

THE WEST AMERICAN MOLLUSKS OF THE GENUS NODULUS

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The known members of this genus were formerly referred to *Onoba*. That group, however, has feeble axial ribs as well as spiral sculpture. In *Nodulus* we find a very characteristic oblique aperture; axial ribs are never present and spiral sculpture, if at all present, is reduced to exceedingly fine striations.

Doctor Dall, in a paper on Mollusks of Bering Sea and vicinity,¹ was the first to report members of this group from the West Coast of America. In this publication he described and figured *Onoba saxatilis* Möller, *Onoba cerinella* Dall, and *Onoba aleutica* Dall. The first I now rename *Nodulus kyskensis*, since an abundance of *saxatilis* for comparison force me to declare the Alaskan form distinct. *Onoba aleutica* Dall ranges nearer the West American species of *Cingula*, to which it is now referred.

The only other *Nodulus* described from the West Coast is *Nodulus asser* Bartsch, published in the *Nautilus*² for 1910, also from Alaska.

A fourth species, *Nodulus kelseyi*, is now added from Coronado Island, California.

NODULUS CERINELLUS Dall.

Onoba cerinella DALL, Proc. U. S. Nat. Mus., vol. 9, 1886, p. 307, pl. 4, fig. 12.

Shell small, thin, light yellow. The nucleus consists of a single turn, which is smooth and scarcely differentiated from the succeeding whorls. Post-nuclear whorls high between the sutures, moderately rounded, appressed at the summit, marked by fine incremental lines only. Suture well constricted. Periphery of the last whorl and the rather long base gently

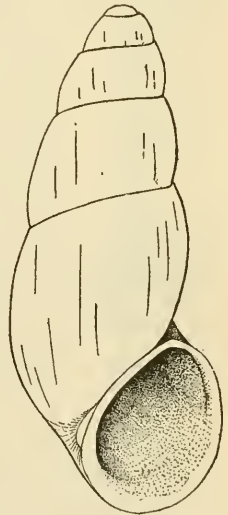


FIG. 1.—NODULUS CERINELLUS.

¹ Proc. U. S. Nat. Mus., vol. 9, 1886, pp. 306-7.

² Nautilus, vol. 23, No. 11, p. 138, pl. 11, fig. 9.

rounded. Aperture very oblique, large, broadly oval; posterior angle obtuse; outer lip thin; columella very oblique, slightly curved, inner lip partly reflected over the base; parietal wall covered with a thick callus, which is free at the edge and renders the peritreme complete.

The type (Cat. No. 213453, U.S.N.M.) has four and one-half post-nuclear whorls and measures: Length 2.9 mm., diameter 1.3 mm. It was collected at Atka Island, Alaska.

Specimens examined.

Cat. No.	Locality.	Number of specimens.
213453 (figured type).....	Atka Island, Alaska.....	1
213454.....	Outer Beach, Kyska Island, Alaska.....	1
213455.....	Constantine Harbor (beach), Amchitka Island, Alaska.....	1
161103.....	Kyska Island, Alaska.....	13

NODULUS ASSER Bartsch.

Onoba asser BARTSCH, Nautilus, vol. 23, 1910, No. 11, p. 138, pl. 11, fig. 9.

Shell elongate-conic, bluish white, semitranslucent. Nuclear whorls one and one-tenth, smooth, a little less elevated than the succeeding turns. Post-nuclear whorls very high between the sutures, overhanging, moderately rounded, appressed at the summit. The preceding whorl shines through the summit of the succeeding turn and gives this the appearance of having a double suture. Sutures well impressed. Periphery of the last whorl well rounded. Base moderately prolonged, well rounded. Entire surface of spire and base marked by closely placed, exceedingly fine, microscopic, spiral striations. Aperture very broadly ovate; posterior angle obtuse; outer lip thin; peritreme complete.



FIG. 2.—NODULUS ASSER.

The type (Cat. No. 208434, U.S.N.M.) was collected by Dr. Fred Baker at Port Graham, Alaska. It has four and a half whorls and measures: Length 2.2 mm., diameter 0.9 mm. This species is nearest related to *Onoba cerinella* Dall, from which it is distinguished by its lesser size and more delicate structure.

NODULUS KELSEYI, new species.

Shell small, very slender, cylindro-conic, translucent, white. Nuclear whorls two, strongly rounded, smooth. Post-nuclear whorls rather high between the sutures, well rounded, very narrowly shouldered at the summit and lightly constricted a little anterior to the summit, marked by fine lines of growth and exceedingly fine, spiral striations. Suture moderately constricted. Periphery of the last whorl and the long



FIG. 3.—NODULUS KELSEYI.

base gently rounded, marked like the spire. Aperture very oblique, subcircular; posterior angle obtuse; outer lip reflected at the edge; inner lip moderately long, reflected; parietal wall covered with a thick callus, which is also reflected, but free at the edge, thus giving the entire aperture a dished appearance.

The type (Cat. No. 111369, U.S.N.M.) comes from Coronado Island, San Diego, California. It has 5 post-nuclear whorls and measures: Length 1.9 mm., diameter of the penultimate whorl 0.6 mm.

Named for Prof. F. W. Kelsey, of San Diego, California.

NODULUS KYSKENSIS, new species.

Shell elongate-ovate, thin, translucent, yellow. Nuclear whorls one and one-quarter, smooth, well rounded, scarcely differentiated from the succeeding turns. Post-nuclear whorls appressed at the summit, with a somewhat concavely sloping shoulder which extends over the posterior third between the sutures. Entire surface marked by numerous fine lines of growth only, surface apparently covered with a thin epidermis which has the finely cracked appearance frequently seen on a surface covered with varnish. Suture strongly constricted. Periphery and the rather short base of the last whorl well rounded. Aperture very large, very broadly oval, decidedly oblique; posterior angle obtuse; outer lip slightly expanded; inner lip decidedly curved and reflected; parietal wall covered with a thick callus which is disjunct at the edge and renders the peritreme complete.

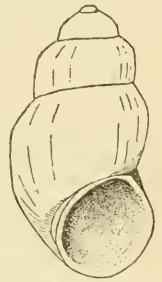


FIG. 4.—*NODULUS*
KYSKENSIS.

The type (Cat. No. 161105, U.S.N.M.) has four post-nuclear whorls and measures: Length 2.3 mm., diameter 1.1 mm. It was collected at Kyska Harbor, Aleutian Islands, Alaska, by Doctor Dall. Seventeen additional specimens, also entered as Cat. No. 161105, U.S.N.M., were collected on the beach and on sponges at low water mark by Doctor Dall on the same island. Four more (Cat. No. 213457, U.S.N.M.) come from Atka Island, Alaska.

This shell has been referred to by various authors as *Rissoa saxatilis* Möller. It differs from that form in having the whorls slopingly shouldered near the summit and in lacking the fine spiral striations.