

and D, two square miles in Elizabeth-Clay townships.—HERBERT H. BECK, assisted by BARTON SHARP, ELBERT NIXDORF, and JAMES COHO, *Franklin and Marshall College, Lancaster, Pennsylvania.*

Western Sandpiper in western Missouri and eastern Kansas.—An unusual occurrence of the Western Sandpiper (*Ereunetes maurii*) was noted in late summer of 1940 in western Missouri and eastern Kansas. Bent ('Life Histories of North American Shore Birds, Part I': 262, 1927) says ". . . it is rare or casual inland . . . migration records for the great interior are almost entirely lacking and how it reaches the Atlantic coast, where it is so abundant in fall and winter, is a mystery." Widmann ('A Preliminary Catalog of the Birds of Missouri,' Trans. Acad. Sci. St. Louis, 17: 70, 1907) states that this species "has been taken a few times in spring on sandbars in the Mississippi River by Mr. Chas. K. Worthen of Warsaw, Ill." Harris ('Birds of the Kansas City Region,' Trans. Acad. Sci. St. Louis, 23: 251-252, 1919) mentions that the Western Sandpiper "has been identified two or three times in spring flocks of other shorebirds, but no specimens have been taken." This is the latest information that the writer has on the occurrence of this species in Missouri. Bunker ('The Birds of Kansas,' Kans. Univ. Sci. Bull., 7: 144, 1913) says of this species, "new to the list, added by G. D. Hanna, May 26, 1906, near Lawrence. In the spring of 1906 six more specimens were collected, and one in 1910." Dumont ('A Revised List of the Birds of Iowa,' Univ. Iowa Studies Nat. Hist., 15: no. 5, 72, 1933) states, "the only Iowa record is of two males and a female, collected by Paul Bartsch at Burlington, Des Moines County, October 15, 1895." It is interesting that no fall records are available in Missouri.

Because of the failure of the June rise of the Missouri River, which usually overflows into the adjoining lakes, the water level of the lakes in the Missouri River valley in the region of Kansas City became low in the summer of 1940. The receding water left extensive mudflats at Sunshine Lake, Ray County, Missouri, and Sugar Lake (until August 18), Buchanan County, Missouri, both of which attracted large numbers of shorebirds in late July and August.

On July 14, 1940, Mr. Harold Hedges and the writer first identified at Sunshine Lake ten Western Sandpipers among a total of eighteen sandpipers, which consisted of three Spotted Sandpipers (*Actitis macularia*), two Lesser Yellow-legs (*Totanus flavipes*), and three smaller sandpipers which flew before they could be identified. The 'Westerns' were studied for over 30 minutes in good light with 8-power binoculars. The bills of the 'Westerns' were noticeably longer than the heads, thick at the base, and slightly down-curved at the end. The upper parts and heads were quite rusty; the breasts were dusky; legs were black.

The first of this species was seen on July 4, 1940, by the writer at Bean Lake, Platte County, Missouri. Although this bird was unidentified at the time, notes were taken of certain pronounced characteristics: bill was longer than the head and was slightly down-curved at the end; size about the same as a 'Semipalmated'; breast was dusky.

Some friends notified me of some shorebirds seen at a small pond near Knobtown, Jackson County, Missouri, on July 14, 1940. I visited this place on July 15 and found three Western Sandpipers.

On July 21, I visited Sugar Lake. Six Western Sandpipers and four Semipalmated Sandpipers (*Ereunetes pusillus*) were compared. The rusty on the head and sides of neck was noted on five 'Westerns'; the sixth bird was lighter on the breast and light gray on sides of head and neck. On this same day, Mr. Hedges

observed two Western Sandpipers among other shorebirds at Shawnee Lake, Shawnee County, Kansas. He informs me that one of these two was almost in full breeding plumage as it was quite rusty on head, neck, and scapulars.

Western Sandpipers were again seen on July 28, 1940, by Mr. Hedges and the writer at Sunshine Lake. Three and one-half hours were spent searching and observing the 350-400 shorebirds. Five 'Westerns' were identified with certainty among about thirty Least Sandpipers (*Pisobia minutilla*) and twenty Semipalmated Sandpipers. Due to the difficulty in identifying the Western Sandpipers, more might have been present. The 'Westerns' were evidently in the process of molting as they were much grayer, especially about the head and neck, than those seen in the previous three weeks.

The species was most numerous on August 4, 1940, when at least fifteen were seen at Sugar Lake by Mr. Hedges and the writer. Also present were about 150 Least Sandpipers and 200 Semipalmated Sandpipers. At Sugar Lake on August 11, 1940, Mr. J. W. Cunningham, Mr. Hedges, and the writer saw six 'Westerns.'

Of seven 'Westerns' observed at Sunshine Lake on August 18, 1940, by Mr. Cunningham, Mr. Hedges, and the writer, one which proved to be a female, was collected by Mr. Cunningham, for the University of Missouri. The measurements of this specimen are: wing, 99 mm.; tarsus, 23; bill (culmen), 28; tail, 39. On this date the 'Westerns' were compared with three Baird's Sandpipers (*Pisobia bairdi*), one of which was collected by Mr. Cunningham. The Baird's Sandpiper is a slightly larger bird than the Western, is browner above with white-edged feathers, and has a brownish breast; the bill is not as long.

Five Western Sandpipers were seen at Sunshine Lake on August 25 by Mr. Cunningham, Mr. Hedges, and the writer. Comparisons were again made in the field with Baird's Sandpipers. Mr. Cunningham and I visited the same place on September 1, 1940, and saw three 'Westerns.' On subsequent trips we failed to find this species.

Having had considerable experience with this species in these two months, the writer was able to distinguish it without the aid of glasses. On all occasions the Western Sandpipers' preference for the deeper water was noticed, while the Semipalmateds preferred the water near shore, and the Least Sandpipers stayed more on the shore. The bill is carried downward by the 'Western,' which is a helpful aid in identification; even in flight, the bird carries its long bill tilted downward. On all occasions the Western Sandpipers were compared with other small sandpipers. Future studies may reveal to us that this species regularly migrates through this region.—EARL T. NEWTON, 5500 College Avenue, Kansas City, Missouri.

Types of shorebird flight.—During the spring and fall of 1940 and the spring of 1941 I had frequent chances to watch shorebirds from the air over San Francisco Bay. Sometimes, under the privileges of a practice area, it was even possible to follow up individual flocks at altitudes elsewhere illegally low. Most flocks, merely shifting about their feeding grounds or flushing ahead of a low-flying plane, seemed capable of very little speed,—even small commercial ships passed over or overtook them at two to one, and I began to doubt whether Least or Western or Red-backed Sandpipers (*Pisobia minutilla*, *Ereunetes maurii*, *Pelidna alpina sakhalina*) or godwit or curlew (*Limosa fedoa* and *Phaeopus hudsonicus* or *Numenius americanus*) could exceed at most 45 to 55 miles per hour, air speed, which roughly corresponds to Meinertzhagen's figures (*Ibis*, (11) 3: 228, 1921), until a single startling experience removed all doubt. Previously I had seen few flocks at alti-