

Bat Surveying in Taranaki 2018-19 Report



Native Birds Taranaki

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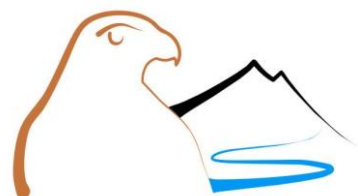
Dave Bell

Cover picture by Dave Bell: Office Blackboard, Bushlands Campground, Tangarakau, Taranaki. 15 February 2019.

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1. Introduction

New Zealand bats use a form of sonar known as echolocation to navigate, orientate and forage. The frequency of bat echolocation calls is generally much higher than humans can hear (ultrasonic). Bat detectors can be used to listen to these calls, and are useful tools to unobtrusively survey, monitor and identify bat species (Sedgeley, 2008).

Following acquisition of Automatic Bat Monitors (ABM's) in 2012, a project surveying for these rare and endangered species has been undertaken in Taranaki and this report details the activities and results for the seventh (2018-19) season.

Bats are New Zealand's only endemic terrestrial mammal but are under significant threat from not only introduced predators but also by competition from numerous introduced species for food.

2. New Zealand Bats

Three bat species, all of which are endemic, are known from New Zealand, the lesser short-tailed bat (*Mystacina tuberculata*), greater short-tailed bat (*M. robusta*) and long-tailed bat (*Chalinolobus tuberculatus*) (O'Donnell et al. 2013). Greater short-tailed bats are very likely now extinct.

The long-tailed bat has been recorded widely throughout the North Island, whilst the 'Central' lesser short-tailed bat is present in forests of the central North Island and has been recorded from northern Taranaki (O'Donnell et al. 2010).

Under the New Zealand Threat Classification System, the long-tailed bat (LTB) is currently classed as Threatened – Nationally Critical whilst the 'Central' lesser short-tailed bat (STB) is regarded as At Risk – Declining (O'Donnell et al. 2018).

3. Surveying during Previous Seasons

Surveying for bats in Taranaki commenced in the 2012-13 summer season, by concentrating in the Waitaanga area in northern Taranaki. Results (Bell, 2013) indicated both STB and LTB were still present at sites for where surveying and a population study was undertaken in 1998/99.

The 2013-14 season concentrated in ascertaining the presence of bats in Northern and North-eastern locations in Taranaki. But the opportunity was also taken, to return to Waitaanga and to Mt Damper to again monitor the continual presence of both LTB and STB. Results (Bell, 2014) were very pleasing and in keeping with those obtained during the 2012-13 season.

Surveying for the 2014-15 season was focused in Egmont National Park to determine if bats were present. Both LTB and suspected STB passes were recorded from within the National Park and results (Bell, 2015) confirm the existence of Long-tailed bats but the presence of Short-tailed bats must remain unconfirmed.

During the 2015-16 season surveying for bats was again mainly undertaken in northern Taranaki but two surveys inland from Hawera and Waverley were also successfully completed with pleasing results (Bell, 2016).

The 2016-17 season provided some outstanding results from both Waitaanga North and Waitaanga South Roads at Waitaanga and from Moeawatea in South Taranaki but disappointing results from Rotokare Scenic Reserve and a total nil result for bat passes for a survey in Egmont NP (Bell, 2017).

Only six surveys were undertaken during the 2017-18 season that concentrated mainly in Eastern Taranaki at Pohokura and Puniwhakau, with two surveys along roads at Waitaanga. Pleasing results were achieved with good numbers of long-tailed bat passes recorded together with lesser short-tailed bat passes recorded at Waitaanga.

4. Surveying for 2018-19 Season

Ten surveys were completed during the 2018-19 season, that involved both private land, one of which was out of Taranaki and a number of re-surveys for locations previously surveyed, including on Public Conservation Land.

Re-surveying of previous locations is being undertaken as for the first three seasons' the bat detectors operated (TrakaBatII[®]) had automated software to analysis the data. There is now considerable doubt and lack of confidence with these results. Thence the decision to re-survey as required.

5. Results of Surveying for 2018-19 Season

During the 880 nights of surveying, a total of 19,972 bat passes were recorded, 19,715 for long-tailed bats and 257 for short-tailed bats. A detailed summary of these results is shown at Annex A, a copy of all this data has been forwarded for inclusion in the DOC National Bat Database.

A map illustrating the results for 2018-2019 is at Annex B, whilst an additional map displaying the results for all seven seasons is at Annex C.

6. Discussion

During the ten surveys completed during the 2018-19 season there were some highlights and valuable results obtained, these are now briefly discussed as follows:

6.1 Surveys 54 and 60 – Kawaiti Road Hurleyville & Mangaone Road Feilding

Seven detectors were set up on Alan Rogers property at Kawaiti Road, Hurleyville for ten nights surveying. Bordering Tarere Forest and close to the Meremere Track from where long-

tailed bats had been previously detected in February 2016, it was a little disappointing to only record 34 passes. But long-tailed bats were detected, and passes were recorded on each of the seven detectors.

All ten detectors were installed on Mark Carter's property on Mangaone Road, Fielding again for ten nights surveying. There were a number of small exotic pine plantations in which (over ATV track), between or on the side of, most of the detectors were set up but two were also overlooking two small farm ponds with still water. Only eight long-tailed bat passes were recorded but interesting and valuable to know long-tailed bats are there.

6.2 Survey 56 – Moki and Kiwi Roads Uruti

Nine detectors were set up along Moki and Kiwi Roads, Uruti that included one each at the entrances to both tunnels on each of the roads. The detectors were in place for ten nights surveying and a total of 1,607 passes were recorded, including 423 from the detector at the northern entrance to the Kiwi Road tunnel. This was a re-survey of locations previously surveyed.

6.3 Surveys 57 and 63 – Carrington Road Pukeiti & Manaia Road Egmont NP

Re-surveying on the boundary and in Egmont National Park was undertaken, involving nine detectors along Carrington Road at Pukeiti and ten on Manaia Road. There were no bat passes recorded at either location after ten nights of surveying. This could possibly indicate the likely absence of bats in Egmont NP.

6.4 Surveys 59 and 62 – Dexter's Track and NG Tucker SR Waitaanga

Both long-tailed and short-tailed bat passes were recorded on detectors along Dexter's Track and on all ten detectors during a re-survey in NG Tuckers Scenic Reserve, at Waitaanga. Particularly pleasing were the number of long-tailed bat passes picked up at both locations. A total of 5,317 for Dexter's Track, with Site 2 accounting for 1,684 of these passes whilst at NG Tucker SR, Site 3 recorded 1,904 of the total of 7,017 passes.

6.5 Survey 61 – Tangarakau Gorge & Bushlands Campground Tangarakau

During a visit to the Bushlands Campground at Tangarakau, it was spotted that the campground was promoting the presence of bats for viewing on the river (see report cover). Permission was sought and kindly given to survey at the campground land and coupled with re-surveying at the Tangarakau Gorge close by, the ten detectors (five at each location) picked up both long-tailed and short-tailed bats. Somewhat surprisingly short-tailed bats were picked up in the campground itself.

7. Conclusion

Though it was disappointing not to achieve any positive results from both surveys in and bordering Egmont NP, it was pleasing to obtain records for a number of new areas together with being able to confirm the continuing presence of both LTB and STB during re-surveys from previous seasons.

8. Acknowledgments

A project like this could not be undertaken nor successfully completed without the assistance from a number of people and acknowledgement is given to the following with much appreciation;

Alan Rogers and Mark Carter for permission to survey on their land and to Jo for OK to survey at Bushlands Campground at Tangarakau.

Jane Hart for editorial assistance.

9. References

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Annex A to
Bat Surveying in Taranaki
2018-19 Report

Results from Bat Surveying in Taranaki 2018-2019

Note: that all these results have been forwarded to the Department of Conservation for inclusion in the National Bat Database.

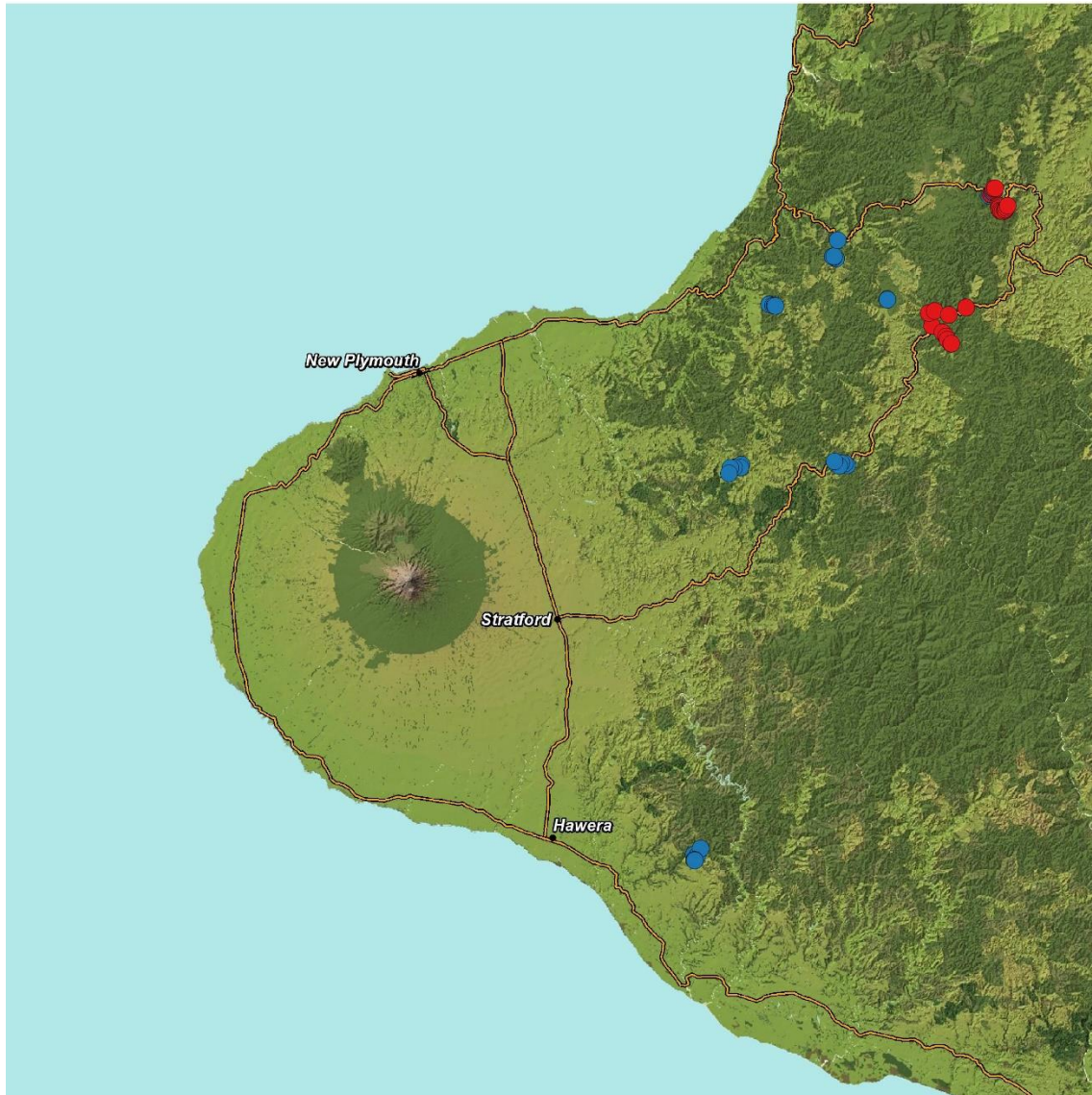
Survey No	Det No	Location				Total No Nights	Bat Passes		
		Eastings	Northings	Description	Site		STB	LTB	Total
54	4	1728070	5614686	Kawaiti Road Hurleyville	Clearing	10		1	1
	5	1728060	5614695	Kawaiti Road Hurleyville	Clearing	10		1	1
	6	1728509	5614596	Kawaiti Road Hurleyville	ATV	10		1	1
	7	1728109	5614031	Kawaiti Road Hurleyville	Clearing	10		5	5
	8	1728931	5615488	Kawaiti Road Hurleyville	Farmland	10		8	8
	9	1728157	5614056	Kawaiti Road Hurleyville	Clearing	10		8	8
	10	1728187	5613970	Kawaiti Road Hurleyville	Clearing	10		10	10
55	1	1752713	5685531	Mangapapa Road Moki Forest	Clearing	10		7	7
	2	1752715	5685525	Mangapapa Road Moki Forest	Clearing	10		7	7
	3	1752737	5685483	Mangapapa Road Moki Forest	Clearing	10		2	2
56	1	1737686	5684866	Moki Road Uruti	Road	10		128	128
	2	1738171	5684727	Moki Road Uruti	Road	10		320	320
	3	1738358	5684730	Moki Road Uruti	Road	10		79	79
	4	1738462	5684672	Moki Road Tunnel Uruti	Road	10		26	26

	5	1746182	5690708	Kiwi Road Tunnel Okau	Road	10		423	423
	6	1745892	5690875	Kiwi Road Okau	Road	10		94	94
	7	1745754	5690970	Kiwi Road Okau	Road	10		270	270
	8	1745940	5691001	Kiwi Road Okau	Road	10		128	128
	9	1746395	5693058	Kiwi Road Okau	Road	10		139	139
57	1	1683961	5658378	Carrington Road Pukeiti	Road	10			0
	2	1684159	5658805	Carrington Road Pukeiti	Road	10			0
	3	1684253	5659607	Carrington Road Pukeiti	Road	10			0
	4	1684379	5659984	Carrington Road Pukeiti	Road	10			0
	5	1684874	5660448	Carrington Road Pukeiti	Road	10			0
	6	1685165	5660610	Carrington Road Pukeiti	Road	10			0
	7	1685600	5660724	Carrington Road Pukeiti	Road	10			0
	8	1686261	5660765	Carrington Road Pukeiti	Road	10			0
	9	1686413	5660787	Carrington Road Pukeiti	Road	10			0
58	1	1747617	5664360	Ohura Road Whangamomona Saddle	Road	10		336	336
	2	1747307	5664590	Ohura Road Whangamomona Saddle	Road	10		223	223
	3	1746860	5664648	Awahou SR Whangamomona Saddle	Bush	10		335	335
	4	1746579	5664285	Ohura Road Whangamomona Saddle	Road	10		188	188
	5	1745989	5664852	Ohura Road Whangamomona Saddle	Road	10		217	217
	6	1734124	5664435	Junction Road Purangi	Road	10		133	133
	7	1733990	5664065	Junction Road Purangi	Road	10		166	166
	8	1733175	5664075	Junction Road Purangi	Road	10		1207	1207
	9	1732725	5664038	Mangaoapa Road Purangi	Road	10		55	55
	10	1732540	5663324	Mangaoapa Road Purangi	Road	10		179	179
59	1	1765693	5698762	Dexter's Track Waitaanga	ATV	10		254	254
	2	1765882	5698879	Dexter's Track Waitaanga	ATV	10	13	1684	1697
	3	1766031	5698913	Dexter's Track Waitaanga	ATV	10	1	310	311
	4	1766183	5699144	Dexter's Track Waitaanga	ATV	10		763	763

	5	1766204	5699238	Dexter's Track Waitaanga	ATV	10		642	642
	6	1766337	5699306	Dexter's Track Waitaanga	ATV	10	3	866	869
	7	1766402	5699461	Dexter's Track Waitaanga	ATV	10	7	450	457
	8	1766393	5699613	Dexter's Track Waitaanga	ATV	10	17	125	142
	9	1766300	5699667	Dexter's Track Waitaanga	ATV	10	5	175	180
	10	1766478	5699683	Dexter's Track Waitaanga	ATV	10	10	48	58
60	1	1819262	5551733	Mangaone Road Feilding	ATV	10		0	0
	2	1819262	5552159	Mangaone Road Feilding	Water	10		3	3
	3	1819097	5551875	Mangaone Road Feilding	Farmland	10		0	0
	4	1818441	5552203	Mangaone Road Feilding	Farmland	10		1	1
	5	1818204	5552134	Mangaone Road Feilding	Farmland	10		0	0
	6	1818090	5552338	Mangaone Road Feilding	Farmland	10		2	2
	7	1818034	5552552	Mangaone Road Feilding	Farmland	10		0	0
	8	1817695	5552470	Mangaone Road Feilding	ATV	10		2	2
	9	1817659	5552000	Mangaone Road Feilding	Farmland	10		0	0
	10	1818193	5551461	Mangaone Road Feilding	Water	10		0	0
61	1	1758420	5682152	Ohura Road Tangarakau Gorge	Road	10	2	135	137
	2	1758004	5683775	Ohura Road Tangarakau Gorge	Road	10	3	25	28
	3	1758767	5684030	Ohura Road Tangarakau Gorge	Road	10	8	33	41
	4	1760577	5683545	Ohura Road Tangarakau Gorge	Road	10	2	527	529
	5	1762769	5684469	Ohura Road Tangarakau Gorge	Road	10	7	59	66
	6	1759762	5681317	Tangarakau River Tangarakau	ATV	10	1	178	179
	7	1760224	5680779	Tangarakau River Tangarakau	ATV	10	16	295	311
	8	1760382	5680380	Tangarakau River Tangarakau	Water	10	32	707	739
	9	1760870	5679834	Bushlands Campground Tangarakau	Clearing	10	3	247	250
	10	1760898	5679872	Bushlands Campground Tangarakau	Water	10	34	471	505
62	1	1766958	5697430	NG Tucker Scenic Reserve Waitaanga	4x4	10	10	203	213
	2	1767026	5697276	NG Tucker Scenic Reserve Waitaanga	4x4	10	9	727	736

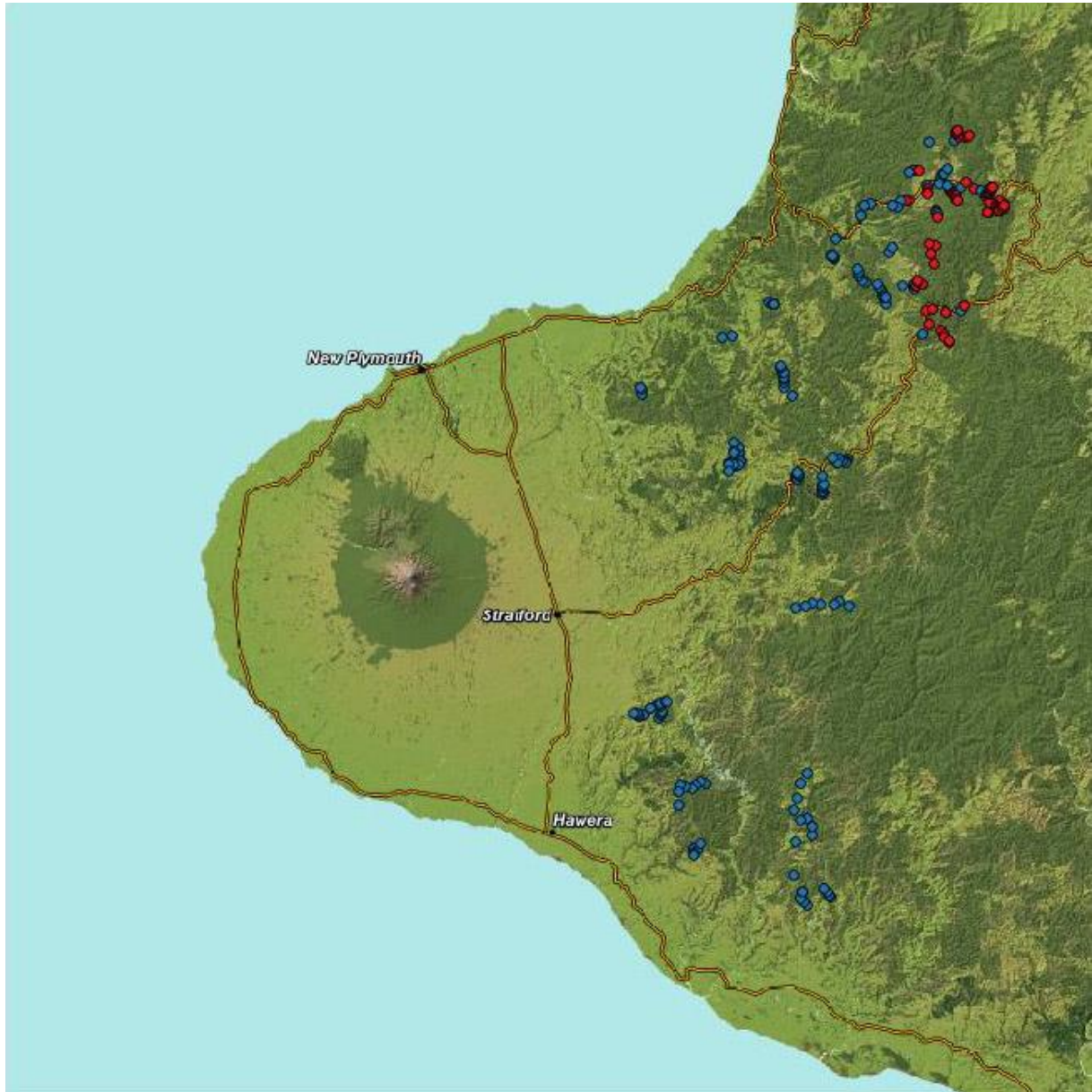
	3	1766956	5697077	NG Tucker Scenic Reserve Waitaanga	4x4	10	7	1904	1911
	4	1767101	5696853	NG Tucker Scenic Reserve Waitaanga	4x4	10	9	538	547
	5	1767259	5696799	NG Tucker Scenic Reserve Waitaanga	4x4	10	5	416	421
	6	1767423	5696750	NG Tucker Scenic Reserve Waitaanga	4x4	10	7	422	429
	7	1767716	5696849	NG Tucker Scenic Reserve Waitaanga	4x4	10	15	812	827
	8	1767786	5696984	NG Tucker Scenic Reserve Waitaanga	4x4	10	29	764	793
	9	1767918	5697181	NG Tucker Scenic Reserve Waitaanga	4x4	10	1	396	397
	10	1768067	5697451	NG Tucker Scenic Reserve Waitaanga	4x4	10	1	835	836
63	1	1695230	5646777	Manaia Road Egmont NP	Road	10			0
	2	1695313	5646589	Manaia Road Egmont NP	Road	10			0
	3	1695471	5646181	Manaia Road Egmont NP	Road	10			0
	4	1695825	5645860	Manaia Road Egmont NP	Road	10			0
	5	1696426	5645167	Manaia Road Egmont NP	Road	10			0
	6	1696894	5644828	Manaia Road Egmont NP	Road	10			0
	7	1697100	5644479	Manaia Road Egmont NP	Road	10			0
	8	1697475	5643917	Manaia Road Egmont NP	Road	10			0
	9	1697927	5643285	Manaia Road Egmont NP	Road	10			0
	10	1698182	5642719	Manaia Road Egmont NP	Road	10			0
Totals =						880	257	19715	19972

Taranaki Bat Survey Results 2018-2019



- Key to Symbols:**
- - Long-tailed bat
 - - Both Long-tailed and Short-tailed bats

Taranaki Bat Survey Results – All Seasons



- Key to Symbols:**
- - Long-tailed bat
 - - Both Long-tailed and Short-tailed bats