

**2006 Hawaii Conservation Conference**  
**Best Student Poster Award**  
**Abstract**

**Roland Frayne**

University of Hawai'i at Hilo; 808-968-6138; rfrayne@hawaii.edu

**Palila (*Loxioides bailleui*): A comparative ecological foraging efficiency study.** Palila (*Loxioides bailleui*) are the only extant seed-eating member of the Hawaiian honeycreepers on the main Hawaiian Islands, and feed on immature seeds of mamane (*Sophora chrysophylla*). The Palila is a critically endangered honeycreeper found in the subalpine woodlands of Mauna Kea. Palila occupy less than 5% of their former range, resulting in captive propagation and translocation efforts to increase population numbers to areas of historic range. I have documented captive-reared Palila practicing a technique (attacking) to acquire seed embryos that is rarely observed in wild birds, leading me to believe that this technique is less efficient than the wild 'ripping' technique. I hypothesize that there is a significant difference in processing time of mamane pod extraction between wild and captive birds, and that Palila that practice the ripping technique will be more efficient. These hypotheses are important and timely as results may increase survivability to captive-released individuals, making multi-agency conservation efforts a positive one. Preliminary results indicate significant statistical difference between wild and captive birds and foraging techniques they practice. Additionally, preliminary results indicate efficiency is greater in wild birds. However, released captive birds have the ability to learn the wild technique. Global efforts to save and restore endangered species to native ranges via translocation and reintroduction can be aided by understanding the critical life history traits of species. This is more important than ever since federal funding and support for the Endangered Species Act is lessening around the world.