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### **DIET OF RED-FOOTED BOOBIES PROVISIONING CHICKS ON O'AHU**

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We described the diet of Red-footed Boobies, (*Sula sula*), from 103 regurgitation samples collected opportunistically at Ulupau Crater, O'ahu, Hawai'i, over two years: 2014 (June 1-7) and 2015 (June 17-July 27). This same colony was studied by Ashmole and Ashmole in 1963, providing an interesting comparison 50 years later. We sorted a total of 987 prey items into 3 categories: fish, squid and other, including extremely digested tissue ("mush") and parasitic isopods. The average number of prey items per sample was 8.19 +/- 5.81 and 10.94 +/- 8.91 in 2014 and 2015, respectively. We first ranked the prey items on a categorical freshness scale: 1 (perfect condition), 2 (superficial digestion but good condition), and 3 (incomplete). Then, we took length and mass measurements for the complete prey items, which ranged widely in size, from 1 to 34 cm. Overall, the diet composition did not vary significantly between the two study years. Every sample (51 in 2014 and 52 in 2015) contained fish. Squid was present in 70.6% and 75.0% of the samples in 2014 and 2015, respectively. The Ashmoles collected 12 samples with 107 complete prey items and an average of 9 items per sample. Squid was present in 75.0% of the 1963 samples. Ommastrephid squid were 4 – 8 cm in mantle length and flying fish were 4 – 20 cm. Ongoing analysis identification of the fish and squid from the contemporary samples will inform the diet and foraging ecology of Red-footed Boobies during two years of contrasting oceanographic conditions.