

THE WINTER RANGE OF THE KENNICOTT WILLOW WARBLER

By KENNETH C. PARKES and DEAN AMADON

According to Ridgway (1904), the Kennicott or Alaska Willow Warbler (*Phylloscopus borealis kennicotti*) migrates in winter to southeastern Asia, "but by what route and to what countries not yet determined." More recent manuals, such as those by Delacour and Mayr on the birds of the Philippines, Delacour on the birds of Malaysia, and Deignan on the birds of northern Siam, do not mention this race. The A.O.U. Checklist (1931) merely states that this bird winters in southeastern Asia, this statement being repeated word for word by Hellmayr (1934). Ticehurst (1938) had not seen sufficient material of *kennicotti* to be sure of its validity but stated that he had examined migrants or winter residents of this species from Amoy, China; Tenasserim, Burma; Penang, Malay Peninsula; Siam and the Philippines which, because of their small size, might be of this race. In view of the now well established smaller size of the Alaskan race, we believe that these specimens mentioned by Ticehurst may be considered definite records of *kennicotti*, in addition to those given below.

The small size of certain Philippine, winter-taken specimens of *Phylloscopus borealis* in the collections of Cornell University and the American Museum of Natural History led us to suspect that they might be referable to *kennicotti*. Amadon and Jewett (1946) have commented briefly upon this possibility. Consequently a study was undertaken of a series of winter and migrant specimens of *Phylloscopus borealis* in an effort to delimit more precisely the winter range of the Alaskan form.

We have relied principally upon Ticehurst's excellent monograph (1938) as a guide to the characters differentiating the various races of *P. borealis*. Wing length (measured flat) has been the chief criterion employed, as color characters are largely unsatisfactory in this species unless large series, strictly comparable as to state of plumage, are available.

The smallest of the races of *Phylloscopus borealis* is the Alaskan form, *kennicotti*. Two males from Norton Sound, Alaska, the type locality, measure wing 63 mm., 64 mm., which agrees well with measurements for this race given by Ticehurst. The next larger race, and the only one which could be confused with *kennicotti*, is *borealis*. A series of twelve breeding birds from Siberia, mostly from the Lena River region, was chosen as typical of the latter race for purposes of comparison. These were carefully measured and were found to agree well with Ticehurst's measurements. Of several hundred examples of *P. b. borealis* examined by Ticehurst, no male had a wing shorter than 65 mm. Our smallest males of this race measure wing 66 mm. (two specimens). We have therefore referred the males from our winter series with wing less than 65 mm. to *kennicotti*. Two males with wing 65 mm. must be considered intergrades, although we feel that they are more probably large *kennicotti* than small *borealis*, since only exceptional individual males of *borealis* have wings as short as 65 mm.

Twelve male specimens (wing, 60-64; average, 62.2 mm.) we consider to be definitely *kennicotti*. Of these, five were taken on Luzon, Philippine Islands, during the months of September, October, January, March and April. The September specimen was apparently in the act of migrating (September 30, 1945), since it was captured on shipboard in Subic Bay, Luzon. Of a total of thirty Philippine specimens, including male, female and unsexed birds, we assign twelve (Luzon; Palawan) to *kennicotti*. Other non-breeding localities from which we have seen specimens referable to *kennicotti* include eastern China (Shantung; Yunnan), peninsular Siam (Nongkok), Malay Peninsula (Kedah Peak), Celebes and Selayar Island (south of Celebes). The two male specimens with

wing 65 mm. mentioned above, referred provisionally to *kennicotti*, are from Luzon, P.I., and Buru Island, Moluccas, respectively.

Although two-fifths of our Philippine specimens of *Phylloscopus borealis* are *kennicotti*, only three of 55 specimens from the East Indies seem to be this race, and the percentage in southeastern Asia is perhaps equally low. It seems reasonable, therefore, to assume that the Philippine Islands represent an important, if not the principal, wintering area for *kennicotti*. Careful study of winter specimens of this species from throughout the Malaysian region and Indo-Chinese countries should produce more records of the Alaskan race.

In addition to *borealis* and *kennicotti*, the two remaining subspecies of *Phylloscopus borealis* also winter in this general area. These two races, *examinandus* and *xanthodryas*, cannot be confused with *kennicotti*, since both are even larger than *borealis*.

The dates of the three specimens from eastern China (April 5, May 20, September 11) clearly indicate that this area lies on the migration path of the Alaska Willow Warbler. Whether this represents the main route or only an outlying sector remains to be determined. One would expect those birds going to the Philippines to pass through Japan and Formosa, but the various Japanese hand-lists do not mention this race. It may have been overlooked, as it is a somewhat yellowish race, as is *xanthodryas* of Japan. The seven Japanese specimens we examined are not *kennicotti* with one possible exception, nor is one specimen from Formosa of this race. The two specimens of *kennicotti* from peninsular Siam and Malaya are midwinter records (January 4, December 7).

We conclude, therefore, that the winter range of *Phylloscopus borealis kennicotti* might be described thus: "Winters commonly in the Philippine Islands and sparingly in the Indo-Chinese countries, Malaysia and the East Indies east to the Moluccas; known to migrate through eastern China (Shantung; Yunnan)."

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