

# The taxonomic status of *Leptognathus incertus* Jan, 1863, with revalidation of *Dipsas alternans* (Fischer, 1885) (Serpentes: Colubridae: Dipsadinae)

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**Abstract.** The dipsadine snake *Leptognathus incertus* was originally described from French Guiana and subsequently was restricted to the Atlantic Rain Forest in southeastern and south Brazil. We compare its original description with available data for *Leptognathus alternans* as well as with species of the genus *Dipsas* occurring in French Guiana. *Leptognathus alternans* is revalidated in the combination *Dipsas alternans*, representing the populations occurring in the Atlantic Rain Forest of southeastern and south Brazil. The neotype of *L. alternans* is designated and described. The taxonomic status of *L. incertus* is revised and, in the interest of stabilizing the nomenclature of this species, *Dipsas copei* is synonymized with *L. incertus* in the combination *Dipsas incerta*, corresponding to populations of the Guianan region. The holotype of *L. copei* is designated as the neotype of *L. incertus*.

**Resumo.** A serpente dipsadínea *Leptognathus incertus* foi descrita originalmente da Guiana Francesa e posteriormente restrita à Floresta Atlântica no sudeste e sul do Brasil. Comparamos sua descrição original com os dados disponíveis de *Leptognathus alternans*, bem como com espécies do gênero *Dipsas* que ocorrem na Guiana Francesa. *Leptognathus alternans* é revalidada sob a combinação *Dipsas alternans*, representando as populações que ocorrem na Floresta Atlântica do sudeste e sul do Brasil. O neótipo de *L. alternans* é designado e descrito. O status taxonômico de *L. incertus* é revisado e, no interesse da estabilização da nomenclatura desta espécie, *Dipsas copei* é sinonimizada com *L. incertus* sob a combinação *Dipsas incerta*, correspondendo às populações da região das Guianas. O holótipo de *L. copei* é designado como o neótipo de *L. incertus*.

## Introduction

The gastropod-eating Dipsadinae are currently recognized as a monophyletic group (Zaher, 1999). Peters (1960) provided an extensive taxonomic revision of these snakes and recognized seven species groups in the genus *Dipsas* Laurenti, 1768, although one of these groups, the *Dipsas polylepis* species group, was latter considered as artificial (Peters,

1970). Peters (1960) associated *Dipsas incerta* (Jan, 1863) with the *D. variegata* species group, which includes species with fifteen dorsal scales rows and occasional reduction to fourteen or thirteen scales in the posterior part of the body. The group comprises two other species, *Dipsas albifrons* (Sauvage, 1884) and *D. variegata* (Duméril, Bibron and Duméril, 1854), the last taxon with three subspecies.

In this paper we evaluate the taxonomic status of *Leptognathus incertus* Jan, 1863, to ascertain the current taxonomic position of the populations occurring in the Atlantic Rain Forest of southeastern Brazil and in the Guianan region.

## Material and Methods

Specimens examined are housed in the collections of Instituto Butantan (IB) and Museu de Zoologia da Universidade de São Paulo (MZUSP), São Paulo, Brazil, Museu Nacional, Rio de Janeiro, Brazil (MNRJ), and The Natural History Museum, London (BMNH); referred specimens are housed in the latter institution. Specimens examined are listed in the appendix.

The observed characters are from external morphology and teeth counts. The method of ventral counting follows Dowling (1951) and the terminology for the hemipenis is based on Dowling and Savage (1960) and Myers and Campbell (1981). The measurements for snout-vent length (SVL) and tail length (TL) were taken with a ruler to the nearest millimeter. An analysis of variance (ANOVA) using segmental counts was employed in order to assess the presence of sexual dimorphism. Assumptions of univariate normality and homoscedasticity were evaluated with the Kolmogorov-Smirnov test and the Levene test, respectively. Some characters were not used in the statistical analysis because they did not show sufficient variation to justify the assumption of normality. The following characters were employed in the statistical analysis: number of ventral and subcaudal scales, number of dorsal blotches along the body, and number of caudal blotches.

## Historical Résumé

The genus *Leptognathus* was described by Duméril (1853). *Leptognathus incertus* was described by Jan (1863) based on a single specimen from French Guiana, and Fischer (1885) described *Leptognathus alternans* based on a specimen “supposedly from Santos”, State of São Paulo, southeastern Brazil.

Boulenger (1896) associated a specimen from São José dos Campos, State of São Paulo, with *L. incertus*, consequently extending the geographic distribution of this taxon to southeastern Brazil, despite not having examined the holotype of *L. incertus* and providing no further comment on his decision.

Ihering (1911) placed the genus *Leptognathus* in the synonymy of *Cochliophagus* Duméril, Bibron and Duméril, 1854. The author examined three specimens of *C. alternans* from southeastern and south Brazil, suggesting that, if Boulenger's (1896) identification of the specimen proceeding from São José dos Campos was correct, *C. alternans* was possibly a synonym of *C. incertus*. Nevertheless, the author maintained both taxa as valid.

Amaral (1923) placed the genus *Cochliophagus* in the synonymy of *Sibynomorphus* Fitzinger, 1843 and described *S. barbouri* from the Municipality of Utinga, State of Alagoas [subsequently corrected by Amaral (1926) to Caratinga, Minas Gerais, southeastern Brazil], and *S. garbei* from Colônia Hansa, currently Municipality of Corupá, State of Santa Catarina, south Brazil; each taxon was described based on a single specimen. According to Amaral (1923), these taxa were distinct from *S. incertus* and *S. alternans* by having no preocular and showing different colour patterns.

Amaral (1929a), in a revision of some Neotropical snakes, argued that the specimen recognized as *L. incertus* by Boulenger (1896) was misidentified, and that *Leptognathus praeornata* Werner, 1909 was identical to *S. incertus*. Nevertheless, Amaral (1929a) did not formally propose the synonymization of both taxa. In a subsequent paper, Amaral (1929b) synonymized *L. praeornata* Werner, 1909, from Venezuela, with *S. incertus*.

Amaral apparently never considered *S. incertus* as a taxon occurring in Brazil since in his checklists of Brazilian snakes this taxon was never cited (Amaral, 1929c, 1937). Parker (1935) placed *S. incertus*, among other taxa, in the genus *Dipsas* without further comments. Finally, Peters (1960) synonymized *S. alternans*, *S. barbouri* and *S. garbei* with *D. incerta*, although he had no opportunity of examining the types of these taxa. Peters (1960) argued “the many records for French Guiana seem to be entirely an echo of Jan’s type locality, for I find no additional reports from that country in the literature or in museums”. Additionally, Peters (1960) claimed that the illustration from Jan and Sordelli (1870) “leaves little room for doubt as to the conspecific position of the specimens that I have recorded in this paper with *incerta*”. Peters (1960) placed *S. alternans* in the synonymy of *D. incerta* since the variation on the pholidosis of the first taxon overlaps that of *D. incerta*. Comparing *S. barbouri* and *S. garbei* with *D. incerta*, Peters (1960) concluded that the characters considered by Amaral (1926b) to differentiate these taxa overlap the variation of *D. incerta* or show considerable variation among the dipsadine snakes, justifying their synonymization. Interestingly, Peters (1960) placed *Leptognathus praeornata* in the synonymy of *D. latifrontalis* (Boulenger, 1905), apparently ignoring Amaral’s (1929b) work in which he placed *L. praeornata* in the synonymy of *D. incerta*, since Peters (1960) provided no comments about this taxonomic arrangement.

## Results

### *Revalidation of Leptognathus alternans Fischer, 1885*

The type of *L. incertus* was deposited in the Department of Ornithology of the Museo Civico di Storia Naturale, Milano, Italy but was destroyed during the Second World War (Giorgio Chiozzi, pers. comm.). As far as we can determine, through the examination of the data available in the literature, the only author who examined this specimen was Jan (1863) in his original description. Subsequent authors based their conclusions on Jan’s description and on the illustration of Jan and Sordelli (1870). We examined these data and, according to Jan (1863) and Jan and Sordelli (1870), the holotype of *L. incertus* possesses 15 dorsal scales rows, vertebral row approximately twice as large as adjacent scales; loreal enters the orbit; 1 preocular; 2 postoculars; no subocular; temporals 2 + 3 + 2; 9 supralabials, fourth to sixth in contact with the orbit; infralabials 10 on both sides, first pair in contact behind the symphysis; first to fifth pair touch the first pair of genials; fifth and sixth touch the second pair of genials; number of pairs of genials 3 or 4.

Boulenger (1896) provided a key to the species of the genus *Leptognathus*. According to this key, *L. alternans* and *L. incertus* differ in the number of ventrals, subcaudals, and preocular scales. *Leptognathus alternans* (male;  $n = 1$ ) has 197 ventrals, 110 subcaudals, and 2 preoculars scales, while *L. incertus* (male;  $n = 1$ ) has 204 ventrals, 122 subcaudals, and 1 preocular scale. The specimen of *L. alternans* examined by Boulenger (1896) was the holotype, while the specimen associated with *L. incertus* was from São José dos Campos, State of São Paulo. The colour patterns described by Boulenger (1896) for these two specimens are quite similar, the differences being easily acceptable as falling within normal intraspecific variation. The same interpretation can be used to justify the differences in the pholidosis of the specimens (see section Variation). Considering the data presented above, we see no reason why Boulenger (1896) associated the specimen from São José dos Campos with *L. incertus*, since this locality is geographically much

closer to the type locality of *L. alternans* than to French Guiana, the type locality of *L. incertus*. Therefore, we here propose the revalidation of *L. alternans*, in the combination *Dipsas alternans* (Fischer, 1885), restricting its geographical distribution to southeastern and southern Brazil.

*Designation of the neotype for Leptognathus alternans Fischer, 1885*

The holotype of *Leptognathus alternans* was deposited in the Zoological Museum of the University of Hamburg, Germany and destroyed during the Second World War (Jakob Hallermann, pers. comm.). According to the International Code of Zoological Nomenclature (ICZN, 1999; Article 75.3.4), this is one of the qualifying conditions to designate a neotype for this taxon. Furthermore, this decision intends to clarify the taxonomic status of *L. alternans* (ICZN, 1999; Article 75.3.1).

***Dipsas alternans* (Fischer, 1885), revalidated (figs 1-2)**

*Leptognathus alternans* Fischer, 1885

*Cochliophagus alternans* — von Ihering, 1911

*Sibynomorphus barbouri* Amaral, 1923

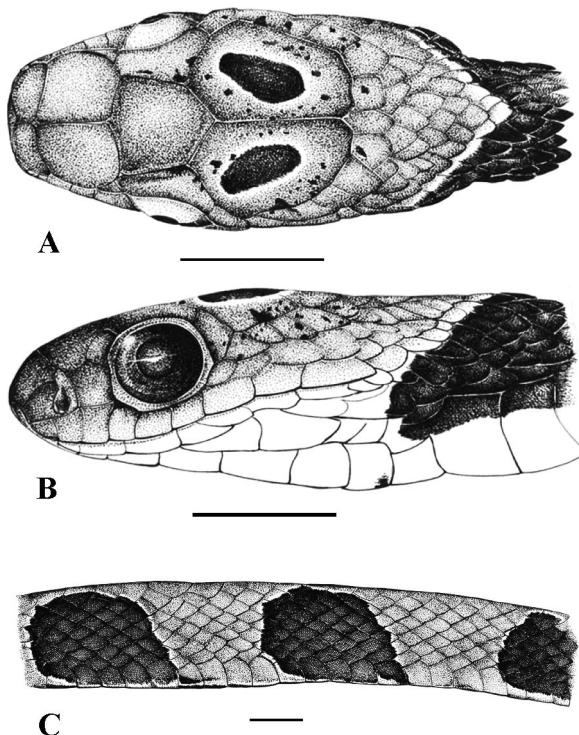
*Sibynomorphus garbei* Amaral, 1923

*Sibynomorphus alternans* — Amaral, 1925

*Neotype.* IB 64465, adult male (fig. 1), SVL 500 mm, TL 230 mm, collected in the Sítio Rancho Colina da Vitória, Municipality of Juquitiba ( $23^{\circ}55'S$ ,  $47^{\circ}04'W$ ), State of São Paulo, Brazil, on 03 October 2001, by Fernando O. Forenza.

*Description of neotype* (fig. 1). Rostral visible from above, twice as broad as high; internasals less than half the length of the prefrontals, which do not enter the orbit; frontal as broad as long; parietals about twice as long as wide; nasal entire; 1 preocular; 1 loreal higher than long, entering the orbit; 2 postoculars; temporal formula  $2 + 2 + 2$ ; 9 supralabials, fourth to sixth entering the orbit; 10 infralabials, a single pair in contact behind the symphysis, five pairs contact the first pair of genials on the left side and four on the right side, sixth pair contacts the second pair of genials; three pairs of genials; 15 dorsal scales rows, smooth, without reduction; vertebral row scarcely enlarged; 201 ventrals; 116 subcaudals; anal plate entire.

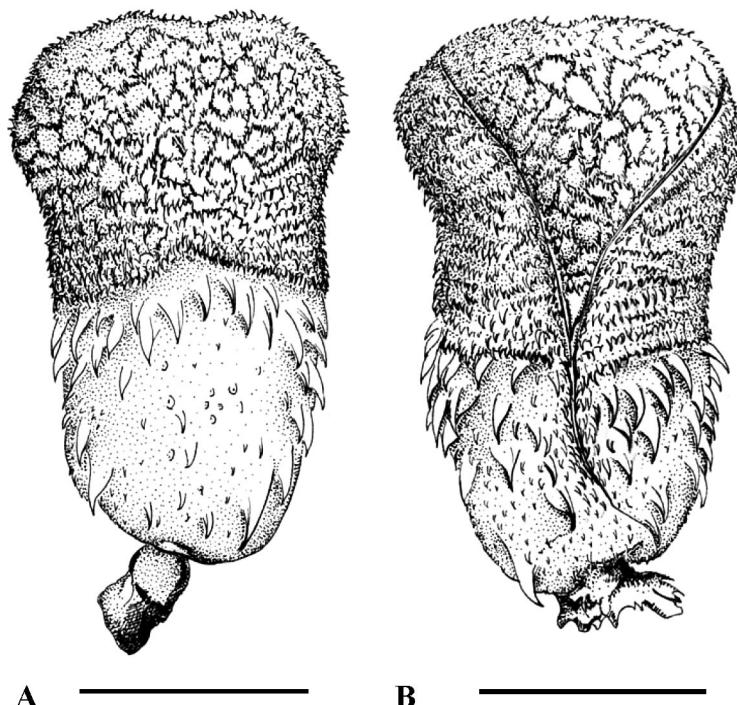
*Colour in preservative of neotype.* Dorsum of head uniformly brown except for two dark-brown, white bordered spots on the parietals; supralabials light-brown, almost white along the lower edge; infralabials and gular region uniformly creamish; dorsal ground colour of body beige; a dark-brown nuchal collar anteriorly bordered by a white "V" shaped border, extending to the level of the 14th ventral scale; dorsum of body with 20/19 well-defined, rounded, dark-brown, black-bordered dorsal blotches surrounded by a thin



**Figure 1.** *Dipsas alternans* (IB 64465, neotype). (A) dorsal and (B) lateral views of head; (C) lateral midbody view (scale = 5 mm).

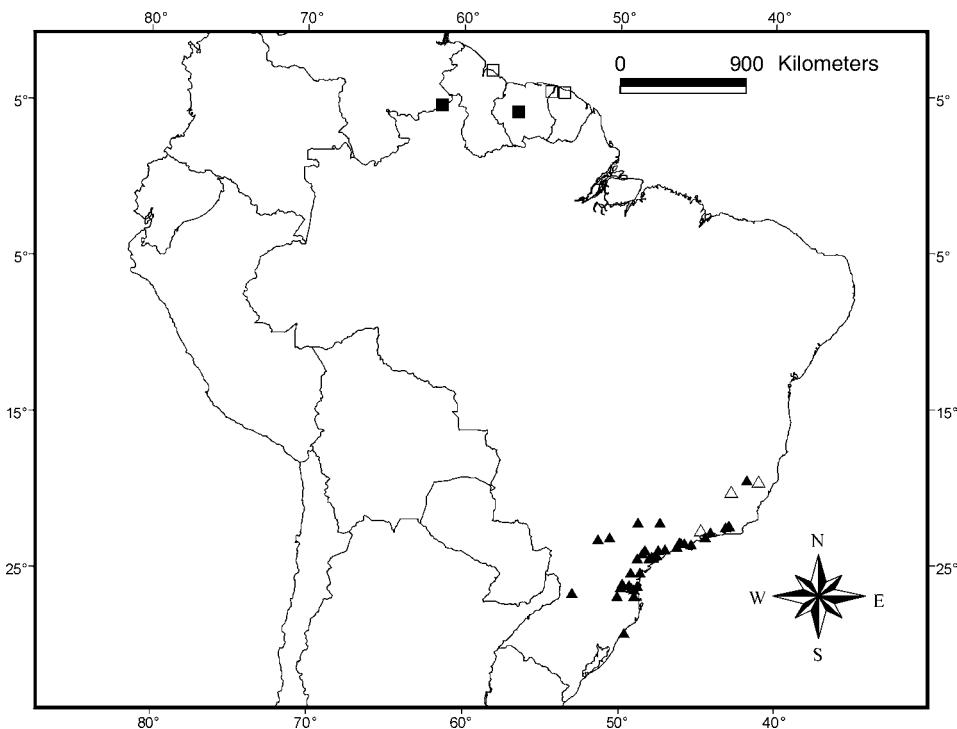
white border; blotches wider than interspaces in the anterior third of body, as wide as the interspaces in the posterior region; blotches eventually contact the opposite one in the vertebral region and extend through the paraventral region; ground colour of anterior part of belly creamish, posteriorly becoming light-brown, with irregular streaks along the venter; streaks have different sizes; tail with 13 blotches on both sides with the same pattern as on body.

*Hemipenis of neotype* (fig. 2). Extends to the level of the sixth subcaudal (everted organ), single with a bulbous shape, unicapitate; capitulum completely encircles the organ on the sulcate side, and occupies more than the distal half of the hemipenial body; on the asulcate side, the capitulum occupies less than the distal half of the hemipenial body; capitulum calyculate, forming a conspicuous cluster; sulcus spermaticus divides approximately on the most basal region of capitulum; branches have centroleinal orientation terminating on distal region of the lobe; basal portion of the hemipenial body with large spines (ca. 25) arranged in several rows; on the asulcate side, spines are principally concentrated in the region adjacent to the capitulum and there are some spines on the lateral region; both sides with spinules among the large spines.



**Figure 2.** Hemipenis of *Dipsas alternans* (IB 64465, neotype). (A) asulcate and (B) sulcate side (scale = 5 mm).

**Variation** ( $n = 74$ ). Largest male 602 mm SVL, 254 mm TL. Largest female 702 mm SVL, 238 mm TL. The analysis of variance (ANOVA) was significant for number of subcaudals scales ( $F_{(1,64)} = 23.51; P < 0.01$ ) and, therefore, these counts will be presented for females and males separately, while other data represent the variation in both sexes. Ventrals 174-201 ( $\bar{x} = 187.6; s = 6.59; n = 74$ ); subcaudals 78-114 ( $\bar{x} = 97.4; s = 7.56; n = 32$ ) in females; 93-118 ( $\bar{x} = 105.7; s = 6.33; n = 34$ ) in males; preoculars 1 ( $n = 58$ ), 2 ( $n = 11$ ) or none ( $n = 1$ ); temporal formula generally 1 + 2 ( $n = 70$  sides), but first temporal row varies from 1-3 and the second from 1-4; supralabials 8 ( $n = 11$ ), 9 ( $n = 49$ ), 10 ( $n = 11$ ) or 11 ( $n = 1$ ); supralabials touching the orbit 4-6 ( $n = 52$ ), 4-7 ( $n = 2$ ), 5-7 ( $n = 5$ ), 3-5 ( $n = 8$ ), 4-5 ( $n = 11$ ) or 5-6 ( $n = 8$ ); infralabials 8 ( $n = 4$ ), 9 ( $n = 24$ ), 10 ( $n = 36$ ) or 11 ( $n = 7$ ), up to sixth touching the first pair of genials; fourth up to eighth touching the second pair of genials; nasal entire ( $n = 54$ ), semidivided ( $n = 11$ ) or divided ( $n = 4$ ); number of maxillary teeth 14-15 ( $\bar{x} = 14.3; s = 0.52; n = 6$ ) number of dorsal blotches along the body 17-31 ( $\bar{x} = 21.7; s = 2.85; n = 69$ ); number of caudal blotches 9-18 ( $\bar{x} = 12.9; s = 2.14; n = 54$ ); size of dorsal blotches on midbody 3-7 dorsal scales ( $\bar{x} = 4.4; s = 1.08; n = 69$ ); size of interspaces 3-6 ( $\bar{x} = 4.6; s = 0.83; n = 69$ ); hemipenis extends 6-9 subcaudals scales (inverted organ) ( $\bar{x} = 7.75; s = 0.89; n = 8$ ).



**Figure 3.** Geographical distribution of *Dipsas alternans* (▲ = specimens examined; △ = literature records) and *Dipsas incerta* (■ = specimens examined; □ = literature records).

**Distribution.** Southeastern and southern Brazil, from the State of Espírito Santo south to the State of Rio Grande do Sul (fig. 3).

**Remarks.** The original type locality of *Leptognathus alternans* was quoted by Fischer (1885) as “angeblich aus Santos” (= “supposedly from Santos”). Currently the City of Santos, State of São Paulo, Brazil ( $23^{\circ}57'S$ ,  $46^{\circ}20'W$ ), is a large town, with the largest harbour of the country. As a forest inhabitant, it is very improbable that this species still occurs at this locality. By the present designation of a neotype for *L. alternans*, the type locality changes to Juquitiba ( $23^{\circ}55'S$ ,  $47^{\circ}04'W$ ), State of São Paulo, Brazil, about 75 km from the original type locality. The new type locality is the nearest point from where the species was recorded by a specimen in the IB collection and it is located in a representative preserved isolate of the Atlantic Rain Forest.

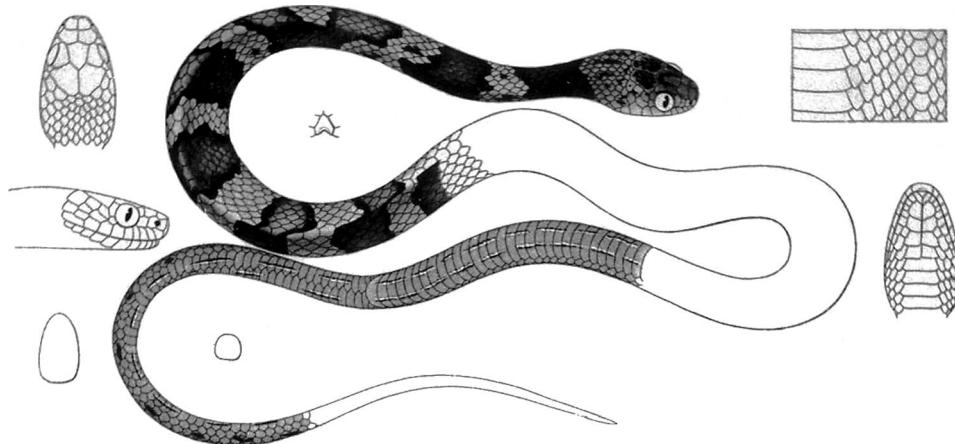
#### *Taxonomic status of Leptognathus incertus Jan, 1863*

The type locality mentioned by Jan (1863) for *Leptognathus incertus* was “Gujana francesa” (= French Guiana) but this record was disputed by Peters (1960). The geographical distribution for that species was defined by Peters (1960) as the southeastern coastal

area of Brazil, from the State of Espírito Santo to the State of Santa Catarina. Nevertheless, Hoogmoed (1979, 1982) provided an historical overview of herpetological studies in the Guianan region and cited some authors that described and collected specimens specifically from French Guiana since the beginning of 19<sup>th</sup> century. The checklists of snakes provided by him for that region contain five species of *Dipsas*: *D. indica* Laurenti, 1768, *D. catesbyi* (Sentzen, 1796), *D. pavonina* Schlegel, 1837, *D. variegata* (Duméril, Bibron and Duméril, 1854), and *D. copei* (Günther, 1872). Comparing the original description of *D. incerta* (Jan, 1863) and the picture of Jan and Sordelli (1870) with the currently known species of *Dipsas* from Guianan region, we intend to evaluate its taxonomic status. *Dipsas incerta* cannot be associated with *D. indica*, *D. catesbyi* and *D. pavonina* because these taxa have 13 dorsal scales rows and a somewhat different colour pattern. We examined two specimens of *D. variegata* (IB 42903 and IB 56146), respectively from Porto Velho, State of Rondônia, and from Teles Pires River, Sinop, State of Mato Grosso, Brazil. Based on our observations and on data from Peters (1960) we find that *D. variegata* generally has two pairs of infralabials in contact behind the symphisial [one specimen examined by Peters (1960) has a single pair in contact], and no preocular scales [Peters (1960) found one specimen with one preocular]; both characters disagree with available data for *D. incerta*. Furthermore, *D. variegata* shows a colour pattern that differs from the illustration of Jan and Sordelli (1870). Dorsal blotches in *D. variegata* extend onto the lateral edges of ventral scales (see Peters, 1960), whereas this condition is absent in *D. incerta* according to Jan and Sordelli (1870). The examination of the holotype and a second specimen of *D. copei* (Günther, 1872), in addition to data from Peters (1960) and Vidal et al. (1999), suggest that among the species occurring in French Guiana this is the one that best matches the original description of *D. incerta* and Jan and Sordelli (1870). Both taxa have 15 dorsal scales rows, two preoculars, first pair of infralabials in contact behind symphisial, and three pairs of genials. The illustration of *D. incerta* (fig. 4) shows 9 supralabials, while the known specimens of *D. copei* show 10 or 11. Considering that *D. incerta* is known only from this illustration and *D. copei* is poorly represented in collections, the difference in the number of supralabials can be interpreted as an intraspecific variation that is commonly found in other dipsadine snakes (e.g. *Sibynomorphus* and other species of *Dipsas*). Comparing the colour pattern of the holotype of *D. copei* (fig. 5), data from Peters (1960) and the photographs of Vidal et al. (1999) with the illustration of *D. incerta* provided by Jan and Sordelli (1870) (fig. 4), we found a large degree of similarity between these specimens. Considering the arguments above, we therefore propose the synonymization of *Leptognathus copei* Günther, 1872 with *Leptognathus incertus* Jan, 1863, in the combination *Dipsas incerta* (Jan, 1863).

#### *Designation of the neotype for Leptognathus incertus Jan, 1863*

The type specimen of *Leptognathus incertus* Jan, 1863 (= *Dipsas incerta*) was destroyed during the Second World War (Giorgio Chiozzi, pers. comm.). In the interest of stabilizing



**Figure 4.** Illustration of *Leptognathus incertus*, from the original plate of Jan and Sordelli (1870).

the nomenclature of this species we here designate and redescribe the holotype of *Leptognathus copei* Günther, 1872 (BMNH 1946.1.21.4 formerly 66.8.14.329) as the neotype of *L. incertus* Jan, 1863.

#### *Dipsas incerta* (Jan, 1863) (fig. 5)

*Leptognathus incertus* Jan, 1863

*Leptognathus copei* Günther, 1872 nov. syn.

*Cochliophagus incertus* — von Ihering, 1911

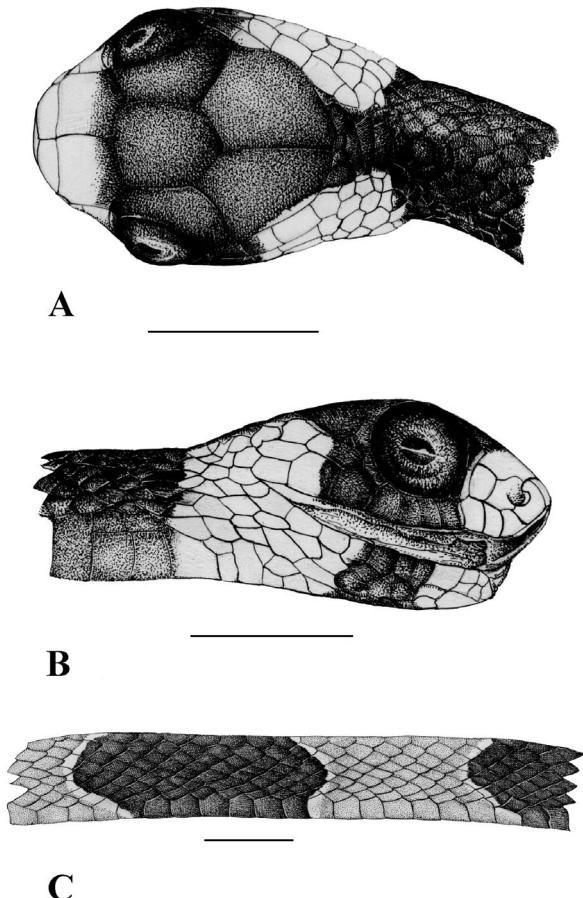
*S. [ibynomorphus] incertus* — Amaral, 1923

*Dipsas incerta* — Parker, 1935

*Neotype.* (BMNH 1946.1.21.4 formerly 66.8.14.329), adult male, SVL 435 mm, TL 215 mm, obtained from the collection of Dr. Van Lidth de Jeude, Surinam.

*Description of neotype.* Rostral visible from above, twice as broad as high; internasals less than half the length of the prefrontals, which do not enter the orbit; frontal longer than broad; parietals longer than wide; nasal divided; 2 preoculars; 1 loreal higher than long and not entering the orbit; 1 (left side) or 2 (right side) postoculars; temporal formula 1 + 2; 11 supralabials, fifth to seventh enter the orbit (left side) or 10, fourth to seventh enter the orbit; 10 infralabials, a single pair in contact behind the symphysis, five pairs contact the first pair of genials, fifth and sixth pairs contact the second pair of genials; three pairs of genials; 15 dorsal scales rows, smooth, without reduction; vertebral row hardly twice as large as adjacent scales; 217 ventrals; 137 subcaudals; anal plate entire.

*Colour in preservative of neotype.* Head with a grayish-white blotch which dorsally covers the rostral, internasals, and anterior edge of prefrontals; laterally extending over the nasals, loreals, preoculars, and first three pairs of supralabials; the blotch extends to the



**Figure 5.** *Dipsas incerta* (BMNH 66.8.14.329, neotype). (A) dorsal and (B) lateral views of head; (C) lateral midbody view (scale = 5 mm).

ventral surface covering the symphisial, the three first pairs of infralabials, and half of the first pair of genials; a brown band from the posterior edge of prefrontals until the parietals; laterally extending through the eyes and continuing across the chin; behind the parietals this band becomes narrower and contacts the first dorsal blotch; temporal region with a large grayish-white blotch on each side extending through the chin; dorsal ground color of body light-brown with 15 well-defined, rounded, brown, dorsal blotches surrounded by a thin white border; blotches wider than interspaces eventually contacting the opposite one in the vertebral region and extending across the venter on the anterior third or attaining the paraventral region posteriorly; on the posterior third of the body, rounded brown spots arise among the dorsal blotches; venter ground colour creamish, with some irregular light-brown flecks along the venter; tail with 8 blotches on both sides with the same pattern as on body.

**Variation.** [( $n = 4$ ) considering data from Peters (1960) and Vidal et al. (1999)]. Largest specimen 505 mm SVL, 240 mm TL. Ventrals 211-232 ( $\bar{x} = 219.8$ ;  $s = 8.85$ ;  $n = 4$ ); subcaudals 134-137 ( $\bar{x} = 136$ ;  $s = 1.73$ ;  $n = 3$ ); temporal formula 1 + 2 ( $n = 6$  sides) or 1 + 3 ( $n = 2$  sides); supralabials 10 or 11; the fourth up to seventh touching the orbit; infralabials 10-12, up to fifth touching the first pair of genials; fifth up to seventh touching the second pair of genials; number of dorsal blotches along the body 14-17 ( $\bar{x} = 15.5$ ;  $s = 2.12$ ;  $n = 2$ ); number of caudal blotches 8 ( $n = 2$ ); size of dorsal blotches on midbody 5-8 dorsal scales ( $\bar{x} = 6.5$ ;  $s = 2.12$ ;  $n = 2$ ); size of interspaces 7-8 ( $\bar{x} = 7.5$ ;  $s = 0.71$ ;  $n = 2$ ).

**Distribution.** Known from French Guiana, Surinam, Guiana, and Brazilian boundary with Venezuela (fig. 3).

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## Appendix

### Specimens Examined

*Dipsas alternans*: **BRAZIL**: Espírito Santo: Baixo Guandu (IB 9280). Minas Gerais: Caratinga (IB 306 holotype of *Sibynomorphus barbouri*). Rio de Janeiro: Getúlio Vargas, Municipality of Volta Redonda (IB 8944); Ilha Grande, Angra dos Reis (MNRJ 8060); Lídice, Rio Claro (IB 7664); Petrópolis (IB 16699); Parque Nacional da Serra dos Órgãos, Teresópolis (IB 10412-13); Teresópolis (IB 41056). São Paulo: Juquitiba (IB 64465 neotype of *Leptognathus alternans*); Apiaí (IB 9301, IB 24684); Biritiba Mirim (IB 33794); Boraceia (MZUSP 8833); Capão Bonito (IB 27897, IB 32871); Caraguatatuba (IB 29359); Eldorado (IB 311640); Guapiara (IB 34368, IB 34373, IB 34377); Juquiá (IB 42613); Leme (IB 8603); Mogi das Cruzes (IB 4571, IB 4806); Paranapiacaba (MZUSP 1575); Registro (IB 41142); Salesópolis (IB 44000); State of São Paulo (IB 2733); Sete Barras (IB 46534); Tapiraí (IB 57120). Paraná: Curitiba (IB 4752, IB 18051); Antonina (IB 24887); Cornélio Procópio (IB 9254); Rolândia (IB 17766); São João da Graciosa (MZUSP 7339). Santa Catarina: Blumenau (IB 5307); Corupá (MZUSP 1574; MZUSP 1576 [holotype of *Sibynomorphus garbei*], IB 6973, IB 8173, IB 8453, IB 8849, IB 8897-98, IB 9291, IB 9689); Jaraguá do Sul (IB 5513, IB 6787, IB 7117, IB 7191, IB 7460, IB 8063, IB 8818, IB 9446, IB 21950-51); Joinville (IB 22823, IB 22889, IB 30566, IB 34162, IB 46542); Mafra (IB 8272); São Bento do Sul (IB 8602); Serra Alta (IB 41269); Rio do Campo (IB 49151). Rio Grande do Sul: Caxias do Sul (IB 15770); Torres (IB 11024).

*Dipsas variegata*: **BRAZIL**: Mato Grosso: Teles Pires River, Municipality of Sinop (IB 56146). Rondônia: Porto Velho: (IB 56146).

*Dipsas incerta*: **SURINAM**: (BMNH 1946.1.21.4 formerly 66.8.14.329, holotype of *D. copei* and neotype of *D. incerta*). **BRAZIL**: Marco da Fronteira Brazil-Venezuela [BV8] (MZUSP 8572).

*Literature Records*

*Dipsas alternans*: **BRAZIL**: *Espírito Santo*: Porto Cachoeiro, currently Cachoeiro de Santa Leopoldina (Ihering, 1911); Santa Teresa (Peters, 1960). *São Paulo*: Alto da Serra (Peters, 1960); São José dos Campos (Boulenger, 1896).

*Dipsas incerta*: **FRENCH GUIANA**: *Maroni*: Saint Laurent; *Organabo*: Km 193 of the Saint Laurent-Cayenne road (Vidal *et al.*, 1999). **GUYANA**: *Georgetown* (Peters, 1960).