with the fact that many details which I have given are new to most of those here present, must be my excuse.

In closing let us name over once more these sturdy pioneers who each in his way did what he could for the advancement of western ornithology: Lewis and Clarke, Townsend and Nuttall, Peale and Say, Gambel, Bell, and Heermann. Others equally worthy followed after, but they belong to another chapter. When we think of these men, the results they achieved, and the difficulties amid which they labored, and realize that we are following in their footsteps, striving to uphold and carry on the great work which they established on firm foundations, we recall the closing words of the beautiful tribute of Dr. Coues to the memory of John Cassin. "A higher trust than we perhaps appreciate is laid upon the few of us of this later day who pay devotion to the beautiful study of ornithology. It is no less than the keeping bright and untarnished, and transmitting to our successors, the name and fame of the science that absorbed such minds as these. May we prove worthy servitors, guarding with jealous care our trust, watchful that the vestal fires shall ever burn at the shrine we worship with a clear and steady flame."

CHARACTERISTIC BIRDS OF THE DAKOTA PRAIRIES III. AMONG THE SLOUGHS AND MARSHES

By FLORENCE MERRIAM BAILEY

TO ME THE MOST interesting prairie birds were water birds. Their abundance is easily explained geologically, for where there are no high mountains to drain off the water, and the highest mountains in North Dakota are merely piles of glacial drift, then whatever water falls must lie in the surface depressions. Owing to the plowing of the ice sheet and the great number of moraines these depressions are numerous on the prairie, producing sloughs of various sizes, and marshes and lakes that afford ideal breeding grounds for water fowl. Would that every bird student could visit them and bring back intimate studies of the birds on their own home grounds! But though few are vouchsafed unconditioned days of field work, the least fortunate sojourners in North Dakota will find much to enjoy.

A surprising variety of water birds are seen even on the shallowest hollows of the prairie. Some of these small sloughs that would be called tanks farther west are not much larger than the buffalo wallows left since the days when fresh buffalo trails crossed the prairie to water. Two small roadside sloughs were near my part of Stump Lake. On one of them, the Rural Route mail carrier told me, a pair of strange birds were to be seen; one was almost always there when he passed along his route. When I drove over the prairie to investigate, there on the edge of the slough stood a Black-crowned Night Heron in its calm judicial pose, its black back contrasting strikingly with its broad ashy wings. Seeing that it was observed it rose and flew away across the prairie in the direction of a clump of trees on the shore. At the nearest house the people told me that the Herons had been in the neighborhood for several years and that they seemed to divide their time between the small slough and a larger one down the lake.

Jan., 1916 CHARACTERISTIC BIRDS OF THE DAKOTA PRAIRIES

The other of the two roadside sloughs was down a road running between blue green spiky wheat and yellow green leafy flax fields with their delectable promise of acres of golden grain and fields of sky blue bloom. The slough could also be reached by cutting across pastures whose well worn cattle trails led to its water. A pair of brown Gadwall were so often seen on the slough that they doubtless nested in the surrounding pasture. They sat undisturbed when wagons passed only a few rods away, but if the horses stopped would fly off, the drake showing the characteristic black hinderparts. When I went down to watch them one day the cattle coming to water with jangling cow-bell covered my approach so that I slipped in unobserved behind a chokecherry and juneberry screen. The Ducks sat complacently on the pool though the cows half encircled it, one of them taking its stand only a few feet from the birds.

As I watched, the pair swam slowly along the edge of the slough feeding as they went, the drake showing the orange edges of his bill, the duck her black bill and orange feet. Hunger satisfied, they stopped to plume themselves, after which, sitting on the water close together, their big bills resting on their backs, Darby and Joan proceeded to nap. They napped not with one eye open but with both eyes winking so often that there was an alternation like that from the winking of the shutter of a camera-light-darklight-dark. An excellent safety device it seemed, though there appeared little need, for they looked more like chunks of wood than birds, the white wing patch being the only exposed note of color. While I waited impatiently, Joan awoke and started to swim away, at which Darby, vexed, perhaps at the interruption of his nap, opened his big bill at her. Nevertheless he swam after her, though he repeated his eloquent remonstrance. What would they do next? High over the prairie appeared a flock of Franklin Gulls coming rapidly toward us. Joan, as if startled, rocked back and forth long enough to get up momentum, and then rose clear of the water. Darby followed unquestioningly, the pair, to my disappointment, flying away across the pasture out of sight.

In another place on a small slough between the road and a barn we surprised, and were surprised by, a Bittern. We stared at it in amazement, but though it watched us alertly, as we did not stop the horses it bravely stood its ground until we were out of sight.

One of the most interesting and characteristic of the small sloughs seen was only a few yards from the road, a grassy slough not more than twenty-five feet in diameter that seemed only the merest saucer in the level prairie. As we drove up we saw a Yellow-legs, a bird whose long yellow legs show to good advantage, standing on lush green marsh ground and whose neat fresh plumage makes it fit in well in a land of cool clean wheat fields. As we came alongside the little slough we were surprised by a loud outburst, the musical ecstatic song of an invisible Sora. Along the edge of the pool in the marsh grass we discovered a parent Coot swimming around with its droll little pinkheaded youngster. And as we drove off, one of the fascinating Black-headed Terns wavered over the slough. Facinating, anomalous birds of both water and land! They were often seen flying over the prairie hunting insects where there was apparently no water in the landscape. What a thrill the sight of these black-heads gives! But the most enchanting, magic moment of all is when just the long pointed gray Tern wings become visible in a gray sky-as when the white forms of Gulls come out of a fog.

15

That our small wayside slough with Hydrochelidon and its comrades was but a fortunate incident on the prairie, the song of a Grasshopper Sparrow assured us as we drove on alongside the great wheat fields. Miles and miles of evenly headed blue green wheat, not a weed in sight, not so much as a jack-rabbit's trail to mar the perfect stands of grain—it was indeed a beautiful sight. And as the bright prairie sun warmed us we eagerly whiffed the cool prairie breeze that came over the fields laden with the nutty smell of the wheat and the delicate fragrance of the dwarf prairie rose, the wild prairie rose that hides itself at the foot of the wheat, clinging tenaciously to life even on the ground that man has usurped.

While the small roadside sloughs are but fortunate incidents of your way across the prairie, they serve to whet the appetite for the feasts offered by the marshes and lakes. Many of the North Dakota tule marshes seem merely black streaks in the prairie. But with what keen zest, what high hopes the bird lover sights one of them! Exciting black streaks! When looked down upon from the top of a prairie billow or even from a high wagon, they give up one of their many well guarded secrets—an interior basin of open water. According to the width of this basin they may be known locally as marshes or lakes, and many of the so-called lakes are merely wider marshes that one may wade across.

One long chain of black tule marshes, some denominated lakes but all making black streaks in the prairie, gave me a red letter day long to be remembered; for as we drove by them they were alive with water birds. At last I was on the famous breeding grounds of the Ducks and Grebes!

How eagerly I scanned each successive marsh in the chain, luxuriating in the sight, fairly gloating over it, trying to see each bird that hid her young in the tules, trying to extract from my more experienced companions the name of each last female Duck disappearing far across the sky, till finally our list of species included a large proportion of the Ducks known to breed in the locality, besides Grebes, Coots, Terns, two Cormorants flying from good fishing grounds back to the alkali lake in which were their breeding islands. together with Yellow-headed Blackbirds and Marsh Wrens. In addition we had seen the old nesting hole of a Golden-eve and had flushed a Blue-winged Teal from her nest in the grass, a nest with nine small brown eggs to which she circled back as we drove on. Beautiful tule marshes teeming with water fowl on their home grounds! What an intense satisfaction merely to see them in passing, to know that they were there! Before our wonderful day of marshes closed we were driving by those whose water was shimmering in the low slanting sunlight, the moving throng glorified by the golden light.

The day that we drove to Sheyenne River, in a secluded grassy marsh walled by a dense thicket from the fishermen's trail along the river bank, we flushed two Blue-winged Teal and a Bittern that seemed to have found safe nesting grounds in the protected harbor.

Before leaving this land of water fowl, I had the good fortune to spend a week between a marsh and a lake—Lake Elsie, at Hankinson. From across the lake were often heard the wailing cry of loons and the stentorian calls of Holboell Grebes, at times with a suggestion of the "hoarse Crow tones" Mr. Brewster speaks of, but oftener with a mellow bugle call. What a satisfaction it was to see the splendid birds! They completed the Grebe family for me, and all but the tiny Mexican species which we found in southern Texas had now been seen in North Dakota. While the Western GrebeJan., 1916

AEchmophorus—is doubtless the king of the family, I had only maddening glimpses of him, once catching the gleam of a long white neck across a lake as its owner disappeared below.

Barring *AEchmophorus*, holboelli is head and shoulders above all the others in size and distinction. Its height above the water, its striking white throat-latch, and long red neck glowing in the sun make it a marked bird. What a contrast to the plain little Pied-billed we had been seeing in the tules leading around its tiny chicks! When holboelli puts down its head in preening itself the white chin does not show, and it may have to be distinguished from some of the marsh dwellers by its reddish body; but when the long reddish neck is raised to its full height, the bill becomes a short horizontal line surmounting a high vertical one—]—and even at a distance the white throat-latch makes a striking field character.

The Grebes we heard calling from across the lake lived in the tules of a marsh opening into the lake. When I went to the marsh young and old all seemed to be talking at once, but the loud grating ker'r'r and a liquid hen turkey note drowned the rest. In my anxiety to see better I made the fatal mistake of rising above my tule screen for a moment, and silence fell. The two parents immediately swam out into the lake, one with such a decided hump on its back that it must have been carrying off its young, as an alarmed parent had been seen doing a few days previously nearer at hand. After a long silence I caught one of the old Grebes with head turned looking my way, after which there was more silence; and when the loud talking was finally resumed it was behind a screen all too far out on the lake.

Though so interesting and distinguished, the lordly *holboelli* did not lessen my affection for the quiet little Eared Grebes with whom I had been on Stump Lake during the summer. Slender, gracefully formed little creatures, with the pointed crest and light ear patch, they would swim along near shore quietly looking at me, or make pictures of themselves out in the white luminosity of reflected cloud on the still lake, the pointed head and graceful neck charmingly mirrored below. Though so quiet and gentle, the pretty *californicus* is nervous, and, if you do not keep as quiet as it does, after turning alertly from side to side scrutinizing you, will curve forward on its bill and dive below, the silvery white of its belly showing below the reddish brown of its sides as it disappears.

The Eared has the Grebe habit of lying on its side on the water so that its white breast, whose soft silky feathers have been made all too familiar by milliners, gleams far across the water. Sometimes the bird turns on its side just long enough to flash across the water and then is gone below. When swimming around with the white hidden, its body glows reddish brown in the sun. On the rare occasions when one sits on the water with its long neck down, it is amusingly transformed into a snug little Duck.

While watching the Eared Grebes on Stump Lake I saw them going about either singly or in pairs until the middle of June, when I discovered a family of half-grown young swimming around some distance from shore. Seeing me, the old mother gave a harsh imperative ka-keep, ka-keep, at which the scattered brood started to swim in toward her making small wakes in the still water. As they were coming she gave a loud musical call, hoy-ee-up', hoy-ee-up', also heard on Sweetwater Lake, carrying far over the water.

When the Eared Grebes of Stump Lake had become familiar friends, two Horned Grebes appeared along shore and were seen there for three or four days, when they disappeared as suddenly as they had come. They were noted with interest by a party of Eared Grebes who turned their heads to look longer at the strangers as they swam by. The visitors were generally so wet from constant diving that it was hard to tell their dry colors, and their water soaked crests were so flattened that they looked round headed. Their chestnut necks, however, were diagnostic. In strong sunlight their horns were intensely white, so white that they made a shining mark across the water.

The last time I saw the visitors, the bay that they had frequented, red with sunset light, was dotted with feeding Ducks and Gulls, but the little Grebes were apparently through feeding for the night and looked dry and in good form as they swam along close to shore, their crests dimly outlined in the fading light.

There was no good Grebe nesting ground on my section of Stump Lake, but on a small pond near another part of the lake we saw an Eared Grebe brooding eggs. She watched our approach nervously with crest down, craning her neck till it was long, slim, and snaky, as she peered this way and that trying to decide whether to go or stay. When her photograph had been taken, she dropped off the nest. As we stood quiet she soon returned and, with her hampering lobed feet, walked awkwardly around the rim of the nest before reseating herself. When we walked closer she rose and with rapid motions of the bill pulled some of the warm bedding over her eggs and then again dropped off into the water.

Later in the season, the last of July, on Lake Elsie we found a colony of Eared Grebes still brooding eggs. It was in the tule marsh at the end of the lake where the Loons and Holboell Grebes lived. To reach it we had crossed the lake in such a heavy wind that it was hard rowing across the white caps, and even the quiet water of the open marsh, generally alive with Coots, Grebes, Teal, and other Ducks, was deserted for the better windbreak of the tules. As we poled through the narrow tule lanes with their dark green walls, calls and cries and excited talk arose; but few of the inhabitants were seen except an occasional Coot swimming hastily away from the bow of the boat, a pair of Blue-winged Teal, and a handsome Ruddy Duck-well deserving the name-who swam off down a tule lane followed by his mate and five halfgrown ducklings. But at a turn of the boat we found ourselves in a colony of Eared Grebes, and poled up to one nest after another in quick succession until we had excitedly counted ten. Each floating nest was anchored in a small clump of tules and seemed made of the beautiful water weeds we could see over the edge of the boat. All ten of the nests contained eggs, some two. some three. About half of the brooding birds had covered their eggs before slipping off their nests, and just after we had passed, two solicitous males were caught sight of among the nests, perhaps returning to look after uncovered eggs.

As we crossed a patch of open water we saw a pair of Yellow-headed Blackbirds examining an isolated bunch of tules with suggestive care. Deserted nests of a number of other birds were discovered as we poled through the shallow tule troughs. One that was taken for the nest of the Loon that lived on the lake was of soft materials and pronounced to be in the kind of place Loons like, "where they can slip over the edge into the water." Built between green tules was a high compact nest made of brown tules characteristic of Coots. When the nose of the boat was snubbed up into a green cul-de-

Jan., 1916 CHARACTERISTIC BIRDS OF THE DAKOTA PRAIRIES

sac three Long-billed Marsh Wren nests were in sight, two old ones and one just begun, pretty domed structures with a round side entrance, woven of brown tules, cat-tail, cane leaves, and grass, with a soft lining of cat-tail down.

Another marsh of this series was close behind the farmhouse. A Chinese wall of high tules and reeds hid the open water behind it unless you looked down from the terrace above, and myriads of birds lived there in happy security although automobiles passed along the highway only a few rods from the wall. Enticing, irresistible Marsh Wren songs came from within till, perforce, I sallied out to gaze through the chinks in the wall.

The edge of the marsh was dry and skirted by cow trails, beyond which I made a short essay into the interior, using both hands to part the tules, for their crown of nutlets slap your cheeks with stinging blows as you crowd through them. While the footing was still firm enough to hold, I set up my camp stool and with the tules high above my head looked about my cage. The cool dark green waving rods were interwoven into a dense grill work with meshes so fine that, peer and twist and turn as you might—clumsy mortal—you could only guess at what was happening a foot from your nose!

A pair of Tule Wrens that came clambering along till close to my face, stood staring at me, their black wiry legs clinging to tules so far apart it seemed as if they must hinge outward. When satisfied with their scrutiny they walked away again absolutely out of sight behind the network in a foot or two. The miniature forest was full of the tantalizing talk and noises of a large invisible population. Ducks quacked so plainly I could see them (with my mind's eye), and heavy-bodied waterfowl went splashing into the water right there ahead of me—I knew just how they were lighting down. The flat tub-tub of Coots came so close I could picture their dark gray forms forging along between the tule rods in their business-like way. And, oh, that ecstatic outburst of the Sora, that loud clear musical run down the scale close to my ear, and not a tule turned! The Sora, the quaint, the droll, the surprising Sora! How good it was to hear him again!

Looking overhead I could see Swallows and Black Terns skimming along over the top of the marsh, and envied them their advantage. They could see down inside, perhaps, as they passed. But what were Rails to them? It was too aggravating. I must see! Rising with determination I crowded through the tules and crashed and crackled through the canes. A screeching, thundering railroad train might as well expect to surprise a Hermit Thrush! I had obtruded. Unbroken silence ensued. The moral was all too plain. Would you see? Cultivate a philosophic spirit, be content to sit and listen to the voices of the marsh; let the fascinating, mysterious, bewildering voices encompass you and—hold your peace. Spirits of the marsh—it is their magic forest. Let no mortal intrude.

But a marsh like a mountain will not be exorcised and, "when the Red Gods mix their medicine", calls so insistently that you can but obey its summons. That open water in the center of the marsh called me imperatively many a Duck had I seen curving over to settle down where it must be. The residents had not been encouraging. One said that you might take a step and go down up to your neck. Another, less conservative, told of a man who had driven into the marsh adjoining this and been sucked down by the bog, man, horses, and wagon disappearing forever! To prevent such an unpleasantness, one familiar with bogs gave me a few careful directions: "always step ahead of yourself, never put down a foot so you can't draw it back, and if you go in a hole, back up; turn your foot sidewise and bend the tules down under it; steady yourself with a handful of tules."

With these valuable directions in mind I made my way laboriously through canes and tules and along interior bays of marsh grass. Though none of the wary birds waited for me, a startled yellow ball bounded up into the air ahead of me and coming down proved to be a Maryland Yellowthroat; I caught it giving its flight song in this explosive manner later. Tule Wren parents fairly held me up in the canes, demanding my business. There were many opportunities to compare the Tule Wren's mechanical round, *clatter*, clatter, clatter, clatter, clatter, with the Short-billed Wren's cha-cha, chat-ahcha, or chee-chut, chee-chut, chee-chut, chee-chut, chee-chut, chee-chut, chee-chut. One of the Short-bills, singing out of sight in the marsh grass bordering the tules, at my answering whistle came out into view, a little light-colored ball on a grass stem. Excited by what he saw and heard he came on toward me, his tail flattened over his back, singing hard, droll midget, bent on finding the intruder and having it out with him on the spot; for this was his patch of marsh grass!

In working my way through the marsh, wading from one cane island to another, there came one glorious moment when the fact that just then there seemed no footing short of the orient was instantly forgotten, and visions of disappearing farmers and teams vanished, for whizzing over the tules only a few yards away came a Nelson Sparrow, a new bird to me, giving his loud flight song. his startling, original outburst, that struck the ear like a bang of cymbals—'Tsang'-ger-ee.

While this exciting outburst was still ringing in my ears, the old explorer of bogs joined me, and carefully testing footholds and ordering me to step in his boot prints, led me out to the edge of the open water. A female Mallard burst from her nest beside us as my guide bent down a mass of long tules to serve as a platform, a very quaking platform it must be acknowledged, from which I could look out over the interior lake. At last I had arrived!

The water was so shallow that clumps and streaks of tules afforded shelter for the Coots and Ducks. Part of the surface of the water was covered with beautiful pinkish algæ. Surprised beside a wisp of tule, a Black-crowned Night Heron, crouching low as if trying to make himself inconspicuous, was in the fullest beauty of his nuptial plumage, lovelier than I had ever imagined he could be, with delicate yellow skin around his face and white nuptial plumage curved gracefully over his back. Meanwhile a less experienced young one, a nondescript gawky long-legs, made itself the one object in the landscape by trying awkwardly to climb up a clump of tules. Swallows and Black Terns were skimming over the water, and a Tern with food dangling from its bill flew straight across the lake to the tules; how I longed to follow! A Ruddy Duck with a brood of ducklings sat on the water in a narrow tule lane. As we watched a handsome male Ruddy swam eagerly in as if to join his little family, but to my surprise and indignation was driven back by the mother.

On emerging from the tules we climbed a low sagebrush hill from which we had a generalized view of the marsh and lake, whose blue water changed to green near the opposite shore. Across the lake the heads of a band of Redheads caught the sun and glowed splendidly. Pied-billed Grebe, Blue-winged Teal, and a great number of Ducks too far away to be named gave me the satisfaction of knowing how thickly populated was this hidden lake. There had need be a Chinese wall around this home of the waterfowl!

Jan., 1916 CHARACTERISTIC BIRDS OF THE DAKOTA PRAIRIES

The next night at half past eight when the red light was fading in the west, a Nelson Sparrow was still banging cymbals in the marsh, and two Great Blues and a Night Heron apparently starting on their nightly hunt flew overhead between the marsh and the largest of the lakes.

Washington, D. C., May 23, 1915.

NEW AND INTERESTING BIRD RECORDS FROM OREGON

By STANLEY G. JEWETT

ROM April to September, 1915, the writer was engaged in field work for the United States Biological Survey. Work was conducted through the mountains and narrow valleys of east central and northeastern Oregon. Large collections of both birds and mammals were made, and extensive notes taken. The notes on the birds mentioned below are thought to be of sufficient importance to warrant publication at this time.

Canachites franklini. Franklin Grouse. This species of grouse is fast disappearing from its range in northeastern Oregon. During the early part of September I hunted, unsuccessfully, for specimens along the headwaters of the Imnaha River in Wallowa County, where the birds were formerly common and are still known to occur. I heard several reports of the occurrence of Fool Hens, as they are commonly called, but not until September 9, did I establish an authentic record, on which date I found the tail and several feathers of an adult male where some predatory animal had killed it. The locality was about a mile up Cliff River above its junction with the Imnaha River in the Wallowa Mountains. This grouse is undoubtedly often seen by prospectors and sheepherders in this section, as most of them are familiar with the Fool Hen as differing from the Richardson Grouse (*Dendragapus o. richardsoni*), which is common throughout the mountains of northeastern Oregon.

Selasphorus platycercus. Broad-tailed Hummingbird. This species was noted but twice; first at Dayville, on June 27, where a fine adult male was seen hovering about some honeysuckle flowers on the hotel porch several times during the day. This bird was seen at such close range that identification was sure by one familiar with the species. On June 30, 1915, an adult female was taken at Mount Vernon. This bird when shot was hovering over some flowers in a small opening in a cottonwood grove on the bank of the John Day River.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. This flycatcher was met with twice in eastern Oregon. Two were seen in juniper trees near Prineville on June 3. An adult male was taken at Twickenham, in the John Day Canyon, on June 25.

Dolichonyx oryzivorus. Bobolink. On July 23, 1915, I found a colony of about twenty-five of these birds on the Griggs ranch, three miles west of the town of John Day. This colony is said to have been present each summer the past three years, during which time it has increased in numbers. Two females were taken for specimens. There is an old breeding colony of Bobolinks in Harney Valley near Burns; and at the Oregon Agricultural College I recently examined the skin of an adult male in spring plumage that was taken by Professor Shaw in Union County; but the label lacks the date of capture. As large tracts of our arid valleys are brought under irrigation it will be interesting to note what the effect will be on this meadow loving bird.

Pinicola enucleator montana. Rocky Mountain Pine Grosbeak. On September 9, 1915, several of these grosbeaks were seen in the Hudsonian Zone near the junction of Cliff and the Imnaha River in the Wallowa Mountains. A female in worn summer plumage was taken.

Junco hyemalis hyemalis. Slate-colored Junco. On April 12, 1915, a female of this eastern junco, probably a late spring migrant off her regular route, was taken in the willow brush along the south bank of the Columbia River on Miller's Ranch at the