

Polygamy among Swamp Sparrows.—Systems of mating are of considerable biological interest; the field observations reported herein are relevant to the consideration of the evolution of polygamy presented by J. Verner and M. F. Willson (*Ecology*, 47, 143–147, 1966). These authors have shown that polygamy in North American passerines is most common in species inhabiting vegetation that presents a small vertical dimension, i.e., marshes, prairies, and savannahs, and that most of the regularly polygynous species breed in marshes.

Swamp Sparrows (*Melospiza georgiana*) are common breeding passerines of marshes in eastern Massachusetts. During June, 1965, I made several trips to the marshes of Great Meadows National Wildlife Refuge, Concord, Massachusetts, and to a large marsh along the Sudbury River, west of Wayland, Massachusetts.

In these marshes, male Swamp Sparrows most frequently held territories over shallow water near shore, in mixed stands of sparse cat-tail (*Typha*), grasses, and weeds (and sometimes bur-reed, *Sparganium*), but were occasionally found in vegetation composed of shrubs and arrowhead (*Sagittaria*). Territories varied greatly in size, but whether their territories were large or small, males and females foraged in the woods and shrubbery on shore as well as in the marsh.

One male at the Wayland marsh, on a territory comprised largely of a dense stand of shrubs, was unpaired and was singing vigorously even as late as mid-June. Another male at Wayland was bigamous; each of his females had a "subterritory" on which she foraged. The male's favored singing perches were between the females' centers of activity, and he frequently flew into both subterritories. On 12 June the male was attentive to both females, but concentrated his activity in the area of one of them and carried food to her brood. Three days later the male paid little attention to either female. By this time the young of the earlier brood were out of the nest and the female was feeding them close to shore.

One male at Great Meadows was also bigamous; here, too, each female had a subterritory within the male's territory. This male followed both females on 15 June and sang frequently from both subterritories. Two days later, one of the females left to spend most of her time in the woods, perhaps feeding fledglings, and was seldom seen on the marsh. The male at this time was closely attentive to the second female, and by 26 June, both male and female were feeding fledglings. When the first female left the marsh, the territory utilized by the male contracted until it was only slightly larger than the subterritory of his second female.

In both cases of bigamy observations began too late to ascertain if the males fed nestlings of the first females, but both males fed young of their second females. In neither case did the nestling periods of the two broods overlap extensively.

Eight males at Great Meadows each had only one mate in evidence at the times of observation. However, it is possible that, earlier in the season, some of these may have been mated to other females. Two of these apparently monogamous males assisted their mates in feeding the offspring. The female of another male was not seen, but the male fed fledglings on and after 17 June. This male sang more frequently than any of his neighbors through 27 June; a female was carrying nesting material on his territory on 22 June, but was not seen again.

The present observations of Swamp Sparrows revealed that, of 12 males observed, 1 was unpaired, 8 had one mate each at the times of observation, and 2 (or about 18 per cent) were bigamous. Thus it is possible that Swamp Sparrows are among the regularly polygynous passerines nesting in marshes. So far as I know, polygamy has not previously been reported for this species.—MARY F. WILLSON, *Department of Zoology, Vivarium Building, University of Illinois, Champaign, Illinois.*