

Dugong from Repulse Bay being assigned to the skeleton of the Manatee from the Gaboon and *vice versa*. This accounts for two of the Dugongs and one of the Manatees.

The other assumed errors are not so easily explained away. The remaining Dugong, with a long acromion, is a mounted skeleton from the Red Sea (no. 70.8.16.1), one of Krauss's specimens, purchased through Gerrard. Since there is evidence that Krauss had Manatees as well as Dugongs, it is possible that he was unacquainted with the difference between their scapulæ, and sent Gerrard the flippers of a Manatee with the rest of the bones of the skeleton of the Red Sea Dugong. The second Manatee, with a short acromion, is also an articulated skeleton, labelled "*Manatus australis* (no. 370 f)."

I can make no suggestion to account for this assumed mistake, but I feel assured that the explanation of it and of that connected with the Red Sea Dugong are similar to the explanation of the confusion, about which there is no doubt, between the Dugong from Repulse Bay and the Manatee from the Gaboon.

The interest of the point here discussed lies in the possibility of similar mistakes having been made in other museums. The skeletons in the Museum of the Royal College of Surgeons agree in their scapulæ with Owen's diagnosis, and Flower must have been well acquainted with them; but in 1891, when he published with Lydekker his volume on Mammalia, he must presumably have been equally well acquainted with the skeletons above referred to in the British Museum. Possibly his inability to reconcile the discrepancies may be the reason for his omission to mention the marked difference in this bone in the two existing genera of Sirenia. Max Weber, and others who copied Flower to a great extent, are similarly reticent.

XXXI.—*Land Planarians from the Palau and Caroline Islands, Micronesia.* By LIBBIE H. HYMAN, American Museum of Natural History, New York City.

A COLLECTION of land planarians made in the Palau and Caroline Islands, Micronesia, by Y. Kondo, in the spring of 1936, was turned over to me for identification by the Bernice Bishop Museum, Honolulu, Hawaii, to which

institution the labelled material and slides have been returned for permanent deposit. For convenience the collector's numbers in the vials are used below in referring to the specimens.

The land planarians of the Palau Islands were already collected by Semper, whose specimens are described and named by von Graff in his classical monograph (1899) of this group. With all due admiration for the herculean labours of von Graff on the Turbellaria, it cannot be denied that many of the descriptions and figures of land planarians in his monograph are unsatisfactory from the point of view of future recognition of the species. Unfortunately, the Palau Islands species, of which nine are described as new by von Graff, are among those treated in a very cursory and inadequate manner. For this reason, it has been very difficult for me to decide whether my species coincide with those found by Semper. Von Graff gives only the external characters, and places great reliance upon the colour-pattern, which, however, is certainly highly variable in at least some species of land planarians. An example of such variation is given below in connection with *Rhynchodemus atropurpureus*. Further, the colours are often altered through preservation, as the following incident will illustrate. A specimen of *Bipalium kewense*, received from Hawaii, was stated by the collector to have been grey with purple stripes in life; but when the specimen reached me only a short time after collection it was already yellowish brown with blackish-brown stripes. Von Graff fortunately was able to present notes made by Semper on the colours in life of the Palau Islands planarians; but there is no way of knowing how these colours are affected by preservation, and I am forced to compare the colours of preserved specimens with von Graff's descriptions of the colours in life. Despite these difficulties, I have thought it best wherever at all possible to allocate my specimens to the species already known from Palau rather than to create new species of doubtful validity. This seems the only course possible at present in view of our lack of knowledge of the variability of the coloration of land planarians with respect to age, locality, and preservation.

The majority of the specimens are referable to *Dolicho-*

plana striata Moseley, 1877, which thus must be considered the most common land planarian of the Palau and Caroline Islands. *Geoplana pelewensis* and *Rhynchodemus atropurpureus* also appear to be relatively abundant.

Family Geoplanidæ.

Geoplana pelewensis von Graff, 1899. (Figs. 1-3.)

Locality.—Three specimens, no. 145 from Jokaj Islet, Ponape, Caroline Islands, no. 175*a* from Angaur, Palau Islands, and no. 234 from Olov, Yap Island; all localities practically at sea-level. Von Graff's specimens collected by Semper at Peleliu, Palau Islands. The species is apparently widely spread among the islands of Micronesia.

External characters.—Von Graff (1899) gives a large coloured figure (pl. iv. fig. 4); describes the ground-colour as light brown with a touch of violet, but the figure appears greyish brown. My specimens light to medium brown, with a conspicuous mid-dorsal dark stripe (fig. 1) and a faint lateral stripe on each side. Stripes begin some distance behind anterior end, as also noted by von Graff. Form short, somewhat plump, about 10 mm. in length, with a narrowed anterior end from which the body quickly widens, about retaining this width to the rounded posterior extremity. Von Graff's figure, drawn from life in extended condition, naturally more slender and tapering than mine, which are undoubtedly somewhat contracted. However, *G. pelewensis* is evidently a small, short, somewhat plump species. Single row of eyes along each side, beginning slightly behind anterior tip; first eye in each row small; next eyes larger with a few smaller ones intermixed; behind middle of the body eyes small and farther apart. Relative positions of pharynx and copulatory apparatus shown in fig. 1.

Transverse section.—Section oval (fig. 2), with creeping sole occupying the greater part of the ventral surface. No ciliated grooves found in anterior part of the body, nor was "Drüsenkante" (longitudinal band of gland-cells on the ventral surface near the margin) in evidence.

Sexual anatomy.—All three specimens sexually mature; no. 175*a* mounted entire; posterior halves of nos. 145 and 234 sectioned for study of the copulatory apparatus. Ovaries ventral in usual anterior position. Testes

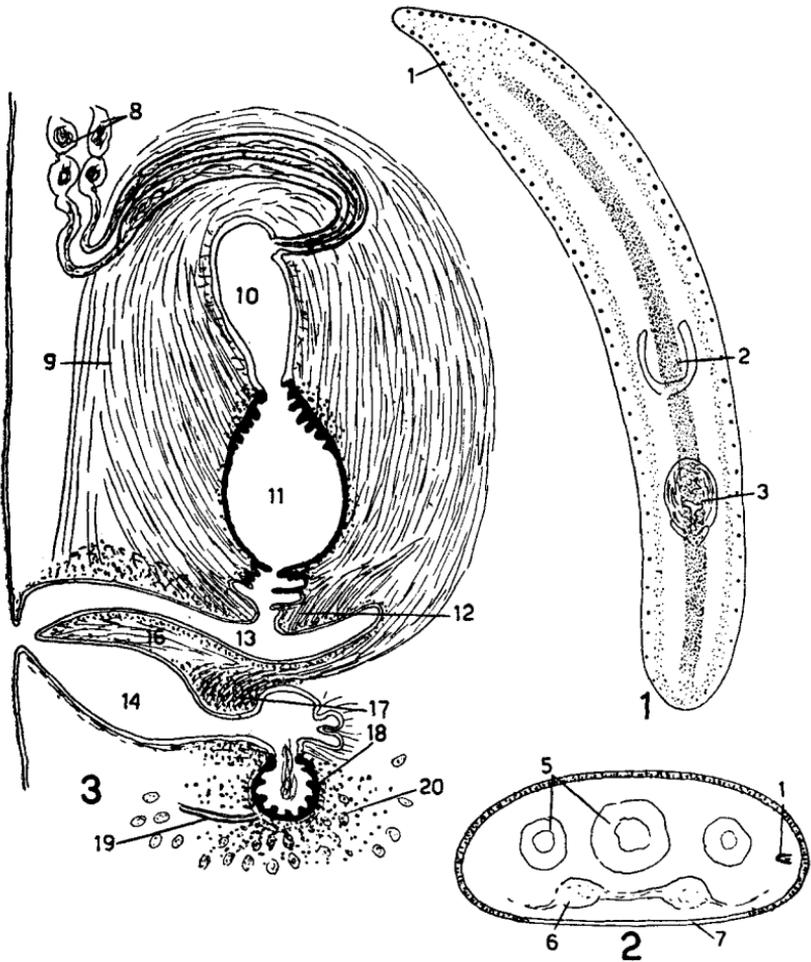


Fig. 1.—*Geoplana pelewensis*.

Fig. 2.—Transverse section of *G. pelewensis*.

Fig. 3.—Sagittal view of the copulatory apparatus of *G. pelewensis*.

For all figures: 1, eyes; 2, pharynx; 3, penis; 4, genital pore; 5, digestive branches; 6, nervous system; 7, creeping sole; 8, vasa deferentia; 9, penis-bulb; 10, non-glandular chamber of the seminal vesicle; 11, glandular chamber of seminal vesicle; 12, penis papilla; 13, male atrium; 14, female atrium; 15, common genital atrium; 16, fold; 17, sphincter; 18, glandular duct; 19, oviduct; 20, cement-glands; 21, mouth; 22, ejaculatory duct; 23, glandular canal of penis; 24, vagina; 25, penis-sheath; 26, valve. Glandular epithelium black.

moderately numerous, situated ventrally below and slightly between the intestinal diverticula, beginning at the level of the ovaries and extending to copulatory apparatus. Copulatory apparatus (fig. 3) with several peculiarities. No common genital atrium, but male and female atria separated almost to the genital pore by a fold or partition. Male apparatus consists of large oval very muscular penis bulb and shallow penis papilla, probably somewhat compressed by contraction of animal on death. Vasa deferentia on reaching anterior end of penis-bulb turn dorsally, course through muscular coat of penis-bulb, and then curve ventrally, uniting to a very short common duct which at once opens into seminal vesicle. Seminal vesicle (cavity of penis-bulb) divisible into an anterior non-glandular and posterior larger glandular chamber. Lining epithelium of glandular chamber filled with secretion granules from adjacent gland-cells. Broad shallow penis papilla quite muscular, composed partly of circular fibres and partly of continuations of longitudinal fibres of penis-bulb. Narrow canal-like male atrium leads ventrally to the genital pore.

Female atrium also canal-like, somewhat wider than male atrium, proceeds vertically, terminating dorsally in blind sac with folded dorsal wall. Von Graff labels such folds "uterus," but there appears no justification for this usage. Glandular duct, a rounded sac lined by a highly glandular epithelium, extends posteriorly from dorsal part of female atrium. It has a somewhat muscular wall, is encircled by gland-cells, and receives the oviducts into its ventral wall. Sperm present in cavity of glandular duct. A strong sphincter of circular fibres, thicker on side next the male atrium, guards entrance from female atrium into glandular duct.

Remarks.—In the general anatomy of the copulatory apparatus, *G. pelewensis* greatly resembles *G. assimilis* from the Philippines (von Graff, fig. 40, p. 190) and is undoubtedly closely related to this species and two others (*G. canaliculata*, Philippines, and *G. korotneffi*, Sunda Islands), stated by von Graff to resemble *G. assimilis* in their sexual anatomy. The outstanding feature of this group of species is the fold separating the male and female atria.

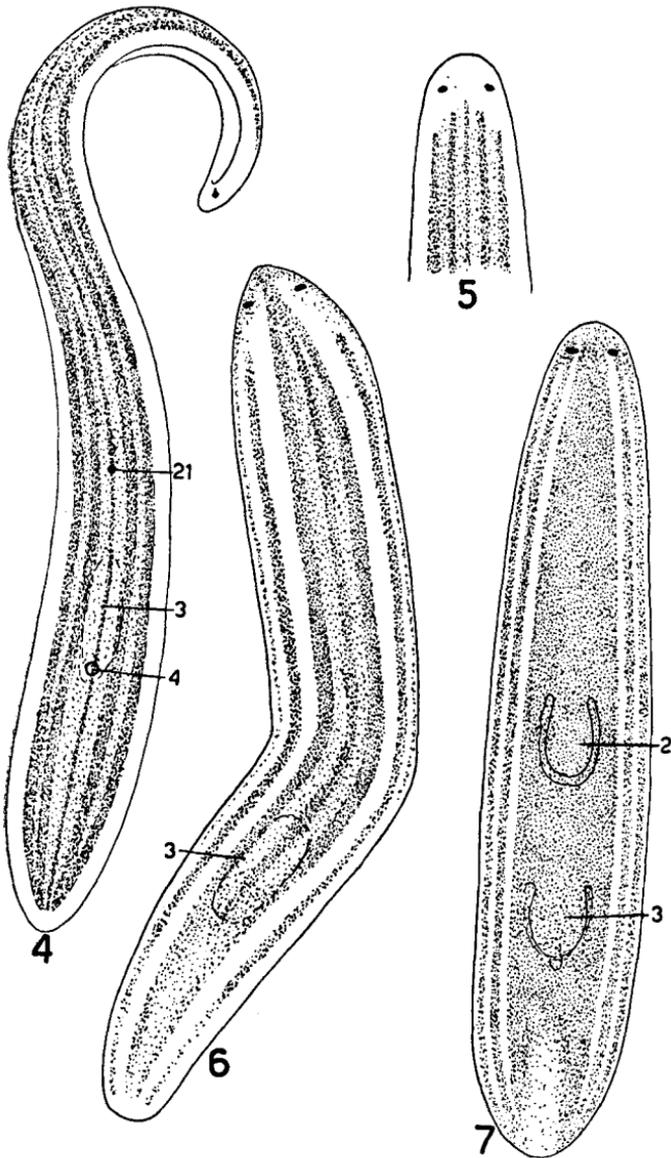
Family **Rhynchodemidæ**.

Rynchodemus atropurpureus (von Graff), 1899, new comb.
(Figs. 4–9.)

Syn. *Platydemus atropurpureus* von Graff.

Locality.—Three specimens, no. 159 from Koror, Palau Islands, no. 175 *b* from Angaur, Palau Islands, and no. 184 *a* from Peleliu, Palau Islands. Semper's specimen also came from Peleliu. The species appears to be limited to the Palau group of islands.

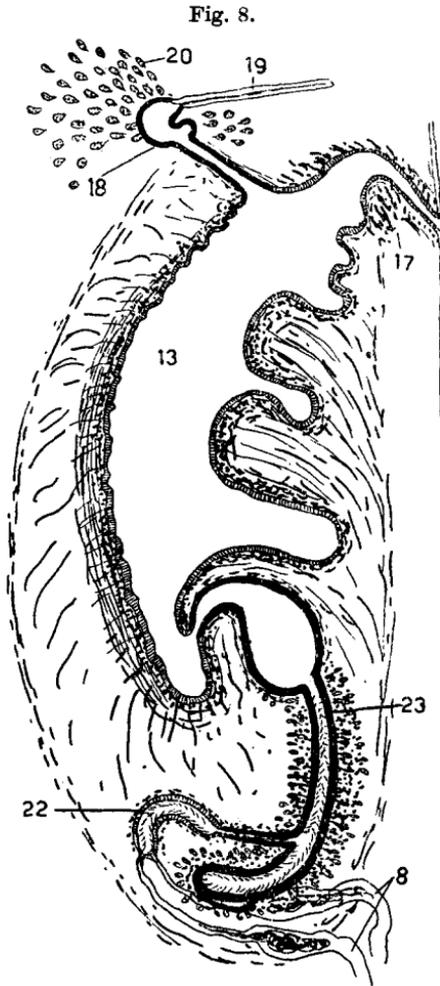
External characters.—The colour-pattern of the three specimens differs considerably, but study of the copulatory apparatus proved that all three are conspecific. Only no. 159 (fig. 4) agrees satisfactorily with von Graff's coloured figure (1899, pl. xvi. fig. 7). No. 159 has broad brownish-black longitudinal band and reddish-brown margin. Five indistinct longitudinal stripes present in the band, median stripe narrower than the others. Von Graff's figure shows all five stripes of equal width, but text states central stripe narrower than the others. Head of no. 159 shown in fig. 5, where stripes are seen to stop back of the eyes, as also noted by von Graff. Ventrally no. 159 has broad dark band of same width as dorsal band with dark margins, forming a more or less definite stripe. No. 184 *a* (fig. 6) has mid-dorsal band, in which three stripes are distinguishable; to each side of band is a dark stripe, and there is a faint darkening along the margin. General ground-colour yellowish brown; ventral surface somewhat pigmented, especially near margins. No. 175 *b* (fig. 7) had mid-dorsal brownish-black longitudinal band similar to 184 *b*, but without stripes; to either side of band are two narrow dark stripes on a yellowish-brown ground; ventral surface uniformly yellowish brown. In both 175 *b* and 184 *a*, the median band continues forward to meet pigment along anterior margin; but this effect may result from considerable contraction of the specimens. On comparing the colour-patterns of the three specimens, one concludes that the fundamental colour-pattern of the species consists of a broad dark dorsal band on a lighter ground. Band may include five stripes, as in fig. 4, or only three stripes, leaving the outermost stripes free, as in figs. 6 and 7; an additional pair of marginal stripes may be present, as in fig. 7, also faintly indicated in fig. 6.



Rhynchodemus atropurpureus.

- Fig. 4.—No. 159, having one broad dorsal band containing five stripes.
 Fig. 5.—Anterior end of no. 159.
 Fig. 6.—No. 184 a, having a mid-dorsal band containing three stripes, and separate lateral stripes.
 Fig. 7.—No. 175 b, having two lateral stripes on each side and a mid-dorsal band of uniform pigmentation.

Shape in life probably best represented by fig. 4; narrowed anterior end with pair of eyes and blunt head

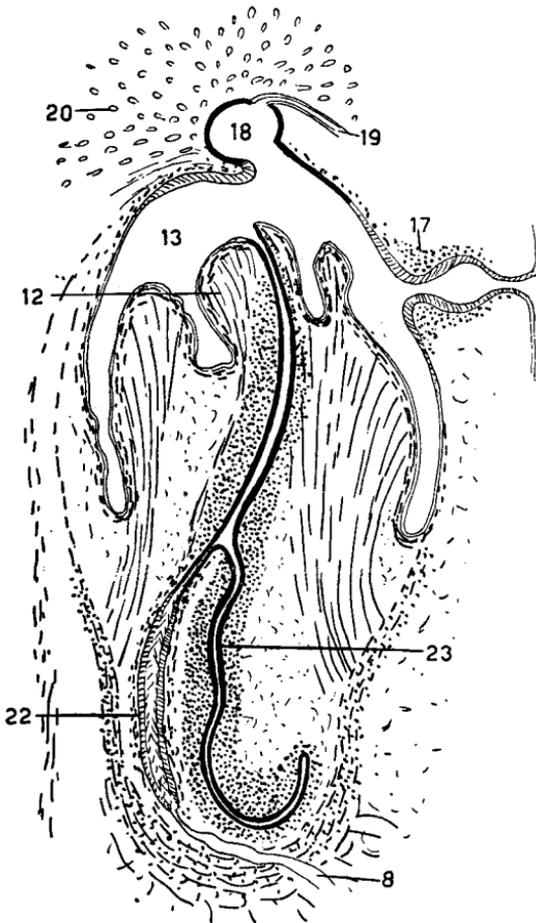


Sagittal view of the copulatory apparatus of *Rhynchodemus atropurpureus*, no. 184 a.

gradually widens to a somewhat broad flat posterior end. Length 8–13 mm.; Semper's specimen, on which von Graff based his description, was 17 mm. long.

Transverse section.—Of elongated form. Von Graff placed this species in the genus *Platydemus*, but according to Heinzl's analysis (1929) of the Rhynchodemidæ,

Fig. 9.



Sagittal view of the copulatory apparatus of *Rhynchodemus atropurpureus*, no. 175 b.

Platydemus belongs to those Rhynchodemids in which the longitudinal muscle-fibres of the body-wall are arranged in definite bundles. Transverse section shows no such

bundles in *R. atropurpureus*, and hence the species is transferred to *Rhynchodemus*.

Sexual anatomy.—All three specimens sexually mature ; anterior halves mounted whole, posterior halves sectioned. Copulatory apparatus identical in nos. 159 and 184 *a* ; no. 175 *b* differs somewhat, but the differences appear to be functional rather than morphological. Sagittal view of copulatory apparatus of nos. 159 and 184 *a* in fig. 8. Large oval male organ, separated from parenchyma by muscle stratum. No definite penis papilla, but lumen of male organ large, with greatly folded walls ventrally and laterally, less folded dorsally. Lining epithelium of male atrium underlain by a thick muscle-layer of inner circular and outer longitudinal fibres. Vasa deferentia penetrate anterior end of male organ, course dorsally in the muscle-coat, and enter separately the ciliated canal-like ejaculatory duct. This curves ventrally, narrows to a tube, which opens into middle of a long curved blind glandular canal, having thick coat of circular muscle-fibres and lined by glandular epithelium receiving the secretion of numerous gland-cells. This glandular canal of the penis begins blindly near vasa deferentia, curves dorsally, then runs backward to open through one of the folds of the penis lumen. In no. 184 *a* (fig. 8), glandular canal expands in its course through the fold, but has no such expansion in no. 159 (not illustrated). In all three specimens ventral lobe of fold is narrower than dorsal. Comparison of figs. 8 and 9 show that fold represents a retracted penis papilla.

Female apparatus very simple, consisting only of glandular duct extending posteriorly from posterior wall of genital atrium. Its distal end expands into a chamber receiving oviducts into its ventral wall. Entire glandular duct surrounded by eosinophilous gland-cells opening through its lining epithelium. Common genital atrium below glandular duct narrows to canal leading to genital pore ; place of narrowing guarded by a sphincter of circular muscles.

Copulatory apparatus of no. 175 *b* in sagittal view in fig. 9. This at first appears quite different from fig. 8, but closer inspection shows difference consists in protrusion of penis-folds to form a penis papilla. Penis papilla consists of three lobes, lateral flanking lobes, and

central larger lobe bearing the termination of the glandular canal. Presumably fig. 8 represents penis at rest and fig. 9 gives the erected condition.

Remarks.—Without study of the copulatory apparatus it would have been impossible to know that these three specimens are conspecific. In older works, where great reliance was placed on colour-pattern, they would undoubtedly have been considered distinct species. One suspects that many of the alleged species of land planarians are merely colour variations. The course of the ejaculatory duct inside the penis is peculiar; as shown in figs. 8 and 9, the duct does not proceed directly to the penis tip, as is usual in planarians, but opens by a stalk into the middle of a long blind canal of glandular nature. The wall of this canal is extremely muscular, and there can be little doubt that the secretion is expressed by muscular contraction during copulation. The only other species showing a similar condition, to my knowledge, is *Rhynchodemus gravelyni* de Beauchamp, 1930, from India, in which the glandular canal of the penis is quite separate from the ejaculatory duct, both opening independently on the penis papilla. The fortunate finding of the male apparatus in different functional states may prove of value in interpreting the male complex in the genus *Rhynchodemus*. It is known that many species of this genus apparently lack a penis papilla, having a male apparatus similar to that shown in fig. 8. Other species possess a well-differentiated projecting penis papilla. Figs. 8 and 9 show, however, that the folds of a male atrium which seems to be devoid of a penis papilla can be erected to form a well-defined papilla, and this undoubtedly happens when the penis is in use. The gap between the species without and those with a definite penis papilla is thus bridged. On the other hand, no transitions appear to exist between the *Rhynchodemus* species with and those without a seminal bursa. In view of the large number of species assigned to *Rhynchodemus*, it may eventually be necessary to subdivide the species among two genera retaining those lacking a bursa in the genus *Rhynchodemus*.

Platydemus lividus von Graff, 1899. (Figs. 10–11.)

Locality.—Three pieces, assumed to be one animal, assigned with some hesitation to this species, collected

Yap, Caroline Islands. Von Graff's specimen found by Semper on the island of Peleliu, Palau group.

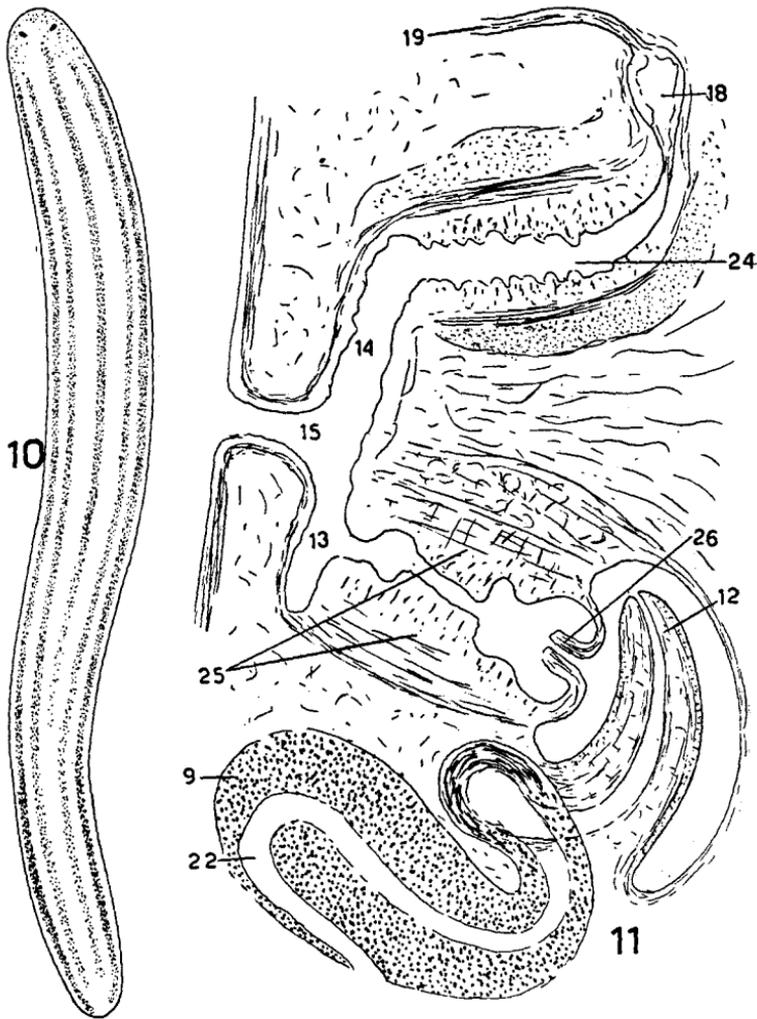


Fig. 10.—*Platydemus lividus*.

Fig. 11.—Sagittal view of the copulatory apparatus of *P. lividus*.

External characters.—View of animal restored from pieces in fig. 10; may be compared with von Graff's coloured figure, pl. xv. fig. 3. Colour light greyish violet with five

dark stripes according to von Graff; my specimen yellowish brown with five dark stripes. Distance between median and lateral stripes about twice as great as between lateral and marginal stripes, as also case with von Graff's specimens. The median stripe is absent from the two rear pieces of my specimen, hence must disappear posterior to pharynx. Marginal stripes darker and more sharply defined, but not narrower than others. Stripes begin some distance behind eyes, as also in von Graff's specimen. Form slender, elongated, with but slight narrowing to bluntly rounded extremities; 12 mm. long, on assumption that nothing is missing; von Graff's animal 20 mm. long.

Sexual anatomy.—One of the pieces contained the entire copulatory apparatus and was sectioned sagittally; the other pieces mounted whole. Copulatory apparatus has similarities to the figures of von Graff of the sexual complex of species of *Platydemus* (1899, pp. 204-205), and to those of de Beauchamp (1929). Sagittal view in fig. 11. Vasa deferentia penetrate anterior surface of a thick-walled dorso-ventrally elongated structure, presumably corresponding to the penis-bulb of other forms, but much more separate from the penis papilla than is usually the case with a penis-bulb. Bulb has heavy coat of circular muscle-fibres and pursues sinuous course to the base of the penis papilla. Its lumen, the ejaculatory duct, turns first ventrally, then dorsally, and after following bend of penis-bulb, enters base of penis papilla and continues to its tip. Penis papilla small, weak, cylindrical, inclosed in cavity, part of male atrium, connecting with common genital atrium by passage, having very thick, moderately muscular walls. This structure is termed sheath by von Graff. A valve guards opening from cavity containing penis papilla into lumen of penis-sheath. Wall of sheath consists of loose network of circular and longitudinal muscle-fibres. Female part of copulatory complex similar to male part in that thick-walled passage, "vagina" of von Graff, intervenes between common genital atrium and glandular duct; this has thick coats of longitudinal and circular fibres. It narrows distally to rounded chamber, the glandular duct, receiving the oviducts from below. Whether oviducts unite or not before entering glandular duct not determinable because of imperfections in the set of sections.

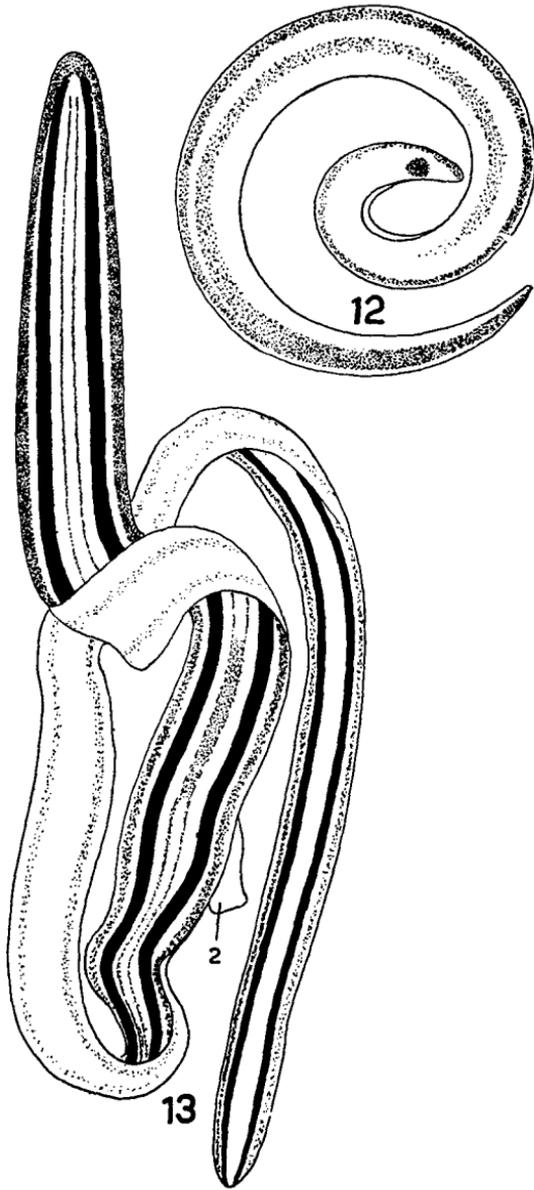


Fig. 12.—Unidentified Rhynchodemid.
Fig. 13.—*Dolichoplana striata*, no. 263.

Remarks.—My retention of this species in the genus *Platydemus* is based wholly on the resemblance of the copulatory apparatus to that of other species of *Platydemus*, notably *P. fasciatus* (Spencer) 1892. In his revision of the Rhynchodemidæ, Heinzl (1929) has employed chiefly histological characters in distinguishing the genera. Without transverse sections it is difficult, if not impossible, to apply Heinzl's generic distinctions. Having no transverse sections of *P. lividus* available, I have been forced to rely on the anatomy of the sexual complex. Heinzl includes *P. fasciatus* in his list of true *Platydemus* species, and because of resemblances between *fasciatus* and *lividus*, I am retaining the latter in *Platydemus*. *P. lividus* differs from other species of *Platydemus*, of which the copulatory apparatus is known, in the separation of the cavity containing the penis papilla from the rest of the male atrium and the presence of a penis-like valve between the two cavities.

Dolichoplana striata Moseley, 1877. (Fig. 13.)

As already mentioned, I am referring the majority of the specimens in the collection to this species. I must hasten to add that in so doing I am in accord with the opinion of de Beauchamp (1929) that *D. striata*, *procera*, *feildeni*, and probably *picta* are all one and the same species. According to von Graff (1899), *D. procera* differs from *D. striata* only in lacking the two narrow mid-dorsal stripes. Although these stripes are not mentioned in Moseley's original description of *D. striata*, they are evident on his figure of the transverse section, so that they must be considered typical of the species. *D. feildeni* differs from *striata* in that the marginal and lateral stripes are equally dark and distinct, and *picta* varies from *striata* only in some details of head pigmentation. The copulatory complex is known only for *D. feildeni*, and the status of these species can never be determined with certainty until this complex is known for each of them; unfortunately, *Dolichoplanas* are very seldom taken in the sexual state, and none of my specimens are sexual. A thorough study of the variability of the colour-pattern of living *D. striata*, with respect to age and locality, is also needed for a solution of the problem.

External characters.—Some specimens in the collection are very typical of von Graff's definition of *D. striata*, and one of these, no. 263, fig. 13, a fine perfect specimen, may be described as standard for the species. Length 120 mm., mouth about 50 mm. from anterior end. General ground-colour yellowish brown, with six longitudinal dark stripes, paired median, lateral, and marginal. Two median stripes very narrow, evident anteriorly, fading away shortly behind the pharynx, hence absent posteriorly. Lateral stripe on each side very conspicuous, black, sharply defined, beginning at the level of the eyes, continuing as well-marked bands to the posterior tip. Marginal stripes less dark, diffuse, ill-defined, of about same width as lateral stripes, continuous anteriorly with the pigmentation of the anterior tip, fading away posteriorly. Creeping sole white, occupying about one-third the width of the ventral surface, bordered on each side by diffuse pigmentation; rest of ventral surface yellowish brown.

Locality notes and coloration of other specimens in the collection.—It seems desirable to describe briefly the other specimens referred to *D. striata*, using the collector's numbers.

No. 133.—Collected Ponape, Caroline Islands. One juvenile *D. striata*, about 30 mm. long, broken into two pieces, shows the two narrow median stripes in region of pharynx only. Also two very young worms, about 7–8 mm. long, without any median stripes, lateral stripes closer together medially, and creeping sole wider than in adult *D. striata*. Vial also contains an indeterminable fragment of a land planarian, apparently not *D. striata*.

No. 139.—Collected on Mt. Tamatamansakir, Ponape, Caroline Islands, elevation 800–900 feet. Several pieces, probably originally one large specimen, no median stripes, hence corresponding to *D. procera*.

No 141.—Collected on Not Peninsula, Ponape, Caroline Islands. One complete juvenile specimen, 40 mm. long, without median stripes, hence corresponding to *D. procera*.

No. 184 *b*.—Collected at Peleliu, Palau Islands. Three pieces without the median lines, hence also like *D. procera*. No 184 *b*, found in this vial, was considered above.

No. 250, vial 1.—Collected at Yap, Caroline Islands, on a hillside back of Colony Town. Three pieces of

moderate size, also lacking median stripes, hence like *D. procera*.

No. 250, vial 2.—Collected same locality. One large fine specimen of *D. striata*, 170 mm. long, mouth 40 mm. from anterior end. Ground-colour greenish brown; marginal and lateral stripes typical; median lines visible under magnification on prepharyngeal region, absent behind pharynx. Postpharyngeal piece removed and sectioned in hope of finding copulatory apparatus, but none was present.

No. 263.—Collected at Yap, Government House Yard, described above.

Remarks.—From these observations it seems probable that the two median lines are limited to the larger specimens and are absent in juvenile *D. striata*. The above records extend the distribution of undoubted specimens of *D. striata*, originally found in the Philippines, to the Palau and Caroline islands. *D. procera* originally came from the Palau Islands and has since been recorded from the Kei Islands by Schröder (1918) and from Java by de Beauchamp (1929) and myself (unpublished identification of a specimen sent by the U.S. National Museum). If *D. striata* and *D. procera* are identical, as seems probable, then *D. striata* is widely spread throughout the islands of the Pacific. If they are not identical, then both occur in the Palau and Caroline Islands.

Unidentified Rhynchodemid. (Fig. 12.)

One single specimen, no. 148, collected at Jokaj Islet, Ponape, Caroline Islands, at 805 feet elevation, appears to differ from other forms of the collection and is not referable to any of the species known from the region. Without making transverse sections, it is impossible to allocate it to a genus, and as the animal appeared to be young, without any sexual system, the work of sectioning it did not seem worth while. The worm was therefore mounted whole, and is illustrated in fig. 12. Length, 10 mm., colour yellowish brown with four dark longitudinal stripes on the dorsal surface; median stripes darker and more definite than lateral stripes. Lateral stripes begin some distance behind the anterior end as vague pigment bands, grow wider and more distinct posteriorly, being finally joined by the median stripes

some distance prior to the posterior tip. Most distinguishing feature, an area of black pigment around each eye.

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XXXII.—*Contributions on the Palæontology of Afghanistan.—Oligocene (?) Mollusca.* By L. R. Cox, M.A., Sc.D., Department of Geology, British Museum (Natural History).

[Plate VII.]

INTRODUCTION.

THE fossils now described form a small part of a collection obtained by Professor H. G. Schenck, of Stanford University (California), and several colleagues on a geological reconnaissance of parts of Afghanistan made in 1938 on behalf of the Inland Exploration Company. I am greatly indebted to Professor Schenck for the privilege of studying this interesting collection, and to the Company mentioned for permission to publish the results. The fossils described have been presented to the Department of Geology of the British Museum (Natural History).

Except for an early paper by a Captain Hay (1840), which includes crude figures of a number of undetermined fossil shells, some possibly of Eocene age, and a recent note by Dr. B. Prashad (1937) describing some Upper Tertiary non-marine shells, the only previous paper describing Tertiary mollusca from Afghanistan is a recent contribution by myself (1938) dealing with material from northern Afghanistan collected by MM. H. de