

Ferret trapping for Tb vector control in south Waikato

A pilot study

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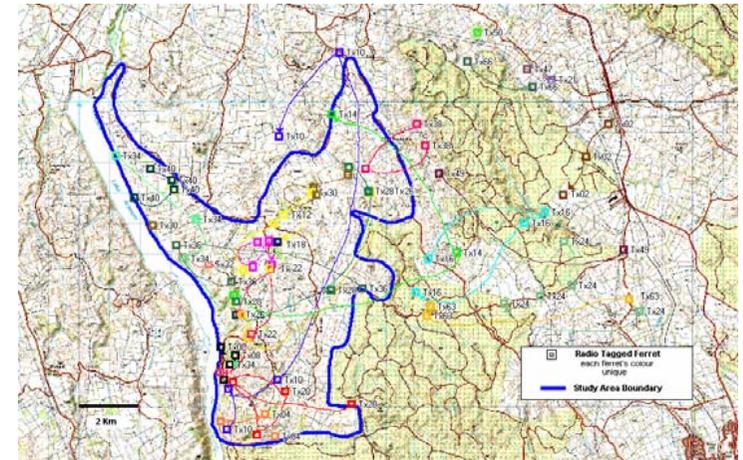
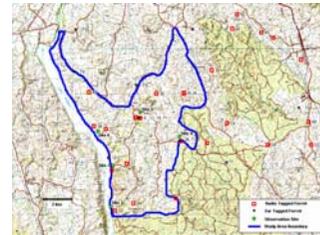
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Study area:
60 km² Waikato farmland near L. Arapuni, Feb-May 2004



1. Ferrets were live-trapped by standard methods at 10 sites averaging 2 km apart,

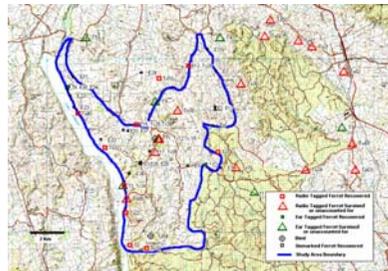
2. anaesthetised and given radio-collars and/or ear-tags,

3. and released (16 with collars and 6 with tags only) late February/early March (1 collared ferret died by 13 March).

Conclusions

1. Ferrets are cautious, intelligent, mobile and neophobic;
2. Short-term trapping at any one site may miss some residents;
3. Trap sites 2 km apart are not independent;
4. Some trap sites are visited by ferrets much more often than others.

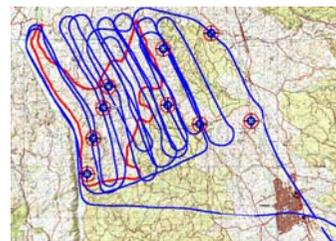
Thanks to local farmers, FRST, AHB, EW, EPRO, and Alpha Scientific.



Inside study area:

Of 22 collared + tagged ferrets, 12 (55%) were recovered; 3 (14%) survived; 2 (9%) died; at most 5 (23%, 4 tagged only) were unaccounted for. **In adjacent area:** Of 13 collared + tagged ferrets, 0 recovered; at least 5 (38%) survived; 8 (62%) unaccounted for.

8. Fates of all marked ferrets at the end of the study.



7. Final aerial search found 3 collared survivors still living in the study area, plus 1 that had died since 31 March, and 1 missing. In adjacent area, 5 marked ferrets still alive (1 moved into trapout area and out again in time) + 5 unaccounted for.

Protocol for annual vector control:
97 staff-days;
About 6000 trapnights in total, mostly leg-hold traps, set for both possums and ferrets.
Caught 37 ferrets (10 collared, 2 tagged, 25 unmarked);
1 kill per 242 ha (60km² core area plus boundary strip, total about 90 km²).

6. Vector control area trapped-out by standard methods 29 March-29 April (not adjacent area).

4. Movements of 22 marked ferrets in study area (plus 10 collared and 3 tagged in adjacent farmland). Their positions were plotted by aerial searches for signals from the mortality-sensing collars on 13 and 31 March and 18 May.

5. At 5 sites, intensive observation with automatic radio-proximity loggers and video cameras monitored visits by 6 collared ferrets over 8 days. They visited only 2 of the 5 sites, and ignored the other 3. Only those 2 sites were also visited by rats. No ferrets entered a trap without visiting the site several times over previous 2-3 days; 2 never did.

