

Migratory Birds



Banding a Bald Eagle.

(Prepared by the National Geographic Society, Washington, D. C.)

WHAT animal is the greatest traveler?

Not man in spite of his railroads and automobiles, his ships and airplanes. The myriads of birds that each spring and autumn fly north and south, in some cases for vast distances, undoubtedly still hold first place.

Man's interest in birds began in those far-distant primitive days when an intimate knowledge of all the wild life about him was often his only safeguard against starvation. Long before the dawn of history the mystery in the great northerly and southerly movements each spring and autumn of vast numbers of birds of many kinds keenly interested him and stimulated his imagination. Fantastic theories were built up to account for them and entered into myths and folklore, where some still survive, even in civilized countries.

It has long been known that some of the smaller birds that breed in the North appear in middle latitudes on their return in July. The number of these little voyagers increases in August and the movement is in full tide in September. The hosts of wild fowl linger mainly until October and November, when the frosts of approaching winter in the North send them Southward.

The multitude of warblers that went Northward in spring so gaily bedecked in all the bravery of their nuptial colors come trooping back with their young, all clad in sober hues more fitting their present prosaic task of making a living off the country, and laying in a goodly supply of fat to help meet any privations winter may hold in store in the warm Southern lands they seek.

Bring Joy to the Far North.

In far Northern lands where untold millions of ducks and geese and other wild fowl go to rear their young, the advent, during the last of April or early in May, of the first of these birds is the cause of exultant joy to the people. Contentment fills their hearts, for the coming of the birds marks the end of the long, cold period of scarcity and the beginning of that part of the year in which food is again plentiful.

In the old days fur traders in Canada and Alaska rewarded with tobacco the Indian or Eskimo who saw the first goose winging its way overhead in spring. White men joined with the natives in the jubilant welcome to the newcomer.

The bird life of the United States is believed to total more than four billion individuals. This means that many hundred millions of migrants move North and South with the changing seasons. Though many go by day and may be seen by all who take the trouble to observe, vast numbers also pass by night.

During the height of the spring migration, those whose ears are attuned to nature's voices may hear mysterious notes overhead, many of which may be recognized. They mark the course of winged travelers exulting in springtime vigor and approaching nuptials in the haunts which they seek toward the top of the world. Telescopes held on the moon at that time often reveal their silhouettes as they cross its face.

In autumn the throng moves Southward over a longer period, and the travelers wear the soberer garb of everyday life.

Though it has been plain that migrating species, in general, move North and South—the movements of some covering nearly or quite the entire length of the continent—yet only vague information on the subject has been available, since it was impossible to determine the movement of individuals. Through bird banding a method is now developed that will not only tell us where individual birds wander, but will enable us to trace their routes and determine the exact areas where they go in the North to rear their young or in the South to winter.

Wander Far From Home.

We may also learn something concerning the strange, sporadic occurrence of birds in parts of the world far distant from their homes. Such wandering individuals are probably much more numerous than we suspect. This is indicated by the repeated occurrences of robins, bobo

links, and other American birds in England, and even on Helgoland, that insignificant island in the North sea where so many visitors from distant regions have been found. St. Paul Island, the largest of the small Pribilof Islands, in Bering sea, appears to be another landing place for lost birds, judging from the number of stragglers from eastern Asia and the Alaskan mainland that have been found there.

Systematic marking of birds, each properly recorded for the purpose of studying movements and habits, has developed in Europe and the United States within the past 30 years. The greatest advance has been since 1923 and it is now becoming a well-recognized line of research.

Investigators familiar with the bird life of their districts capture the birds, alive and unharmed, with many ingenious traps, and place a numbered aluminum band or ring on the leg of each. Each band bears a central address, so that whenever the bird is retaken, alive or dead, the finder may forward either the band or the number of it.

The use of birds as messengers by man began in the dim past. Perhaps the earliest record is that of Noah, who is said to have sent out the Raven and the Dove to prospect for land.

The first record of birds being marked to distinguish them after flight appears to be in the tenth book of Pliny's Natural History, which states that a Roman sportsman took swallows from Volaterra (Volterra), in Tuscany, to Rome. During the chariot races the birds were marked with colors of the winners and then liberated to carry the news back home.

For a time prior to the development of systematic banding, students desirous of lifting the veil of mystery surrounding bird movements cut the feathers so they could readily be identified. Sometimes they marked the birds with bright colors, or attached a small piece of parchment with a legend to a feather or to a leg. These crude and scattered efforts gave little information.

The first record of a bird banded appears to have been made in 1710. A great gray heron, bearing several rings on one leg, was taken in Germany. One of the rings apparently had been placed on it in Turkey.

Banding and Recording.

In 1859 Prof. C. C. Mortensen, a school teacher of Viborg, Denmark, began systematically to band and record storks, starlings, and other birds along the general lines which are still in use. Thus he became the pioneer in practical, scientific methods of bird banding, and his success led to the work being taken up in various places, especially in Great Britain, Sweden, elsewhere in Europe, and also in the United States.

The two records of birds banded in Europe being taken on this side of the Atlantic appear to be both of Kittiwake gulls. The first was a young bird banded June 28, 1923, on the Farne Islands, off the coast of Northumberland. On August 12, 1924, it was killed in the District of St. Barbe, Newfoundland. The second was also banded on the Farne Islands, June 30, 1924, and was taken at Gross Water Bay, Labrador, in October, 1925.

No bird banded on this side has yet been taken in Europe, although many stray American birds have been recorded there. One banded American bird, however, has been recovered in Africa.

In the United States, Audubon made the first record of bird marking about 1803, while he was living on Perkiomen creek, near Philadelphia. He placed silver cords about the legs of a brood of plovers, two of which returned to the same neighborhood the following year.

The pioneers in systematic bird banding in this country were, first, Dr. Leon J. Cole, and later Mr. Howard H. Cleaves. Their enthusiasm enabled them to keep bird banding in continuous operation from the beginning of the century to the time when the work was taken over by the biological survey in 1929.

One demonstration of the keen interest in bird banding has been the formation of four regional bird banding associations, among which has been divided all of the territory in North America north of Mexico. They have secretaries to keep in touch with the members and to promote their activities.

FLASH

The Lead Dog

By
George Marsh

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SYNOPSIS

Up the wild waters of the unknown Yellow-Leg, on a winter's hunt, journey Brock McCain and Gaspard Lecroix, his French-Cree comrade, with Flash, Brock's puppy and their dog team. Brock's father had warned him of the danger of his trip. After several battles with the stormy waters they arrive at a fork in the Yellow-Leg. Brock is severely injured in making a portage and Flash leads Gaspard to the unconscious youth. The trappers race desperately to reach their destination before winter sets in. Flash engages in a desperate fight with a wolf and kills him. Gaspard tells Brock of his determination to find out who killed his father. Tracks are discovered and the two boys separate for scouting purposes. Brock is jumped by two Indians and a white man and knocked unconscious. He is held prisoner. Gaspard rescues him while his captors sleep. Gaspard believes these men killed his father and is prevented from killing them by Brock. While out alone Gaspard is shot from ambush by an Indian and kills his would-be slayer. While out on his trap lines Brock is caught in a heavy snow storm. He is lost and his food gives out. His hopes are raised when he discovers a moose trail.

CHAPTER VIII—Continued

For an instant, he paused, in doubt. He would rest his gun against a tree—if he could—had time. But suppose Flash lunged as he fired? It might be safer to lash him here. No, he did not dare. His hand shook like a leaf—he would only wound the moose—would lead Flash.

So, weak with famine and excitement, Brock went on—on into the thick timber, nerves strung like bow-strings, straining uncertain eyes for the vision of a huge shape in the snow. Then, dilating his nostrils in deep sniffs of the air, Flash suddenly went mad.

Falling on the trembling husky, Brock seized his nose. "Shut up, Flash!" he gasped in desperation. "Steady, boy! Shut up!"

But the starved dog trembled where he crouched, wild to charge the beast whose scent was strong in his nostrils. With stiff fingers, Brock knotted the leash to a sapling, and left his dog, to make the stalk.

He had moved by a few yards when suddenly he saw a patch of black dimly between the dark green of two young spruce trees. Life hung on the pliful hands which raised his rifle to his shoulder. His eyes blurred as the bead wavered past the open rear sight. Again he looked for his target. The black patch was gone.

With a groan the boy reeled, his fevered eyes peering desperately into the timber already blue with shadow. Then, to his flank, he saw a shape floundering in snow to his shoulders. It was the last chance!

Crouching, with elbow on knee, Brock fired.

As the rifle shattered the silence, a great gray and white shape, sinking to the shoulders at every leap, plunged past.

"Flash!"

With all the strength he could summon, Brock ran. He had missed—hardly seen his sights! "One more shot—only one shot!" he sobbed, as he shuffled after the dog, who had snapped his leash.

Brock reached the trail of the moose where the dog had joined it. Not a drop of blood on the snow! He had missed.

Ahead, Flash yelped, hard in pursuit of the feeble beast. But the long legs of the moose would out distance the dog in the deep snow. It was all over! They had lost! It was—the end!

Panting in his weakness, Brock stumbled forward over the broken trail left by moose and dog. Then, of a sudden, the yelps of the husky changed to roars of rage.

Flash had caught him!

Clutching his rifle the boy kept on, hoping, still hoping for one last shot.

He broke through the thicket to gasp in amazement. Rearing in the snow, a young bull, his horns still in the spike, lashed with his great forefeet at the boy who leaped around him. Hair stiff, eyes bloodshot, his breath escaping from dilated nostrils like the exhaust of an engine, with his sharp hoofs the bull flayed the air as the dog lunged in and out. And then, as the desperate beast tried to rise on his hind legs and fell back helpless, Brock saw.

"Hamstrung! Flash, boy, you've saved us with your teeth!"

Merely Brock ended the fight with a bullet through the beast's brain. As the animal fell, blackness closed on the vision of the exhausted boy, and he fainted.

The starving husky, mad with the taste of blood, tore savagely at the throat of the moose, then at the thigh

of the crumpled figure of Brock, ran to him with a whine. Slowly the biting air revived the youth whose desperate exertion had sapped the last ounce of his stamina. He got to his feet while the dog went back to his red meat.

"My old Flash pup!" said Brock, caressing the husky. "Hamstrung him you did, old pal! Bless your bones!"

But the dusk was close and there was no time to lose. Leading the reluctant dog from his quarry, Brock, delirious with joy at his luck, went back for the sled. And there, in the swamp, within easy reach of the meat which would thicken his blood and give him back his strength while he rested, he built a fire and made camp.

But Brock was wise, and sitting by his fire with the gorged Flash, he drank, at intervals, a small cup only, of the broth from the simmering pot of moose broth. Full well he knew the danger of filling a starved and weakened stomach, and that night—craving it though he did—he touched no meat.

"We'll see home, now—Hungry House and the family. And old Gaspard, what'll he think has become of us, Flash?" he rambled on in his joy to the dog at his side. "But we're lost—we've got to find the river, old pal. We'll camp right here, feedin' on that bull, 'til Brock gets his legs back, then we'll take a hundred pounds of meat and circle northwest, what?" Then the boy leaned and buried his hooded face in the gray mane of the dog who grunted with contentment at his side.

For days Brock camped beside the frozen moose meat, while his strength returned. As his endurance increased he climbed the nearest ridges to search the horizon for a familiar landmark.



"Ham-Strung! Flash, Boy, You've Saved Us With Your Teeth!"

but to his bewilderment and chagrin, found none. In the end, he was forced to the realization that, instead of being south of the headwater lakes and the river valley, he must have worked to the west, in the two days' blizzard.

Taking a hundred pounds of meat, a heavy load for the husky traveling across country, Brock turned south-east. In the hollow of his arm he carried his uncast rifle, for he was now sure he was well beyond the big lake, in the enemy's country. Constantly, as he traveled, he watched his flanks and back trail, for the memory of his capture was still vivid.

Brock camped that night in a country still unfamiliar, but the next day at noon, from a barren hill, he sighted, far to the east, the well-known ridges circling the great lake. As the short day waned and he looked for a camp ground, suddenly he came to a dead stop.

Cocking his rifle, the boy knelt beside his curious dog, as his roving eyes covered the spruce and jack-pine timber surrounding him, in a searching inspection. A snowshoe trail! How old? he wondered.

Hearing, seeing nothing, after a space Brock walked to the tracks in the snow and bent to study them.

"By the great horned owl, Flash!" he said to the dog sniffing at the trail. "It's Gaspard!"

The familiar shape of the shoes, which Gaspard had himself made, and a splice in the webbing, identified them.

"Now what is he after, I wonder?" said the curious boy, aloud. "He's given me up as wiped out, I'll bet, and has gone on a man hunt."

(TO BE CONTINUED.)

De'ic Dance Notes Like Sheet Music

Twenty years of experiment on the part of the leader of the foremost German school of rhythmic dancing, Rudolph von Luban, have resulted in a new standard "choreography" which is receiving attention from Berlin's critics of music and dancing.

It is claimed for this system of dancing notation that all forms of movement can be read as easily as a sheet of music, after a few hours' study. The five parallel lines upon which the signs are printed resemble those of a musical score. But dashes and curves, arrows and dots, take the place of ordinary notes.—London Observer.

Unfortunately Not

You can't choose your friends for their taste in interior decorating or refuse to go to Aunt Lydia's because her living room makes you feel indignant.—Woman's Home Companion

Husbands Made Butt of Flippant Jokers

Judge Ben B. Lindsey, champion of companionate marriage, eugenics and such-like advanced movements, said at a luncheon in Denver:

"There's a flippant class of people who try to make the role of husband a ridiculous and impossible one.

"Even Hudson, the great nature writer, takes a whack at husbands in his 'Purple Land.' Hudson says, you know, 'She did not love the youth, for she was married, and how can a married woman ever love any one but her husband?'"

"People will sometimes say of a man, 'He? Oh, he is a born husband.' It's the most insulting thing they can think up.

"Wagner was once rehearsing an orchestra in the love music of 'Tristan and Isolde.' The lack of passion and fire in the performance displeased him, and he rapped with his baton for silence. Then he said:

"Come, come, gentlemen, this won't do. You're all playing like husbands instead of lovers."—Detroit Free Press.

A Burglar's Double

Eleven years ago an Atlantic City man was arrested mistakenly for Howard H. France, a notorious burglar. Police apologized and explained to the man he was an exact double of France. Since then the same man has been arrested nine more times for the same burglar. After the third arrest the victim of this mistaken identity demanded a letter from police which they issued, stating: "This man is not Howard H. France." He now carries this letter wherever he goes.—Capper's Weekly.

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weak, nervous or ailing woman, Dr. Pierce's Favorite Prescription comes to her aid. Women in every walk of life today say Dr. Pierce's Favorite Prescription is a reliable medicine. It is made from roots and herbs, sold by druggists, in both fluid and tablets.

Mrs. Helen Simpson, 571 E. 8th Ave., Eugene, Ore., said: "When a girl grows I suffered from functional disturbances and was weak and nervous. I got so thin and pale that my people thought I was going into a decline. I was too irritable and weak for anything. My mother had taken Dr. Pierce's Favorite Prescription when she was a girl and it benefited her so much that she gave it to me and after taking this medicine I grew well and strong and developed into womanhood without any more trouble."

Send 10c for trial pkg. tablets to Dr. Pierce's Invalids Hotel, Buffalo, N. Y.

Keeps Fish in Channel

To keep young salmon from "de-touring" and being lost in irrigation canals and diversion ditches an engineer has devised a way of creating an electrified zone of water, which acts as an effective stop sign for the fish and turns them back to the main route.

Use Russ Ball Blue in your laundry. Tiny rust spots may come from inferior Bluing. Ask Grocers.—Adv.

Super Economy

A Scotchman was leaving on a business trip and he called back as he was leaving:

"Good-by, all, and dinna forget to tak' little Donald's glasses off when he isn't looking at anything."

The Ragged Edge

The Critic—Rimeflax is bringing out his works in style. Have you seen the new deckle-edged edition of his poems?

The Observer—No, but I notice he's still wearing the old edition of his deckle-edged pants.

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Neither pretty pictures nor colorful adjectives will dye a dress or coat. It takes real dyes to do the work; dyes made from true anilines.

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Triplets at University

For the first time since the founding of the University of Michigan at Ann Arbor, in 1837, a set of triplets is among the graduates. They are members of the Guffey family, of McKeanport, Pa. Lawrey, William and James were born April 24, 1905. They plan to enter medical school and practice together at the completion of their course. Their father is a physician.

Farmers to Use Planes

Many owners of large farms in South Africa are considering the use of airplanes for trips to the city. Farms in that country are enormous in size, as a rule, and planes could also be employed in making trips of inspection. Yards are so large that there is ample space for landing at the owner's front door.

"It's All Greek to Me"

Teacher—What are the three important Greek orders?

Pupil—Cups, scoffey, roas biff sandwich and peas coconuts pie.

Life is short, but men never outlive their good resolutions.