THE CONDOR

A BI-MONTHLY MAGAZINE OF
WESTERN ORNITHOLOGY

Published by the
COOPER ORNITHOLOGICAL CLUB

VOLUME XXXVI | JULY-AUGUST, 1934 | NUMBER 4

THE PRIMITIVE PERSISTS IN BIRD LIFE OF YELLOWSTONE PARK

WITH THREE ILLUSTRATIONS

By GEORGE M. WRIGHT

Days with the birds in Yellowstone are tonic to him whose spirit is bruised by reiteration of the lament that wilderness is a dying gladiator. Too frequent exposure to a belief born of despair is not good for any man. To conservation, it is a poison the more deadly because the injurious effects remain unnoticed until a lethal quantity has accumulated in the system.

There is an obvious prevalence of the conviction that perpetuation of primitive wild life anywhere on this continent is impossible in face of the expansion and intensification of European-type civilization. Neither is it to be denied that this particular defeatism has been a boon to the greedy one who would justify his seizure of the last egg or his eating of the last duck.

Honest recognition of all factors operating to destroy the wilderness and of the amount and rate of such destruction is nothing to decry. Propaganda from this source is salutary if accompanied by proper advertisement of the facts, and providing that it is presented as diagnosis with prescription for treatment and not intoned as a funeral oration.

The national parks and national monuments and certain designated areas within national forests have constituted the strong line of defense in the conscious determination to preserve representative examples of the primitive wild life of America. In the beginning we were blithely unaware of the complexities involved in this undertaking, unaware that Acts of Congress and ranger patrols were but preambles to the real task of keeping Nature natural. The first sharp pain of awakening inducted a sore travail, the taking of inventory to determine the adverse influences, their causes and their effects. From this labor a new principle was born. Henceforth, scientific, planned management would be used to perpetuate and restore primitive wild life conditions. The earlier protect-and-hands-off policy had abundantly shown it could not accomplish this objective alone and unaided.

Even before the birth, a spectral wolf haunted the scene. Ever bolder, his howls now make the night one long anxiety, for he shouts to heaven that the baby lives in vain. Small wonder if the nurses whose duty it is to appreciate every hazard over which their charge must triumph and to prepare him for it, now and

then grow discouraged. Their heavy task becomes quite unbearable with that added tribulation, the defeatist head-shaking of the spectral wolf.

Often it is but a small unnoticed shade of change which transforms the pleasant task into burdensome duty. I do not know when the change occurred, but there came a day when the elk bull standing on a much-too-near horizon was no longer the embodiment of wild beauty, no longer a wild animal at all to me, but just next winter's great big problem, a dejected dumb brute leaning on the feed ground, its gums aflame with foxtails and suffering from necrotic stomatitis.

It was the fear of fixation in this jaundiced outlook which first suggested a changed diet through study of the healthy elements in the picture instead of so much concentration on the bad spots. The refreshing mental exercise of analyzing observed incidents for their faithfulness to primitive life brought me to these reminiscences of a few among the many hours spent watching the lives of birds in Yellowstone.

The Yellowstone-Teton area, roughly speaking a plateau some one hundred and twenty miles long by sixty miles wide, of altitude varying from six to eight thousand feet, and encircled by mountains rising from three to six thousand feet above its plain, was one of the wildernesses late in yielding to man's violation. Though the three largest rivers of the country, first roads of exploration, clawed thirstingly at the flanks of the Gallatins, Absarokas, Wind Rivers, Hobacks, and Tetons, the ruggedness of these ranges and their long lingering snows discouraged all but the hardiest scouts such as John Colter and Jim Bridger.

In the course of time even this land was called upon to yield much from its rich stores of game and fur. The trappers who went in came out laden, yet they told little, as it was not their way incautiously to brag about the best trapping grounds. The game beyond the mountains was nearly annihilated, and much of this was the same game that had summered in luxury on the abundant grasses of the plateau. Then the dude explorers and hunters—"Muggses", they were called in their day—came to take a share. Protection was only a name in the first years after the park was set aside, and very probably less than that insofar as the game was concerned. Finally, the automobiles, shrieking over fast roads, brought thousands of well-meaning but thoughtless visitors whose very presence would seem paradoxical to the concept of wilderness.

In spite of all these vicissitudes, each one of them a fearful impact on the primitive, today the beavers are back by the hundreds, content in the freedom to pursue their inherent way of life, without ever a lurking fear that they might be born to ride to the Paris opera astride some dandy's eyebrows as did their beaver forefathers not so many beaver generations gone by. Down in the Bechler swamps, the lone Loon is as solitary as the poet's version would be pleased to have it. Shiras moose thresh the willows in Willow Park, their behavior so naturally easy that the wide-eyed tourist might well wonder if it is not himself who is exotic in these surroundings and therefore the curious object. While watching a marten in the woods of Heart River, a coyote amongst the ghost trees of Middle Geyser Basin, a badger on the boulder-strewn hills of Lamar Valley, I have sometimes felt almost offended by the suspiciously elaborate disregard of my presence manifest in their behavior.

But it is the birds of the water, beautifully wild birds by the thousand, that are encouragement and inspiration to the man who prays for conviction that the wilderness still lives, will always live. The shimmering silver sweep of the many lakes large and small, and the calm yellow-brown expanse of the broad, warm rivers harbor a varied and abundant bird populace. Trumpeter Swan, Sandhill Crane,

White Pelican, Canada Goose, American Merganser, Mallard, Barrow Goldeneye, California Gull, and Osprey are outstanding in the picture, some because they are large birds, others because there are so many of them. In the case of the Canada Goose it is both. Double-crested Cormorant, Caspian Tern, Loon, Harlequin Duck,

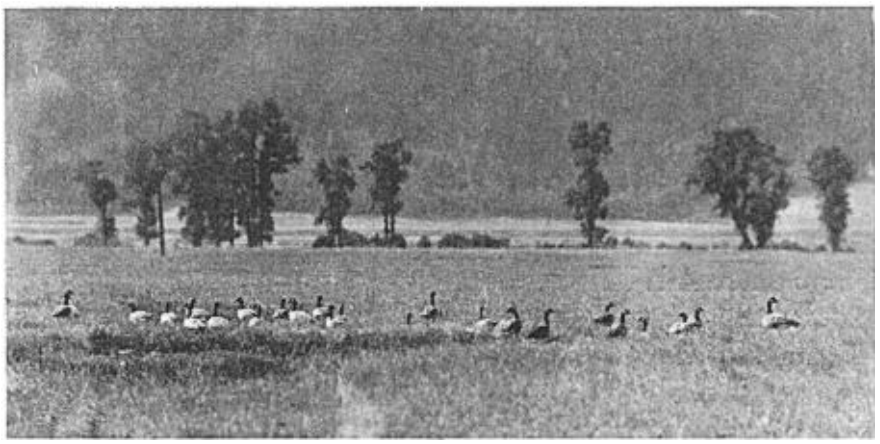

Fig. 24. Canada Greese frequent the roadside meadows—often, as if no road were there. Wild Life Division negative, no. 385.

Willet, Avocet, Solitary Sandpiper, Shoveller, Sora Rail, Great Blue Heron, and others earn distinction on a day's list because they are either rare or rarely seen. And the red-letter, Wood Ibis day may not repeat itself in one person's experience. Other birds of more usual occurrence are Coot (myriads of these), Ruddy Duck, Pintail, Green-winged Teal, Blue-winged Teal, Scaup, Eared Grebe, Pied-billed Grebe, Buffle-head, Red-winged Blackbird, Yellow-headed Blackbird, Belted Kingfisher, Western Yellow-throat, Tule Wren, Wilson Snipe, Wilson Phalarope, and the inland waters' constant companions, Dipper, Killdeer, and Spotted Sandpiper; and beyond all these, fully again as many more.

The concentration of so many waterfowl so high in the mountains is in itself an amazing thing. The readily apparent cause of this unusual spectacle is the abundance of warm shallow waters in both the streams and lakes which favor production of the preferred foods.

Sometimes while I am watching these birds on the water, the illusion of the untouchability of this wilderness becomes so strong that it is stronger than reality, and the polished roadway becomes the illusion, the mirage that has no substance. The impression of the persistence of the primitive is strongest in those exciting minutes when the birds are observed struggling to outwit their natural enemies or in a competition against one another, themselves oblivious to all but the primeval urge of the moment.

The notebook records many interesting incidents in the natural lives of Yellowstone birds, some of them particularly suggestive of the theory that animals hew closely to the way of life peculiar to their species, ignoring man-made changes in their environment so long as these do not constitute insuperable obstacles demanding deflection of habit.

Among Yellowstone birds, the Sandhill Crane is reputedly the wariest. Its bearing is always patrician. For all that the Swan is a tradition of grace and dignity, still the familiarity that breeds contempt brings a day when one is close to confessing

Fig. 25. Nest of the Sandhill Crane as seen at the edge of a lost lily pad lake in Bechler River district, Yellowstone. Wild Life Division negative, no. 2311.

this bird's kinship to certain inmates of Si Farmer's duckpond. The Sandhill Crane never gives a chance for familiarity. In its aloofness there seems to be more than fear. A first acquaintance made in 1930 left an impression that subsequent events have failed to erase. It seemed as if the cranes eschewed close association of any sort with the whites who had come to trespass upon their chosen solitude. Only with the dire need to protect their young did the barrier break down.

In early June, 1931, we stood on the edge of a lost lily-pad lake in the Bechler River district. The gleam of sunlight on a rusty red head pressed closely down revealed a sitting crane. Though we halted in our tracks and made no movement, she could not endure our presence for more than a couple of minutes. I could not tell afterwards how she rose from the nest, but there she went, crossing the lake with slow, sweeping, steady wingbeats, uttering that strange unearthly call which is the very embodiment of all wildernesses. Slowly she lifted, gaining just enough altitude by the time she reached the lake's far shore to clear the lodgepoles and disappear from our view. There were two eggs well advanced in incubation on the flat raft of tule stems.

In 1932, this time on the last day of July, while we were riding across a wet meadow near Tern Lake, two Sandhill Cranes permitted us to come much closer than usual. The explanation was right under foot. Our horses jumped aside as a half-grown baby exploded from the young lodgepoles and went careening out across the uneven ground. We tried to run down this grayish-pink fledgling, but our horses were at a disadvantage, and once it reached the forest on the other side our quarry disappeared like magic. The one parent that remained on the scene flew from one hillock to another in silence. In alighting it would come in on a long slant, lightly touch its feet to earth in twelve to fifteen giant paces, and finally come to rest with wings folded.

We had always maintained that this was one bird which would never consent to abide with man, but the summer of 1933 proved us wrong. All through the season, two pairs of cranes, each with a single young, fed unperturbedly in the meadows north of Fountain Geyser in full view of the constant procession of cars. On September 13, when last observed, the youngsters equalled their parents for size, though readily distinguishable by the reddish-brown streakiness of their bodies and the lack of color in the head markings. That same day we located a third family with two

juveniles not more than a mile airline from the other two. It was a gala day indeed, for we felt that it marked Yellowstone's high achievement in perpetuating the primitive in the presence of man.

An early morning in June found us driving from Canyon to Lake, a route which is always interesting because it never fails to reveal a fascinating wild life panorama. Where the road closely parallels the Yellowstone River, two American Mergansers were acting strangely. Both wore the gaudy trappings that proclaimed their maleness to the whole world. The foreparts of one Merganser were thrust under water. Its tail was elevated, and the wings were slightly spread as with some extraordinary effort. The other Merganser fussed alongside. Presently the struggles of the first ceased, and both of them began to circle excitedly around and around over the spot. A California Gull came out of the nowhere, swooping past with a ghoulish cry. Back again it swung, then most unexpectedly departed in screaming, precipitate retreat. Before we could cogitate the unorthodoxy of such an un-gull-like act, the Mergansers, too, were lost to sight under the spread of a white fantail and the beating of broad dark wings. From a sparkle of spray, a Bald Eagle rose with one ten-inch native trout. And now the story was plain. The Mergansers had tackled a trout too big to be managed. The Gull foraging up the river sensed the possibility of a steal, only a few seconds before the swift approach of the Eagle changed lust to fear. There we were, all of us, too much startled by the sudden dive of the great bird to do much of anything at all. With measured strokes the monarch winged away toward the distant wooded bench where it is rumored that it occupies the same nest from year to year.

A pair of Harlequin Ducks dropping down through the fast water below the Cascades was the second touch of the unexpected. In the bright morning light, the rich red side of the male was the conspicuous identifying mark, the more bizarre paintings on head and neck not being revealed at a distance.

In a marshy expanse of the river not far from Mud Volcano, a pair of Trumpeter Swans were quietly feeding, and when we returned that way late in the afternoon, they were still there, a picture of perfect repose in the soft caress of the setting sun. Though we never left the car in making these observations, what we saw was all wilderness life.

The story of the White Pelican is a sorry one the country over. California, for instance, which once had at least nine colonies and two years ago could still boast one, may be without any in 1934, since the large colony at Clear Lake failed to produce anything last summer. But the wilderness of the Yellowstone fights to protect its own.

The presence of White Pelicans on Yellowstone Lake has been continuously recorded for over fifty years, and it is safe to assume that they have bred there for a long, long time. Rumors, probably well-founded since the antipathy of fishermen against all the fish-eating birds and mammals is well known, tell of numerous raids on the breeding islands, and the control experiments which were officially sanctioned are a matter of record. Today the fish-predators in national parks have equal rights with all other classes of animals. There is written into the Park Service code for wild life the following policy:

> "Species predatory upon fish shall be allowed to continue in normal numbers and to share normally in the benefits of fish culture."

In spite of the pressure to destroy the primitive which was brought to bear before this permanent peace was signed, the colony seems to have maintained a fairly constant status throughout. Each year has revealed the same sort of domestic activity down on the island nursery.

The general sequence of events, together with species noted and the numbers of each, have all been so constant for each of the trips we have made, that the chronicle of any one of these excursions will do as a pattern of the rest. This particular trip took place on June 4, 1932.

The Bureau of Fisheries' boat makes a broad furrow for eighteen miles up the lake before the tiny Molly Islands at the head of the southeast arm are sighted. A hazy cloud of Gulls first marks the spot for us. Then a half hundred Pelicans rise up among them. For a few minutes they whirl about in disorder, then organize the flying march which takes them over to a sandspit on the mainland where they alight and remain, still in the order of march, at rest but watchful. While the boat is still a hundred yards off shore, two Double-crested Cormorants shoot out across the water straight and low like two torpedoes leaving a destroyer. At the same instant the calls of startled Canada Geese come to us from the far side of the islands. Later someone spies the Geese heading for the marshes at the river mouth.

While we are coming to anchor and casting off the rowboat, the cloud of Gulls thickens and their protests shatter the calm. Among them are two Caspian Terns, but they are not so fearless as the Gulls, and soon are lost from the picture. Not

Fig. 26. Far down in the southeast arm of Yellowstone Lake the two tiny, Pelican islands lie. Not until our boat scrapes on the pebbles do the sitting Pelicans decide to abandon their nests. Wild Life Division negative, no. 2466.

until our boat scrapes on the pebbles do the sitting Pelicans decide to abandon their nests to the enemy. We scramble to high ground in time to see the last reluctant three take to the air.

The Caspian Terns are presumed to be breeders, but this year as before we fail to find their nest among the five hundred and sixty-four which we count as belonging to the California Gulls. We find the single Farallon Cormorant nest with three eggs. The Cormorant population seems to remain constant at one pair. The nine goose nests on the two islands contain a total of nineteen eggs, five being the largest number in one nest. There are one hundred and twenty-six occupied Pelican nests, and two hundred and thirty-two eggs. Three nests contain four eggs each. Two Western Willets, a few Wilson Phalaropes, and the usual complement of Spotted Sandpipers complete the Molly Island census for the day. We hunt in vain for a Blue-winged Teal nest, remembering well the one we found on Pelican Island in 1930.

The year 1932 marked a milestone in the Yellowstone White Pelican saga. That year, respect for the Pelicans reached the point where the superintendent of the park issued an order prohibiting all boats from even passing close to Molly Island during the nesting season, the only exceptions to be two or three ranger-conducted surveys for census purposes. Persistence of the primitive in the face of much interference has won its reward, another victory for wilderness.

There is an aura of wildness about the cluster of lakes deep in the wooded heart of Mirror Plateau which stills the voice and quickens the senses. From the first, our experiences in this territory taught us to watch for the unexpected. The trip of June, 1932, yielded no particular excitement until the moment of our departure on the morning of the 25th. We walked up the crest of the hill on the west side of Tern Lake where we could get a good, though somewhat distant, view of the Trumpeter Swan nest that we had been studying. Both parent birds were out of sight, so we started on. At the last opening in the trees we hesitated for the fateful last look.

A black object loomed by the swan nest. With field glasses glued to our eyes, we saw that it was an otter stretching its full length upward to peer down into the nest. From one side it reached out toward the center and pushed aside the material covering the eggs. Then the commotion started. With rapt interest, the otter rooted around in the dry nest material, heaving up here and digging in there, until it was more haystack than nest. Then the otter started to roll, around and around, over and over. This went on for a number of minutes. At frequent intervals its long neck was craned upward, and the serpent-like head rotated around to discover (we supposed) if the Swans were returning. At last the otter seemed to weary of this play. It climbed from the nest to the outer edge, then slid off into the water. Swimming off along the edge of the marsh grass, it was the undulating silver demon of the water world. Once it dove and several times detoured into channels through the grass, only to come right out again and continue on. It never turned back, and was finally lost to sight.

Where were the Swans all the while we had been praying for their return? We well remembered that time two years ago when they came flying in from a far corner of the lake to drive off a Raven which had already broken one egg. Careful search with the glasses revealed the parents, all that we could see being the water-stained heads and black bills protruding from the marsh grass. One was about six hundred feet from the nest, the other not more than two hundred and forty feet. Yet both birds gave no evidence of concern. Seeing that the damage was already done, and another year's potential Swan crop for the Mirror Plateau lost irrevocably, we saw no further reason for caution. So we stripped off our clothes and waded out across the shallows. We were amazed to find all five eggs intact. There they were, all together, rolled to one side but perfectly whole. So much for circumstantial evidence. Had we gone on, Mr. Otter would have had one order of scrambled Trumpeter Swan eggs charged on his bill.

We covered the eggs and hurried away in confusion as huge hailstones pelted our bodies. We hoped that the parents would return to protect the eggs from chill. The storm obscured the scene, obliterating the next chapter in the story. Later we learned from the ranger reports that no cygnets were raised on Tern Lake that year. Which meddler should shoulder the blame, the otter or the scientist?

Mirror Plateau has been made a research reserve. The only trails leading in are elk trails. No developed trails will ever find a place there, and of course no roads. Since no trout are ever to be planted in these lakes, there is every reason to hope that here again the fugitive wilderness has found another safe retreat.

The Mirror Plateau, however, like Molly Islands, is a special case. Here man has shut himself out to protect the wilderness. We seek to retell those occurrences when it seems that the wilderness has persisted in its primitive characteristics in spite of artificial developments.

We stood on the road the cold morning of November 10, 1932, watching the sun lift the veil of mist from the meadows at the head of the Madison. Wildfowl floated on the river with that economy of movement so characteristic of wild creatures in cold weather. Men stamp their feet and blow in their hands, but the animals and birds seem to conserve their body warmth to best advantage by staying very still.

The Bald Eagle usually present in this section in winter made its rounds and disappeared in the direction of the Firehole. A coyote sat out in full view in the middle of the snow-white meadow with a cocky mien which seemed to say that it had done enough mischief of a serious sort during the night and now awaited something to arouse its curiosity. Of course no good scientist would be guilty of even toying with the fancy that a coyote could be suspected of thinking at all. Oblivious to such insult, the coyote presently came trotting toward the river bank and proceeded to go on a still-hunt for birds. He worked down stream, keeping back out of sight except where a break in the bank or some protective cover permitted him to come down to the water's edge. When five Canada Geese near the opposite shore caught sight of the enemy they kicked into the air and flew off calling loudly. They broke the sweet silent spell. Mallards and American Mergansers seemed aware that their position was impregnable and paid no attention. Nine Mallards swam down stream right past the coyote, which by now was openly eyeing them from the bank. The coyote turned its attention to hunting small rodents in the meadow, and we started up the road. A single Clark Nutcracker crossed in front of us.

The road up to Old Faithful closely parallels Firehole River. Numbers of Dippers breed here in summer, but in winter there is a much greater concentration on this and the other warm streams. But where were the Dippers this morning? Finally we found them. We had been searching their accustomed rocks, but these were ice-covered now, and the birds had therefore abandoned them for the winter to stand quietly on the submerged rocks, their legs warmed by the friendly river.

The elk, too, take advantage of the thermal heat. We saw many of them in the upper Geyser Basin and knew that some would remain there for the winter, loafing on the warm ground, which is always free enough of snow to provide some forage. At that, they fare better than the bulk of their fellows who join the migration. It is generally recognized today that the elk wintering up on the plateau usually come through in good condition, whereas those on dole at the feed grounds are emaciated by spring. Wild game prospers more if permitted to remain primitive. The mere presence of man is not so injurious. It is when he attempts to have the animals live his way and die his way that ruin follows.

Canyon, for example, is one of the human concentration points in the park. Before visitors came to this place, it was a concentration point for Ospreys, and there is no evidence that civilization has diminished their numbers. Throughout the summers of many centuries they have raised their young on pinnacle nests in Yellowstone Canyon. Crowds of eager-eyed tourists on the parapets, which in some instances are almost directly over the nests, do not disturb the sitting birds.

Notes taken on the mild cloudy day of May 20, 1932, read as follows:

Osprey. From the lookout point at the end of the Canyon Drive on the north rim, we were able to count seven nests on which Ospreys were sitting. Ospreys wheeled in the higher air and floated in the canyon. Ospreys sat on their nests and

called, like giant young chicks, when their mates came near. Ospreys came in with their catches of trout. Yellowstone Canyon belongs to the Ospreys. People build roads back of the rim, railings over the steep points, and trails down to the river, but the canyon really belongs to the Ospreys. They alone are equipped to be at home in this rugged brilliant gorge.

A Raven, too, has its nest just under the rim of the south wall, but its life is made miserable. An Osprey chased the thievish Raven for a quarter of a mile down the canyon while we lunched and meditated upon a wonderful nature.

The Ospreys of Yellowstone Falls are evidence that even a very highly specialized and locally restricted form can persist in the full vigor of the primitive in very close contact with man. Lately the Sandhill Crane has shown ability to do the same thing. The White Pelican has done it, as has the beaver and the moose, the Canada Goose, and many others. When I see how many of the wild creatures can re-assert their wild way of life upon the exercise of a very little restraint on man's part, I am encouraged to laugh once more at the defeatists and tackle afresh the problems of wild life restoration.

Though these reminiscenses of field days were encouraged for the purposes of strengthening a slightly damaged optimism personally, and rebutting the despair chorus generally, they have engendered a new line of thought. This is that a useful technique for solving wild life problems may develop from a study of the inherent tendencies in all species to remain primitive. Since their primitive living pattern must represent the most beneficial one for them, we may hope through analysis and understanding of its method to improve management practice. More of the wild animal background should enter into wild life administration to the exclusion of ideas rooted in centuries of association with domestic live-stock.

National Park Service, Berkeley, California, April 19, 1934.

A WILDERNESS-USE TECHNIQUE

WITH ONE ILLUSTRATION

By BEN H. THOMPSON

In northwestern Wyoming is a land guarded by mountains. It is a wilderness of forest, swamps, and lakes, broken by cliffs and lofty granite spires, and chiseled by crackling ice and the sunny dripping of water. Long river tentacles reach up to this high plateau from different oceans. In winter it is a land of heavy snow and sweeping sleet, and sometimes the night is whiter than day. Then the elk herds drift down from the sage and aspen valleys where the rivers go to warmer levels. The weasels turn white with little black tips, and the snowshoe rabbits have black-edged ears above muffed feet. Sometimes a Great Gray Owl comes softly out of a wet sky. In spring it is a land of mist-blue forests and sparkling lakes. Then summer haze begins to rise from the forest and makes the great mountains look like bluer shadows in a blue sky. Ocean birds come sailing in to nest in unseen swamps. There is the mute whistle of ducks, the call of geese, and the "weer" cry of gulls. The marsh grass grows in seeping ground and the forest blooms; the pond lilies push their soft yellow lamps above water, and sage and lupine bask in the sun.

Into this land people go for the love of it and to learn its ways. To save this wilderness just as it was "for the benefit and enjoyment of the people", a portion of it was established as Yellowstone National Park.

Here is a thing so glorious that it threatens to be impossible. How can the secret beauty of wilderness be opened to the people and remain unspoiled? This