In 1979 the U. S. Fish and Wildlife Service's Hawaii Forest Bird Survey moved to the islands of Lāna'i and Moloka'i. On Lāna'i, we placed 77 sampling stations at 750 foot intervals along 11 miles of transects, and sampled each station twice. We located only 50 'Apapane during 154 eight-minute count periods. No other native forest birds were found.

We placed and sampled 469 stations along 40 transect miles on Moloka'i. The only common native forest bird is the 'Apapane. 'Amakihi and 'I'īwi are very rare. We located only two Moloka'i Thrush, both during incidental observations, not during the station counts. The rare species, and greatest concentrations of native forest birds, are above 3500 feet elevation in closed-canopy 'ōhi'a forest, principally on the leeward side of the Pāpa'alā Pali between 'Ohi'alele and Paku'i. Very little habitat remains on the plateau east of Wailau Valley. The northern valleys and Oloku'i were not sampled in 1979.

Lāna'i and Moloka'i have suffered a greater reduction in species diversity, and a corresponding reduction in population density of extant species, than the Big Island. Among a host of responsible factors are the lower elevations and much smaller areas of native forest remaining relative to Hawai'i.

An assessment of the probable survival of species not detected during the survey will be presented, based on the probability of overlooking rare species with certain hypothetical populations, given the coverage achieved in 1979.

* Abstract