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VALID SPECIES OF THE NUCULID PELECYPOD *ACILA*

by Hubert G. SCHENCK (Stanford University, California).

The preparation of a monograph of nuculid pelecypods of the genus *Acila* (1), with the ultimate aim to evaluate objectively the time value of the species, necessitated the compilation of the accompanying tabulation. The publication of the monograph has been delayed indefinitely and when it does appear it will not present in such compact form the information contained in this note.

Fifty names have been employed in connection with the name *Acila*. Twenty of these were published between the years 1836 and 1899, inclusive, seventeen between 1900 and 1925, and thirteen between 1926 and 1932. Ten per cent of the names are homonyms; they are *cordata*, *hamiltonensis*, *japonica*, *minuta* (a secondary homonym), and *truncata*. Three of the names have been attached incorrectly to *Acila*; namely, *tuberculata*, *chickasaensis*, and *japonica*. Ten species (20 %) are treated as synonyms. Twenty-two (44 %) of the species are believed to be valid, but this number may be increased when better preserved specimens are available for examination.

The precise geological age of about one-third of the holotypes is doubtful. For example, the age of *Acila (Truncacila) ermani* (Girard) has been given as Cretaceous, Miocene, and late Tertiary. Most of the other cases of doubt depend upon the difficulty

(1) Consult SCHENCK, H. G., « Classification of Nuculid Pelecypods » (this *Bulletin*, tome X, No. 20, p. 41, June, 1934).

of deciding upon the boundary between Oligocene and Miocene (2).

The repositories of original material, as far as known to the writer, are as follows: University of California Museum of Paleontology, Berkeley; U. S. National Museum, Washington, D. C.; Academy of Natural Sciences, Philadelphia; Department of Geology, Stanford University, California; Kyoto Imperial University, Japan; collection of A. Olsson (presumably donated to the Paleontological Research Institute, Ithaca, New York); San Diego Society of Natural History, California; Geologisches Staatsinstitut, Hamburg; University of Berlin; Musée royal d'Histoire naturelle de Belgique; collection of C. E. Weaver at the University of Washington, Seattle; Sammlung für Paläontologie und historische Geologie, Munich; and the British Museum (Natural History).

Two especially important but neglected species that may prove to be valid are *schomburgki* and *ermani*. The former, described in 1846, has been reported from the Eocene of Trinidad, but its age is more likely Oligocene, according to E. Lehner (3). As for *Acila (Truncacila) ermani*, named in 1844, the type is said to come from Atka Island, Alaska; if it could be found and studied, the species might prove to be close to the well-known late Cenozoic European species, *Acila (Truncacila) cobboldiae*.

The artificial key presented below may aid in the identification of specimens. Named forms not considered during its preparation because of insufficient material include *ermani*, *eximia*, *gettysburgensis* var. *alaskensis*, *gottschei*, *granulata*, *hamiltonensis*, *minuta*, *nelsoni*, *picturata*, *pugetensis*, *schomburgki*, and *yakatagensis*.

(2) Reasons for taking the Aquitanian stage and its equivalents as Oligocene are presented in my note on « What is the Vaqueros formation of California and is it Oligocene », (*Bull. Amer. Assoc. Pet. Geol.*, vol. 10, n° 4, April, 1935).

(3) Letter dated 8 January, 1935.

ARTIFICIAL KEY TO SOME SPECIES OF **ACILA**

H. AND A. ADAMS, 1858.

Genotype : **Nucula divaricata** Hinds, by subsequent designation, Stoliczka, 1871.

Type of *Truncacila* : **Nucula castrensis** Hinds, by original designation, Schenck *in* Grant and Gale, 1931.

Orientation of shell : beaks are posterior.

Rostral sinus : Depression extending from umbones to posterior ventral margin.

Escutcheonal area : below (ventral) and posterior to beaks.

Lunule: Anterior to beaks.

Area of obsolete radial ribbing : Area at ventral part of shell where radial ribs are indistinct, being obscured by concentric sculpture.

Key based on adult specimens.

A. SHELL WITH WELL-DEFINED ROSTRAL SINUS FROM
UMBONES TO POSTERIOR VENTRAL MARGIN.

- B. *Height is 80 % or more of length*... .. *Acila (Acila) semirostrata* (GRANT & GALE).
- BB. *Height is less than 80 % of length.*
- C. Escutcheonal area bounded by a narrow ribless grooved area. *Acila (Acila) divaricata* (HINDS).
- CC. Escutcheonal area crossed by radial ribs.
- D. Distinct area of obsolete radial ribbing on majority of specimens near ventral margin *Acila (Acila) fultoni* (SMITH).
- DD. No area of obsolete radial ribbing or with only a narrow one
- E. Umbonal area high, on adults; lunule outlined by a shallow groove and low ridge *Acila (Acila) isthmica* (BROWN & PILSBRY).
- EE. Umbonal area not high; lunule not outlined by shallow groove.
- F. Dorsal margin straight, as seen from side; narrow area of obsolete radial ribbing on larger specimens... .. *Acila (Acila) divaricata* (HINDS) var. *submirabilis* (MAKIYAMA).
- FF. Dorsal margin gently curving; narrow area of obsolete ribbing rare *Acila (Acila) gettysburgensis* (REAGAN).

AA. SHELL LACKING A ROSTRAL SINUS OR POSSESSING
ONLY AN INCIPIENT SINUS.

- B. *Area of obsolete radial ribbing present on majority of specimens.*
- C. Length 20 m m. or more.
- D. Area of obsolete radial ribbing narrow; height seldom more than 82 % of length *Acila (Truncacila) blancoensis* HOWE.
- DD. Area of obsolete radial ribbing generally wide; height usually more than 82 % of length *Acila (Truncacila) cobboldiae* (SOWERBY).

- CC. Length does not exceed 20 mm.
- D. Height generally more than 78 % of length *Acila (Truncacila) castrensis* (HINDS).
- DD. Height generally less than 78 % of length *Acila (Truncacila) insignis* (GOULD).
- BB. No area of obsolete radial ribbing or such an area only weakly developed.
- C. Escutcheonal area bounded by a narrow ribless grooved area. *Acila (Truncacila) demessa* FINLAY.
- CC. Escutcheonal area crossed by radial ribs.
- D. Radial ribs up to or more than 1 mm. wide *Acila (Truncacila) paita* OLSSON.
- DD. Radial ribs less than 1 mm. wide.
- E. Escutcheonal area set off by a marked depressed area, when shell is viewed posteriorly; ribbing fine *Acila (Truncacila) bivirgata* (SOWERBY).
- EE. Escutcheonal area not set off by a marked depressed area; ribbing fine to coarse.
- F. Adult specimens seldom exceed a length of 20 mm.
- G. Definite concentric lines of growth more than 6 on adults.
- H. Usually more than 10 mm. thick when 17 + mm. long *Acila (Truncacila) muta* CLARK.
- HH. Usually less than 10 mm. thick when 17 + mm long *Acila (Truncacila) conradi* (MEEK).
- GG. Definite concentric growth lines six or less *Acila (Truncacila) decisa* (CONRAD).
- FF. Adult specimens generally longer than 20 mm.
- G. Incipient sinus indistinct or absent *Acila (Truncacila) shumardi* (DALL).
- GG. Incipient sinus generally distinguishable.
- H. Shell compressed *Acila (Truncacila) dalli* (ARNOLD).
- HH. Shell inflated *Acila (Truncacila) nehalemensis* HANNA.

SPECIES	AUTHOR	DATE	REFERENCE TO ORIGINAL DESCRIPTION	REPOSITORY OF PROTEROTYPES	REPOSITORY OF TOPOTYPES	TYPE LOCALITY	AGE OF HOLOTYPE	STATUS OF SPECIES	SUBGENUS
1. <i>bivirgata</i> .	J. de C. Sowerby.	1836	Trans. Geol. Soc., ser. 2, vol. 4, 1836, p. 335, pl. 11, fig. 8.	Apparently lost (Woods, 1899).	British Museum, Musée royal d'Histoire naturelle de Belgique, California Academy of Sciences, etc.	Southeastern England.	Cretaceous.	Valid.	Truncaelia.
2. <i>biancoensis</i> .	Howe.	1922	Univ. Calif. Publ. Bull. Dept. Geol. Sci., vol. 14, no. 3, Sept. 8, 1922, pp. 85-96, pl. 9, fig. 3.	Holotype No. 59, Stanford University Paleo. Coll.	Nos. 5881-5892, Calif. Acad. Sci.	Near Cape Blanco, Oregon.	Pliocene of H. V. Howe, 1922.	Valid.	Truncaelia.
3. <i>castrensis</i> .	Hinds.	1843	Proc. Zool. Soc. London, Part XI, 1843, p. 98.	Unknown.	Los Angeles Museum; Stanford University Paleo. Collection.	Sitka, Alaska.	Recent.	Valid.	Truncaelia.
4. <i>chickasaensis</i> .	Cragin.	1895	Colorado Coll. Studies, 5th year, p. 56.	Unknown.		Love County, Oklahoma.	Cretaceous.	Not <i>Acila</i> .	
5. <i>cobboldiae</i> .	Sowerby.	1818	Mineral Conch., vol. 2, 1818, p. 177, pl. 180, fig. 2.	No. 43216 British Museum of Natural History.	C. 3214-3248, Sedgwick Museum, Cambridge, England; Mus. Practical Geol. London, wall-case 23, shelf 6, tab. 102.	Bramerton, Norfolk, England.	Pliocene.	Valid.	Truncaelia.
6. <i>conradi</i> .	Meek.	1864	As <i>divaricata</i> Conrad, Am. Jour. Sci., vol. 5, 1848, p. 432, fig. 1. New name by Meek, Checklist Miocene Foss. N. America, Nov., 1864.	Paratype No. 3526, U. S. Nat. Museum.		Astoria, Oregon.	Miocene.	Valid.	Truncaelia.
7. <i>cordata</i> .	Dall.	1898	Trans. Wagner Free Inst. Sci., vol. 3, pt. 4, April, 1898, p. 573. Fig. in Trans. Wagner Free Inst. Sci., vol. 3, pt. 5, December, 1900, p. 1196, pl. 40, fig. 4. Not <i>Nucula cordata</i> Goldfuss.	No. 107450, U. S. Nat. Museum.	Stanford University.	Near Mist, Columbia County, Oregon.	Early Oligocene.	Name changed to <i>nehalemensis</i> .	Truncaelia.
8. <i>dalli</i> .	Arnold.	1908	Proc. U. S. Nat. Mus., vol. 34, August 8, 1908, pp. 294-305, pl. 33, fig. 15.	Plastotype and impression, U. S. Nat. Museum Cat. No. 165452.	Stanford University.	Waddell Creek, Santa Cruz County, California.	San Lorenzo, Oligocene.	Valid.	Truncaelia.
9. <i>decisa</i> .	Conrad.	1855	Appendix to W. P. Blake's preliminary geological report of Pacific Railroad Survey, House Document 129, July, 1855, pp. 11-12.	Lost (Dall, 1909).	University of California.	San Diego, California.	Eocene.	Valid.	Truncaelia.
10. <i>demessa</i> .	Finlay.	1927	As <i>truncata</i> Gabb, Paleo. Calif., vol. 1, 1864, p. 198, 235, pl. 26, fig. 184 a, b. New name by Finlay, Trans. Pr. New Zealand Inst., vol. 57, March 10, 1927, p. 522.	Unknown. Lectotype (selected by Stewart) in Philadelphia Acad. Sci.	Stanford University Paleo. Collection, No. 5549; U. S. Nat. Museum, Univ. Calif., etc.	Pence's Ranch, Pentz, Butte County, California.	Upper Cretaceous.	Valid; see <i>truncata</i> .	Truncaelia.
11. <i>devalqueti</i> .	Briart and Cornet.	1870	Mem. Acad. Roy. Belg., vol. 34, 1870, pp. 62-63, pl. 5, figs. 26-28.	No. 5496, Mus. Roy. Hist. Nat. de Belg., Brussels, Holotype.	Ecole des Mines, Mons, Belgium.	Commune of Strepy-Bracquegnies, Belgium.	Cretaceous.	Synonym of <i>bivirgata</i> .	Truncaelia.
12. <i>divaricata</i> .	Hinds.	1843	Proc. Zool. Soc. London, Part XI, 1843, p. 97. Read July 11, 1843. Fig. in Zool. of Voyage of H. M. S. Sulphur, vol. 2, 1843, pl. 18, fig. 4. Not <i>Nucula divaricata</i> Valenciennes.	Unknown.		China Sea from 84 fathoms.	Recent.	Valid.	<i>Acila</i> s. s.
13. <i>empirensis</i> .	Howe.	1922	Univ. Calif. Publ. Bull. Dept. Geol. Sci., vol. 14, no. 3, Sept. 8, 1922, p. 96, pl. 9, figs. 4, 5, 8.	Type, No. 30032-30033, Univ. Calif. Mus. Paleo.	Calif. Acad. Sci.	Coos Conglomerate, Coos County, Oregon.	Pliocene of H. V. Howe, 1922. May be Miocene.	Valid.	Truncaelia.
14. <i>ermani</i> .	Girard.	1844	A. Ermans Archiv. wiss. Kunde Russland, vol. 3, 1844, p. 545, figs. 8a, b. Fig. in Verhand. Russ.-K. Mineral. Gesel. St. Petersburg, 1848-49 (1850), pl. 5, figs. 1a, b.	Unknown.		Atka Island, Alaska.	Pliocene (?)	A subspecies or synonym of <i>cobboldiae</i> ?	Truncaelia.
15. <i>ezimia</i> .	Yokoyama.	1925	Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 45, Art. 7, June 25, 1925, p. 11, pl. 1, figs. 14-16.	Unknown.		Jōban coal field.	Miocene.	Needs further study.	Truncaelia (?).
16. <i>fultoni</i> .	Smith.	1892	Jour. Conch., vol. 7, October, 1892, pp. 111-112. Fig. in Alcock, "A Naturalist in Indian Seas", 1902, fig. 80.	Unknown.	Nos. 5531, 5532, 5569, Stanford University Paleo. Collection; Schenck Coll., No. 666; probable topotypes in Oldroyd Coll., No. 1259.	Bay of Bengal, India.	Recent.	Valid.	<i>Acila</i> s. s.
17. <i>gabbiana</i> .	Dickerson.	1916	Univ. Calif. Publ. Bull. Dept. Geol., vol. 9, May 2, 1916, p. 481, pl. 36, fig. 1.	Type No. 11802, Univ. Calif. Mus. Paleo.	Schenck Collection, etc.	Center Sec. 15, T. 18 S., R. 13 E., M. D. M., 16 miles north of Coalinga, Calif.	Eocene.	Synonym of <i>decisa</i> .	Truncaelia.
18. <i>gettysburgensis</i> .	Reagan.	1909	Trans. Kan. Acad. Sci., vol. 22, November 24, 1909, pp. 175-177, pl. 1, fig. 3.	No. 328302, U. S. Nat. Museum.	Univ. Calif.; Stanford Univ.; No. 5830, Calif. Acad. Sci.	Probably near Gettysburg, Clallam County, Washington.	Oligocene.	Valid.	<i>Acila</i> s. s.
19. <i>gettysburgensis</i> var. <i>ataskensis</i> .	B. L. Clark.	1932	Bull. Geol. Soc. Am., vol. 43, no. 3, September 30, 1932, pp. 804-805, pl. 14, fig. 15.	No. 30388, Univ. Calif. Mus. Paleo.		Johnson Creek, Alaska.	Late Oligocene.	Valid (?)	<i>Acila</i> s. s.
20. <i>gottschei</i> .	Böhm.	1916	Jahr. d. k. Preuss. Geol. Landesam., 1915 (1916, Bd. 36, Th. 1, Ht. 3, pp. 554-555, pl. 29, figs. 5-7.	Museum in Hamburg, Germany.		Cape Jonquière, (Dué) Russian Sakhalin.	Tertiary (Oligocene or Miocene).	Unsettled.	Truncaelia.
21. <i>granulata</i> .	Smith.	1906	Ann. Mag. Nat. Hist., vol. 18, no. 106, 1906, pp. 251-252. Fig. in Zoology of the R. I. M. S. Investigator, pl. 23, figs. 1, 1a.	Unknown.		Bay of Bengal, 18° 10' 15" north latitude, 93° 30' 45" east longitude.	Recent.	Valid.	Truncaelia.
22. <i>hamiltonensis</i> .	B. L. Clark.	1932	Bull. Geol. Soc. Am., vol. 43, no. 3, September 30, 1932, p. 806, pl. 14, figs. 11 and 14. Not <i>Nucula hamiltonensis</i> d'Orbigny.	No. 30376, Univ. Calif. Mus. Paleo.		Hamilton Creek, Alaska.	Late Oligocene.	Unsettled.	Truncaelia.
23. <i>hokkaidoensis</i> .	Nagao.	1932	Journ. Pac. Sci. Hokkaido Imperial Univ., ser. 4, Geology and Mineralogy, vol. 2, no. 1, November, 1932, p. 28, pl. 5, figs. 17, 18.	Unknown.		Hokkaido, Japan.	Cretaceous.	Valid (?)	Truncaelia.
24. <i>insignis</i> .	Gould.	1861	Proc. Boston Soc. Nat. Hist., vol. 8, April, 1861, p. 36.	Probably No. 1028, U. S. Nat. Museum.	Probable topotype, Schenck Coll., N. 420.	Off east coast of Japan, latitude 37°.	Recent.	Valid.	Truncaelia.
25. <i>isthmica</i> .	Brown and Pilsbry.	1911	Proc. Acad. Nat. Sci. Philadelphia, vol. 63, April, 1911, pp. 361-362, pl. 27, figs. 11, 12.	Acad. Nat. Sci., Philadelphia.		Locks at Gatun, Isthmus of Panama.	Miocene.	Valid.	<i>Acila</i> s. s.
26. <i>jacunda</i> .	J. Thiele.	1931	Thiele und Jacobel, Wissen. Erg. d. Deutsch. Tiefsee-Exp., Bd. 21, Heft 1, p. 198, pl. VII, fig. 42, March 20, 1931.	University of Berlin.		Zanzibar, east Africa, 463 meters.	Recent.	Synonym of <i>granulata</i> (?)	Truncaelia.
27. <i>japonica</i> .	Dall.	1898	Trans. Wagner Free Inst. Sci., vol. 3, pt. 4, April, 1898, p. 572. Not <i>Nucula japonica</i> Adams and Reeve.	Unknown.		Northern Japan.	Recent.	Probably not <i>Acila</i> .	
28. <i>lajollaensis</i> .	M. A. Hanna.	1927	Univ. Calif. Publ. Bull. Dept. Geol. Sci., vol. 16, March 25, 1927, p. 270, pl. 25, figs. 1, 3, 5, 7, 8, 12, 15.	No. 31132, Univ. Calif. Mus. Paleo.		Three miles north of La Jolla, Calif.	Eocene.	Synonym of <i>decisa</i> .	Truncaelia.
29. <i>lyalli</i> .	Baird.	1863	Proc. Zool. Soc. London, 1863, p. 71.	Unknown.	Provincial Mus., Vancouver, B. C.	Esquimalt Harbor, Vancouver Island, 8 to 10 fathoms.	Recent.	Synonym of <i>castrensis</i> .	Truncaelia.
30. <i>minuta</i> .	Makiyama.	1927	<i>minuta</i> Makiyama, Mem. Coll. Sci. Kyoto Imp. Univ., ser. B., vol. 3, no. 1, Art. 1, March, 1927, p. 25, pl. 1, figs. 8, 9. Not <i>Nucula minuta</i> Brown, et al.	Geological Institute, Kyoto Imperial Univ., Japan; No. Kakegawa 201.	Schenck Coll., No. 425, Stanford Univ.	Hōhōshi, Japan.	Pliocene.	Name to be changed.	Truncaelia (?).
31. <i>mirabilis</i> .	Adams and Reeve.	1850	Zool. Voy. Samarang, 1850, p. 75, pl. 21, fig. 8.	Unknown.	British Mus. Probable topotype in Oldroyd Coll., Stanford University.	Kieu-sieu, Nangasaki Bay, Japan.	Recent.	Synonym of <i>divaricata</i> .	<i>Acila</i> s. s.
32. <i>mirabilis</i> , var. <i>ashigawensis</i> .	Nagao.	1928	Sci. Rep. Tohoku Imp. Univ. (2) Geol., vol. 12, no. 1, 1928, pp. 21-22, pl. 7, figs. 6-8, 9 (?), 10.	Unknown.	Calif. Acad. Sci., No. 6970.	Taya, Ashiya-machi, Province of Chikuzen.	Oligocene?	? Synonym of <i>submirabilis</i> .	<i>Acila</i> s. s.
33. <i>muta</i> .	B. L. Clark.	1918	Univ. Calif. Publ. Bull. Dept. Geol., vol. 11, no. 2, July 16, 1918, p. 119, pl. 13, figs. 6, 12, 13.	Type No. 11196, Univ. Calif. Mus. Paleo.	Stanford Univ. Paleo. Collection, No. 5738.	1/2 mile southwest of town of Walnut Creek, Contra Costa County, California.	Oligocene.	Valid.	Truncaelia.
34. <i>muta</i> , var. <i>marklepenensis</i> .	B. L. Clark.	1918	Univ. Calif. Publ. Bull. Dept. Geol., vol. 11, no. 2, July 16, 1918, p. 121, pl. 13, fig. 3.	Type No. 11195, Univ. Calif. Mus. Paleo.		1/2 mile southwest of town of Walnut Creek, Contra Costa County, California.	Oligocene.	Synonym of <i>muta</i> .	Truncaelia.
35. <i>nehalemensis</i> .	G. D. Hanna.	1924	As <i>cordata</i> Dall, Trans. Wagner Free Inst. Sci., vol. 3, pt. 4, April, 1898, p. 573; fig. in pt. 5, 1900, pl. 40, fig. 4. Not <i>cordata</i> Goldfuss, 1838. New name by Hanna, Proc. Calif. Acad. Sci., 4 ser., vol. 13, no. 10, March 18, 1924, pp. 155-156.	Type, Cat. No. 107450, U. S. Nat. Museum.	No. 5757, Stanford Univ. Paleo. Type Coll.; No. 107401, U. S. Nat. Mus.	Near Mist, Columbia County, Oregon.	Keasey, early Oligocene.	Valid; see <i>cordata</i> .	Truncaelia.
36. <i>nelsoni</i> .	B. L. Clark.	1925	Univ. Calif. Publ. Bull. Dept. Geol. Sci., vol. 15, no. 4, January 5, 1925, p. 74, pl. 8, fig. 1.	Stanford University Paleo. Collection, Nos. 5202-5203.		Mouth of Duncan Creek, 3/4 mile west of Gettysburg, Washington.	Oligocene.	Unsettled.	Truncaelia (?).
37. <i>ornatissima</i> .	d'Orbigny.	1844	Pal. Franç. Terr. Crét., vol. 3, 1844, p. 175, pl. cccii, figs. 9-12.	Unknown; probably Muséum National, Paris.		Southeastern England.	Cretaceous.	Synonym of <i>bivirgata</i> .	Truncaelia.
38. <i>packardii</i> .	B. L. Clark.	1925	Univ. Calif. Publ. Bull. Dept. Geol. Sci., vol. 15, no. 4, January 5, 1925, pp. 75-76, pl. 8, figs. 8, 12.	Type No. 30297, Univ. Calif. Mus. Paleo.	Calif. Acad. Sci.	Probably Newport, Oregon.	Oligocene or early Miocene.	Valid.	Truncaelia.
39. <i>paita</i> .	Olsson.	1931	Bulls. Am. Paleo., vol. 17, no. 63, June, 1931, pp. 130-131, pl. 2, figs. 11, 13.	Olsson Collection.	No. 173, Schenck Coll. Nos. 5765, 5766, Stanford Univ. Paleo. Collection.	Pabo south of Lagunitas, Peru.	Late Oligocene.	Valid.	Truncaelia.
40. <i>picturata</i> .	Yokoyama.	1890	Palaontographica, vol. 36, March, 1890, pp. 161, 168, 194-195, pl. 25, figs. 1, 2, a, b.	Palaentol. Museum, Munich, Germany.	Schenck Coll., No. 582; No. 5767, Stanford Univ. Paleo. Collection.	Hokkaido, Japan.	Miocene.	Needs further study. Probably valid.	Truncaelia (?).
41. <i>piura</i> .	Olsson.	1931	Bulls. Am. Paleo., vol. 17, no. 63, June, 1931, p. 131, pl. 2, figs. 9, 10, 14.	Olsson collection.	Schenck Coll., No. 174.	Pabo south of Lagunitas, Peru.	Late Oligocene.	Variety or synonym of <i>paita</i> .	Truncaelia.
42. <i>pugetensis</i> .	B. L. Clark.	1925	Univ. Calif. Bull. Dept. Geol. Sci., vol. 15, no. 4, January 5, 1925, p. 75, pl. 8, fig. 4.	No. 5114, Stanford University Paleo. Collection.		Bean Point, Bainbridge Island, Washington.	Oligocene.	Unsettled.	Truncaelia.
43. <i>schomburgki</i> .	Forbes.	1846	Schomburgk's «History of the Barbadoes», 1846, p. 565.	Lost?	No. 115560, U. S. Nat. Museum.	Trinidad?	Oligocene?	Unsettled.	Truncaelia (?).
44. <i>semirostrata</i> .	Grant and Gale.	1931	San Diego Soc. Nat. Hist., Mem. vol. 1, November 3, 1931, pp. 113-115, text figs. 2 a-b, 3 a-b.	Holotype, No. 370, San Diego Soc. Nat. Hist.	Calif. Acad. Sci.	Santa Clara valley, near boundary between Los Angeles and Ventura Counties, California.	Pliocene.	Valid.	<i>Acila</i> s. s.
45. <i>shumardi</i> .	Dall.	1909	Trans. Wagner Free Inst. Sci., vol. 3, pt. 4, April, 1898, p. 573; fig. in vol. 3, pt. 5, December, 1900, pl. 40, figs. 1, 3, as <i>decisa</i> . Not <i>decisa</i> Conrad. See U. S. Geol. Survey Prof. Paper 59, April 2, 1909, p. 103.	Type (No. 406505) and four paratypes Cat. No. 107402, U. S. Nat. Museum.	Univ. Calif., Stanford Univ., Calif. Acad. Sci., San Diego Soc. Nat. Hist., British Museum, Acad. Nat. Sci. Philadelphia, etc.	Pittsburg Bluff, Columbia County, Oregon.	Oligocene.	Valid.	Truncaelia.
46. <i>stillwaterensis</i> .	Weaver and Palmer.	1922	Univ. Washington Publ. Geol., vol. 1, no. 3, June, 1922, p. 6, pl. 8, fig. 8.	Univ. Washington, Seattle, Washington.		One mile west of Vader, Washington.	Eocene.	Synonym of <i>decisa</i> .	Truncaelia.
47. <i>submirabilis</i> .	Makiyama.	1926	Mem. Coll. Sci. Kyoto Imp. Univ., Ser. B, vol. 2, no. 3, 1926, pp. 151-152, pl. 12, fig. 9.	Geological Institute Kyoto Imp. Univ., Japan.		Vicinity of Meisen, North Kankyo-do, Korea.	Early Miocene (or Late Oligocene).	Variety of <i>divaricata</i> .	<i>Acila</i> s. s.
48. <i>truncata</i> .	Gabb.	1864	Triassic and Cretaceous Fossils in Geol. Survey of California, Paleontology, vol. 1, 1864, p. 198, pl. 26, figs. 184 a-b.	Lectotype (selected by Stewart) in Philadelphia Acad. Nat. Sci.		Pence's Ranch, Pentz, Butte County, Calif.	Cretaceous.	Name changed to <i>demessa</i> .	Truncaelia.
49. <i>tuberculata</i> .	Gabb.	1873	Trans. Am. Philos. Soc., n. s., vol. 15, 1873, p. 255. Fig. by Pilsbry, Proc. Philadelphia Acad. Nat. Sci., vol. 73, 1921 (1922), p. 401, pl. 38, fig. 5.	No. 2658, Philadelphia Acad. Nat. Sci.		Haiti.	Miocene.	Not an <i>Acila</i> .	
50. <i>yukatagensis</i> .	B. L. Clark.	1932	Bull. Geol. Soc. Am., vol. 43, no. 3, September 30, 1932, pp. 805-806, 836, 844, pl. 14, fig. 13.	No. 30393, Univ. Calif. Mus. Paleo.		Johnson Creek, Alaska.	Late Oligocene or Miocene.	Unsettled.	Truncaelia (?).

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