

Mary Brewer

1945

BIRD COMMUNITIES OF THE INDIAN RIVER  
MARSH AND VICINITY

The Indian River Marsh and vicinity presents a more or less complete succession of plant life ranging from open water to secondary hardwood. Not only are the successional communities found there but also ecotones indicating the invasion of one type of plant into a different community as the soil is made ready by its predecessor. The plant successions and ecotones found in this area are: (1) Open Water, (2) Bulrush, (3) Bulrush-Cat-tail, (4) Cat-tail, (5) Cat-tail-Sedge, (6) Sedge, (7) Cedar-Tamarack, (8) Aspen, (9) Oak-Maple. The study of the habitat of the bird life of such an area in terms of ecological relationships was the problem for our special attention during the field trip of June 25, 1945.

OPEN-WATER

The open water of the marsh was not, for the most part, confined to any one large area, but consisted, rather, of wide channels winding through the vegetation. The plant life of the open water consisted of the Potamogetans and other aquatic forms. No birds were seen swimming in the area, but overhead numerous Black Terns circled and occasionally a Red-winged Blackbird, Common Tern, or Caspian Tern was seen flying by.

BULRUSH

The bulrushes bordered the open water and extended various

distances back from the edge of the water finally to mix with the cat-tails to form a bulrush-cat-tail ecotone. In the bulrush community was found the nest of the Pied-billed Grebe. This nest was a floating mass of decaying vegetation resting on debris which had been heaped up from the bottom of the surrounding flooded area. It rested at water level. Although the outer diameter of the nest was 14 inches, the actual cup measured only three inches in diameter. The outer edge of the cup was two inches above the level of the water. The eggs had been effectively covered over with decaying vegetable matter, and when brought to view by uncovering, they showed stains from the wet material with which they had been covered.

#### BULRUSH--CAT-TAIL

The bulrush-cat-tail association was quite extensive. From the bulrushes to the cat-tails it occurred in islands or long stretches of territory.

The Black Terns which had been seen flying over the open water nested in the bulrush-cat-tail ecotone. As was the case with the Pied-billed Grebe this nest was situated on floating debris. It was made of bulrushes and rested a little higher above the surface of the water than did the Pied-billed Grebe's nest. It was not covered with vegetation.

Occupying the same ecotone but using cat-tail stems and leaves for support were nests of the Red-winged Blackbird. The outer framework of the nest was made of bulrush reed which had been woven while the reeds were still wet and flexible. These reeds were also woven around the stems of the cat-tails. The nest was

lined with grasses and stood 12 inches above the surface of the water.

Still another bird that nested in this ecotone was the Least Bittern. The nest consisted of a platform six inches above the surface of the water. It was made of cat-tail reeds.

Flying over the area was an American Bittern which was being pursued by a Red-winged Blackbird. This was noted as an example of interspecific relationship in this ecotone.

#### CAT-TAIL

Pushing back from the cat-tail--bulrush ecotone we entered the cat-tail community. Here many dummy nests of the Long-billed Marsh Wren were seen. These had been made by the male bird and proved distracting in our search for an occupied nest. The occupied nest we found was built  $22\frac{1}{2}$  inches above the surface of the water. It was made entirely of cat-tail stems and leaves which were interwoven with the living rooted plants, and it was lined with cat-tail down. All the nests were definitely restricted to the cat-tail community.

#### CAT-TAIL--SEDGE

In the cat-tail--sedge ecotone two kinds of rail nests were found: Sora Rail and Virginia Rail. The nest of the former was made of cat-tails which had been laced together with sedges. It was built  $7\frac{3}{4}$  inches above the water. The Virginia Rail nest was made of sedges and was so supported by sedges that it stood just above the level of the water. The top of the cup was only  $3\frac{1}{2}$  inches above the surface of the water. A study of the inter-

specific relations of these two rails would be an interesting problem.

#### SEDGE MEADOW

In the sedge-meadow community many Swamp Sparrows and Song Sparrows were seen as well as Cedar Waxwings, Spotted Sandpipers, Tree Swallows, Rough-winged Swallows, and Bronzed Grackles. No nests were found.

#### CEDAR-TAMARACK

The cedar and tamarack community was a dense forest area which, except for the roadways through it would have been almost impenetrable. In this area the only birds seen were the Crow and Flicker. Those identified by song were the Black-capped Chickadee, Golden-crowned Kinglet, Black and White Warbler,, Northern Yellow-throat, Myrtle Warbler, Black-throated Green Warbler, and Purple Finch.

#### AS PEN

In the aspens the usual birds of that type of community were seen or heard. Those which were identified either by song or sight were Kingbird, Peewee, Blue Jay, Robin, Red-eyed Vireo, Oven-bird, American Redstart, Rose-breasted Grosbeak, Indigo Bunting, and Baltimore Oriole. At the edge of the association the Goldfinch was also seen.

### OAK-MAPLE

Leaving the aspens we went to an oak-maple community to eat lunch. Since it was mid-day there was little activity among the birds. During the preparation of the lunch, however, we identified Starlings, a Catbird, and a Phoebe.

### 3. SUMMARY

Because of the variety of plant life in the area studied a large number of birds were seen. There was some over-lapping of territory into more than one type of community in some instances, but for the most part birds held to a given type of association. This may be because of their dependence on a certain type of plant for food and cover that they do not vary to any great extent in type of habitat.

DISTRIBUTION OF BIRDS IN SUCCESSIONAL COMMUNITIES

Location of area:  <b>INDIAN RIVER MARSH + SHORE.</b>	Date (or dates): <b>6/25/45</b>
	Number persons making study: <b>9</b>
	Weather rating: <b>GOOD</b>

General description of area:  S = SEEN H = HEARD N = NEST	Communities and Ecotones								
	OPEN WATER	BULRUSH	CAT-TAIL	CAREX (SEGE)	CEDAR + TAMARACK	Sec. HARDWOOD (ASPEN)	BULRUSH - CAT-TAIL	CAT-TAIL-SEGE	OAK - MAPLE
Species									
VIRGINIA RAIL			N					N	
REDWING BLACKBIRD	S						N		
PRAIRIE MARSH WREN		N	NS						
SORA RAIL								N	
BLACK TERN	S						N		
PIED BILL GREBE		N							
LEAST BITTERN							N		
Coot		H							
KILLDEER	H								
SPOTTED SANDPIPER				S					
COMMON TERN	S								
CASPIAN TERN	S								
MOURNING DOVE									H
BELTED KINGFISHER		S							
FLICKER					S				
PHOEBE									S
TREE SWALLOW				S					
BLUE JAY						H			
CROW					S				
BLACK-CAPPED CHICKADEE					H				
CATFISH									S
ROBIN						S			
VEERY						H			
CEDAR WAXWING				S					
STARLING									S
RED-EYED VIREO						H			
RED-BELLIED BLACK + WHITE WARR					H				
MYRTLE WRETLER					H				

