

THE SNAKES OF SURINAM, PART X: SUBFAMILY XENODONT-  
INAE (GENERA LEPTODEIRA, LIOPHIS AND LYGOPHIS).

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Contents: The genus *Leptodeira* - The genus *Lio-*  
*phis* - The genus *Lygophis* - References.

THE GENUS *LEPTODEIRA* FITZINGER, 1843

This genus contains a total of 9 species, of which 4 species occur on the mainland of Central and South America. In Surinam only one subspecies occurs.

General data of the genus

Head: Oval with large eyes bulging out of the head.

The head merges gradually with the slender neck.

Body: Slender with smooth scales. The vertebral scales are larger than the others.

Behaviour: These snakes are arboreal and nocturnal.

During the day it hides under fallen trees, or behind loosened tree bark.

Food: Food consists of frogs, lizards, other small snakes, even its own young, eggs of reptiles and tadpoles.

Habitat: They are to be found in wooded areas in the neighbourhood of water or swamps. Occasionally they may be found in cultivated areas and gardens.

Reproduction: Oviparous (4 to 13 eggs).

Some data from an article of H.G. Petzold:

Two months after copulation the eggs were laid, hatching after two months. The eggs measured 21x12 to 29x12 mm. The larger the number of eggs the smaller the size of the individual eggs. The length of the new-born young varied from 18-19 cm. The weight varied between 1.6

and 1.8 g. About 17 days after birth they ate their first prey usually a frog. The first shedding took place after 2½ months.

After 8 months the young weigh between 10 and 27 g. An adult snake of approximately 75 cm weighs about 116 g. Somebody reported that a female *Leptodeira* in spite of being in isolation for five years produced fertile eggs.

Remarks: In general this genus is not aggressive.

*Leptodeira annulata annulata* (Linnaeus, 1758).

Dutch name: katte-oogslang.

English name: Garden snake, Saddle-back snake, Annulated night snake, Cat-eyed snake.

Surinam name: Pina-owroe-koekoe.

Maximum length: Approximately 95 cm.

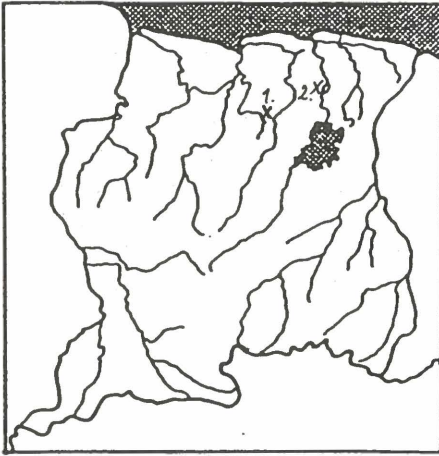
Scalation: Dorsals in 21 rows (sometimes 19 or 23) each with 2 apical pits; 178 to 201 ventrals; 81 to 103 subcaudals; anal scale divided; 1 preocular; 2 postoculars (sometimes 3); 1 loreal; 8 supralabials (the 3rd, 4th and 5th entering the orbit); 10 sublabials; 1+2 temporals.

Colouration: The upperside of the head is dark to black brown or olive brown coloured. The neck (directly behind the parietals) is lighter in colour and can, as a variation, even be whitish. From the eye to the back of the upper jaw runs a dark brown to black stripe.

The basic colour of the dorsum is beige to light olive brown or redbrown. The back is covered with large round, oval or saddle-shaped black brown or black spots, which may merge to form a zig-zag. The belly is beige to light grey brown, sometimes with small faint grey spots.

Specific details: This species has grooved back teeth separated from the others by a gap.

Distribution: The Amazon basins of Brasil (south



to Sao Paulo), Venezuela, Colombia, Ecuador, Peru, Bolivia and the Guyanas.

Locality records in Surinam: 1. Loksi Hatti; 2. surroundings of bush camp at Zanderij.

#### THE GENUS *LIOPHIS* WAGLER, 1830.

This genus contains about 25 species, of which 5 occur in Surinam.

General data of the genus

Head: The head is not distinct, merging into the neck. The eyes are medium-size with round pupils.

Body: The body is cylindrical and firmly built. Generally small snakes with smooth scales.

Tail: The tail in a number of species is short.

Behaviour: This snake is semi-aquatic and diurnal.

Habitat: It lives near rivers, streams, lakes, ponds or swamps. Though some species are found on the bottom of rain forests, far from water.

Food: Mainly frogs, toads, fish. Some species and some individuals prey on insects, centipedes, spiders, worms, lizards, small mammals and small birds.

Reproduction: Oviparous.

Remarks: This genus is not aggressive. A number of species have (2) enlarged back teeth not separated from the rest while others do have a gap.

Also the enlarging of these back teeth can differ from species to species. The groove is not present in all species of this genus.

*Liophis breviceps* Cope, 1861

Dutch name: Gladde kortstaart slang.

English name: Red-bellied burrowing snake.

Maximum length: Approximately 60 cm.

Scalation: Dorsals in 17 rows (smooth scales); 148 to 156 ventrals; 49 to 51 subcaudals; anal scale divided; 1 preocular; 2 postoculars; 1 loreal; 7 supralabials (the 3rd and 4th entering the orbit); 8 sublabials; 1+2 temporals.

Colouration: It is a small heavily built snake with a short tail, a small head and as an exception small eyes.

The basic colour is dark brown to black, intercepted by thin, often vague, yellow cross bands. A fine vertebral line of small yellow spots may be present. In front of the black neck band is a striking yellow band about 1 or 2 scales wide. The belly is coloured red with black cross bands or oblong spots. The head is lighter in colour. This snake has two enlarged teeth (without a groove), which are separated by a gap from the rest.

Specific details: This animal looks like the related species *Liophis cobella* concerning to colour and markings. *Liophis breviceps* occurs, contrary to his fellow species, mainly on the bottom of rain forests where it hunts worms and insects. In moments of danger this snake tries to flee by digging into the forest bottom. Once held in the hand this animal, without biting, will try to escape with wild movements.

Distribution: Brasil, Ecuador and Surinam.

Locality records in Surinam: This snake has not been found by me in Surinam.

Liophis cobella (Linnaeus, 1758)

Dutch name: Gladde visslang.

English name: Mangrove snake, Banded tricoloured snake, Red bellied ground snake.

Maximum length: Approximately 80 cm.

Scalation: Dorsals in 17 rows (smooth scales); 140 to 164 ventrals; 44 to 64 subcaudals; anal scale divided; 1 preocular; 2 postoculars; loreal present; 8 supralabials ( the 4th and 5th entering the orbit); 10 sublabials; 1+2 temporals.

Colouration: The basic colour varies from anthracite or dark grey to dark brown with faint whitish or yellow cross bars. The belly is generally orange-red coloured, sometimes yellow or whitish, with black cross bands. The back teeth are enlarged, but not separated from the rest.

Specific details: My specimens (10 specimens) were mainly from watery areas (swamps, canals and rice fields). Considering my experiences, I would call these snakes "aquatic".

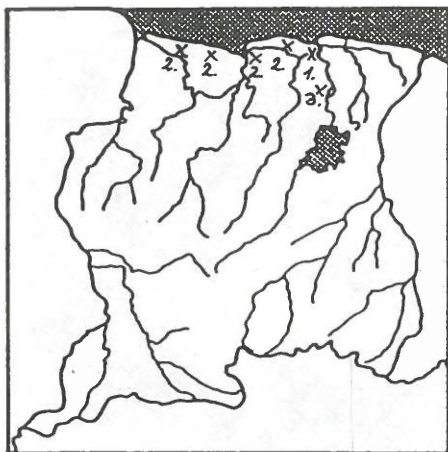
The collection of Beebe, 1946 came out of a rainforest area (Kartabo in Guyana) and he reports that these animals feed mainly on frogs and lizards. My animals in captivity in Surinam took fish and frogs and in captivity in Holland only fish. Worth mentioning is the behaviour of a specimen I kept in a tank in Holland.

When I put another snake (*Thamnodynastes pallidus*) with it, the *Liophis cobella* reacted in a cobra-like way, raising up the anterior part of the body and flattening it. I have not come across this before with all my other specimens.

*Liophis cobella* is a non-aggressive snake and once held it reacts with much less panic than its fellow species *Liophis breviceps*.

In captivity readily feeds on fish.

Distribution: Northern South America east of the



Andes.  
 Locality records in Surinam: 1. Surroundings of Paramaribo; 2. Along the east-west connection between Paramaribo and Nickerie; 3. Surroundings of Zanderij. This is a common species in Surinam.

*Liophis miliaris* (Linnaeus, 1758)

Dutch name: Gladde netslang.

Maximum length: Approximately 90 cm.

Scalation: Dorsals in 17 rows (smooth scales); 151 to 153 ventrals; 26 to 51 subcaudals; anal scale divided; 1 preocular; 2 postoculars; loreal present; 8 supralabials (the 4th and 5th entering the orbit); 10 sublabials; 1+2 temporals.

Colouration: The basic colour is olive green to brown, with a fine net pattern. Each scale is lightbrown or beige, with the end of each darkbrown to black coloured. The belly is orange-yellow or in case of specimens with a less notable net pattern, light yellow-green.

The back teeth are enlarged, but not separated from the rest.

Distribution: Brasil, Uruguay, Argentina, Paraguay, Bolivia and French Guyana.

Locality records in Surinam: I have never caught this snake in Surinam.



Fig. 1. *Leptodeira annulata annulata*. Foto: A. Abuys.



Fig. 2. *Liophis cobella*, Nickerie. Foto: P.B. Stoel.

Liophis purpurans (Duméril, Bibron & Duméril,  
1854)

Dutch name: Gladde purperslang.

Maximum length: Approximately 90 cm.

Scalation: Dorsals in 17 rows (smooth scales);  
142 to 164 ventrals; 46 to 62 subcaudals; anal  
scale divided; 1 preocular; 2 postoculars;  
loreal present; 8 supralabials (the 4th and 5th  
entering the orbit); 10 (sometimes 9) subla-  
bials; 1+2 temporals.

Colouration: The basic colour is darkbrown to  
light purple brown. Some specimens have some  
lateral scales with a black edge forming a net  
pattern which reminds one of *Liophis miliaris*.  
A darkbrown to black lateral stripe may be  
present on the posterior half of the body and  
tail. This species has big eyes. The suprala-  
bials are white with a black upper edge. The  
belly is yellow with black spots.

The last two teeth on both sides are notable  
enlarged and separated from the rest by a gap.

Distribution: Amazonian Colombia, Ecuador, Peru  
and the Guyana's.

Locality records in Surinam: I did not come across  
this species in Surinam.

Liophis undulatus (Wied, 1824)

Dutch name: Gladde gegolfde rugstreepslang.

Scalation: Dorsals in 17 rows (smooth); more than  
130 ventrals; less than 100 subcaudals; 1  
preocular; 2 postoculars; loreal present; 8  
supralabials (the 3rd, 4th and 5th entering the  
orbit); 8 sublabials; 1+2 temporals.

Colouration: I do not have much information on  
this snake. I collected the following from  
'Serpentes do Brasil' (Amaral, 1978) and Neo-  
tropical Squamata (J. Peters, 1970). According





Fig. 3. *Lygophis lineatus lineatus*. Foto: A. Abuys.



Fig. 4. *Lygophis lineatus lineatus*. Foto: A. Abuys.

to Peters (1970) *Liophis undulatus* should be found in the Guyana's. The following description of colour comes from a coloured illustration in the book 'Serpentes do Brasil' (Amaral, 1978).

The basic colour is redbrown or lightbrown with a darkbrown zig-zag or wavy vertebral stripe. Directly behind the darkbrown head are darkbrown lateral spots, which fade towards the posterior of the body and merge into a darkbrown lateral stripe. The belly is whitish to lightbrown yellow. The supralabials and the sublabials are white with very small brown spots.

Distribution: Brasil, Ecuador and the Guyana's.  
Locality records in Surinam: I have not collected this snake in Surinam.

Key to the Surinam snakes of the genus *Liophis*.

- 1a. 8 Sublabials ..... see 2
- b. 10 Sublabials, 8 supralabials (the 4th and 5th entering the orbit) ..... see 3
- 2a. 7 Supralabials (the 3rd and 4th entering the orbit), dorsal cross bands . *Liophis breviceps*
- b. 8 Supralabials (the 3rd, 4th and 5th entering the orbit), vertebral zig-zag stripe .....  
        ..... *Liophis undulatus*
- 3a. Dorsum uniform in colour (sometimes the lateral is not uniform) ..... see 4
- Dorsum not uniform in colour ..... see 5
- 4a. Venter uniform in colour .... *Liophis miliaris*
- b. Venter with cross bands or spots, dorso-lateral stripes present (sometimes a fine net pattern is present) ..... *Liophis purpurans*
- 5a. Dorsum with cross bars, venter with cross bands and spots ..... *Liophis cobella*
- b. Dorsum with tiny net pattern, venter uniform in colour ..... *Liophis miliaris*

## THE GENUS *LYGOPHIS* FITZINGER, 1843

This genus contains a total of 8 species, all on the mainland of Central and South America.

One of the eight species has three subspecies, of which one occurs in Surinam.

General data of the genus

Head: The head is small, pointed, it hardly merges into the neck. It has big eyes with round pupils.

Body: The body is stout with glossy smooth scales.

Behaviour: It is mainly a terrestrial snake, diurnal in habits.

Food: Food mainly consists of frogs and tadpoles. Insects may be eaten as well.

Habitat: I caught them in gardens and cultivated areas, but forests, savannahs or swampy areas should be considered as a possible habitat according to the literature.

Reproduction: Oviparous.

Remarks: The snakes of this genus are very shy.

### *Lygophis lineatus lineatus* (Linnaeus, 1758)

Dutch name: Gladde driestreep slang.

English name: Red-striped snake.

Maximum length: Approximately 60 cm.

Scalation: Dorsals in 19 rows (smooth); 160 to 180 ventrals; 81 to 87 subcaudals; anal scale divided; 1 preocular; 2 postoculars; loreal present; 8 supralabials (the 4th and 5th entering the orbit); 10 (sometimes 9) sublabials; 1+2 temporals.

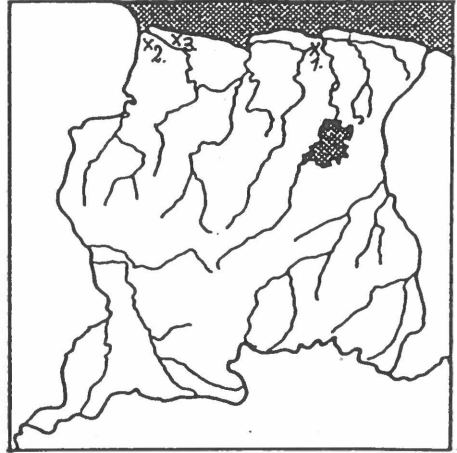
Colouration: The basic colour is beige brown or sand coloured with a (approximately 4 scales wide) redbrown to darkbrown vertebral stripe, from nose to tail-end. A thin darkbrown or black lateral line is also present, from nose, across the eye to the tail-end. All stripes are

wider at the head-end. The belly is whitish to light beige brown. The two back teeth are separated from the front teeth by a gap.

Specific details: This snake looks a lot like the Mexican *Conophis lineatus* except that *Conophis* has 4 stripes instead of three.

Distribution: Panama, the northern part of South America including Ecuador and the west-side of the Andes.

Locality records in Surinam: 1. Paramaribo; 2. Nickerie; 3. Wagenin-gen.



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