

Centro de Investigação e Informação de Medicamentos e Toxicologia

Characterization of poisonous snakes in Angola for the production of snake serum, a need for the country.

Introduction

The statistics of morbidity and mortality from snakebite in Angola show that every day snakebites have a greater contribution to these indicators, which is a health problem at the national level, if we consider that affect young people and women working in the field, and further, that these accidents have other consequences such as tetanus infections and distorting scars.

Not having identified the venomous snakes that inhabit the Angolan territory, it makes it difficult the administration of the appropriate sera for greater therapeutic efficacy in cases that require it.

Objectives:

1. To apply the SERPENTOX software to:

- Characterize relevant poisonous species for clinical and therapeutic management of snakebites in Angola.
- Make it a powerful tool to process statistical data of snakebites for the Integrated Statistical System for Poison of Angola.
- Develop a preliminary classification of the status of snakes in Angola.


(SERPENTOX is a support material for the supervision and control of snakebites. It was developed in a programming language based on Delphi 6.0 and Microsoft Access 2007 Database Management System, which makes it fast).

2. To assess the state of adaptation of the species in captivity for poison removal for the purpose of the subsequent production of sera.

DESCRIPTION OF SOME POISONOUS SNAKES


GABON VIPER

It is very heavy, that has big preys (up to 5 cm). It has solenoglypha dentition. The head is large, triangular and quite distinct from the body. Below the nostrils has large scales. Adults measure of 1.20 -1.50 m in length, with 2 m maximum. This species has varieties of colour (yellow, purple and pale brown), both in the dominant colour as in the case of stains, organized in a geometric shape . (lozenge and rectangle). This species lives in the rainforests.




BITIS PERINGUEYI. Sand Viper

- Males can measure up to 22 cm and 24 cm the females. Species of 39 cm in length have been found. It has the head flattened and very different from the neck. It has eyes with vertical pupil and has solenoglypha dentition. He lives in inhospitable terrain, in the dunes of the desert. We can find them scattered by Namibia and southern Angola, Africa.




DENDROASPIS .JAMESONI.(Green Mamba)

It is a species of the Elapidae family. It can measure 2.5 m length, although sometimes can achieve 3.5 - 4 m. This serpent is entirely arboreal and has bright green coloration. Its head is narrow and elongated quite distinct from the body. This species can be found in Angola, Kenya, Tanzania, Mozambique, Malawi, Zimbabwe and Natal.




NAJA MOSSAMBICA, Mozambique spitting cobra

In this species the males can measure up to 29cm and females 1 meter with 27 cm. It has a back of variable color, gray or olive green and the skin that is located between the scales is black. The throat has bands or irregular black spots, and the belly is pink or yellowish. Has the ability to eject large jets of venom. Has crepuscular and nocturnal habits. It can be found in Angola, Zimbabwe, Malawi, South Africa, Namibia, Tanzania, Botswana, Mozambique.



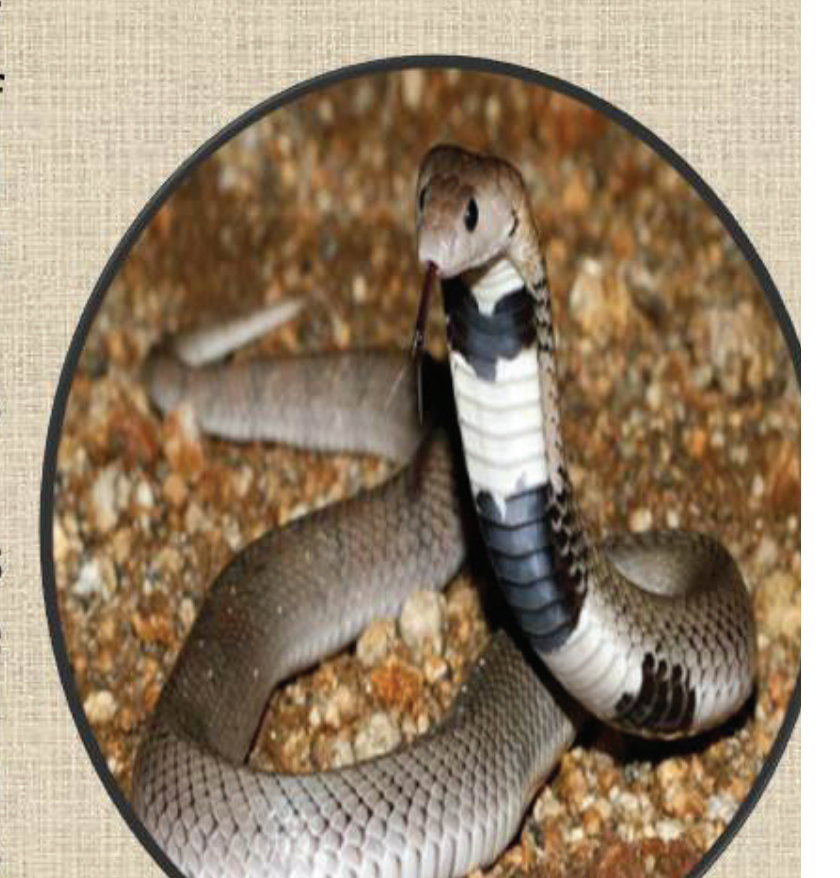
DENDROASPIS POLYLEPIS (Black mamba)

It is a species of the Elapidae family, it can reach up to 4 meters in length, its skin color can be variable, the part below is cream-colored, sometimes mixed between beige and metallic grey. The inside of the mouth is completely black or dark blue. The head is large, but narrow and elongated. It is one of the fastest snakes in the world; he spends most of the time on the ground although it can climb trees with ease. Its habitat is usually the wooded savannah/shrubs and rock outcrops. In their geographical distribution this species occupies a large part of sub-Saharan Africa already living in Angola, Kenya, Tanzania, Mozambique and Zimbabwe.




ASPIDELAPS LUBRICUS (Angolan Coral snake)

- Known as Angolan coral, cobra is a species of venomous cobra of the family Elapidae native of South Africa, Angola and Namibia). 3 subspecies are recognized.
- Males grow to 69 cm and females 70 cm.
- They are known commonly as snakes nose shield due to the hood and larger scales. However, its hood is not as developed in the genus Aspidelaps as in genus Naja.



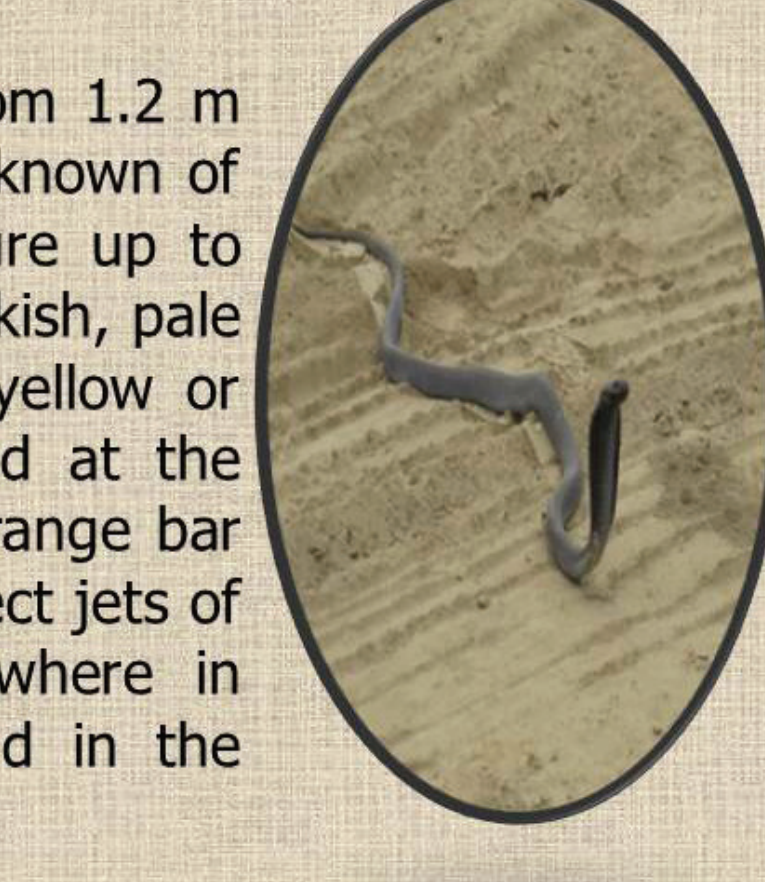
NAJA ANCHIATAE (Anchieta's cobra)

- It is a gray serpent, although it can also be a yellowish color . Males measure up to 2. 30 Meters and females 2.18 meters.
- This species when it feels threatened and prepares to bite spread their necks. It Can be found in Angola, Namibia, Botswana, Zimbabwe,



NAJA NIGRICOLLIS (spitting Cobra) .

The adult species can measure from 1.2 m to 2.2m in length, although it is known of some who have come to measure up to 2.8m. This specimen may be blackish, pale gray with the ventral region in yellow or reddish with a broad black band at the neck, sometimes they have an orange bar on the neck. Has the ability to eject jets of venom. It can be found everywhere in Africa, in the southern area and in the center of the continent.




Results

- Knowledge of the characteristics of the Angolan fauna of snakes.
- Updated information and guidance for the diagnosis and treatment of cases of snakebites.
- Be in possession of the first statistical record snakebites, enabling epidemiological studies and developing a program of care and prevention of this health problem in the country.
- Create the conditions for obtaining and producing specific antivenoms against Angolan snakes venom, which ensures high therapeutic effectiveness.