

SEE TURTLE, LOVE TURTLE, SAVE TURTLE!!



POINT TO NOTE

1. 19 species of turtles and tortoises are known to occur in Assam.
2. A total of 10 species of turtle are seen in the various temple ponds of Assam.
3. Turtles are one of the most endangered groups of animal.
4. Buying, selling, hunting is illegal and are punishable by law.
5. Do not throw plastics, polythene bags etc in this pond.
6. Try not to feed turtles with foods that are unnatural (Biscuits, Cakes, Chips, etc) to them.

মন কৰিবলগীয়া কথা

১. ১৯ টা প্ৰজাতিৰ কাছ অসমত পোৱা যায়।
২. ১০ প্ৰজাতিৰ কাছ অসমৰ বিভিন্ন মন্দিৰৰ পুখুৰীত পোৱা গৈছে।
৩. কাছ এবিধ সংকটগ্ৰস্ত জীৱৰ ভিতৰত অন্যতম।
৪. বেচা, কিনা, চিকাৰ আদি বেআইনী আৰু আইনমতে দন্দনীয়।
৫. এইবিলাক পুখুৰীত প্ৰাষ্টিক, পলিথিন বেগ নপেলাব।
৬. কাছক অপ্ৰাকৃতিক খাদ্য (বিস্কুট, কেক, চিপ্ছ আদি) নুখুৱাব।



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EASTERN

AN AMATEUR'S GUIDE TO

REPTILES OF ASSAM



JAYADITYA PURKAYASTHA

AN ANATOMICAL SERIES, No.

REPTILES OF ASSAM


- ↳ The book contains description, photograph, distributional map of all the "****" species so far reported from the state of Assam.
- ↳ It includes information on management of snake bite.
- ↳ The book contains information on conservational status of each reptile.



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REPTILES OF ASSAM



JAYADITYA PUNAKAYASTHA



Snakebite and its management

Venom is one of the most important things that we associate a snake with. Fortunately, majority of snakes are non venomous. Venom is a poisonous fluid secreted by certain animals and is injected into prey or aggressors by biting or stinging. These fluids are a cocktail of toxins mostly proteinaceous in nature. Luckily the part of the world we live in does not harbor a broad diversity of venomous animals. Certainly animals such as bees, wasps and ants can produce venomous sting or bite but are rarely fatal and thus do not provoke alarm. But the one we are about to discuss here is the one which is literally the synonym to the word venom in India: The Snakes.

The venom is produced in small sacs called venom glands present in the posterior part of their upper jaw. When a snake is excited or feels threatened, it lets lose this venom which travels from the gland to the fangs via venom ducts. Venomous snakes generally have two enlarged teeth, one on each side of the upper jaw. Usually they are present in the front part of mouth. Again, in some snakes the fangs are placed in the posterior part of the upper jaw. These snakes are called back fanged snakes. They, in order to envenomate their victims, have to chew upon as opposed to the classical striker like cobra and viper wherein a strike is enough to get the work done.

Fangs are actually just the enlarged teeth. A typical fang is hollow inside and venom runs through it, out the tip when an injection is made. Venom that enters the human body generally acts in 4 ways. Neurotoxins: This type of venom attacks the nervous system and is the most lethal form of venom as it acts very rapidly. People may die in less than an hour of bite.

Myotoxins: This type of venom acts on our muscle cells by digesting them often leading to heart and kidney failure.

Haemotoxins: Such venom acts on blood cells. It may form blood clots inside the body leading to heart failure. They may have reciprocal action where they cause the blood clotting mechanism to fail which leads to severe bleeding and haemorrhage.

Cytotoxins: Such venom eats away the cells and tissues at the site of bite which goes on extending with the spread of venom. This type of venom results in necrosis often leading to amputation of bitten organs. Globally, there is no accurate data on the number of occurrence of snakebite, envenomation or even death resulting from snake bite.

Studies suggest that the degree of envenomation and death globally per year may be as high as 8.1 million and 94,000 respectively, with most cases being in South Asia, Southeast Asia and sub-Saharan Africa. India being an agrarian society, workers are regularly exposed to the hazards of snake bite as their work demands that they visit snake infested areas. The mode of treatment mostly practiced is the traditional healing method which results in considerable delay to facilitate proper medication. Even most health giving centers in the country are unprepared to deal with a snake bite case. The only available antidote is the polyvalent snake antivenom (PSA) which is not always guaranteed to deliver the desired result. The PSA is a cocktail of antivenom made to deal with the envenomation mainly caused by the four species of snakes often termed the Big Four, namely: Spectacled Cobra (Naja naja), Common krait (Bungarus caeruleus), Russell's viper (Daboia russellii) and Saw scaled viper (Echis carinatus). The PSA has also been shown to cause anaphylaxis. The venom composition of a snake varies according to prey species and geography. Unfortunately, this field of science is wanting in this region where almost no study is done on snake venom composition.



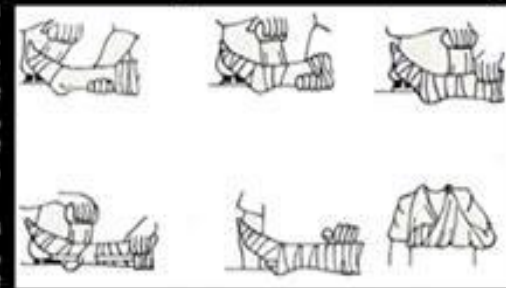
Care to be taken to reduce snake bite incidences

1. House should be kept clear of hiding places of snakes. Snakes generally tend to move towards human settlements in search of food. Thus, it is important to keep the house free of rodents as they are one of the important food for snakes. Livestock should not be kept inside the house as they encourage the visit of snakes.
2. Avoid sleeping on the floor and use mosquito nets while sleeping.
3. Avoid walking barefoot at night. Use torches and other sources of illumination while going out after dark.
4. Avoid contact with snakes, even a dead snake.
5. Ideally farmers should wear boots but practically it is not possible. Thus, while working in the field, carefulness is the key. Snakes generally avoid places where people gather and take refuge in places where hay and grasses or such other materials are piled. These piles should be handled with extra caution.

Things to remember during a snakebite

1. Be rational in approach while dealing with a snake bite, be it a victim or the rescuer.
2. If possible, try to identify the snake, because if it is venomous the course of treatment will depend on its identity. If the snake inflicting the bite is killed on site, it can be brought

to health centre to get an idea on its identity. Nowadays almost all the mobile phones come with an inbuilt camera, so a picture of the bite inflicting snake can also serve the purpose.



3. In case of a venomous bite, time is of essence, so no time should be wasted in traditional healing practices as they are almost always ineffective in case of venomous bite. The victim should be sent to hospital as soon as possible.
4. Victim should be made comfortable to reduce stress and tension as stress may lead to quicker spread of venom through the body. Victim should be made immobile as much as possible so as to reduce the spread of venom.
5. Remove tight clothing, shoes, watch or rings because in case of swelling, these may act as liability and even aid necrosis. But remember that while doing so the victim should not feel stressed and movement of body parts of the victim should be restricted as much as possible.
6. Do not give the victim anything to eat or drink as it may aid venom circulation and also present the risk of choking.
7. Avoid tourniquet as many snakes of the region mostly the vipers produce bite which causes local damage. Thus, tourniqueting will restrict the flow of blood along with venom. More venom concentration in a particular area may result in rapid necrosis which may even lead to amputation of that organ.
8. Cutting of bite site should be avoided, as many snakes have venom that has the property to cause the blood clotting mechanism to fail. In such cases a cut may aggravate the loss of blood.
9. The most important thing to remember is that, the only antidote of an envenomation is antivenin.

Managing Snake Bites



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