

It is quite likely that such mutual behavioral patterns serve to facilitate the synchronization of the physiological sexual "rhythms" in birds and thus help to insure breeding success. In regard to this opinion, see Armstrong (Bird Display and Behavior, 1947:162).—WILLIAM C. DILGER, *Laboratory of Ornithology, Department of Conservation, Cornell University, Ithaca, New York, February 14, 1953.*

**The Incubation Period of the Hutton Vireo.**—Opportunity was afforded in March and April of 1953 to check closely on the incubation period of the Hutton Vireo (*Vireo huttoni*). Apparently nothing specific has been placed on record heretofore concerning the length of the period in this species. Van Fleet (Condor, 21, 1919:164) states that the eggs hatch "about two weeks after incubation is started." Incubation in the Bell Vireo has been precisely determined as 14 days (Nice, Condor, 31, 1929:13; Pitelka and Koestner, Wilson Bull., 54, 1942:99). Bent's review (U. S. Nat. Mus. Bull. 197, 1950) of life history data on North American vireos indicates that incubation periods are usually 14 days or less in the family Vireonidae, although the period for many species is reported only in rather general terms or not at all. For the White-eyed Vireo, 12 to 16 days has been recorded, a situation which leaves some doubt concerning the accuracy of the extremes; however, Saunders (Wilson Bull., 27, 1915:321) made a definite determination of 15 days. The period of 16 days which I recorded in the Hutton Vireo was therefore somewhat unexpected.

The nest under observation was in Berkeley, California, at my residence. Its location 6 feet up in a small *Garrya* tree made frequent inspection of its contents feasibly, a matter in which I was aided by my family when I was absent from town. The nest contained two eggs on March 22 and the birds were not sitting continuously on this date. On March 23 when there were three eggs the nest was covered apparently all day in a regular incubation routine. On March 24 there were four eggs in the morning. The first egg hatched sometime between 8:30 and 3:25 on April 8. Two more eggs had hatched by 8:30 a.m. on April 9 and by 12:30 on that date all four eggs had hatched. For the last egg hatched, assuming it was the last laid, a minimum incubation period of a few hours greater than 16 days is indicated. None of the other eggs would appear to have hatched in any less time. As is normal in this species the eggs were continuously covered, one parent slipping on the nest the moment the other left it. The incubation period was not therefore prolonged by any unusual regime of inattentiveness.—ALDEN H. MILLER, *Museum of Vertebrate Zoology, Berkeley, California, May 12, 1953.*

**Recent Records of Some Hawaiian Honeycreepers.**—For a number of years it has been common belief that many species of the Hawaiian honeycreepers (Drepaniidae) have become extinct. This strongly pessimistic view arose partly because of the obvious destruction of much of the native forest habitat on all the main Hawaiian Islands wherever people live or engage in agricultural industries. Also, it is known that foreign, avian diseases have been introduced to the Hawaiian Islands and it was thought that they might have caused decimation of native bird life. Furthermore, many localities where Hawaiian honeycreepers are abundant were visited by ornithologists seldom or not all in the decades following the extensive bird collecting of the 1890's and the first few years of the twentieth century.

While a considerable reduction of endemic species has indeed occurred on Oahu and Lanai, the loss has been more moderate on the larger islands, Hawaii and Maui. It is difficult to ascertain whether or not originally rare species of the latter islands survive today because of the inaccessibility of large tracts of virgin forests. The authors independently have had unusual opportunities to search for the rarer species on Hawaii and Maui at various times in the past decade. We have succeeded in finding some of them still thriving in restricted localities, whereas we have found no trace of others.

Records establishing the continued existence of *Palmeria dolei* and *Pseudonestor xanthophrys*, not recorded on Maui since the 1890's, are given at this time. These species were generally thought to be extinct. The existence of other species, such as *Psittirostra psittacea* and *Psittirostra bailliei*, reported in the 1930's, is confirmed and established by collected specimens. We are grateful to the Board of Commissioners of Agriculture and Forestry of the Territory of Hawaii for permission to conduct our field studies in the territorial forest reserves of Hawaii and Maui. The scientific nomenclature employed is that of Amadon (Bull. Amer. Mus. Nat. Hist., 95, 1950:157-262).

*Palmeria dolei*. Crested Honeycreeper. On January 1 and 2, 1942, G. A. Macdonald and H. Stearns saw a bird, probably of this species, near the north rim of Kipahulu Valley, 6300 feet, Haleakala Volcano, Maui. This was communicated to Baldwin who made a trip to the same locality (between Wai Anapanapa and the divide separating Kipahulu and Waihoi valleys) on November 17, 1943,