



This publication is designed to educate people about venomous snakes. It also serves to help dispel some of the misinformation and fears people have about these amazing creatures.

We are only focusing on venomous snakes in North America but the general principles of education and conservation can apply to venomous snakes anywhere.

There are several types of venomous snakes in North America that are not harmful to humans but are toxic to prey like earthworms and slugs. However, we are only highlighting the venomous snakes that are considered toxic to humans.

A quick note about venomous vs. poisonous. There are no poisonous snakes in North America. In fact there is only one known poisonous snake in the world, the keel-back snake, and it is also venomous. So what's the difference between poisonous and venomous? Poisons are either ingested or topically (skin) delivered. Examples of poisonous organisms are poison dart frogs. You have to handle and/or eat the frogs to get sick from their poisons. Venom on the other hand is injected. Examples of venomous organisms are bees, spiders, and snakes.

References:

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4. *BioPark Rattlesnakes Used In Ground-Breaking Cancer Research*. 2011. City of Albuquerque.
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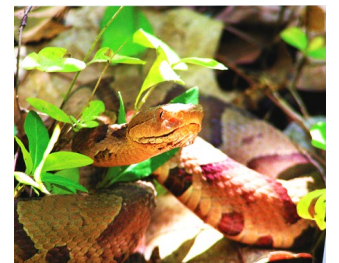
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Website: wanderingherpetologist.com

Venomous Snakes

Facts and Myths



Venomous Snakes:

Facts

and

Myths

We have two main types of venomous snakes in North America: pit vipers and coral snakes.



Pit vipers like this Eastern Diamondback Rattlesnake have heat-sensing pits on their face.

Pit vipers are members of the Crotalidae family that includes rattlesnakes, copperheads, and cottonmouths. They have heat-sensing pits on their faces that help them find warm-blooded prey like rabbits and rodents. Pit vipers also have hinged hollow fangs.

Coral snakes are members of the Elapidae family that includes cobras and kraits. Coral snakes are usually red, yellow, and black in color. They possess fixed fangs that are not long and hinged like those of a pit viper. Coral snakes are considered the most toxic snakes in North America.



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Coral snakes in the U.S. have red, yellow, and black markings.

Now let's discuss some facts and myths about venomous snakes.

Myth: All snakes are venomous.

Fact: There's about 160 species of snakes in North America and only 20 of them are venomous. This means that only 12.5% of all snakes in North America are venomous.

Northern Pacific Rattlesnakes use their venom to capture prey like mice and rats.



Myth: Venomous snakes cause a large number of casualties each year.

Fact: There are more casualties in the United States due to car accidents (37,594), lightning strikes (54), and dog attacks (21) each year than from venomous snakebites (5). Approximately 7,000-8,000 people are envenomated each year in the United States but there is only an average of 5 casualties¹. In Texas alone, there were more casualties in 2005 from drowning (308), firearms/hunting (79), and venomous arthropods (16) than venomous snakebites (2)².



There is a greater chance of getting hit by lightning than being envenomated by a Cottonmouth.

Myth: All venomous snakes are aggressive and willing to bite.

Fact: Like all wild animals venomous snakes will bite when threatened. However, these snakes prefer to hide or run away from what they see as a threat. Venomous snakes only strike when they are cornered and think they must defend themselves. It's very costly to the snakes to use their venom for defense instead of food. For example stories of cottonmouths aggressively chasing people have been easily dispelled. The snakes will run towards the easiest escape route and cover. Unfortunately sometimes people are standing in the middle of that route so it seems that the snakes are chasing them instead³.



Copperheads are shy, reclusive snakes that attempt to hide when they perceive danger.

Myth: A good snake is a dead snake.

Fact: Venomous snakes and snakes in general have gotten an undeserved bad reputation over the years. All snakes are beneficial and play important parts in their ecosystems. Most venomous snakes are apex predators that help keep nuisance species like rodents and rabbits in check. Their venom is medically important too. Medical science is creating new pharmaceuticals from the proteins found in snake venom to help treat cancer, heart disease, diabetes, and other diseases.

Western Diamondback Rattlesnake venom is being used in cancer treatments⁴.



Hopefully this publication has served to help dispel a few of the myths and misinformation about these fascinating organisms. We encourage you to learn more about venomous snakes and the beneficial roles they play in our environment.