

A REVIEW OF THE RACES OF THE TRAILL'S FLYCATCHER

BY JOHN W. ALDRICH

IN CONNECTION with the preparation of a book on the birds of Washington, I have been prompted to reinvestigate the problem of geographic variation in the Traill's Flycatcher in order to determine the proper names for the subspecies which occur in that state. Like the several other investigators who have come to grips with this species, I have found geographic variations quite difficult of analysis. To evaluate the variations within the restricted region wherein my original interest lay, I have found it necessary to appraise the extent of variation over the entire range of the species. The result has been that some hitherto unnoted facts have come to light. In some cases in the past, what have been considered extreme individual variations or dichromatism have proved to be geographical variations. This has been largely due to failure to distinguish breeding birds from late migrants. As Phillips (1948: 507) has so rightly pointed out, the extreme shortness of the period during the breeding season when it is safe to assume that specimens are not migrants has undoubtedly led to some mistakes in recognition of breeding birds. Such cases, mentioned beyond, involve the type specimens of two (*traillii* and *brewsteri*) out of the seven subspecies described to date.

William Brewster (1895: 159) seems to have noted correctly that the breeding Traill's Flycatcher of the midwestern lowlands is not the same as that which breeds in the northeastern boreal region, a view which he acknowledged was shared by Baird, Ridgway, Merriam, and Bendire. Brewster identified Audubon's type of "*Muscicapa Traillii*" with the breeding bird of the Mississippi Valley region and westward, however, rather than with the northern and eastern boreal region, and described the latter as a new subspecies, *Empidonax traillii alnorum*.

Harry C. Oberholser (1918: 89) appears to have correctly referred Audubon's type of "*Muscicapa Traillii*" to the northern and eastern populations, making *alnorum* a synonym of it, but he failed to recognize the differences (noted by Brewster and others) in breeding birds of the interior from those of the northeastern highlands and northern boreal region. Also, it appears that Allan Phillips, who has written by far the most enlightened and comprehensive review of this species to date, failed to note these differences.

Variations of these flycatchers in the western part of the continent have been described by Oberholser (1918, 1932, and 1947), by Miller (1941), and by Phillips (1944 and 1948).

In the present study approximately 900 specimens were available among which only those collected from June 21 to July 26 were considered as definitely

breeding. This limitation was based on the fact that the latest known date for spring migration was June 15, at Orient, Long Island, while the earliest date of fall migration was August 1, at Englewood, New Jersey. Five days were added at each end of the migration period as an arbitrary margin of safety.

The distinct races found recognizable on the basis of combined character differences were as follows:

1. *E. t. brewsteri*. A small, dark, brownish, short- and rounded-winged, large-billed race from the coast of the Pacific Northwest, recently redescribed as *zopholegus* (Oberholser, 1947: 77). The type specimen of *brewsteri* (Oberholser, 1918: 93), which I have compared in the present study, is identical with these dark Pacific Northwest birds, and quite different from what appear to be definitely breeding Great Basin birds. This specimen was collected by Oberholser at Cloverdale, Nevada, May 31, 1898, and at that date could very easily have been a migrant of the northwest coastal breeding population. Under the circumstances there seems to be no alternative but to consider *E. t. zopholegus* a synonym of *E. t. brewsteri*, an action recommended by Phillips (1948: 511), but for a somewhat different reason, and to apply the name *brewsteri* to the Pacific coast race from Vancouver Island southward. The intensity of coloration of this race lessens in Oregon and California west of the Cascades and Sierra Nevada Divide, but the small size remains constant.

2. *E. t. traillii*. A dark greenish, long- and pointed-winged, short-billed, northern and eastern boreal forest region race seems to include Audubon's type of *traillii*, although this specimen was collected as a migrant outside of the breeding range of that race. The Alaskan segment of this population was described by Phillips (1948: 509) on the basis of larger size and given the name *alascensis*. However, I do not believe that this race is tenable since 10 out of 34 specimens (30%) of both sexes of definitely breeding birds from northeastern North America cannot be distinguished from Alaskan breeding birds on the basis of the extremes given by Phillips, and since 6 out of 8 (75%) of both sexes from Alaska cannot be distinguished on the basis of size from the larger birds in a breeding series from the Northeast. The slightly more brownish coloration does not seem to be adequate to distinguish the majority of Alaskan specimens.

A thorough examination of the type specimen of *E. t. traillii* leaves very little doubt that it is an example of the dark greenish northern and eastern boreal population. We now have definite evidence that Traill's Flycatchers breed in the general region where Audubon is presumed to have collected the type, since two males were taken July 18, and a female July 28, 1950, at Stuttgart, Arkansas, by Brooke Meanley. There is considerable doubt, however, that Audubon's type was a breeding bird in view of his statement (1831: 236) that he found the species "only in the skirts of the woods along the prairie lands of the Arkansas river" in April. This would seem to be much too early for the species to be breeding there since Brooke Meanley has informed me

(in letter) that, although he made two trips a week to suitable habitat for nesting Traill's Flycatchers at Stuttgart, Arkansas, it was May 24 before he noted the first signs of breeding. Audubon said that the female of the pair belonging to this species contained eggs about the size of "green pease." However, the type, although the sex is not indicated on the label, is almost certainly not a female, but a male, and a big one at that, with a wing of 74 mm. (larger than the maximum for females of even the Alaskan population). All things considered, I believe the type of "*Muscicapa Traillii*" to be a migrant of the breeding population of the northern and eastern boreal region. The specimen matches the dark coloration of that breeding population, not the paler coloration of the midwestern prairie population. The two males and female collected at Stuttgart by Meanley were certainly breeding birds. Although they are not typical of the interior lowland race, they are nearer to it than to typical *traillii*. The two specimens collected by Arthur Howell in Arkansas, and considered by Oberholser as representative of the breeding population there, were collected, respectively, at Stuttgart, May 13, and at Chester, June 4. Both of these dates are too early to be considered as definitely breeding without substantiating evidence; and no definite evidence of breeding was recorded. In any case the two specimens are pale, quite typical of the interior lowland race, and nothing like Audubon's dark colored type of *traillii*.

If the Alaskan race were to be recognized it would be necessary to call it *Empidonax traillii traillii*, the type of which, although unsexed, appears to be a large male (wing, 74 mm.; tail, 57; exposed culmen, 11.5) fairly typical of the Alaskan breeding population. It is certainly closer to the average size for that population than to the average for the northeastern population. If two northern races were to be recognized, the eastern one would bear Brewster's name, *alnorum*.

The most disturbing fact encountered in considering the population from Alaska to the Maritimes as one race is that a segment in western Mackenzie is noticeably paler, showing intermediacy toward the plains race. This intermediate segment evidently completely separates the dark Alaskan population from the dark northeastern one. Despite this fact this entire northern population appears to have no variation clear-cut enough to permit the identification of as much as 75 per cent of the individuals of any segment thereof. I therefore believe that it should be considered a single subspecies.

3. *E. t. adastus*. A medium-toned, greenish, long- and rounded-winged, long-billed race, breeding in the northern Great Basin of Idaho, eastern Oregon, eastern Washington, and southeastern British Columbia; based on birds from Hart Mountain in the Warner Valley of central-southern Oregon; described by Oberholser (1932: 3). Although Miller (1941) was unable to distinguish this race, both Phillips (1948) and I believe that it is distinguishable on the basis of the range and characters above ascribed to it.

4. *E. t. exlimus*. A pale-toned, grayish, medium rounded-winged, long-tailed,

long-billed race which occupies the southern Great Plains, southern Great Basin, and desert region of Arizona and New Mexico; described by Phillips (1948: 512). It is a well-marked subspecies although my concept of its range is somewhat different from that of Phillips. It seems logical to me to include in it all pale-colored southwestern populations, including those of the southern Great Basin and the southern Great Plains assigned by Phillips primarily to *brewsteri*. Birds from west of the Sierra Nevada in southern California approach *extimus* in paleness of coloration but are smaller, in this respect resembling typical *brewsteri*.

5. A pale-toned, greenish, long- and pointed-winged, short-billed, northern Great Plains race appears to have an extension of its range far to the eastward in the Interior Lowlands physiographic province and the eastward extension of that province, the Lake Plains, to the south of the boreal coniferous forest region. Although this prairie population has been considered subspecifically the same as the northeastern boreal race, it now appears to be distinct and it is without a name. The only investigator previously to attempt to separate the two populations taxonomically was Brewster, and he described the wrong bird.

Before a new name is proposed, the possibility that a name is already available must be considered. In view of the fact that van Rossem (1934: 350) identified the type of *Empidonax ridgwayi* Sclater as *Empidonax t. traillii* it was thought that this might actually be a specimen of the pale prairie race, in which case this name would be applicable. Accordingly, typical specimens of both the Great Plains and northeastern boreal populations were sent to the British Museum, London, for comparison with the type of *ridgwayi*. I am indebted to Mr. E. Banks of the Bird Section, British Museum, for making these comparisons. It is Mr. Banks' opinion (letter of April 17, 1950) that neither of the specimens sent him resembles the type of *ridgwayi* at all closely in color tone. Compared with the typical example of *traillii* sent, the type of *ridgwayi* "has a dark olive-green back and darker gray, not white, underside, with the white edge to the outer tail feathers of which there is a hint in *E. t. brewsteri*." Mr. Banks writes further: "This dark specimen is quite unlike anything in our series of *t. traillii* and we do not know the doubtless good reasons which caused Ridgway and Hellmayr to 'sink' it in this race." On the basis of these findings and in view of the fact that the prairie birds are paler, not darker, than typical *traillii*, I feel justified in concluding that the name *ridgwayi* is not applicable to them. Therefore, this distinct subspecies may be described and named as follows:

Empidonax traillii campestris new subspecies. Plains Traill's Flycatcher

Type.—259504, U. S. National Museum (Fish and Wildlife Service Collection); adult male; Oakes, North Dakota; June 29, 1915; H. H. Sheldon, original number 129.

Subspecific characters.—In color very pale, most closely approaching *Empidonax traillii extimus* of the southwestern United States but somewhat more greenish (less grayish or brownish) olive above; tail shorter; bill smaller; wing more pointed with outermost (10th) primary distinctly longer than the 5th (6th from outside); in size and proportions nearest to *Empidonax t. traillii* of the boreal portions of northern and eastern North America, but in color considerably paler above. Compared with *Empidonax t. adastus*, its nearest relative to the west, it is paler and more greenish (less brownish) and has a smaller bill and more pointed wing.

Measurements.—Adult male (12 breeding specimens from North and South Dakota): wing (chord), 69–75 (71.2 mm.); tail, 55–59 (57.4); exposed culmen, 10–12 (10.9); tarsus, 15–18.5 (16.7); middle toe without claw, 9–10.3 (9.7). Adult female (6 breeding specimens from North Dakota): wing (chord), 66–68 (66.8); tail, 52–56.5 (54.5); exposed culmen, 10–11 (10.7); middle toe without claw, 8.5–10 (9.5).

Distribution.—In the breeding season north to northern Alberta and southern Mackenzie; east to central-western Manitoba, northern Wisconsin and north-eastern Ohio, also eastward along the Lake Plains into western New York State; south to central-eastern Arkansas; west to southwestern Alberta and probably to the Rocky Mountains in Montana and Wyoming. The southern and western limits are very incompletely known because of lack of definitely breeding specimens from the areas that would demonstrate this.

Migrates west to: central British Columbia (near Vanderhoof), Idaho (Coeur d'Alene), Nevada (Pahranogat Valley), Colorado (Avalo and Loveland), New Mexico (Rinconada), and Michoacán (La Salada); east to northern Ontario (Moose Factory), Pennsylvania (Carlisle), Maryland (Laurel), and District of Columbia (Washington); south to Panamá (Gatun, March 6 and May 8, Porto Bello, May 26, and Cana, March 23).

General Conclusions:

1. That Brewster (1895) was correct in considering the boreal and prairie populations as distinct subspecies.

2. That the type specimen of *E. t. traillii* taken by Audubon in April "in the skirts of the woods along the prairie lands of the Arkansas River" was not breeding but rather a large transient example of the dark, boreal population; that *E. t. alnorum* is therefore a synonym of *traillii*.

3. That the type of *Empidonax ridgwayi* is not a representative of the Northern Great Plains-Interior Lowlands population, and is probably unidentifiable with any population of *Empidonax traillii* known at the present time.

4. That the type specimen of *E. t. brewsteri* taken May 31, at Cloverdale, Nevada, was not a breeding bird in that area but a migrant of the extremely

dark brown population from the northwestern coastal region; that *E. t. zopholegus* is therefore a synonym of *brewsteri*.

5. That the Alaskan population, although averaging slightly larger than the eastern Canadian and northeastern United States population, is not sufficiently different to warrant subspecific distinction; that *E. t. alascensis* is therefore a synonym of *E. t. traillii*.

6. That *E. t. adastus* is a valid race breeding in the northern Great Basin region.

7. That *E. t. extimus* is a valid race which breeds not only in the southwestern desert region but also the southern Great Basin and southern Great Plains, including the range east of the Sierra Nevada assigned by Phillips to *brewsteri*.

LITERATURE CITED

- AUDUBON, J. J.
1831 Ornithological biography. 1: 236.
- BREWSTER, WILLIAM
1895 Notes on certain flycatchers of the genus *Empidonax*. *Auk*, 12: 157-163.
- MILLER, ALDEN H.
1941 A review of centers of differentiation for birds in the western Great Basin region. *Condor*, 43: 257-267.
- OBERHOLSER, HARRY C.
1918 New light on the status on *Empidonax traillii* (Audubon). *Ohio Jour. Sci.*, 18: 85-98.
1932 Descriptions of new birds from Oregon, chiefly from the Warner Valley region. *Sci. Publ. Cleveland Mus. Nat. Hist.*, 4: 1-12.
1947 A new flycatcher from the western United States. *Proc. Biol. Soc. Washington*, 60: 77.
- PHILLIPS, ALLAN R.
1944 The wing-formula in *Empidonax traillii*. *Auk*, 61: 293.
1948 Geographic variation in *Empidonax traillii*. *Auk*, 65: 507-514.
- VAN ROSSEM, A. J.
1934 Notes on some types of North American birds. *Trans. San Diego Soc. Nat. Hist.*, 7: 347-362.

U. S. FISH AND WILDLIFE SERVICE, WASHINGTON, D. C.