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Geology

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Catalogue of Type and Referred Specimens of Fossil Stelleroidea in Field Museum of Natural History

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INTRODUCTION

This part of the catalogue of type specimens of fossil invertebrates lists the starfishes from the former Walker Museum (prefixed UC) and from Field Museum (prefixed P) collections.

Consistent with former catalogues, only holotypes are recognized; all other "types" are considered "referred specimens." Taxonomic positions are brought up to date, and a number of publications, including the *Treatise on Invertebrate Paleontology*, have been consulted. With a few exceptions, textbook references have been omitted. Nomenclatural changes referring to genus and species not based upon our specimens are listed under "Remarks."

This work was supported in part by the National Science Foundation Grant no. GB-7197.

CATALOGUE OF TYPE AND REFERRED SPECIMENS

Aganaster cingulatus Easton, 1943

Holotype: original designation UC 48291A, one piece of limestone with several specimens.

Library of Congress Catalog Card Number: 71-140220

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Easton, 1943, pp. 137–138, pl. 24, fig. 10.

Referred specimen: UC 48291.

Easton, 1943, pp. 137–138, pl. 24, fig. 9.

Mississippian, Pitkin Limestone.

Easton, 1943, locality 24, limestone flat on east bank of War Eagle Creek, 100 yards south of bridge south of Huntsville, Arkansas, in SE $\frac{1}{4}$, NW $\frac{1}{4}$, sec. 23, T16N, R26W; Easton Collection.

Aganaster gregarius (Meek and Worthen, 1869)

Referred specimen: UC 6174.

S. A. Miller and Gurley, 1890, p. 57, pl. 9, figs. 10 and 11.

S. A. Miller and Gurley, 1891, p. 372, pl. 9, figs. 10 and 11.

S. A. Miller, 1892b, p. 673, text figs. 1,208 and 1,209.

Mississippian, Keokuk.

Crawfordsville, Indiana; Gurley Collection.

Aganaster (?) sp.

Referred specimen: UC 6175.

S. A. Miller and Gurley, 1890, p. 58, pl. 9, figs. 12 and 13.

S. A. Miller and Gurley, 1891, p. 372, pl. 9, figs. 12 and 13.

=*Lapworthura* sp.

Gregory, 1897, p. 1038.

=*Lapworthura* (?) sp.

Schuchert, 1915, pp. 251–252.

Mississippian, Keokuk.

Crawfordsville, Indiana; Gurley Collection.

Asterias anthonii Dana, 1863

See: *Asterias* sp.

Asterias sp.

Referred specimen: UC 2465.

Graham et al., 1846, p. 441, text fig.

=*Asterias anthonii* Dana, 1863

Dana, 1863b, pp. 220–221, text fig. 349.

=*Palasterina* (?) *jamesii* Dana, 1863

Dana, 1863a, p. 295.

- Dana, 1863b, addenda.
 Dana, 1864, pp. 220–221, text fig. 349.
 = *Palaeaster jamesi* (Dana, 1863)
 Hall, 1868, p. 286 and footnote p. 284.
 Hall, 1870, p. 329 and footnote p. 327.
 = *Palaeaster ? jamesii* (Dana, 1863)
 Meek, 1873, p. 62, pl. 4, fig. 4.
 = *Palaeaster jamesii* (Dana, 1863)
 J. F. James, 1895, p. 127.
 = *Palaeaster? (Palaeasterina?) jamesi* (Dana, 1863)
 Lesley, 1889, p. 577, text fig.
 = *Petraster (?) americanus* (d'Orbigny, 1849)
 Schuchert, 1915, pp. 146–147, pl. 26, fig. 2.
 Ordovician, Maysville, Fairmount.
 Cincinnati, Ohio; James Collection.

Encrinaster tishbeinianum (Roemer, 1863)

- Referred specimen: P 1032.
 Garrels, 1951, p. 488, text fig. A-III.6.
 Devonian.
 Bundenbach, Rhenish Prussia.

Hudsonaster incomptus (Meek, 1872)

- See: *Palaeaster simplex* S. A. Miller and Dyer, 1878.

Lapworthura sp.

- See: *Aganaster (?)* sp.

Mesopalaeaster intermedius Schuchert, 1915

- Holotype: original designation UC 9575.
 Schuchert, 1915, pp. 79–81, pl. 9, fig. 4.
 Ordovician, Maysville Formation.
 Collected by Faber, 350 feet above the Ohio River at Cincinnati,
 Ohio; Faber Collection.

Mesopalaeaster proavitus Schuchert, 1915

- Holotype, not designated, to be selected from UC 54069.
 Referred specimens: UC 54069, eight fragments.
 Schuchert, 1915, pp. 83–84.

Ordovician, Eden Shale.

Collected by E. O. Ulrich, 100 feet above low water of Ohio River at Covington, Kentucky; Hall Collection.

Onychaster asper S. A. Miller, 1891

Holotype, not designated, to be selected from UC 7001 and UC 8852.

Referred specimen: UC 7001.

S. A. Miller, 1891, p. 74, pl. 12, fig. 3.

S. A. Miller, 1892a, p. 684, pl. 12, fig. 3.

S. A. Miller, 1892b, p. 680, text fig. 1240.

Schuchert, 1915, p. 272.

Mississippian, Keokuk Group.

Boonville, Missouri; Sampson Collection.

Referred specimens: UC 8852, two specimens.

S. A. Miller, 1891, p. 74, pl. 12, figs. 4 and 5.

S. A. Miller, 1892a, p. 684, pl. 12, figs. 4 and 5.

Schuchert, 1915, p. 272.

Mississippian, Keokuk Group

Boonville, Missouri; Faber Collection.

Onychaster confragosus S. A. Miller, 1891

Holotype, not designated, to be selected from UC 8853.

Referred specimens: UC 8853, two specimens.

S. A. Miller, 1891, pp. 74-75, pl. 12, figs. 6 and 7.

S. A. Miller, 1892a, pp. 684-685, pl. 12, figs. 6 and 7.

Schuchert, 1915, pp. 273-274.

Mississippian, Keokuk Group.

Boonville, Missouri; Faber Collection.

Onychaster demissus S. A. Miller, 1891

Holotype, not designated, to be selected from UC 8854.

Referred specimens: UC 8854, three specimens.

S. A. Miller, 1891, pp. 75-76, pl. 12, figs. 8-10.

S. A. Miller, 1892a, pp. 685-686, pl. 12, figs. 8-10.

S. A. Miller, 1892b, p. 680, text fig. 1241

Schuchert, 1915, p. 274.

Mississippian, Keokuk Group.

Boonville, Missouri; Faber Collection.

Referred specimens: UC 10994, two specimens.

Bassler, 1915, p. 274.

Mississippian, Keokuk Group.

Boonville, Missouri; Gurley Collection.

Palaeaster jamesi (Dana, 1863)

See: *Asterias* sp.

Palaeaster jamesii (Dana, 1863)

See: *Asterias* sp.

Palaeaster? (Palaeasterina?) jamesi (Dana, 1863)

See: *Asterias* sp.

Palaeaster simplex S. A. Miller and Dyer, 1878

Holotype: UC 8830.

S. A. Miller and Dyer, 1878, pp. 29–30, pl. 1, fig. 6.

S. A. Miller, 1889, p. 266, fig. 380.

J. F. James, 1895, p. 132.

= *Hudsonaster incomptus* (Meek, 1872)

Schuchert, 1915, pp. 61–63.

Ordovician, Cincinnati Group.

Near Raysville, Ohio; Faber Collection.

Palaeaster wykoffi S. A. Miller and Gurley, 1897

Holotype: UC 6066.

S. A. Miller and Gurley, 1897, p. 46, pl. 3, fig. 27.

= *Promopalaeaster wykoffi* (S. A. Miller and Gurley, 1897)

Schuchert, 1915, p. 119, pl. 18, fig. 6; pl. 19, fig. 2.

Ordovician, Hudson River Group.

Near Madison, Indiana [published]; Jefferson County, Indiana
[catalogue]; Gurley Collection.

Palasterina (?) jamesii Dana, 1863

See: *Asterias* sp.

Pentagonaster browni S. Weller, 1905

Holotype: original designation UC 10725.

S. Weller, 1905, pp. 257–258, text fig. 1.

Clark and Twitchell, 1915, pp. 41–42, pl. 7, fig. 7.

Cretaceous, Fox Hills Sandstone [published]; Frontier Formation [catalogue].

SE $\frac{1}{4}$, sec. 16, T32, R99, near Lander, Wyoming; N. H. Brown, donor.

Petraster (?) americanus (d'Orbigny, 1849)

See: *Asterias* sp.

Promopalaester wykoffi (S. A. Miller and Gurley, 1897)

See: *Palaeaster wykoffi* S. A. Miller and Gurley, 1897.

Promopalaester sp.

Referred specimen: UC 9567.

Schuchert, 1915, p. 108.

Ordovician, Maysville Formation.

Collected by Faber, 350 feet above the Ohio River at Cincinnati, Ohio; Faber Collection.

Schoenaster legrandensis S. A. Miller and Gurley, 1890

Holotype: UC 6199, specimen broken since figured.

S. A. Miller and Gurley, 1890, pp. 56–57, pl. 9, figs. 7–9.

S. A. Miller and Gurley, 1891, pp. 371–372, pl. 9, figs. 7–9.

S. A. Miller, 1892b, p. 682, text figs. 1246 and 1247.

= *Schoenaster (?) legrandensis* S. A. Miller and Gurley, 1890

Schuchert, 1915, p. 206, pl. 32, figs. 4–6

Mississippian, Kinderhook Formation.

LeGrand, Iowa; Gurley Collection.

Remarks: Schuchert, 1915, p. 206, says "it is certainly not a form of *Schoenaster*."

Schoenaster Meek and Worthen, 1860 = *Euzonosoma* Spencer, 1930
Spencer and Wright *in* Moore, 1966, p. 86.

Schoenaster sp.

Referred specimen: UC 10993.

Schuchert, 1915, p. 206.

Mississippian, Chester Formation.

Pope County, Illinois; Gurley Collection.

Remarks: *Schoenaster* Meek and Worthen, 1860 = *Euzonosoma* Spencer, 1930.

Spencer and Wright *in* Moore, 1966, p. 86.

Schoenaster? sp.

Referred specimen: UC 48292.

Easton, 1943, p. 137, pl. 21, fig. 8.

Mississippian, Pitkin Formation.

Easton, 1943 locality 32, lower part of Pitkin in creek across bluff southeast of Hurley quarry, northeast of Leslie, Arkansas; Easton Collection.

Remarks: *Schoenaster* Meek and Worthen, 1860 = *Euzonosoma* Spencer, 1930.

Spencer and Wright *in* Moore, 1966, p. 86.

Schuchertia ordinaria Schuchert, 1915

Holotype: UC 10992.

Schuchert, 1915, p. 199.

Silurian, Girardeau Limestone.

Alexander County, Illinois; Gurley Collection.

Stenaster grandis Meek, 1872

Holotype: UC 10836.

Meek, 1872, pp. 258–259.

Meek, 1873, pp. 66–67, pl. 3 bis., figs. 7a–c.

S. A. Miller, 1889, p. 283, fig. 432.

Lesley, 1890, pp. 1051–1052, text figs.

J. F. James, 1895, p. 136.

= *Urasterella grandis* (Meek, 1872)

Meek, 1873, p. 67.

Cumings, 1908, pp. 731–733, pl. 3, figs. 6–6b.

Schuchert, 1915, pp. 180–182.

Ordovician, Richmond.

Richmond, Indiana; Haines Collection.

Urasterella grandis (Meek, 1872)

See: *Stenaster grandis* Meek, 1872.

CATALOGUE OF CASTS OF TYPE AND REFERRED SPECIMENS

Asterias matutina Hall, 1847

Holotype: UC 22218.

Hall, 1847, p. 91, pl. 29, figs. 5a–b.

= *Palaeaster matutina* (Hall, 1847)

Hall, 1868, pp. 283–284, pl. 9, fig. 2.

Hall, 1870, pp. 325–326, pl. 9, fig. 2.

= *Hudsonaster matutinus* (Hall, 1847)

Schuchert, 1915, pp. 57–58.

= *Macroporaster matutinus* (Hall, 1847)

Raymond, 1921, p. 167.

Ordovician, Trenton Group.

Trenton Falls, New York; Hall Collection.

Devonaster eucharis (Hall, 1868)

See: *Palaeaster eucharis* Hall, 1868.

Hudsonaster matutinus (Hall, 1847)

See: *Asterias matutina* Hall, 1847.

Macroporaster matutinus (Hall, 1847)

See: *Asterias matutina* Hall, 1847.

Palaeaster eucharis Hall, 1868

Referred specimens: UC 783.

Hall, 1868, pp. 287–289, pl. 9, figs. 3, 3a, 3* and 4.

Hall, 1870, pp. 330–331, pl. 9, figs. 3, 3a, 3* and 4.

= *Devonaster eucharis* (Hall, 1868)

Schuchert, 1915, pp. 98–101, pl. 12, figs. 3 and 4.

Shimer and Shrock, 1944, p. 211, pl. 80, figs. 9–11.

Devonian, Hamilton Group.

Near Madison, New York; Hall Collection.

Palaeaster matutina (Hall, 1847)

See: *Asterias matutina* Hall, 1847.

Palaeaster niagarensis Hall, 1852

Holotype: UC 15906, original specimen Cornell Univ. no. 7331.

Hall, 1852, pp. 247-248, pl. 51, figs. 21-23.

Schuchert, 1915, pp. 69-72, pl. 7, figs. 1-4.

Shimer and Shrock, 1944, p. 211, pl. 80, figs. 1-4.

Silurian, Rochester Shale.

Lockport, New York; Hall Collection.

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