

THE REPTILES AND AMPHIBIANS OF THE CHICAGO REGION

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IT IS an open question whether the average visitor in a museum would rather see something familiar or something unusual. Will a raccoon or an okapi arouse the greater interest? Whatever the answer

logical fauna of the Chicago area and, in its three cases, one sees all the kinds of lizards, snakes, frogs (including toads), and salamanders that are found within some seventy miles of the Loop (the local turtles will be put on display later). The aim of the exhibit is to show exactly what species of

amphibians and reptiles might be encountered during a day's outing in the Chicago area. Obviously this exhibit will be used in two ways: from it some will learn how to avoid these animals, others where to find them. It is hoped that at least a few of those who come to learn how to avoid will go away wanting to find. This turning of a stumbling-block into a stepping-stone is called educating, and the Museum is an educational institution.

There are several interesting things about the structure of the new exhibits. It may come as a surprise to some that no actual part of reptile or amphibian is to be seen in the three cases. All the specimens are reproduced in a plastic material by the special method invented and developed in Chicago Natural History Museum by Taxidermist Leon L. Walters and executed by Walters and Assistant Taxidermist Ronald J. Lambert. The process is laborious but the results are superb.

Taxidermist Walters first makes a plaster mold of the freshly killed animal. After taking the body out of the mold he paints inside the mold, using liquid plastic colored

manders and frogs the scales are lacking but the patterns can be copied by using other guide marks.

After a sufficient thickness of plastic has been applied to the inside of the mold, plaster and plastic are separated and the thin cast is strengthened by the application of a filler of one of many sufficiently strong materials. When the plaster has been thoroughly removed, the surface of the plastic shines exactly like that of a reptile or amphibian. Painted plaster, wax, or tanned skin simply do not have this natural appearance. It is virtually impossible for the layman to tell a live reptile from a plastic one, and even the student is fooled. The plastic specimens are so tough that they can be bounced on the floor without being badly damaged. Their durability is great and they do not burn readily.

Every animal in the Chicago exhibit rests on a segment of its natural habitat or home. Recalling how well the animals themselves are reproduced, some visitors might jump to the conclusion that these attractive little segments of the outdoors are also artificial. Certainly, it could be reasoned, anyone who could make a plastic snake could easily fashion a base of artificial soil, stones, leaves, and grass. However, in this instance the ingenuity of Taxidermist Walters has worked out a far simpler and more effective setting for his deceptively real specimens. His method is thoroughly to saturate a small segment of suitable ground or woodland with lacquer solution, lift it up after it has dried, bring it into the Museum, and reinforce it with plaster or other suitable material. Thus a vast amount of time is saved and a perfect background achieved with little effort. On a single trip into the country a whole series of bases can be brought back and kept for future use.

Finally, it should be noted that the Chicago cases have a new style of background and lettering, and include color photographs by Assistant Taxidermist Lambert of the home sites of many of the species displayed. The background of a case may be of more than one color, and the labels, instead of being printed on pieces of paper as heretofore, are composed by hand of raised letters of different attractive hues. The total effect is colorful and varied rather than drab and uniform. Several maps, painted in an original manner by Miss Margaret G. Bradbury, Artist for Zoology, lend their own artistic touch and add interesting information. In the central case the patterns of distribution of the local reptiles and amphibians are explained by a series of maps.

The ranges of these fall into the six major types or patterns illustrated. Chicago lies near the edge of most of these ranges: many prairie species are not found east of our area and many eastern woodland or



PLASTICIZING NATURE

Assistant Taxidermist Ronald J. Lambert is shown saturating a bit of woodland soil with lacquer solution. The lacquer, when dry, will invisibly hold together this segment of the "actual outdoors" so that it may be taken up and used as part of a Museum exhibit. The close-up in the lower picture shows how the selected ground work has been fitted to the model of a bull snake that will be exhibited upon it.

to this provocative question may be, the exhibit most recently placed on display in Albert W. Harris Hall (Hall 18—reptile and amphibian section) is based on the conviction that the familiar commands at least as much interest as does the unusual.

The new exhibit consists of the herpeto-

to match the specimen. One animal may have as many as fifteen or even twenty colors that will call for as many mixtures. By correlating the individual scales of a reptile with the scale impressions in the mold, Walters or Lambert can copy the pattern with great accuracy. In sala-

highland species do not occur farther to the west. Chicago is not merely a railroad terminus. The richness of its animal life is due to its position between the central prairie and the eastern highlands and forests. Few flat regions of its latitude are endowed with such rich animal life.

A map that should prove interesting to many is the little one showing the local range of Chicago's only poisonous snake, which is also the area's most dangerous



COMMON WATER SNAKE

An example of the amazing plastic reproductions made by Staff Taxidermist Leon L. Walters.

animal. This little rattlesnake goes under its Indian name massasauga. Millions of people live and die here without ever seeing one of these reptiles, and yet the map shows no fewer than five places where it does live, often in abundance. Deaths from its bite are unheard of. A small barefoot child would be its only likely victim.

LOCAL FAUNA IS RICH

History shows that Chicagoans are very proud of their city. Nevertheless, it is not likely that any of the great boosters such as John Stephen Wright or "Deacon" Bross ever included the rich herpetological fauna as a valuable asset or even realized that the Chicago area surpasses many other northern urban areas in number of species, among them the London, Berlin, and Peking areas. However, upon the arrival of a New Yorker (it must be painfully admitted) the local booster would have to sidestep the subject because New York is located in a region of exceptional richness that harbors sixty-four species, or twelve more than Chicago.

If a Londoner comes to town the subject should be brought up at once. The region of London can boast of a mere dozen unless one chooses to add the few kinds of sea turtles that are occasionally stranded on the coast. The New York list of sixty-four includes two of these, whereas such marine creatures are of course unknown in Chicago except when they arrive on ice.

London suffers the disadvantage of being on an island that was completely depopulated of cold-blooded, back-boned animals

by the low temperatures of the last Ice Age. When the frozen waters were piled on the continents, the level of the seas was lowered and the British Isles became part of the mainland. As the glaciers retreated northward the mainland cold-blooded animals re-invaded the British peninsula, but the invasion was cut short by the flooding of the lowest areas and by the subsequent formation of the isolating channels such as the English Channel. Ireland was isolated after but two amphibians and one reptile (a lizard) had reached it. England was a little more fortunate. It was snake worship, not real snakes, that St. Patrick drove from Ireland. The fact that the inhabitants of Ireland worshipped a form of life that did not exist on their island shows that they, too, were relatively recent arrivals. To be specific, England was separated from the mainland between 8,000 and 9,000 years ago.

Farther west is the Berlin region where some twenty-two kinds of reptiles and amphibians occur. Berlin and London are of course much farther north than are New York and Chicago, but London enjoys a milder climate and might be expected to have more cold-blooded animals; its disadvantage has already been dealt with. Halfway around the world from Chicago lies the Peking region with merely nine species. This paucity is partly due to the relatively dry conditions that prevail in northeastern China.

In *Amphibians and Reptiles of the Chicago Area*, published by the Museum, one may find a detailed account of all local reptiles and amphibians. This book is richly illus-



FOWLER'S TOAD

One of the many specimens on exhibition, reproduced by Staff Taxidermist Leon L. Walters' plastic technique.

trated with reproductions of excellent drawings, photographs, and paintings representing forty-nine of the fifty-two species treated. Five of the twelve plates are in color. The text is not technical.

Man

*When Nature, her great masterpiece design'd
And fram'd her last, best work, the human
mind,*

*Her eye intent on all the wondrous plan,
She form'd of various stuff, the various Man.*

—BURNS

SATURDAY LECTURE COURSE BEGINS THIS MONTH

With a range of subjects from Alaska to South America, Mexico to Australia, and Wyoming to Africa and Fiji, the Museum will present its annual Spring Course of free illustrated lectures on travel and science beginning this month. There will be free lectures and color films on each Saturday afternoon throughout March and April. They will be given in the James Simpson Theatre of the Museum and all will begin at 2:30 P.M.

Limited accommodations make it necessary to restrict these lectures to adults. Members of the Museum are entitled to reserved seats on application. For children, free motion pictures will be presented on the mornings of the same Saturdays by the Raymond Foundation.

Following are the dates, subjects, and lecturers:

March 3—ALLURING ALASKA

Both the familiar and the unusual
Frederick Machetanz

March 10—FIJI

Cannibal islands of yesterday
Herbert Knapp

March 17—PASSPORT TO SAFARILAND

Rare pictures of big game in Africa
Berry B. Brooks

March 24—INTO CENTRAL AUSTRALIA

Record of a naturalist's travels
Alfred M. Bailey

March 31—THE MOUNTAIN

Ascent of Grand Teton in Wyoming
Ray Garner

April 7—VENEZUELA VENTURE

A trip to the world's highest waterfall
Nicol Smith

April 14—EARLY AMERICAN INDIANS

1950 archaeological work of the Museum
Paul S. Martin

April 21—ANCIENT AND MODERN MEXICO

A biologist tours a popular vacation land
Harry J. Fuller

April 28—THROUGH THESE DOORS

A glimpse of this Museum's activities
John R. Millar

No tickets are necessary for admission to these lectures. A section of the Theatre is reserved for Members of the Museum, each of whom is entitled to two reserved seats. Requests for these seats should be made in advance by telephone (WAbash 2-9410) or in writing, and seats will be held in the Member's name until 2:25 o'clock on the lecture day.



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