

During July the birds were apparently absent, until July 21, when a female was discovered feeding in a gravelly riffle about one-fourth mile east of the Sentinel Bridge. The water was only three to four inches deep and the current strong. The bird seemed to be industriously turning over the rocks to obtain food between and beneath them. Often she was wholly immersed for from six to ten seconds by count. At the end of about ten minutes she drifted down the river and dove several times in still water. In the afternoon about 5:45, this female Harlequin returned to the same feeding ground and was watched again. For a full half-hour it continued feeding in the same manner, continually ducking its head under the swift current and always working up-stream.

Apparently the Harlequin does not procure all of its food by diving, but at times feeds in shallow water. The occurrence of these birds during the nesting season and the disappearance of the male during the middle of the summer would indicate nesting of the species in the Valley or close at hand, but no direct evidence in this regard was secured.—HAROLD C. BRYANT, *Berkeley, California, November 10, 1920.*

Distribution of the Townsend Fox Sparrow.—In studying Swarth's *Revision of the Avian Genus Passerella* (Univ. Calif. Publ. Zool., vol. 21, 1920, pp. 75-224), the attention of the writer was drawn to some apparently erroneous conclusions of the author regarding the migration and distribution of *Passerella iliaca townsendi*, particularly as to its winter range.

On page 145 of the paper under discussion, Swarth states "The Townsend fox sparrow is a notable example of a bird with a winter habitat nearly as sharply defined as its summer home." On page 105 he states further that "*townsendi* in turn leap-frogs over *fuliginosa*", the breeding bird of the Puget Sound and Vancouver Island region, the impression being given here and by the map on the following page that the "sharply defined" winter habitat of *townsendi* lies entirely south of that of *fuliginosa*. The author further, on pages 145-146, calls the attention of the reader to the apparently discontinuous distribution of *townsendi* in the southern part of the Alexander Archipelago. The 1909 Alexander Expedition failed to find it at the localities visited in that region, but Swarth (loc. cit.) mentions the fact that it is known to be a common summer visitant to Forrester Island, near the southern extremity of the archipelago, and records summer specimens taken by other collectors at Howkan and Wrangell.

The following data from notes of the writer accumulated during six summers (1914-15-16-17-19-20), and one winter (1919-20), spent in the region under discussion, fill some of the gaps noted by Swarth and modify some of the conclusions which he reached. The greater part of the six summers were spent on Forrester Island, but occasional short visits were made at this season of the year to nearby points on Dall and Prince of Wales islands. During the winter of 1919-20 the writer resided at Craig, Prince of Wales Island, but frequent trips were made to nearby sections, to Suemez, Dall and Long islands, and to other points on Prince of Wales Island.

That the Townsend Fox Sparrow breeds more plentifully on Forrester Island than at any other point in the southern end of the Alexander Archipelago is very true. But that it fails to breed on Prince of Wales, Dall and Long islands, the writer doubts. Although the 1909 Alexander Expedition failed to find it in the region in summer, the writer has found it at that season at Craig and Waterfall, Prince of Wales Island, at several points on Dall Island, and at Howkan, Long Island, and, though no occupied nests were examined at these points, several nests entirely typical of the bird were noted in the fall.

On Forrester Island the species was always present at the time of the writer's arrival, the earliest date being April 21 (1915). In this locality probably fifty nests were examined during six summers. The majority of the eggs are laid between May 20 and June 20, extreme nesting dates being April 29 (1915), a nest with one fresh egg, and July 9 (1916), a nest with three eggs.

During the latter part of August there is apparently a movement up the sides of the mountains, and for some time after this date *townsendi* is quite rare near sea-level. This movement is shared to a considerable extent by the Varied Thrush (*Ixoreus naevius naevius*) and Oregon Junco (*Junco oreganus oreganus*), the three species being frequently found in close proximity in the woods on the mountain sides from about 1000 feet altitude to timber line. As the weather becomes cooler they work back down the mountains to the shore. At Craig, in 1919, the Townsend Sparrow became common in

woods along the beaches by October 9, and remained so throughout the following winter. In fact, in this locality it proved to be a much more common bird in winter than in summer. Numerous specimens were taken during the winter months but few toward spring, as at this latter season they become so fat as to be difficult of preparation.

The fact that this bird winters commonly at the southern end of the Alexander Archipelago must necessarily modify Swarth's definition of its winter habitat in Oregon and northern California.—GEORGE WILLET, *Wrangell, Alaska, November 1, 1920.*

The Nuptial Flight of the Allen Hummingbird.—The description of the nuptial flight of the Anna Hummingbird (Hunt, CONDOR, XXII, p. 109) has prompted me to offer an account of the mating antics of the Allen Hummingbird.

On the afternoon of April 16, 1920, I was walking through the hills back of the Claremont Club golf links when I was brought to a halt by a rather prolonged buzzing sound, very penetrating and metallic in quality, somewhat similar to the sound produced by drawing a fine-grained file over the edge of a piece of sheet steel with a sudden jerk. Looking in the direction of the sound I saw poised in the air about twenty-five feet from the ground, a male Allen Hummingbird (*Selasphorus aleni*), uttering his commonly heard mouse-like squeaks. Then followed the performance of the nuptial flight, similar to that of the Anna Hummingbird, though the path described in the air was somewhat different. He "rocked" back and forth over the female, which was perched on a twig of a low poison oak (*Rhus diversiloba*), describing a semi-circle about twenty-five feet in diameter. There was a pause at each end of the arc, and before the pause he spread his tail and shook his whole body so violently that I wondered how his feathers remained fast. During this time he continued uttering the characteristic squeaks. After several of these semi-circles were described he began his climb to a height of about seventy-five feet; and then came the "high dive". He swooped down with the speed of a comet, and on passing over the female gave the low-pitched but resonant buzzing sound which had first attracted my attention; then he curved upward and came to a pause about twenty-five feet in the air, where I had first seen him. The sound emitted on passing over the female was of a second or more in duration, and differed greatly from the instantaneous, metallic *clink* of the Anna Hummingbird.

Following the accompanying diagram in which X represents the female, he started at A, describing the arc AB with the violent shaking just before arriving at B. After a short pause at B (one or two seconds) he returned to C, repeating the shaking just before arriving, and again pausing. This much of the performance he usually repeated one or more times, thus describing several semi-circles from A to B and from B to C. The last time from C, instead of pausing he continued upward with a slow, heavy flight, describing spirals or undulations until he reached the top at D, when, without pause, he made the downward swoop, sometimes bringing up at E to recommence the whole performance, and at other times darting off to perch a few yards distant for awhile and then return.

Mr. Hunt states (*loc. cit.*) that he does not know whether the Anna Hummingbird adheres rigidly to the evolutions described or whether it varies them. I had the good fortune on the morning of March 15, 1920, at Washington Park, Alameda, to witness the nuptial flight of this bird and it was slightly different from his description. My bird, in making the long dive from *c* to *d* (fig. 27, *loc. cit.*) made a sudden jump of about six feet to the left at a point about opposite *a*, and then continued his downward swoop to *d*. Otherwise this performance was identical with that described by Mr. Hunt.—FRANK N. BASSETT, *Alameda, California, September 2, 1920.*

A Unique Visitor.—On the tenth day of October, nineteen hundred and twenty, at one o'clock in the afternoon, after two days of intermittent showers—some heavy, some light—a beautiful young gull landed on the woodpile in back of our cottage, which is

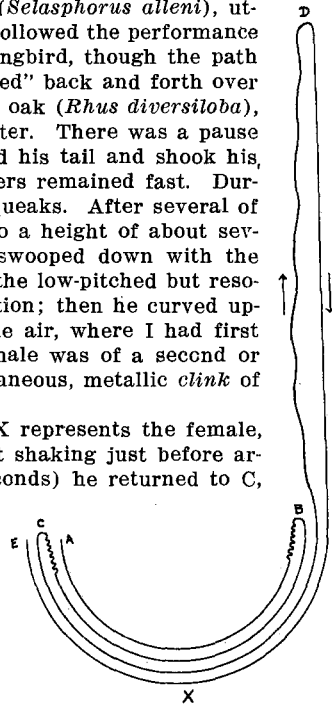


Fig. 8. DIAGRAM ILLUSTRATING THE NUPTIAL FLIGHT OF THE MALE ALLEN HUMMINGBIRD.