

WASHINGTON GEOLOGICAL SURVEY


HENRY LANDES, State Geologist

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A Preliminary Report on the
Tertiary Paleontology
OF
Western Washington

By CHARLES E. WEAVER



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angulated; suture distinct, impressed and linear; surface below angle slightly convex, that above distinctly concave; surface of body whorl ornamented with fifteen longitudinal ribs which extend over whorls of spire; these entirely disappear just above the angle and a short distance below and form conspicuous nodes on the angle; there are sixteen equally spaced revolving ribs from base to angle and between each is a broad flat-bottomed interspace containing a fine revolving thread; in addition there are fine lines of growth which are sinuous and conform to the posterior sinus. Aperture narrow and elongate terminating in a long narrow canal; posterior end with deep sinus; inner lip smooth and incrustated; outer lip thin; canal long and straight.

Dimensions.--Altitude 45 mm.; diameter 7 mm.; altitude of spire 22 mm.; angle of spire 30°.

Occurrence.--At Loc. No. 1 (University of Washington Paleontological Collection) one and one-half miles east of Sopenah (Little Falls) in bank of Cowlitz River, Lewis County.

Horizon.--Cowlitz formation, Upper Eocene.

GENUS CONUS LINNAEUS

CONUS COWLITZENSIS n. sp.

Plate II. Figure 20.

Description. Shell biconical; spire a little over one-fourth of total length; whorls seven and a half to eight, and very sharply angulated; upper two forming the apex are smooth and rounded; angle set with nodes. Body whorl conical below the angle; nearly flat above but sloping close to the suture making the upper surface of each whorl decidedly convex; eighteen very distinct nodes on the angle; these do not continue above or below as ribs, although blunt and rounded they are pointed slightly to the left. Surface marked by forty revolving lines below the angle which are more distinct toward base of whorl; portion of whorl above angle obscurely sculptured by revolving lines. Numerous faint lines of growth are present. Aperture linear and narrow and extending to end of spire. The spire varies some-

what in length, but the upper surface of whorls are extremely convex.

Dimensions.—Altitude 38 mm.; diameter 15 mm.; altitude of spire 13 mm.; angle of spire 50°; angle of lower part of body whorl 33°.

Occurrence.—Common at Loc. No. 1 (University of Washington Palaeontological Collection) one and one-half miles east of Sopenah (Little Falls) in bank of Cowlitz River, Lewis County.

Horizon.—Cowlitz formation, Upper Eocene.

BRACHIOPODA.

GENUS RHYNCONELLA FISCHER.

RHYNCONELLA WASHINGTONIANA H. S. D.

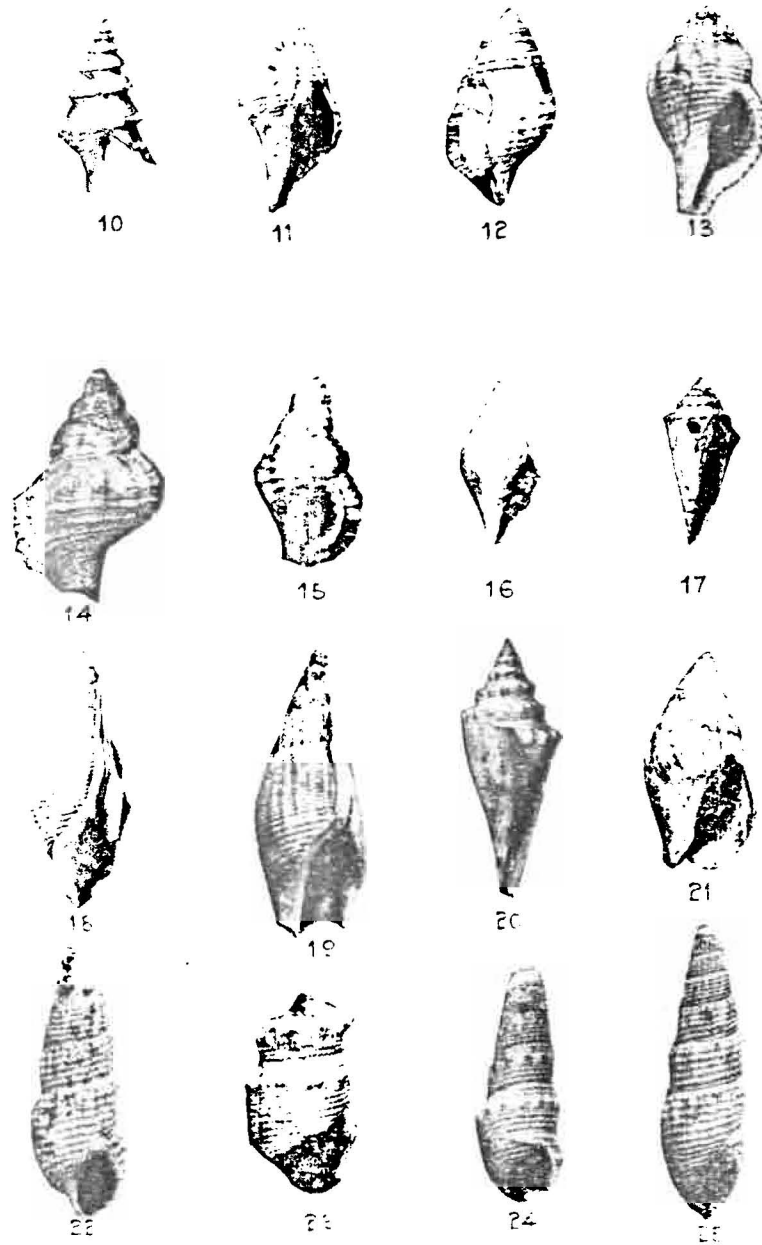
Plate V. Figures 44, 45.

Description.—Shell sub-circular medium size, thin and very slightly longer than wide; hinge line narrow and situated at middle of shell; dorsal valve evenly convex, sub-circular with no trace of medial fold; ventral valve with same convexity as dorsal; sinus distinct; margin sloping down at an angle of 40° from beak; base arcuate; beak prominent, incurv. c. Sculptured with about thirty radiating ribs, many of which are dichotomous; these are crossed by numerous concentric lines of growth; medial groove fairly distinct, but not deep; more pronounced towards basal margin.

Dimensions.—Ventral valve, altitude 20 mm.; longitude 17 mm.; thickness 2.5 mm. Dorsal valve, altitude 18 mm.; longitude 18 mm.; thickness 2.5 mm.

Occurrence.—At Loc. No. 1 (University of Washington Palaeontological Collection) one and one-half miles east of Sopenah (Little Falls) in bank of Cowlitz River, Lewis County.

Horizon.—Cowlitz formation, Upper Eocene.



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|----------------------------------------------------------------|----------------------------------------------------------------|
| 10. <i>Mitra washingtoniana</i> | 14. <i>Ranella washingtoniana</i> |
| 11. <i>Hemiphaedusa acuminata</i> | 15. <i>Ranella covillei</i> |
| 12. <i>Hemiphaedusa acuminata</i> | 16. <i>Mitra washingtoniana</i> |
| 13. <i>Hemiphaedusa acuminata</i> | 17. <i>Conus horni</i> Gabb |
| 14. <i>Ranella washingtoniana</i> | 18. <i>Ranella washingtoniana</i> var. <i>elongata</i> L. var. |
| 15. <i>Ranella covillei</i> | 19. <i>Ranella washingtoniana</i> var. <i>elongata</i> L. var. |
| 16. <i>Mitra washingtoniana</i> | 20. <i>Conus horni</i> Gabb |
| 17. <i>Conus horni</i> Gabb | 21. <i>Ancillaria breizi</i> |
| 18. <i>Ranella washingtoniana</i> var. <i>elongata</i> L. var. | 22. <i>Potamides tetiko</i> |
| 19. <i>Ranella washingtoniana</i> var. <i>elongata</i> L. var. | 23. <i>Potamides lewisiana</i> |
| 20. <i>Conus horni</i> Gabb | |
| 21. <i>Ancillaria breizi</i> | |
| 22. <i>Potamides tetiko</i> | |
| 23. <i>Potamides lewisiana</i> | |

A. C. S. P. 1915