

pluma. Fig. 1 exhibits the polypite exerted from the hydrotheca, and the pseudopodia withdrawn: *a a*, mesial nematophore; *b*, lateral nematophore; *c*, bulbous termination of the protoplasmic contents of mesial nematophore, with a cluster of large thread-cells immersed in the protoplasm; *d*, point at which the protoplasm of the mesial nematophore may be projected in the form of a pseudopodium through the lateral aperture of the nematophore into the cavity of the hydrotheca. The figure represents the condition in which the pseudopodial process is entirely withdrawn.

Figs. 2-4. Polypite retracted and the pseudopodia in various states of emission: *d'*, pseudopodia projected into the cavity of the hydrotheca through the lateral aperture in the mesial nematophore. In fig. 4, the pseudopodium has become irregularly branched: *e*, pseudopodia projected into the surrounding water from the summit of the lateral nematophore.

Fig. 5. Portion of a ramulus of *Antennularia antennina* with hydrotheca and exerted polypite, and nematophores: *a*, azygous or mesial nematophores; *b*, lateral nematophores in pairs; *d*, protoplasm in a state of repose, forming a spherical mass in the distal chamber of the nematophore; *d'*, protoplasm of the azygous nematophores extended as a digitiform pseudopodium; *e*, similar extension of the protoplasm of the lateral nematophores.

XXII.—On the Species of *Neæra* found in the Seas of Japan.

By ARTHUR ADAMS, F.L.S. &c.

THE species of *Neæra*, properly so called, are less numerous than is commonly imagined. Many shells formerly regarded as belonging to this genus have already been distributed among other tribes. For example, *N. viridescens*, Hinds, *N. opalina*, Hds., and *N. lata*, Hds., have been properly referred to *Theora*, a genus which I consider should be placed in Tellinidæ, in close proximity to *Abra* or *Syndosmya*. Then, again, *N. lyrata*, Hds., *N. tenuis*, Hds., and *N. pulchella*, Ad. & Rve., have been removed to *Raëta*, a genus of Mactridæ; and now I shall endeavour to show, by an examination of the hinge-teeth and by other characters, that *N. cochlearis*, Hds., and *N. adunca*, Gould, constitute two small groups in the immediate vicinity of *Scrobicularia*.

The genus even then, when properly restricted, will exhibit forms so dissimilar, or dentition so peculiar, as to require to be thrown into three distinct groups.

Genus NEÆRA, Gray.

Shell inequivalve. Surface of valves lamellar. Hinge with a prominent cup-like cartilage-pit. Right valve with a posterior lateral tooth.

1. *Neæra elegans*, Hinds.

N. elegans, Hds. Proc. Zool. Soc. 1843, p. 76.

N. Molluccana, Ad. & Rve. Moll. Voy. Sam. pl. 23. f. 4.

Hab. Mino-Sima; 63 fathoms.

2. *Næra nobilis*, A. Ad.

N. testa oblonga, ventricosa, albida, antice rotundata, postice valde rostrata, concentrice plicata; plicis salientibus, subconfertis, æquidistantibus, interstitiis concentrice striatis; rostro angulato, recurvato, ad apicem rotundato; margine ventrali arcuato, simplici.
Lat. 1 unc. 7 lin., alt. 1 unc.

Hab. Mino-Sima; 63 fathoms: Quelpart; 52 fathoms.

A fine species, most nearly resembling *N. rostrata*, Chemn., or *N. Chinensis*, Gray. The outline of the shell, however, is very different, the beak being broad and triangular, and the surface of the valves concentrically plicate.

3. *Næra Hindsiana*, A. Ad.

N. testa oblonga, ventricosa, albida, antice rotundata, postice rostrata, concentrice lamellata; lamellis pliciformibus, regularibus, subdistantibus, interstitiis concentrice striatis; rostro angulato, attenuato, corrugato, recurvato.
Lat. 10 lin., alt. 5 lin.

Hab. Gotto; 48 fathoms.

The form of this species is very similar to *N. elegans*, Hds.; but the lamellæ of the valves are regularly concentric, the shell is more elongate at the sides, and the beak is shorter and more recurved.

4. *Næra nasuta*, A. Ad.

N. testa oblonga, obliqua, ventricosa, albida, antice rotundata, postice longirostrata, concentrice striata, striis confertis irregularibus; rostro elongato, attenuato, deflexo, corrugato; margine ventrali valde arcuato.
Lat. 11 lin., alt. 6 lin.

Hab. Satanomosaki; 55 fathoms.

A ventricose oblique species, with the valves concentrically striated, and the slender elongate beak bent downwards, giving to the shell a very peculiar spoon-like appearance.

Subgenus RHINOMYA, A. Ad.

Surface of valves lamellar. Hinge with a small triangular cartilage-pit and two lateral teeth in right valve.

1. *Rhinomya Philippinensis*, Hinds.

Næra Philippinensis, Hds. Proc. Zool. Soc. 1843, p. 78.

Hab. Kino-O-Sima; 25 fathoms: Uraga; 21 fathoms.

2. *Rhinomya rugata*, A. Ad.

R. testa oblonga, ventricosula, albida, concentrice confertim lirata;

liris corrugatis, subincrassatis; antice rotundata, postice rostrata; rostro elongato, attenuato, apice truncato.
 Lat. 4 lin., alt. $2\frac{1}{2}$ lin.

Hab. Tabu-Sima; 25 fathoms.

A small species, very much resembling in form *N. Philippinensis*, Hds., but with the surface of the valves concentrically rugosely striate.

Subgenus *CARDIOMYA*, A. Ad.

Shell inequivalve. Surface of the valves radiately ribbed. Right valve with a prominent posterior lateral tooth.

Cardiomya Gouldiana, Hinds.

Neæra Gouldiana, Hds. Proc. Zool. Soc. 1843, p. 77.

Hab. Uraga, 21 fathoms; Gotto, 48 fathoms; Tsu-Sima, 25 fathoms.

Genus *LEPTOMYA*, A. Ad.

Shell thin, ventricose, beaked posteriorly. Surface of valves lamellar. Hinge with an oblique cartilage-pit in each valve. Right valve with two anterior primary teeth; left valve with a single primary tooth. Lateral teeth none. Pallial sinus deep.

This genus belongs to the family Tellinidæ, and is closely allied to *Scrobicularia*.

1. *Leptomya cochlearis*, Hinds.

Neæra cochlearis, Hds. Proc. Zool. Soc. 1844, p. 98.

Hab. Gotto; 48 fathoms; Seto-Uchi; 7 fathoms.

2. *Leptomya adunca*, Gould.

Scrobicularia (Capsa) adunca, Gld. Otia Conch. p. 167.

Hab. Tsu-Sima; 30 fathoms.

Subgenus *LEIOMYA*, A. Ad.

Shell thin, ventricose, hyaline, beaked posteriorly. Hinge with an internal cartilage-pit in each valve. Right valve with two anterior primary teeth; left valve with a single primary tooth. Lateral teeth two, strong, prominent.

Leiomya adunca, Gould.

Neæra adunca, Gld. Otia Conch. p. 162.

Hab. Seto-Uchi; 7 fathoms; Hakodadi, 7 fathoms.

Genus *THEORA*, H. & A. Ad.

Shell thin, smooth, pellucid, gaping at both sides. Hinge

with an oblique cartilage-pit in each valve; primary teeth none. Valves simple within.

The deep sinus of the pallial line, together with the form of the valves and the pellucid vitreous texture of the shell, clearly show that this genus belongs to the Scrobiculariate division of the Tellinidæ, and not very far from the *Abra* of Leach or *Syndosmya* of Récluz.

1. *Theora iridescens*, Hinds.

Næra iridescens, Hds. Proc. Zool. Soc. 1843, p. 78.

Hab. Yobuko.

2. *Theora fragilis*, A. Ad.

Næra fragilis, A. Ad. Proc. Zool. Soc. 1855, p. 226.

Hab. Niegata; 7 fathoms.

3. *Theora nitida*, Gould.

Theora nitida, Gld. Otia Conch. p. 162.

Hab. Scto-Uchi: Simonoseki; 7 fathoms.

Subgenus ENDOPLEURA, A. Ad.

Shell pellucid, gaping at both sides. Hinge with a bifid primary tooth in front of the oblique cartilage-pit. Valves with an internal rib extending from the beaks obliquely towards the anterior side.

Endopleura lubrica, Gould.

Theora lubrica, Gld. Otia Conch. p. .

Hab. Hakodadi; 10 fathoms: Niegata, 7 fathoms.

XXIII.—*Characters of new Land-Shells from the Mahabaleshwar Hills in Western India, and from Agra in the North-west Provinces.* By W. H. BENSON, Esq.

Achatina Arthuri, B.

A. testa ovato-conica, irregulariter plicato-striata, luteo-fulva, polita, translucente; spira ovato-conica, apice obtuso, sutura impressa; anfractibus $7\frac{1}{2}$, convexusculis, prope suturam subcrenulatis; apertura subverticali, elliptico-ovata; peristomate crassiusculo, callo parietali infra albido; margine columellari oblique truncato.

Long. 19, diam. 10, apert. long. 8 mill.

Habitat ad Neher (Malcolm Peth) montibus Mahabaleshwar dictis.

A single specimen, in a state too imperfect for description, was taken by my son, Lieut. Arthur E. Benson, then in the 10th Hussars, at the hill-station in question, in 1853. I sent a rough sketch to the Rev. S. B. Fairbank, who searched carefully for it, and has kindly furnished me with three living spe-