and exhibits none of the distortion which is so conspicuous in P. cernua. Within the stem a very delicate ringed or spiral structure is visible.

EXPLANATION OF PLATE XV.

Fig. 1. Sertularella quadricornuta, n. sp. 1a. Gonothecæ.

- Fig. 2. Flustra solida, Stimpson, nat. size.
- Fig. 3. Flustra solida, zoœcia, magnified.
- Figs. 4, 5. Phylactella (?) grandis, n. sp. 5a. Ocecium.

Fig. 6. Eschara (auctt.) glabra, n. sp.

Fig. 7. Mucronella simplex, n. sp.

Fig. 8. Alcyonidium excavatum, n. sp.

Fig. 9. Alcyonidium excavatum, showing the concave side.

Figs. 10, 11. Arachnidium simplex, n. sp. Figs. 12, 13. Barentsia bulbosa, n. sp. Two of the erect stems, highly magnified.

Fig. 14. Barentsia bulbosa: a single peduncle and polypide.

XXXIV.—Descriptions of six new Species of Shells from Vancouver Island. By EDGAR A. SMITH.

THE forms here described form part of a collection recently obtained by the British Museum.

Pleurotoma vancouverensis.

Shell fusiform, white. Whorls about eight in number, a trifle concave at the upper part, bulging beneath, cancellated with longitudinal fine costæ and spiral ridges, the points of intersection being somewhat nodulous. Spiral ridges or liræ about six or seven on a whorl, whereof the three uppermost are finest. Beneath these comes one rather stouter, which is again succeeded by two still coarser at the bulging part of the volutions; and another finer one is visible on some of the lower whorls adjacent to the suture. The costæ are flexuous, first bearing to the right and then to the left, and are thicker at the lower part or upon the stout transverse liræ, the nodules here being also coarser than those above. Last whorl contracted below the middle and shortly caudate, encircled with spiral ridges to the extremity, which are scarcely affected by the longitudinal ribs beyond the middle. Aperture less than half the entire length. Labrum thin, broadly notched beneath the suture, arcuate and prominent below the incision. Columella a little oblique, smooth, scarcely tortuous. Canal narrowish, moderately short. Length $11\frac{1}{2}$ millims., diam. 4.

The absence of colour and the peculiarity of its sculpture will distinguish this pretty form.

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Sipho angustus.

Shell fusiform, eroded at the apex, whitish, with a broad obscure brownish band round the middle of the whorls, clothed with a greenish-yellow epidermis. Whorls probably about ten, slightly convex, slowly enlarging, longitudinally plicated, and everywhere finely spirally striated and marked with flexuous lines of growth. Plicæ a trifle oblique and arcuate, not particularly raised, broader than the interstices, about eighteen on the penultimate whorl. Last volution rounded at the middle, then contracted and produced into a slender recurved beak; the plicæ upon it become more or less obsolete below the middle. Aperture, together with the canal, occupying rather less than half the entire length of the shell, light brown within. Outer lip (viewed laterally) broadly sinuated above, and prominently arcuate at the middle. Columella scarcely arched at the centre, and turned obliquely to the left towards the extremity. Length 25 millims., diam. $6\frac{1}{2}$; aperture with canal $11\frac{1}{2}$ long, $3\frac{1}{3}$ wide.

This species is remarkable for its slender form, the close spiral striation, and the arcuate plicæ or ribs, a feature which is not characteristic of the genus.

Columbella (Nitidella?) Dalli.

Shell fusiformly ovate, yellowish white, reticulated with pale brown, the interstices being of irregular shapes and sizes; or, in other words, it is pale brown, closely spotted irregularly with yellowish white. Epidermis very thin. Apex eroded. Remaining whorls six, flattish or scarcely convex, smooth, separated by a deep suture, giving the spire a slightly turreted aspect. Last whorl feebly angular at the middle, contracted inferiorly, and striated around the extremity. Aperture pale lilac within, occupying about three sevenths of the entire length. Outer lip arcuate, thickened, especially at the upper part, thin at the margin, and armed within the mouth with about seven elongate tubercles. Columella arched above, oblique at the base, with indications of one or two tubercles below the middle, covered with a thin whitish callosity. Basal canal a little recurved. Length 14 millims., diam. $5\frac{1}{3}$; aperture 6 long, $2\frac{1}{2}$ broad.

This species is broader than *C. cribraria*, has a less acuminate and more turreted spire, and the colour is much paler. The outer lip, too, does not exhibit nearly so distinct a superior sinus; and the last whorl is more contracted at the base, forming more of a distinct basal canal with the lower extremity of the labrum.

Chemnitzia Lordii.

Shell subulate, whitish, banded at the sutures with light brown, with a narrow line of the same colour round the middle of the whorls. The latter 12–13, slightly convex, about twice as broad as high, longitudinally ribbed and spirally striated in the interstices. Costæ only slightly oblique, scarcely arcuate, rather broader than the interstices, about 18–20 on each volution, those upon the last terminating abruptly at the periphery. Suture hardly oblique, feebly undulating. Last whorl finely concentrically striated below the middle. Base pale brown, with a single white zone. Aperture a little longer than broad and a trifle effuse at the base. Columella simple, white, nearly erect. Length 13 millims., diam. $3\frac{3}{4}$.

The colour of this interesting species at a short distance from the eye appears to be a uniform pale brown, but on close inspection proves to consist of light zones with intermediate brownish ones. The apex of the single specimen at hand is worn; hence I cannot offer a description of the nuclear whorls. The transverse striæ are described as being in the interstices between the costæ; but in reality they are more or less feebly continuous upon them.

The name imposed upon this shell will awake pleasant recollections, in the minds of those who knew him, of one who passed away some years since. J. Keast Lord, a most liberal donor to the museum, did much to extend our knowledge of the natural history of Vancouver Island.

Trochus (Margarita) vancouverensis.

Shell conical, moderately umbilicated, greyish white. Whorls five, slightly convex, with oblique, flexuous ribs extending from suture to suture, also obscurely spirally striated. Last whorl obtusely angulated at the middle, rather flattened beneath, with four or five concentric sulci at the angle, of which the three uppermost are broader than those below; and the interstices or liræ between them are also stouter. The rest of the flattened base is arcuately plicated, or, in other words, exhibits the continuation of the costa upon the upper half of the volution, which are interrupted by the sulci at the periphery. Umbilicus smallish, surrounded by a subtuberculous double ridge. Aperture subrotund, flattened at the base, iridescent within. Columella a trifle arcuate, somewhat expanded above, and at the lower extremity forming an angle with the base. Length $6\frac{1}{2}$ millims., diam. $6\frac{1}{2}$; aperture nearly 3 long and wide.

Mr. R. Etheridge, Jun., on Gasteropoda.

In some places, probably where the superficial calcareous layer is thin, the pearly iridescence beneath it is observable. The oblique flexuous costæ are about nineteen in number on the penultimate, and a trifle more numerous upon the last whorl.

Yoldia vancouverensis.

Shell almost equilateral, transversely elongate-oval, acuminated posteriorly, slightly gaping at both ends, clothed with a greenish olivaceous epidermis, which is darker towards the ventral margin and varied at intervals with dark zones. Surface not very glossy, marked with concentric lines of growth and close microscopic striation and granulation. Anterior side a triffe the longer, regularly rounded at the margin, posterior more acute. Hinder dorsal slope nearly rectilinear, scarcely arcuate. Area distinct. Length 12 millims., width $22\frac{1}{2}$, diam. 6.

This species is narrower posteriorly than Y. arctica, Gray, which it somewhat resembles, less glossy, and is very minutely granular upon the surface, this sculpturing being only discernible under a powerful lens.

XXXV.—Notes on the Gasteropoda contained in the Gilbertson Collection, British Museum, and figured in Phillips's 'Geology of Yorkshire.' By R. ETHERIDGE, Jun., F.R.Ph.S.Ed.

[Continued from vol. v. p. 485.]

THE SPECIES FIGURED ON PLATE XIV

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Smith, E. A. 1880. "XXXIV.—Descriptions of six new species of shells from Vancouver Island." *The Annals and magazine of natural history; zoology, botany, and geology* 6, 286–289. <u>https://doi.org/10.1080/00222938009458939</u>.

View This Item Online: https://doi.org/10.1080/00222938009458939 DOI: https://doi.org/10.1080/00222938009458939 Permalink: https://www.biodiversitylibrary.org/partpdf/63258

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