

#### 4.4 MONITORING THE EFFECTS OF 1080 ON OTHER NON-TARGET SPECIES

Subjective observations or impressions of the abundance of other non-target species inhabiting the Waihaha Ecological Area before and after poisoning operations were also made. Particular attention was paid to those species considered to be at higher potential risk from 1080 or for which the level of risk is unknown.

##### 4.4.1 New Zealand bats

Between December 1993 and August 1994 attempts were made to determine whether long-tailed bats and/or short-tailed bats were present within the study area. No evidence for the presence of short-tailed bats was recorded. Long-tailed bats were recorded but overall numbers appear to be low; usually only one pass/hour recorded at dawn and dusk. As long-tailed bats are aerial insectivores and short-tailed bats do not appear to be present it is unlikely that 1080 operations in the area would have affected bat populations.

##### 4.4.2 New Zealand falcon

These birds were occasionally seen and/or heard flying over our campsites and mistnet sites. Observations of these birds have been plotted on Figure 8. Assuming territory size and shape are equal, approximate boundaries can be represented by 5 km radius circles (78.5 km<sup>2</sup>) (Calder and Deuss 1985). This compares well to an average territory size of 79 km<sup>2</sup> recorded by Fox (1978) for comparable forest habitat at Fox Glacier. It therefore seems likely that at least 3-4 pairs of falcon are present within the study area. Most falcon activity was recorded in the vicinity of Te Awaiti forks where up to three birds were seen at once over several weeks in April and May. One of these birds appeared to be a juvenile female and on one occasion an adult bird was seen passing food to this juvenile while both were airborne. Observations of falcon in those areas where they were seen prior to poison operations suggest that all birds survived.

##### 4.4.3 Kakariki (yellow-crowned parakeet)

Despite dramatic seasonal fluctuations in conspicuousness, kakariki remained common within the study area. The poisoning operation appeared to have had little effect on overall numbers. Flocks of 8-10 birds (similar in size to those seen earlier in the year) were commonly observed in the vicinity of the Waihaha Hut several weeks after the application of toxic baits.

#### 4.5 NON-TARGET SPECIES DEATHS

Although formalised searches for dead birds other than kaka and blue duck were not undertaken during this study, any corpses found following poisoning operations within the study area were noted. Dead birds included one grey warbler (*Gerygone igata*), two blackbirds (*Turdus merula*), four rifleman (*Acanthisitta chloris*), four pigeons (*Hemiphaga novaeseelandiae*) and seven tomtits (*Petroica macrocephala*). Although some of these deaths may have

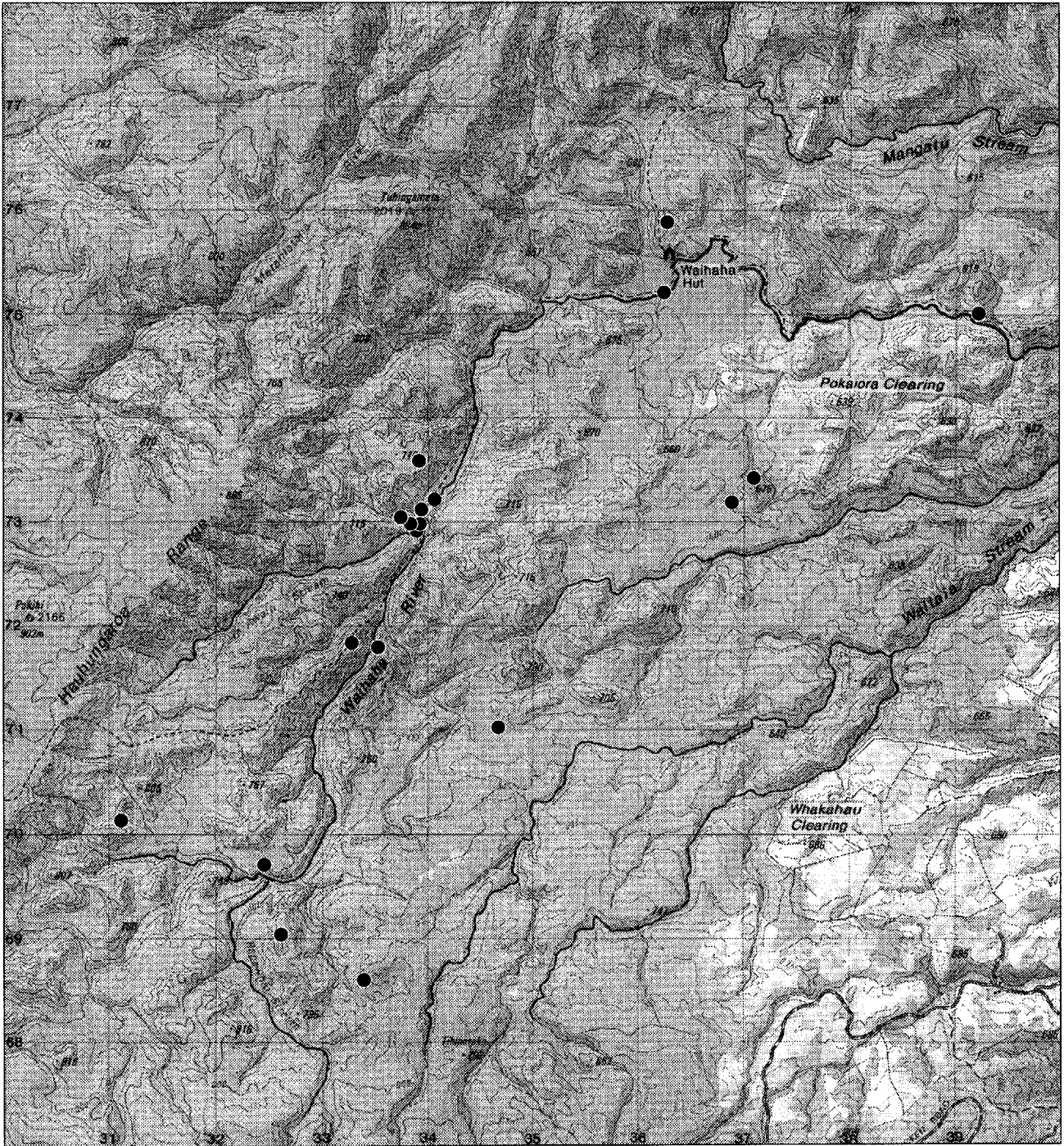


FIGURE 8. NEW ZEALAND FALCON SIGHTINGS.

been caused by 1080, without the benefit of chemical assays to determine the presence of 1080 it would be unwise to assume that all deaths were the direct result of poisoning operations. At least three of the pigeon corpses consisted primarily of piles of feathers with evidence for scavenging having occurred. The weather was also particularly cold throughout the study area (e.g., snow) following the completion of the poison drop and may have contributed to the deaths of the smaller birds such as rifleman and tomtit.