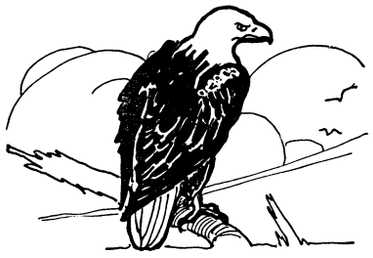
ORNITHOLOGY

# NATURE RAMBLINGS



**Bald Eagle**

➤ NEITHER BEN Franklin nor John Audubon, two of the most noted American scientists, thought much of the choice of the bald eagle as the American national bird.

The bald eagle is a handsome, ferocious-looking bird, with his snow-white head and neck above his dark brown body. His habit of choosing a nest site in the clouds, on an inaccessible crag in the mountains or at the top of a towering tree, lends itself to our concept of the bird as a symbol of power and dignity.

But when we come to know him a bit better, as Audubon did, the American eagle does not seem so attractive after all. He is not the wild, fierce, free-hunting bird which Fourth-of-July orators are wont to make him. More often, he is a robber and a carrion feeder, like the vulture.

He does eat meat, to be sure; but if he has a choice, he will take fish—and he is not always fussy about how he gets it.

A favorite trick of the bald eagle, as described by Audubon and by many naturalists after him, is to circle in the air while an osprey, the well-known fish hawk, works below him. The osprey is a fine large bird that can plummet down into the water, snatch a fish from beneath the surface and fly off with it.

When the eagle sees the osprey rise with a catch, he swoops down from twelve o'clock high, screaming his loudest. The osprey, alarmed by attack, drops his fish and dives for safety. That is just just what the eagle wants.

He continues his own dive, not after the osprey but after the dropped fish, catches it in mid-air and bears it off triumphantly. A clever enough stunt, this trait of the eagle's, but not a particularly good sign of noble character. And Audubon would be among the first to point this out.

Benjamin Franklin's opinion of the bald eagle was no higher than that of Audubon. Franklin contended that the national bird of the new republic should be a turkey, if the country must have any bird as its emblem.

The gobbler, he pointed out, is just as exclusively American as the eagle; it is a peaceful and highly useful bird, particularly at Thanksgiving, rather than being piratical and predatory. And the turkey, although it will fight only when its family is threatened, will then do battle against dismaying odds.

But the advice of Franklin and Audubon was disregarded. The bald eagle was enthroned on our national coat of arms and our coins. July 4 became a time to talk about the great qualities of the fearless bald eagle.

There is no doubt that any eagle inspires the admiration and respect of one seeing him in his natural habitat. And Audubon, if he were here, would chuckle over silver money he might receive. For there are more than a few coins in circulation now which portray, not the bald eagle, but the golden eagle, which is native to the Old World as well as to America.

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# Questions



ASTRONOMY

# Unipolar Solar Regions

➤ MUCH BETTER understanding of the causes of aurora, disturbed shortwave radio reception and other results of high geomagnetic activity may result from the discovery of "unmagnetic" regions on the sun's surface.

The slight bump made where a balloon is tied would somewhat resemble the way a unimagnetic pole appears on the sun when its magnetic field is mapped. This pole can be thought of as one end of a long bar magnet sticking out of the sun. Exactly where the other end of the magnet is, astronomers are not quite sure.

A tie-in between these unimagnetic poles and severe geomagnetic storms here on earth was suggested to the American Astronomical Society meeting in Ann Arbor, Mich., by Drs. H. D. and H. W. Babcock, a father and son astronomical team from Mt. Wilson and Palomar Observatories in California.

Astronomers have long known that the sun's surface is covered with magnetic areas, some positive in polarity, some negative. In sunspots, also, some spots are positive, some negative. Sunspots usually come in pairs, each one of the pair always having opposite polarity, as if the disturbance causing the spot curls down under the surface with its oppositely magnetized ends protruding.

The new unimagnetic regions, predominantly of one sign, are not related to other features of the sun's surface, prominences or corona. One of these new regions, first seen on Aug. 20, 1953, was observed on six successive rotations of the sun, each solar rotation averaging 27 days.

The UM regions may also be associated with a tendency of cosmic rays to have greater and less intensity in 27-day cycles.

Drs. Babcock reported on two years' observations with the solar magnetograph, an instrument that uses the Zeeman effect for the automatic measurement and recording of weak magnetic fields on the surface of the sun.

At the same symposium on turbulence and magnetic fields in the photosphere of the sun, Dr. Martin Schwarzschild of Princeton University Observatory suggested that the best place to study the solar surface would be from high-altitude balloons carrying telescopes especially designed for the purpose.

Earth-bound telescopes, Dr. Schwarzschild said, probably would never be able to observe through our ocean of atmosphere with sufficient clarity to solve the riddle of the rice-grain, or granular, structure of the solar surface.

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GEOLOGY

## Where Trees Grew Told Iron Ore Location

➤ WHERE A certain tree grew gave geologists exploring the rich iron deposits of Venezuela their clue as to the extent of the ore, Thomas C. Oftelie of Aero Service Corp., Philadelphia, reported to the American Society of Civil Engineers meeting in Atlantic City, N. J.

A variety of the copei tree that grows only on soil produced by iron ore has a distinctive texture on aerial photographs, which can be used to guide scientists and engineers to underground ore bodies from photographs of the region.

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