

GENERAL NOTES

Traill's Flycatchers of the "fitz-bew" songform wintering in Panama.—During December 1967 and January 1968, I located Traill's Flycatchers (*Empidonax traillii*) in Panama and watched their behavior. My studies were part of a continuing program directed toward determining whether the two songforms of Traill's are sibling species as suggested by Stein (Bull. New York State Mus., 371: 62, 1958). Although the two forms are exceedingly similar morphologically, they may be distinguished by songs ("fitz-bew" versus "fee-bee-o"). I believe that data on the songforms in winter will provide further evidence on their taxonomic status.

Museum specimens and the A.O.U. check-list (Check-list of North American birds, fifth Ed., Baltimore, Amer. Ornithol. Union, 1957) show that Traill's Flycatchers winter in Panama. Presence of a variety of similar flycatchers (Tyrannidae) in that region make field identification potentially difficult. To overcome these handicaps, I used recordings of both songforms taped on their Connecticut breeding grounds in the summer of 1967. I played these songs regularly with a Uher 4000L tape recorder and a speaker as I traveled in Panama. Areas searched for Traill's included those localities recorded on museum specimens and those found in the field to be potentially suitable.

Several areas within or adjacent to the Canal Zone appeared to provide possible habitats for Traill's but did not yield birds of either songform. The first Traill's encountered came in response to the playing of "fitz-bew" songs at 10:30 on 13 December approximately 700 meters from the Chagres River at Gamboa, Canal Zone. Vegetation in the area was transitional from a wet grassy field along the edge of the river to low lying shrubs interspersed with tall grasses. The bird flew from a hollow that appeared to be an abandoned quarry. The floor of this depression was about 200 m² and was covered with dominant tall grasses abutting a forested hillside. Open water was limited to a small stream running the length of the depression and ending in a patch of wet grass on the edge of the hollow.

The initial behavior identified the responding bird as a male "fitz-bew." He approached to within 2 feet of the speaker and loudly called "fitz-bew." He also gave several calls ("kitters" and "whits") like those given by territorial male "fitz-bew"s responding to playbacks in Connecticut. These sounds were accompanied by raised crest and bill snapping. As playing of "fitz-bew" continued, the activity of the bird declined and finally ceased about ½ hour later. When the speaker was moved to several new positions within the vicinity of the initial contact, three additional Traill's were seen simultaneously. One was apparently a female as her calling was limited to a simple "whit" note. Of the other two, one responded with the "fitz-bew" call while the third, apparently a younger bird, made no sound. Each of these birds flew near the speaker and then retired to higher vegetation where it could be seen hawking insects. The birds thereafter were difficult to find. Not only were they inconspicuous in the vegetation, but also they never called without artificial stimulation. In fact during my entire stay in Panama the birds were heard only when responding to playback of the "fitz-bew" songs; they ignored "fee-bee-o" recordings.

I did not visit the Gamboa region again until 27 January. With the onset of the dry season, the area the Traill's occupied in December had become xeric with moisture limited to the damp soil of the stream bed. Most tall grass had withered and the ground beneath had dried. Playing of songs elicited a response similar to that described above for the December observations, but from only a single male "fitz-bew" at the sole site still containing open water.

On 29 January in an attempt to find more individuals, I played recorded songs in the vicinity of La Jagua, east of Panama City and several kilometers from the Pacora River. Playing of songs in habitats that appeared suitable but drier than expected revealed several male "fitz-bew"s; all attempts to elicit "fee-bee-o" responses in these areas were negative. Vegetation in this locality consisted largely of shrubs (*Helicteres* and *Lantana*) about 4 feet high. In addition, a number of trees (*Virsenema*, *Crasofolia*, *Xylopis*, *Bursha*) were present, mainly around an open grassy area approximately 150 m in diameter. Although I noted no open water such as ponds and streams in the immediate vicinity, many species of odonates and dipterans were present.

I played vocalizations at different sites around the edge of the clearing to estimate the number of "fitz-bew"s present and to determine if territorial behavior would occur. As I moved the speaker around the edge of the clearing, a line of demarcation between two male "fitz-bew"s became apparent. Reactions of each bird were greatest near the edge of the clearing that bordered the vegetation the bird occupied. The "fitz-bew" and "whit" responses declined in intensity and frequency as I moved the speaker toward the center of the clearing. Although each bird showed continued interest to the calls played from the center of the clearing, their responses were limited to infrequent "fitz-bew" calls.

A flycatcher model and a speaker were placed at those sites along the edge of the clearing where each bird had previously shown aggressive activity. The resident bird of each site became highly aggressive in call and posture while other "fitz-bew"s in the vicinity showed little or no apparent interest in the played calls. In each instance the resident bird flew at the model, several times coming within inches. Regularly each bird perched on a branch about 10 feet from the model and pumped its tail, raised its crest, snapped, wiped its bill, and gave the "kitter" call. Similar reactions to playback have been reported for *Tyrannus* by Smith (Publ. Nuttall Ornithol. Club, 6: 43, 1966). Several tape recordings of calls, especially the "fitz-bew" song, were obtained.

Birds responded most strongly to calls played in the early morning. Activity usually declined rapidly in late morning, possibly because rising temperatures and increased winds may have hindered foraging.

The area defended by two males was measured by moving the model and speaker in different directions until the aggressiveness of the bird waned. Each bird thus tested reacted aggressively until the model and speaker were moved beyond particular limits, usually a stand of tall trees bordering a clearing adjacent to the one described above. Here it perched and continued responding, always returning to the same perch. After approximately 10 minutes of calling apparent interest declined greatly. The data indicated that the defended areas in Panama and the "fitz-bew" territories in Connecticut are of similar size (roughly 1,100 m²) and that the strength of aggressive behavior is maximal at one point in the defended area and wanes towards the periphery.

Many localities where Traill's was not found had seemingly suitable habitats. In the Fort Sherman area of the Atlantic Slope hundreds of migrating Traill's were netted annually (H. Loftin, pers. comm.), but none were discovered in January. I regularly played songs along the Pan American Highway between Panama City and Chepo without eliciting responses. I also had no success near Chorrera, Rio Hato, Chitré, Barro Colorado Island, Miraflores Lake, and in the K-6 area where army roads wind through second-growth and woodland vegetation in the southwestern part of the Canal Zone. Each of these regions had either wet grassy habitat or gallery-like vegetation bordering waterways.

This report gives the first direct evidence that the "fitz-bew" songform is a winter

resident of Panama. Wintering birds appear to defend a specific foraging area as do birds defending breeding territories. Individuals apparently move to new areas with the onset of the dry season. The potential usefulness of tape recorded vocalizations in studies of wintering birds is demonstrated.

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Birds new to North America and the Pribilof Islands, Alaska.—Smithsonian Institution and Southwestern College personnel have spent five seasons working on the avifauna of the Pribilof Islands, July–September 1964, June–September 1965, May–September 1966, May–September 1967, and April–August 1968. Thompson was involved in all 5 years of the studies and DeLong in 1965–66. The Smithsonian Institution sponsored the 1964–66 studies and Southwestern College the 1967–68. In addition to our banding operations, we made collections and observations that add several species to the North American list as well as to the Pribilof Islands list. Four are new to the "Check-list of North American birds" (A.O.U., 1957): *Numenius madagascariensis*, *Actitis hypoleucos*, *Erolia temminckii*, and *Alauda arvensis pekinensis*; 11 are new only to the Pribilof Islands: *Gavia immer*, *Melanitta perspicillata*, *Calidris canutus*, *Micropalama himantopus*, *Tryngites subruficollis*, *Megaceryle alcyon*, *Phylloscopus borealis*, *Motacilla flava similima*, *M. alba ocularis*, *Dendroica petechia*, and *Loxia curvirostra*. A new breeding species for the Pribilofs is *Anthus spinoletta*.

Specimens listed are at Southwestern College, Winfield, Kansas (SC)¹ and in the U. S. National Museum (USNM), Washington, D. C.² Thompson made all taxonomic determinations at the U. S. National Museum in conjunction with the curators of that institution. Species seen for which no specimen records exist are discussed at the end of the paper.

Mongolian Plover (*Charadrius mongolus stegmanni*).—A female (USNM 496830) weighing 75.5 g was taken 23 May 1966 on St. George Island. The largest ovum was 3.5 mm. Although there are seven North American records of *C. m. stegmanni*, all from Alaska, this is the second specimen from the Pribilofs (Kenyon and Phillips, 1965) and the first identifiable to subspecies, the other specimen being an immature.

Black-bellied Plover (*Squatarola squatarola*).—The first Pribilof Islands sight record was of two birds on St. George Island 30 May 1966 by DeLong; we saw another 21 August 1966 and obtained the first specimen (SC 1247) on St. George Island 27 May 1968, a female with ova to 3 mm and weighing 192.5 g with little fat. Previous records of this species in Alaska away from its breeding grounds are few (Gabrielson and Lincoln, 1959: 332).

Far Eastern Curlew (*Numenius madagascariensis*).—Sladen (1966) saw what he

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² Paper no. 25, Pacific Ocean Biological Ocean Survey Program, Smithsonian Institution.