

interval between parts of the two censuses. The critical difference made by even the short interval between completion of the first and second runs may be appreciated by the fact that on the first run I noted an average of 7.90 singing males (standard error 0.53) and on the second only 4.79 (S. E. 0.47). Thus there was a considerable, and statistically significant, difference between the mean numbers of males recorded on the two runs. This was true regardless of the period in the breeding season. The first and second run figures for the 14 censuses made during the "heart" of the song season from April 19 to May 31 were 10.64 ± 0.41 and 6.79 ± 0.64 , respectively. Similar figures for the 12 censuses made during the earlier and later phases of the census period (three in March, nine in July) were 5.42 ± 0.86 and 2.33 ± 0.57 , respectively.

The highly significant difference between censuses made in different periods of the breeding season is well shown by the figures just presented. However, most ornithologists are well aware that song output may wax or wane at different times in the breeding cycle and that such variation can be a major source of error in censuses based on numbers of singing males. On the other hand, field ornithologists may be unaware that a difference of only thirty minutes can influence daily census results in major fashion, even when censuses are made very early in the morning and are timed to a schedule which has been set by the birds themselves.—JOHN DAVIS, *Hastings Reservation, University of California, Carmel Valley, California, June 26, 1964.*

Further Notes on Wandering Tattlers in Central Alaska.—One or more pairs of Wandering Tattlers (*Heteroscelus incanum*) have been known to nest at Eagle Creek in east-central Alaska ($65^{\circ}30'N$, $145^{\circ}30'W$) each year since 1956. Observations of breeding tattlers made from 1956 to 1958 were reported earlier (Weeden, *Auk*, 76, 1959:230-232). The present note records subsequent observations from 1959 to 1963.

General features of topography and vegetation at Eagle Creek were described in the earlier note, as was the nest used in 1957 and 1958. Briefly, the area is a narrow valley, slightly above timberline, in a region of rounded hills rising to elevations of 4000 to 5000 feet. Placer mining activities 20 to 50 years ago resulted in exposure of large areas of gravel along Eagle Creek which



FIG. 1. Wandering Tattler on nest at Eagle Creek, Alaska.

TABLE 1

DATA ON NESTING OF WANDERING TATTLERS AT EAGLE CREEK, ALASKA, 1959 TO 1963

Year	First observations		Eggs first pipped	Hatching date	Date young left nest (no. young)
	Nest with less than four eggs	Nest with four eggs			
1959		June 20			June 21 to 26 (4)
1960	May 28 (2 eggs)	May 31	June 20	June 22 or 23	June 23 (4)
1961		June 20			June 20 (4)
1962	June 4 (3 eggs)	June 10	June 26	June 29	June 29 or 30 (4)
1963	May 28 (3 eggs)	June 11	June 19	June 23	June 24 (3)

are now being covered slowly by willow and alder shrubs, lichens, and a variety of low perennials. Tattlers nest in the gravelly areas, but they forage along the stream both in rocky and in partly-vegetated places.

I spent the period from mid-May to September at Eagle Creek each year from 1960 to 1963. Although I could not study any aspect of the tattlers' behavior intensively, it was possible to get some data on arrival dates, courtship, nesting, and post-nesting activities of the species. Detailed records of visits to nests are deposited with the Alaska Nest Records Scheme, Department of Biological Sciences, University of Alaska, College.

Approximate arrival dates are known for 4 years: May 27, 1956; May 21, 1960; May 16, 1961; May 23, 1962. In 1963, tattlers were present when I first visited Eagle Creek on May 19. Mrs. Alice Hering, of central Alaska, saw no tattlers in the area on May 14 that year.



FIG. 2. Newly hatched young and egg of Wandering Tattler.

Tattlers made frequent aerial display flights from the time they arrived at Eagle Creek to mid-June, the displays becoming less common toward the end of this period. Usually only one bird engaged in the flights, although in 1961 and 1963 two occasionally were aloft at once. In 1961 and 1963 two pairs of tattlers occupied territories one mile apart along the creek; in the other years only one pair was present. The flight path normally followed the center of the valley,

and the bird's course was quite direct. The tattler usually flew downstream from the nesting area for about one mile, staying 500 to 1000 feet above the creek. As it flew, the bird gave a high, rapid whistle, much like that made by courting Lesser Yellowlegs (*Totanus flavipes*) in flight. Each long phrase lasted 10 to 20 seconds. When there were two pairs in the valley, the flight path of an adult from one territory often included the space over the neighboring territory.

From 1957 to 1960 a pair of tattlers laid eggs in a nest on a tailing pile one mile from my camp at Eagle Creek. In 1961 the tattlers occupied the same section of the valley all summer. However, snow and ice covered the old nest and much of the adjoining streamside in late May, and the pair made a new nest about one-fourth mile downstream in a site remarkably like the original one. The site occupied from 1957 to 1960 was used again in 1962 and 1963.

Information on the nesting of tattlers at Eagle Creek from 1959 to 1963 is summarized in table 1. A few tentative generalizations are possible: (1) Tattlers begin laying from one to one and one-half weeks after their arrival on the breeding area; (2) the clutch usually contains four eggs; (3) the incubation period is 23 to 25 days, assuming that incubation begins the day the last egg is laid; (4) pipping requires about three days; (5) the young leave the nest within one day after hatching.

During the nesting period only one adult, the incubating bird, was seen close to the nest site. The other adult was always found 100 yards or more from the nest.

Incubating tattlers allow humans to approach closely. The sitting bird rarely flushed when I approached within 10 feet, and on several occasions 5 to 10 people approached the nest, one after another, to take photographs at distances of 3 to 5 feet. Adults with newly hatched chicks, when disturbed, called vigorously and fluttered around the observer. Occasionally an excited parent alighted on the top of an alder or willow shrub, usually staying there only a few seconds.

Tattlers carried all fragments of hatched eggs from the nest as soon as the chicks hatched and thus before the chicks left the nest. In 1963 an unhatched egg disappeared from the nest one day after the young left, although in 1958 an unhatched egg was abandoned in the nest.

Both parents care for the chicks for the first week after hatching, but at the end of about two weeks it was rare to find both adults with the brood. Whether the brood divided at this time, or whether one parent left the breeding area, is not known.

Even when very young, tattler chicks could swim well. When I disturbed the brood, chicks often hid in the water behind rocks at the stream's edge with head and long, blue legs held close to the body. On June 28, 1963, the five-day-old chicks were found across the creek from the nest. The downy young must have succeeded in swimming across this rapid stream, which was eight feet wide or wider in the vicinity of the nest at that time.—ROBERT B. WEEDEN, *Alaska Department of Fish and Game, Fairbanks, Alaska, May 5, 1964.*

The Cattle Egret Reaches the West Coast of the United States.—On March 7, 1964, Duane Carmony and I found two Cattle Egrets (*Bubulcus ibis*) feeding with cattle at Imperial Beach, San Diego County, California. One bird was collected and proved to be an immature female. The specimen was prepared by Richard C. Banks and is now in the San Diego Natural History Museum. The second bird also appeared to be an immature. It apparently settled down in the Imperial Beach area, where it has been noted feeding with cattle and domestic white geese in the fields about a mile inland from the coast. In late April this second bird was acquiring buffy feathers on the crown, lower foreneck, and back, and the legs were changing from blackish to yellowish. This bird was last seen on April 18.

Palmer (Handbook of North American Birds, 1, 1962:443) shows no record of the Cattle Egret for the west coast of North America but states that it is rapidly expanding its range. Recently I have heard of two sight records from the west coast of México, one of them from southern Sonora, and another from the Imperial Valley of California. I feel that the Cattle Egret most likely reached California by ranging up the west coast of México from Panamá and not by flying across the arid southwestern deserts from coastal Texas. It is possible that the Cattle Egret will soon be found to be of regular occurrence in suitable areas along the west coast of North America.—R. G. McCASKIE, *Tahoe City, California, May 3, 1964.*