## BIRDS OF NEW JERSEY

Their Habits and Habitats

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NOTE: These pages are excerpts from a textbook available through the HMF or University Libraries

## Hutcheson Memorial Forest Property

The William L. Hutcheson Memorial Forest property (which includes adajcent fields) is a natural research area of Rutgers University. The land is open to the public only for scheduled tours, which are conducted throughout the year. Information on tours is available from the Department of Botany, Rutgers College, New Brunswick. The forest is located on Amwell Road, just east of East Millstone.

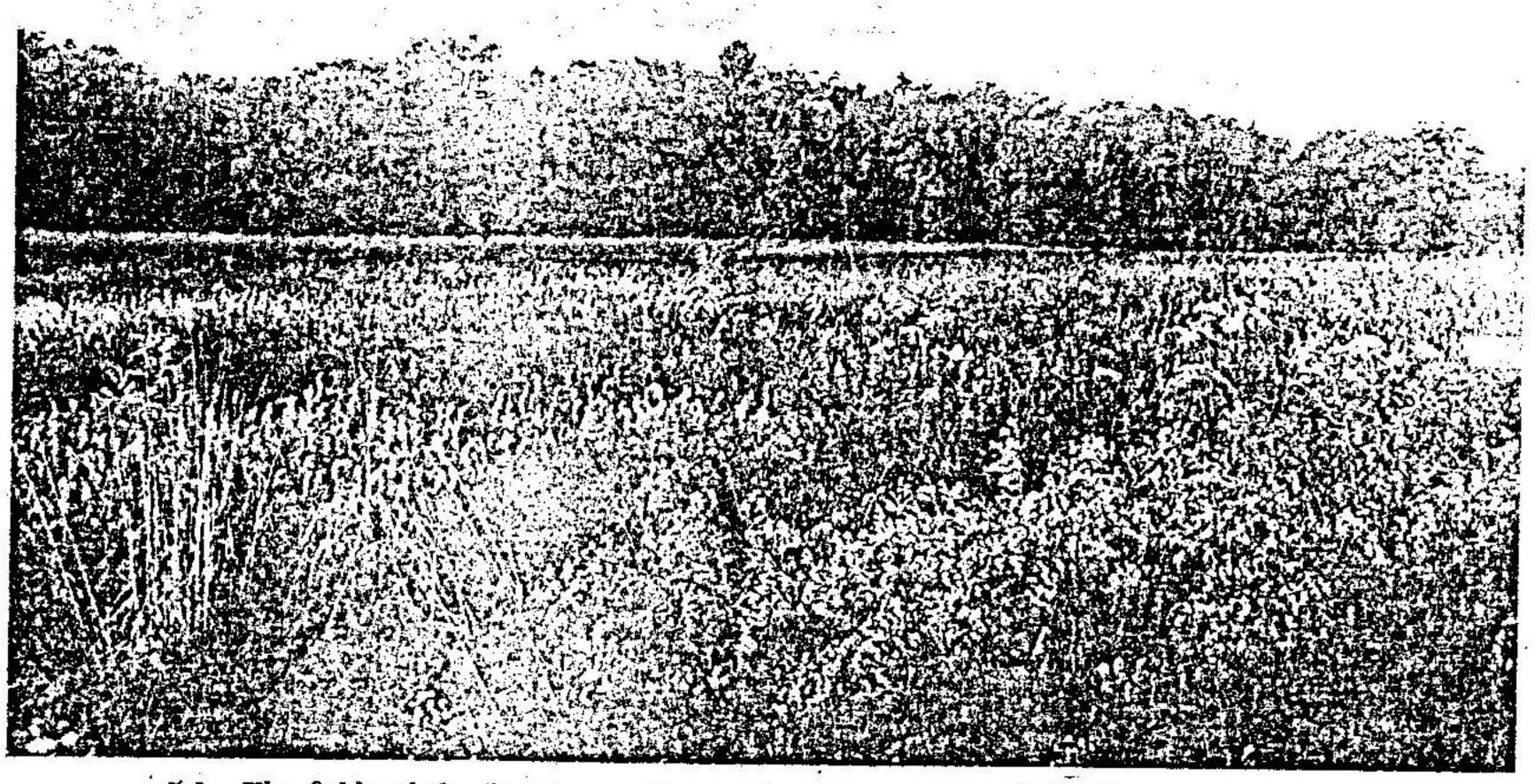
The William L. Hutcheson Memorial Forest consists of sixty-three acres of mature oak woods, representing part of the only virgin land in New Jersey. This land is owned by Rutgers University and is used primarily as a natural research reserve. Inasmuch as the forest has been uncut since 1700 it provides a unique climax habitat, and it is of considerable interest to ecologists. The birds of the forest have been studied under long-term banding projects initiated by Jeff Swinebroad and continued by Rutgers students and myself.

Surrounding the forest is a large set of fields, most of them 1 hectare each, the date of whose last plowing is known. This set of fields provides a direct look at succession in natural vegetation (Photo 5-1). Plants of the first year after cultivation is stopped include common ragweed (Ambrosia artemisiifolia), lamb's quarters (Chenopodium album), wild radish (Raphanus raphanistrum), three-seeded mercury (Acalypha rhomboidea), and yellow wood sorrel (Oxalis stricta). As the fields remain uncultivated there is a regular change of plant species through invasion of seeds dispersed by wind or birds. Early invading trees include the dogwood, red maple, red cedar, and the introduced tree of heaven (Ailanthus altissima). The fields are usually dominated in the early stage by broom sedge (Andropogon) as well. A forest of saplings may appear in thirty years and a young woodland in fifty years. Cultivated fields with such crops as soybeans, alfalfa, and corn also are maintained on or near the forest property.

## FIELDS

The most common predator is the Sparrow Hawk, often seen hovering above the open fields. While hovering it has the ability to remain stationary above a possible prey by carefully co-ordinating its flight speed with the wind. If a brief search is unproductive, the hawk continues with a forward flight. Although it forages for grasshoppers or meadow voles, it nests at the edge of the forest in a hollow tree trunk, often in the top of a broken oak. It is quite adaptable and will eagerly accept as a nest a box from any farmer who wishes to control mice. The young Sparrow Hawk makes awkward sallies on its initial flights from the nest cavity and feeds on insects until it acquires the hunting skills of the adults.

Field game includes the Pheasant, Bobwhite, and Mourning Dove (Photo 5-2). The Pheasant seems a worthy



5-1 The fields of the Hutcheson Memorial property surround the forest itself, in the background. This field is three years old. Photograph by the author



5-2 The Mourning Dove. Photograph by Karl H. Maslowski from National Audubon Society

meal, but the dove, with its fast flight, is a challenging target for hunters. Good game management is necessary for hunting the Bobwhite—the hunters can remove half of a local population in a single season. How much better it is to hear the birds calling every day! In the colonial period Bobwhite Quails were extensively hunted for food and sold for as little as a penny apiece. Of course, hunting is not allowed on the research property.

Swallows of several species forage over the fields, especially during the late summer. Most numerous are the Barn and Tree swallows, over cultivated and uncultivated fields alike. Both species are masters of the air, remaining in flight while feeding, drinking from the stream, or even when preening.

The Bluebird is no longer common, for reasons not yet known, but the Hutcheson fields provide one of the few remaining locales for the species in nesting season. The actual nest is in a hollow stump. The Bluebird forages in the fields, but even there its appearance has become intermittent, and the species' future is uncertain. Biologists have suggested several possible causes of the birds' scarceness, including competition with the introduced Starling for nesting holes and the widespread use of pesticides.

Recently plowed portions of the property attract numbers of Robins, which bring the seeds of forest plants in their crops, such as seeds from dogwood berries. This is another species that has suffered from insecticides applied to lawns and shade trees. The toxic chemicals are washed into the ground by rain and mixed with soil that is eaten by earthworms. The birds then accumulate the poisons through their earthworm diet. I have seen many Robins dying from such poisoning—they characteristically lie on their backs, with wings trembling and feet oustretched in

a rigor mortis position. Whenever one sees many birds being killed in this way he should immediately notify the State's

Department of Environmental Protection.

Bands of transient Water Pipits appear briefly in late autumn, having traveled hundreds of miles from the arctic tundra. They pass through the fields quickly on their way to coastal wintering grounds. Later, as winter snow begins to dust the fields, Horned Larks are common. This is the only lark native to North America and it is representative of a worldwide family of seventy-five species. One foreign member of the family, the European Skylark, which is famous for its elaborate aerial songs, was introduced in New York City before the turn of the century, but none survived. A few Horned Larks remain to nest in the Hutcheson fields in early spring. The open nest is a simple depression on bare ground, so eggs or young are often lost in late snow or hail storms.

Where sufficient pasture is available Meadowlarks nest and attract attention by calling from fence posts or sometimes even from the top of telephone poles. As with many birds of the pasture, the ground-nesting Meadowlarks suffer considerable mortality when nesting coincides with the mowing season. Farmers regret this loss as much as bird watchers because these birds are excellent predators of grasshoppers. Because Meadowlarks are polygamous the females alone are responsible for building the domed grass nests, incubating the clutch, and raising their three to seven nestlings apiece. The males finally assume some responsibility after the young fledge and the females start second nestings.

Blackbirds are the most numerous field visitors, migrating in tremendous flocks in spring and fall. In such numbers they can cause serious loss to growers of corn and other grains. Redwings and Common Grackles arrive literally in the thousands. Various controls include the traditional scarecrow and the more modern noise-cannon, which makes an explosive blast every twenty minutes. I think the poisoned-grain techniques of recent years are rather unsuccessful and potentially dangerous. The grackle, Meadowlark, and Redwing are but a few of the many species in the blackbird family, Icteridae. More than ninety species occur in this New World group, from Alaska to Tierra del Fuego.

The Indigo Bunting is probably best considered a forest-edge species, but is certainly a common forager of weed seeds or insects of the field. As with many birds, the male returns in spring a few days earlier than the female to establish its territory. Joining it is the American Goldfinch (Photo 5-3), which is especially fond of the thistle—in fact, thistle seeds quickly attract goldfinches to feeding stations. This finch is sometimes called the "wild canary" and is well known to bird watchers for its confusing color-changes through the seasons. It is the official State bird of New Jersey as well as of Iowa and Washington.

Other sparrows breeding in these fields include the Grasshopper Sparrow, which is especially partial to old grassy upland meadows. This diminutive bird is named for its curious call, a brief insectlike trill. The disappearance of upland meadows throughout New Jersey has been accompanied by a decline in the number of Grasshopper Sparrows, so that many beginning bird watchers are unfamiliar with their interesting song. Likewise, the Vesper Sparrow of farm fields has drastically declined, although one may still hear it at Hutcheson. Fortunately, Chipping Sparrows and Field Sparrows remain common as summer breeding birds. Both use the young low cedars of the fields for their nests and are easily followed through the nesting



Audubon Jersey. Here the male brings food National Austing from bird of New Jer by G. Ronald 5-3 The American Goldfinch, State the incubating female. Photograph Society

cycle. Song Sparrows also frequent the older fields, and in winter certain forest finches forage the fields in flocks, especially Slate-colored Juneos and White-throated Sparrows.

Fields throughout other parts of the State provide the only breeding habitats for a number of its scarcer birds, such as the Upland Plover, Bobolink, and Henslow's Sparrow. Some natural fields must be saved—not just State forests.

Agricultural fields also remain to be studied in detail; only the important game or pest birds are being researched. One area likely to provide new information on bird biology consists of New Jersey sod-farms, where accidental or rare migrants, such as the Buff-breasted Sandpiper and Golden Plover, are apparently regular transients.