

*Noticeable Features of Hydroids and the corresponding Medusæ.*

1. Comparative abundance of Thecaphora and poverty of Athecata, possibly owing in part to insufficient search for the latter.

2. The appearance in considerable numbers of *Hybocodon* in May and *Euphysa* in August. *Steenstrupia* may yet be found if searched for at sufficient depths; I netted it in great numbers in Sullom Voe, Shetland, after a westerly gale had stirred up the bottom; the second day I obtained a few as the mass were settling down, and after that I got no more.

3. The singularly interesting and beautiful budding forms—*Hybocodon*, with its heavy group of buds round the tentacle-bulb; *Rathkea*, budding round the short thick manubrium within the subumbrella; and the graceful *Codonium gemmiferum* (August), with the buds spirally arranged round the long manubrium mainly outside the umbrella. That figured in Forbes's Monograph is a young form evidently recently detached. The adult resembles in the length of the manubrium and other details Haeckel's *Sarsia siphonophora*.

The very occasional appearance, often entire absence for the season, of *Siphonophora* perhaps merits incidental mention.

XXXIX.—*Natural History Notes from H.M. Indian Marine Survey Steamer 'Investigator,' Commander C. F. Oldham, R.N.—Series II., No. 20. Report upon some Mollusca dredged in the Arabian Sea during the Season 1894-5. By EDGAR A. SMITH.*

WITH the exception of the *Amussium andamanicum*, all the species quoted in this paper are from comparatively shallow water, and consequently have not that special interest which is attached to deep-water forms. It is proposed to give figures of the new species in a subsequent communication.

*Pleurotoma marmorata*, Lamarck.

*Pleurotoma marmorata*, Lamk., Reeve, Conch. Icon. fig. 21; Kiener, Icon. Coq. Viv. pl. vi. fig. 1; Weinkauff, Conch.-Cab. ed. 2, pl. iii. fig. 4; Tryon, Man. Conch. vol. vi. pl. ii. figs. 16, 16 a.  
Jun. = *P. hastula*, Reeve, op. cit. fig. 139.

*Hab.* Red Sea, Indian Ocean to Polynesia; lat. 20° 37' 15"



N., long. 69° 24' 20" E., Arabian Sea, off Gujerat, in 44 fathoms ('Investigator').

These specimens differ from what may be regarded as the typical form in having the periphery of the whorls marked with a double instead of a simple acute keel.

*Nassa pseudoconcinna*.

Testa elongato-pyramidalis, turrita, albida, subpellucida, fasciis tribus dilute rufis supra anfractum ultimum picta; anfractus 8, convexi, supremi quatuor læves, in medio carinati, cæteri costis numerosis arcuatis sulco infra suturam bisectis instructi, in interstitiis spiraliter sulcati, ultimus prope basin costis plus minus nodosis; apertura irregulariter subovalis, longit. totius  $\frac{1}{2}$  vix æquans; labrum ad marginem acutum intus paulo incrassatum, tuberculis circiter 9 munitum, extus leviter varicosum; columella arcuata, callo tenui circumscripto induta, tuberculo minuto superne instructa; canalis anterior latus, obliquus, brevissimus, recurvus.

Longit. 15 millim., diam. 8; apertura 7 longa, 4 lata.

*Hab.* Lat. 21° 30' 15" N., long. 68° 05' 45" E., Arabian Sea, off Gujerat, in 82 fathoms.

*N. concinna*, Powis, appears to be the nearest ally of this species. It is, however, larger, has ten less convex whorls, the body-whorl is more contracted at the base, the basal canal is narrower, the outer lip more strongly varixed. In *concinna* the three brown bands extend over the varix, whereas in the present species they stop short of it, so that it has a pallid look. The thickening within the lip is faintly yellowish and slightly removed from the acute edge.

In describing *N. turrifera* (Ann. & Mag. Nat. Hist. 1895, vol. xvi. p. 5) I regret having overlooked *N. babylonia* of Watson, which is quite identical, and was obtained in 375 fathoms off the Philippine Islands.

*Distortrix cancellina* (Roissy), var.

*Triton cancellinus* (Roissy), Reeve, Conch. Icon. sp. 45; Kobelt, Conch.-Cab. ed. 2, p. 200, pl. lvii. figs. 5, 6; Kiener, Icon. Coq. Viv. p. 21, pl. xiv. fig. 1; Tryon, Man. Conch. vol. iii. p. 35, pl. xvii. fig. 175; Kiener, Icon. Coq. Viv. pl. xiv. fig. 1 (as *T. clathratum*, Lam.).

*Hab.* Philippines, China, Ceylon.

Var. *ridens*.

*Triton ridens*, Reeve, l. c. fig. 46; Tryon, pl. xvii. fig. 177; Kobelt, pl. lviii. fig. 4.

*Hab.* Philippines.



Var. *decipiens*.

*Triton decipiens*, Reeve, fig. 102; Tryon, pl. xvii. fig. 178; Kobelt, pl. lxvii. fig. 7.

*Hab.* Philippines (Reeve); lat.  $21^{\circ} 30' 15''$  N., long.  $68^{\circ} 05' 45''$  E., Arabian Sea, off Gujerat, in 82 fathoms ('*Investigator*').

The specimens obtained by the '*Investigator*' more closely resemble the last variety than any other. The colour of the outer lip and the columellar callus is the same. The form of the aperture is quite similar, but there is only a single parietal tubercle instead of three or four, as usual in this variety. They are clothed with a hairy epidermis, the hairs being placed in longitudinal rows upon the ridges. In the interstices the epidermis is minutely reticulated and setose, and the general appearance is fibrous. The embryonic shell consists of three smooth, convex, glossy whorls, and the normal volutions have a more regular convex and less distorted aspect than in Reeve's type.

*Triton constrictus* of Reeve is considered synonymous with this species by Tryon, who remarks that it, together with *T. ridens* and *T. decipiens*, "have no claim to rank even as varieties." Although in general conformation *T. constrictus* resembles the other forms mentioned, I consider that its great solidity, the much more distorted spire, coarser sculpture, and heavy labrum are sufficient to separate it specifically. The geographical range also is quite different. With regard to the generic name to be applied to this group of "Tritons," there appears to be some divergence of opinion. Casting aside the uncharacterized Boltenian catalogue-name of *Distorsio*, the most available appears to be *Distortrix* of Link (1805).

*Capulus irregularis*.

Testa pileiformis, apice postice valde recurvato, sordide albida, pallido-rufi radiatim obscure picta, lamellis irregularibus concentricis undulatis instructa; anfractus 3, apicales duo (nucleus) globosi, læves; forma aperturæ irregularis, vel rotundata, vel elongata, etc.; superficies interna albida, plus minus rufi tincta, nitida; peristoma antice tenue, postice intus incrassatum.

Diam. maj.  $15\frac{1}{2}$  millim., min. 12; alt. 8.

*Hab.* Lat.  $20^{\circ} 37' 15''$  N., long.  $69^{\circ} 24' 20''$  E., Arabian Sea, off Gujerat, in 44 fathoms.

Like *Capulus lissus*, Smith, this species has no radiating



sculpture. In general form it recalls some examples of the West-Indian *Hipponyx antiquatus* (L.). The apex is so much recurved as to pass the posterior margin of the aperture.

*Crassatella indica.*

Testa valde inæquilateralis, crassiuscula, antice rotundata, postice subquadrata, costis concentricis crassiusculis numerosis utrinque attenuatis instructa, albida, epidermide haud nitida, lutescente induta; margo dorsi anticus valde descendens, concavus, posticus longior, minus obliquus, rectus; umbones prominentes, longe antemediani, incurvati, vix contigui, acuti; lunula cordata profunde excavata, lineis incrementi tenuibus striata; area dorsi postica excavata, lanceolata; pagina interna alba vel cæruleo-alba; cicatrices parvæ, subprofundæ, subæquales; margo valvarum inferior intus tenuiter denticulatus; cardo normalis, dentibus principalibus striatis.

Longit. 28 millim., alt. 24, diam.  $17\frac{1}{2}$ .

*Hab.* Lat.  $21^{\circ} 30' 15''$  N., long.  $68^{\circ} 05' 45''$  E., Arabian Sea, off Gujerat, 82 fathoms.

Distinguished from allied species by difference of form and costulation. The ribs near the posterior extremity are more or less obsolete or concealed by the periostracum.

*Amussium andamanicum*, Smith.

*Amussium andamanicum*, Smith, Ann. & Mag. Nat. Hist. 1894, vol. xiv. p. 172, pl. v. figs. 13, 14.

*Hab.* Lat.  $15^{\circ} 11'$  N., long.  $72^{\circ} 28' 45''$  E., Arabian Sea, west of Goa, in 931 fathoms.

Two specimens from this locality are rather larger than the type from the Andaman Sea, being 43 millim. in length and 51 high. The greater development of the concentric lamellæ towards the lower margin of the left valve, as shown in the figure, appears to be characteristic of the species; also the feebleness of the central radiating liræ within the valves is maintained. The microscopic structure of the valves is different. The right valve is minutely punctate everywhere, and the fine concentric ridges towards the umbo are crossed by very short minute striæ. The left valve, on the contrary, may be described as smooth. The conspicuous difference in the structure of the valves is best seen by means of transmitted light.



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