The Malayan species of *Boysidia, Paraboysidia, Hypselostoma* and *Gyliotrachela* (Gastropoda, Pulmonata, Vertiginidae) with a catalogue of all the species hitherto described

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In 1947 the Director of the Raffles Museum at Singapore, Mr. M. W. F. Tweedie, invited me to study two families of minute landshells from Malaya which had been collected by him in the years 1935 and onwards on limestone hills in central and northern Malaya (fig. 1).

Some notes containing field observations of the localities, and remarks and hints on the technique of collecting and preserving have been published by Mr. Tweedie in The Malayan Nature Journal, Vol. 2, No. 2, 1947.

A publication on the representatives of the genus *Diplommatina* of the same survey by F. F. Laidlaw has recently appeared (Bull. Raffles Mus. No. 19, 1949).

In the present paper four genera of Vertiginidae are treated. The Cochlostomatidae (genus *Opisthostoma*) will follow in a later publication.

Boysidia, Paraboysidia, Hypselostoma and *Gyliotrachela* were classified by Pilsbry (Man. of Conch. (2) Vol. 24, 1917) in the subfamily Gastrocoptinae of the Pupillidae. To *Paraboysidia* he assigned the rank of a subgenus only, but it is to *Boysidia* as *Gyliotrachela* is to *Hypselostoma*. Therefore I have placed it on the same taxonomic level as the other three genera.

Thiele in his Handbuch der systematischen Weichtierkunde (Vol. I, Part 1, 1931) in general adopted Pilsbry's classification for the mutual relationships of the genera, but he placed them in the subfamily Chondrininae of the Vertiginidae.

All authors who have been dealing with the four genera agree that their characters are interlacing so that a strict separation cannot always be maintained. For practical purposes, however, it is expedient to follow Pilsbry's arrangement, with two slight emendations: that *Paraboysidia* be given the same status as the other three genera, and that the generic name *Gyliauchen* Pilsbry, 1917, (non *Gyliauchen* Nicoll, 1915, Vermes) be replaced by *Gyliotrachela* Tomlin, 1930.

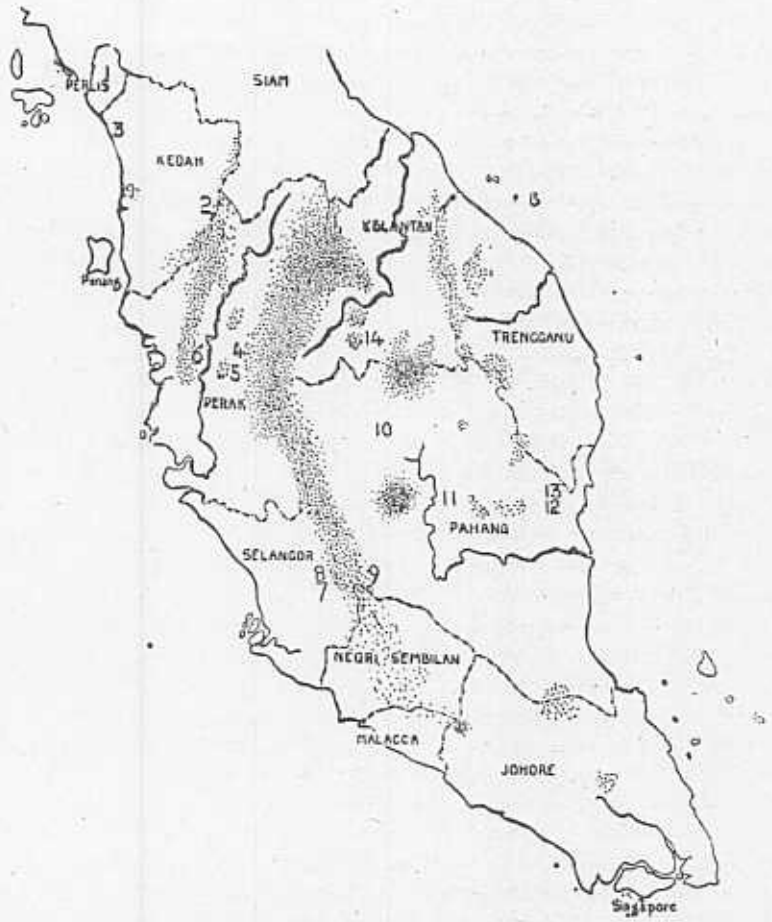

Fig. 1. Map of the Malay Peninsula showing localities of limestone hills where shells were collected. Stippling indicates mountainous areas. 1, Bukit Chuping; 2, Bukit Baling; 3, Gunong Keriang; 4, Sungei Siput; 5, Kramat Pulai; 6, Gunong Pondok; 7, Batu Caves; 8, Bukit Takun; 9, Bukit Chintamani; 10, Gua Bama; 11, Kota Gelanggi and Kota Tongkat; 12, Bukit Charas and Bukit Panching; 13, Bukit Tenggek; 14, Gua Musang and Batu Tongkat.

The essence of Pilsbry's discussions is summarized in the following diagram:

——	Parietal and angular separate	Parietal and angular concrescent
Last whorl free ..	*Gyliotrachela*	*Hypselostoma*
Last whorl adnate ..	*Paraboysidia*	*Boysidia*

Of the anatomy of the members of our four genera almost nothing is known. Not even a radula could be prepared, as all the shells were collected in dry condition.

For the designation of the mouth armature of the shells I copy here the figure and names which Pilsbry proposed at page vii of his monograph (fig. 2). This terminology will be employed throughout my paper.

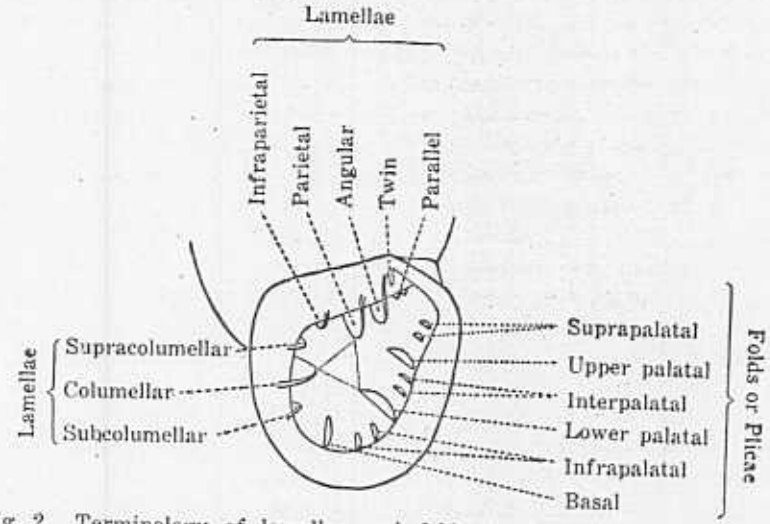

Fig. 2. Terminology of lamellae and folds in the aperture of Pupillid and Vertiginid snails (after Pilsbry, 1917).

Hitherto only one *Paraboysidia*, three *Hypselostoma* and two *Gyliotrachela* have been recorded from Malaya. Mr. Tweedie's energetic collecting has added to the total ten new species and four new subspecies, distributed among all four genera. In addition he collected a lot of information about the natural surroundings of the snails. As a result Malaya is now the best explored country for these genera.

The following table summarises the position, past and present:

	Boysidia	*Paraboysidia*	*Hypselostoma*	*Gyliotrachela*
Already described		*kelantanensis*	*laidlawi* *terae* *piconis*	*hungerfordiana* *depressispira*
New to science	*ringens*	*kel. tenuidentata* *kel. rafflesi* *frequens* *serpa*	*elephas* *megaphonum* *perigyra*	*trans. venusta* *trans. helioscopia* *modesta* *luctans* *emergens* *troglodytes*

All the material was collected on limestone hills and most of the species are very restricted in their distribution, occurring at one site only. Others have been found in two or three, generally adjacent localities, but only two (*Paraboysidia frequens* and *Gyliotrachela hungerfordiana*) are recorded from several places.

Thus the little trumpet shells confirm the view that has been expressed already, that the limestone hills in Malaya, which stand out just like so many "islands" in a landscape composed of geological formations poor in, or entirely devoid, of lime, have, in the course of centuries, each developed their own characteristic, endemic molluscan fauna.

With this in mind it is hardly necessary to add that of the twenty species and subspecies now known in Malaya, not one is recorded from any other region. The unfavourable route for migration of terrestrial animals afforded by the narrow Isthmus of Kra is a factor to be added to the obviously limited powers of dispersal of these molluscs in producing an assemblage of species wholly endemic to the Malay Peninsula.

Below I give a list of all the *localities* with the species found in each of them, and after that a list of the *species* with the stations where they were collected:

List of Localities

PERLIS

1. Bukit Chuping: *G. emergens.*

KEDAH
2. Bukit Baling: *P. serpa, G. hungerfordiana.*
3. Gunong Keriang: *B. ringens.*

PERAK
4. Sungei Siput: *H. piconis.*
5. Kramat Pulai: *P. kel. tenuidentata.*
6. Gunong Pondok: *G. hungerfordiana, G. trans. venusta, G. luctans.*

SELANGOR
7. Batu Caves: *P. frequens, G. hungerfordiana.*
8. Bukit Takun: *P. frequens, H. perigyra, G. hungerfordiana.*

KELANTAN AND PENINSULAR SIAM
9. Biserat Caves: *H. laidlawi.*
10. Gua Musang: *G. modesta.*
11. Batu Tongkat: *P. kel. tenuidentata.*
12. Kelantan (general): *P. kelantanensis kelantanensis.*

PAHANG
13. Bukit Chintamani: *H. terae, G. depressispira, G. hungerfordiana.*
14. Gua Bama: *P. frequens, G. hungerfordiana, G. depressispira, G. troglodytes.*
15. Kota Tongkat: *P. kel. rafflesi, P. frequens, G. trans. helioscopia.*
16. Bukit Charas: *P. frequens, H. megaphonum.*
17. Kota Gelanggi: *P. kel. rafflesi, P. frequens, G. trans. helioscopia.*
18. Bukit Tenggek: *P. frequens, H. elephas.*
19. Bukit Panching: *G. depressispira.*

List of Species

(The numbers indicate the stations as mentioned in the previous list):

Boysidia.
ringens 3.
Paraboysidia.
kel. kelantanensis 12.
kel. tenuidentata 5, 11.
kel. rafflesi 15, 17.
frequens 7, 8, 14, 15, 16, 17, 18.
serpa 2.
Hypselostoma.
laidlawi 9.
terae 13.
piconis 4.
elephas 18.
megaphonum 16.
perigyra 8.
Gyliotrachela.
hungerfordiana 2, 6, 7, 8, 13, 14.
depressispira 13, 14, 19.
transitans venusta 6.
transitans helioscopia 15, 17.
modesta 10.
luctans 6.
emergens 1.
troglodytes 14.

Among the general remarks on "The Mollusca of the Malayan Limestone Hills" (Malayan Nature Journ. Vol. 2, 1947) Mr. Tweedie suggested that the results of the taxonomic investigations might demonstrate a diversity in the composition of the local faunae west and east of the central mountain range in the Malay Peninsula. "The major division is again into east and west, only a few of the smaller species being found on both sides of the main range, and genera being in some cases apparently confined to one side or the other. Not enough collecting has been done for us to be able to say whether the faunas of the thickly scattered "archipelagos" of hills in Perak, Kedah and Perlis on the one hand and Kelantan on the other are uniform or to some extent differentiated, but there is no doubt that the isolated hills such as the Batu Caves and Bukit Takun near Kanching in Selangor, and those in Pahang (Gunong Sinyum, Bukit Chintamani, Kota Gelanggi etc.) have highly differentiated faunas, every hill having species peculiar to it. The nearer the hills are to each other the more they have in common, for instance the two Selangor hills, which are only about six miles apart have each only one species which is not found in the other . . . On the other hand some are widely distributed; *Gyliotrachela hungerfordiana* is found everywhere on the limestone hills, east and west of the mountains. Has it some means of distribution denied to most of the others, or is its constitution so rigid that it fails to differentiate even after long periods of isolation? No one can say."

In order to check this premiss I drew up a table of the species of *Boysidia, Paraboysidia, Hypselostoma* and *Gyliotrachela* as occurring west and east of the central mountain range:

West (Perlis, Kedah, Perak, Selangor)	East (Kelantan, Pahang)
B. ringens.	*P. kelantanensis kelantanensis.*
P. kelantanensis tenuidentata.	*P. kel. rafflesi.*
P. frequens.	*P. kel. tenuidentata.*
P. serpa.	*P. frequens.*
H. piconis.	*H. laidlawi.*
H. perigyra.	*H. terae.*
G. hungerfordiana.	*H. elephas.*
G. transitans venusta.	*H. megaphonum.*
G. luctans.	*G. hungerfordiana.*
G. emergens.	*G. depressispira.*
	G. transitans helioscopia.
	G. modesta.
	G. troglodytes.

It is curious to see how Mr. Tweedie's suggestion is

confirmed by the facts: that most of the species have their own territory west or east of the main range and do not step across to the other side. Only the two species *Paraboysidia frequens* and *Gyliotrachela hungerfordiana* are common to both sides. The case of *Paraboysidia kelantanensis tenuidentata* is not yet very clear: in the foregoing list and in the systematic part of my report which is going to follow I have mentioned the subspecies from both sides of the mountains, but the material from the east side (Batu Tongkat, Kelantan) consists of one shell only and is not quite identical with the type and paratype from the west side (Kramat Pulai, Perak).

Measurements throughout are in millimetres; all dimensions given include the peristome except when the contrary is stated.

Boysidia ringens n.sp. Fig. 3.

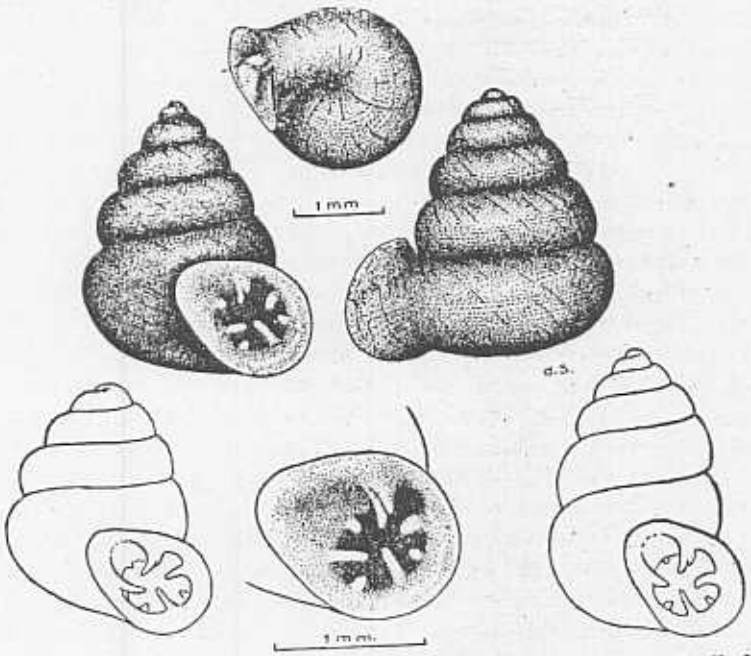

Fig. 3. *Boysidia ringens* nov. spec. Mount Keriang, Kedah. Shell from front, back and base. Aperture with teeth Outline sketches of a low and a high spiral shell. H. G. de Smit del.

Shell small with a moderately high spire and a wide aperture which is not free, but adnate to the penultimate whorl. The first 2–3 whorls are more increasing in breadth, the subsequent ones more in height; hence a mamilliform apex is implanted on a subcylindrical middle part. Reddish-brown, finely striated in

spiral direction, with exception of the first 1½ whorls which are smooth and polished. The spiral sculpture is obliquely crossed by the growth lines. Not transparent. Whorls 6, rounded. Suture rather deep. Umbilicus open, but not wide. Aperture somewhat oblique, widened, containing four large teeth. Parietal and angular lamellae are concrescent. Between the large ones there are three smaller teeth: an interpalatal fold, a basal one and an infraparietal lamella. Peristome continuous, somewhat thickened and broadly expanded, especially on the columellar and parietal side.

Dimensions	Type	Paratypes (high form)							Paratypes (low form)						
Height ..	3.9	3.9	3.8	3.5	3.5	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.1	3.0	3.0
Breadth ..	3.1	3.3	3.1	3.1	3.2	3.1	3.0	3.2	2.9	3.1	2.8	3.1	2.9	3.1	3.0
Height of aperture	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.5

Habitat: Mount Keriang, Kedah, 1939 (type locality) (type and 37 paratypes).

Among the specimens before me there are two types, a high one and a lower one (fig. 3). The holotype belongs to the form with high spirals.

In the more turreted, cylindrical shells the penultimate whorl is somewhat more bulging out in the lateral profile than the ultimate one.

Longitudinal grooves are mostly absent. In some shells weak traces of 2–3 grooves can be observed.

From the related species like *Paraboysidia kelantanensis rafflesi* and *P. k. tenuidentata* the new form differs in having a more elaborate mouth armature and spiral striation. From *Hypselostoma terae* it differs in lacking the peripheral keel of that species, in having an adnate instead of a free peristome part and in having a more developed dentition.

Paraboysidia kelantanensis kelantanensis (Sykes, 1902). Fig. 4.

1902 SYKES, Journ. of Malac., Vol. 9, p. 61, pl. 3, fig. 7 (*Boysidia kelantanense*).

1902 MOELLENDORFF, Nachr. Blatt, Vol. 34, p. 139 (*Boysidia*).

1917 PILSBRY, Man. of Conch. (2), Vol. 24, p. 208, pl. 35, fig. 10–12 (*Boysidia*).

Habitat: Kelantan, 1 sp.

In the author's specimen of *Paraboysidia kel. kelantanensis* before me there is no interpalatal fold, which is in accordance with Pilsbry's figure, but not with Sykes's diagnosis and figure.

Also this specimen has a double lower palatal fold, as indicated in the accompanying figure.

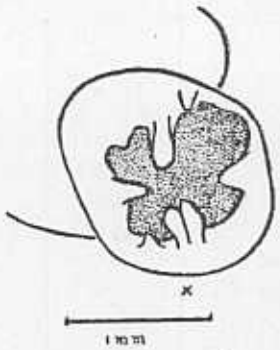

Fig. 4. Aperture of paratype of *Paraboysidia kelantanensis kelantanensis* (Sykes) with double lower palatal fold (x).

Paraboysidia kelantanensis rafflesi nov. subsp. Fig. 5.

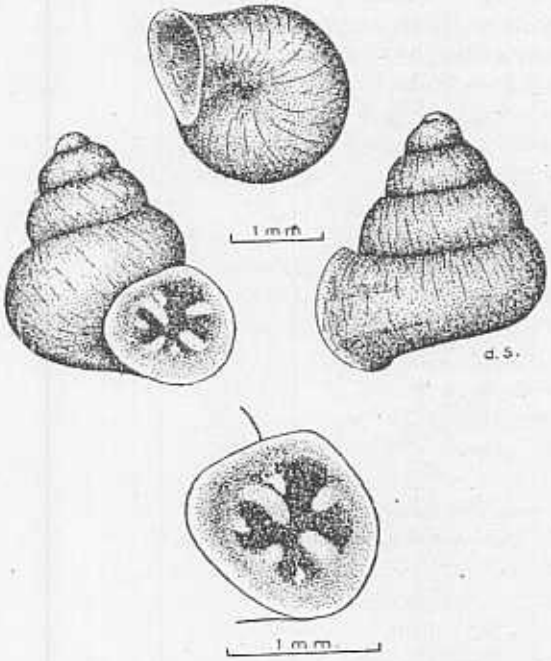

Fig. 5. *Paraboysidia kelantanensis rafflesi* nov. subspec. Kota Tongkat, Pahang. Shell from front, back and base. Aperture with teeth. H. G. de Smit del.

Shell small, with a moderately high spire and a wide aperture which is not free, but adnate to the last whorl. Reddish-brown, some specimens a little more yellowish-brown towards the aperture. First 1½ whorls smooth, polished, the following ones delicately striated with oblique growth-lines. Not transparent. Whorls 4½, entirely rounded. Only in the last 1–1½ mm. of the ultimate whorl before the peristome there are three shallow longitudinal grooves by which this part of the whorl acquires a somewhat quadrangular aspect. Suture deep. Umbilicus open, not wide. Aperture almost vertical, widened, containing 4 large teeth. Angular and parietal lamellae converging interiorly. A small infraparietal and a still smaller basal tooth are present, but no interpalatal. Peristome continuous, somewhat thickened and expanded.

Dimensions	Type	Paratypes						
Height	2.8	2.6	2.6	2.6	2.6	2.5	2.5	2.5
Breadth	2.4	2.6	2.6	2.5	2.5	2.4	2.3	2.1
Height of aperture	1.4	1.3	1.3	1.3	1.3	1.3	1.1	1.1

Habitat:

Kota Tongkat, Pahang, 1947 (type locality) (type and 7 paratypes).

Kota Gelanggi, Pahang, 1947 (3 paratypes).

There is considerable variation in the development of the teeth of the new subspecies. Neither in the holotype (fig. 5), nor in the paratypes is there an interpalatal fold. Of the 7 paratypes in the type sample 2 have a nearly obsolete angular lamella; in three the basal fold and in one the infraparietal lamella is missing.

The shells from Kota Tongkat and Kota Gelanggi come so close to *Paraboysidia kelantanensis kelantanensis* that I consider them as a local form, a geographical subspecies, of the Kelantan form.

Compared with the main form the new subspecies is somewhat more compact, the shell texture is thicker and coarser, the peripheral keel on the last whorl is nearly obsolete, and the lumen of the aperture not so wide, because the somewhat more powerful teeth obstruct it.

From the following new subspecies from Kramat Pulai *P. kel. rafflesi* differs in the more robust build and more numerous and more powerful teeth.

From the related new species *Boysidia ringens* from Mount Keriang *P. kel. rafflesi* differs in the smaller size, the absence of spiral striae and the less developed mouth armature.

Paraboysidia kelantanensis tenuidentata nov. subsp. Fig. 6.

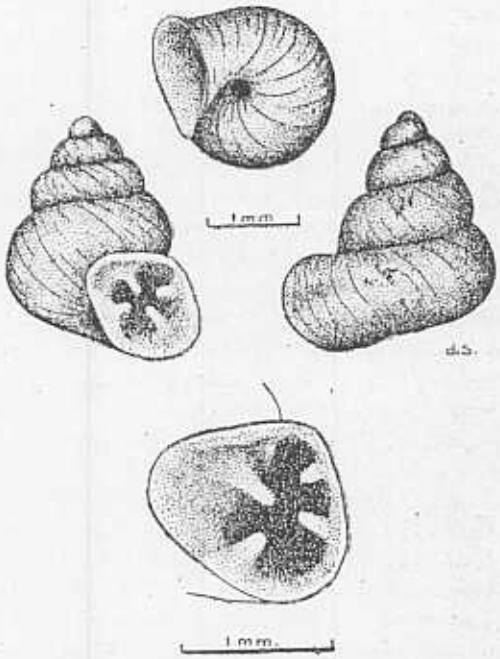

Fig. 6. *Paraboysidia kelantanensis tenuidentata* nov. subspec. Kramat Pulai, Perak. Shell from front, back and base. Aperture with teeth. H. G. de Smit del.

Shell small, with a moderately high spire and a wide aperture which is not free, but adnate to the last whorl. Warm brown, somewhat transparent. First 1½ whorls smooth, polished, the following ones delicately striated with oblique growth lines. Whorls 4½, entirely rounded. Only in the last 1–1½ mm. of the ultimate whorl before the peristome there are three shallow longitudinal grooves by which this part of the whorl acquires a somewhat quadrangular character. Suture deep. Umbilicus open, but not wide. Aperture almost vertical, widened, containing 4 principal teeth and a small, obsolete angular one. Peristome continuous, somewhat thickened and expanded.

Dimensions	Type	Paratype
Height	2.9	2.8
Breadth	2.4	2.3
Height of aperture	1.3	1.3

Habitat: Kramat Pulai, Perak, March 1939 (type locality) (type and 1 paratype).

The two shells come so close to *Paraboysidia kelantanensis kelantanensis* that I consider them as a local form, a geographical subspecies, of the Kelantan form. Compared with the main form the new subspecies differs in having the angular lamella so weakly developed that it is hardly discernable. Besides there are no small teeth between the four principal ones. Another characteristic is the very weak, almost invisible, keel along the periphery of the last whorl.

From the preceding subspecies *P. kel. tenuidentata* differs in the less robust build and the smaller number of weaker teeth.

From the related new species *Boysidia ringens* from Mount Keriang *P. kel. tenuidentata* differs in the smaller size, the absence of spiral striae and the less developed mouth armature.

In the collections of the Singapore Museum there is another little *Paraboysidia*, found at Batu Tongkat, Kelantan, which I am inclined to classify as *P. kel. tenuidentata* too. It is somewhat different from those collected in Perak, because the spira is a little more cylindrical. We must await further material to clear up the relationship.

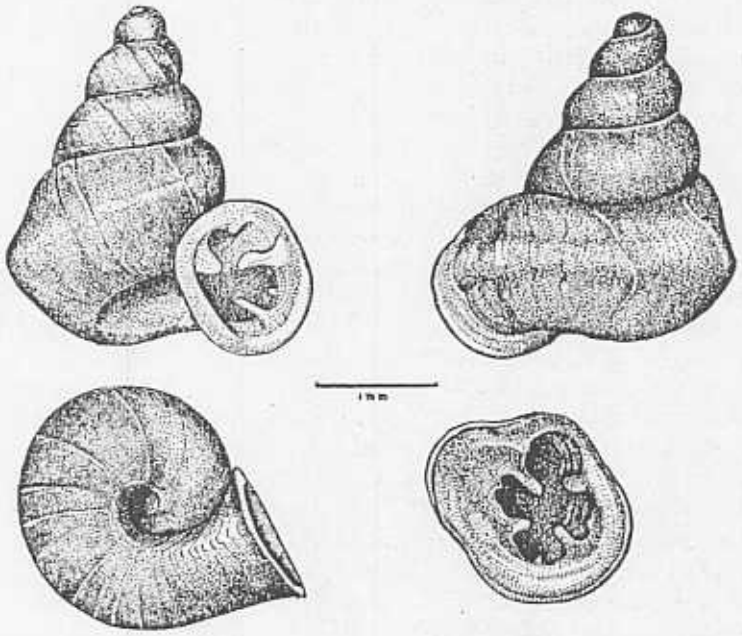

Fig. 7. *Paraboysidia frequens* nov. spec. Kota Tongkat, Pahang. Shell from front, back and base. Aperture with teeth. Oey Hong Peng del.

As I have pointed out already in the introductory remarks of this report *P. kel. tenuidentata* is—together with *Paraboysidia frequens* and *Gyliotrachela hungerfordiana*—the only member of the *Boysidia-Paraboysidia-Hypselostoma-Gyliotrachela* group occurring on both sides of the central mountain range of Malaya.

Paraboysidia frequens nov. spec. Fig. 7.

Shell moderately small, with a conical spire and a wide aperture which is not free but adnate to the preceding whorl. Reddish-brown, not transparent. First 1½ whorls smooth, polished. The subsequent ones striated or weakly ribbed according to the growth lines. There is no spiral striation. Whorls 5, the last one directed straight forward, or somewhat descending towards the aperture. Sides of the whorls rounded, only on the last part of the body-whorl there is an obsolete peripheral keel (weaker than in *Paraboysidia serpa* from Baling, Kedah). A similar keel or angularity encircles the umbilicus. Suture deep. Umbilicus open, but not wide. Aperture vertical, or a little oblique, with parietal and angular lamellae separated. Columellar, upper and lower palatal teeth large, infraparietal, basal and interpalatal ones small. Peristome continuous, thickened, broadly expanded.

Dimensions	Type	Paratypes													
Height ..	3.0	3.5	3.1	3.1	3.0	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Breadth ..	2.4	2.6	2.5	2.5	2.5	2.6	2.6	2.5	2.6	2.5	2.4	2.6	2.6	2.5	2.5
Height of aperture	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.2	1.4	1.3	1.2	1.2

Habitat:

Kota Tongkat, Pahang, 1947 (type locality) (type and 72 paratypes).
Bukit Charas, near Kuantan, Pahang, 1947 (38 paratypes).
Kota Gelanggi, Pahang, 1947 (63 paratypes).
Gua Bama, Pahang, Sept. 1941 (1 paratype).
Bukit Tenggek, Pahang, 1947 (3 paratypes).
Batu Caves, Selangor, April 1939 (2 paratypes).
Bukit Takun, Kanching, Selangor, March 1939 (29 paratypes).

The new *Paraboysidia* is closely related to *Paraboysidia serpa* n.sp. from Baling, Kedah, but it has a more slender spire, a weaker keel on the last whorl, a narrower base and narrower umbilicus. From *Hypselostoma terae* and *H. modesta* n.sp. it differs in having an adnate peristome and a broader and plumper general appearance. Besides these two *Hypselostoma* have a different mouth armature.

Paraboysidia serpa nov. spec. Fig. 8.

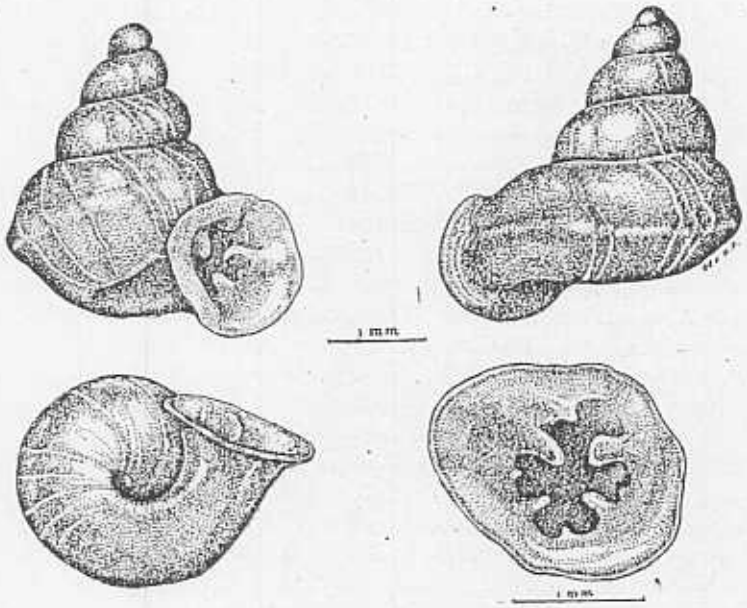

Fig. 8. *Paraboysidia serpa* nov. spec. Baling, Kedah. Shell from front, back and base. Aperture with teeth. Oey Hong Peng del.

Shell moderately small, with a conical spire on a rather broad base and a wide aperture which is not free, but adnate to the preceding whorl. Reddish-brown. Not transparent. First 1½ whorls smooth, polished, the subsequent ones striated or weakly ribbed according to the growth lines. There is no spiral striation. Whorls 5, the last one ending straight, or somewhat descending, but never ascending. Sides of the whorls rounded, only on the last one there is a conspicuous, but not sharp, longitudinal peripheral keel. A similar keel encircles the umbilicus. Suture rather deep. Umbilicus open, rather wide. Aperture wide, with angular and parietal lamellae separate. Columellar, upper and lower palatal teeth large, infraparietal, basal and interpalatal ones small. Peristome continuous, thickened and broadly expanded.

Dimensions	Type	Paratypes													
Height ..	3.0	3.4	3.2	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9
Breadth ..	2.9	2.9	2.9	3.1	2.8	2.8	2.7	3.1	3.1	2.9	2.9	2.6	2.6	2.8	2.9
Height of aperture	1.5	1.5	1.5	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.4

Habitat: Baling, Kedah, December 1938 (type locality) (type and 46 paratypes).

The new *Paraboysidia* somewhat resembles *Gyliotrachela modesta* in form, but this latter species has the last part of the whorl free, and its mouth armature is less developed. On the other hand *P. serpa* is closely related to *P. frequens*, but *frequens* has a more slender spire, a narrower base and narrower umbilicus, while the peripheral keel is weaker.

Hypselostoma laidlawi Collinge. Fig. 9.

1902 COLLINGE, Journ. of Malac., Vol. 9, p. 83, pl. 5, fig. 29, 30.
1917 PILSBRY, Man. of Conch. (2), Vol. 24, p. 181, pl. 31, fig. 14–15.

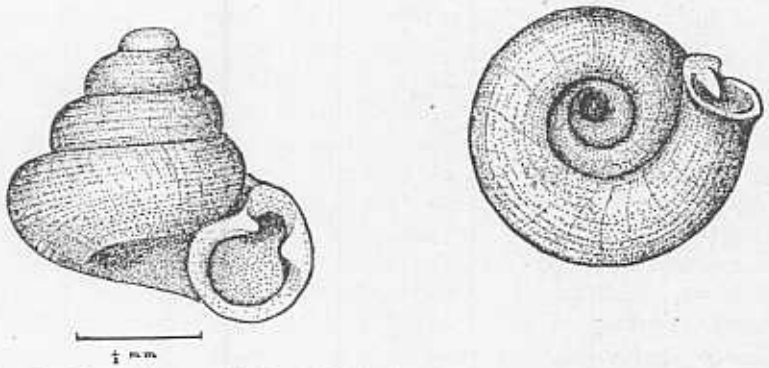

Fig. 9. *Hypselostoma laidlawi* Collinge. Caves near Biserat, Jalor. Shell from front and base. Author del.

Shell very small, conical, white (perhaps a bleached specimen?), with delicate spiral lines, about 20 visible on the last whorl, and 8 on the penultimate one. This spiral sculpture is crossed by fine growth lines. Not transparent, without lustre (perhaps on account of not too fresh condition?).

Whorls 4½, regularly increasing in size. Profile of each whorl evenly rounded. Suture well impressed. Top blunt, umbilicus wide, showing all previous whorls.

Aperture slightly oblique, provided with 2 teeth only: one parieto-angular lamella and one upper palatal fold. Peristome continuous, somewhat thickened and reflected, almost entirely adnate to the previous whorl.

Dimensions:

Height	1.2
Breadth	1.3
Height of aperture	–.5
Breadth of aperture	–.5

Habitat: Biserat Caves, State of Jalor.

The specimen which I received for examination from the British Museum (Natural History) has only 2 teeth in the aperture. These probably correspond with Collinge's "dorsal" and "ventral" ones. Of the other, smaller, internal teeth which Collinge mentioned there is not the slightest trace in the shell now before me. Whether the two small teeth are present in the type specimen, now preserved in the University Museum of Zoology at Cambridge, will be difficult to ascertain, because the holotype is so badly broken and delicate that an examination could not be allowed.

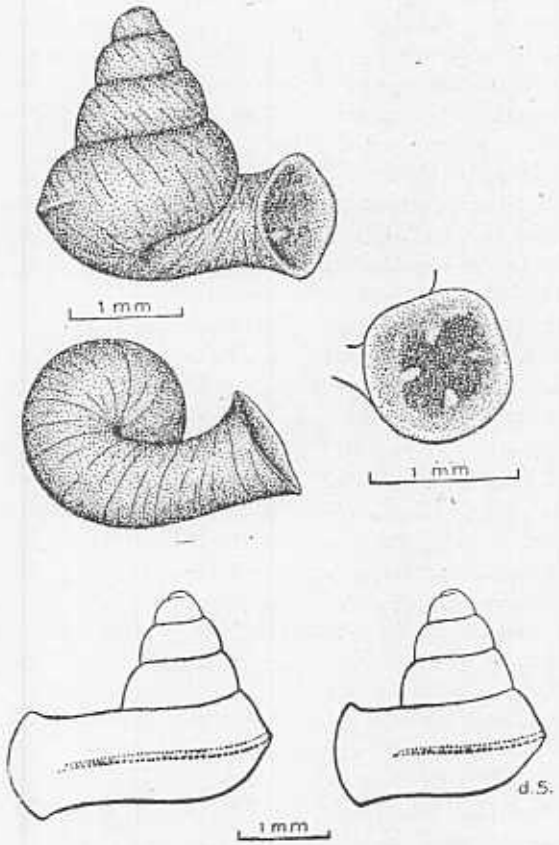

Fig. 10. *Hypselostoma terae* Tomlin. Paratype. Bukit Chintamani, Pahang. Shell from front and base. Aperture with teeth. Outline sketches of a shell with long and with short trumpet. H. G. de Smit del.

I am not quite certain whether the present species is actually a *Hypselostoma*, because it is rather different from the other members of the genus. However, I cannot give a more satisfactory suggestion, and so we will leave it for the present in its original taxonomic state.

Hypselostoma terae Tomlin. Fig. 10.

1939 TOMLIN, Journ. of Conch., Vol. 21, p. 146, pl. 12, fig. 2.
1949 VAN BENTHEM JUTTING, Bull. Raffles Mus. No. 19, p. 59.

Little needs to be added to Tomlin's original description. As his figure was not quite satisfactory a new one is given herewith.

The spire is rather conical, consisting of 4½ whorls before the free part. First 1½ whorls smooth, polished. The others finely striated according to the growth lines. There is no spiral striation. Suture deep. The thread-like keel begins after the 4-th whorl. It is placed almost exactly on the middle of the whorl, and continues on the free trumpet till the aperture. Aperture almost vertical, widened, trumpet-shaped. Peristome somewhat thickened and expanded. There is one parieto-angular lamella, one columellar, one upper and one lower palatal tooth. The upper palatal fold is very weak. The degree of loose-fitting of the last whorl is variable. Sometimes the trumpet is long, sometimes short (fig. 10).

Dimensions										
Height	2.9	2.9	2.9	2.9	2.9	2.8	2.7	2.6	2.6	2.5
Breadth (with peristome) ..	3.1	2.8	2.8	2.7	2.5	2.6	2.3	2.5	2.5	2.3
Breadth (at origin of free part) ..	1.8	1.8	1.7	1.8	1.6	1.7	1.7	1.8	1.7	1.7
Height of aperture	1.1	1.1	1.1	1.2	1.1	0.8	1.2	1.3	1.0	1.2

Habitat: All specimens, those of the original lot and the shells collected at later occasions, come from Bukit Chintamani, Pahang. So far as we know the species is confined to this site.

Hypselostoma megaphonum nov. spec. Fig. 11.

Shell consisting of a moderately conical spire and a free, trumpet-shaped last whorl. Dark reddish-brown, somewhat more yellowish-brown towards the aperture. First 1½ whorls smooth, polished. The others regularly striated with oblique growth lines. There is no spiral striation. Not transparent. Whorls about 5, of which 4¾ are regularly coiled and adnate, and about 1/4 free and projecting. Whorls evenly rounded, suture deep. Last whorl somewhat inflated before the free part begins. The free part itself is narrower, but extends towards the aperture. On the last whorl a peripheral keel makes its

appearance at the end of the fourth whorl. The keel continues on the side of the free part, fading somewhat towards the aperture. Umbilicus almost entirely hidden by the inflated portion of the last whorl. Aperture more or less vertical, widened, trumpet-shaped. Peristome continuous, somewhat thickened and expanded. The mouth contains 4 rather strong teeth, placed cross-wise: one parieto-angular, one upper and one lower palatal, and one columellar.

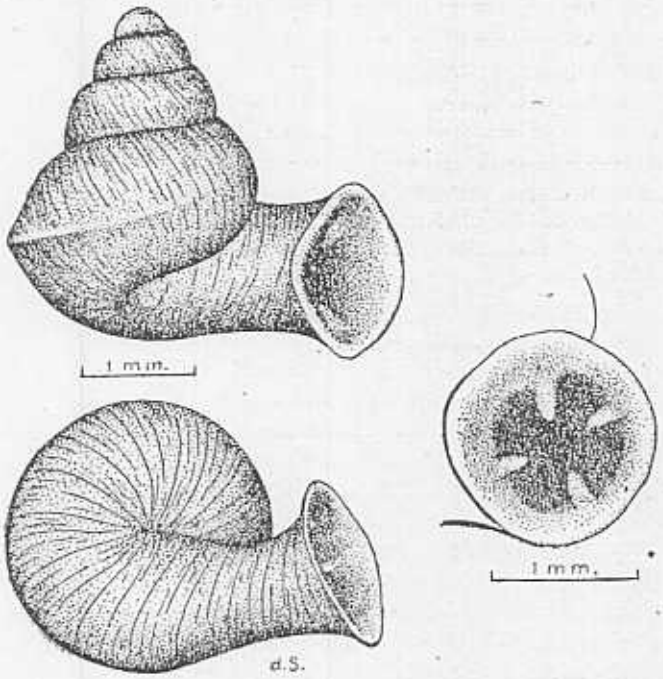

Fig. 11. *Hypselostoma megaphonum* nov. spec. Bukit Charas, Pahang. Shell from side and base. Aperture with teeth. H. G. de Smit del.

Dimensions	Type	Paratypes								
Height	3.6	3.6	3.6	3.4	3.4	3.4	3.3	3.2	3.2	3.2
Breadth (with peristome) ..	3.4	3.5	3.4	3.6	3.4	3.1	3.2	3.3	3.2	3.2
Breadth (at origin of free part) ..	2.3	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.1
Height of aperture	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5

Habitat: Bukit Charas, near Kuantan, Pahang, 1947 (type locality) (type and 30 paratypes).

There is some variation in the development of the lateral keel, in some shells it starts as early as the beginning of the fifth whorl, in others it is only visible on the last part of the body whorl. The number of whorls varies between 4¾ and 5¼, the regular spiral part between 4½ and 5 whorls.

The species is nearest related to *Hypselostoma terae*, but it differs from it in the greater dimensions, the stronger teeth, the inflation in the basal part of the last whorl and the somewhat broader spire (greater top angle).

Hypselostoma elephas n.sp. Fig. 12.

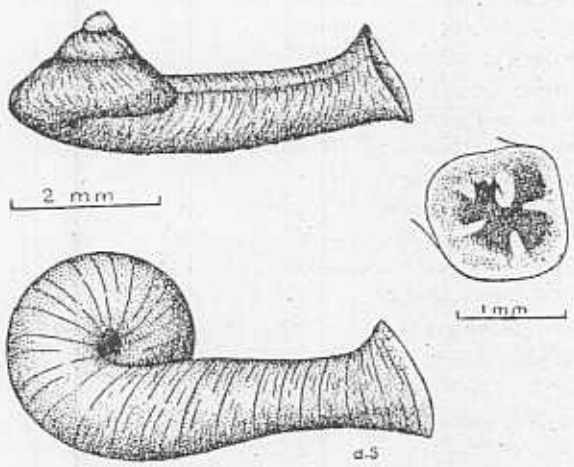

Fig. 12. *Hypselostoma elephas* nov. spec. Bukit Tenggek, Pahang. Shell from side and base. Aperture with teeth. H. G. de Smit del.

Shell consisting of a conical spire and an enormously prolonged and projecting ultimate whorl. Dark reddish-brown, somewhat more yellowish-brown towards the aperture. First 1¼ whorl smooth and polished, the following ones irregularly striated or weakly ribbed with oblique growth lines. Not transparent. Whorls 4½ of which 4 are regularly coiled in spiral direction and about ½ whorl, the last part, straight and projecting. Spire moderately conical, top-angle rather broad. Suture deep. Periphery somewhat angular, but not acute. After about 3½ whorls a shallow longitudinal groove sets in above the periphery. It continues on the free part of the last whorl, ending behind the upper palatal plica. A similar longitudinal groove runs along the dorsal side of the free trumpet, ending behind the parietal-angular lamella. Umbilicus narrow, somewhat hidden behind a slight local inflation of the last whorl, just before the free tube. Free part of the last whorl

narrower than the preceding part. Towards the aperture, however, it expands again. Aperture oblique, armed with four large teeth and a small infraparietal lamella. Parietal and angular lamellae concrescent. Peristome continuous, somewhat thickened and expanded.

Dimensions of unique type

Height	1.95
Breadth at commencement of trumpet	2.5
Length of trumpet (including peristome)	3.3
Breadth of trumpet at its origin	1.4
Breadth of trumpet at its narrowest part	1.0

Habitat: Bukit Tenggek, Pahang, 1947.

This shell differs from all other members of the genus by its remarkably long trumpet, and is certainly a distinct species.

Hypselostoma piconis van Benthem Jutting. Fig. 13.

1949 VAN BENTHEM JUTTING, Bull. Raffles Mus. No. 19, p. 59, pl. 2.

Habitat: Sungei Siput, Perak, 2 specimens.

I have nothing to add to the above-mentioned description. No new material has been collected.

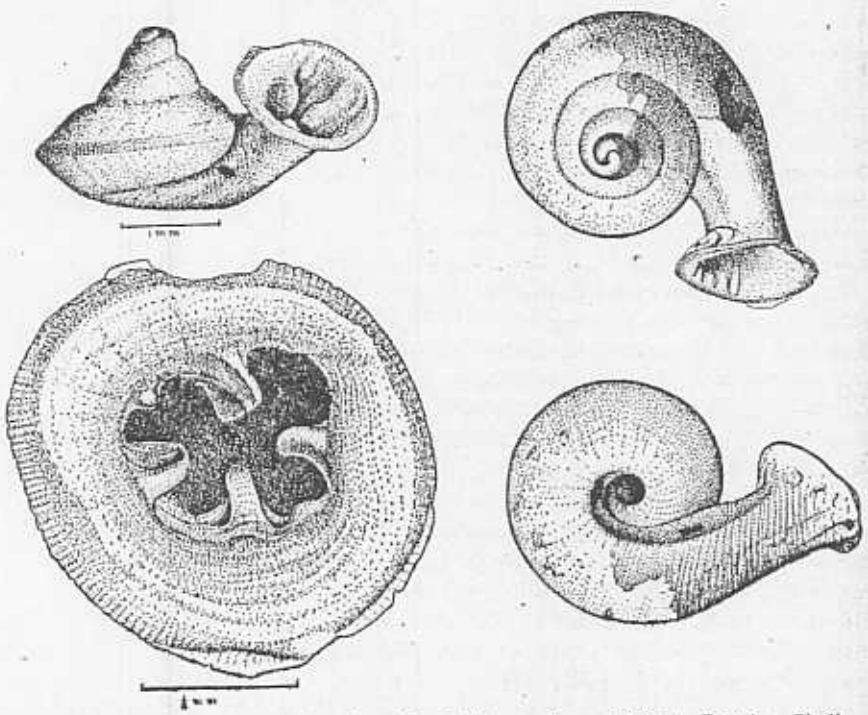

Fig. 13. *Hypselostoma piconis* v. B. Jutting. Sungei Siput, Perak. Shell from side, top and base. Aperture with teeth. Abdulkadir del.

Hypselostoma perigyra nov. spec. Fig. 14.

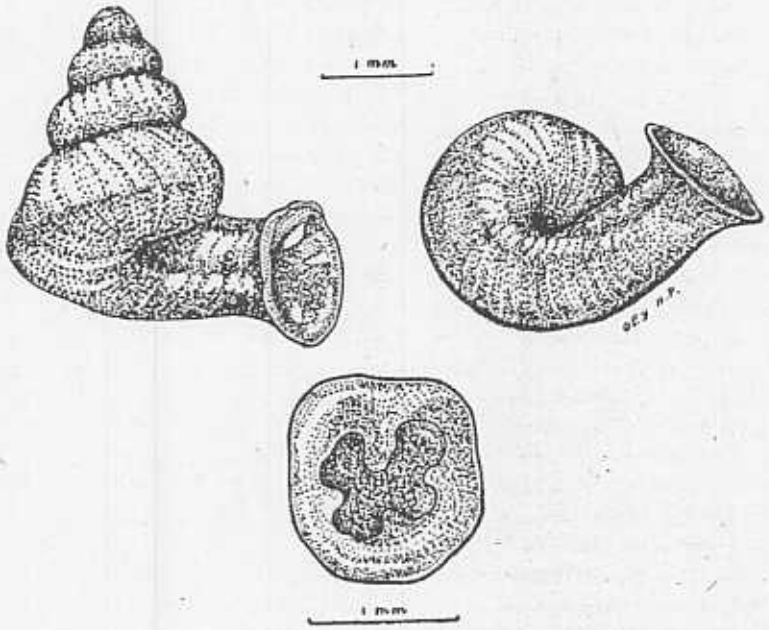

Fig. 14. *Hypselostoma perigyra* nov. spec. Bukit Takun, Selangor. Shell from side and base. Aperture with teeth. Oey Hong Peng del.

Shell consisting of a somewhat conical spire and a free trumpet-shaped last whorl. Dark reddish-brown, somewhat more yellowish-brown towards the aperture. First 1½ whorls smooth, polished, the others irregularly striated or weakly ribbed with oblique growth lines. There is no spiral striation. Not transparent. Whorls about 5, of which 4½ are regularly coiled and adnate, and about ½ whorl free and projecting. Whorls of the spire rounded, the greatest width below the periphery, so that the spiral whorls make the impression of having "lowered shoulders". Suture deep. Last whorl with angulate periphery. The angulation becomes more and more a thread-like keel on the exterior lateral side of the free part. This keel continues till the aperture. Umbilicus open, though not wide. Aperture almost vertical, widened, trumpet-shaped. Peristome continuous, somewhat thickened and expanded. The mouth contains 4 rather strong teeth, placed cross-wise: one parieto-angular, one upper and one lower palatal, and one columellar.

Dimensions	Type	Paratypes								
Height	3.2	3.2	3.0	2.9	2.8	2.8	2.7	2.7	2.7	2.6
Breadth (with peristome) ..	3.1	3.2	3.1	3.0	2.8	2.7	3.2	2.8	2.8	3.2
Breadth (at origin of free part) ..	1.9	2.1	2.0	2.0	1.8	1.9	2.0	2.0	1.9	2.0
Height of aperture	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Habitat: Bukit Takun, Kanching, Selangor, March 1939 (type locality) (type and 40 paratypes).

There is some variation in the length of the free part of the last whorl, some shells having a short, others a long trumpet. In addition to the four teeth of the mouth armature described above I found a fifth tooth, a short infraparietal lamella, in two shells from Bukit Takun.

The new species has some superficial likeness to *Hypselostoma terae* and *H. megaphonum*. In both the latter, however, the whorls are more evenly rounded and the umbilicus is narrower. Besides, *H. perigyra* has a more developed peripheral keel. From *H. megaphonum* it differs in the smaller size and in the absence of the inflation on the base of the last whorl.

Gyliotrachela hungerfordiana (Moellendorff).

1886 MOELLENDORFF, Journ. As. Soc. Bengal, Vol. 55, p. 306 (*Hypselostoma bensonianum* -nec Blanford).
1891 MOELLENDORFF, Proc. Zool. Soc. London, p. 337, pl. 30, fig. 7, 7*a* (*Hypselostoma*).
1902 SYKES, Journ. of Malac., Vol. 9, p. 61 (*Hypselostoma*).
1917 PILSBRY, Man. of Conch. (2), Vol. 24, p. 212, pl. 36, fig. 1–4 (*Gyliauchen*).
1947 TWEEDIE, Mal. Nature Journ., Vol. 2, p. 3, fig. 1A.
1949 VAN BENTHEM JUTTING, Bull. Raffles Mus. No. 19, p. 60.

In addition to the localities published already in the references quoted above: Bukit Pondong (= Gunong Pondok), Perak; Kelantan; Bukit Chintamani, Pahang, Mr. Tweedie collected material from the following stations: Bukit Baling, Kedah, December 1938; Batu Caves, Selangor, April, 1939; Bukit Takun, Kanching, Selangor, March 1939; Gua Bama, Pahang, 1941. The type locality is Gunong Pondok in Perak, wrongly rendered Bukit Pondong in the early records. There is little variation in the shells from the different localities.

Unlike the majority of the other representatives of the Vertiginidae this species seems to have a wide distribution in Malaya, as already noted by Tweedie (Malayan Nature Journal, Vol. 2, 1947).

Gyliotrachela depressispira van Benthem Jutting. Fig. 15.

1949 VAN BENTHEM JUTTING, Bull. Raffles Mus., No. 19, p. 60, pl. 3.

Habitat: Bukit Chintamani, Pahang.

I have little to add to the original description.

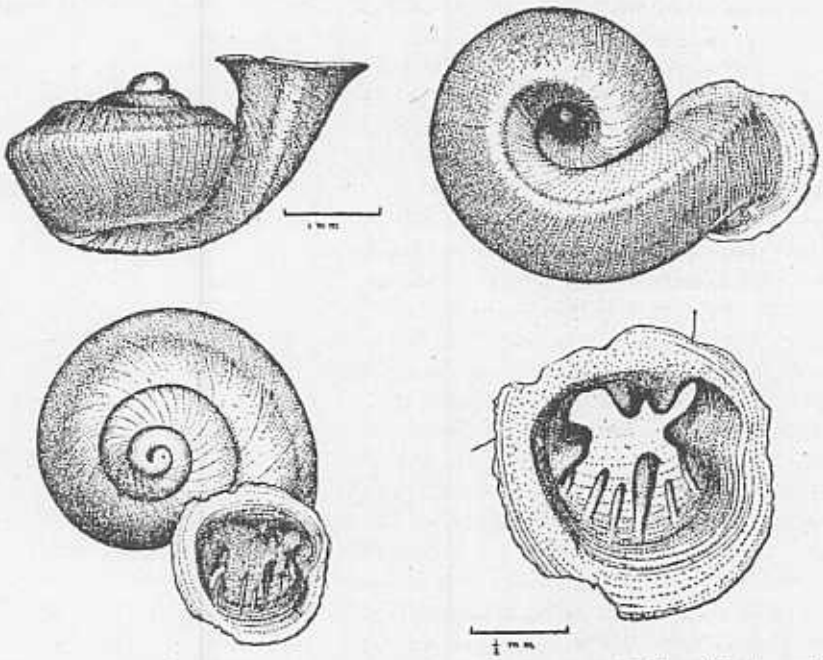

Fig. 15. *Gyliotrachela depressispira* v. B. Jutting. Bukit Chintamani, Pahang. Shell from side, top and base. Aperture with teeth. Abdulkadir del.

Mr. Tweedie collected material from the type locality and from two other hills, also in Pahang: Gua Bama, near Padang Tengku, September 1941, and Bukit Panching, near Kuantan, 1947.

The new material enables me to give some more measurements, the specimens from Gua Bama being chosen for the purpose.

Dimensions										
Height	2.2	2.0	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Breadth (with peristome) ..	3.6	3.3	3.6	3.9	3.6	3.5	3.5	3.4	3.3	3.5
Breadth (at origin of free part) ..	2.1	2.0	2.3	2.3	2.2	2.3	2.2	2.1	2.2	2.1
Height of aperture	1.5	1.6	1.6	1.9	1.7	1.6	1.5	1.5	1.6	1.4

Gyliotrachela transitans transitans (Moellendorff).

1894 MOELLENDORFF, Proc. Zool. Soc. London, p. 151, pl. 16, fig. 12, 13 (*Hypselostoma*).

1904 FISCHER and DAUTZENBERG, Mission Pavie en Indo-Chine, Vol. 3, p. 19 (*Hypselostoma*).

1917 PILSBRY, Man. of Conch. (2), Vol. 24, p. 214, pl. 36, fig. 5–8 (*Gyliauchen*).

Gyliotrachela transitans transitans is a species from the Samui Islands in the Gulf of Siam, but so far it has not been recorded from the Malay Peninsula. I was able to examine 3 shells from the Dautzenberg Collection, now in the Brussels Museum of Natural History. They were purchased from H. Rolle, in Berlin, and are labelled "*Hypselostoma transitans* v. Moellendorff, Samui, 1904".

In the material of the Raffles Museum there are two types of shells which, although not identical, are so similar to the Samui species that I am inclined to consider them as local forms, geographical subspecies, occurring in Perak and Pahang in the Malay Peninsula.

They will be described below as *Gyliotrachela transitans venusta* nov. subsp. and *Gyliotrachela transitans helioscopia* nov. subsp.

Gyliotrachela transitans venusta nov. subsp. Fig. 16.

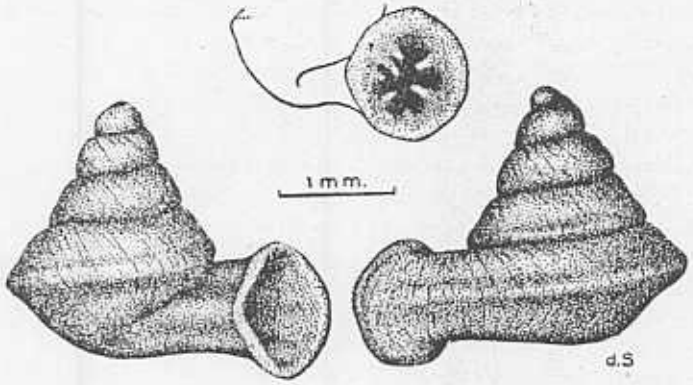

Fig. 16. *Gyliotrachela transitans venusta* nov. subsp. Gunong Pondok, Perak. Shell from side and back. Aperture with teeth. H. G. de Smit del.

Shell consisting of a somewhat conical spire and a free, trumpet-shaped last quarter of a whorl. Dark reddish-brown, somewhat more yellowish-brown towards the aperture. First 1½ whorls smooth, polished; the others delicately striated with oblique growth-lines. There is no spiral striation. Not transparent. Whorls 4¾–5, of which 4½–4¾ are regularly coiled

and adnate, and about 1/4 whorl free and projecting. Top mamillar. Whorls of the spire evenly rounded, suture deep. After about 3½ normal whorls the shell is somewhat pinched above and below the periphery. Consequently a keel is formed along the periphery, at first only vaguely discernable, later on very conspicuous. The keel continues on the exterior side of the free trumpet till the aperture. On the dorsal and inner lateral sides of the trumpet there are similar longitudinal keels. Base somewhat inflated. Towards the aperture the free part is at first narrower, then suddenly expanded for the peristome. Umbilicus open, moderately wide. Aperture almost vertical, widened, trumpet-shaped. Peristome continuous, somewhat thickened and expanded. The aperture contains 7 teeth, angular and parietal lamellae separated. Columellar, upper and lower palatal teeth strong, infraparietal and infrapalatal ones small.

Dimensions	Type	Paratypes								
Height	2.8	2.9	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7
Breadth (with peristome) ..	3.0	3.3	3.4	3.2	3.2	3.1	3.0	3.0	2.9	2.9
Breadth (at origin of free part) ..	1.9	2.1	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9
Height of aperture	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3

Habitat: Gunong Pondok, Padang Rengas, Perak, 1939 (type locality) (type and 62 paratypes).

In addition to the teeth mentioned in the foregoing description some shells of the lot are provided with one or two more small teeth, viz. an interpalatal and a basal fold.

Gyliotrachela transitans venusta differs from the main form in having a somewhat higher spire and the trumpet more free from the body whorl. The trumpet which in *G. tr. transitans* is directed slightly downward, points forward in *G. transitans venusta*. In the development of the peripheral keel, the longitudinal grooves and the mouth armature there are no marked differences between the two subspecies.

Compared with *Gyliotrachela transitans helioscopia*, described below, the spire of the subspecies *venusta* is not so elevated, the peripheral keel more pinched and the longitudinal grooves deeper.

Gyliotrachela transitans helioscopia nov. subsp. Fig. 17.

Shell with a rather conical spire and a free, trumpet-shaped end of the last whorl. Dark reddish-brown, somewhat more yellowish-brown towards the aperture. First 1½ whorls smooth, polished; the others irregularly striated with oblique growth-lines. There is no spiral striation. Not transparent. Whorls 4½–4¾ of which 4¼–4½ are regularly coiled and adnate, and

about 1/4 whorl free and projecting. Whorls of the spire at first well rounded, afterwards somewhat flatter. The last whorl, the free as well as the spiral part, is shallowly pinched just above and below the periphery, so as to give the ultimate whorl an angulate appearance. On the free part there are two or three similar keels, placed cross-wise. Hence the trumpet is almost square in diameter. Free portion directed forward, or slightly ascending. Umbilicus open, moderately wide, the last part encircled by the basal keel. Aperture oblique, widened, trumpet-shaped. Peristome continuous, thickened and expanded. In the aperture the parietal and angular lamellae are separate. Columellar, upper palatal and lower palatal teeth rather strong, infraparietal and infrapalatal ones weak.

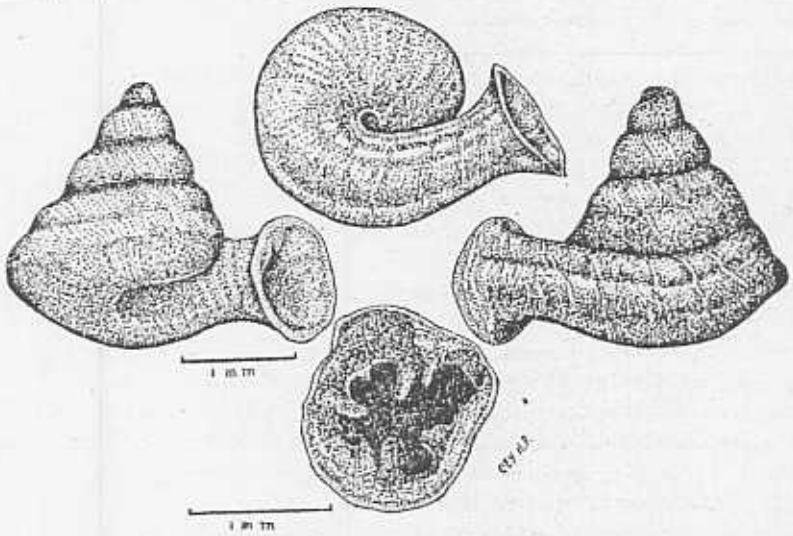

Fig. 17. *Gyliotrachela transitans helioscopia* nov. subsp. Kota Tongkat, Pahang. Shell from front, back and base. Aperture with teeth. Oey Hong Peng del.

Dimensions	Type	Paratypes								
Height	2.6	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.2	2.1
Breadth (with peristome) ..	3.3	3.0	3.0	3.3	3.2	3.2	3.2	2.8	3.2	3.2
Breadth (at origin of free part) ..	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.8	1.9	2.0
Height of aperture	1.3	1.4	1.3	1.4	1.5	1.3	1.5	1.5	1.3	1.3

Habitat:
Kota Tongkat, Pahang, 1947 (type locality) (type and 15 paratypes).

Kota Gelanggi, Pahang, 1947 (14 paratypes).

There is some variation in the length of the free part of the last whorl, some shells having a short, others a longer trumpet. Besides the usual 7 teeth in the aperture some shells have an additional small interpalatal and a basal tooth.

Compared with the main form *Gyliotrachela transitans helioscopia* has a more slender spire and the trumpet more free from the body whorl. This trumpet which in *G. transitans transitans* is directed slightly downward, is pointing forward or a little upward in the new subspecies. The peripheral carina of the last whorl is generally weaker and the longitudinal grooves shallower than in the main form. In the mouth armature there are no differences.

Compared with *G. transitans venusta* the spire is higher, the peripheral keel and the longitudinal grooves shallower.

In 1904 Fischer and Dautzenberg (Mission Pavie en Indo-Chine, Vol. 3, p. 19) recorded a *Hypselostoma translucidum* Moellendorff from "Ile de Samui, golfe de Siam (collect. Dautzenberg)". Moellendorff, however, never published a *H. translucidum*, and as Fischer and Dautzenberg did not give a description either, the name is a nomen nudum and cannot be maintained.

By the courtesy of the authorities of the Brussels Museum of Natural History, where the Dautzenberg Collection is now preserved, I received on loan a shell of "*Hypselostoma translucidans* (sic!) v. Moell. Insel Samoi, Siam" purchased from H. Rolle, with the addition "de Moellendorff". This shell is certainly *Gyliotrachela transitans transitans* (Moellendorff), and thus the names *translucidum* and *translucidans* must be abandoned and dropped.

Gyliotrachela modesta nov. spec. Fig. 18.

Shell consisting of a rather high spire and a short, free, trumpet-shaped final part of the last whorl. Dark reddish-brown somewhat more yellowish-brown towards the aperture. First 1½ whorls smooth, polished. The others delicately striated with oblique, growth-lines. There is no spiral striation. Not transparent. Whorls 4¼–4½ of which 4–4¼ are regularly coiled and about 1/8 to 1/4 whorl free and projecting. Whorls of the spire rounded, regularly increasing in size. Last whorl much larger, inflated, and faintly keeled at the periphery. This peripheral angulation continues on the outer lateral side of the free part. There is another longitudinal angulation of about equal strength on the dorsal side of the free part. Suture deep. Umbilicus open and rather wide. Aperture somewhat oblique, widened, trumpet-shaped. Peristome continuous, thickened and expanded.

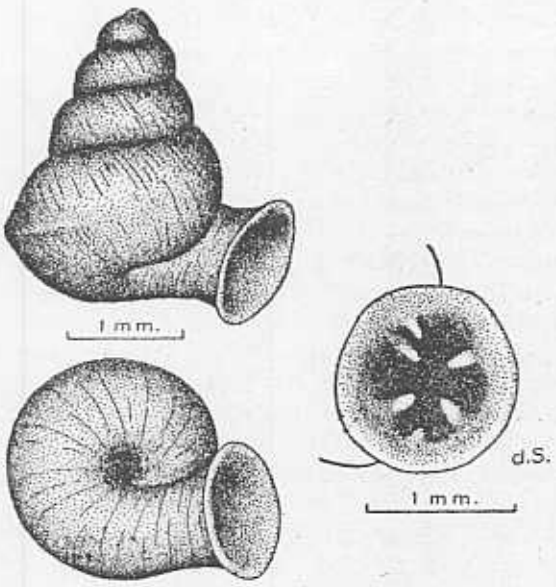

Fig. 18. *Gyliotrachela modesta* nov. spec. Gua Musang, Kelantan. Shell from side and base. Aperture with teeth. H. G. de Smit del.

The aperture contains 6 teeth. Angular and parietal lamellae are separate. Upper and lower palatal folds and columellar lamella large, infrapalatal fold small.

Dimensions	Type	Paratypes	
Height	3.0	3.1	2.9
Breadth (with peristome)	2.7	2.7	2.3
Breadth (at origin of free part)	1.7	1.9	1.6
Height of aperture	1.4	1.4	1.4

Habitat: Gua Musang, Kelantan, 1939 (type locality) (type and 2 paratypes).

Its simple general outline, short trumpet and small number of apertural teeth distinguish this new species of Gua Musang from the other *Gyliotrachela*.

Gyliotrachela luctans nov. spec. Fig. 19.

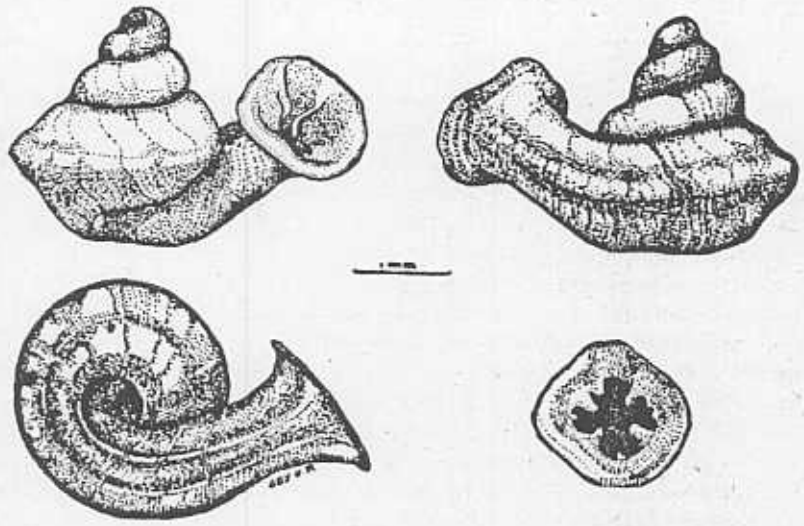

Fig. 19. *Gyliotrachela luctans* nov. spec. Gunong Pondok, Perak. Shell from front, back and base. Aperture with teeth. Oey Hong Peng del.

Shell consisting of a somewhat conical spire and a free, trumpet-shaped part of the last whorl. Dark reddish-brown, somewhat more yellowish towards the aperture. First 1½ whorls smooth, polished. The others irregularly striated with oblique growth lines. There is no spiral striation. Not transparent. Whorls 4¼–4¾, of which 4–4½ are regularly coiled and adnate, and about 1/4 whorl free and projecting, the trumpet being directed obliquely upward. Whorls of the spire at first well rounded, afterwards more flattened. Last whorl ascending towards the aperture, thereby enclosing part of the penultimate whorl. Just above and below the periphery the last whorl is somewhat pinched so as to give the shell an angulate appearance. This keel continues on the free part up to the aperture. Opposite this keel, and on the dorsal and ventral sides the trumpet bears three other keels, thus rendering the free part almost square in diameter. Umbilicus open, rather wide, showing all previous whorls. Aperture oblique, somewhat turned upward, but not quite facing the sky, as in *G. depressispira*. Peristome continuous, thickened and expanded. In the aperture the angular and parietal lamellae are separate. Columellar, upper and lower palatal teeth strong, infraparietal, interpalatal and infrapalatal teeth weak.

Dimensions	Type	Paratypes								
Height	2.3	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1
Breadth (with peristome)	3.8	4.1	4.3	4.0	4.0	3.9	3.7	3.7	4.0	3.9
Breadth (at origin of free part)	2.2	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.3	2.3
Height of aperture	1.5	1.9	1.8	1.7	1.7	1.6	1.6	1.6	1.7	1.7

Habitat: Gunong Pondok, Padang Rengas, Perak, 1938 (type locality) (type and 39 paratypes).

There is some variation in the length of the free part of the last whorl, some shells having a short, others a long trumpet. In one shell I found the parieto-columellar corner of the peristome fixed against the penultimate whorl.

Compared with other species of *Gyliotrachela* the new form from Gunong Pondok is larger and stronger than both *G. bensoniana* and *G. hungerfordiana*. It has a lower spire and a longer trumpet than *G. transitans* and *G. crossei*, the last whorl enclosing the penultimate one more in *G. luctans*, although not so much as in *G. depressispira*. From *G. crossei* it differs besides in the less numerous oral teeth and in the stronger pinching of the furrows on the ultimate whorl and the free trumpet.

Gyliotrachela emergens nov. spec. Fig. 20.

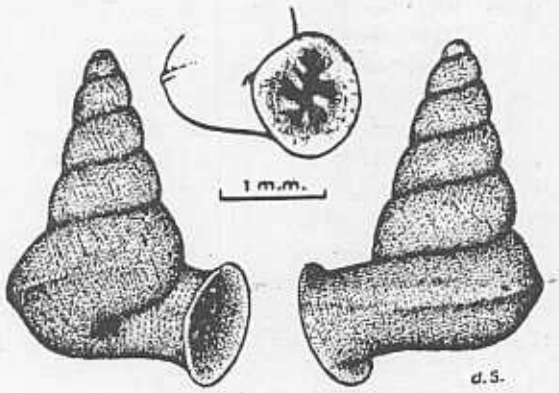

Fig. 20. *Gyliotrachela emergens* nov. spec. Bukit Chuping, Perlis. Shell from front and back. Aperture with teeth. H. G. de Smit del.

Shell consisting of a high, conical spire and a free trumpet-shaped part of the last whorl. Reddish-brown, somewhat lighter brown towards the aperture. First 1½ whorls smooth, polished. The others delicately striated with oblique growth lines. There

is no spiral striation. Not transparent. Whorls 5¼–5¾ of which 5–5½ are regularly coiled and adnate, and about 1/4 whorl free and projecting. Top mamillar. Whorls of the spire evenly rounded, suture deep. Last whorl suddenly enlarged, angular or faintly keeled at the periphery. Base rounded, umbilicus rather wide, surrounded by a faint angulation. Free part of the trumpet not long. Aperture almost vertical or somewhat oblique, with 6 teeth. Angular and parietal lamellae separate. Columellar, upper and lower palatal teeth large, infrapalatal small. Peristome continuous, thickened and expanded.

Dimensions	Type	Paratypes											
Height	3.2	3.5	3.4	3.3	3.1	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.7
Breadth (with peristome) ..	2.3	2.6	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.4	2.7	2.6	2.7
Breadth (at origin of free part)	1.3	1.7	1.7	1.7	1.7	1.5	1.7	1.6	1.5	1.6	1.6	1.5	1.7
Height of aperture ..	1.2	1.3	1.2	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.3	1.2	1.2

Habitat: Bukit Chuping, Perlis, 1939 (type locality) (type and 98 paratypes).

The new species differs greatly from any other form of *Gyliotrachela* by its turreted spire and by the sudden broadening of the last whorl.

Gyliotrachela troglodytes nov. spec. Fig. 21.

Shell small, with a moderately small, conical spire and a wide aperture which is not free, but adnate to the previous whorl. Reddish-brown. First 1½ whorls smooth, polished; the subsequent ones striated or weakly ribbed according to the growth lines. There is no spiral striation. Not transparent. Whorls 4, the last one ascending towards the aperture. Sides of whorls rounded, only the last one is provided with an obtuse keel. There is a similar keel round the open, but not wide, umbilicus. Suture rather deep. Aperture widened, somewhat obliquely facing the sky. Quadrangular with rounded angles. Parietal and angular lamellae separated. Columellar, upper and lower palatal teeth large, infraparietal lamella small. Peristome continuous, somewhat thickened and expanded.

Dimensions	Type	Paratypes			
Height	1.9	2.0	1.9	1.8	1.7
Breadt	2.4	2.2	2.5	2.1	2.5
Height of aperture	1.2	1.1	1.1	1.0	1.1

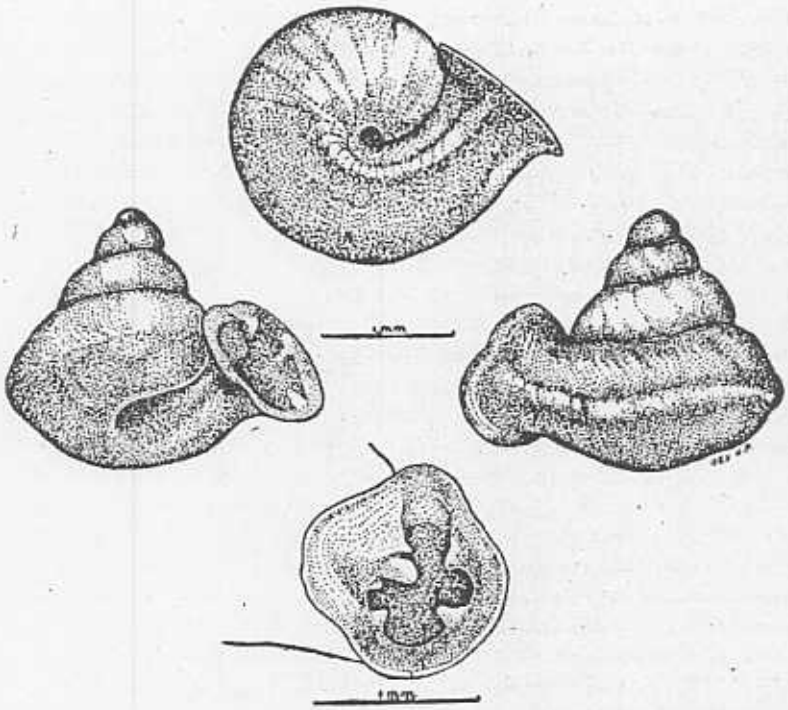

Fig. 21. *Gyliotrachela troglodytes* nov. spec. Gua Bama, Pahang. Shell from front, back and base. Aperture with teeth. Oey Hong Peng del.

Habitat: Gua Bama, Padang Tengku, Pahang, September 1941 (type locality) (type and 4 paratypes).

Gyliotrachela troglodytes is a very small species, perhaps most nearly related to the somewhat larger *G. modesta*. In the latter species, however, the last part of the ultimate whorl is free and the aperture is directed downward.

Catalogue of the species of *Boysidia, Paraboysidia, Hypselostoma* and *Gyliotrachela* hitherto described.

Genus *Boysidia* Ancey, 1881.

dorsata (Ancey, 1881).

1881 Ancey, Le Naturaliste, Vol. 1, p. 373, 407 (*Pupa*) (Poyang Lake, Kiangsi).

1883 Ancey, Naturalista Siciliano, Vol. 2, p. 266 (*Pupa*) (Poyang Lake, Kiangsi).

1902 Moellendorff, Ann. Mus. Zool. Acad. Imp. St. Pétersbourg, Vol. 6, p. 383, table 8, column 4 (*Boysidia dorsalis* sic!) (Mittleres und unteres Yangdy-Becken, China).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 195 (China, Lake Poyang).

1939 Yen, Abh. Senckenb. No. 444, p. 75, pl. 6, fig. 39 (Poyang See).

gracilis Haas, 1937.

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 7, pl. 2, fig. 18–20 (Badung, Hubei, China).

1939 Yen, Abh. Senckenb. No. 444, p. 76, pl. 6, fig. 43 (Patung, Hupei).

hangchowensis (Pilsbry and Hirase, 1908).

1908 Pilsbry and Hirase, Proc. Acad. Nat. Sci. Philadelphia, Vol. 60, p. 42, fig. 6 (*Hypselostoma* (*Boysidia*)) (Hangchow, prov. Che-Kiang, China).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 196, pl. 33, fig. 17, textfig. 17 (China, prov. Che-Kiang, Hangchow).

hunana (Gredler, 1881).

1881 Gredler, Jahrb. d. Malak. Ges. Vol. 8, p. 23, pl. 1, fig. 5 (*Pupa*) (Yün-tscheu-fu, Hunan).

1884 Moellendorff, Jahrb. d. Malak. Ges. Vol. 11, p. 179 (*Pupa* (*Gredleriella*) *hunanensis* sic!) (Mittel-China: Provinz Hunan, im ganzen Yang-dsy-Gebiet an Kalkfelsen häufig; Süd-China: Marmorfelsen (Tsat-sing-yen) am Westfluss oberhalb Canton).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 194, pl. 33, fig. 8–9 (China: Yun-tcheu-fu; Yangtse valley, limestone).

1939 Yen, Abh. Senckenb. No. 444, p. 76, pl. 6, fig. 40 (*B. hunana hunana*) (Hunan; Dau-dshou, Hunan; Patung, Hupei; Wutan, Hupei; Yangtze-Gebiet).

hunana conspicua (Moellendorff, 1885).

1885 Moellendorff, Jahrb. d. Malak. Ges. Vol. 12, p. 396 (*Pupa* (*Boysidia*) *hunanensis* var. *conspicua*) (Tsat-sing-yen).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 195, pl. 33, fig. 10, 12–14 (China: Tsat-sing-yen or Marble Rocks of the West River above Canton, Prov. Guang-dung. Also Tong-king).

1939 Yen, Abh. Senckenb. No. 444, p. 76, pl. 6, fig. 41 (Tsat-sing-yen, Kwangtung; Genist des Sikiang bei Shiu-hing, Kwangtung; Marmorfelsen, Westfluss Kwangtung).

ringens Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

strophostoma (Moellendorff, 1885).

1885 Moellendorff Jahrb. d. Malak. Ges. Vol. 12, p. 395, pl. 11, fig. 23 (*Pupa* (*Boysidia*)) (In rupibus marmoreis Tsat-sing-yen ad fluvium occidentalem provinciae sinensis Guang-dung).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 197, pl. 33, fig. 15–16 (China: marble rocks of Tsat-sing-yen, prov. Guang-dung).

1939 Yen, Abh. Senckenb. No. 444, p. 76, pl. 6, fig. 42 (Tsat-sing-yen, Kwangtung; Marmorfelsen, Westfluss Kwangtung; Kanton).

Genus *Paraboysidia* Pilsbry, 1917.

boettgeri (Moellendorff, 1897).

1897 Moellendorff, Nachr. Blatt, Vol. 29, p. 70 (*Boysidia*) (Java).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 208, pl. 34, fig. 7–8 (*Boysidia*) (Soekaboemi).

dayana (Stoliczka, 1871).

1871 Stoliczka, Journ. As. Soc. Bengal, Vol. 40, p. 172, pl. 7, fig. 2 (*Hypselostoma*) (Damotha, near Moulmein).

1876 Hanley & Theobald, Conch. Indica, pl. 147, fig. 10 (*Hypselostoma*) (Damotha, near Moulmein).

1914 Gude, Fauna Brit. India, Moll. Vol. 2, p. 300 (*Hypselostoma*) (Damotha, near Moulmein).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 205, pl. 34, fig. 5–6 (*Boysidia* (?) *dayana*) (Damotha, near Moulmein).

frequens Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

hupeana (Gredler, 1901).

1901 Gredler, Nachr. Blatt, Vol. 33, p. 151 (*Hypselostoma*) (S. W. Hupé).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 206 (*Boysidia*) (China, southwestern Hupé).

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 8 (*Boysidia* (*Paraboysidia*)) (Badung, Hubei).

1939 Yen, Abh. Senckenb. No. 444, p. 76, pl. 6, fig. 44 (*Boysidia*) (Patung, Hupei).

kelantanensis kelantanensis (Sykes, 1902).

1902 Sykes, Journ. of Malac. Vol. 9, p. 61, pl. 3, fig. 7 (*Boysidia kelantanense*) (Kelantan).

1902 Moellendorff, Nachr. Blatt, Vol. 34, p. 139 (*Boysidia kelantanensis*) (Kelantan).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 208, pl. 35, fig. 10–12 (*Boysidia kelantanensis*) (Malay Peninsula, Kelantan).

1950 Van Benthem Jutting, this report.

kelantanensis rafflesi Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

kelantanensis tenuidentata Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

lamothei (Bavay & Dautzenberg, 1912).

1912 Bavay & Dautzenberg, Journ. de Conch. Vol. 60, p. 21, pl. 3, fig. 7–9 (*Boysidia*) (Ban-Lao; Muong Hum et Muong Kong).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 202, pl. 35, fig. 3–6 (*Boysidia*) (Indo-China: Ban-Lao, Muong-Hum and Muong-Kong).

landourensis (Pilsbry, 1915).

1915 Pilsbry, Nautilus, Vol. 29, p. 73 (*Bifidaria* (*Bensonella*)) (India: Landour).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 204, pl. 35, fig. 9 (*Boysidia*) (India: Landour).

paviei (Bavay & Dautzenberg, 1912).

1912 Bavay & Dautzenberg, Journ. de Conch. Vol. 60, p. 20, pl. 3, fig. 4–6 (*Boysidia*) (Pac Kha; Long Ping).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 203, pl. 35, fig. 7–8 (*Boysidia*) (French Indo-China: Pac-Kha; Long-Ping).

plicidens (Benson, 1849).

1849 Benson, Ann. Mag. Nat. Hist. (2) Vol. 4, p. 126 (*Pupa*) (Landour et Mussoorie montibus Himalayensis).

1852 Küster, in: Mart.-Chemn. N. Syst. Conch. Cab. Bd. I, Abt. 15, p. 136, pl. 17, fig. 23–24 (*Pupa*) (Landour und Mussorie im Himalaya).

1874 Hanley & Theobald, Conch. Indica, pl. 100, fig. 8 (*Pupa*) (Himalayah).

1876 Sowerby, Conch. Icon. Vol. 20, pl. 16, fig. 151 (*Pupa*) (Himalaya).

1914 Gude, Fauna Brit. India, Moll. Vol. 2, p. 294 (*Boysidia*) (India: Landour; Mussoorie; Cherra Poonjee, Assam).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 198, pl. 34, fig. 1–4, 9–10 (*Boysidia*) (India: Landour; Mussoorie; Cherra Poonjee, Assam; China: Hangchow, prov. Chekiang; Japan: Suimura, Awa; Riozen, Omi; Yoro, Mino).

robusta (Bavay & Dautzenberg, 1912).

1912 Bavay & Dautzenberg, Journ. de Conch. Vol. 60, p. 18, pl. 3, fig. 1–3 (*Boysidia*) (Phong-Tho).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 201, pl. 35, fig. 1–2 (*Boysidia*) (Indo-China: Phong-Tho).

salwiniana (Theobald, 1870).

1870 Theobald, Journ. As. Soc. Bengal, Vol. 39, p. 400 (*Pupa*) (Shan States).

1874 Hanley & Theobald, Conch. Indica, pl. 100, fig. 9 (*Pupa*) (Shan States).

1876 Sowerby, Conch. Icon. Vol. 20, pl. 16, fig. 150 (*Pupa*) (Shan States).

1877 Nevill, Journ. As. Soc. Bengal, Vol. 46, p. 23 (*Pupa* (*Scopelophila*)) (inside a Glessula obtusa from Bhamô).

1888 Godwin Austen, Proc. Zool. Soc. London, p. 244 (*Pupa salwineana* sic!) (Pingoung, Shan States).

1914 Gude, Fauna Brit. India, Moll. Vol. 2, p. 295 (*Boysidia*) (Burma: Shan States; Bhamo, Pingoung, Shan States).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 206, pl. 33, fig. 11 (*Boysidia*) (Burma: Shan States; Bhamo; Pingoung, Shan Hills).

serpa Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

Genus *Hypselostoma* Benson, 1856.

annamiticum Moellendorff, 1900.

1900 Moellendorff, Nachr. Blatt, Vol. 32, p. 133 (Phuc-son).

1901 Moellendorff, Nachr. Blatt, Vol. 33, p. 45 (Non-njuk).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (Phuc-son, Non-njuk, Tourane).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 180 (Annam: Phuc-son).

annamiticum altius Pilsbry, 1917.

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 181, pl. 31, fig. 11–13 (Annam).

edentulum Moellendorff, 1894.

1894 Moellendorff, Nachr. Blatt, Vol. 26, p. 100 (In insula Sangat archipelagi Calamianes, Philipp. Ids.).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 187, pl. 32, fig. 12 (Philippines: Sangat Island, Calamianes group).

elephas Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

insularum Pilsbry, 1908.

1908 Pilsbry, Conch. Magaz. Vol. 2, p. 41, fig. 2 (Loochoo Ids, Yonakunijima).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 182, pl. 32, fig. 1–5 (not 1–4, 6) (Loochoo Ids, Yonakunijima).

laidlawi Collinge, 1902.

1902 Collinge, Journ. of Mafac. Vol. 9, p. 83, pl. 5, fig. 29, 30 (Biserat Caves, State of Jalor).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 181, pl. 31, fig. 14–15 (Malay Peninsula: Biserat Caves, State of Jalor).

1950 Van Benthem Jutting, this report.

luzonicum Moellendorff, 1888.

1888 Moellendorff, Nachr. Blatt, Vol. 20, p. 145 (Antipolo, prov. of Manila, Luzon, on limestone, Philippine Islands).

1890 Moellendorff, Ber. Senckenb. p. 250, pl. 9, fig. 1 *a-c* (in saxis calcareis prope vicum Antipolo provinciae manilensis).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 183, pl. 32, fig. 7–9 (Philippines: Antipolo, prov. of Manila, Luzon, on limestone).

luzonicum major Moellendorff, 1890.

1890 Moellendorff, Ber. Senckenb. p. 250, pl. 9, fig. 2 (In montibus altioribus districtus Morong, insulae Luzon).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 184, pl. 32, fig. 9 (High mountains of Morong district, Luzon).

luzonicum imbricatum Moellendorff, 1890.

1890 Moellendorff, Ber. Senckenb. p. 250, pl. 9, fig. 3 (Prope vicum Medellin in parte septentrionali insulae Cebu).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 184, pl. 32, fig. 10–13 (Near the town of Medellin, northern Cebu).

luzonicum grande Haas, 1937.

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 6, pl. 2, fig. 13–15 (Philippinen: Atimonam, Ost-Küste von Tayabas).

luzonicum lubanicum Haas, 1937.

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 7, pl. 2, fig. 16–17 (Ins. Luban bei Mindoro, Philippinen).

1898 Moellendorff, Verzeichnis in: Abh. Naturf. Ges. Görlitz, Vol. 22, p. 126 (nomen nudum) (Luban).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 184 (name only) (Luban).

megaphonum Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

mirabile (Mabille, 1887).

1887 Mabille, Moll. Tonkin. Diagn. p. 9, May 14, 1887 (*Tonkinia*) (Tonkin).

1887 Mabille, Bull. Soc. Malac. France, Vol. 4, p. 123, pl. 1, fig. 4–5 (*Tonkinia*) (Tonkin).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 179, pl. 31, fig. 6–7 (Tonkin).

perigyra Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

piconis Van Benthem Jutting, 1949.

1949 Van Benthem Jutting, Bull. Raffles Mus. No. 19, p. 59, pl. 2 (Sungei Siput, Perak).

1950 Van Benthem Jutting, this report.

polyodon Moellendorff, 1896.

1896 Moellendorff, Nachr. Blatt, Vol. 28, p. 12 (in insula Tablas).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 185 (Philippines: Tablas).

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 5, pl. 1, fig. 7–9 (*H. polyodon polyodon*).

polyodon ylinicum Haas, 1937.

1937 Haas, Arch. Moll. Kunde, Vol. 69, p. 5, pl. 1, fig. 10–12 (Insel Ylin bei Süd-Mindoro, Philippinen).

pusillum Moellendorff, 1894.

1894 Moellendorff, Nachr. Blatt, Vol. 26, p. 100 (in insula Coron).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 186 (Philippines: Coron Island, Calamianes).

quadrasi Moellendorff, 1896.

1896 Moellendorff, Nachr. Blatt, Vol. 28, p. 88 (in montibus Sierra Bullones dictis insulae Bohol).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 185, pl. 32, fig. 6 (Philippines: Sierra Bullones, Bohol).

roebelini Moellendorff, 1894.

1894 Moellendorff, Nachr. Blatt, Vol. 26, p. 100 (in insula Coron, archipelagi Calamianes).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 186, pl. 31, fig. 8–10 (Philippines: Coron, in the Calamianes group).

sibuyanicum Moellendorff, 1896.

1896 Moellendorff, Nachr. Blatt, Vol. 28, p. 11 (in monte altiore insulae Sibuyan).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 184 (Philippines: a high mountain of Sibuyan).

terae Tomlin, 1939.

1939 Tomlin, Journ. of Conch. Vol. 21, p. 146, pl. 12, fig. 2 (Bukit Chintamani, Pahang).

1949 Van Benthem Jutting, Bull. Raffles Mus. No. 19, p. 59 (Bukit Chintamani).

1950 Van Benthem Jutting, this report.

translucidum Moellendorff ??

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (Ile Samui, golfe de Siam) (nomen nudum, name never published by Moellendorff).

tubiferum (Benson, 1856).

1856 Benson, Ann. Mag. Nat. Hist. (2) Vol. 17, p. 130 (*Tanystoma*) (ad Thyet-Mio prope ripas fluminis Irawadi Burmanici, saxis calcareis adhaerens).

1860 Pfeiffer, Novit. Conch. Vol. 1, p. 130, pl. 36, fig. 1–4 (au bord du fleuve Irawadi (empire Birman).

1863 Blanford, Journ. As. Soc. Bengal, Vol. 32, p. 326 (high limestone peak of Mya Leit Doung about 20 miles south of Mandalay; Tsagyen hills, north of Ava; various hills in Pegu, as far south as Henzada).

1870 Hanley & Theobald, Conch. Indica, pl. 8, fig. 3 (Mya Leit Doung, S. of Mandalay, Ava).

1871 Stoliczka, Journ. As. Soc. Bengal, Vol. 40, p. 173, pl. 7, fig. 1.

1914 Gude, Fauna Brit. India, Moll. Vol. 2, p. 298 (Burma: Thyet Mio, on the banks of the Irawadi; on limestone rocks; Ava: Peak of Mya Leit Doung, about 20 miles south of Mandalay; Tsagyen Hills; and in Pegu as far south as Henzada).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 178, pl. 31, fig. 1–5 (same localities as in preceding reference).

Genus *Gyliotrachela* Tomlin, 1930.

australis (Odhner, 1917).

1917 Odhner, Kgl. Svenska Vetensk. Akad. Handl. Vol. 52, No. 16, p. 98, pl. 3, fig. 107–109 (*Hypselostoma*) (Queensland, caves at Chillagoe).

1921 Pilsbry, Man. of Conch. (2) Vol. 26, p. 232 (*Gyliauchen*) (Queensland, caves at Chillagoe).

bensoniana (Blanford, 1863).

1863 Blanford, Journ. As. Soc. Bengal, Vol. 32, p. 326 (*Hypselostoma*) (Mya Leit Doung, Ava, Burma).

1870 Hanley & Theobald, Conch. Indica, pl. 8, fig. 2 (*Hypselostoma*) (Mya Leit Doung, S. of Mandalay, Ava).

1914 Gude, Fauna Brit. India, Moll. Vol. 2, p. 299 (*Hypselostoma*) (Mya Leit Doung, Ava, Burma).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 211, pl. 37, fig. 11–12 (*Gyliauchen*) (Ava: Mya Leit Doung).

concreta Van Benthem Jutting, 1949.

1949 Van Benthem Jutting, Basteria, Vol. 13, p. 64, fig. 1 (South Celebes, along road from Makalé to Kalossi).

crossei (Morlet, 1885).

1885 Morlet, Diagn. Moll. terr. et fluv. du Tonkin, p. 2 (*Hypselostoma*) (Montagne de l'Eléphant).

1886 Morlet, Journ. de Conch. Vol. 34, p. 259, 275, pl. 12, fig. 5, a-c (*Hypselostoma*) (Montagne de l'Eléphant).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (*Hypselostoma*) (Tonkin: Montagne de l'Eléphant).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 215, pl. 36, fig. 9–13 (*Gyliauchen*) (Tonkin: Montagne de l'Eléphant).

crossei brevituba (Moellendorff, 1901).

1901 Moellendorff, Nachr. Blatt, Vol. 33, p. 76 (*Hypselostoma crossei* subsp. *brevituba*) (Tonkin).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (*Hypsclostoma brevituba*) (Tonkin).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 217 (*Gyliauchen*).

crossei endodonta (Moellendorff, 1901).

1901 Moellendorff, Nachr. Blatt, Vol. 33, p. 76 (*Hypselostoma crossei* subsp. *endodonta*) (Lang-son).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (*Hypselostoma*) (Lang-son).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 217 (*Gyliauchen*) (Tonkin: Lang-son).

depressispira Van Benthem Jutting, 1949.

1949 Van Benthem Jutting, Bull. Raffles Mus. No. 19, p. 60, pl. 3. (Bukit Chintamani, Pahang).

1950 Van Benthem Jutting, this report.

dohertyi (Fulton, 1899).

1899 Fulton, Proc. Mal. Soc. Vol. 3, p. 215, pl. 11, fig. 17 (*Hypselostoma*) (Tenimber Id.).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 219, pl. 37, fig. 7–9 (*Gyliauchen*) (Tenimber Id.).

1932 Van Benthem Jutting, Journ. of Conch. Vol. 19, p. 204 (Timorlaoet).

1932 Rensch, Zool. Jahrb. (Syst.) Vol. 63, p. 121 (Timorlaut).

emergens Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

everetti (E. A. Smith, 1896).

1896 Smith, Ann. Mag. Nat. Hist. (6) Vol. 18, p. 148, pl. 10, fig. 9–9b (*Hypselostoma*) (Kalao Id.).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 218, pl. 37, fig. 4–6, 10 (*Gyliauchen*) (Kalao Id.).

1932 Van Benthem Jutting, Journ. of Conch. Vol. 19, p. 204 (Kalao Id).

1932 Rensch, Zool. Jahrb. (Syst.) Vol. 63, p. 121 (Kalao).

everetti mixta Rensch, 1932.

1932 Rensch, Zool. Jahrb. (Syst.) Vol. 63, p. 121, pl. 3, fig. 41 (Sumba, Ufergenist des Kambera Flusses bei Waingapoe).

fruhstorferi (Moellendorff, 1897).

1897 Moellendorff, Nachr. Blatt, Vol. 29, p. 70 (*Hypselostoma*) (Java).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 217, pl. 37, fig. 1–3 (*Gyliauchen*) (Java).

1932 Van Benthem Jutting, Journ. of Conch. Vol. 19, p. 204, pl. 7, fig. 9 a–e (Mount Tjibodas, Tjampea, Java).

1932 Rensch, Zool. Jahrb. (Syst.) Vol. 63, p. 121 (Java).

hungerfordiana (Moellendorff, 1891).

1886 Moellendorff, Journ. As. Soc. Bengal, Vol. 55, p. 306 (*Hypselostoma bensonianum* nec Blanford) (Bukit Pondong, Perak).

1891 Moellendorff, Proc. Zool. Soc. London, p. 337, pl. 30, fig. 7, 7a (*Hypselostoma*) (Bukit Pondong, Perak).

1902 Sykes, Journ. Malac. Vol. 9, p. 61 (*Hypselostoma*) (Kelantan).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 212, pl. 36, fig. 1–4 (*Gyliauchen*) (Perak: Bukit Pondong; Kelantan).

1947 Tweedie, Malayan Nature Journ. Vol. 2, p. 3, fig. 1A (Malaya).

1949 Van Benthem Jutting, Bull. Raffles Mus. No. 19, p. 60 (Bukit Chintamani, Pahang).

1950 Van Benthem Jutting, this report.

luctans Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

modesta Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

striolata (Moellendorff, 1894).

1894 Moellendorff, Proc. Zool. Soc. London, p. 152 (*Hypselostoma*) (Samui Ids.).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (*Hypselostoma*) (Ile Samui).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 215 (*Gyliauchen*) (Samui Ids.).

transitans transitans (Moellendorff, 1894).

1894 Moellendorff, Proc. Zool. Soc. London, p. 151, pl. 16, fig. 12, 13 (*Hypselostoma transitans*) (Samui Ids.).

1904 Fischer & Dautzenberg, Mission Pavie, Vol. 3, p. 19 (*Hypselostoma transitans*) (Ile Samui).

1917 Pilsbry, Man. of Conch. (2) Vol. 24, p. 214, pl. 36, fig. 5–8 (*Gyliauchen transitans*) (Samui Ids.).

1950 Van Benthem Jutting, this report.

transitans helioscopia Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

transitans venusta Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.

troglodytes Van Benthem Jutting, 1950.

1950 Van Benthem Jutting, this report.