

Overview of Rakiura Tītī Harvesting

The importance of the Tītī Harvest

The annual harvest of tītī in April and May from about 30 'Tītī Islands' around Rakiura (Stewart Island) in southern New Zealand is supremely important culturally and economically for the Rakiura Māori community (Waitangi Tribunal 1991, Stevens 2006, Lyver et al. 2007, Newman et al. 2008 a & b, Moller et al. in press a and b). Extended family groups visit the islands from 15 March until around 20 May each year to harvest late-stage chicks which are then either sold, bartered or used for home consumption or important communal events like weddings, funerals or cultural commemorations and *hui* (gatherings) at *marae* (traditional meeting places). The tītī harvest features strongly in *karakia* (prayers), *whaikorero* (oratory), *waiata* (song), *whakairo* (carving), *taha toi* (art) and story-telling (Kitson & Moller 2008, Moller et al. in press a). The tītī harvest is therefore a fundamentally important, culturally defining part of being Rakiura Māori and the tītī are a sought after traditional food of Māori throughout Aotearoa. The annual trip to the Tītī Islands by extended family members is the main way that many Kāi Tahu, Kāti Mamoe and Waitaha people express their identity, walk their ancestral lands, rejoin nature, and practise their knowledge and tikanga concerning mahinga kai management.

The muttonbirding season

During the *nanao* period of the annual harvest, which occurs from 1 April until mid-to-late April, the chicks are extracted from the burrows during daylight. During the *rama* period, from late April until mid-May, the chicks are captured at night once a sufficient number have emerged from their burrows (Lyver 2002, Stevens 2006). A survey by the University of Otago research team estimated that 322 individuals visited the islands in the 2006 season (H. Moller & others, unpubl. data). Birders are prevented from landing on the islands before

15 March in each season. Around 27% arrive about 15-18 March. A third stay for the entire nanao part of the season. There is then a rapid rise in people present on the manu from around 12-18 April as people arrive to set up their whare, workhouse and manu for the rama. By 22 April all of the birders are present. Birds fledge from some manu earlier than others (depending on undergrowth, size of island, aspect and weather in a given season, so some whānau depart again by 10 May while others remain until 20 May. Very approximately then, around 13,200 'person-days' were spent by the birders down on the islands in 2006. In past years stays on the island were much more prolonged and the whānau travelled to and from the islands together.

Harvests of kaimoana gathered while on the islands was and remains an important part of the diet of the birders throughout the season. Several of the interviewees that have guided the *Kia Mau Te Tītī Mo Ake Tōnu Atu* ("Keep the Tītī Forever") project have referred to the importance of the complete experience of gathering kai while on the islands (not just gathering the tītī) and how depletion of fish and shellfish (blackfoot pāua, *Haliotis iris*) stocks is making it increasingly difficult to "get a feed" (Kitson & Moller 2008, Moller et al. in press a and unpubl. data). Many of the islands have steep cliffs and there are few landing spots or safe fishing spots for birders to use while on the island. Restoration in these few sites would greatly increase the accessibility of the kai for the birders.

Currently around 15,800 Māori have rights to harvest tītī. Best estimates suggest that this will double by the year 2050 (Newman et al. 2008, Fletcher et al. in press) and most current birders are actively teaching their children and grandchildren to maintain their tradition (Moller et al. in press a). Most report their determination to continue to go to the islands even if recent declines in tītī abundance continue and further erode economic returns from the harvest (Newman et al. 2008a). We can expect ongoing increases in the number of people-days spent on the islands and correspondingly increased demand for kaimoana gathered there by the birders' whānui.

Kaitiakitanga in action

Management of birding is also an important example of environmental stewardship, which Māori term *kaitiakitanga*, because the tītī harvest represents the last of a formerly widespread customary use of native birds that remains almost entirely within the control of Māori (Moller et al. 2000, Kitson & Moller 2008). Rakiura Māori initiated the *Kia Mau Te Tītī Mo Ake Tōnu Atu* research project in 1994. It had an overall goal to “ensure that the birds remain plentiful for Rakiura Māori mokopuna [grandchildren]”. This has led to eradication of rats from four large Tītī Islands (Coote & Blackwell 2006) and current attempts to eradicate introduced weka. Rats formerly infested 48% of the Sooty Shearwater’s New Zealand breeding ground, but following co-management of rat eradication by the birders and DoC, now remain on 17% of the ground (Moller et al. 2003). Computer modelling has emphasised that the main step remaining to improve prospects of tītī harvests being sustainable is to eradicate the remaining weka populations (Harper 2006, Dillingham et al. 2007) and for around a quarter of the whānau to reduce their harvest pressure to more sustainable levels (Kitson & Moller 2008, Newman et al. 2008, Fletcher et al. in press). Throughout the *Kia Mau Te Tītī Mo Ake Tōnu Atu* project, the community has emphasised the holistic nature of their management ie. that their responsibility and concern is for whole ‘ecosystem management’ of the islands and surrounding coasts, just as much as for the birds themselves. The current application for fisheries closures for the shores of the Tītī Islands is a practical expression of this more holistic and integrated approach to conservation that is advanced by *kaitiakitanga* and Te Ao Māori (Roberts et al. 1996).

References

- Coote, R., & Blackwell, G. (2006) Rats removed! *Tītī Times*, 18, 2-3.
- Dillingham, P., McKechnie, S., Harper, G., Fletcher, D., & Moller, H. (2007). A model-based assessment of the impact of predator control on populations of Tītī (Sooty Shearwaters; *Puffinus griseus*). Report prepared for Ka Mate Ngā Kiore (Kill the Rats) Incorporated Society. *University of Otago Wildlife Management Report, No. 206*. Dunedin, New Zealand: University of Otago, Department of Zoology.
- Fletcher D.; Clucas R.; Moller H.; Newman J.; Bragg, C.; McKechnie, S.; Scott, D.; Lyver, P.O'B.; Downs, T. (In press) Will the tītī remain plentiful enough for the mokopuna? A sustainability assessment of the Rakiura Māori tītī harvests. Proceedings of Ngā Kete a Rēhua, Christchurch, 4th & 5th September 2008.
- Harper, G. A. (2006) Weka (*Gallirallus australis*) depredation of sooty shearwater/tītī (*Puffinus griseus*) chicks. *Notornis*, 53, 318-320.
- Kitson, J. K., & Moller, H. (2008). Looking after your ground: Resource management practice by Rakiura Māori tītī harvesters. *Papers and Proceedings of the Royal Society of Tasmania*, 142, 161-176.
- Lyver, P. O'B. (2002a). The use of Traditional Environmental Knowledge by Rakiura Māori to guide Sooty Shearwater harvests. *Wildlife Society Bulletin* 30: 29-40.
- Lyver, P.O'B., Newman, J., & Rakiura Tītī Islands Administering Body (RTIAB). (2007). Tītī – muttonbirding', Te Ara - the Encyclopedia of New Zealand, updated 21-Sep-2007. <http://www.TeAra.govt.nz/EarthSeaAndSky/HarvestingTheSea/TītīMuttonbirding/en>
- Moller, H.; Horsley, P.; Lyver, P. O'B.; Taiepa, T.; Davis, J.; Bragg, M. (2000) Co-management by Māori and Pākehā for improved conservation in the 21st century. Pp

- 156 – 167. In Perkins, H. & Memon, A. (eds.) *Environmental Planning and Management in New Zealand*. Dunmore Press, Palmerston North.
- Moller, H., Kitson, J. C., & Downs, T. (In press a). Knowing by doing: learning for sustainable muttonbird harvesting. *New Zealand Journal of Zoology*.
- Moller, H., Nevins, H. M., & Adams, J. (2003) The Rakiura Tītī Restoration Project: Mitigation of the Command oil spill injury by eradication of rats from Sooty Shearwater breeding colonies in New Zealand. Unpublished Report for Rakiura Tītī Islands Administering Body, January 2003. 78 pp.
- Moller, H., Newman, J., Lyver, P.O'B., & Rakiura Tītī Islands Administering Body (RTIAB). (in press b). Fourteen years on: Lessons for community-led science partnerships from the Kia Mau te Tītī Mo Ake Tōnu Atu project. Proceedings of Ngā Kete a Rēhua, Christchurch, 4th & 5th September 2008.
- Newman, J., Clucas, R., Moller, H., Fletcher, D., Bragg, C., McKechnie, S., & Scott, D. (2008). Sustainability of Tītī harvesting by Rakiura Māori: a synthesis report. *University of Otago Wildlife Management Report No. 210*. Dunedin, New Zealand: University of Otago, Department of Zoology.
- Newman, J., Moller, H., & Clucas, R. (2008) Crowding on the manu: Will there be enough space for the mokopuna? *Tītī Times*, 20, 4-5.
- Roberts, M., Norman, W., Minhinnick, N., Wihongi, D. & Kirkwood, C. (1996). Kaitiakitanga: Māori perspectives on conservation. *Pacific Conservation Biology* 2(1): 7 - 20.
- Stevens, M. J. (2006). Kāi Tahu me te hopu tītī ki Rakiura: An exception to the 'colonial rule'? *Journal of Pacific History*, 41(3), 273-291.
- Waitangi Tribunal 1991: *Ngāi Tahu Report*. Brooker and Friend, Wellington, New Zealand.