



CONSERVATION
TE PAPA ATAWHAI

CONSERVATION ADVISORY SCIENCE NOTES

No. 30

TESTING WHETHER WILD SHORT-TAILED BATS WILL CONSUME
NON-TOXIC CARROT BAIT

(Short Answers in Conservation Science)

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Commissioned by: Waikato Conservancy.

Location: NZMS

REPORT ON UNPROGRAMMED SCIENCE ADVICE/SERVICE
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Title: Testing whether wild short-tailed bats will consume non-toxic carrot bait.

Study Venue: Pureora Forest, Waikato Conservancy.

Investigation Leader: C. Ecroyd, Biotechnology Division, NZ Forest Research Institute, Rotorua.

Associated Researcher: B.N. Spring-Rice.

Objective

To test whether wild short-tailed bats will consume non-toxic carrot bait.

Method

A site at Pureora was chosen because bats were filmed visiting *Dactylanthus* flowers there on 30 March 1993. At this site carrot bait dyed green and lured with cinnamon was placed on a 'bird table' out of reach of possums and rats. Synthetic *Dactylanthus* nectar covered with gauze was also placed on the table. The location was monitored with a time-lapse video system for three consecutive nights from 13 April to 16 April 1993.

Results

The carrot bait was closely inspected and there was no evidence that any had been eaten.

Video tape of the first evening records only from about 3.40 a.m. to 6.40 a.m. due to an error in setting the recorder. On this tape at 03:59:35 a.m. and 04:11:03 a.m. a dark, fast-flying, blurred object can be seen which is likely to be a short-tailed bat, judging from its colour, size and speed. There is no evidence of a bat landing near the carrot bait for the three nights of monitoring.

Conclusions

Short-tailed bats were previously lured to the site by the presence of *Dactylanthus* nectar, hence given an attractive food, readily visited this site, but the carrot was untouched.

Although there was no evidence from the monitoring that short-tailed bats will eat carrot dyed green and heavily lured with cinnamon, this does not prove that they will never eat carrot bait. There are numerous factors which could have deterred the bats during the three nights of monitoring, for example the cinnamon lure could have been too strong or other food sources currently more attractive. This monitoring does however add weight to other tests recently conducted with captive bats at Wellington Zoo.

Recommendations

Further research is necessary to test whether short-tailed bats are being affected by 1080 poison operations and other possum control methods. Undyed carrot, carrot without cinnamon lure and pollard baits should be tested on wild short-tailed bats.

C.E. Ecroyd
30 April 1993