

NOTES ON *Xenopholis* PETERS AND *Paroxyrhopus* SCHENKEL* (Serpentes: Colubridae)

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ABSTRACT — The genus *Paroxyrhopus* Schenkel is considered as a synonym of *Xenopholis* Peters.

The species *reticulatus* is considered as a synonym of *undulatus*.

UNITERMS — *Paroxyrhopus* Schenkel, 1902. *Paroxyrhopus reticulatus* Schenkel, 1902. *Xenopholis* Peters, 1869. *enopholis scalaris* (Wucherer) 1861. *Xenopholis undulatus* (Jensen) 1900.

Recently the collection of additional specimens of *Paroxyrhopus undulatus* (auct.), gave us the opportunity to give additional informations on the systematic position of the genus and the species.

In 1900, Jensen (:106), described *Oxyrhopus undulatus*, based on a specimen from Lagoa Santa, Minas Gerais, Brazil.

In 1902, Schenkel (:168), described a new species and genus *Paroxyrhopus reticulatus*, based on a specimen collected at Bemalcue, Paraguay. Schenkel called attention to the fact that *Paroxyrhopus* may be a synonym of *Xenopholis* Peters: "Since both have a peculiar form of the neural spine of the vertebrae, expanded laterally above, forming a shield which is quite rough and divided by a median groove; the number of maxillary teeth and other characters". He only decided to describe the new genus, because of the separated prefrontals; two nasals and presence of hypapophyses on posterior vertebrae.

In 1913, Werner (:30) described *Oxyrhopus latifrontalis*, based on a specimen from eastern part of the state of Minas Gerais, Brazil.

In 1923, Amaral (:90) described *Paroxyrhopus atropurpureus*, based on a specimen from Nova Baden, Minas Gerais, Brazil, and other two specimens, also from Minas Gerais, Brazil. Amaral distinguished his species from *P. reticulatus* by: "*Paroxyrhopus atropurpureus* can be distinguished from *P. reticulatus*, by its physiognomy and general color, and by having an entire nasal, two postoculars and supraocular not turned downwards behind the orbit".

In 1926, Amaral (:18) redescribed and published drawing of *Paroxyrhopus atropurpureus*.

In 1929, Amaral (:208), put his *P. atropurpureus* in the synonymy of *Paroxyrhopus latifrontalis*, maintaining *Paroxyrhopus reticulatus* Schenkel as a valid species.

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In 1970, Bailey, in Peters & Orejas-Miranda (:238) has pointed out, *Oxyrhopus undulatus* as a prior name for *Paroxyrhopus latifrontalis* (auct.)

Peters & Orejas-Miranda l.c. maintain *P. reticulatus* and *P. undulatus* as distinct species, although Bailey thinks that the two species are not distinguishable.

Peters & Orejas-Miranda give the following key:

- "1 — Two postoculars; supraocular not turned down behind orbit; unicolor dorsally, sides variegated with small spots or reddish color *undulatus*
One postocular; supraocular has downward projecting extension behind orbit; dorsum with large brownish-black spots *reticulatus*"

Recently we had opportunity to collect more five specimens of *Paroxyrhopus* from Mato Grosso and São Paulo; together with the specimens already in the collection of IB, we have now 20 specimens; one of the specimens: IB — 10.276, a female from Pedra do Sino, Minas Gerais, presents: 1 postocular; the supraocular with downward projection extension behind the orbit, wich is typical of *Paroxyrhopus reticulatus* Schenkel (see fig. 12 through 14) the coloration and pattern is identical of the one given for *Paroxyrhopus undulatus* Jensen.

We see no reason to maintain the two species as distinct. There is no doubt that *Paroxyrhopus* and *Xenopholis*, are closely related as suspected by Schenkel: both have a peculiar form of the neural spine of the vertebrae, expanded laterally above, forming a shield which is quite rugose and divided by a median groove (see fig. 5 through 8), and it's interesting to note that in some specimens of *Paroxyrhopus* (from *Xenopholis*, we had only the opportunity to examine two specimens), there is a hole in the quadrate (see fig. 10). Similar dorsal pattern (see fig. 15 and 16).

Xenopholis Peters

- 1869 — *Xenopholis* Peters, Monats. Akad. Wiss. Berlin — 1869:440
1874 — *Gerrhosteus* Cope, Proc. Acad. Nat. Sci. Philadelphia — 1774:71
Type species — *Gerrhosteus prosopis* Cope.
1902 — *Paroxyrhopus* Schenkel, Verh. Naturforsch. Ges. Basel, 13:168
Type species — *Paroxyrhopus reticulatus* Schenkel.
1925 — *Sympeltophis* Werner, Sitzb. Nath. — Naturwiss. Kl. Akad. Wiss. Wien abt. 1, 134:52, fig. 1
Type species — *Sympeltophis ungalioides* Werner
Type species — *Xenopholis Braconnieri* Peters

Range: Amazonian, Bolivia, Ecuador, Peru and Brazil — Southern Brazil (Minas Gerais, Mato Grosso) and Paraguay.

Xenopholis undulatus (Jensen)

- 1900 — *Oxyrhopus undulatus* Jensen, Vidensk. Medd. Naturhist. Foren. Kjöbenhavn 1899 (1900:106, fig. 2)
- 1902 — *Paroxyrhopus reticulatus* Schenkel, Verh. Naturforsch. Ges. Basel 13:169, fig. 5-5e.
Type locality — Bemalcue, Paraguay
- 1913 — *Oxyrhopus latifrontalis* Werner, Mitt. Naturhist. Mus. Hamburg — 30:30
Type locality — Eastern part of Estado de Minas Gerais, Brazil.
- 1923 — *Paroxyrhopus atropurpureus* Amaral, Proc. New England Zool. Club, 8:90
Type locality — Nova Baden — Brazil
- 1926 — *Paroxyrhopus atropurpureus* Amaral, Arch. Mus. Nac. Rio de Janeiro — 26:112, fig. 1-3 — est. III
- 1929 (1930) — *Paroxyrhopus latifrontalis*; Amaral, Mem. Inst. Butantan — 4:208
- 1970 — *Paroxyrhopus undulatus*; Bailey in Peters & Orejas — Miranda — Cat. Neotrop. Squamata — I — Snakes:238
- 1970 — *Paroxyrhopus reticulatus*; Peters & Orejas — Miranda — Cat. Neotrop. Squamata I — Snakes:238
Type locality: Lagoa Santa, Minas Gerais, Brazil.

Range: Paraguay (type specimen of *P. reticulatus*); Brazil, states of Goiaz, Minas Gerais, Mato Grosso, São Paulo and Paraná.

The occurrence of *Xenopholis undulatus* from Amazonian Colombia, is based in a misidentified specimen.

Rostral slightly broader than deep; slightly visible from above; internasals slightly longer than broad; prefrontals longer than broad; frontal as long as broad, as long as its distance from the tip of the snout, much shorter than the parietals; supraocular, small, sometimes projecting downward the orbit, by a fusion with the upper postocular; nasal entire; loreal twice as long as deep; one preocular, larger than the supraocular, in contact with the frontal; postocular, two (fig. 12), rarely one, by fusion of the upper one, with supraocular, the upper one largest (fig. 13), temporals, 1+2; eight upperlabials, 4th and 5th entering the orbit, sometimes, the 3rd scarcely entering; 8-9 lowerlabials, 4 in contact with the anterior chin shields, which are generally as long as the posterior ones; dorsals in 19/19/17 rows; ventrals: 166-181+1/2; there is no sexual dimorphism in number of ventrals (males 169-178 and females 166-181+1/2); anal entire; subcaudals divided, 35-45, no sexual dimorphism (males 35-45 and females 36-44).

Blackish brown above, with lateral projections, sides variegated with small redish spots (in life) (fig. 15); belly yellowish invading dorso-lateral pattern (fig. 15). Head (fig. 14) blackish brown, upper and lower labials, yellowish.

SPECIMENS EXAMINED:

IB. collection number	Locality
3.003* —	Nova Baden — MG
9.649 —	Pedregulho — SP
10.275 —	Franca — SP
10.276 —	Pedra do Sino — MG
10.325 —	Rio Verde — GO
10.992 —	Barretos — SP
15.508 —	Ouro Fino — MG
17.526 —	Franca — SP
18.936 —	Três Lagoas — MT
21.661 —	Três Lagoas — MT
21.906 —	Três Lagoas — MT
22.216 —	Três Lagoas — MT
23.689 —	Jardinópolis — SP
34.302 —	Araucária — PR
34.574 —	17 Km above the dam of Ilha Solteira-Paraná River — MT
34.575 —	70 Km above the dam of Ilha Solteira-Paraná River — MT
35.296 —	Without locality
35.782 —	20 Km above the dam of Ilha Solteira-Paraná River — SP
35.981 —	14 Km above the dam of Ilha Solteira-Paraná River — MT
36.755 —	1 Km above the dam of Ilha Solteira-Paraná River — MT

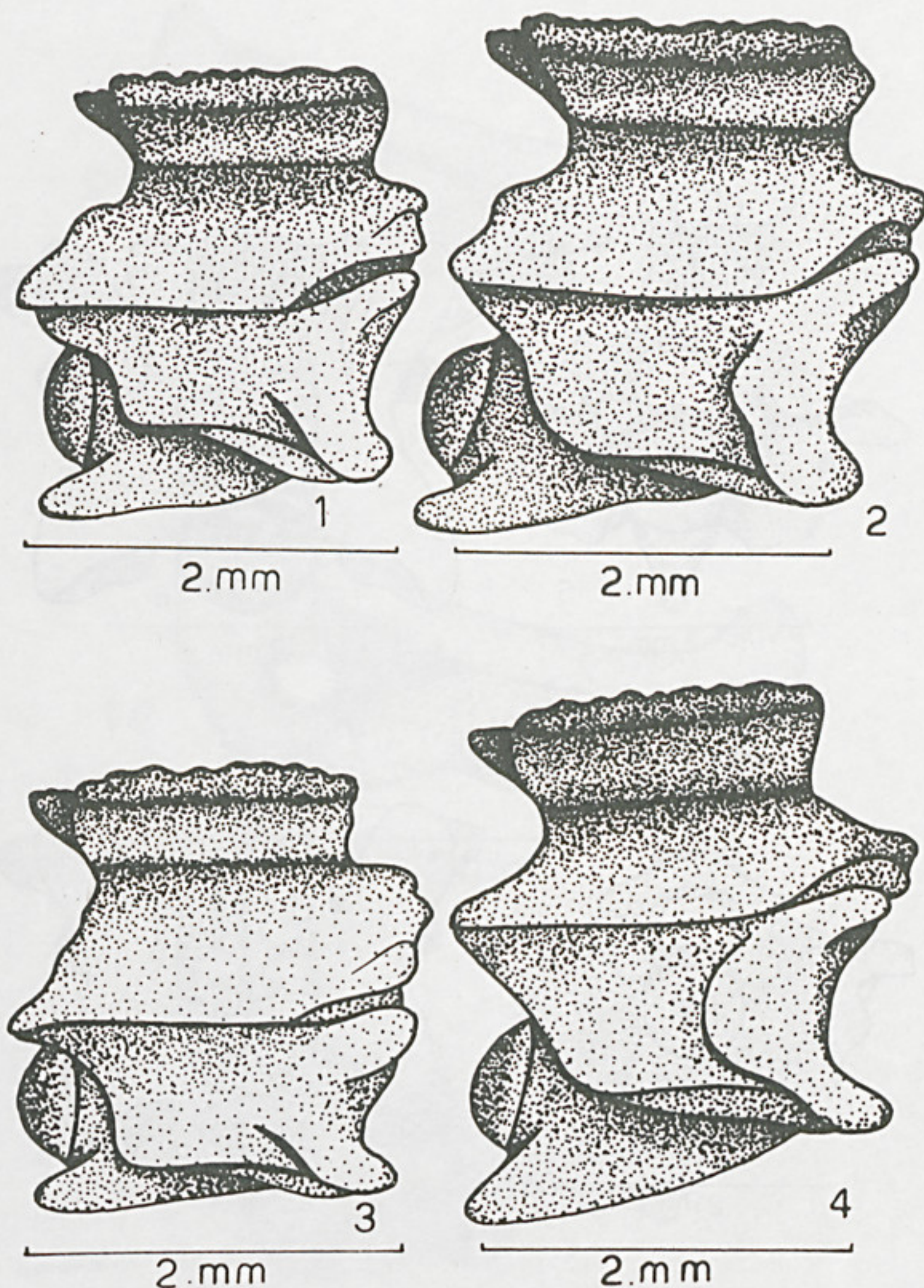
* Type of *Paroxyrhopus atropurpureus* (Amaral)

TABLE I

Paroxyrhopus undulatus

IB. col. n.º	Sex	Ventrals	Sub-caudals	Length in mm		
				Head	Body	Tail
10.325	male	169	39/39	13,0	298	56
15.508	male	174	35/35	14,1	352	54
17.526	male	174	18 + n — CM	9,4	206	17 + n
34.302	male	174	44/44	11,5	223	27
34.574	male	176	44/44	11,5	262	48
34.575	male	172	45/45	11,5	254	47
35.782	male	178	40/40	10,0	199	31
35.981	male	175	30 + n — CM	14,4	372	49 + n
9.649	female	175	38/38	13,0	335	54
10.275	female	175	38/38	14,3	359	60
10.992	female	173	40/40	12,3	336	55
23.689	female	176	36/36	12,5	320	50
10.276	female	176	44/44	12,2	318	57
18.936	female	174	40/40	13,8	354	58
21.661	female	173	38/38	12,6	325	51
21.906	female	166	41/41	9,2	173	29
22.216	female	172	36/36	12,7	343	56
36.755	female	175	36/36	13,6	329	46
35.294	female	180	44/44	11,1	255	43
3.003*	male	181 + 1/2	40/40	13,9	364	62

* Type of *Paroxyrhopus atropurpureus* (Amaral)



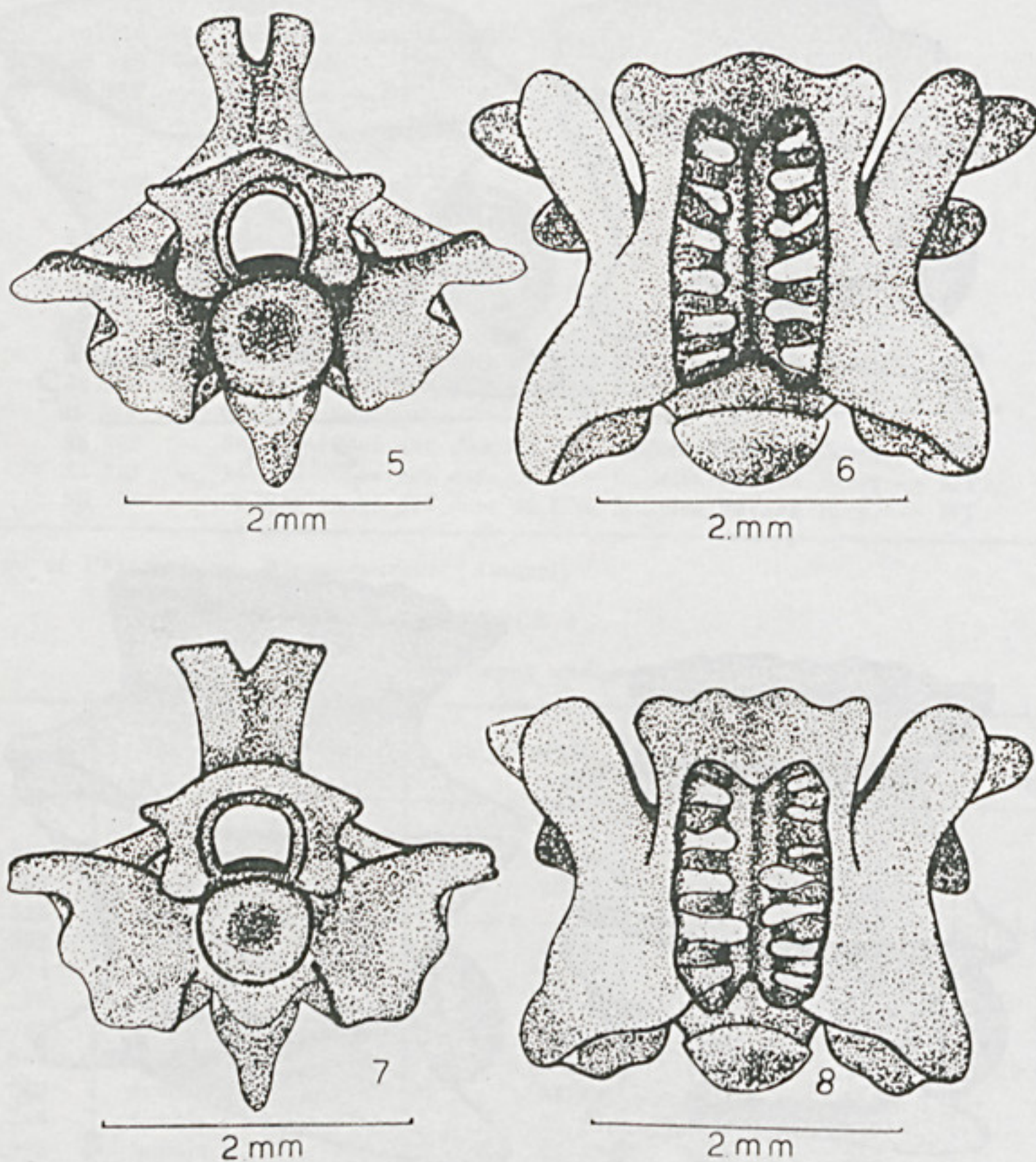
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Fig. 1 — *Xenopholis undulatus* — IB. 18.936 — vertebrae — lateral view-posterior third of the body

Fig. 2 — *Xenopholis undulatus* — IB. 18.936 — vertebrae — lateral view-mid-body

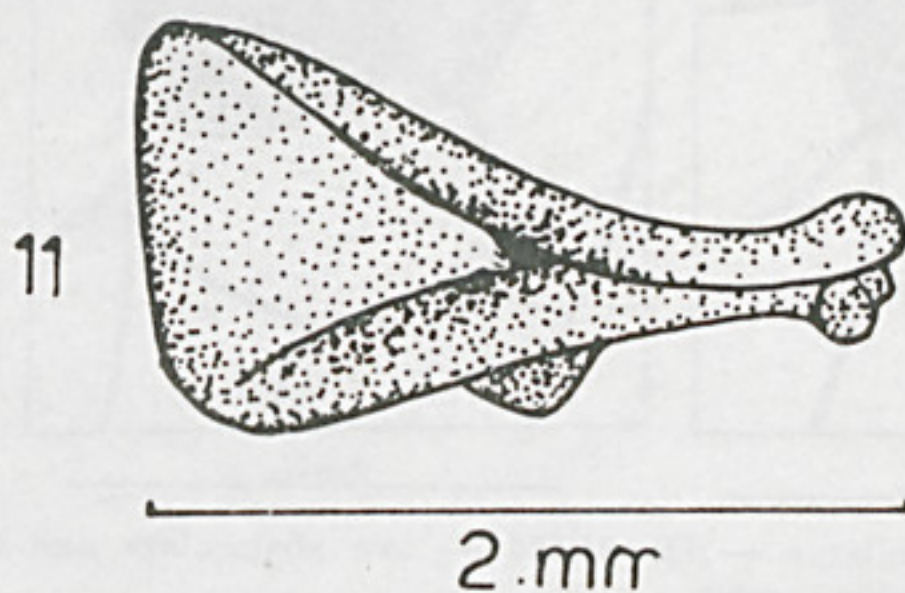
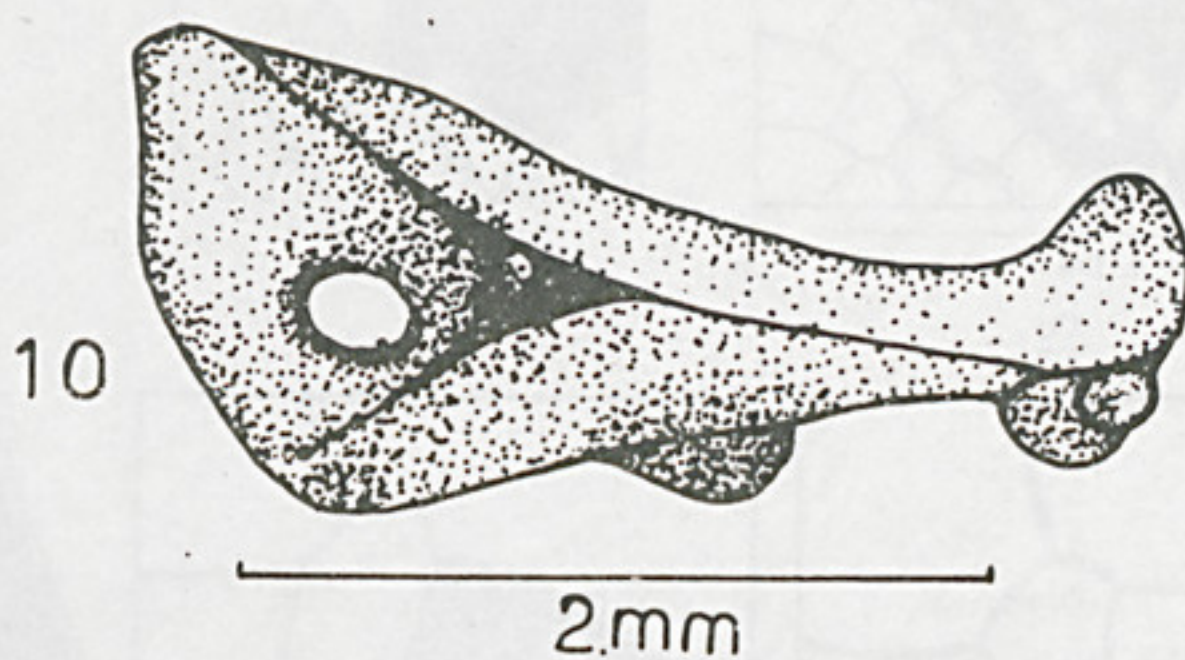
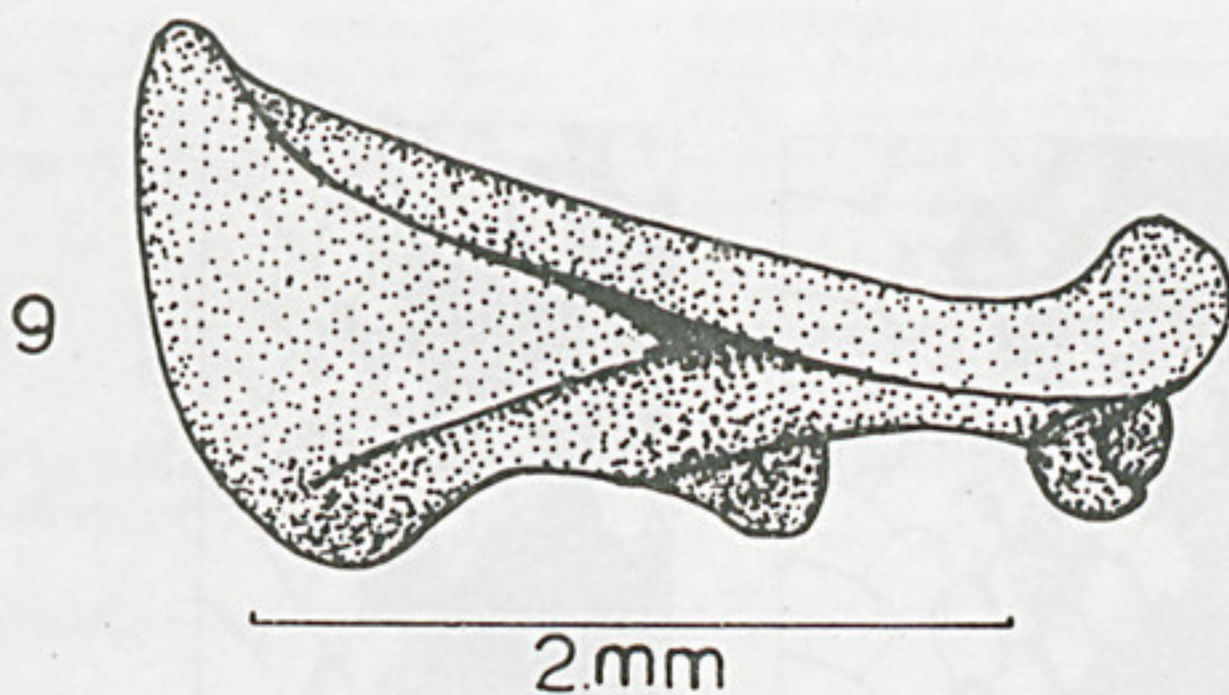
Fig. 3 — *Xenopholis scalaris* — IB. 21.129 — vertebrae lateral view-posterior third of the body

Fig. 4 — *Xenopholis scalaris* — IB. 21.129 — vertebrae — lateral view-mid-body



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Fig. 5 — *Xenopholis undulatus* — IB. 18.936 — vertebrae — frontal view-mid-body
 Fig. 6 — *Xenopholis undulatus* — IB. 18.936 — vertebrae — dorsal view-mid-body
 Fig. 7 — *Xenopholis scalaris* — IB. 21.129 — vertebrae — frontal view-mid-body
 Fig. 8 — *Xenopholis scalaris* — IB. 21.129 — vertebrae — dorsal view-mid-body



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Fig. 9 — *Xenopholis undulatus* — IB. 21.661 — quadrate

Fig. 10 — *Xenopholis undulatus* — IB. 18.936 — quadrate

Fig. 11 — *Xenopholis scalaris* — IB. 21.129 — quadrate

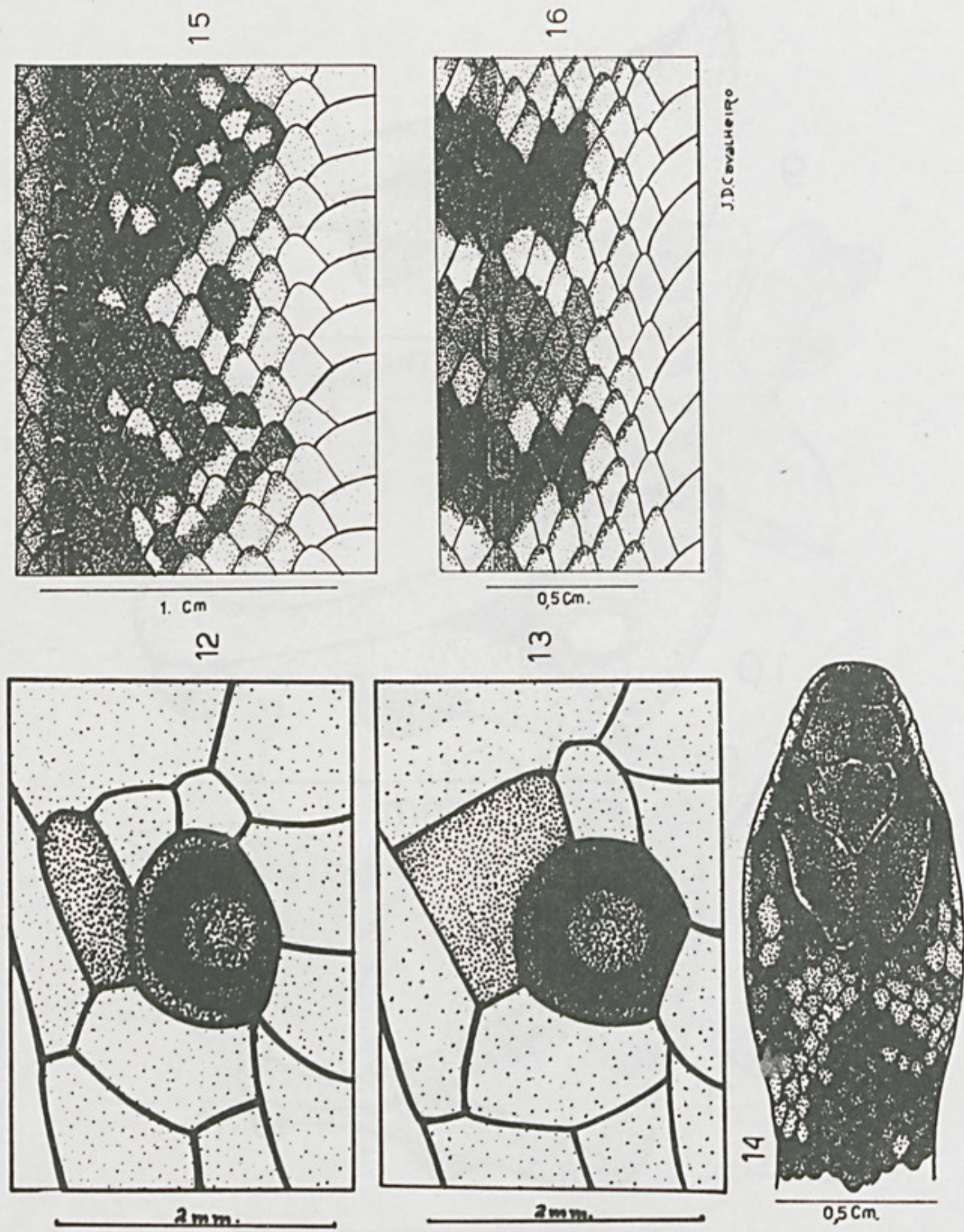


Fig. 12 — *Xenopholis undulatus* — IB. 34.574 — two postoculars and the supraocular not turned down behind orbit.
Fig. 13 — *Xenopholis undulatus* — IB. 10.276 — One postocular and supraocular has downward projecting extension behind orbit.
Fig. 14 — *Xenopholis undulatus* — IB. 34.574 — dorsal view of the head
Fig. 15 — *Xenopholis undulatus* — IB. 34.574 — Dorso-lateral pattern
Fig. 16 — *Xenopholis scalaris* — IB. 21.129 — Dorso-lateral pattern

HOGGE, A. R. & FEDERSONI JR., P. A. — Notes on *Xenopholis* Peters and *Paroxyrhopus* Schenkel (Serpentes Colubridae).

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RESUMO — O gênero *Paroxyrhopus* Schenkel é considerado sinônimo de *Xenopholis* Peters. A espécie *reticulatus* é considerada sinônimo de *undulatus*.

UNITERMOS — *Paroxyrhopus* Schenkel, 1902; *Paroxyrhopus reticulatus* Schenkel, 1902; *Xenopholis* Peters, 1869; *Xenopholis scalaris* (Wucherer) 1861; *Xenopholis undulatus* (Jensen) 1900.

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