

INTRODUCTION

This study was conducted as part of the NPS Inventory and Monitoring program's effort to document vertebrate and vascular plant organisms in national park system units. Results for herpetofauna surveys in Kalaupapa (Molokai), Haleakalā (Maui), and Hawai'i Volcanoes (Hawai'i Island) national parks were reported by Kraus (2005). This report presents results for the three national park system units on the west side of Hawai'i Island.

The nativity of terrestrial Hawaiian herpetofauna is notable in that every species has been introduced by humans, whether intentionally or otherwise (McKeown 1996). Many species have established successful populations throughout the Hawaiian archipelago, and amphibians and reptiles are now frequently encountered in a wide range of habitats. However, very little is known about the distribution of these species and thus their potential impact upon native Hawaiian ecosystems.

The primary goal of this inventory was to document 90% or greater of the species of amphibians and reptiles within park boundaries. In addition, this project addressed species that pose a considerable risk to native Hawaiian species or ecosystems, referred to in this report as "aliens of concern." For the purpose of this project, E.W. Campbell¹ has identified three species that have been introduced to Hawai'i that fit the above criteria defining an alien of concern: coqui frog (*Eleutherodactylus coqui*), Jackson's chameleon (*Chamaeleo jacksonii xantholophus*), and brown anole (*Anolis sagrei*). The second goal for this inventory was to determine if species of concern are present in the parks and if so, to investigate their distribution and abundance. Estimates of species distribution and abundance in the parks are crucial when making informed decision regarding the initiation of control mechanisms. These estimates additionally create a foundation of baseline data with which long-term monitoring programs might be developed.

This paper discusses which herpetofauna were encountered in the parks, their relative abundance, their association with particular vegetation types (if any), and potential herpetofauna-related threats towards the parks' native ecosystems.

¹ US Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Blvd, Honolulu, HI 96850