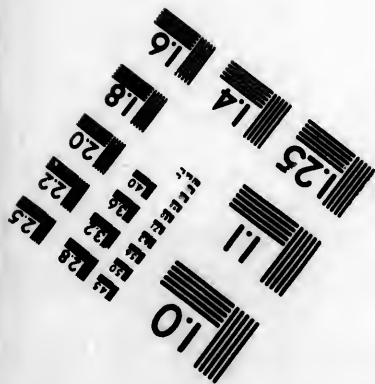
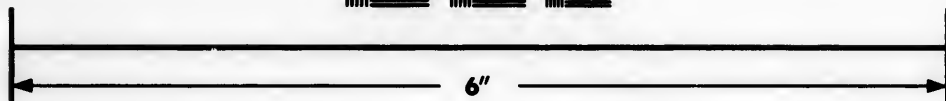
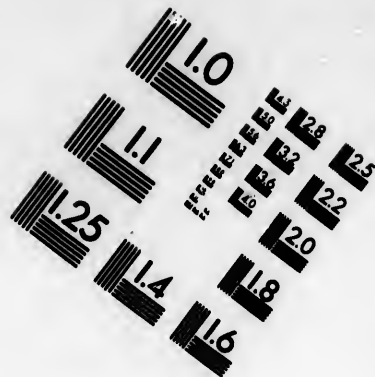




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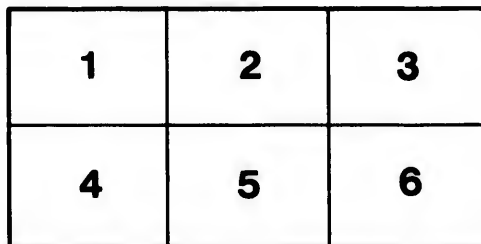
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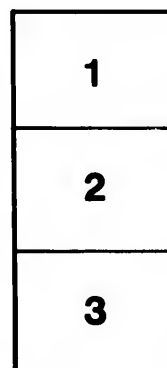
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BIRD STUDIES

THE ROBIN.



APPEARANCE : *Length*, ten inches. *Colours*,
—Male, dull brownish olive gray above, head
black, tail brownish black with exterior
feathers white at inner tip; wings dark
brownish; throat streaked with black and
white; white eyelids; entire breast bright
rushy red; whitish below tail. Female—
duller, with paler breast, resembling the male
in autumn.

RANGE : North America, from Mexico to
Arctic regions.

MIGRATION: October or November. Often resident throughout the year.

SONG: Joyous, vigorously clear and musical. Sings especially in early morning, in the evening and before rain. Has been interpreted as "Cheer up! Cheer up! cheerily, cheerily, cheerily," but varies considerably. (Never sings on the ground.)

NEST: *Position*—in low-branching orchard or shade trees, near houses, in vines or shrubs, or under shelter of eave or piazza. They like to be near human habitations and prefer to build near water, perhaps for the convenience of their masonry. *Materials*—Coarse grass, roots, leaves, or weed stalks for foundation, mud for inner walls, fine grass for lining.

FLIGHT: Strong, steady.

FOOD: Mainly worms or grubs from lawn or garden, insects and wild (and tame) berries or other small fruit. Young robins eat about one and a half times their own weight in a day.

HABITS: Toward the end of June the male and young birds collect at night in large numbers at some favourite roosting place, while the mother-birds are raising a second or third brood. In late summer when the robins moult they hide and keep silent for a time. In September, however, they return, being found in large flocks, mostly on the borders of woods, where they feed on dogwood, choke-berries and other wild fruits.

They may be coaxed to live and nest about our houses, even in cities and towns.

THE BLUEBIRD.



APPEARANCE : *Length*—seven inches. *Colours*—Male, upper parts, wings and tail bright blue, with rusty wash in autumn; throat, breast and sides cinnamon red, underneath white. *Female* has duller blue feathers washed with gray and a paler breast than the male. *Young*, mottled.

RANGE : North America, from Nova Scotia and Manitoba to Gulf of Mexico. In winter southward from Middle States to Bermuda and West Indies.

MIGRATIONS : March, November. Summer resident. A few occasionally remain throughout the winter.

SONG : Very sweet, softly whistled. "Tru-al-ly, tru-al-ly"; and in autumn "Tur-wee, tur-wee."

NEST : *Position*—a cavity in a fence rail, a hole in a tree. They like to build near human habitations if they can find suitable accommodation. *Material*—grass for lining of cavity. *Eggs*—Three to six, pale blue.

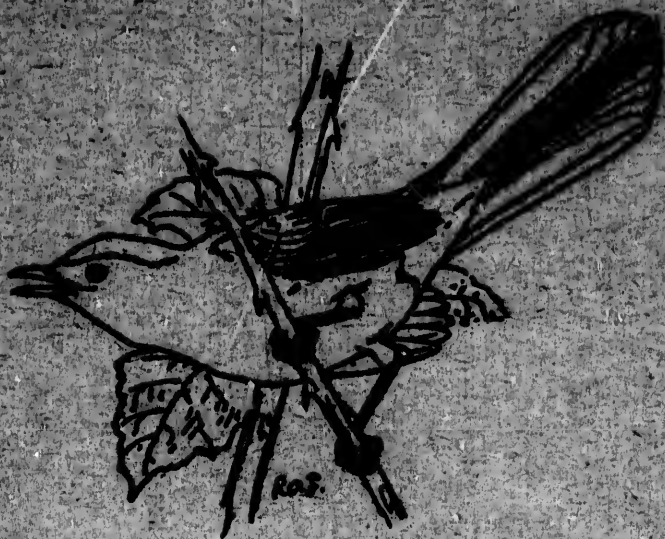
FLIGHT : Steady, undulating, erratic in autumn when they feed on the wing.

FOOD : Mainly insects, grubs, cutworms, moths, caterpillars, etc.

HABITS : Blue birds are among our earliest comers, often while the snow is still on the ground. In the autumn, when the nesting season is over, they collect in flocks in sheltered sunny places, where insects are still plentiful. They are among the last of the summer birds to migrate.

They take very kindly to bird houses, two, or even three, broods being raised in the same house each spring, but these should be ready for occupation in early March. Drinking water and bath should be provided.

THE CAT BIRD.



APPEARANCE : *Length.*—Nine inches. Male and female, dark slate above, somewhat paler below, top of head black. Distinct chestnut patch under the black tail, feet and bill black also. Wings more than two inches shorter than the tail.

RANGE : North America to Mexico ; west to Rocky Mountains, rarely to Pacific Coast. Winters in Southern States, Central America, and Cuba.

MIGRATIONS : May, November. A common summer resident.

SONG : Very sweet, exquisitely finished and rippling. "Prut ! prut ! coquillicot. Really, really, coquillicot ! Hey, coquillicot ! Hey,

sitory." A rollicking recitative. He has also a disagreeable cat call, *Leey—Lay*.

Nest: *Position*.—Hidden in bushy woodland thickets or in brier or vine along the roadside, only a few feet above the ground. *Materials*.—twigs, leaves, bark, rootlets, bits of twine or rag. *Eggs*.—four or five, dark bluish green.

Flight: An alert, steady flight.

Food: Insects, grasshoppers and moths; beetles, caterpillars, flies, spiders; fruits, tame and wild, mulberries especially, where they are found.

HABITS: Likes the vicinity of houses. Makes use gladly of bathing dish or drinking pan. Very neat and trim looking—but sometimes puffs and ruffles his feathers, hangs his head and droops his tail. Very friendly to each other. If a nest is disturbed, all the cat birds in the neighbourhood raise a clamour of mews and cat calls. If the parent birds are killed the little ones are fed by kind neighbours until able to fly. The catbird is a mocking bird, imitating the robin so that one can scarcely distinguish their calls. In fact, he will imitate many (perhaps all) of his bird neighbours and even attempt a squeaking door or the cry of some barn yard fowl. He is one of the most friendly and interesting of our common birds.

BALTIMORE ORIOLE.



APPEARANCE: *Length.*—Seven to eight inches. Male—head, throat, upper part of back glossy black. Wings black with white spots and edgings. Tail quills black with yellow markings on the tips. Everywhere else orange shading into flame. Female—yellowish olive, wings dark brown and quills margined with white. Tail yellowish brown with obscure dusky bars.

RANGE : The whole United States and the greater part of Canada, particularly in the West.

MIGRATIONS : Early May, middle of September, a common summer resident.

SONG : Insistent, strong, sweet and stirring. Easily imitated, and responding quickly to the whistle which calls him.

NEST : *Position.*—A long flexible pouch, rain-proof and anchored against the wind ; and swung from the end of a high branch of some tall tree preferably an elm or willow. Usually seven inches, but when hawks are plentiful it is deeper and partially covered over the top to conceal the sitting bird. *Material.*—Bits of string, threads of silk, yarn, shreds of bark and milk-weed stalks, skilfully woven together. Eggs, four to six, white, faintly streaked with blue.

FLIGHT : Strong and swift—like a flash of fire through the air.

FOOD : Insects, grubs,—of great value to the orchard and garden.

HABITS : Male arrives first in spring, when orchards are in blossom, in full plumage and song. Female birds come later in flocks. Male sings insistently until after the brooding time is over and family cares begin. He is much excited by the music of the piano and flies nearer and nearer the house where it is being played.

THE MEADOWLARK.



APPEARANCE: *Length*,—ten to eleven inches.
Colours,—male, upper parts brown, varied with chestnut, deep brown and black. Crown streaked with brown and black and with a cream-coloured streak through the centre. Dark brown line, apparently running through the eye; another line over the eye yellow. Throat and chin, yellow; a large conspicuous

Underneath yellow, shading into buffy brown, spotted or streaked with very dark brown. Outer tail feathers chiefly white, conspicuous in flight. Long, strong legs and claws adapted for walking. Less black in winter plumage which is more grayish brown. Female, paler than male.

RANGE: North America from Newfoundland to the Gulf of Mexico and westward to the plains, where the Western Meadowlark takes its place. Winters southward from Massachusetts and Illinois.

MIGRATIONS: April, late October. Occasionally remaining throughout the winter.

SONG: A tender, sweet, plaintive, flute-like whistle "*Spring-o'-the-year*," but he has several delightful songs. Usually he has a favourite platform—stump, fence, rock or mound, to which he goes for his musical performance only. A nasal sputtering call when disturbed.

NEST: *Position*,—on the ground, well-concealed amongst the grass. *Material*,—grass. *Eggs*,—four to six.

FLIGHT: Alternate flopping and sailing through the air. Not a good flyer.

FOOD: Mainly grasshoppers and other destructive insects.

HABITS: Shy, keeping well hidden in the grass. Turns its back to conceal its conspicuous yellow breast. It is a strong active walker, rarely flying except when disturbed, and then only for short distances.

THE RED HEADED WOODPECKER.



APPEARANCE—Length $8\frac{1}{2}$ to $9\frac{1}{2}$ inches.
An inch or less smaller than the robin. **Colours**
—Head, neck and throat crimson ; breast and
underneath, white ; wings and tail, blue-

black; with broad white bands on wings, conspicuous in flight. A high-shouldered, stocky bird. Toes arranged two in front, two behind, for purposes of clinging to the rough bark of trees. Tail strong and rounded that it may be used as a prop.

RANGE—From the Rocky Mountains to the Atlantic—north as far as Manitoba (seldom found in New England States).

MIGRATIONS—Very irregular—migrates only when he cannot find plenty of food to keep him through the winter.

SONG—Does not sing.

NEST—A hollow, chiselled out of some partly decayed tree.

EGGS—Glossy white.

FLIGHT—Strong, direct.

FOOD—Insects, beechnuts, acorns, grasshoppers.

HABITS—He stores nuts and other food for winter use in holes and crevices as does the squirrel. He flits from stump to fence-post and catches insects on the wing. The only time it pecks wood is when making a hole for its nest. Though he does not sing he indulges his musical propensities by beating a tattoo with his beak on tin roofs and gutters, seasoned limbs of hardwood trees, or any convenient sounding board which he is able to discover.



APPEARANCE : *Length*,—five to five-and-a-half inches, or about an inch smaller than the English sparrow. Not crested. Crown, nape and throat, black. Gray, slightly tinged with brown, above. A white space begins at the base of the bill and extends backward, widen-

the neck. Body white, tinged with pale rusty brown starting on sides. Wings and tail gray with white edgings. Plumage downy.

RANGE : Eastern North America, from Labrador to the Carolinas.

MIGRATIONS : A permanent resident in the north, i.e., Canada and the United States.

SONG : A clear, tinkling, silvery "chick-a-dee-dee" or "chick-a-dee-dee-dee," and often "day, day, day," softly over and over again.

NEST : *Position*,—Often a woodpecker's vacant hole in some hollow tree—or a new excavation made in a decayed birch—always in deep woods or woodland swamps where insects are plentiful. *Materials*,—wool, the felt of fern growths, bark, moss, hair, and bits of fur, line the hollow of the nest.

FOOD : Grubs and insect eggs found in the bark of trees, insects and seeds.

HABITS : Cheerful and friendly, very inquisitive, will come quite close in answer to a whistled chick-a-dee. Through the fall and winter they hunt for a living in loosely scattered flocks. They hunt their food on the branches, cones and twigs, hanging often head downward to more readily inspect the crevices of the bark. They are particularly useful in orchards. At the approach of warm weather they withdraw to deep woods or swamps and live in pairs during the nesting season.

THE JUNCO.



APPEARANCE : *Length*,—five and a half to six and a half inches, about the size of the English sparrow. *Colour*,—male, upper parts slate coloured, darkest on head and neck, which are sometimes almost black and marked like a cowl. Gray on breast, like a vest. Underneath, white, several outer tail feathers, white, conspicuous in flight. Female, lighter gray, inclining to brown.

RANGE : North America, not common in warm latitudes. Breeds on the Catskills and northern New England.

MIGRATIONS : Winter resident, October to April.

SONG : Practically none. A soft twitter, and a crisp 'tzip' to give the alarm in danger.

NEST : Do not nest in Canada. Catskills and northern New England.

FLIGHT : A short whirling flight—the whole flock together.

FOOD : Mainly insects and weed seeds.

HABITS : Always seen in flocks. They often come close to house or barn hunting food, and may be seen among roadside thickets, or on the ground near evergreens. They are quiet, unassuming both in appearance and manner—our best known winter bird.

THE ENGLISH SPARROW



APPEARANCE : *Length*,—six to six and a half inches. *Colours*,—male, top of head gray with a patch of reddish brown on either side, middle of throat and upper breast, black ; sides of throat, white ; lower breast and under parts grayish white ; back, brown streaked with black ; tail, brown, short, not notched ; wings brown with two white bars and a dash of reddish brown. Female, head, grayish brown, breast, throat and under parts grayish white ; back, brown streaked with black and dirty yellow.

RANGE : Europe, Northern Africa, North America—very general.

Migrations: Resident throughout the year.

Song: A monotonous and harassing chirp.

Nest: *Position*,—in a hole or box or some protected corner, often in vines on buildings. Occasionally in trees. Usually around houses, barns or outbuildings. *Materials*,—coarse, straw, hen-feathers, string, loosely woven together. Several broods are raised in a season.

Flight: Short flights usually.

Food: Grain, weed-seeds, insects during the nesting time.

HABITS: A regular little street urchin, quarrelsome, meddlesome, noisy. They drive away other birds and often usurp their nests. During the winter they gather in flocks in villages and cities; but in the spring they scatter out through the country where they can find more grain. They will not build in boxes suspended by a wire, nor do they like a box where there is no resting place in front of the door.

THE HOUSE WREN.



APPEARANCE: *Length*—Four and a half to five inches. Really about $\frac{1}{2}$ smaller than the English sparrow, but looking not more than half as large on account of the erect tail. *Colour*—Male and female alike. Upper parts cinnamon brown; deepest on head and neck,

lightest above tail—tail more rusty in colour. Wings and tail finely barred. Back has obscure dusky bars. Under-parts whitish with grayish brown tinge and faint bands most prominent on the sides.

RANGE : North America from Manitoba to Gulf of Mexico. Most common east of the Mississippi. Winters south of the Carolinas.

MIGRATIONS : April and October.

SONG : A rippling bubbling cascade of ecstasy—brilliant and tireless. They have a characteristic scolding note, a shrill piercing chatter.

NEST : *Position*—A box set up against the house, a niche in the walls of the barn, a crevice in the eaves—or the wren-houses erected so often for their convenience. They have been known to build in tin cans, coat-pockets, hats, and other curious places. They return to their nests year after year. *Materials*—Twigs, hay, feathers. *Eggs*—Pinkish, chocolate-spotted.

Flight—Swift, energetic.

Food—Vast numbers of insects, grubs and spiders which they find on or close to the ground.

HABITS : Friendly birds, resting always near the homes of man and returning year after year to the same nest. Very spirited, especially in their fights with the English sparrow, which they unhesitatingly attack if these marauders come too near their nests.

THE CEDAR WAX-WING



APPEARANCE : *Length*—7 to 8 inches: Smaller than the robin, larger than the sparrow. *Colour*—male, upper parts grayish brown, with plum-coloured tints showing through the brown on crest, throat, breast, wings and tail. A velvety black line on the forehead runs through the eye and back of the crest ; chin

black. Crest conspicuous; breast lighter than the back, and shading into yellow underneath. Wings have quilt-shafts of secondary elongated, and with brilliant vermilion tips like drops of sealing wax. These are rarely seen on tail quills, which have yellow bands across the end. Female, with duller plumage, smaller crest and narrower tail band.

RANGE : North America, from Northern Canada to Central America in winter.

MIGRATIONS : A roving resident, without fixed seasons for migrating. Usually seen among the earliest of our spring birds.

SONG : A lisping call note "twee-twee-see" is their only song—a sort of whispered whistle.

NEST : *Position.* Usually in a cedar or a fruit tree. *Materials,*—grass, shreds of bark, twine, fine roots, calkins, moss or rags—any or all of these building materials.

FLIGHT : In flocks evenly and swiftly in close rank on a level with the tree-tops along a straight course ; or wheeling suddenly to dive down into some fruit-laden tree.

FOOD : Wild fruits, insects, especially elm-beetle, canker-worms, grubs and caterpillars, and particularly cut-worms.

HABITS : Usually seen in flocks, large or small, moving from one feeding place to another. They destroy enormous numbers of injurious insects. Toward the end of June they give up the flocking habit, and live in pairs, nesting in cedar or fruit-trees.

THE FLICKER.



APPEARANCE : *Length*,—12 to 13 inches ; about one-quarter again as large as the robin. *Colours*,—Top of head and neck, bluish grey, with a red crescent across the back of the neck and a black crescent on the breast. The male has black cheek-patches that are wanting in the female. Both are golden brown, shading into brownish gray, and barred with black above. Under parts are a light milky choco-

late, spotted with black. The wing linings, shafts of the wing and tail quills are bright yellow. A white patch on the lower back above the tail is conspicuous when the bird flies. The tail is not rounded as is the woodpecker's. The bill is long and curved.

RANGE : All of the United States and Canada east of the Rockies, and as far north as Hudson's Bay, and in the west, Alaska. Occasionally seen on the Pacific Coast.

MIGRATIONS : April-October.

SONG : Early in spring the flicker has a long, strong, sonorous call like a long, hearty laugh, *Wicky-wick-wick-wick*. In the nesting season it has a rapidly repeated soft, sweet, *cuh, cuh, cuh, cluh*, and a sort of halloo call. Its autumn call is a nasal *kee-yeer*.

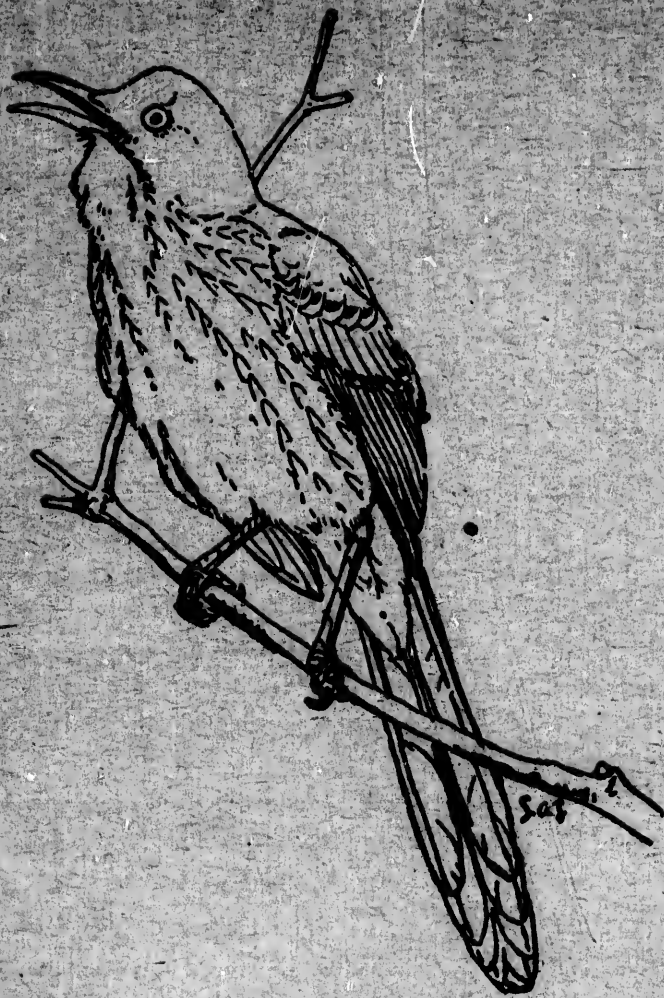
NEST : *Position*,—a high hole dug out of soft, decayed wood. They often use old deserted holes made by woodpeckers.

FLIGHT : White patch on lower part of back conspicuous in flight.

FOOD : The flicker makes a specialty of ants. It has been estimated to eat three thousand of them for a single meal. It licks these out of their hills with its long, round, extensile, sticky tongue. It also likes acorns.

HABITS : In appearance the flicker suggests the meadowlark, but has no yellow breast. When the flicker goes courting he spreads his tail and dances before his mate. The parent flickers pump partly digested food from their own crops into those of the hungry fledglings.

THE BROWN THRASHER.



APPEARANCE : *Length*, 11 to 11½ inches.
Quite an inch longer than the robin. — *Colours*,
—Male, rusty red brown above, darker on

wings ; wings have two short whitish bands. Under parts white, heavily streaked with dark brown arrow-shaped spots except on throat. Bill long and curved at the tip. Tail very long. Female paler than the male.

RANGE : The United States and Canada as far west as the Rockies, and north as far as Montreal and Manitoba. Winters south of Virginia.

MIGRATIONS : Late April or May. Late September or October.

SONG : Very melodious and sweet. He sings always from a conspicuous perch.

NEST : *Position*,—At the root of tall weeds, in an open field or in some low bush. *Materials*,—Twigs, leaves, vine tendrils, bits of bark,—a bulky or rudely built nest, but carefully lined with fine, black rootlets. *Eggs*,—speckled, greenish blue.

FOOD : Worms, May beetles, scores of other kinds of insects ; fruits.

HABITS : Often mistaken for a thrush, but in reality one of the wren family. The way he carries and moves his long tail indicates this. He twitches it nervously or moves it rapidly up and down, jerks it erect at some distracting sound or sight and droops it while he sings. He lives in bushy thickets, especially those overgrown with vines, and may be seen running over the ground on the fallen leaves, picking up grubs and insects with his long, slender bill. He is of great value to farmers and gardeners as an insect destroyer.

THE BELTED KINGFISHER.



APPEARANCE : *Length* 12 to 13 inches. About one-fourth as large again as the robin.
Colours. Male, upper part grayish blue, crest on head prominent, reaching to the nape, white spot in front of the eye ; bill longer than the head. Head large, tail short. Wings and tail minutely marked and speckled with broken bands of white. Chin white with white band around throat. Underneath white. Plumage oily. Sides bluish, bluish band across upper breast. Female and young birds have rusty bands where male has blue.

RANGE : All North America except extreme north and extreme south-west. Winters

from Virginia southward to South America.

MIGRATIONS : April, November. A common summer resident. Often a winter resident.

SONG : A rattling cry or call hard to describe, but not unpleasant.

NEST : *Position.* The birds tunnel a hole in a bank near some good fishing-ground and at its end widen a little room-like space. Usually this is about six feet from the entrance.

Materials. The nest proper consists of a bundle of grass or a heap of ejected fish-bones and refuse. *Eggs.* White, from five to eight.

Young. Bare and skinny, like young cuckoos.

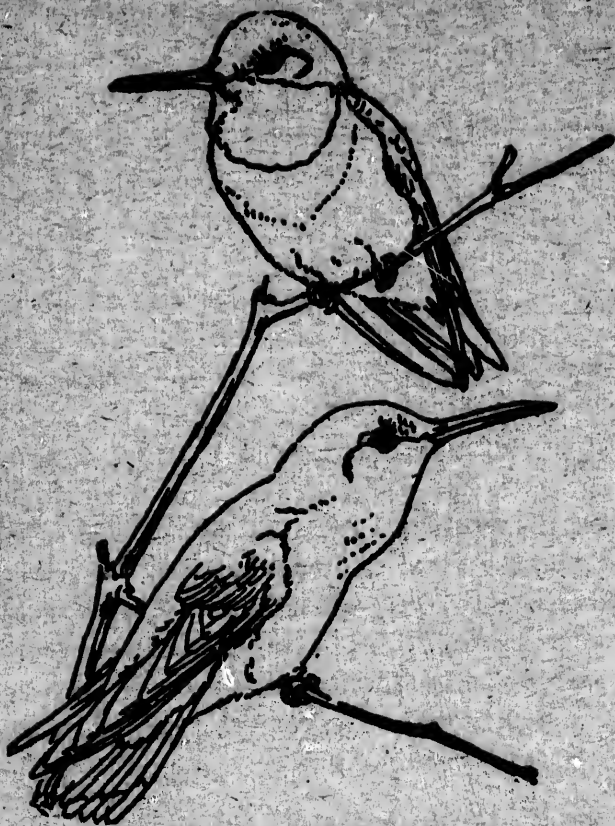
Food. Minnows and any smaller fish.

HABITS : Sits erect and motionless on a dead limb above the water watching the water below him ; once sighted he dives through the air and water, seldom rising without his prey. He swallows these fish whole—apparently with much effort. After the process of digestion is complete the indigestible skin, bones and scales are ejected from the crop.

Usually each bird has his own particular hunting ground where he may work undisturbed. Early in the spring the lonely fisherman chooses his mate and sets up housekeeping. The young are fed with fish one at a time. At the call of the parent they come running to the opening of the hall-way, scuttling back once the lucky youngster has been fed.

The chief enemies of the king-fisher are mink, rats and water-snakes.

THE RUBY-THROATED HUMMING BIRD.



Male above, female below

APPEARANCE : *Length*, $3\frac{1}{2}$ to $3\frac{1}{2}$ inches, little more than half as long as the English sparrow. *Colours*, male, bright metallic green above wings and tail darker with gleams of deep red and purple, outer tail quills tipped with dusky white. The throat and breast feathers have a brilliant metallic sheen, which

shows brilliant ruby, orange flame or dusky orange according to the light. The sides are greenish and the underpart a very light gray, turning to whitish when it borders the flame coloured breast. Bill, long and needle-like. Female, darker gray beneath and without the brilliant feathers on the throat. The outer tail quills are tipped with white and have black bands.

RANGE : Eastern North America. Summers from Northern Canada to the Gulf of Mexico ; winters in Central America.

MIGRATIONS : In May and October. A common summer resident.

SONG : No song, a squeaking chirp.

NEST : *Position*, fastened to a limb and very much resembling a knot on the same. *Materials*, soft silky down of thistle, milkweed or other plants fitted together and covered outside by bits of lichen bound on by spider-web. *Eggs*, two, not larger than beans, young birds about the size of a honey-bee.

FLIGHT : Strong, swift. Remains poised before a flower, his beating wings make the whirring hum from which he derives his name, while he helps himself to the nectar which it contains.

FOOD : The nectar of the wild columbine, bee-balm, coral honeysuckle, jewel-weed, cardinal flower and many others ; and in gardens

the canna, nasturtium, phlox, trumpet-flower, salvia and a host of others.

HABITS: Very friendly and but little afraid of man, comes close to houses and gardens. If caught he often feigns death in order to make his escape. They fight fiercely with each other, such combats even resulting in death. Such fights are always on the wing. The young are fed by the parents just as pigeons feed their squabs, that is, the food is predigested by the mother and pumped from her crop into the throats of the little birds. The young fly after about three weeks. At first they rest often on perches. Later they are seldom off the wing.



