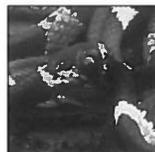


CONTRIBUTION TO THE STUDY OF THE SNAKES OF FRENCH GUYANA II



*The presence of *Dipsas copei* (Gunther, 1872) in French Guyana.*

*Fausto Starace,
BP 127, 97320 St.-Laurent du Maroni,
French-Guyana.*

■ INTRODUCTION

Because of its favourable position between the Amazon area and the mountains of the Guyana's, French-Guyana has an extremely rich herpetofauna. The snakes of Guyana can be divided into five main geographical groups. This enables the creation of an identification key for each species although there can be extensive internal differences. The following groups were defined by Chippaux (1987):

- 1: the Guyanese group: occurring in the mountains of the Guyana's;
- 2: the Caraibian group: occurring in the south of Central-

Dipsas catesbyi, young male, 278 mm.



Photo by F. Starace.

- America, on the Caraibian islands and on the Atlantic coast of the north of South-America;
- 3: the Amazon-group: occurring in the whole riverbasin of the Amazon;
- 4: the southern group: occurring in the area around the tropic of Capricorn;
- 5: the neotropic group: the whole of America south of the tropic of Cancer;

The living areas of some of these zoogeographical groups are not as strict as the above grouping suggests.

A preliminary inventory of the snakes of Guyana as made by Gasc and Rodrigues in 1980, has shown the richness of the herpetofauna of this department. They mention no less than 76 species.

More recently Chippaux (1987) has made a more thorough study of the snakes of Guyana. He has chosen a more ecological approach which at that time, had not been taken before. This work resulted in the description of 91 forms, belonging to 90 species, 41 genera and 7 families.

It is with great modesty that I add my contribution to the studies of the snakes of Guyana. In an earlier article (Starace, 1995) I mentioned the presence of *Xenopholis scalaris* (Wucherer, 1861) in French-Guyana. In this and a future article I describe three new colubrid species of which the presence in Guyana has not yet been reported: *Dipsas copei* (Günther, 1872), *Chironius exoletus* (Linnaeus, 1758) and *Oxyrhopus aff. melanogenys* (Tschudi, 1845). For the last species I will start a discussion to isolate one species from the genus *Oxyrhopus*.

■ MATERIAL AND METHOD

The major part of the studied specimens were collected by F. Starace, but some were collected by A. Neuhaus. Most animals were collected (alive or killed) on different types of roads: on highways (RN), departmental roads (CD) or paths. Part of this material will be deposited at the Museum of Natural History in Paris (MNHN). For this work I also have examined part of the collection of J.P. Chippaux of ORSTOM in Cayenne.

■ PRESENCE OF THE GENUS

DIPSAS LAURENTI, 1768

The snakes of the genus *Dipsas* are wide-spread in South-America. These snakes are thin and long; the body is elongated like in the genus *Sibon*. The head is round and clearly separated from the body. The rather large eyes protrude and have a vertical pupil. The tail is long, but is not prehensile. It takes up 25 to 32% of the body as deduced from 27 specimens representing all species in this genus. The snakes of this genus belong to the aglyphous colubrids with their teeth pointed to the inside of the mouth, and with a divided sperm groove (Chippaux, 1987).

Head scalation is classical. Depending on the species one can see the absence or presence of the loreal scale and two or three pairs of lower labial scales. The dorsal scales are smooth and have no apical groove; in

Dipsas pavonina, female, 604 mm.



Photo by F. Starace.

French-Guyana 13 or 15 midbody scale rows, generally without reduction. The ventral row has clearly larger scales than the other rows. The anal scale is undivided, but the subcaudals are divided.

These snakes have a very specialised diet as they are malacophage (snail eaters). Because of a special adaptation of their teeth they can neatly remove the snail without damaging the shell. In addition they also eat slugs. These nocturnal snakes are arboreal, semi-arboreal as well as terrestrial.

This genus contains 31 species (Peters and Orejas-Miranda, 1986), of which four have been described to occur in Guyana (Chippaux, 1987):

- *Dipsas catesbyi* (Sentzen, 1796);
- *Dipsas indica indica* (Laurenti, 1768);
- *Dipsas pavonina* (Schlegel, 1837);
- *Dipsas variegata variegata* (Duméril, Bibron en Duméril, 1854).

The present species, *Dipsas copei* (Günther, 1872), which I describe here for the first time and that was discovered in December 1995, now brings the total of *Dipsas* -species in French-Guyana to five.

■ COLLECTING LOCALITY

The specimen under discussion was found at 7.30 pm in the dark in the west of the department close to Organabo (in the direction of St.-Laurent to Cayenne). It was crossing the Route Nationale no. 1 near kilometre mark 193. The animal that had been hid by a car, lived for another twenty hours.

In the area where I found the animal, the RNI crosses through a large primary forest of which the entrances are formed by young forest consisting of *Cecropia* (Moracées) on white sand. This gives us some idea of the biotope in which *Dipsas copei* occurs, as we lack further observations of this species.

Like *Dipsas catesbyi* (Figure 1) and *Dipsas pavonina* (Figure 2) it is most likely terrestrial and semi-arboreal.

■ **DIPSAS COPEI**
(GÜNTHER, 1872)

Leptognathus copei Günther, 1872: 30;
Dipsas copei Peters, 1960: 58; Roze, 1966: 111; Abuys, 1983: 117; Peters en Orejas-Miranda, 1986: 86; Lancini, 1986: 93; Chipaux, 1987: 71.

■ **MATERIAL**

French-Guyana: a specimen found on RNI near kilometre mark 193.

■ **DESCRIPTION**

Dipsas copei belongs to the group of *catesbyi* (Peters & Orejas-Miranda, 1986), consisting of *Dipsas catesbyi*, *Dipsas pavonina* and *Dipsas vermiculata*. Generally, she resembles *Dipsas pavonina*. Nevertheless; her characteristic spots easily distinguish her from the other *Dipsas* species occurring in Guyana (Figure 3).

For the first quarter the body is bright yellow, after that it changes to a clear hazelbrown. The back shows dark brown spots lined with a very fine white edge. In the first quarter of the body the spots appear like rings, more backwards they spread over the sides, although a single spot occurs on the vertebral line.

The head is orange with the exception of a black stripe that connects the eyes. This stripe covers the frontal scales, part of the parietal and descends to the supralabial scales. The eye is black and the pupil not easily distinguishable.

The orange head is separated from the yellow body by a darkbrown ring. The ventral side is light brown for the first third of the belly.

Our specimen has a total length of 775 mm, of which the (incomplete) tail covers 206 mm. The location of the hemipenes is thickened in adults and this is a useful character to keep the sexes apart. This specimen will be deposited to the MNHN.

■ **CHARACTERISTICS**

Head

loreal	present
preoculars	2
postoculars	2
supralabials	10 (4-5-6) or 11 (5-6-7)
infralabials	10 (4) to 12 (5)
temporals	1+2 or 1+3

BODY

dorsals	15-15-15 straight rows
surface	smooth
ventrals	211-219
anal scale	undivided
keeled	no
apical grooves	not present
subcaudals	117-140 divided

This species has three pairs of chin shields.

Our specimen has 232 ventral and 103 subcaudal scales (part of the tail was gone). This is an important difference in relation to the numbers that are mentioned in the literature. Peters (1960) mentions 211 to 218 ventrals and 140 subcaudals; Roze (1966) 211 to 219 ventrals and 117 to 140 subcaudals; Lancini (1986) 211 to 219 ventrals and 117 to 142 subcaudals.

The specimen that was described by Roze (1966) meas-

Dipsas copei, male, 775 mm



Photo by E. Starace.

ured a total length of 505 mm, of which 150 mm was accounted for by the tail. According to the same author this species does not seem to occur very frequent.

The determination key for the family Dipsadinae as suggested by Chippaux (1987, pg. 67) is still correct provided that *Dipsas copei* is included. On the other hand the presence of a new species suggests that the determination key for the *Dipsas* species (Chippaux, 1987, pg. 71) is outdated. Based on this I suggest the key mentioned in this article.

■ CONCLUSION

The discovery of *Dipsas copei* in French-Guyana is very interesting. At this moment her presence in Surinam has not yet been reported (Abuys, 1983), although this country "would be the type locality" (Günther, 1872). Her distribution area covers Mid-Venezuela, Guyana, most likely Surinam (Peters and Orejas-Miranda, 1986) and French-Guyana. Because further data on the presence of *Dipsas copei* in French-Guyana are lacking, I suggest for this moment to limit the distribution to the west of French-Guyana.

It is likely that a geographical extension of the area of distribution of the species to the north in the direction of French-Guyana will become evident in the next few years. Further investigations most probably will support my hypothesis and report the presence of *Atractus elaps* (Günther, 1858), of *Atractus insipidus* (Roze, 1961), of *Atractus trinileatus* (Wagler, 1828), and of *Ninia atrata* (Hallowell, 1845).

■ LITERATURE

A full account of all references will be given in the last article

Translation by Cécile and René van der Vlugt

DETERMINATION KEY FOR THE *DIPSAS* SPECIES IN GUYANA:

- 1: 15 rows of dorsals 2
 13 rows of dorsals 3
- 2: loreal scale present; 191 to 196 ventrals, 89 to 100 subcaudals;
 colour consists of alteration of spots;
 dark dorsal scales on a grey background *Dipsas variegata*
 loreal scale present and separated from the eye by a preocular air;
 more than 205 ventrals *Dipsas copei*
- 3: loreal scale present *Dipsas catesbyi*
 loreal scale absent 4
- 4: more than 13 sublabials of which two pairs separate
 the anterior mental scales form the mental groove *Dipsas indica*
 less than 13 sublabials of which one pair separates
 the anterior mental scale from the mental groove *Dipsas pavonina*



ANNOUNCEMENTS

■ ERRATUM

Unfortunately some errors appeared in the recent articles by Fausto Starace:

Volume 17, issue no. 5:

Pg 97: The snake on the photo is *Dipsas pavonina* and not *Dipsas catesby*.

pg 98: The snake on the photo is *Dipsas catesby* (juvenile) and not *Dipsas pavonina*.

Volume 18, issue no. 1:

pg 15: The snake on the photo is *Chironius carinatus* and the photo is taken by A. Halimi.

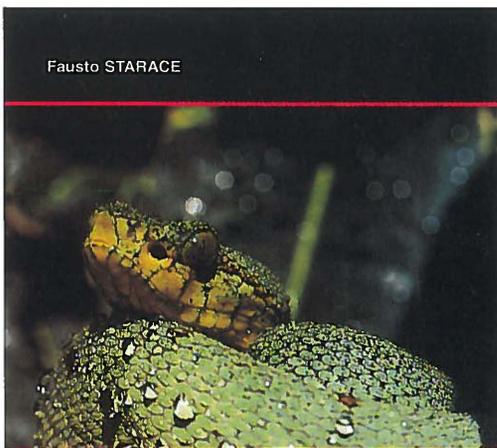
■ SNAKES AND AMPHIBIANS OF GUYANA

Recently "Guide des serpents et amphibiens de Guyane" by F. Starace appeared, 452 pg, 179 photo's, with an abstract in English for each species. Price 415 FF.

The book can be ordered directly from the author by sending your name and address, together with an International Money Order to:

M. Starace fausto, 3 Rue Desaix,
78800 Houilles, France.

Fausto STARACE



**GUIDE des SERPENTS
et AMPHIBIENS
de GUYANE**

IBIS ROUGE EDITIONS