

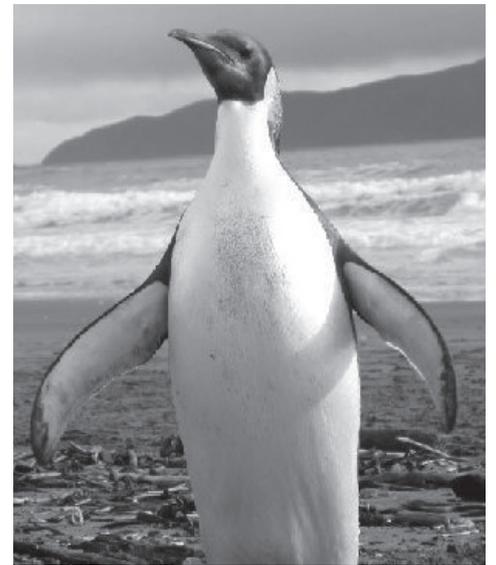
Happy Feet (lost Emperor Penguin)

A male emperor penguin came ashore at Peka Peka beach in Wellington, New Zealand on 20 June 2011. It remains the northernmost known penguin on land (40°50'S)^[1], appearing to have travelled 3000km away from its native Antarctica.^[2] In the days following its arrival, the penguin's condition deteriorated and was taken to the Wellington Zoo for treatment. After 72 days of rehabilitation, the penguin was released back into the Southern Ocean on 4 September 2011, with a GPS tracker transmitter attached to his neck feathers.^[3] Signals from the satellite tag ceased on 9 September 2011. The arrival, care and eventual departure of this penguin attracted unprecedented levels of global media attention for a vagrant bird in New Zealand.^[4]

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Happy Feet



Species	Emperor Penguin Aptenodytes forsteri
Sex	Male

Discovery

Peka Peka resident Christine Wilton alerted the Department of Conservation when she spotted the penguin on the beach while walking her dog. "I saw this glistening white thing standing up and I thought I was seeing things," said Wilton. This was the first recorded sighting of an emperor penguin in New Zealand since July 1967 in Southland. Conservation experts described the bird as a juvenile, about 10 months old and 32in (80cm) tall.^[5]

TV and print media were informed of its arrival; subsequently reporting the story to 600 media outlets worldwide. They began referring to the penguin as "Happy Feet" after the popular 2006 animated film. Speculations as to why the penguin strayed so far off-course ranged from rising global sea temperatures, issues with its internal radar^[6] to the journey being an attempt to find a new home.^[7]

At Peka Peka beach, DOC coordinated a care programme with community members and security guards to protect the penguin from dogs and the sheer enthusiasm of onlookers; maintaining a cordon around the bird (initially 5m, later 50m), ensuring a clear pathway to the sea at all times.^[8] Though the bird was initially considered to be in good health,^[9] its condition worsened over its four-day stay on the beach. Veterinarian Lisa Argilla, having observed that the penguin "looked so sad and miserable... coughing up sand and sticks," brought it to the Wellington Zoo care facility, The Nest/Te Kohanga on 24 June 2011.^[10]

Treatment & Rehabilitation

Upon x-ray inspection, the bird was found to have ingested about 3kg of sand "right to the top of his oesophagus."^[11] Wellington



surgeon John Wyeth worked with a medical team to perform a series of endoscopic procedures to flush the sand from his stomach, in full view of zoo visitors.^[12] Emperor penguins commonly eat snow in their natural habitat to stay hydrated and to regulate their body temperature; this penguin may have mistaken sand for snow, consuming it to cool down in an unfamiliar climate.

At the zoo, the penguin was kept in a 4 x 1.5m air-conditioned enclosure on a bed of crushed party ice. Here, a live camera feed was installed and hosted on New Zealand's TV3 website, attracting 312,984 online viewers. The bird was fed a mixture of fish-milkshakes consisting of pulverized salmon and electrolytes, and also hand-fed whole juvenile salmon once a day, receiving about 2 kg per meal.^[13]

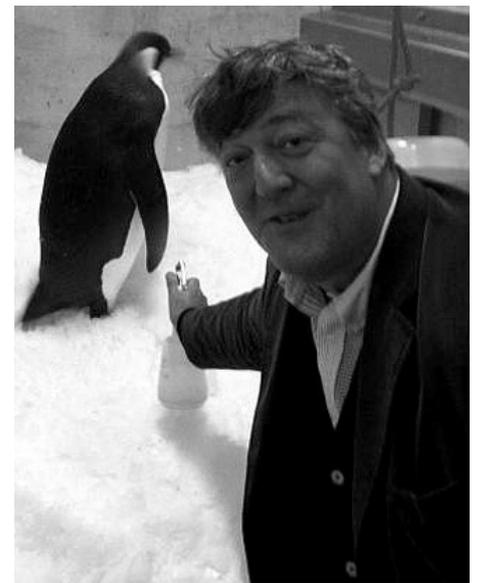
Visitors included English comedian Stephen Fry, in Wellington for the filming of Peter Jackson's *The Hobbit*, who posted a picture of himself with the penguin on Twitter on 11 August 2011.^[14]

After two months in care, the penguin was considered rehabilitated and ready for release. The penguin advisory committee, after lengthy deliberation, decided that the bird would be released in the Southern Ocean, close to the northern limit of the typical at-sea distribution of juvenile emperor penguins.^[15]

Gareth Morgan, a millionaire businessman, had offered to take the bird home to Antarctica on a Russian icebreaker but the Antarctic Treaty stipulates that no living bird may be taken into Antarctica because of the risk of introducing disease.^[16]



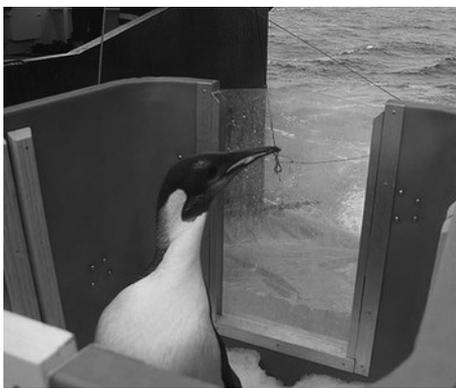
The penguin undergoing endoscopic treatment at Wellington Zoo



Happy Feet gives Stephen Fry the cold shoulder

Release & Monitoring

A 24mm long microchip transponder was inserted under the skin of the penguin's right thigh and a Sirtrack K2G 271A satellite transmitter attached with cable ties glued to the exterior surface of feathers on his lower back, following Australian Antarctic Division protocols. The satellite transmitter was 87mm long and weighed 95g (about 0.4% of the penguin's bodyweight.)^[17]



Happy Feet peers from a customized crate shortly before its release

For his sea voyage, the penguin was placed in a customized open blue container and loaded onto the NIWA (National Institute of Water and Atmospheric Research) deepwater research vessel, *Tangaroa*, on 29 August 2011. On 4 September 2011, the penguin was released on a grey tarpaulin slide rigged onto the ship's ramp into the choppy oceans (51°42'S) 78 km north of subantarctic Campbell Island, in water 285m deep, C.1100km north of Antarctic pack ice.

For 5 days after its release, the penguin was tracked moving in a south-easterly direction, covering about 113km from the release site. The last signal from the satellite transmitter was received at 0812 h on 9 September 2011, when the penguin was at 52°19' S 170°43'E.^[18]

The loss of transmission led to fears that the penguin may have been consumed by a predator. Sirtrack expert Kevin Lay posited that the transmitter could have also just

fallen off the penguin, explaining, “there are some species that will forage on Emperor penguins. It’s not likely that it has happened to Happy Feet because of the area he was in.”^[19] There has been thus far no confirmation of a premature end and no detection of the implanted microchip since, resulting in many unofficial theories of its disappearance.

Notes

1. ^ Miskelly, Colin M. et al “Discovery, rehabilitation, and post-release monitoring of a vagrant emperor penguin (*Aptenodytes forsteri*) in Notornis, 2012, Vol.59: 116–112
2. ^ “There was conjecture the first recorded visit was ship-assisted, but this is far more likely to be a genuine vagrant.” (Colin Miskelly) in Blundell, Kay “Emperor parades and preens in Kapiti” in Dominion Post [Wellington, New Zealand] 22 June 2011: A.3.
3. ^ Priestly, Rebecca “So Long Happy Feet” in The Listener (Wellington N.Z.), 3 September 2011; v.230 n.3721:p52-53
4. ^ Tedmanson, Sophie “Happy Feet detours to NZ” in The Australian [Canberra, A.C.T.] 22 June 2011: 9
5. ^ “Emperor penguin visits New Zealand beach” 21 June 2011 <http://www.bbc.co.uk/news/world-asia-pacific-13856024>
6. ^ Yan, Holly “Lost Emperor penguin found full of sand in New Zealand recovering” 27 June 2011 <http://edition.cnn.com/2011/WORLD/asiapcf/06/27/new.zealand.penguin/index.html>
7. ^ “Almost all of these roaming individuals die but the process of such attempted dispersal continues as it has for thousands of years.” Sadleir, Richard “Roaming emperor may be seeking new home” in The Dominion Post (Wellington N.Z.) , 5 July 2011; pB5
8. ^ Miskelly, *ibid.*
9. ^ “...everything that it’s seeing or experiencing at the moment is a completely new experience to it. You know, that sand; it’s seeing the vegetation, the sand dunes, people, there’s a horse – horses on the beach,” DOC spokesperson Peter Simpson also said that the penguin was in remarkably good health despite its epic journey. Dingle, Sarah in “Kiwis celebrate penguin’s happy feat” in The World Today (Sydney, Australia), 22 August 2011
10. ^ Priestly, *ibid.*
11. ^ Priestly, *ibid.*
12. ^ “An important aspect of The Nest’s work is that it’s all done in visitor view. “In the old days of zoos, veterinary work was part of the cool stuff that all happened behind the scenes,” Fifield says. Today, visitors can watch medical procedures through the transparent walls of the surgery and treatment room and listen to vets discuss what they’re doing. “Nothing is hidden from view.” Not even the post-mortems, which are popular viewing.” Priestly, *ibid.*
13. ^ Sands, Neil “New Zealand’s lost penguin heads home” 28 August 2011 <http://phys.org/news/2011-08-zealand-lost-penguin-home.html>
14. ^ <https://twitter.com/stephenfry/status/101419366993760256>
15. ^ Duff, Michelle & Bennetts, Janine “No passage to Antarctica for Happy Feet” 29 June 2011 <http://www.stuff.co.nz/environment/5204600/No-passage-to-Antarctica-for-Happy-Feet>
16. ^ Tedmanson, Sophie “The penguin beats odds to survive ocean odyssey” in The Times [United Kingdom] 30 June 2011, p41–41. 1

17. ^ Miskelly, ibid.
18. ^ Miskelly, ibid.
19. ^ “Concern mounts for missing Happy Feet” 12 September 2011 <http://www.bbc.com/news/world-asia-pacific-14879982>