## Accurate recording of seabird positions at sea

by Richard A. Rowlett

BIRDERS SEEKING PELAGICS are encouraged to obtain the precise positions of their sightings and to express these in latitude and longitude (geographic coordinates); this is especially important for unusual species, feeding activity, areas of fishing, etc. Analyses of various biological and hydrographic features would make corresponding analysis of seabird distribution more interpretable.

Positions may be readily obtained from the captain of the vessel or by yourself, from an electronic instrument known as a loran (LOng RAnge Navigation) receiver which is standard equipment on all fishing and party boats. Radio pulses are sent at synchronized intervals from stations on the mainland. The difference in time of arrival of the pulses from two stations is measured electronically in microseconds and recorded on modern receivers in digital form as two alternating sets of numbers. Older receivers require adjustment of dials to match the pulses, which appear as waves on an oscilloscope; this requires the time of the captain and should be requested with discretion.

THESE PULSES ARE TRANSMITTED in two THESE PULSES ARE INSTRUMENT forms, Loran-A and Loran-C. To get the "loran fix," copy the two alternating sets of numbers that appear on the receiver, and match them with the intersecting Loran "A" or "C" lines printed on standard navigational charts prepared by the National Oceanic and Atmospheric Administration (NOAA). The latitude and longitude can then be determined from the chart. It is not difficult, but to eliminate the possibility of error, you should enlist the aid of the captain to help you until you gain confidence. It is important to know which Loran pulses you are receiving, and to correspond them to the proper navigational chart!

It only takes one or two seconds to jot down the Loran coordinates in a field notebook. The latitude and longitude can be determined later when there is more time and less ship movement. Accurate record keeping will certainly enhance the value of observations made at sea.

Appreciation is extended to Chandler S. Robbins for his helpful critique of this note.

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## Savannah Sparrow (Passerculus sandwichensis) extends its breeding range into upper Eastern Tennessee

by Fred J. Alsop, III

N JUNE 23, 1973 I flushed an adult Savannah Sparrow from a dry hayfield in Hawkins County, Tennessee, as I searched the field for nests of the Grasshopper Sparrow. Savannah Sparrows have the status of migrant and winter visitor in this state and I was most surprised to find the species still present on this late date. Subsequent trips to the field also produced a single bird on June 24th-28th. On the 29th, three adult Savannahs were flushed and observed from close range as they perched on a bordering fence. As I walked through the field

on July 2 a Savannah Sparrow flew from the grasses almost from beneath my feet. A short search produced the nest containing three eggs. I returned to the nest on July 7 and three nestlings two to three days old were present. A blind was set up and the birds were photographed as they were fed by a single parent over a two-day period. The young birds were banded on July 10 by Tom Bowman with U.S.F. & W.S. bands #56-360 25, 26, and 27 On July 17 the nest was empty and the adult chipped excitedly at me as I searched near it for

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Savannah Sparrow, photographed July 3, 1973, at the first known nest of this species in Tennessee. Adult with 3 young, approximately 3 days old, in Hawkins County, Tenn. Photo by Fred J. Alsop, III.

the fledglings without success. I found the adult and one short-tailed young on July 21 and was able to see that the juvenile was banded.

The actual nest site was a dry hayfield at an elevation of 1150 feet. The nest was on the ground and well concealed by a cover of grasses and herbaceous plants approximately 10 - 12 inches tall. It was a shallow cup averaging 11/2 inches in depth and four inches in diameter, and was constructed of loosely interwoven grasses with a lining of finer grass. The dominant cover in the field and over the nest was Orchard Grass (Dactylis glomerata). The most common additional vegetation was a mixture of Wild Stonecrop (Sedum ternatum), Canadian Burnet (Sanguisorba canadensis), Red Clover (Trifolium pratense), Horse-nettle (Solanum carolinensis), and Creeping Woodsorrel (Oxalis corniculata). Other passerines nesting in the field were the Grasshopper Sparrow, Red-winged Blackbird and Eastern Meadowlark.

Geographically, the nest was located at 36°30′30″N, 82°42′45″W in Hawkins County, Tennessee, on McPheeter Bend south of the Holston River. In the field the nest was 400 feet W of Goshen Creek and 800 feet N of River Road.

THOUGH MORE THAN 90 man-hours were spent in the field and the songs of the many other species were heard hundreds of times, no song of the Savannah Sparrow was ever detected that would have indicated the presence of this bird. Perhaps the absence of song can be attributed to the lateness of the dates I worked the area; this could have been a second nesting attempt by this bird, which seemed to have no mate.

This constitutes the first and only known nesting of the Savannah Sparrow in Tennessee and serves to extend the breeding range of this species southward by several hundred miles.

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