

NEW MOLLUSKS OF THE GENUS *ACLIS* FROM THE NORTH ATLANTIC.

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This little paper embraces descriptions of a number of new forms which were dredged in rather deep water off the Atlantic coast of North America by Dr. W. H. Rush, U. S. N., and the U. S. Bureau of Fisheries steamers *Fish Hawk* and *Albatross*. The one coming from New England has been known for some time, but has been confused with the European *Aclis walleri* Jeffreys, under which name it has appeared in lists. In this connection, it would be well to mention that *Aclis striata* Verrill is not an *Aclis*, but a Pyramidellid, belonging to the genus *Odostomia*, subgenus *Menestho*.

ACLIS DALLI, new species.

Plate 59, fig. 1.

Shell slender, very elongate-conic, milk-white, vitreous. Nuclear whorls not differentiated from the rest. Early post-nuclear whorls well rounded; the later half strongly inflated; all strongly appressed at the summit, the appressed portion appearing as a slightly differentiated color band at the summit of the whorls. The entire surface of the shell is sculptured only by exceedingly fine incremental lines. Sutures very strongly constricted. Periphery of the last whorl and the moderately long base well rounded, smooth. Aperture large, somewhat effuse anteriorly; posterior angle obtuse; outer lip thin and semitransparent; columella moderately long, curved and reflected.

The type (Cat. No. 94288, U.S.N.M.) was dredged by Doctor Rush at his station 34 in 780 fathoms on coral mud bottom off Cuba. It has 17 whorls and measures: Length 7.8 mm., diameter 1.7 mm.

Named for Dr. W. H. Dall.

ACLIS CUBANA, new species.

Plate 59, fig. 2.

Shell small, slender, elongate-conic, milk-white. Nuclear whorls two, the first very much inflated, strongly rounded, and larger than

the early post-nuclear whorls. Post-nuclear whorls well rounded, appressed at the summit, sculptured with somewhat irregular, feebly developed axial ribs, of which 18 occur upon the first and second, 20 upon the third and fourth, and 22 upon the penultimate turn. Sutures strongly constricted. Periphery of the last whorl marked by a very feeble, slender spiral cord. Base short, well rounded; marked by the feeble continuations of the axial ribs. Aperture very broadly ovate; posterior angle obtuse; outer lip very thin, showing the external sculpture within; columella very slender, decidedly curved and feebly revolute.

The type (Cat. No. 94290, U.S.N.M.) was dredged by Doctor Rush at his station 34 in 780 fathoms on coral mud off Cuba. It has 8 whorls and measures: Length 4 mm., diameter 1.1 mm.

ACLIS RUSHI, new species.

Plate 59, fig. 3.

Shell small, elongate-conic, white. Nuclear whorls two, well rounded, smooth. Post-nuclear whorls inflated, appressed at the summit, sculptured with fine incremental lines and an occasional impressed varical streak. In addition to this there appear five very fine subobsolete raised spiral threads between the sutures which lend the surface a very weakly malleated appearance. Sutures very strongly constricted. Periphery of the last whorl well rounded. Base moderately long, narrowly umbilicated, well rounded, marked like the spire. Aperture large, decidedly effuse anteriorly, with a patulous expansion covering the posterior half of the outer lip; posterior angle obtuse; outer lip thin, the portion immediately anterior to the patulous part forming a claw; columella very long, oblique, and very strongly reflected.

Two specimens of this species (Cat. No. 82973, U.S.N.M.) were dredged by Doctor Rush in 150 to 200 fathoms, off Fowey Rocks, Florida Straits. The type has eight whorls and measures: Length 2.7 mm., diameter 1.2 mm.

Named for Dr. W. H. Rush.

ACLIS FLORIDANA, new species.

Plate 59, fig. 5.

Shell small, elongate-conic. Nuclear whorls one and one-half, well rounded. Post-nuclear whorls marked by a strong sloping shoulder which extends over the posterior fourth of the whorls between the sutures. This shoulder is limited anteriorly by a quite strong carina. The anterior three-fourths of the whorls between the sutures are well rounded, strongly constricted at the suture, and appear sculptured by several very feeble spiral lines. The axial sculpture consists of incremental lines and an occasional varical streak.

Sutures very strongly constricted. Periphery of the last whorl and the moderately long base well rounded, marked like the spire. Aperture with the posterior angle obtuse (outer lip fractured; anterior portion of the columella lost); parietal whorl covered with a moderately thick callus which joins the columella with the posterior angle of the aperture.

The type (Cat. No. 82973a, U.S.N.M.) was dredged by Doctor Rush in 150 to 200 fathoms, off Fowey Rocks, in Florida Straits. It has eight whorls and measures: Length 2.9 mm. (if the aperture were complete the shell would probably measure 3 mm.), diameter 1 mm. This form is nearest related to *A. bermudensis* Dall and Bartsch, but can be separated from it at once by its much greater size as well as detail sculpture.

ACLIS BERMUDENSIS Dall and Bartsch.

Plate 59, fig. 4.

Aclis bermudensis DALL and BARTSCH, Proc. U. S. Nat. Mus., vol. 40, 1911, p. 278.

A figure of this species, which has been already described, is added for purposes of comparison.

ACLIS VERRILLI, new species.

Plate 59, fig. 6.

Shell acicular, yellowish-white. Nuclear whorls four, well-rounded, with strongly impressed sutures, smooth, forming a slender apex to the spire. Post-nuclear whorls well-rounded, appressed at the summit, sculptured by six feeble, poorly defined, somewhat irregular spiral threads and numerous incremental lines, the combination of the two lending the surface of the spire a feebly malleated surface. In addition to the above sculpture the surface is marked with irregularly disposed varical lines. Sutures strongly impressed. Periphery of the last whorl well rounded. Base moderately long, well rounded, narrowly umbilicated, marked by seven feeble and irregularly placed spiral lines, its surface having the same aspect as that of the spire. Aperture rather large; somewhat effuse anteriorly, posterior angle somewhat obtuse; outer lip patulous, columella oblique, slightly curved and strongly revolute.

The type (Cat. No. 44811, U.S.N.M.) has eleven whorls and measures: Length 4.6 mm., diameter 1.7 mm. It was dredged by the U. S. S. *Fish Hawk* at station 894 in 365 fathoms, bottom temperature 40°, off Marthas Vineyard, Mass. One specimen (Cat. No. 44808, U.S.N.M.) from U. S. S. *Fish Hawk* station 892, 487 fathoms, off Marthas Vineyard. One specimen (Cat. No. 44809, U.S.N.M.) from station 1093, 349 fathoms, bottom temperature 40°, off Marthas Vineyard. Two specimens (Cat. No. 78161, U.S.N.M.) from station 2710, 984 fathoms, southeast of Nantucket. One speci-

men (Cat. No. 151887, U.S.N.M.) from U. S. S. *Albatross* station 2547; 390 fathoms, 40 miles south of Marthas Vineyard.

The present species has been listed from the Atlantic coast under the name of *Aclis walleri* Jeffreys. It is not at all closely related to this form; *walleri* is much smaller; much more narrowly elongate-conic and has a much wider umbilicus.

The type of *walleri* described by Jeffreys¹ is in the U. S. National Museum (Cat. No. 182214) and measures: Length 3.3 mm., diameter 1.2 mm.

Named for Prof. A. E. Verrill.

ACLIS CAROLINENSIS, new species.

Plate 59, fig. 7.

Shell acicular. Nuclear whorls two, well rounded, smooth. Early post-nuclear whorls gently rounded on the posterior two-thirds between the sutures and abruptly on the anterior one-third. The later more evenly rounded; sculptured with numerous fine incremental lines and by feeble, somewhat irregular, raised, slender spiral threads. The combination of the incremental lines and the spiral threads lends the surface of the whorls a somewhat malleated appearance. In addition to the above sculpture varical lines appear at irregular intervals. Sutures strongly impressed. Periphery of the last whorl obliquely angled. Base moderately long, strongly but narrowly umbilicated, well rounded, sculptured like the spire with spiral striation, incremental lines and about six obsolete raised spiral threads. Aperture large, decidedly effuse anteriorly, the basal portion patulous; posterior angle obtuse; outer lip thin; columella strongly curved, expanded and revolute.

The type (Cat. No. 83743, U.S.N.M.) was dredged by the U. S. S. *Albatross* at station 2595 in 63 fathoms, sandy bottom, bottom temperature 75°, 22 miles east-southeast of Hatteras, North Carolina. It has ten whorls, and measures: Length 4.7 mm., diameter 1.3 mm.

EXPLANATION OF PLATE 59.

All of the figures are enlarged about 16 times. The measurement cited after each species is the actual length of the specimen.

- Fig. 1. *Aclis dalli*; Type; 7.8 mm., p. 435.
2. *Aclis cubana*; Type; 4.0 mm., p. 435.
3. *Aclis rushi*; Type; 2.7 mm., p. 436.
4. *Aclis bermudensis*; Type; 2.1 mm., p. 437.
5. *Aclis floridana*; Type; 2.9 mm., p. 436.
6. *Aclis verrilli*; Type; 4.6 mm., p. 437.
7. *Aclis carolinensis*; Type; 4.7 mm., p. 438.

¹ British Conchology, vol. 4, pp. 105-6, and figured in vol. 5, pl. 72, fig. 4.



SHELLS OF THE GENUS ACLIS.

FOR EXPLANATION OF PLATE SEE PAGE 438.

