## Penguin Rescue

Annual Report 2016/17



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#### Penguin Rescue

www.penguins.org.nz

aka Katiki Point Penguin Refuge Charitable Trust

Our goal: remove Yellow-eyed penguins off the endangered species list

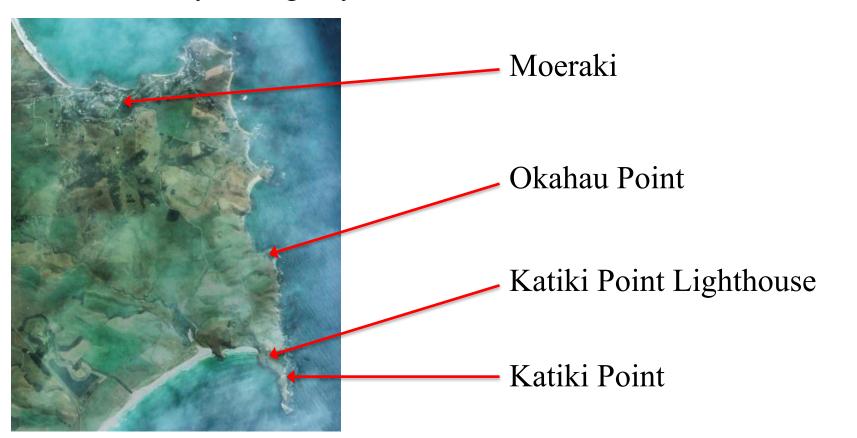
Our mission: providing sanctuary for penguins

Our work: optimise penguin habitat

maximise breeding success and survival

minimise human disturbance

- based at Katiki Point Lighthouse
- two Yellow-eyed penguin colonies:
  - Katiki Point
  - Okahau Point
- started 30 years ago by Janice and Bob Jones and Chris Lalas

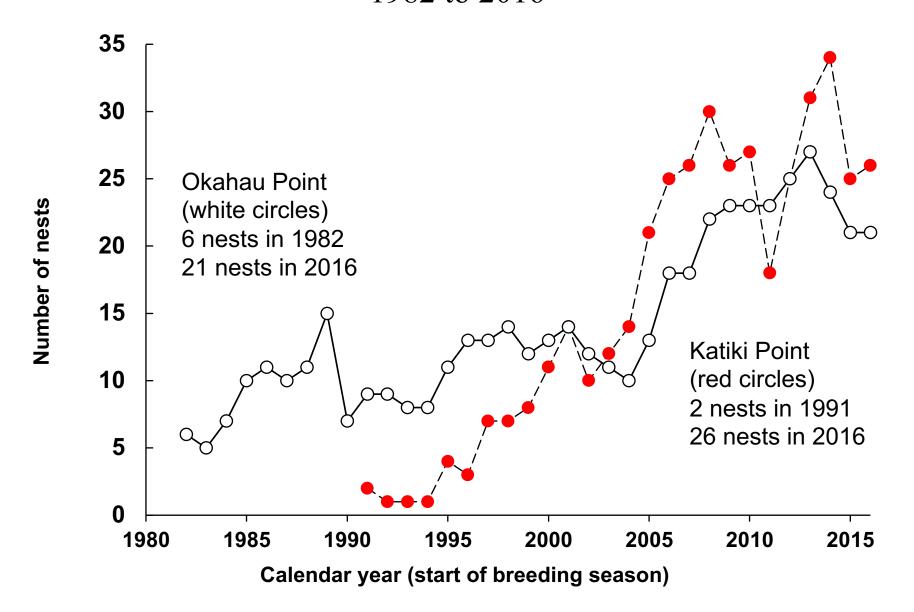


#### 2016/17 season

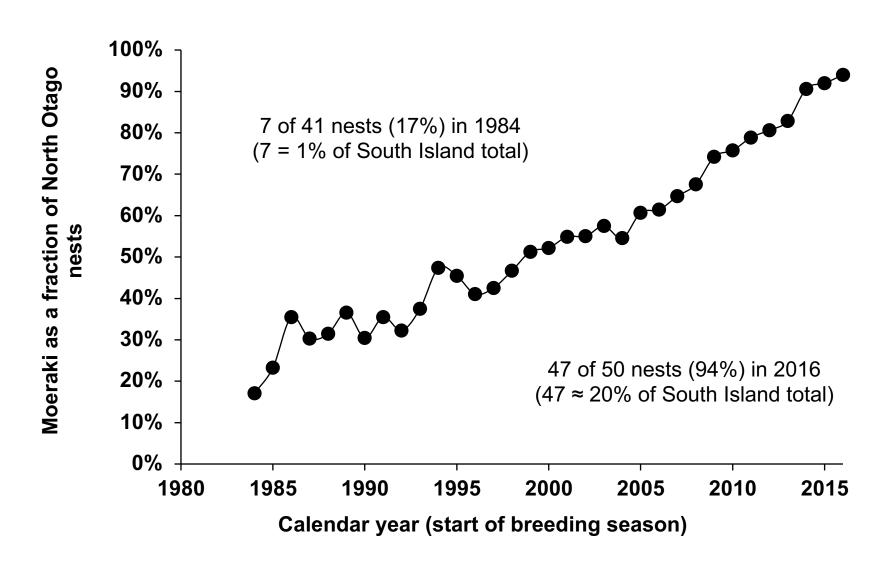
Katiki Point: 26 nests

Okahau Point: 21 nests

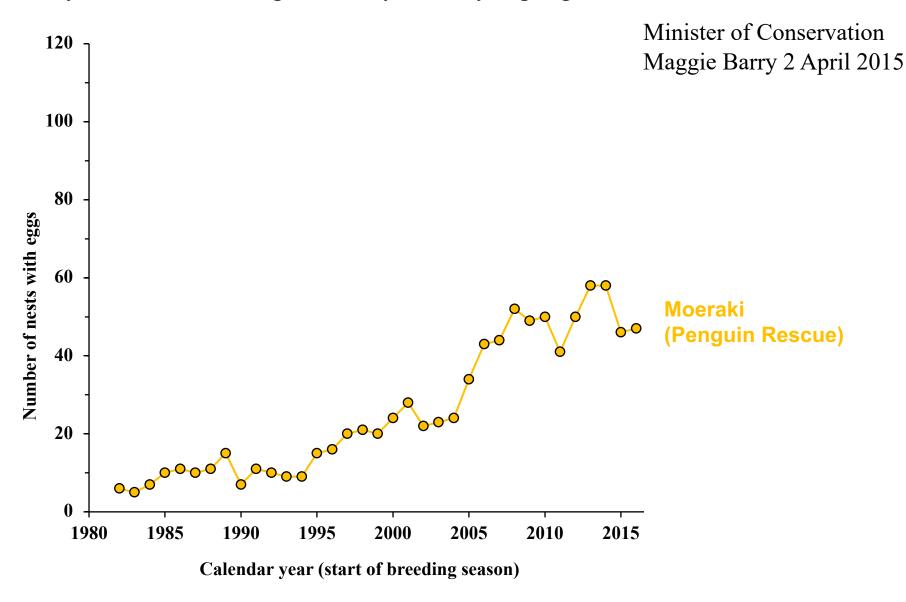
Yellow-eyed penguin nests at Katiki Point and Okahau Point from 1982 to 2016



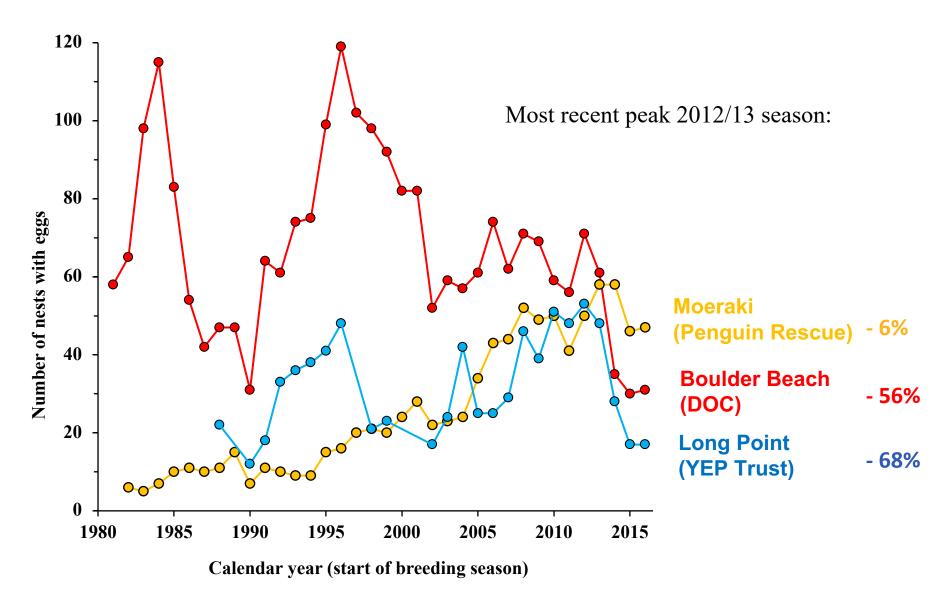
## Yellow-eyed penguin nests at Moeraki as a proportion of all North Otago nests from 1984 to 2016



3 key mainland breeding sites for yellow-eyed penguins



#### 3 key mainland breeding sites for yellow-eyed penguins



# Minimum effect of rehabilitation effort on 2016/17 breeding pair numbers

Katiki Point: 26 females bred

14 (54%) had been rehabilitated and released

At best there would have been 12 nests

Okahau Point: 21 females bred

4 (19%) had been rehabilitated and released

At best there would have been 16 nests

Moeraki decline since 2012: - 44%

### Rehabilitation July 2016 - June 2017

Yellow-eyed penguins:

	individuals	admissions	release rate of individuals
adults	21	22	95%
juveniles (1 yr old)	26	29	100%
pre-fledging chicks	24	24	92%
post-fledging chicks	3 4	10	95%
TOTAL	75	85	95%

## Breeding success in 2016/17

	Katiki Point	Okahau Point	
Number of nests	26	21	
Fertility eggs hatched / laid	<b>96%</b> (49/51)	<b>90%</b> (36/40)	
Chick survival chicks fledged/ hatched	<b>47%</b> (23/49)	<b>67%</b> (24/36)	
Chicks raised per pair chicks fledged/ nest	0.88	1.14	

#### Predator control

- Predators caught
  - Katiki Point: 9 cats, 1 ferret, 5 stoats, 59 rats
  - Okahau Point: 12 cats, 1 ferrets, 0 stoats, 25 rats

No predation of yellow-eyed penguins or any other seabirds at either colony

### 3 main concerns in 2016/17

• Major outbreak of Diphtheria

• Interference by non-breeding males

• Tourism

#### Major outbreak of Diphtheria

		Katiki Point	Okahau Point
Number of chicks	hatched	49	36
Number of chicks	treated	26 (53%)	15 (42%)
	untreated	23 (47%)	21 (58%)
	treated	19 (73%)	11 (73%)
	untreated	8 (35%)	13 (62%)
Weight (23 Dec 16)	treated	3.6kg	3.8kg
	untreated	3.6kg	3.5kg

### Interference by non-breeding males



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# Effect of the continued onslaught of uncontrolled tourists

• In 2014/15 season over 50% of chicks died <2weeks old at Katiki Point

 Building of internal fence 20m from colony edge (as suggested by DOC) – blocking penguins from crossing tourist path

• Best guess: 70 000 people but a people counter was installed on 3 April 2017 – no results yet

15 August 16: DOC installed two signs and removed all others

16 September 16: DOC another sign at the turn-off to Lighthouse Rd: open 7:30am-7:30pm









Yellow dots: 2016/17 nests



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Red line: old tourist route to the hide and to the point

19 September: work starts on new route











Yellow dots: 2016/17 nests

Red line: old tourist path to hide and to the point

19 September: work starts on new route

Blue line: new tourist path to hide and to the point

2 Mar 2017 new route was opened

#### 7:30am - 7:30pm opening hours



7:30am – 7:30pm opening hours: number of vehicles in carpark at 7:30pm

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017
Average	1.9	3.5	4.4	5.7	5.7
(range)	(0-5)	(0-8)	(0-10)	(1-13)	(1-17)



8 October 2016 8pm: visitor tried to take photos in the dark

#### People jumping over fences

21 July 2016



20 October 2016



10 October 2016



1 April 2017





22 August 2016: visitor climbs fence



17 October 2016: visitor climbed fence and chased penguins in the dark

#### Conclusion

- Fence still keeps almost all people on the paths
- Nothing had changed for the 16/17 season but if the new route had been in place 85% of nests probably far enough away to be ok
- Late stayers are having an impact: 6am to 10:30pm Effect on penguins:
  - 3 chicks into rehabilitation after losing weight
  - 2 adults into rehabilitation during the moult

# To protect 20% of South Island yellow-eyed penguin population

what is the cost?

\$ 52 500 spent

6217 hours volunteer work = 3.4 full time positions



Thank you