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#### INTRODUCTION

During August 2000, my girlfriend, some friends and myself visited Namibia for one month. It was not specifically a herpetological journey but I could take the opportunity whilst in Namibia, to search for reptiles, especially snakes. Our journey started from Windhoek and we visited the South of Namibia as far as the Fish River Canvon National Park, the centralcoastal area from Lüderitz to Swakopmund along the great Namib-Naukluft Park, the North-western area (Damaraland and Kaokoland) and the North-central region (from Etosha National Park to Windhoek). We didn't visit the North-eastern area because of its dubious safety. Our journey was a long 'circular drive' in the Namibian territory: on the whole 5.000 kilometres was covered by two 4x4 vehicles. We also had the opportunity to make many trekking trips, in particular at Damaraland, Kaokoland, Namib Desert and Fish River Canyon National Park. At Etosha National Park it is formally forbidden to get out the car.

#### THE NAMIBIAN ENVIRONMENT

Namibia is part of the 'Southern African Subcontinent', which is the great area south of the line connecting the Kunene and Zambesi rivers: it includes also Botswana, Zimbabwe, South Africa, Lesotho, Swaziland and part of Mozambique and it extends for over 3.5 million

square kilometres with about 480 reptile species, of which 143 are snakes. Namibia covers an area of 825.418 square kilometres and it represents only about 1/4 of the whole Southern African Subcontinent: in spite of that, it has a very rich herpetofauna, with about 80 different snakes.

Namibia has a typical semi-desert climate, with generally hot days and cool nights. There is a rainy season from October to April: the rest of the year is always cloudless and dry (300 days of sunshine a year!). During the rainy summer, the temperature can rise to over 40°C; winter days are pleasantly warm but the temperature can drop to 0°C at night, in particular on the central high plains. The coast has a cool climate with dense fog from the Atlantic Ocean.

The Namibian environment can be divided into 5 biomes: the Namib desert (1), that occurs like a narrow strip along the Atlantic ocean coast. It is an ancient desert, composed of high sand dunes near the coast and gravel plains inland. There are scattered grass and specialized succulent plants with stunted Acacia trees in the rivers courses. The offshore Benguela Current is responsible for the cold fogs that may extend up to over 50 kilometres inland. The Nama bushy Karoo shrubland (2) is a typical semi-desert habitat which occurs inland of the Namib desert. It has poor and rocky soils with dwarf woody scrub. The succulent Karoo (3) covers the extreme South-western area between the South African border. It has many succulent plants adapted to the contrast between the hot and dry summers and the cool and rainy winters.

The generic arid savannah biome (4) is represented by mopane woodland in the North-western area and by thorn *Acacia* woodland in the central area. Both are open grassy habitats adapted to low rainfall and cold dry winters. The moist savannah (5) covers the eastern regions of higher rainfall and warmer winters (not visited in my travel).

## **SPECIES RECORD**

This paragraph is a brief account of the snakes 'seen' while I was in Namibia. I say 'seen' because I really found and saw some live snakes in wild but I saw others only in particular conditions, such as under spirit or in photos (i.e. at campsite reception, bar or tourist offices).

Leptotyphlops occidentalis (Family Leptothyphlopidae) I didn't find the Western Thread Snake (Leptotyphlops occidentalis) in the wild but I saw one under spirit at the reception of the Sesriem Campsite, near the famous sand dunes of Sossusvlei. It has a slender cylindrical body of light grey-brown color. It is a small burrowing snake that lives in arid savannah and desert, where it burrows underground and it catches ants and termites. It is possible to find it from Kaokoland to the southern area: this species is endemic of Namibia.

# Psammophis sp. (Family Colubridae)

Many snakes belonging to *Psammophis* genus live in Namibia: they are commonly called 'Sand Snakes', 'Grass Snakes' or 'Whip Snakes'. All have the head distinct from the neck and large eyes with two grooved fangs at the back of the eye. They are fast diurnal snakes and they mainly eat lizards, agamas and small

rodents. They are common in arid scrubland and savannah. I saw exactly five Psammophis snakes during my travel: I found all them alive beside the road or while they were crossing it but it was impossible to take them because they were very fast. In spite of this speed, it was possible to recognize them through the many typical brown stripes along the body. For this reason, it is likely to think that I saw the Western Sand Snake (Psammophis trigrammus) or the Stripe-bellied Sand Snake (Psammophis subtaeniatus) or the Leopard Grass Snake (Psammophis brevirostris) in the northern area: precisely at Damaraland and Kaokoland I saw three *Psammophis* snakes; it is not excluded that they could be also the Striped Skaapsteker (Psammophylax tritaeniatus), which is present in that area. I saw the other two *Psammophis* in the central and southern area, exactly near Keetmanshoop and along the Namib Naukluft Park: they were probably the Karoo Sand Snake (Psammophis notostictus) or the Namib Sand Snake (Psammophis leightoni).

# Naja nivea (Family Elapidae)

While on a drive through the southern area (near Keetmanshoop), I saw a Cape Cobra (Naja nivea) which was crossing the road: I was finally able to take my first picture of a live Namibian snake! The Cape Cobra is a very venomous elapid (neurotoxic venom), which lives especially in central and southern Namibia. It is considered endemic of the Southern African Subcontinent. Its habitats are mainly the Nama bushy Karoo shrubland, the thorn Acacia woodland and the succulent Karoo. It is a slender snake with a variable coloration of the body I saw the 'Yellow Cape Cobra' which has its body of a light yellow color. I saw other two Cape Cobras, unfortunately both dead: the first



one was a 'Speckled Cape Cobra' under spirit at the reception of the Sesriem Campsite, the second one was also a Speckled Cape Cobra in a colour picture at a bar near the Fish River Canyon National Park. The 'speckled' phase is very beautiful and it is characterized by a bright golden-brown color with a lot of darker flecks.

## Naja nigricollis woodi (Family Elapidae)

Also in the South of Namibia, I found the Black Spitting Cobra (Naja nigricollis woodi). It is widespread in the same zone as the Cape Cobra: it likes the rocky and arid Nama bushy Karoo shrubland. As with the Cape cobra, it is endemic of the Southern African subcontinent. Its venom is less dangerous than the Cape's but the Black Spitting Cobra can readily spit it. It is uniformly black on all of the body. I had the opportunity to see three dead specimens: two were under spirit at the reception of the Hobas Campsite near the Fish River Canyon National Park, the last one in a colour photo at the same small bar near the Fish River Canyon National Park where I saw a Cape Cobra too.

## Naja nigricollis nigricincta (Family Elapidae)

In the northern region, a Western Barred Spitting Cobra (Naja nigricollis nigricincta) crossed the road. It was very fast and it hid quickly under a heap of big rocks near the road. We were near Opuwo (Kaoko-land), where thorn Acacia bushveld and mopane woodland prevail. It was of a light grey color with a lot of typical black bands on the body. This particular pattern attribute gives this cobra the name of 'zebra snake'. As with Naja nigricollis woodi, the Western Barred Spitting Cobra is also able to spit its venom, it is not as dangerous as that of the Cape Cobra. The Western Barred Spitting Cobra is also endemic of the Southern African subcontinent.

Naja annulifera anchietae (Family Elapidae)

At Etosha National Park, we stayed in the Okaukueio Camp. Here I could see some colour photos of the Snouted Cobra or Angolan Cobra (Naia annulifera anchietae): once it was called Naja haje annulifera but now it is separated from the species Naja haje and it is recognized as Naja annulifera. Only the subspecies Naja annulifera anchietae lives in Namibia, where it is quite common in mopane woodland, in thorn acacia bushveld and in moist savannah. It is also called the Western Snouted Cobra: the subspecies Naia annulifera annulifera lives in the great eastern region that includes South Africa, Botswana, Zimbabwe and Mozambique. Notwithstanding these changes of its technical names, it is still known with the most common name of Egyptian Cobra. In every case, this beautiful cobra is characterized by two morphs: the 'typical' one has the body of a yellow-grey color, while the 'banded' one has some yellowish bands along its body.

# Aspidelaps lubricus lubricus (Family Elapidae)

At the reception of Sesriem Campsite, I saw a dead Coral Snake (Aspidelaps lubricus lubricus), kept under spirit as with the Cape Cobra and Western Thread Snake. In Namibia there are three different subspecies of Coral Snake: Aspidelaps lubricus lubricus occurs in the southern area, Aspidelaps lubricus infuscatus in the central area, and Aspidelaps lubricus cowlesi in the extreme North-western area near Angola. All have a body of a reddish-orange color with some black crossbands. They like the Nama bushy Karoo shrubland and the succulent Karoo habitats. It is still not clear if their venom is fatal for humans or not.



Black Mamba (Dendroaspis polylepis) near Duwisib Castle

# Dendroaspis polylepis (Family Elapidae)

Another report produced an interesting specimen and a memorable and incredible picture. On a late afternoon, we were walking in the area of Duwisib Castle to search wild animals and to look at the beautiful view: the sunlight was already feeble but the temperature was still very mild and pleasantly warm. Along a gravel footpath, which was surrounded by high dry grass and arid savannah, I saw the head and part of the body of a Black Mamba (Dendroaspis polylepis): it appeared out of savannah and it was still with the rest of the body between the grass. I stopped myself immediately and I went up slowly until a few metres from the snake; then I rested my camera, which was luckily already assembled on my small tripod, on the footpath: in spite of the little sunlight, I succeeded in taking this difficult picture. After a few seconds, the

Black Mamba turned its head to the savannah and it disappeared in the high grass.

In Namibia the Black Mamba occurs mainly in the mopane woodland of North-western area, in the thorn acacia bushveld of central area and in the moist savannah of the eastern area.

# Bitis arietans (Family Viperidae)

I saw a large dead Puff Adder (*Bitis arietans*) under spirit, at the reception of the Hobas Campsite near the Fish River Canyon National Park. This heavy adder is widespread throughout Namibia (except in the sand desert habitat): its body is usually light yellow-brown with a typical dark pattern on the whole body. It hisses and bites readily when it is disturbe: in Namibia it is responsible for many bites, they are not always



fatal. Then, I found some pieces of a Puff Adder's slough at the North-eastern zone of the Namib-Nauk-luft Park, where there was specially arid savannah: it was along a gravel road.

Bitis caudalis (Family Viperidae)

I found six Horned Adders (*Bitis caudalis*) during my travel: I saw two dead specimens under spirit at the receptions of the Sesriem Campsite and the Hobas Campsite but the other four specimens were alive. It is a common snake in Namibia: it lives in all Namibian habitats except the moist savannah.

Two Horned Adders were near the Sesriem Campsite: the habitat was the Nama bushy Karoo shrubland and both were along the sandy base of a great rocky hill. The first one was a juvenile and it was only 15-16 centimetres long; when I took it in my hand, it didn't try to bite and it seemed shy and tame. It had faint colours. The second one was found not too far from the first: it was 30 centimetres long, it was very beautiful because it had a slight pink coloration. It bit readily and it was very alert.

Another Horned Adder was found in the North-eastern zone of the Namib-Naukluft Park: it was scarcely under a rock along a gravel road inside the Park. It was very big and fatty! It was at least 45 centimetres: maybe it was a female. It appeared rather aggressive: it hissed and it tried to strike. Its colors were lighter than the other two horned adders. The habitat was always the Nama bushy Karoo shrubland.

The last one was found near the Fish River Canyon National Park: it was thermoregulating on a rock. It was

quite small and very similar to the first one found near the Sesriem Campsite.

## SPECIES NOT FOUND

## (no wild, no photos, none under spirit...)

A lot of Namibian snakes are very rare and it is often very difficult to see them in the wild; besides it is not frequent to find them out of their Country as all they are protected by Namibian laws. Of the pythons, I would have wanted to find in the wild the rare Angolan Python (Python anchietae), also called 'Anchieta's Dwarf Python', that lives in a restricted North-central rocky area. The Southern African Python (Python nataliensis) is more abundant in open savannah regions of Namibia, above all, near rivers and puddles; once it was called Python sebae nataliensis, but now it is separated from the species Python sebae and it is recognized as Python nataliensis. The Perynquei's Adder (Bitis perynguei) and the Many-horned Adder (Bitis cornuta) would have been two interesting records of Viperidae, unfortunately I didn't find them. Other beautiful 'dangerous meetings' would have been the Boomslang (Dispholidus typus) and the Twig Snake (Thelotornis capensis oatesii): both are typical arboreal snakes and they live in the northern and northeastern region of Namibia, where the habitat is of dense trees and shrubs. Another 'not-met' arboreal snake is the Spotted Bush Snake (Philothamnus semivariegatus), that I consider very nice. Between the rare Namibian snakes, some must be remembered: the Tiger Snakes (Telescopus semiannulatus ssp.), which is present with two subspecies Telescopus semiannulatus semiannulatus in the eastern area, and Telescopus semiannulatus polystictus along the Namibian territory; besides there is the Beetz's Tiger Snake (*Telescopus beetzii*) in the southern area, which is endemic of the Southern African subcontinent. Two other endemic species are the Spotted House Snake (*Lamprophis guttatus*), which lives only in some restricted areas of the South, and the Dwarf Beaked Snake (*Dipsina multimaculata*), which is present throughout all of Namibia. At last, the very rare Western Keeled Snake (*Pythonodipsas carinata*) is present in the Nama bushy Karoo shrubland, the typical semi-desert habitat which occurs inland of the Namib desert.

## **NOT ONLY SNAKES**

During this travel in Namibia, I had the opportunity to meet many other reptiles: skinks, lizards, geckos, agamas, chameleons, tortoises and crocodiles.

Of the skinks, I saw the Western Dwarf Burrowing Skink (Scelotes capensis), with its bright blue tail and other interesting skinks, such as: the Cape skink (Mabuya capensis), the Kalahari Tree Skink (Mabuya spilogaster), the Striped Skink (Mabuya striata) and the Western Rock Skink (Mabuya sulcata).

Other lizards, I found and captured for a picture were the beautiful Shovel-snouted Lizard (*Meroles anchietae*) at Namib Desert: as it swam deep into the sand, it was very difficult to catch it. Besides I saw some species belonging to *Pedioplanis* genus, like the Namaqua Sand Lizard (*Pedioplanis namaquensis*) and the Kaokoveld Sand Lizard (*Pedioplanis gaerdesi*).

Agamas were very common in all of Namibia, in particular the Ground Agama (*Agama aculeata*), the Southern Rock Agama (*Agama atra*), the Anchieta's Agama (*Agama anchietae*), the rare Etosha Agama (*Agama etoshae*) and the beautiful Namibian Rock Agama (*Agama planiceps*).

Also geckos accompanied me during all of my travel, such as the Button-scaled Gecko (*Pachydactylus laevigatus*), the Weber's Thick-toed Gecko (*Pachydactylus weberi*) and the Rough Thick-toed Gecko (*Pachydactylus rugosus*). At night males of the Barking Geckos (*Ptenopus* sp.) called with typical 'ceek-ceek-ceek-ceek...': their call was always present (except at Kunene river); besides I found also the Common Namib Day Gecko (*Rhoptropus afer*).

I met three specimens of the White-throated Monitor (Varanus albigularis), one medium in Damaraland, while it was crossing the road and two very large in Etosha National Park. Near the Namib-Naukluft Park, I found the terrestrial Namaqua Chameleon (Chamaeleo namaquensis), while in the South the nice Tent Tortoise (Psammobates tentorius). Finally, I saw some large specimens of the Nile Crocodile (Crocodylus niloticus) along the banks of the Kunene river.

## NAMIBIAN PEOPLE AND SNAKES

I tried to understand what Namibian people think about snakes. I asked them if snakes aroused fear, disgust, charm or other feeling: Most people told me that snakes are bad, dangerous and very nasty and that their reaction in front of a snake is simply to kill it. I thought I was in Italy ... it was evident that snakes keep their proverbial horrible reputation in all the world, in Namibia too. I found that a lot of legends and superstitions were popular in Namibia and almost all were the same as those widespread in Italy and in other





Yellow Cape Cobra (Naja nivea) crossing the road near Keetmanshoop



Yellow Cape Cobra (Naja nivea) crossing the road near Keetmanshoop

Mediterranean Countries: for example, snakes are able to hypnotise their prey, cobras by displaying the hood and puff adders by hissing; snakes are able to move faster than men, so when they meet, men are immediately overtaken and killed by the snake. All snakes are immune to their own venom. Finally, the most incredible, many snakes suck and empty the udders of cows and goats: the same legend is very widespread also in Italy, where the 'guilty' snakes are especially the Four-lined Ratsnake (*Elaphe quatuorlineata*) and the Aesculapian Ratsnake (*Elaphe longissima*), often called 'milk-sucking snakes'.

Fortunately (especially for snakes...) I also met people not so prejudiced to snakes: one of these was my guide. He was very knowledgeable of African snakes and their biology, he respected them a lot. Also if snakes were venomous, he said that they were important in controlling mice and rats. So, he said that no snake should be killed and that every snake had a right to live freely. Other guides though in the same way as tourists and other people, killed every snake they met.

I found the most charming 'way of thinking' at Kaokoland, where the Himba people live. This ethnic group is actually quite isolate: they are present in the extreme North-western region of Namibia, between Palmwag, Opuwo and Kunene river. Himba people live at their own villages and they practice sheep-farming. I visited some Himba villages: in one of these, near Kunene river, a man seemed sick and he had a very swollen and aching calf. He told us that a venomous snake bit him while he was walking along the bank of Kunene river: he said that the snake was '...dark and

slender...' and that '...it escaped quickly between vegetation...'. From his brief description (my guide found it difficult to understand the Himba language), that maybe it could be a Western Barred Spitting Cobra (Naja nigricollis nigricincta), very common in that area, but it is very difficult to be sure about.

All the same, the Himba man didn't try to kill the snake: he explained to us that '...every form of life is sacred and it must always be respected, even if it can injure or kill you...'. His thought was similar to that of my guide but still more profound. We offered him our help but he refused because he had Himba's cures to mitigate the pain and to heal: he talked to us about poultices of mud and medicinal plants. Later my guide told me that many children had been attacked and killed (sometimes also eaten) by the numerous Nile Crocodiles (*Crocodylus niloticus*) which live in the Kunene river. Also in this case, Himbas didn't kill crocodiles for the same simple reason: they were living creatures. Maybe we must learn something from the Himba.

#### CONCLUSION

It is well known that the 'central' months of summer and winter (i.e. August) are not the optimum times for snake activity. I was often informed by my guide and local people that snakes were much more likely to be found before and after the rainy season. In other words, the best months seem to be November-December and April-May. Despite not being an excellent season, some useful observations were made. Searching was mainly done from late morning until sunset: except the North-western area, the sunrise and the night

seemed to be too cold for reptile activity (at Windhoek the temperature was 2°C during the night, while at Fish River Canyon National Park it was 6-10°C).

In every way, notwithstanding its typical semi-desert climate, Namibia has many types of different habitat where Nature is still really wild and intact: in this beautiful and varied scenery, I consider this fascinating Country as a 'paradise' for the herpetologist, who can find a lot of snakes and other reptiles to enjoy and to cultivate his passion.

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