BISCHOFF'S SONG SPARROW, Melospiza melodia insignis Baird.—This was a common bird, seen in nearly every suitable place where I stopped on Kodiak and Afognak Islands. The species was especially abundant along the Afognak River, and in Viekoda and Terror Bays. It was also observed lurking under the cannery buildings and in nearby alder thickets at Larsen Bay.

Fish and Wildlife Service Washington, D. C.

MAJOR CHANGES IN THE BIRD LIFE OF SOUTHERN LOUISIANA DURING SIXTY YEARS

BY E. A. MCILHENNY

Probably no section of North America in its primitive state was richer in bird life through the year than southern Louisiana, and this was especially true of the forests, marshes and prairie areas for fifty miles and more inland from the Gulf of Mexico. It is of interest, therefore, from an ornithological standpoint, to note the marked changes in the birds of this area which have taken place in the more than sixty years during which I have been of a sufficient age to be a close observer of its bird life.

When I was a boy, in the years shortly after the War Between the States, southwestern Louisiana was practically a wilderness. There were no railroads west of the Atchafalaya River, and Bayou Teche was the only stream paralleling the coast from east to west, and that only as far west as New Iberia. The entire coastal area of Louisiana west of Bayou Teche and inland to where the forests began was made up of low, wet prairies or marshes near the coast, and higher, dry prairies farther inland. The only forests in this whole area were lines or groups of trees bordering the streams making inland from the Gulf. These streams were shallow, tidal bayous, navigable only for very small boats and, as their banks were low, there were no settlements along them. This type of terrain, a vast area of public lands, extended west from New Iberia for more than a hundred miles to the Texas line.

At great intervals on the prairies, homesteads had been established by ranchers who were engaged in raising cattle and horses. Large herds of these animals wandered at will, as there were no fences. The prairies were dotted with ponds and sloughs, some of them quite deep, and in summer and winter fairly swarmed with bird life. These prairies were covered with a luxuriant growth of grass, most of which was burned off by the cattlemen in late summer and early winter, so that the livestock would have short, green grass on which to feed during the winter. These great areas of short grass provided ideal feeding and resting places for plover, sandpipers, cranes, geese, and other birds. This was southwestern Louisiana as I knew it as a boy.

In 1881, what is now the Southern Pacific Railroad crossed the Atchafalaya River at Morgan City, and was slowly built west in almost a straight line, crossing the Sabine River at Orange, Texas. In the twenty years following the building of the railroad over these level prairies from east to west, there was a tremendous change in the face of the country. A dozen or more towns were soon established along the railroad, and settlers by the thousands moved in from the north to fence and cultivate the rich, level lands. Now, this section that, when I first knew it, was entirely open and swarmed with wildfowl and waders, is covered closely by farms, and all wild life has either vanished or become so reduced in numbers as to be no longer a striking feature of the landscape.

I have attempted in this paper to make note of the most conspicuous changes in the bird life of this area, as I have observed it; first, as a boy accompanying my father who was a sportsman of note, and later, as a hunter and ornithologist in my own right, who has wandered on horseback and by small boats over the entire coastal and prairie section of southwestern Louisiana, year after year, until civilization completely ruined it.

ROSEATE SPOONBILL, Ajaia ajaja (Linnaeus).—Prior to 1885, the Roseate Spoonbill (local name, 'Spatule') was an abundant breeder in the great marshes bordering the prairies of Vermilion, Cameron and Calcasieu parishes. Nesting colonies existed in the marshes bordering White Lake, Vermilion Parish; Lake Misere and Grand Lake in Cameron Parish; and Black Bayou in Calcasieu Parish. These colonies were broken up by plume hunters during the ten years following 1880, at which time the plume hunters began operation in Southern Louisiana. There is only one small breeding colony of Roseate Spoonbills in Louisiana today, and this one is near Black Bayou in Calcasieu Parish.

WHISTLING SWAN, Cygnus columbianus (Ord) and

TRUMPETER SWAN, Cygnus buccinator Richardson.—Both of these fine birds (locally called 'Cygne') were regular winter residents of southwestern Louisiana before the advent of the farmer. The level prairies and marshes were plentifully dotted with small lakes, ponds and sloughs, in which grew an abundance of water plants used as

food by these great birds. In all my winter travels on horseback over these prairies, swans were seen almost every day. I never killed one, for, as a child, I was taught they were one of the beautiful creatures of nature to be protected. It was only after they had almost disappeared from our landscape that I learned to identify the two species. Now, Whistling Swans only are a rare winter visitor; Trumpeters are gone.

MOTTLED DUCK, Anas fulvigula maculosa Sennett.-The Mottled Duck (local name, 'Canard Noir d'été') has always nested in the coastal marshes of Louisiana, but never in great numbers, until trapping of fur-bearing animals and the killing of alligators developed into a paying industry. Up to 1905, these birds nested rather sparingly. Since that time, there has been a gradual increase in the number of nesting birds, until at the present time, the Mottled Duck is very plentiful during the spring, summer and early fall. crease in numbers is due primarily to the extensive trapping for fur of mink and raccoons, and the killing of alligators for their hides. These two mammals destroy both the eggs and young, while alligators are death to the young ducks. Now, all three of these creatures are taken each year in great numbers in the coastal marshes, and as they have decreased, the nesting Mottled Ducks have increased. At present, the number of Mottled Ducks is a serious menace to the food supply of the northern marsh ducks which come to Louisiana for the winter. The Mottled Ducks gather in large flocks in the early fall and feed on the seeds of the natural growths such as feathergrass (Leptochloa fascicularis and Panicum dichotomiflorum), and millet (Echinochloa crusgalli and Echinochloa walteri), which to a large extent supply the winter food for our northern marsh ducks. Mottled Ducks leave Louisiana for farther south before the shooting season opens in the fall.

SWALLOW-TAILED KITE, Elanoides forficatus forficatus (Linnaeus).—Before the southern prairies of Louisiana, from Bayou Teche westward, became fully settled, this bird was a regular nester in the groups of tall trees bordering the bayous which made inland from the coast. As the prairies were settled and cut up into small farms, the natives, thinking the kites were birds of prey, killed them. The last-observed nesting was at Avery Island in June, 1903.

MISSISSIPPI KITE, Ictinia misisippiensis (Wilson).—Previous to 1910, the Mississippi Kite (locally known as 'Blue Darter') was a regular and rather common breeder in the small clumps of trees throughout the open lands of southern Louisiana. The settling up of the country

and cheap firearms have been their destruction. They are now extremely rare.

EASTERN RED-TAILED HAWK, Buteo borealis borealis (Gmelin).—I first noted this hawk (local name of which is 'Peank') as a breeder in the heavy timberlands of southern Louisiana four years ago, and nesting pairs have been observed each year since.

FLORIDA RED-SHOULDERED HAWK, Buteo lineatus alleni Ridgway.— This bird, although present as a breeder, as far back as I can remember, was never plentiful until about ten years ago. It is now a comparatively common resident, and nests wherever sufficient woodland is available to give it protection.

Attwater's Prairie Chicken, Tympanuchus cupido attwateri Bendire.—Before the prairies were cultivated, Prairie Chickens (locally known as 'Faisan') were abundant from the Vermilion River west to the Sabine River. The local ranchers paid no attention to them for sport or food. It was customary for the early settlers to plant near their houses several acres of chinaberry (Melia) trees, whose rapid growth provided wood for cooking and heating. I have often seen large flocks of Prairie Chickens feeding on the pulpy, sweet berries of these trees. There is now only one small flock of Prairie Chickens in southwest Louisiana.

Whooping Crane, Grus americana (Linnaeus).—Before the settling of the prairies bordering the coast of Louisiana, and while these prairies were used only as cattle ranges, the Whooping Crane (locally known as 'Grue Blanche') was one of our most picturesque winter residents. Quite large flocks of them were in evidence all winter to anyone riding over the open ranges. Due to their natural shyness, they were not often killed, except by hunters who stalked them by walking alongside a horse or steer. As the flesh of the Whooping Crane was highly prized for food, its large size caused it to be killed in preference to ducks or the smaller geese. The Whooping Crane now is practically extinct in Louisiana and occurs only as a straggler.

SANDHILL CRANE, Grus canadensis tabida Peters.—Fifty years ago, this bird (locally known as 'Grue') was extremely plentiful throughout the prairie districts of coastal Louisiana, and nested in the marshes of Vermilion, Cameron and Calcasieu Parishes. The last nesting of which I have record was in the spring of 1896 on the prairies south of Lake Misere in Cameron Parish. At that time two nests were found while visiting a colony of Roseate Spoonbills about a mile back from the south side of the lake. In my boyhood days, just following the Civil War, one of the principal food crops grown by the ranchers

and sugar-planters of Iberia and Vermilion parishes was sweet potatoes. One hundred acres or more of these tubers were planted by my grandfather each year on Avery Island, and the Sandhill Cranes created so much depredation by digging and feeding on them that it was necessary to keep a man on horseback continuously riding over the fields during October and November, before the potatoes were harvested, to frighten the cranes away. This bird is now only a rare winter visitor.

UPLAND PLOVER, Bartramia longicauda (Bechstein).—As long as the prairies of western Louisiana were used as cattle ranges, Upland Plovers were extremely plentiful during both spring and fall migrations. The 'Papabotte,' as the natives called them, were highly prized for food, especially in August and September, at which time they became exceedingly fat. The method of hunting them was from horseback or horse-drawn buggy. Since the prairie lands have been fenced and cultivated, these birds have almost completely disappeared, as they will not alight in grass which is too long for them to see over. The Upland Plover is found today in small numbers only in the larger open pastures in which the grass is closely grazed.

PECTORAL SANDPIPER, Pisobia melanotos (Vieillot).—This little Sandpiper (locally known as 'Churook') was probably the most plentiful of all the sandpiper family in the days before the prairies of Louisiana were changed from cattle ranges to farms. They occurred in enormous flocks, in both spring and fall, in the wet prairies bordering the marshes, and were killed in great numbers by market-hunters; the usual market price was 25 cents a dozen. Since there are no more large cattle pastures bordering the marshes of Louisiana, where the grass is short enough for these birds to move about freely, the Pectoral Sandpiper has almost disappeared from the state.

Long-billed Dowitcher (locally known as 'Dormeur,' the sleepy one) was one of the most plentiful of all the coastal shorebirds, inhabiting the tidal flats during the winter in large flocks and gathering to rest in close, compact groups during the middle of the day when not feeding. Unscrupulous market-hunters killed the Long-billed Dowitchers and shipped them north as 'Jack-Snipe'—Capella delicata (Ord). This killing was easily accomplished, for if a shot was fired into a flock and one or two of the birds fell with broken wings, the balance of the flock would circle compactly over the wounded birds, time after time. Thus the gunner would fire many shots into the same flock without moving, and frequently a majority

of the flock would be killed. The bird is now quite rare on the Louisiana coast.

BUFF-BREASTED SANDPIPER, Tryngites subruficollis (Vieillot).—This handsome sandpiper (locally called 'Vent Rouge' and 'Robin Snipe') was a plentiful migrant during August and early September, at which time it associated with Pectoral Sandpipers (Pisobia melanotos), and large mixed flocks of these two birds were a common sight in the wet prairies of the cattle ranges bordering the coastal marshes of southwest Louisiana, where they were shot in considerable numbers by the local market hunters. They are now completely absent from their former range.

Franklin's Gull, Larus pipixcan Wagler.—As far back as I can remember, in the early seventies, Franklin's Gulls passed over Avery Island each fall in unbelievably great numbers. During their fall migration, which was at its height the first week of November, these birds spent the night on Vermilion Bay, going inland early in the morning as far as twenty or thirty miles to feed on insects; their favorite food was various soft-bodied insects that fill the air at this time of the year in their search for suitable hiding places in which to spend the winter. Among my earliest recollections of bird life are the enormous flocks of Franklin's Gulls passing over our home in the evening and morning in long, compact streams, requiring an hour or more to pass. The flight was usually low, as the birds would take advantage of the inequalities of the land in order to avoid the strong Gulf breezes. This made the flight wavy-not only up and down, but from side to side, exactly like the course of a stream. While Franklin's Gulls are still plentiful during the fall migration, there is probably not one one-hundredth part of the number that existed prior to 1900 that now visits Louisiana.

Passenger Pigeon, Ectopistes migratorius (Linnaeus).—Prior to 1882, the Passenger Pigeon was extremely common during the fall and winter in the oak ridges and hardwood timber of southern Louisiana. The last Passenger Pigeon that I have record of seeing alive was two days after Thanksgiving Day in 1896. At that time, I was hunting Prairie Chickens in Cameron Parish, south of the then just-established town of Welsh, and killed a Passenger Pigeon that was associated with a large number of Mourning Doves, Zenaidura macroura carolinensis (Linnaeus), feeding in a corn and pea field.

LOUISIANA PAROQUET, Conuropsis carolinensis ludovicianus (Gmelin).—Flocks of this bird occurred quite regularly in the spring and fall at Avery Island during the years prior to 1881. I distinctly

remember, as a boy, a number of Paroquets being shot each spring in the mulberry trees growing on the south side of our homestead here. The last Paroquets I remember seeing were in the spring of 1881. These birds were feeding on the ripe fruit in this same mulberry grove, and were eleven in number. My uncle, General Avery, on being told the birds were present, took me with him and shot three of the birds.

IVORY-BILLED WOODPECKER, Campephilus principalis (Linnaeus).— One of my first remembrances of birds at Avery Island was the Ivory-billed Woodpecker (locally known as 'Picbois Grande'). Due to the contrast of its black and white plumage when in flight, it was a conspicuous bird in the hardwood timber on the east side of the place. As this timber was cut, the birds became more and more restricted, and I have only two records of seeing the birds here since the cutting of the last big body of timber in 1918 and 1919. The bird now is completely extirpated from this section of Louisiana. The last one was recorded on August 6, 1923.

EASTERN WOOD PEWEE, Myiochanes virens (Linnaeus).—A form of this pewee from my earliest remembrance has nested in the open timberlands of the extreme southern part of Louisiana. The bird nesting at Avery Island seems to be quite different in voice and coloration from those nesting farther north.

Brown Creeper, Certhia familiaris americana Bonaparte.—This retiring little bird was a regular winter visitor up to about 1910. From then until now, I have not seen more than three of these birds, and these at long intervals. As a boy, wandering through the woods with sling-shot, I commonly saw Brown Creepers associated with the Golden-crowned Kinglet, Regulus satrapa satrapa Lichtenstein, and the Ruby-crowned Kinglet, Corthylio calendula calendula (Linnaeus). When the voices of the kinglets were heard, I invariably looked for Brown Creepers on the trunks of the larger trees, as they were a more difficult target for the small stones from my sling-shot than were the kinglets. The creepers have completely disappeared from southern Louisiana. Both kinglets are still abundant here in the winter.

Brown Thrasher, Toxostoma rufum (Linnaeus).—This bird is a common winter resident right down to the Gulf Coast. Many years ago I found them nesting to the Gulf Coast of Alabama and Mississippi. They, however, did not come west of the Mississippi River to the coast until 1937. One pair of birds nested that summer in a briar patch on my cattle range near Avery Island. Since that time

they have become more and more common as summer residents, and now are well established as summer nesters.

SOUTHERN ROBIN, Turdus migratorius achrusterus (Batchelder).— The Southern Robins first nested in the coast area of Louisiana, so far as my observation is concerned, about ten years ago. Now they are found in very sparing numbers as summer-nesting residents. They prefer the open, scattered clumps of timber, preferably around homesteads, for their nesting places.

Wood Thrush, Hylocichla mustelina (Gmelin).—The first Wood Thrushes I observed nesting in the Gulf Coast area were in 1890. I considered it at that time an extremely rare summer bird. They are great singers, and as their voice is easily recognized, their location is made known without sight of the bird. There has been a gradual increase in the number of breeders in the Avery Island section until now they can be considered a common resident.

EASTERN BLUEBIRD, Sialia sialis sialis (Linnaeus).-When the prairie district of Louisiana, from Avery Island west, was in its primitive condition with only a small farm here and there, and the balance of the country was taken up by cattle ranges, the fencing around the few homesteads was of split cypress rails and posts, or lines of China trees or willows. In the cypress posts and in dead sections of China trees, Red-bellied Woodpeckers, Centurus carolinus (Linnaeus), and Red-headed Woodpeckers, Melanerpes erythrocephalus (Linnaeus), hollowed out their nesting places. These hollows, when not occupied by woodpeckers, were often used by Bluebirds for their nesting places. There were no trees on these prairies, except those about the houses and fields, and Bluebirds were found nesting everywhere throughout extreme south and southwestern prairie sections of Louisiana. The aspect of the country is changed now, as it is thickly covered with small farms, and the numerous fence lines around them have grown up into trees and brush until the whole country seems to be forestcovered. The Bluebirds have left completely. I have not seen a nesting pair for more than twenty-five years.

BLUE-GRAY GNATCATCHER, Polioptila caerulea caerulea (Linnaeus).—This little bird was a regular breeder in the extreme southern part of Louisiana, placing its nest either on the broad limb of a thorn tree or China tree. These trees grew commonly around the small farms, scattered over the prairie. Since the country has become thickly settled and fairly well covered with trees and underbrush, the Blue-Gray Gnatcatcher, as a nester, has disappeared.

Loggerhead Shrike, Lanius ludovicianus ludovicianus Linnaeus.— It is only within recent times that the Loggerhead Shrike has been a summer resident and nested in the lower half of Louisiana. I recorded these shrikes as nesting near Mobile, Alabama, and Gulfport, Mississippi, in the springs of 1906 and 1907. They were totally absent west of the Mississippi River, as a summer resident, up to 1911 when one pair of the birds was found nesting near Houma, Louisiana. Since that time, their range has extended westward. They are now an extremely common summer resident all along the Louisiana coastal area, nesting in the isolated thickets and trees, mostly bordering fields and roads and near houses. The shrike recorded from southern Louisiana in earlier days evidently was the Migrant Shrike, Lanius ludovicianus migrans Palmer.

STARLING, Sturnus vulgaris vulgaris Linnaeus.—This bird first appeared as a winter visitor to southern Louisiana in November, 1924. It is now extremely abundant all winter, occurring in enormous flocks and destroying a great part of the berries and seeds that would be the natural winter food of many of our home birds wintering in Louisiana.

GREAT-TAILED GRACKLE, Cassidix mexicanus mexicanus (Gmelin).— My first record of this bird on the coast of Louisiana was in 1917. Since that time, a number of them have been taken in my banding trap, and definitely identified by Dr. Frank M. Chapman. The Greattailed Grackle differs in coloration from the Boat-tailed Grackle, Cassidix mexicanus major (Vieillot), in that the male has a greenish cast to its plumage, while the Boat-tailed Grackle male has a bluish cast. The female of the Great-tailed Grackle is very much darker than the female of the Boat-tailed Grackle. These are distinguishing field marks when the birds are seen together, but better clues to identification are the whistling squeak of the Great-tailed Grackle male and the coarse chuck of the female. Their range seems to be extending farther eastward.

Avery Island Louisiana