



Historical Perspectives

HISTORICAL PERSPECTIVES—INTRODUCTION

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The record of Hawai'i's avifauna is one of change; a change that is reflected in steadily diminishing numbers of species and abundance (Pratt 1994). Our historical perspectives provide insights into how many species there were and some documentation of their distribution, but only minor insights into their abundance, with size, shape, and bill forms allowing vague inferences concerning niches occupied and resources exploited. Nothing is known of clutch sizes, population characteristics, or ecological interactions of extinct species. For these reasons, more than 50% of Hawai'i's bird species will always be a ghost avifauna.

The history of ornithological exploration in Hawai'i is a legacy of missed opportunities, with the first extensive surveys of the avifauna coming 100 years after the discovery of the islands by Europeans in 1778 (Olson and James 1994a). Historically, recorded species are but a small fraction of what occurred in the islands prior to

European colonization. Some species were simply overlooked; the Po'ouli (*Melamprosops phaeosoma*) was not discovered until 1972 (Casey and Jacobi 1974). Olson and James (1991, James and Olson 1991) nearly doubled the known number of endemic species based on their descriptions of new species from fossil and subfossil remains. New discoveries of fossil species continue today.

In the first chapter of this volume, Curnutt and Pimm estimate that the Pacific avifauna was composed of nearly 1,500 species, of which approximately 240 survive. For example, they estimate that there were 12 species of rails endemic to the Hawaiian Islands, versus the 7 currently described (Olson and James 1991; Table 2). In the second chapter, Michael Moulton and his co-authors document the introduction of 140 species in 14 different orders and ask, "Why do some introduced species succeed and others fail?"