated by a rat in mid-January. It was caught on trail camera repeatedly visiting the chick during the night, nibbling away at its rear end whilst it was underneath the parent. The chick was found dead the following morning.

Chicks were monitored and weighed at least weekly until fledge. Additional monitoring checks were carried out early on – every other day until chicks are 3-4 weeks old, and at 24 hours and 48 hours following release from hospital or a foster event. Trail cameras were used extensively to support monitoring. The majority of chicks gained weight well, but supplementary feeding was carried out at a few nests, largely in the Catlins, due to weight disparity between siblings, or for chicks that fell below their estimated weight for age. Feeding is minimised (once per day at the most) to avoid imprinting.

Five chicks were uplifted to rehab by YEPT rangers to **Penguin Place** because they were underweight (17 last season). This included a transfer of a very underweight chick (3.6kg) from Whenua Hou for the first time. Hopefully it paves the way for future collaboration between tangata whenua, DOC and YEPT to improve the survival of injured, sick and underweight hoiho on Whenua Hou.

The chicks that fledged in the wild (latest on 4 March) were approximately 105 days old and were good weights (although some had assistance), mean mass was 5.85kg (range 5.2-6.5kg).

Sixteen chicks from across Murihiku were soft-released in the Catlins following rehabilitation. The first six chicks were released on 4 March, and the second group of ten were released on 10 March. All of the chicks had disappeared out to sea within three hours of the enclosure being opened.

Eggs were successfully fostered by the Trust for the first time this season from Green Island. This population has had poor breeding success in previous years and its location is logistically challenging meaning that regular monitoring is not possible. The eggs were transported to the Catlins, fostered to a pair with infertile eggs, and treated at WHD for diphtheria shortly after hatching, before being re-fostered to a nest at Otapahi which is where they fledged.

It is very positive that several juveniles have again been sighted this season which means that marine resources were sufficient to sustain last season's chicks during their first year at sea. Twenty four adults and seven juveniles have been uplifted from the mainland (so far this season) to **Penguin Place** by YEPT staff for supplementary feeding to ensure that they survive the moult (similar to numbers last year). Once again, we greatly appreciate the hard mahi of **Penguin Place**, **Penguin Rescue** and the **Oamaru Blue Penguin Colony** ensuring that hungry chicks, juveniles and adults are well fed.

Two adult birds with wounds to the feet and one juvenile with a wound on its back have been uplifted by YEPT for treatment at WHD. All three have been transferred to Penguin Place prior to release.

Across the mainland there have been several recorded deaths so far from avian malaria this season (at least one chick and six adults) during February and March, and two confirmed unexplained mortalities in January. This type of information can only be determined through the important post-mortem work carried out by **Stu Hunter** at **Wildbase**, **Massey University**. Three additional dead hoiho were unable

to be retrieved for post-mortem (in February, including a breeding female from Otapahi).

Due to the low numbers of hoiho found on Rakiura during nest surveys last season YEPT increased the number of sites that are regularly monitored to include Steep Head and Little Glory Bay as well as increasing the number of checks on chicks during the season. Most of the nest searches and monitoring was carried out by YEPT contractor **Sandy King** with assistance from DOC Rakiura and a team of willing volunteers. Access to sites was kindly granted by the **Rakiura Māori Land Trust** and DOC. **Dean Nelson** and Ben Goldsworthy completed a nest search of Whenua Hou.

In collaboration with **Mamaku Point Conservation Trust**, YEPT have established a new rehabilitation facility on Rakiura to support supplementary feeding of underweight birds. The initial stages of development were completed on 9 March 2022 - the water tank is in place, the mosquito proof rehabilitation pens have been constructed, the freezer is on site and water is being piped to the enclosure. YEPT's updated Wildlife Act Authority now includes Mamaku Point as a rehab location for hoiho. Sandy and Trudi have identified and uplifted eight underweight moulting birds that were in need of assistance. Trudi has been working through the development process to get the rehab facility operational and has started training people on Rakiura to rehydrate and feed hoiho. A huge thanks to **Roy and Rachel Thompson** of **Mamaku Point Conservation Trust** for enabling us to set up camp inside your predator-proof fence and to **Ant Simpson**, in particular, for all of his hard mahi to build the enclosures. A big thanks too to **Rosalie Goldsworthy** (Penguin Rescue) and **Jason van Zanten** (Penguin Place) for advice on various aspects of rehabilitation. The hope is that an increase in monitoring to uplift underweight birds for supplementary feeding will improve survival for fledging chicks and moulting adults and juveniles on Rakiura.

### ***Summary of hoiho breeding***

#### North Otago

- Tavora: 1 nest (3 in 2020/21), 2 eggs, 0 hatched, 0 fledged, **0.0 chicks per nest (cpn)**

#### Otago Peninsula

- Okia: **2 nests (4 in 2020/21)**, 4 eggs, 3 hatched, **1.5 cpn**
- Otapahi: **7 nests** (6 in 2020/21), 14 eggs, 12 hatched, 7 fledged, **1.0 cpn**
- Fuchsia Gully: **2 nests** (late search, NS in 2020/21), 4 eggs, 4 hatched, 4 fledged, **2.0 cpn**
- Papanui (part): 0 nests (1 in 2020/21)
- Omihi, Dicks Bush, Otekiho, Allans Beach, Whareakeake & Kaikai: 0 nests (0 in 2020/21)

#### Catlins

- Long Point: **9 nests** (9 in 2020/21), 17 eggs, 16 hatched **1.78 cpn**
- Cosgrove Creek: 7 nests (11 in 20/21), 14 eggs, 8 hatched, 5 fledged, **0.71 cpn**
- Helena Falls: 2 nests (3 in 2020/21), 4 eggs, 4 hatched, 2 fledged, **1.0 cpn** (1 died post-fledge)
- Harts Rock: 1 nest (2 in 2020/21), 2 eggs, 0 hatched, **0.0 cpn**
- Purakaunui: 0 nests (0 in 2020/21)

#### Stewart Island

- Anglem Coast: Rollers: **2 nests** (2 in 2020/21), 3+ eggs, 2+ hatched, 0 fledged, **0.0 cpn**  
Golden: 0 nests (0 in 2020/21, 6 in 2019/20)
- Wider Neck area: The Neck: 0 nests (0 in 2020/21)  
Steep Head: **3 nests** (3 in 20/21), 6 eggs, 3+ hatched, 0 fledged, **0.0 cpn**  
Little Glory: **5 nests** (4 in 20/21), 10 eggs, 9 hatched, 8 fledged, **1.6 cpn**
- Bravo Islands: **9 nests** (9 in 2020/21), 16 eggs, 8+ hatched, 6 fledged, **0.67 cpn**  
Tommy: **2 nests** (2 in 2020/21), 4 eggs, 2+ hatched, 2 fledged, **1.0 cpn**  
Groper: **4 nests** (4 in 2020/21), 7 eggs, 4+ hatched, 2 fledged, **0.5 cpn**  
Goat: **2 nests**, 0 in 2020/21, 4 eggs, 2+ hatched, 2 fledged, **0.5 cpn**  
Crayfish: **1 nest** (1 in 2020/21), 1 egg, 0 hatched, **0.0 cpn**  
Refuge: 0 nests (0 in 2020/21)

- Whenua Hou: **14 nests** (12 in 2020/21), 28 eggs, 13+ hatched, 8 fledged, **0.57 cpn**  
 Penguin Bay: **1 nest** (1 in 2020/21), 2 eggs, 2 hatched, 2 fledged, **2.0 cpn**  
 Sealers Bay: **5 nests** (4 in 20/21), 10 eggs, 5+ hatched, 3 fledged, **0.6cpn**  
 Roderiques: 0 nests (0 in 2020/21)  
 NW Bay: **5 nests** (3 in 2020/21), 10 eggs, 5+ hatched, 2 fledged, **0.4 cpn**  
 Alphonse: **3 nests** (4 in 2020/21), 6 eggs, 1+ hatched, 1 fledged, **0.3 cpn**

Please note that all chicks are represented in statistics for their natal sites, not foster sites. Two eggs resulting in two fledged chicks which were fostered to Otapahi from Green Island are not represented in the numbers above.

## SCIENCE AND RESEARCH (TW)

The Trust continues to provide technical support and advice on hoiho species management alongside various conservation organisations. Following a workshop with stakeholders YEPT led the development of a new comprehensive chick management protocol, for the period from eggs laid through to chick fledging, in association with **DOC, WHD, Penguin Rescue** and **Penguin Place**. A workshop to discuss specific rehab requirements at different stages of hoiho development was attended along with Penguin Place, WHD and DOC. A review was conducted of the soft release protocol and YEPT are developing guidelines for the new rehabilitation facility at Mamaku Point, Rakiura. Contingency planning was carried out to determine alternative options for rehabilitation of hoiho on the mainland.

Collaboration with **Petra Mueller (Epi-Interactive)** and **Kate McInnes (DOC)** saw the completion of analysis and report on the epidemiological investigation into chick deaths due to lung congestion.

Biological swabs have been collected and advice and support given to **Dr Janelle Wierenga** who has started a postdoc at Massey University focusing on diphtheritic stomatitis and unexplained lung disease.

Collaboration with **Dr Matt Desmond** and **Professor Chris Hepburn (Marine Science, University of Otago)** who are analysing multibeam survey data in the area of foraging overlap from two different hoiho colonies.

Blood sample collection and development of a project to investigate the health of pre-breeding female hoiho in the Catlins and coastal Otago which is being led by **DOC**.

Contributions to a new report by **Kerry Lukies (Northern Seabird Trust)** that reviews the impacts of coastal sediment on sea- and shorebirds in New Zealand.

Advice and collation of literature on hoiho distribution and abundance to support a review and recommendations for future hoiho work in the Subantarctic by **Rebecca French (University of Sydney)** and **Chris Muller (Massey University)**.

Support continues for the development of a project to progress an avian malaria “warning system” for hoiho with **Dr Chris Niebuhr (Landcare Research)**.

The Trust supported a Marsden Fund (NZ Royal Society) application on the role of the host microbiome in shaping susceptibility to vector-borne diseases led by **Dr Stephanie Godfrey** and **Daniela de Angeli Dutra (Zoology, University of Otago)**.

Liaison continues with wide range of students from different disciplines at the **University of Otago, Massey University** and **Auckland University** including **Marine Science, Zoology, Botany** and **Science Communication**. **Antoine Filion** has been collaborating with the Trust for a few years and handed in his PhD on avian malaria this year. **Carissa Turner** is undertaking a PhD on dog interactions with wildlife on beaches which ties in well with hoiho recovery.

## STRATEGY AND POLICY (TW)

### **Hoiho Governance Group (HGG) & Hoiho Technical Group (HTG)**

Work continues in partnership with the **Department of Conservation | Te Papa Atawhai, Te Rūnanga o Ngāi Tahu** and **Fisheries NZ** Tini a Tangaroa to progress the actions in the 5-year action plan *Te Mahere Rima Tau* which supports the hoiho strategy *Te Kaweka Takohaka mō te Hoiho*.

The Hoiho Governance Group have met regularly throughout the year with a focus on how best to resource the terrestrial work undertaken by key organisations. A funding workshop (Feb 2022) was held and now HGG are working with **DOC's Business Partnerships Unit** to see how a collaborative funding model may work – the structure (partnership framework and funding model), relationship management, etc.

The Hoiho Technical Group have been focused on project management, prioritisation and progress against the various actions in the plan. A progress report for Te Mahere Rima Tau is available at [www.doc.govt.nz/nature/native-animals/birds/birds-a-z/penguins/yellow-eyed-penguin-hoiho/a-strategy-to-support-the-health-of-hoiho](http://www.doc.govt.nz/nature/native-animals/birds/birds-a-z/penguins/yellow-eyed-penguin-hoiho/a-strategy-to-support-the-health-of-hoiho).

The Trust continues to represent the interests of hoiho at fisheries meetings including **Aquatic Environment Working Group, Biodiversity Research (BRAG), Technical Working Group and the Conservation Services Programme**. Data and advice was provided for various fisheries projects including a project to characterise all fishing activity that overlaps with hoiho (contracted to **Mike Beentjes, NIWA**), spatial distribution modelling of at risk seabirds including hoiho (**Darcy Webber, Quantifish; Jim Roberts, Anemone; and Dave Goad, Vita Maris**) and multispecies seabird risk modelling (**Charles Edwards, CEScape**). A collaborative workshop was held with fishers and the fishing industry to discuss potential options for mitigation of bycatch and transition of set net fisheries, as well as hoiho numbers and foraging and risk modelling. Liaison with **Fisheries New Zealand** occurred following two hoiho reported captured in setnets (Otago Peninsula and Foveaux Strait), details are in their quarterly report (1 April to 31 June 2021). Review of the Harbour and Coastal Setnet Operational Procedures for Protected Species Risk Management for **Fisheries Inshore New Zealand**. Attendance at an Aquaculture Working Group (AQWG) workshop to discuss open ocean aquaculture guidelines to minimise and mitigate interactions with seabirds.

The Trust continues to submit on relevant environmental and policy matters. A detailed submission to the **DOC expert panel** for its five-yearly review of the threatened conservation status of seabirds resulted in no change for hoiho. Basically, the rapid decline of hoiho on the mainland and Rakiura supports a shift to Nationally Critical; however, as one-third of the species is on the Auckland Islands appears to be stable, the panel retained the current status. Feedback was provided on the **Climate Change Commission** draft paper to Government.

YEPT continues to collaborate with local authorities. Trudi continued to provide advice (as a member of the **Otago Regional Council (ORC)** Regional Policy Statement (RPS) reference group for the coastal environment) and review the RPS which sets the direction for future management of Otago's natural resources and provides guidance for regional and district plans. Attendance and discussions at a Marine Significant Ecological Areas Spatial Mapping workshop at the ORC. Advice and hoiho spatial data was subsequently provided to **Dr Tom Brough** at the **National Institute of Water and Atmospheric Research (NIWA)** who are contracted by ORC.

## HABITATS

### **Long Point** (DM)

#### *Field Base*

Sandblasting and painting of the field base containers has been completed (10– 26 November).

A **fire plan** for both the field base and reserve areas has been completed after circulation to DOC and FENZ, currently (March 2022) it is receiving a final review by FENZ before being adopted.

The investment in the field base has again proved its worth during the penguin monitoring periods. Not only have staff been able to stay on site, but with a freezer and kitchen facilities they can prepare and store fish for the rehabilitation.

#### *Habitat/Revegetation*

A planting day on 18 June saw community volunteers' plant 200 trees and shrubs plus 50 donated mahoe at the head of Area 1. Then on 7 and 21 May, 620 root trainer flax were planted along the Clutha District Council road reserve walking track from the top carpark.

A further planting day on 6 December was held with **Fonterra staff (Edendale and Stirling)** who helped plant the last 70-80 trees and shrubs and 50 flax in the dispersal gully.

A draft of the Long Point Irahuka Planting Plan has been completed (March) and submitted to DOC for comment.

A new project involves approximately 10 hectares being fenced on the western side of Long Point and another smaller area on the eastern side of approximately 1.5ha. At Cosgrove Creek a short fence extension will enable stock to be excluded from the inner core and planting to take place. Fencing is required to exclude stock from the proposed areas and enable native planting. Flax is being produced by the Trust Nursery, to provide shelter for later plantings of shrubs and trees. The first flax planting is planned for spring 2023.

On the 14 March **Aaron Sutherland (South Otago Fencing)** began fencing with the work expected to take 1-2 weeks.

#### *Trapping*

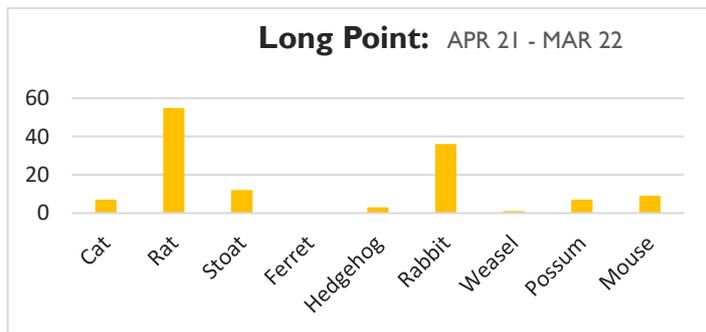
**Roy Johnstone** and **Jim Young** from **Forest and Bird South Otago Branch** continued their great efforts monitoring the trap lines on and around the Reserve for which we are very grateful.

This year a review of the trapping at Long Point was carried out. Changes made include:

- baits used and bait stations introduced targeting rats, and
- types and placement of traps to gain better coverage and be more effective.

Following the review a trial was carried out of a new rabbit lure. In the future this will be used with the eggs we have traditionally used.

In addition to the current trap lines, three DOC200 traps were set up around the Field Base in November 2021. Across Long Point, Cosgrove and Helena Falls, the recorded catch totalled 130 pests:



### **Okia Reserve (AS)**

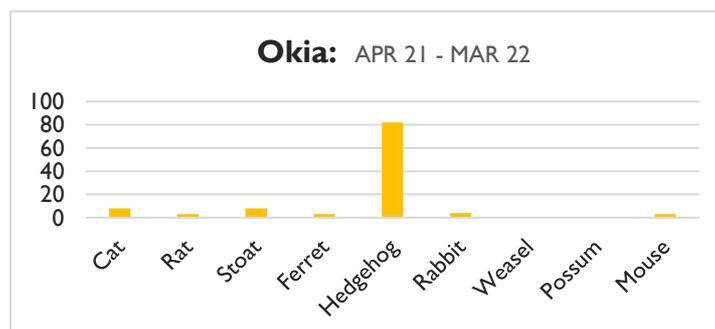
#### *Predator Control*

**Dunedin City Council's Task Force Green** members continued their long association with the Trust running our trapping lines on the Otago Peninsula, specifically at Okia, Otekiho and Papanui Inlet during December-May. Trust staff supported their efforts through maintenance of the trapping access tracks, vegetation-clearance around traps, preparation of bait, general quality control. They also checked traps during June-November and the down periods due to COVID-19 restrictions when Task Force Green were not permitted to operate.

As part of their wider possum eradication programme, **Otago Peninsula Biodiversity Group** contractors continued monitoring traps with transmitters at Okia Reserve.

In Autumn 2021 we were notified (through Dunedin City Council (DCC)) of increased rabbit numbers at the south end of Okia, being rated "a low 4 on the Modified McLean Scale". Meetings with landowners and Otago Regional Council followed and subsequently DCC arranged for two night-shoots, ten days apart, to be carried out by **Dave McPhee, DM Holdings Ltd** in June. This successfully reduced the numbers and was topped up with an occasional shoot by YEPT staff.

The recorded catch totalled 111 pests (excludes above targeted rabbit control):



#### *Habitat/Revegetation*

Natural regeneration of native trees and shrubs is evident at Okia, unfortunately, so too the weeds. Throughout the year we continued working on these together with the wide range of habitat tasks required. The habitat continued to benefit from Ranger Ben Goldsworthy's keen eye for weeds such as gorse, broom, elder and sycamore; as usual, this control work was carried out around our priority hoiho management programme.

The growth of lupin along the walking track and 4WD track seems relentless, especially in the north-mid section with no hoiho nests and therefore less use of these tracks this season. Staff and volunteers carried out workdays throughout the year in efforts to keep this under control using manual methods.

Combi-guarded plantings were all spray-released as part of the programme and other plantings, such as those near the Little Pyramid and Reserve entrance have been hand-released from weeds on multiple occasions. Older plantings just back from the dunes which have the potential to become overgrown by *muehlenbeckia*, bracken and lupin have been released.

Two planting days were held at the Reserve. On 8 May staff from **Dunedin Airport** planted 153 trees and on 2 July 220 trees were planted by 18 **Otago Polytechnic Horticulture** course students and staff. The students' work was assessed by their tutor on site and counted towards their course accreditation.

### *Other*

Other regular tasks carried out around the Reserve include maintaining the hoiho tracks, signage, fences, car park and beach clean-ups especially following storm events. In addition, the firebreaks were mowed in spring as fire danger continues to be high priority. Advocacy and talks with visitors are also carried out when the opportunities arises.

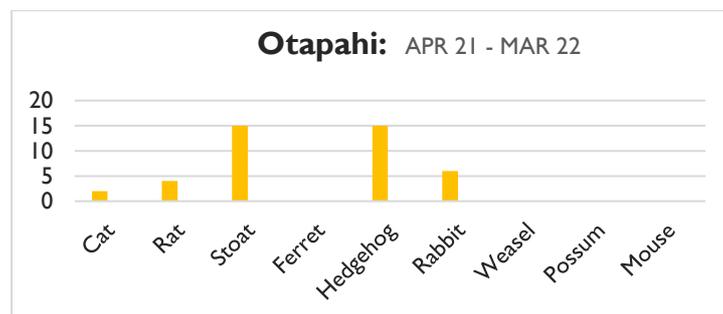
Between November-April **Paul Guy (Associate Professor, Botany, University of Otago)** returned to Okia with students to carry out further field studies sampling red tussocks (*Chionochloa* spp). In February, **CNN International** filmed part of their documentary about the recovery of Dunedin's sea lion population for CNN's Call to Earth.

We continued to support archaeologists, historians and local rūnanga, led by **Shar Briden** and **Rachel Wesley**, with information and logistical assistance in the management of the Papanui site foreshore and the archaeological recovery of artefacts.

### **Otapahi Reserve (AS)**

#### *Predator Control*

**Roy Swailes** and the **NZ Deerstalkers Association** volunteers continue to carry out trapping every two weeks, except for the 2/3 months during lambing in the access paddocks. Numbers of volunteers available to Roy have declined but he has been actively recruiting and training new trappers and Trust staff carried out a familiarisation session with them at their clubrooms on 16 March. The recorded catch totalled 42 pests:



#### *Habitat/Revegetation*

Mallow control at Wharekakahu and along the trapping line continues together with regular fence and gate repairs.

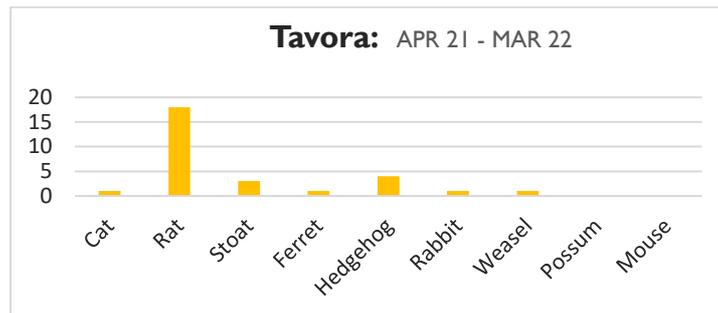
*Other*

**Ayla Stenning (PhD candidate, University of Otago)** carried out fieldwork at Wharekakahu in summer as she continues geological mapping at Otapahi for her study of Otago volcanism. In February a local camera operator accompanied Ben Goldsworthy, Ranger, carrying out chick and moult checks, to obtain footage for **Jobs For Nature** showcasing the scheme.

**Tavora Reserve (AS)**

*Predator Control*

Volunteers **Andy and Melissa Moore** continued to check the trap lines. The recorded catch totalled 29 pests:



*Habitat/Revegetation*

On 16 and 17 September another 600 native trees and shrubs funded through the **Ministry of Primary Industries'** Matariki Tu Rākau grant were planted adjacent to last year's plantings. These were inspected by **Erica Whalley (Forest and Land Use Advisor, MPI)** in February.

An additional 150 flax were planted at the top of planted slope and 150 pingao in the dunes.

Over 2,600 existing plantings were spray-released in autumn and combi-guards were removed from the well-established plantings. Weed control around the rest of the Reserve was ongoing and included control of blackberry, banana passionfruit and marram grass. Other general tasks around the Reserve included maintaining the walking tracks, car park and signage for visitors, and on multiple occasions, checking and repairing the aging fences and gates.

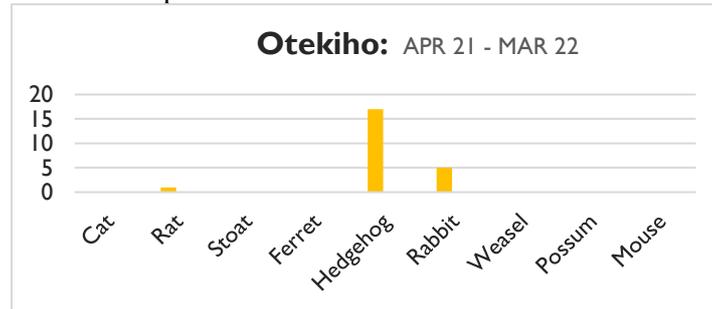
*Other*

As usual, the Reserve's annual closure for hoiho management purposes took place 1 November–28 February. Notification signage was put in place three weeks before the closure, then replaced with closure signage and the gate locked. Andy Moore contacted us to report breaches of compliance, and, as in previous years we supplied him with information leaflets for those few who breached the closure.

At the end of March 2021, the lock to the paddock gate by the car park was vandalised and cut. No evidence leading to the reason why or culprit(s) was found. The lock was quickly replaced, and new keys issued to the lessee.

### **Otekiho** (AS)

**Dunedin City Council's Task Force Green** members continue to assist with predator trapping at this site. The recorded catch totalled 23 pests:



### **Other**

Fencing and plantings checks were carried out as part of the work programme.

### **Omihi** (AS)

The Trust continued to assist with the management of other habitats where hoiho breed or have been found previously and at Omihi we often work together with staff from **Penguin Place**. In August we did just that; a workday with Penguin Place staff cutting tracks and undertaking fence maintenance.

### **Other habitats** (AS)

This year we visited Fuchsia Gully in December and our nest search located two nests with two chicks each. The area was being used by at least six adults and four chicks in December. On the second visit in early February, we resighted all four chicks, all at good weights over 6.0kg.

We continued our relationship with **Cape Saunders Farm** advising on conservation initiatives at part of Papanui Beach on the Cape Saunders headland and monitoring hoiho regularly.

Approached by a landowner near Moeraki, a meeting and correspondence resulted in us loaning and installing two nest boxes at their property.

### **Nursery** (AS)

The Nursery achieved its target of the production of c.5,000 plants during this year covering our planting restoration requirements from North Otago to Long Point. Over the first few months of 2022, flax production for Long Point increased significantly as it is the main focus for the Nursery plant production currently.

We supported the **Otago Peninsula Trust** by attending the **Larnach Castle Plant Sale** and selling a small amount of surplus Nursery plants not required for the Trust's Reserves. The day also involved general advocacy/raising awareness of the Trust and raised \$371.

Nursery output delivered during the reporting period was:

Apr 21-Mar 22	TAVORA	OKIA	LONG POINT	PRIVATE SALES	TOTAL
Trees & shrubs planted:	600	370	500	Various 905	<b>2,375</b>
Flax & pingao planted:	300	0	670	Various 300	<b>1,270</b>
<b>TOTAL:</b>	<b>900</b>	<b>370</b>	<b>1,170</b>	<b>1,205</b>	<b>3,645</b>

Noteworthy improvements made at the Nursery this year include the installation of a washing machine and dryer in the kitchen. Rangers can now clean hoiho gear at the Nursery at the end of each day, as required. The appliances and the plumbing labour and parts were all kindly donated. Sincere thanks to the donor and plumber for this support.

The Nursery's large front hedge running along McTaggart St was again impinging on the power lines. In August it was cut professionally over a couple of days reducing its size by one third. We plan to thin out the hedge regularly as the small trees come through to keep it manageable in-house, at least for a few years.

The large tool shed situated close to the creek which suffers from damp and lack of sun in the winter was repainted by staff using outdoor weather-proofing paint. In winter, a polar blast at the end of June took out the concrete bunker's skylight which was quickly repaired, as were broken glass panels in the glasshouse.

The Trust continues to give back and work with organisations such as **Otago Polytechnic** providing opportunities for horticulture students to gain experience to increase their chances of employment. In July we hosted 18 students at Okia on a planting day and in May provided a student with a two-week placement.

We hosted and assisted **Otago Peninsula Catchment Group** hold a native plant and seedling workshop on at the Nursery in July. Eight members of the public who attended learned about sowing and propagation at a workshop to share knowledge and skills.

In December, Louise assisted at a working bee at **Colinswood Bush**, Macandrew Bay. Wellington small business **Wishbone Design** staff joined us on a very cold June day for a Nursery workday.

## CONFERENCES / SYMPOSIA (SM & TW)

Several meetings and conferences were online this year due to COVID-19, but a couple still managed to go ahead kano ki te kano ki (face to face).

*Yellow-eyed Penguin Annual Symposium* 7 Aug 2021 was organized by YEPT and DOC. Presentations were contributed to and delivered by YEPT staff on a variety of subjects including population numbers, disease and the Rakiura survey as well as the hoiho strategy and action plan.

YEPT staff also attended the *Oamaru Penguin Symposium* (6-7 May 2021) to present some of the wider research, strategy, and policy activities that the Trust is involved in and chaired a session on kororā. The *Forest and Bird Conference & AGM - Bring Back Nature* (26-27 June 2021) and the *Entomological conference* Otago Museum (7-9 April 2021) were both attended online.

At the *NZ Marine Sciences Society conference* (Titiro whakamuri, kōkiri whakamua, looking back to move forward) in Tauranga (5-9 July) there were 420 attendees and a number of presentations and keynotes on Mātauranga Māori, and combining this with western science. A paper was presented on stress in hoiho on Rakiura by **Melanie Hayden** at **Auckland University** and co-authored by YEPT.

Two papers were presented by members of the Hoiho Technical Group at the *Australasian Ornithological Conference* in February 2022 online on increased disease prevalence and effects on the conservation management of hoiho, and more generally about hoiho conservation threats.

The 11<sup>th</sup> International Penguin Congress scheduled for September 2022 in Chile has unfortunately been postponed due to the restrictions of the global pandemic. A new date has not yet been released.

## **ADVOCACY AND OUTREACH** (SM & TW)

### ***Health and Safety***

Like the rest of NZ, the year has again been dominated by COVID-19 and the challenges of working within the restrictions of a pandemic. The Health & Safety of our staff has been top-of-mind in all the decisions made during the various levels of restrictions. During the year, teams have continued to work together or been split and isolated at various times to ensure the management of hoiho could continue uninterrupted. Staff have adapted well to this new working environment, more so when the health and wellbeing of hoiho is a priority.

Health and Safety plans continue to be updated and we are pleased to report only minor incidents occurred during the year.

### ***Iwi consultation***

The Trust continues to build relationships with iwi on all hoiho related matters. Throughout the year presentations were made to **Kaitiaki Roopu Murihiku** (Invercargill) and **O Araituru** (Dunedin) and the **Whenua Hou Committee**, and guidance was sought in particular for monitoring and rehabilitation work on Rakiura & Whenua Hou. Trudi continued to liaise with **Yvette-Couch Lewis, Tāne Davis, Edward Ellison** and **Nadia Wesley-Smith** about collaboration and potential joint funding applications with **papatipu rūnaka**.

### ***Local authority engagement***

The Trust continues to liaise with local authorities at a district and regional level, in particular with the biodiversity team at **Otago Regional Council** who receive quarterly reports from the Trust.

### ***Community***

**World Ranger Day** (31 July) was celebrated with a shared morning tea with DOC Rangers.

The **Peninsula Biodiversity Hub** in Portobello has opened but only on Sunday's and the grand opening has been delayed due to the restrictions of COVID-19.

The Trust remains a member of **Predator Free Dunedin** and earlier this year were delighted to hear PFD has secured a substantial funding boost to further their work to protect native biodiversity.

### ***Compliance***

The Trust continues to regularly review the Policy and Procedure Manual, and this year added new policies about vaccinations and additional hours worked. The Legislative Compliance Policy and Register were again checked.

### ***Events***

This was another year of no events being hosted by the Trust apart from the *Yellow-eyed Penguin Symposium* due to the COVID-19 restrictions.

### ***Media***

Several joint media statements were released with **DOC** and **Te Rūnanga o Ngāi Tahu** during the hoiho season. In addition, interviews have been conducted for the **Otago Daily Times** on a range of topics

including fishing camera policies, increased hoiho intervention, and diphtheritic stomatitis genomic research.

### ***YEPT newsletters***

The twice-yearly newsletter ***Hoiho*** was produced in both May and November. The Autumn and Spring **Nursery Newsletters** were also produced for the regular donors of the Nursery.

### ***Social media***

The Trust's Administrator Caitlin Bowie continues to keep the Trust in the social media channels, particularly Facebook and Instagram, with a large following and interactions. Her highlight for the year was having a tweet reposted by Helen Clarke, previous NZ Prime Minister.

### ***Other newsletters***

We have continued to regularly contribute to both the Stewart Island News and the Catlins Coast Newsletters throughout the year.

### ***Other advocacy work***

Eric presented to **University of Otago's Tourism** class on 'Ecotourism and Sustainable Development'.

The Trust has regularly presented to social service organisations, educational institutes and others when requested.

### ***Penguin Place for Sale***

Penguin Place on the Otago Peninsula, a privately run conservation reserve, went up for sale in March. As well as a tourism and farming operation, it was also certified by DOC to run a penguin rehabilitation centre where many birds have been rehabilitated over the years. Staff not only assist the birds in rehab but undertake regular monitoring of the birds in the wild, particularly through the breeding cycle. The conservation programme includes the construction of dams and planting hundreds of trees to enhance the coastal area.

The McGrouther family have owned this farm for 60 years and have provided eco-tours for more than 30 of those years. It was founded by Howard McGrouther and was run by him until his death in 2010 and has since been run by siblings Lisa King and Brian McGrouther and his wife Nicola.

But now after much consideration, the current owners have made a decision to pursue their individual pathways, offering the property for sale. Lisa and her husband are looking forward to their retirement and not being on call 24/7 or being woken by the shrill call of hoiho in the early hours of the morning!

Penguin Place is an award-winning eco-tourism business attracting thousands of international visitors to New Zealand. Unfortunately, with NZ's border closure due to COVID-19, the downturn in tourism has had a major impact on the funding available to continue with their conservation programme. The Trust and Ōtākou runaka signed an MOU and submitted an Expression of Interest to purchase Penguin Place which was unfortunately declined. The new owners have not yet been announced but we look forward to working with them in the near future. In the meantime, we enjoy our relationship with the current Penguin Place owners and staff and acknowledge their dedication and vital role in the recovery programme for hoiho.

### ***Trust Deed***

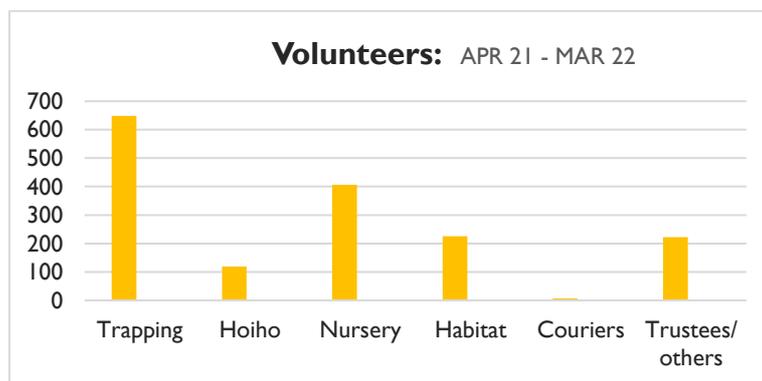
The original 1987 Trust Deed has been updated and modernised thanks to the lawyers at **Downie Stewart**, YEPT's honorary solicitors. It has been approved by the Trust Board and now will be presented at the 2022 Annual Meeting for adoption.

## **VOLUNTEERS (AS)**

Volunteers work with us in most aspects of our work: Nursery, habitats, predator-trapping, penguin monitoring, penguin transportation, office and governance. The support offered by individuals contributes significantly to the Trust's delivery of the various programmes of work. We sincerely thank volunteers for supporting our work; we could not achieve what we have without them.

As per last year, the COVID-19 Alert Level restrictions evolved and moved through multiple levels and traffic lights, 2021-2022 brought challenges in terms of how we integrated our volunteers into our work programmes. In November we drew up and implemented our Vaccination Policy which covered vaccination requirements and risk management of staff, volunteers and others. This enabled us to keep everyone safe while successfully working through our legal obligations.

The total volunteer effort for April 2021- March 2022 was 1,627 hours (1,366 hours 20-21):



### ***Nursery Volunteers***

Generally, it has been a frustrating year for our wonderful Nursery volunteers with workdays being on, then off due to the ever-changing COVID-19 Alert Levels. Mid-late summer saw our Nursery Supervisor managing the situation from week-to-week and, if the weather was dry, the Wednesday volunteer working day in the open air would proceed for all vaccinated volunteers. During times when volunteers were not permitted, Trust staff picked up Nursery work where the work program allowed.

Sadly, volunteer Heather Collier was farewelled on 27 January, after a very short illness. She is missed by everyone at the Nursery.

We are grateful to all the volunteers for their patience and continued support of our Nursery work in producing plants for hoiho reserves and who between April 2021 and March 2022, contributed 406 hours of their time.

### ***Penguin Courier Volunteers/Transporters***

Our volunteer penguin transporters continued to be available to assist us, DOC, Penguin Place and the Wildlife Hospital in transporting sick and injured penguins, where possible and while staff are deployed on hoiho management tasks. The acquisition of a 2WD Hilux was a significant improvement as a much more suitable vehicle for transfer by road (often over 200km and up to 4-5 hours each journey). As a consequence, it released the 4WD Isuzu DMAX for staff to use thereby increasing our productivity as we split staff teams over different locations regularly this year.

### ***Work Placements***

**Hannah Cross (third year Veterinary Science, Massey University)** a student and Otago Peninsula local joined the field team for two weeks to undertake a work placement, providing her with some understanding and hands-on experience of the management of endangered species in the wild.

**Hannah King (Horticulture student, Otago Polytechnic)** joined us for two weeks on a work placement at the Nursery, providing her with experience as she shadowed and assisted the Nursery Supervisor.

In July, two **Predator Free NZ** apprentices working for the pest control company, High Country Contracting assisted checking the traps at Okia. As part of their apprenticeship, they improve their skills by working with community groups organisations a number of days each year.

## FUNDING (SM)

### FOUNDING SPONSOR

The Trust has continued to be supported by the Mainland Brand (natural cheese & butter) owned by **Fonterra Brands NZ Ltd.** Unfortunately, due to the restrictions of COVID-19 we have been unable to host any Fonterra staff this year.

### GRANTS

Name	Grant received	Purpose
<b>Department of Conservation:</b>		
<ul style="list-style-type: none"><li><b>Jobs For Nature/Mahi mō te Taiao (2021 - 2023)*</b></li></ul>	\$422,000 (total grant)	Announced in June, this grant gives stability for two existing staff (1.5 FTE) and increase of a further two staff (1.5 FTE) for two years.
<ul style="list-style-type: none"><li><b>Community Fund (2019 - 2022)</b></li></ul>	\$312,180 (total grant)	Continues to support the Operations Manager and Ranger (Catlins) positions
<ul style="list-style-type: none"><li><b>Terrestrial Science Team (Southern)</b></li></ul>	\$10,676	New fence at Long Point Irahuka
<b>Dunedin City Council</b>	\$15,000	Contribution to annual costs of Okia Reserve
<b>Grumitt Sisters Charitable Trust</b>	\$20,000	In support of the Operations Manager position in 2023
<b>Harry J Wilson Trust Charitable Trust</b>	\$10,000	New fence at Long Point Irahuka
<b>Joan Mayes Charitable Trust</b>	\$15,000	Work on Rakiura
<b>Macpac's 'Fund For Good'</b>	\$8,000	Provided staff with protective outer layer clothing and equipment such as packs.
<b>Otago Community Trust</b>	\$15,000	New fence at Long Point Irahuka
<b>Otago Regional Council</b>	Funding of the science position expired in July 2021. We are indebted to ORC for supporting this initiative back in 2015 and the subsequent six years funding.	
<b>Pacific Development and Conservation Fund</b>	\$20,000	Monitoring and rehabilitation of hoiho on Rakiura
<b>Te Uru Rakau / Ministry of Forestry</b>	\$10,000	Trees and shrubs to continue the slope stabilisation work at Tavora Reserve
<b>W J Gall Charitable Trust</b>	\$10,000	To repaint the field base with a much tougher paint system which will withstand the salty coastal environment.
<b>WWF Community Fund</b>	\$15,000	In support of the Operations Manager position in 2023

\* The **Jobs For Nature/Mahi mō te Taiao** grant was good news indeed. It will enable us to deliver more intensive hoiho management than previously.

Requirements of the Trust under this fund have changed often during a short period due to the rapid implementation of this initiative in response to COVID-19. These included drawing up, setting and agreeing quarterly milestones, workplans, health and safety plans, reporting, evidence and verification systems, often at short notice and some of which have impacted how we carry out our daily operations and some of our staff's tasks. The recruitment of a JFN Delivery Manager and improvement in reporting systems is beginning to bed in and settle down what has been a period of rapid change.

### ***DONATIONS RECEIVED***

<b>Name</b>	<b>Donation received</b>	<b>Purpose</b>
<b>Andy &amp; Melissa Moore</b>	Painting of a penguin by Nicky Gilkison	To be auctioned when YEPT next holds an event. Currently enjoyed on the wall of the Office.
<b>Bay Road</b>	Seconds of their peanut butter	Bait for traps
<b>City Forests</b>	Annual donation	Science Advice
<b>Distinction Hotel</b>	Free carparking	Trust Board Chair
	Manage key to a 4WD used by YEPT volunteers	Central point of contact for pick up/drop off of vehicle
<b>Dunedin Airport</b>	\$5,000	General purposes
<b>Edward Ivison &amp; Josh Edwards</b>	Washing machine & tumble dryer & their installation	Washing soiled gear from penguin work
<b>Fergus Sutherland</b>	Painting of Long Point Irahuka	To be auctioned when YEPT next holds an event. Currently enjoyed on the wall of the Office.
<b>'I feel Natty'</b>	Donated to YEPT after a conversation about hoiho enamel pins.	
<b>Jen South, Dog Rescue Dunedin</b>	4 cages for the Trust and with permission, we on-donated an additional two cages to WHD.	Transportation of sick or injured penguins
<b>Mamaku Point Charitable Trust</b>	Donated considerable time to enable construction of the rehabilitation pens, and installation of water tanks and plumbing on Rakiura. As well they have provided accommodation for YEPT staff on Rakiura, and supported rehab operations by covering electricity costs.	

<b>Noopii®</b>	Percentage from sales of nappy packs	General purposes
<b>Penguin Place</b>	15 A-frame nesting boxes	The boxes will be placed across our Reserves in winter 2022.
	Fish (silverside)	Rehabilitation on Rakiura
<b>Sanford's (Kaitangata &amp; Big Glory, Rakiura)</b>	Salmon smolt	Feeding chicks at the nest and in the soft release pens, and moulting adults in Rakiura
<b>Several schools</b>	Various fundraising campaigns	General purposes
<b>Stitch Kitchen</b>	Time and resources to produce 42 canvas hoiho weigh bags. <b>Adam's Flags</b> donated and fitted grommets /rings.	These weigh bags will replace our aging stock locally and to send to Rakiura.
<b>Solander Gourmet Seafoods (Nelson)</b>	Anchovies and sardines	Feeding chicks at the nest and in the soft release pens, and moulting adults in Rakiura
<b>South Otago Forest &amp; Bird</b>	3 trail cameras	For use at Long Point / Irahuka
<b>Talley's Fisheries</b>	\$2,000	Rakiura work
<b>Top 10 Holiday Park</b>	\$7,548 from various fundraisers and donation boxes	General purposes
<b>University of Otago (Zoology Department)</b>	10 trail cameras	For monitoring hoiho on Whenua Hou, Rakiura and Otago Peninsula
<b>Woodland Eggs (owned by Zeagold)</b>	840 fresh eggs	Predator control

To our **regular supporters**, and those of the **Coffee Club** and **Donate-a-Tree** schemes, our sincere thanks. Your regular donations are really appreciated.

**Several members** have generously gifted **large donations** to the Trust during the year, and again, we are extremely grateful for this support. Some of these donations were gifted in someone else's name for their celebration, some on a loved ones passing. We are always grateful of these donations that support our work.

Several large donations were also received through the **online portal, Swipe**. We are extremely grateful for these donations, often from international people interested in our work and hoiho.

Special mention goes to **Professor Emeritus Sir Alan Mark and Patricia (Pat) Lady Mark** who made a substantial donation to the Trust during the year. This followed their earlier (October 2020) very generous support of both Orokonui Ecosanctuary and the University of Otago's Ecology Fund. The Trust has tagged this donation to further support the development of Long Point Irahuka Reserve.

## ***ESTATES***

Legacies for the financial year 01 October 2020 – 30 September 2021 amounted to \$83,996. This support continues to assist the Trust in maintaining a secure financial position.

We sincerely acknowledge estate donations from **Connie Wright** and **Roger Farrant**.

We also sincerely acknowledge families who chose their funeral donations to be gifted to the Trust.

## ***DONATIONS TO OTHER ORGANISATIONS***

Predator traps were loaned to Penguin Place and Department of Conservation Owaka for capture of mustelids and cats respectively.

Seven 20kg boxes of frozen trevally were donated to Wildlife Hospital Dunedin.

## **PERSONNEL**

### ***Staff in 2021/22***

Sue Murray, General Manager (1.0FTE)  
Amanda Salt, Operations Manager (1.0FTE)  
Trudi Webster, Conservation Science Advisor (1.0FTE)  
David McFarlane, Long Point Projects Manager (0.5FTE)  
Ben Goldsworthy, Ranger (1.0FTE)  
Sarah Irvine, Catlins Ranger (1.0FTE), until November 2021  
Caitlin Bowie, Administrator (0.6FTE)  
Louise Ashton, Nursery Supervisor (0.5FTE)  
Max Harvey, Ranger-Technical (1.0FTE)  
Cat Lea, Ranger-Hoiho (1.0FTE)  
Sandy King, Rakiura (Contractor)

### ***Staff Training***

Sue and Trudi both completed the He Papa Tikanga Level 3 online course offered through Te Wānanga o Aotearoa.

Several staff members have updated the necessary certification for their respective roles, or undertaken new training e.g. Outdoor First Aid and Four-Wheel Drive training.

### ***Trustees***

This year we farewelled James Tweed, the 2019 Emerging Leader trustee, who moved offshore.

The remainder of the Board members continue to provide effective governance to the Trust. I thank my fellow trustees for their dedication: Abby Clarke, Euan Kennedy, Helen Dent, Hoani Langsbury, Lala Frazer, Margaret Murrell, Meg Houseman, Murray Brass, Olaf Nilsen, Peter Simkins, and Tim Mephram.

### ***Department of Conservation***

The Trust works closely with the Department of Conservation | Te Papa Atawhai including with the operations teams located at Banks Peninsula | Te Pātaka-a-Rākaihautū, Otago | Ōtepoti, Southland | Murihiku and Stewart Island | Rakiura.

We also work closely with various teams from the National Office including the Mountains to Sea team, Community Fund and Jobs For Nature. We continue to be co-located with DOC Otago | Ōtepoti and enjoy the open working relationship and respect we receive.

We thank also two key DOC staff who retired during the year. After eight years as Director General, and previously Conservator Southland, **Lou Sanson** hung up his DOC boots. Lou's support of our work and hoiho was truly appreciated as was his enthusiasm to see changes to help save this taonga. **Barry Hanson (Director Partnerships)**, also previously a Conservator, was based in the Dunedin Office so we worked alongside him, sharing morning and afternoon teas, etc. Barry's support and assistance with our strategic planning, in particular, was at the time critical to our survival. Thank you both for your support of YEPT, our staff and more especially hoiho.

### ***Bereavements***

The Trust acknowledges the passing of associates through the year, a loss to the penguin and conservation community.

**Frank Austin's** (died 26 April 2021) involvement with yellow-eyed penguins and YEPT began when he responded to a request in a local community newspaper by researcher John Darby for help to monitor this species – this was back in the 1980s. During this time he helped out with numerous beach counts and as regimes and people changed, he continued to monitor the penguins. When the task did become too difficult for him to physically continue, he remained interested in the Trust and still attended the Annual Yellow-eyed Penguin Symposium.

Dunedin City previous Mayor **Dave Cull's** passing on 27 April 2021 bought an end to an era of a well-respected public servant and friend to the Trust. Dave was instrumental in helping us secure funding to create the science position at YEPT, and throughout his years on Council was supportive of our work and hoiho.

## **CONCLUSION**

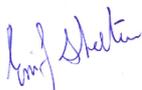
The 2021-2022 year again has proven to be another challenging one for our organisation.

Although challenging, staff have delivered the hoiho recovery and coastal habitat programmes as outlined in this report. On behalf of the Board, thank you.

Alongside our dedication to future-proofing the workings of the Trust, we have endeavoured to use Te Reo in our place names, job titles and in general where we have sufficient knowledge or guidance. The latest use of Te Reo can be seen in our updated logo, our trademark. This year the trademark is due for renewal, so it is timely to use the revised version on this report. This version has been submitted to the Intellectual Property Office of New Zealand and it has been referred on to their Māori Advisory Committee – this is to ensure that the logo contains the correct use of Te Reo.

I hope this Annual Report meets the expectations of its readers, and all contributors to the Trust's work.

Nga mai



**Eric J. Shelton**  
**Chair**