

Incubation in the Western Flycatcher.—The incubation period of the Western Flycatcher (*Empidonax difficilis*) is given by Bent (U. S. Nat. Mus. Bull. 179, 1942) and Bergtold (A Study of the Incubation Period of Birds, Denver, 1917) as 12 days, both authors presumably quoting Burns (Wilson Bull., 27, 1915:275).

The writer and his family arrived at their mountain cabin, in Gilpin County, Colorado, two miles south of Rollinsville, on June 25, 1946, after an absence of about a year. On the morning of the following day, June 26, a new nest of the Western Flycatcher was observed on an outside window ledge. The nest contained four eggs. The female bird, unaccustomed to human beings, was extremely wild and flushed from the nest each time the door closed or opened or when anyone passed. This went on for some days, the bird only gradually becoming accustomed to the presence of persons nearby.

On July 12 the eggs still remained unbroken. We thought that they might have lost their viability through chilling and therefore removed them for examination on July 13. One of the eggs was opened and disclosed a nearly-grown embryo, with very small yolk sac. The three remaining eggs were then restored to the nest and the bird resumed incubation. By the afternoon of July 14 two of the eggs had hatched, and on the morning of July 15 the third nestling had appeared. Thus a minimum of 19 days had elapsed before the last egg hatched.

This observation may simply indicate the persistence of viability of neglected eggs, but it also suggests a need for more observations and records of the incubation periods of our common birds.—HUGO G. RODECK, *University of Colorado Museum, Boulder, Colorado, December 12, 1946.*

Notes on Finches of the Genus *Carpodacus* in Western Washington.—Since Cowan's reports (Condor, 39, 1937:225; Murrelet, 25, 1944:45) of a breeding population of House Finches (*Carpodacus mexicanus*) at Victoria, Vancouver Island, it has been natural to expect records would be forthcoming for western Washington. In the spring of 1945 the species did appear near my home in Tacoma. There was no reappearance in 1946.

From April 30, 1945, when I first became aware of the visitor, to May 19 I saw or heard a lone red male nearly every day. These dates are thought to approximate rather closely the actual time of the bird's arrival and departure. It seemed to confine its movements to a rectangular area roughly one-third by one-eighth miles in extent and to follow a regular counter-clockwise path of travel, appearing in song quite regularly at half- to one-hour intervals each morning in the block just east of my home. In the hope that it might find a mate and perhaps nest, no effort was made to collect it, but detailed records of its appearance, notes, and behavior were made sufficient to establish its identity beyond doubt.

For several years the only record of the House Finch in the coastal belt between the Umpqua Valley of Oregon and southwestern British Columbia was that of a straggler at Forest Grove, Oregon, taken on March 21, 1932 (Gabrielson and Jewett, Birds of Oregon, 1940:539). This suggests that in all probability the southwestern British Columbia colony was established by birds coming from the expanding population east of the Cascades via the Fraser water gap and that the members of this colony continue to migrate over that route rather than by way of the Puget Sound-Willamette trough. The record for Tacoma may thus well be of a southward straggling bird from the British Columbia area. Mrs. J. G. Grove's belief (letter of September 17, 1946) that she has heard the linnet's song in Sedro Woolley bolsters this supposition. But Mr. Jewett (letter of September 11, 1946) cites the recent rapid expansion of the House Finch into northwestern Oregon (see Gordon, Condor, 1939:164; Jewett, Condor, 1940:169; Griffee, Murrelet, 1941:36) and believes that it is quite possible that the species now occurs "in Clark County, Washington, and north in the Chehalis Valley . . ." although evidence of this is still lacking.

The range of the Cassin Finch (*Carpodacus cassinii*) extends westward in Washington to the Hudsonian parklands of the Cascades and Mount Rainier, but so far as I am aware its presence in western Washington beyond this line has never been demonstrated. Miller and Curtis (Murrelet, 21, 1940:46) cite a Seattle record by E. J. Larrison of "one specimen observed on March 16, 1939," which I inquired about at the time in the hope of substantiating it. It turned out, however, that the identification was based only on sounds heard from a band of purple finches encountered in a fog. Mr. Larrison further cited an instance where a supposed specimen of the Cassin Finch was taken in his presence by E. S. Booth at Chase Lake, near Seattle. On examining this specimen, however, I found it to be a red male *Carpodacus purpureus*. The basis for Larrison's designation of the Cassin Finch as a "rare winter visitor" in the "Field Guide to Birds of the Seattle Area" (Seattle Audubon Society, 1942:22) is thus in doubt. The very recent inclusion of the Cassin Finch in a list of "Birds seen and heard on Lopez Island, Washington" between May 10 and 20, 1938 (Mr. and Mrs. J. G. Grove, Murrelet, 27, 1946:33-34) was based on a single field identification of a red male seen and heard in song near Fisherman's Bay on May 11 of that year (Mrs. Grove, *in litt.*). Mr. Walter Hagenstein notes the

extreme variability of the purple finches, and recalls specifically a flock of 125 seen in the Medina area last spring, six of which approached the Cassin Finch in coloration (letter of September 17, 1946). Although certain of the above records may be authentic, further evidence is necessary to establish the Cassin Finch in the list of western Washington birds save as a Cascade-Rainier form.—J. W. SLIPP, *Tacoma Regional Museum, Point Defiance Park, Tacoma, Washington, September 30, 1946.*

Present Status of the Green Heron in Washington.—In 1940, the writer summarized the status of the Green Heron (*Butorides virescens anthonyi*) in the state of Washington (Larrison, Murrelet, 21:1-3). Since then, a number of additional records of the bird have been obtained which, combined with several recently published notes, afford a more complete picture of the present distribution of the Green Heron in the state.

All records for Green Herons north of the Columbia River since 1940 pertain to the Puget Sound region. Of the eighty such observations and collections in that region, four were listed by Slipp (Condor, 44, 1942:35-36; 46, 1944:35-36) in the Tacoma-Steilacoom-Nisqually area, while the remainder were made in the Seattle district, mostly by H. W. Higman and/or Larrison. Some sixty records were made in the University of Washington marsh at Seattle.

A study of these data reveals several interesting facts. The Green Heron has been observed in western Washington during every month of the year except June. Most individuals were found from early July to late November, with scattered records from March, April, and May, and a small number of occurrences for January and February. Since 1940, Green Herons have been present regularly every year in the University of Washington marsh during the fall and early winter months. Several birds have often been encountered in that place at one time and one observer once reported twelve individuals in different parts of the marsh. A number of those birds seen in the fall were young of the year. Green Herons have also been noted at Green Lake in northern Seattle, at Beaux Arts on the eastern shore of Lake Washington, and on the Snoqualmie River, about twenty-two miles east of Seattle, all these localities being in King County.

An interpretation of the information now available would seem to indicate a northward spring migration through western Washington, a more lingering southward migration in the fall, and a tendency of some individuals to winter wholly or in part in the Puget Sound Basin. This would assume that Green Herons nest to the north of Seattle or, for that matter, some place in the Puget Sound area itself. Considering the large number of suitable nesting areas in western Washington and southwestern British Columbia and the paucity of bird observers, this situation could well exist undetected. Since the species was almost unknown in the state before 1938, it has apparently rapidly penetrated north of the Columbia River in recent years to become fairly well established west of the Cascades as a migrant and winter visitant and possibly as a summer resident.

This sudden northward extension of range becomes all the more remarkable when one recollects that in 1931 it was considered that the Green Heron "breeds or summers from Portland, Oregon, to northern Lower California, southern Arizona, and northern Sonora, Mexico. Winters from southern California to southern Mexico and central Costa Rica" (A. O. U. Check-list, 4th ed., 1931:30).—EARL J. LARRISON, *Laboratory of Vertebrate Biology, University of Michigan, Ann Arbor, December 18, 1946.*

Effects of a Hailstorm in the Black Forest, Colorado.—While conducting field work on breeding-bird populations in the Black Forest, Colorado, in June, 1945, I had an opportunity to make a survey of the effects of a violent hailstorm. The region under study was an open forest of western yellow pine, about fifteen miles northeast of Colorado Springs, with an elevation of between 7200 and 7300 feet. This area included a willow- and aspen-bordered creek.

On the afternoon of June 24, a rain and hailstorm of short duration, with a few stones one-half inch in diameter, occurred at 4:30 p.m. One hour later, a severe wind and electrical storm began and continued for thirty minutes. Hailstones ranging in diameter from one-half inch to one inch were common. The pines swayed violently in the wind, and small branches were broken off by the stones. The creek rose rapidly, and muddy water covered the wide, sandy bed for several hours. The adjacent willow bushes were bent and crushed by the force of the wind and hail.

The bird life on about eighty acres, which had been under regular observation, was surveyed immediately after the storm and on an early morning field trip the following day. A female Yellow Warbler (*Dendroica aestiva*) was found dead in her nest among the willows. She had been incubating four eggs. Her mate remained nearby for several days and continued to sing. A Robin (*Turdus migratorius*) nest, built against the trunk of a medium-sized pine, was deserted. The female had been seen incubating the eggs previously, but did not return. A Warbling Vireo (*Vireo gilvus*) nest, with one egg, was abandoned after the storm, although the pair remained in the vicinity for about a week. The nest had been constructed at the top of a clump of willows and was still intact. Another Warbling Vireo