The lesser short-tailed bat spends more time on the ground than any other bat in the world. Its strong hind legs have adapted it for hunting on the ground as well as on the wing, while the stout, heavy feet and spurs (unique in the bat world) on the claws of the toes and thumbs probably also assist with burrowing and climbing.

Despite the regular appearance of Australian birds, butterflies and moths only one vagrant bat has been reported in New Zealand in European times: a little red flying fox, found electrocuted under powerlines after a storm in Hamilton about 1928.

Daniel believes his studies of skeletal and subfossil remains from around the country show there have been only four bat species in New Zealand since the last Ice Age, about 15,000 years ago.

Surprisingly, despite being the more common of the two extant species, there have been no long-term studies carried out on long-tailed bats. Even the location and scientific study of a nursery roost would be a first.

In Fiordland's Eglinton Valley, where bats are relatively abundant, Department of Conservation scientist Colin O'Donnell aims to rectify this situation. He plans to sample different habitat types through the year to establish their seasonal use and importance. By measuring temperature, wind strength, cloud cover and moonlight each night he hopes to build up a picture of factors effecting activity.

O'Donnell is also trying out a bat detector. He hopes to be able to correlate the ultrasonic clicks of the bats with population density.





Long-tailed bats have been reported in native forest from sea level to the bushline, usually near the bush edge. Occasionally they are seen in exotic pine forest, shelter belts and buildings. They feed along forest margins and over farmland, streams and lakes, solely on small aerial insects.

They are the bat species most likely to be seen by the public and can be confused with large puriri moths, welcome swallows or fantails because of their rapid, darting flight.

oC is now starting to move on the problems of bat conservation. The department has recently contracted Daniel to produce a draft recovery plan.

A lesser short-tailed bat eating a weta inside a petrel burrow on Codfish Island.