

The throat was white, not definitely outlined, but gradually shading to brilliant yellow underparts. The two birds were identical. Williams and I observed the birds for at least a half hour under ideal light conditions, close at hand. We concluded that both birds were the Tropical Kingbird (*Tyrannus melancholicus*).

Recent casual occurrences of this species north of its summer range have been summarized by Cogswell (Condor, 54, 1952:117). All recent Californian records have been made in October.—KEN LEGG, *Point Lobos Reserve, Carmel, California, January 6, 1953.*

Northern Record of Nesting of Red-necked Grebe.—A pair of Red-necked Grebes (*Colymbus griseogen holböllii*) was found by David Walsh on July 18, 1949, nesting on an oxbow of the Itkillik River near its junction with the Colville River, Arctic Alaska. The nest contained three eggs. Floating vegetation was piled to a 5-inch high crown and the nest was located at the edge of the shoreline vegetation about thirty feet from shore. The birds were extremely wary and only after three cautious visits to the nest were both adults observed and identified at close range. The nesting bird would slink from the nest, cover the eggs and submerge in the water with the least provocation. This was our only sight record of this species in the course of six weeks spent on the Colville River. The author has been unable to find previous records of this grebe nesting this far north in Alaska.—URBAN C. NELSON, *Juneau, Alaska, January 29, 1953.*

Duetting in the Crimson-breasted Barbet.—On March 20, 1945, I was fortunate enough to observe two Crimson-breasted Barbets (*Megalaema haemacephala*) singing a duet at Cox's Bazar, Bengal, India (now Pakistan). Early in the morning on this date I was watching birds in a mango grove when my attention was attracted to one of these barbets sitting motionless on a twig about 15 feet from me and about 8 feet from the ground. As I watched, a second barbet flew to the same twig, sidled up to the first bird and presented it with a peepal fig. This was solemnly accepted and as solemnly swallowed. Since the sexes of this species are similar in appearance, I could not be sure of the sex but I am inclined to believe that the donor of the fig was the male. Then the "male," sitting an inch or so from the "female" and facing in the same direction, began to sing. Much to my surprise the "female" began to sing also. Her voice was somewhat higher pitched than the "male's" and alternated perfectly with his song. The combined effect of their voices was somewhat like this: *tonk tenk tonk tenk tonk tenk*, etc. The duet song, however, was little or no faster than the normal solo song. Both birds uttered each note with the bill slightly parted and at the same time a pronounced swelling would pulse in their throats. The song lasted for about one minute whereupon the "male" flew directly away. He returned in a few minutes with another fig and the entire performance was repeated. This occurred four times and then both birds flew in the direction that the male had previously taken on his sorties after figs. The entire performance, the presentation of the figs and the duetting, was conducted in a very restrained manner.

Ostmaston (Ibis, 1941:310) remarks that the only true duet he has heard of among Indian birds is that of the Great Himalayan Barbet (*Megalaema virens*). I would be surprised if the Blue-throated Barbet (*M. asiatica*) did not also display this phenomenon. Its song is strongly reminiscent of *M. haemacephala* but has a rolling quality to each syllable.

Duetting has been observed in African targets also. Chapin, for instance, mentions duetting in *Trachylaemus purpuratus* (Birds of the Belgian Congo, 2, 1939:489) and in *Lybius vielloti* (p. 526). As an indication of duetting in the New World Capitonidae, Dr. Stephen W. Eaton told me that he had heard the Toucan Barbet (*Semnornis ramphastinus*) engage in this behavior at the Bronx Zoo in New York. Probably duetting is a fairly widespread practice among the Capitonidae.

This type of behavior is found widely scattered throughout the entire class Aves. Penguins engage in mutual ceremonies involving posturing and duetting, according to Gillespie (A Book of King Penguins, London, 1932). There are many references in the literature to similar behavior among birds in almost every group including the passerines. Arthur A. Allen and Peter Paul Kellogg have sound recordings of duetting in the Black-billed Wren, *Pheugopedius fasciato-ventris* (Cornell Library of Natural Sound; disk 44-21B, cuts 3, 4 and 5), and the Musician Wren, *Leucolepis phaeocephalus* (C.L.N.S.; disk 45-40A, cuts 5, 6, 8 and 9). Duetting is apparently quite widespread among the Central and South American Troglodytidae. Fuertes mentions "counter singing" among various species, including *Heleodytes* (= *Campylorhynchus*) *bicolor* (Bird-Lore, 15, 1913:342). Laskey (Wilson Bull., 56, 1944:27) records duetting in the Cardinal (*Richmondia cardinalis*).

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,