

## WHAT SNAKES ARE POISONOUS, AND WHERE DO THEY LIVE?

### A New Field Museum Exhibit Gives the Answers

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"Is it poisonous?" Since this is nearly always the first question asked about a snake, Field Museum has placed in Albert W. Harris Hall (Hall 18) an exhibit designed to answer it with regard to any snake found in this country. The installation is timely, as the snakes have now come out of hibernation.

This exhibit includes five colored maps showing the distribution of our dangerous species. Anyone may begin to learn his local poisonous snakes by studying these.

In general, the matter is as simple as this: The western half of the United States harbors nothing but rattlesnakes (and the excessively rare coral snake of Arizona); in the northeastern quarter of the country

but the Arizona species is too small and too rare to be regarded as a menace.

The copperhead, often called "highland moccasin," is an eastern species, two to three feet long, whose bite, though dangerous, is seldom fatal to man. The more dangerous and larger water moccasin, or cottonmouth, lives in or near fresh waters of the southeastern lowlands. The so-called "water moccasins" of the northern states and southern highlands are merely harmless snakes that more or less resemble the true moccasin and are often more vicious than it. No false belief about snakes is so hard to deal with as the conviction that true water moccasins occur in northern states.

The rattlesnakes are divided into two groups, the smaller pigmy species, two in

tion of warm-blooded prey. Another sure way to recognize a pit viper is to find in the front of its upper jaw a pair of long, hollow teeth or fangs which fold backward when the mouth closes; through these the pit viper forces venom into its victims.

The layman often contends that looking for pit or fang is as bad as braving the lion in its den, and asks for recognition points which can be seen at a distance. The rattle of the rattlesnakes can be both seen and heard from a distance. One simply has to become familiar with the general appearance and patterns of the copperhead and water moccasin. The latter's aquatic habits help in its recognition; water moccasins are not encountered far from water, and never in mountains or highlands.

The gorgeous coral snakes, deadly relatives of the cobras, are likewise easily recognized at a distance. It happens that a few harmless species are also banded or ringed with red, yellow, and black so the exact arrangement of these colors in the coral snakes must be learned to avoid undue excitement at the sight of one of its "mimics." In the deadly species the snout is black, the bands of the back cross the abdomen or belly to form complete rings, and the yellow rings are next to the red ones. No harmless snake of this country duplicates this triple arrangement.

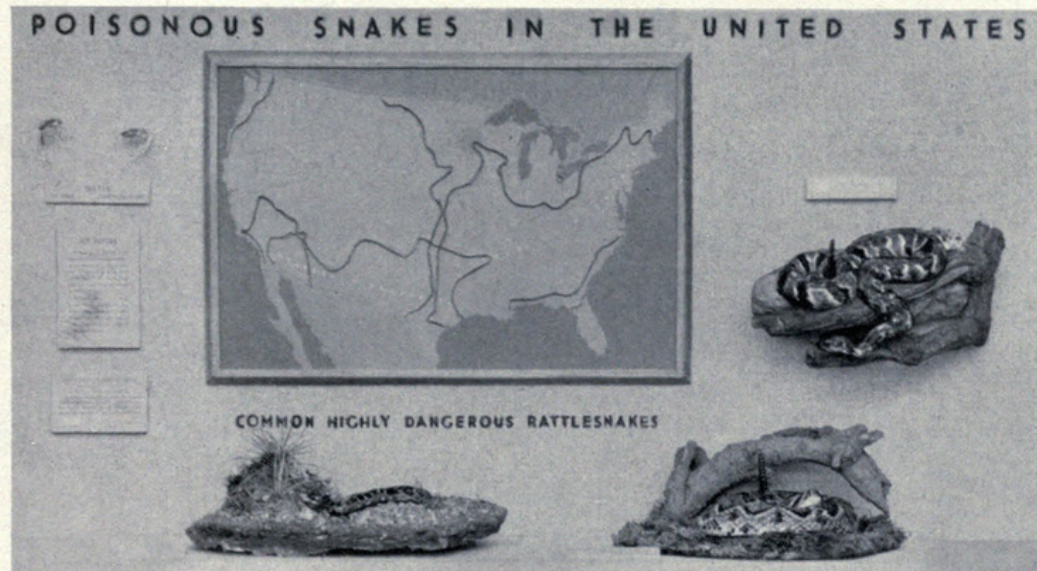
The single species of coral snake that one is at all likely to meet lives in the southeastern states and is usually between two and three feet long. It does not coil and strike like a pit viper, but flings and jerks its slender body about in a manner all its own. The short, rigid fangs are not comparable in efficiency to the long ones of the pit vipers, but the venom itself is extremely potent and attacks the nerve centers rather than the blood and blood vessels. This means that the symptoms of its bite are general rather than local as in the case of the bite of a pit viper.

#### AID TO FIRST-AIDERS

Many inquiries have recently been received from civilian defense workers attending first aid classes. All those taking such a course will find this exhibit especially helpful. It shows, for example, that only one poisonous snake, the massasauga, occurs in the region of Chicago. A person wearing leather shoes is fairly safe from this pigmy rattlesnake which is locally confined to forest preserves northwest of the city and the dunes at the southern end of Lake Michigan.

In administering first aid to a snake victim, the first consideration is to determine whether the snake was venomous or not. As the Red Cross First Aid Text-book states, "Bites of non-poisonous snakes should be treated as any other wounds," but specialized treatments are required for the venomous ones.

The new exhibit and its maps were designed by Miss Clarice McKeever, volunteer artist, Department of Zoology.



PART OF EXHIBIT OF POISONOUS SNAKES OF THE UNITED STATES

Examples of the reptiles are shown, together with several colored maps indicating the areas over which they are distributed. Labels give the principal points for the identification of dangerous snakes. Thus the problem of recognizing those which are poisonous is reduced to its simplest terms by an elimination process that even a child can grasp.

are only rattlers and the copperhead; in the southeastern quarter are rattlesnakes, the copperhead, water moccasin, and common coral snake.

#### ONLY THREE DANGEROUS GROUPS

Snake distribution is justifiably emphasized also because the layman, when asked in turn, "Is it poisonous?" invariably recites complicated and useless rules about relative size of head and neck, shape of body, and so on. Even if these rules were good they would scarcely be worth memorizing because only in the southeastern states is the problem involved.

Fortunately, every one of our poisonous species belongs to one of only three types or groups as follows: pit vipers without rattle; pit vipers with rattle; coral snakes.

The copperhead and water moccasin are the sole pit vipers without a rattle, whereas those with a rattle are the well-known rattlesnakes. There are two kinds of coral snakes,

number, and the larger typical rattlesnakes. Although there are thirteen kinds of typical rattlers, only four are common and widely distributed, the rest being confined to the arid and desert areas of the extreme southwest. The combined ranges of the four common kinds cover nearly all of the United States and include at least a part of every state. Any rattlesnake can, of course, be recognized by its rattle.

The bite of a large rattlesnake is a serious matter, so all kinds are to be carefully avoided. The small pigmy species have potent venom, but are not large enough to be fatal to man under ordinary circumstances.

#### DISTINGUISHING MARKS OF PIT VIPERS

All the members of these first two groups are called pit vipers because they have a deep pit in the face a little below a line joining eye and nostril. This pit, a sense organ stimulated by slight differences in temperature, presumably helps in the detec-





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