

CATALOGUE OF TYPE AND FIGURED FOSSILS IN
THE SCIENCE MUSEUM OF MINNESOTA

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INTRODUCTION

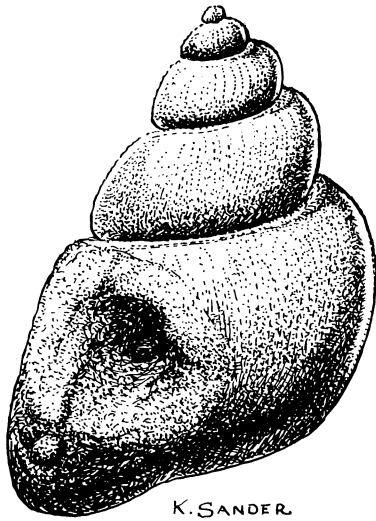
The paleontological collections of The Science Museum of Minnesota are comprised of materials collected from broad geographic and stratigraphic ranges. Included among these collections are numerous specimens from which new taxa are described as well as many specimens which provide information supplemental to original type descriptions. Since no previous record of these materials has been published this catalogue of type and figured fossils is presented in compliance with recommendation of the International Commission on Zoological Nomenclature (1985, 72G), as a reference to the names and original descriptions of fossil forms housed in The Science Museum of Minnesota. Primary types (holotypes, cotypes and paratypes) as defined by the International Code of Zoological Nomenclature under Article 73, are listed. As most vertebrate paratypes are incomplete specimens, often a single element which is different from the holotype, it is desirable to have available a record of each specimen. Therefore, these specimens are identified individually. Cotypes are present among some of the older descriptions where a specific individual is not designated as the holotype.

Included are casts of type specimens (plastotypes) with the catalogue number of the original depository as well as the SMM cast number. Also "figured" specimens published subsequent to the original type description are listed to complete the record of specimens which are contained in the collections to date.

The catalogue is organized under the following sections: Invertebrates, Vertebrates, Plants and Trace Fossils. Science Museum of Minnesota specimens representing fossil Cystoidea, Brachiopoda, Pelecypoda, Gastropoda, Cephalopoda, Trilobita, Pterygota, Osteichthyes, Amphibia, Reptilia, Mammalia, Algae, Araliaceae, Isoetinae, Filicineae and Ichnofossils are recorded. Genera are arranged alphabetically according to class; species are arranged alphabetically within each genus and followed by author and bibliographic reference. Each listed specimen is designated by: type or figured category; catalogue number; figure number; anatomical part if incomplete; special condition, e.g., juvenile, pathologic, etc. if appropriate; geologic age; formation and locality in so far as known. The word "missing" indicates that the specimen cannot be found. If the original name is no longer accepted, its current synonym is given wherever possible and cross referenced with that name.

Data for the catalogue were compiled by a review of original type-descriptions and extensive searches of the literature as well as the collections for verifications and additional specimens. We have attempted to cite all type and figured materials, however it is possible that some have been overlooked.

Catalogue numbers of specimens which are not in the collections of SMM - Science Museum of Minnesota, are preceded by the following institutional acronyms: BM(NH) - British Museum (Natural History); FMNH - Field Museum of Natural History; PU - Princeton University (collection now at Peabody Museum of Natural History, Yale University, New Haven); UA - University of Alberta; UC - University of Chicago.



Sinuoepa virginia holotype, SMM P31-2178. X4.

CATALOGUE

INVERTEBRATES

CLASS HYDROZOA

Stromatopora (?)

POWELL, 1935, p. 41, pl. 1, figs. 11-13.

FIGURED: 31-2012 (fig. 13), Ozarkian, Oneota Formation, St. Croix River, Minnesota; 31-2189 (figs. 11, 12); Ozarkian, Oneota Formation, Altura, Minnesota.

CLASS CYSTOIDEA

Cystoid sp.

POWELL, 1935, p. 41, pl. 1, figs. 9 and 10.

FIGURED: 31-2010 (fig. 9) plates, 31-2011 (fig. 10) plates; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

CLASS BRACHIOPODA

Eoorthis vicina

POWELL, 1935, p. 43, pl. 1, fig. 3.

FIGURED: 31-2001 ventral valve; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Lingulella sp.

POWELL, 1935, p. 43, pl. 1, fig. 6.

FIGURED: 31-2006 mold and shell; Ozarkian, Oneota Formation, Ottawa, Minnesota.

Obolus dolatus

POWELL, 1935, p. 42, pl. 1, figs. 4, 5.

FIGURED: 31-2002 two shells on one spec.; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Syntrophia calcifera

POWELL, 1935, p. 44, pl. 1, fig. 8.

FIGURED: 31-2008 ventral valve; Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Syntrophia nonus

POWELL, 1935, p. 45, pl. 1, figs. 1, 2.

FIGURED: 31-2000 dorsal and ventral valves; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

CLASS GASTROPODA

Cinctaspira conica

POWELL, 1935, p. 46, text fig. 2, pl. 3, fig. 5.

HOLOTYPE: 31-2153; Ozarkian, Oneota Formation, Stillwater, Minnesota.

Dirhachopea colvini

POWELL, 1935, p. 47, pl. 5, fig. 12.

FIGURED: 31-2155; Ozarkian, Oneota Formation, Altura, Minnesota.

Dirhachopea normalis

POWELL, 1935, p. 13, pl. 15, figs. 5-7.

FIGURED: 31-2416 (figs. 6 and 7) cast of internal mold, 31-2417 (fig. 5) cast of internal mold; Kasota, Minnesota.

Dirhachopea sp.

POWELL, 1935, p. 13, pl. 15, figs. 3, 4.

FIGURED: 31-2409; Ozarkian, Kasota Formation, Kasota, Minnesota.

Gasconadia putilla

POWELL, 1935, p. 54, pl. 6, figs. 9-13.

FIGURED: 31-2194 (figs. 10 and 11) casts of impressions, Ottawa, Minnesota; 31-2197 (fig. 13), 31-2199 (fig. 9) Caledonia, Minnesota; 31-2202 (fig. 12) St. Croix, Minnesota; Ozarkian, Oneota Formation, Ottawa, Minnesota.

Syntrophia sp.

POWELL, 1935, p. 44, pl. 1, fig. 7.

FIGURED: 31-2007 ventral valve; Ozarkian, Oneota Formation, Lanesboro, Minnesota.

CLASS PELECYPODA

Ctenodonta (?)

POWELL, 1935, p. 11, pl. 16, figs. 7-14.

FIGURED: 31-2437, 2442, 2444, 2447, 2450, 2495 casts of internal molds; Ozarkian, Kasota Formation, Kasota, Minnesota.

Ctenondonta (?)

POWELL, 1935, p. 11, pl. 16, fig. 15.

FIGURED: 31-2443 cast of internal mold; Ozarkian, Kasota Formation, St. Peter, Minnesota.

Gasconadia sp.

POWELL, 1935, p. 54, pl. 16, figs. 5 and 6.

FIGURED: 31-2422 (fig. 6) cast of internal mold, 31-2434 (fig. 5) cast of internal mold; Ozarkian, Kasota Formation, Kasota, Minnesota.

Helicotoma uniangulata

POWELL, 1935, p. 62, pl. 3, figs. 2-4.

FIGURED: 31-2013, Altura, Minnesota; 31-2014 (fig. 3), Caledonia, Minnesota; 31-2015 (fig. 4), Lanesboro, Minnesota; Ozarkian, Oneota Formation.

Hormotoma sp.

POWELL, 1935, p. 62, pl. 6, figs. 15-18.

FIGURED: 31-2181 (fig. 17) cast of impression, Mankato, Minnesota; 31-2183 (fig. 18), 31-2184 (figs. 15 and 16) St. Croix, Minnesota; Ozarkian, Oneota Formation.

Lecanospira alturensis

POWELL, 1935, p. 65, text fig. 4, No. 1, pl. 4, figs. 16 and 17.

FIGURED: 31-2057; Ozarkian, Oneota Formation, Altura, Minnesota. (missing).

Lecanospira profunda

POWELL, 1935, p. 67, text fig. 4, No. 3, pl. 4, figs. 21 and 22.

COTYPES: 31-2048 (fig. 21), Altura, Minnesota; 31-2049 (fig. 22), Dresbach, Minnesota; Ozarkian, Oneota Formation.

Lecanospira tenuis

POWELL, 1935, p. 66, text fig. 4, No. 2, pl. 4, figs. 18-20.

COTYPES: 31-2036 (figs. 18 and 20), Dresbach, Minnesota; 31-2037 (fig. 19), Altura, Minnesota; Ozarkian, Oneota Formation.

Matthevia sp.

POWELL, 1935, p. 15, pl. 16, figs. 3 and 4.

FIGURED: 31-2433; Ozarkian, Kasota Formation, Kasota, Minnesota.

Ophileta grandis

POWELL, 1935, p. 58, text fig. 3, No. 2, pl. 4, fig. 3.

FIGURED: 31-2132; Ozarkian, Oneota Formation, Altura, Minnesota.

Ophileta meeki

POWELL, 1935, p. 61, text fig. 3, No. 5, pl. 4, figs. 6-8.

HOLOTYPE: 31-2089; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Ophileta minnesotense

POWELL, 1935, p. 12, pl. 14, figs. 1-6.

FIGURED: 31-2408 (fig. 1), 31-2414 (fig. 3), Kasota, Minnesota; 31-2411 (figs. 5 and 6), 31-2412 (fig. 2), 31-2413 (fig. 4), St. Peter, Minnesota; Ozarkian, Kasota Formation.

Ophileta sp.

POWELL, 1935, p. 13, pl. 15, fig. 1.

FIGURED: 31-2419; Ozarkian, Kasota Formation, Kasota, Minnesota.

Ophileta multivolvatum

POWELL, 1935, p. 59, text fig. 3, No. 3, pl. 4, figs. 1, 2.

FIGURED: 31-2122; Ozarkian, Oneota Formation, Altura, Minnesota.

Ophileta pepinense

POWELL, 1935, p. 60, text fig. 3, No. 4, pl. 4, figs. 13 and 14.

FIGURED: 31-2093 (fig. 14), Dresbach, Minnesota; 31-2094 (fig. 13), Altura, Minnesota; Ozarkian, Oneota Formation.

Ophileta sardesoni (Sardeson)

COTYPES: 31-2101 and 31-2104, see *Raphistoma minnesotenses*.

Ophileta trochiscus

POWELL, 1935, p. 59, text fig. 3, No. 6, pl. 4, figs. 9-12.

FIGURED: 31-2073 (figs. 9 and 10), 31-2074 (figs. 11 and 12); Ozarkian, Oneota Formation, Altura, Minnesota.

Ozarkina parva

POWELL, 1935, p. 63, pl. 4, fig. 15.

COTYPES: 31-2080 (fig. 15), 31-2081, 31-2082; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Pelagiella staufferi

POWELL, 1935, p. 14, pl. 16, figs. 1, 2.

HOLOTYPE: 31-2432; Ozarkian, Kasota Formation, Kasota, Minnesota.

Raphistoma minnesotenses.

SARDESON, 1896, p. 100, pl. V, figs. 15-17.

COTYPES: 31-2101 (text fig. 3 and pl. 4, fig. 5), 31-2104 (text fig. 3 and pl. 4, fig. 4); Ozarkian, Oneota Formation, Dresbach, Minnesota.
= *Ophileta sardesoni* (Sardeson)

POWELL, 1935, p. 57, text fig. 3, No. 1, pl. 4, figs. 4 and 5.

Rhacopea conica

POWELL, 1935, p. 50, pl. 5, fig. 5.

HOLOTYPE: 31-2156; Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Rhacopea coronata

POWELL, 1935, p. 48, pl. 5, figs. 9-11.

COTYPES: 31-2165 (fig. 9), 31-2166 (figs. 10 and 11); Ozarkian, Oneota Formation, Ottawa, Minnesota.

Rhacopea grandis

POWELL, 1935, p. 49, pl. 5, figs. 1, 2.

FIGURED: 31-2154; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Rhacopea leiosomellum

POWELL, 1935, p. 47.

FIGURED: 31-2158 (figs. 6 and 7), Dresbach, Minnesota; 31-2159 (fig. 8), Altura, Minnesota; Ozarkian, Oneota Formation.

Rhacopea typica

POWELL, 1935, p. 48, pl. 5, figs. 3, 4.

FIGURED: 31-2147; Ozarkian, Oneota Formation, Dresbach, Minnesota.

Sinuoepa obesa

POWELL, 1935, p. 51, pl. 6, fig. 4.

FIGURED: 31-2174; Ozarkian, Oneota Formation, Caledonia, Minnesota.

Sinuoepa turgida

POWELL, 1935, p. 51, pl. 6, figs. 1, 2.

FIGURED: 31-2175 (figs. 1 and 2), 31-2176 (fig. 3); Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Sinuoepa typicalis

POWELL, 1935, p. 52, pl. 6, fig. 5.

FIGURED: 31-2177; Ozarkian, Oneota Formation, Caledonia, Minnesota.

Sinuoepa vera

POWELL, 1935, p. 52, pl. 6, fig. 7.

FIGURED: 31-2169; Ozarkian, Oneota Formation, Dresbach, Minnesota.

Sinuopea virginia

POWELL, 1935, p. 53, pl. 6, fig. 6.

HOLOTYPE: 31-2178; Ozarkian, Oneota Formation, Dresbach, Minnesota.

Viviparus sp.

GRANDE, 1980, p. 227, Fig. IV. 2.

FIGURED: P78.9.32 internal mold; Eocene, Wasatchian, Green River Formation, Wyoming.

CLASS CEPHALOPODA

Ascoceras gibberosum

POWELL, 1935, p. 69, pl. 7, figs. 13-17.

FIGURED: 31-2266 (figs. 13 and 14), 31-2267 (fig. 17), 31-2268 (fig. 16); Ozarkian, Oneota Formation, Caledonia, Minnesota.

Burenoceras cornucopiaforme

POWELL, 1935, p. 70, pl. 8, fig. 1, 2.

COTYPES: 31-2276 (figs. 1 and 2), 31-2277 (fig. 3); Ozarkian, Oneota Formation, Dresbach, Minnesota.

Burenoceras sp.

POWELL, 1935, p. 70, pl. 8, fig. 4.

FIGURED: 31-2284; Ozarkian, Oneota Formation, Caledonia, Minnesota.

Clarkoceras claytonense

POWELL, 1935, p. 73, pl. 9, fig. 11.

FIGURED: 31-2308; Ozarkian, Oneota Formation, Dresbach, Minnesota.

Clarkoceras lutei

POWELL, 1935, p. 72, pl. 9, figs. 1, 2 and 4.

FIGURED: 31-2309 (fig. 1), Altura, Minnesota; 31-2310 (fig. 4), 31-2311 (fig. 2), Dresbach, Minnesota; Ozarkian, Oneota Formation.

Clarkoceras newton-winchelli

POWELL, 1935, p. 71, pl. 9, figs. 5 and 6.

FIGURED: 31-2313 (fig. 5), 31-2314 (fig. 6); Ozarkian, Oneota Formation, Dresbach, Minnesota.

Clarkoceras sp.

POWELL, 1935, pl. 9, figs. 2, 10 and 12, pl. 10, figs. 6, 7, 8 and 10).
FIGURED: 31-2262 (pl. 9, fig. 10), 31-2306 (pl. 9, fig. 12), 31-2312
(pl. 10, fig. 7), 31-2315 (pl. 10, fig. 8), Caledonia, Minnesota; 31-2307
(pl. 9, fig. 2), 31-2319 (pl. 9, fig. 6), 31-2324 (pl. 9, fig. 10), Dresbach,
Minnesota; Ozarkian, Oneota Formation.

Cyrtoceras dresbachense

POWELL, 1935, p. 68, pl. 7, figs. 8-12.
FIGURED: 31-2252 (fig. 12), 31-2253 (fig. 8), 31-2254 (figs. 9 and 10),
31-2255 (fig. 11); Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Ellesmeroceras winonicum

POWELL, 1935, p. 69, pl. 8, figs. 16-19.
FIGURED: 31-2248; Ozarkian, Oneota Formation, Lanesboro,
Minnesota.

Ellesmeroceras sp.

POWELL, 1935, pl. 8, figs. 11 and 12.
FIGURED: 31-2278; Ozarkian, Oneota Formation, Lanesboro,
Minnesota.

Oneotoceras loculosum

POWELL, 1935, p. 73, pl. 11, figs. 1-6.
FIGURED: 31-2293 (figs. 5, 6), 31-2299 (figs. 1, 2), 31-2302
(figs. 3, 4); Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Walcottoceras shannonense

POWELL, 1935, p. 67, pl. 7, figs. 1-4.
FIGURED: 31-2318 (fig. 4), Caledonia, Minnesota; 31-2243 (fig. 1),
Ottawa, Minnesota; 31-2244 (fig. 2), 31-2245 (fig. 3), St. Croix,
Minnesota; Ozarkian, Oneota Formation, Caledonia, Minnesota.

CLASS TRILOBITA

Bellefontia nonius

POWELL, 1935, p. 75, pl. 13, figs. 11, 12.
FIGURED: 31-2395 free cheek, pygidium; Ozarkian, Oneota For-
mation, Mankato, Minnesota. (missing).

Dalmanites pratteni

ROY, 1933, pp. 67-82.

PLASTOHOLOTYPE: P76.9.1c (FMNH P16704); Devonian, Devil's Back Bone, near Grand Tower, Jackson County, Illinois.

Hystricurus oneotensis

POWELL, 1935, p. 75, pl. 13, figs. 6-9.

COTYPES: 31-2242 (fig. 8) pygidium, 31-2371 (figs. 6, 7) cranidium, 31-2396 (fig. 9) free cheek; Ozarkian, Oneota Formation, Lanesboro, Minnesota.

Platycolpus eatoni

POWELL, 1935, p. 77, pl. 13, fig. 1.

FIGURED: 31-2368 pygidia; Ozarkian, Oneota Formation, St. Croix River, Minnesota.

Symphysurina woosteri

POWELL, 1935, p. 74, pl. 13, figs. 2-5.

FIGURED: 31-2369 (fig. 5) impression of pygidium, 31-2370 (fig. 2) pygidium, Lanesboro, Minnesota; 31-2397 (fig. 4) impression, St. Croix, Minnesota; 31-2398 (fig. 3) internal mold, Ottawa, Minnesota; Ozarkian, Oneota Formation.

CLASS MALACOSTRACA

Cambarus primaevus

PACKARD, 1880, pp. 222-223. Spec. from fish beds of western Wyoming.

= *Procambarus* (*Austrocambarus*) *primaevus* (Packard)

FELDMANN, et. al., 1981, pp. 794-799, pl. 3, figs. 1, 2.

Procambarus (*Austrocambarus*) *primaevus* (Packard)

TOPOTYPE: P78.9.41; Eocene, Fossil Butte Member, Green River Formation, Wyoming.

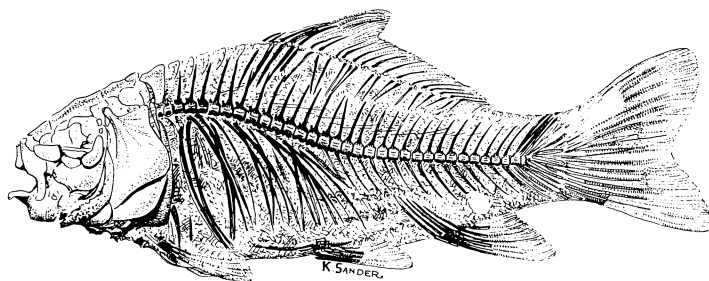
see *Cambarus primaevus*

CLASS PTERYGOTA

Narkemina windsoriensis

LEWIS, 1979, pp. 754-756, fig. 1.

HOLOTYPE: P78.10.1 wing impression; Pennsylvanian, Verdigris Formation, Missouri.



Amyzon gosiutensis paratype, SMM P78.4.2. X5/12.

VERTEBRATES

CLASS OSTEICHTHYES

Amia fragosa

GRANDE, 1984, p. 53, fig. II, 24.

FIGURED: P78.9.5 latex peel; Eocene, Bridgerian, Green River Formation, Wyoming.

Amia uintaensis

GRANDE, 1984, pp. 52, 53, figs. II. 20b & c, II. 23.

FIGURED: P78.5.1; Eocene, Wasatchian, Green River Formation, Wyoming.

Amyzon gosiutensis

GRANDE, et. al. 1982c, pp. 523-532, fig. 3.

PARATYPES: P78.4.1, P78.4.2 (fig. 3), P78.4.4, P78.4.5, P78.4.10 (fig. 6a); Eocene, Bridgerian, Green River Formation, Wyoming.

Asineops squamiformis

GRANDE, 1982, p. 138, fig. II, 78.

FIGURED: P77.1.1 latex peel; Eocene, Bridgerian, Green River Formation, Wyoming.

Crossopholis magnicaudatus

GRANDE, 1982, p. 35, fig. II, 8a.

FIGURED: P78.9.21 scales; Eocene, Wasatchian, Green River Formation, Wyoming.

Diplomystus dentatus

GRANDE, 1984, pp. 91-92, fig. II, 44.

FIGURED: P78.9.14; Eocene, Wasatchian, Green River Formation, Wyoming.

Diplomystus dentatus

GRANDE, 1984, fig. II, 49b.

FIGURED: P78.9.38 scale; Eocene, Green River Formation, Wyoming.

Diplomystus sp.

GRANDE, 1984, pp. 90, 91, fig. AI, 5, p. 101, figs. II, 47, 48.

FIGURED: P78.9.16 (fig. AI, 5) skeleton, pt./counterpart, P78.9.18 (fig. II, 47) young, P78.9.19 (fig. II, 48) young; Eocene, Wasatchian, Green River Formation, Wyoming.

Eohiodon falcatus

GRANDE, 1979, pp. 63, 103-111, figs. 2, 3, II, 28.

PARATYPES: P77.24.1 (fig. 2) skull/scales, P77.24.2 (fig. 3) caudal skeleton, figured P83.2.6 (fig. II, 28); Early Eocene, Green River Formation, Wyoming.

Erismatopterus leavatus

GRANDE, 1984, pp. 124, 125, figs. II, 70b, 74.

FIGURED: P78.9.2 (fig. II, 70b) skull, P83.2.8 (fig. II, 74) layer w/17 specimens; Eocene, Bridgerian, Green River Formation, Wyoming.

Gosiatichthys parvus

GRANDE, 1984, p. 88, 89, fig. II, 42a.

FIGURED: P78.9.13 skeleton w/pigmentation pattern; Eocene, Laney Member, Green River Formation, Wyoming.

Heliobatis radians

GRANDE, 1984, p. 24, 25, figs. II, 3, 4.

FIGURED: P77.27.1 (fig. II, 4) female, P83.2.4 (fig. II, 3) male; Eocene, Wasatchian, Green River Formation, Wyoming.

Heliobatis sp.

GRANDE, 1984, p. 25, fig. II, 6b.

FIGURED: P83.2.5 juvenile skeleton; Eocene, Fossil Butte Member, Green River Formation, Wyoming.

Hypidoris sp.

GRANDE, 1984, p. 121, fig. II, 66.

FIGURED: P78.9.6 juvenile skeleton; Eocene, Bridgerian, Green River Formation, Wyoming.

Knightia alta

GRANDE, 1984, p. 87, 88, fig. II, 39.

FIGURED: P78.9.12; Eocene, Wasatchian, Green River Formation, Wyoming.

Knightia eoacaena

GRANDE, 1982, p. 5, fig. 1.

FIGURED: P78.9.17 juvenile skeleton; Eocene, Laney Member, Green River Formation, Wyoming.

Knightia humilis

GRANDE, 1984, pp. 95, 96, 102, figs. II, 40, 41, 49a.

FIGURED: P78.9.9 (fig. 49a) scale, P78.9.17 (fig. 40) juvenile, P83.2.7 (fig. 41) layer w/22 spec.; Eocene, Green River Formation, Wyoming.

Lepisosteus cuneatus

GRANDE, 1984, pp. 40, 41, figs. II, 17a-c.

FIGURED: P66.14.1 (fig. 17a,b) slab w/several spec., P66.14.3 (fig. 17c) skull; Eocene, Vintan, Green River Formation, Wyoming.

Lepisosteus sp.

GRANDE, 1984, p. 37, fig. II, 14.

FIGURED: P78.9.13 latex peel; Eocene, Bridgerian, Green River Formation, Wyoming.

Mioplosus labracoides

GRANDE, 1984, pp. 142, 143, figs. II, 83a, 85, 86.

FIGURED: P75.26.1 (fig. 85), P78.9.22 (fig. 86) scales, P78.9.28 (fig. 83a); Eocene, Wasatchian, Green River Formation, Wyoming.

Mioplosus sp.

GRANDE, 1984, p. 141, fig. II, 83b.

FIGURED: P78.9.25 juvenile skeleton; Eocene, Wasatchian, Green River Formation, Wyoming.

Notogoneus osculus

GRANDE, 1984, p. 103, 104, fig. II, 51.

FIGURED: P76.18.1; Eocene, Wasatchian, Green River Formation, Wyoming.

Percoid sp.

GRANDE, 1984, p. 160, fig. II, 95a.

FIGURED: P78.9.29; Eocene, Wasatchian, Green River Formation, Wyoming.

Phareodus encaustus

GRANDE, 1984, pp. 71-73, figs. II, 32a, 36.

FIGURED: P75.19.1 (fig. 36), P78.9.24 (fig. 32a), uncatalogued spec.; Eocene, Wasatchian, Green River Formation, Wyoming.

Phareodus testis

GRANDE, 1984, pp. 73-75, figs. II, 34a, 36a, b.

FIGURED: P78.9.23 (fig. 36a) juvenile skeleton, P78.9.36 (figs. 34a, 36b); Eocene, Wasatchian, Green River Formation, Wyoming.

Priscacara sp.

GRANDE, 1984, p. 158, fig. II, 93.

FIGURED: P78.9.20 juvenile skeleton; Eocene, Wasatchian, Green River Formation, Wyoming.

Priscacara serrata

GRANDE, 1984, pp. 150, fig. II, 88a, 89.

FIGURED: P78.9.27 (fig. 88a), P78.9.37 (fig. 89); Eocene, Wasatchian, Green River Formation, Wyoming.

CLASS AMPHIBIA

Perryella olsoni

CARLSON, 1987, pp. 135-147, figs. 1-11.

HOLOTYPE: P82.10.1 (figs. 1-4, 8, 10) skull and pectoral girdle, paratypes: P82.10.2 (fig. 9) vertebrae, P82.10.3 partial skull, P82.10.4 vertebrae, P82.10.5 partial skull, P82.10.6 (fig. 11) skull, vertebrae, limb; P82.10.7 partial skull, P82.10.8 partial skull, P82.10.9 parasphenoid, vertebrae; P82.10.10 skull, P82.10.11 (figs. 2, 3, 5) partial skull, P82.10.12 vertebrae, P82.10.13 partial skull, P82.10.14 partial skull, P82.10.15 skull fragments, P82.10.16 partial skull, P82.10.17 (fig. 6) partial skull, P82.10.18 vertebrae; Lower Permian, Wellington Formation, Noble County, Oklahoma.

Rhinesuoides tenuiceps

OLSON and BROOM, 1937, pp. 613-619, figs. 6, 7.

PLASTOHOLOTYPE: P73.16.2c skull (FMNH-VC 1519); Permian: Karroo Series, Lower Beaufort Formation, Tapinocephalus zone, Cape Province, South Africa (2 mi. east of Stinkfontein).

CLASS REPTILIA

Albertochampsia langstoni

ERICKSON, 1972a, pp. 1-13, figs. 1, 2, 5 & 6.

HOLOTYPE: P67.15.3 skull; Upper Cretaceous, Oldman Formation, Alberta, Canada.

Ceratosuchus burdoshi

SCHMIDT, 1938, pp. 315-318, fig. 83.

PLASTOHOLOTYPE: P74.3.1c skull (FMNH 15576); Upper Paleocene, Plateau Valley Beds, Mesa County, Colorado.

Champsosaurus ambulator

ERICKSON, 1972, p. 64, fig. 50B.

FIGURED: P63.14.1 humerus; Paleocene, Tullock Formation, Garfield County, Montana.

Champsosaurus gigas

ERICKSON, 1972b, pp. 1-91, figs. 8, 10-12, 14-17, 19, 20, 24-26, 28-34, 36, 43, 55.

HOLOTYPE: P71.2.1 (figs. 8, 10-12, 14-17, 19, 20, 24, 28, 29, 31-34, 36-40, 42, 43) skeleton; paratype P60-2004 (figs. 11, 25, 26, 30, 42, 55); Paleocene, Sentinel Butte Formation, Golden Valley County, North Dakota.

Champsosaurus gigas

ERICKSON, 1985, pp. 111-127, figs. 1-13.

FIGURED: P77.34.24 (figs. 1, 2) skull and jaws, (figs. 3-6) gastralia and ribs, (figs. 9-10) vertebrae, (figs. 11-13) integument impression; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Champsosaurus gigas

ERICKSON, 1982a, p. 7, fig. 4.

FIGURED: P77.33.24 skull; Paleocene, Bullion Creek Formation, North Dakota.

Champsosaurus laramiensis

ERICKSON, 1972b, p. X, figs. 45, 47, 48, 52.

FIGURED: P62.10.1 (fig. 45) cervical vertebrae, P65.3.1 (figs. 47, 48, 52, 53, 56) skeleton; Paleocene, Tullock Formation, Garfield County, Montana.

Champsosaurus natator

ERICKSON, 1972b, p. 63, fig. 49.

FIGURED: P68.55.1 coracoid, humerus; Cretaceous, Oldman Formation, Alberta, Canada.

Champsosaurus tenuis

ERICKSON, 1981, pp. 1-14, figs. 1-8.

HOLOTYPE: P79.14.1 partial skull/skeleton; Upper Paleocene, Tiffanian, Bullion Creek Formation, Billings County, North Dakota.

Cynosaurus longiceps

OLSON, 1937, pp. 511-524, figs. 1-3, pls. I-III, figs. 4-6.

PLASTOHOLOTYPE: P73.16.1c (UC 1515) skull and jaws; Late Permian: Karroo Series, Lower Beaufort Formation, Cape Province, South Africa.

Emydid sp.

ERICKSON, 1984, p. 7, fig. 2.

FIGURED: P73.25.134 partial carapace (pathologic); Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Leidyosuchus formidabilis

ERICKSON, 1976, pp. 1-61, figs. 1-36.

HOLOTYPE: P71.16.28 (figs. 1-3) skull and jaws; paratypes: P70.20.9 skull, P70.20.171 (figs. 28, 29a) femur, P70.20.377 mandible, P70.20.388 mandible, P70.20.393 mandible, P70.20.404 (fig. 27a) ilium, P70.20.407 (fig. 33) juvenile skull, P70.20.409 (fig. 24b, c) coracoid, P70.20.412 mandible, P71.16.3 (fig. 26a) radius, P71.16.7 (fig. 22b) rib, P71.16.10 (fig. 24a) scapula, P71.16.17 (fig. 26b) ulna, P71.16.21 (fig. 27c) ischium, P71.16.24 (fig. 22d) rib, P71.16.29 (fig. 6) juvenile skull, P71.16.106 (fig. 14) proatlas, P71.16.256 (fig. 27b) pubis, P72.34.87 skull, P72.34.95 (fig. 29b) tarsus, P72.34.126 (fig. 12) hyoid, P72.34.150 (fig. 22d) rib, P72.34.183 skull, P72.34.184 mandible, P72.34.185 (fig. 22c) rib, P72.34.202 juvenile skull, P72.34.203 (fig. 25a, b) humerus, P73.25.18 (fig. 22a) rib, P73.25.70 (fig. 35a) juvenile vertebral centrum, P74.24.6 (fig. 35a) skeleton, P74.24.36 skeleton, P74.24.37 (fig. 23) interclavicle, P74.24.103 skull, P74.24.105 juvenile skull, P74.24.108 (fig. 35b) hatchling vertebral centrum, P74.24.186 (fig. 35c) juvenile neurocentrum, P75.22.6 (fig. 34) small maxilla, P74.22.329 (fig. 9) metatarsal (pathologic); Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Protochelydra zangerli

ERICKSON, 1973, pp. 1-16, figs. 1-11.

HOLOTYPE: P72.34.20 (figs. 1-3) skull; paratypes: P70.20.430 (figs. 5, 6) hypo, xiphiplastra; P70.20.441 (figs. 5, 6) hypoplastron, P71.16.255 (fig. 11) ilium, P72.34.15 (fig. 9) humerus, P72.34.16 (fig. 10) scapula, P72.34.17 ilium, P72.34.18 (fig. 7) peripheral, P72.34.21 (fig. 8) epiplastron, P72.34.22 epiplastron; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Protochelydra zangerli

ERICKSON, 1982a, pp. 12-13, figs. 7, 8.

FIGURED: P75.22.271 carapace; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Protochelydra zangerli

ERICKSON, 1984, p. 6, fig. 1.

FIGURED: P75.22.327 (fig. 1) neural (pathologic), P76.28.258 (fig. 1) partial carapace (pathologic); Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Teleorhinus mesabiensis

ERICKSON, 1969, pp. 1-8, fig. 1, pls. 1-3.

HOLOTYPE: P68.56.1 skull (snout); Cretaceous, Turonian, Coleraine Formation, Minnesota.

Triceratops prorsus

ERICKSON, 1966, pp. 1-15, figs. 1, 3, pls. 1, 2.

FIGURED: P62.1.1 ribs; Upper Cretaceous, Hell Creek Formation, Garfield County, Montana.

Wannaganosuchus brachymanus

ERICKSON, 1982, pp. 492-506, figs. 1-4, pl. 1.

HOLOTYPE: P76.28.247; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Wannaganosuchus brachymanus

ERICKSON, 1982b, p. 6, fig. 3.

FIGURED: P72.34.274 skeleton w/o skull; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

CLASS AVES

Dakotornis cooperi

ERICKSON, 1975, pp. 1-7, figs. 1-3.

HOLOTYPE: P74.24.106 humerus; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

CLASS MAMMALIA

Arctocyon sp.

HOLTZMAN, 1978, p. 57, fig. 11, no. 11.

FIGURED: P77.6.75 left P⁴; Paleocene, Bullion Creek Formation, North Dakota.

Bisonalveus sp.

HOLTZMAN, 1978, p. 39, fig. 7, nos. 5, 6, 8.

FIGURED: P77.8.113 left ? M₁; Paleocene, Bullion Creek Formation, North Dakota.

Carpodaptes cygneus

HOLTZMAN, 1978, pp. 50-52, figs. 9, nos. 5-15.

FIGURED: P77.8.174 (fig. 5) right P^3 , P77.8.177 (no. 6) maxilla w/ $P^4 - M^3$, P77.8.179 (nos. 7, 8, 12) left P_4 , P77.8.183 (nos. 9, 13) right M_1 , P77.8.184 (nos. 10, 14) right M_2 , P77.8.186 (nos. 11, 15) right M_3 ; Paleocene, Bullion Creek Formation, North Dakota.

Carpodaptes hobackensis

HOLTZMAN, 1978, pp. 47-50, fig. 9, nos. 1-4.

FIGURED: P77.6.62 (nos. 1-3) left mandible w/ $P_4 - M_3$, P77.7.133 (no. 4) left maxilla w/ $P^2 - M^2$; Paleocene, Bullion Creek Formation, North Dakota.

Castoroides ohioensis

ERICKSON, 1962, pp. 6-13, figs. 1, 3-16.

FIGURED: P62-2001 skeleton; Post Pleistocene, Ramsey County, Minnesota.

Condylarth, indet.

HOLTZMAN, 1978, p. 60, fig. 11, nos. 19, 21.

FIGURED: P77.6.79 (no. 21) left P^4 , P77.8.202 (no. 19) left ? P^4 ; Paleocene, Bullion Creek Formation, North Dakota.

Dasyurus lanarius

OWEN, 1838, p. 363, pl. 31, fig. 5.

PLASTOSYNTYPE: P81.8.158 C left maxilla (BM (NH) M10799); Pleistocene, Wellington Valley, NSW., Australia.

Ectocion wyomingensis

HOLTZMAN, 1978, pp. 59, 60, fig. 11, nos. 12-18.

FIGURED: P77.6.76 (no. 13) right ? P^4 , P77.6.77 (no. 15) right M^2 , P77.6.78 (nos. 17, 18) right M_3 , P77.7.155 (no. 16) left M^3 , P77.8.199 (no. 12) left P^3 , P77.8.200 (no. 14) right M^1 or M^2 ; Paleocene, Bullion Creek Formation, North Dakota.

Ectypodus sp.

HOLTZMAN, 1978, p. 26, fig. 3, nos. 11, 14, 17.

FIGURED: P77.8.38 (nos. 14, 17) right P^4 , P77.8.41 (no. 11) right P_4 ; Paleocene, Bullion Creek Formation, North Dakota.

Haplaletes diminutivus

HOLTZMAN, 1978, pp. 57, 58, fig. 10, nos. 9-13.

FIGURED: P77.7.146 (nos. 11, 12) right M_1 , P77.7.152 (nos. 9, 13) right mandible w/ $M_2 - M_3$, P77.8.195 (no. 10) right M^1 or M^2 ; Paleocene, Bullion Creek Formation, North Dakota.

Icaronycteris index

JEPSEN, 1966, pp. 1333-1338.

PLASTOHOLOTYPE: P68.39.1 C skeleton (PU 18150); Early Eocene, Green River Formation, Lincoln County Wyoming.

Ignacius frugivorus

HOLTZMAN, 1978, pp. 46, 47, fig. 8, nos. 18-27.

FIGURED: P77.6.61 (nos. 22, 27) right M_1 , P77.7.125 (no. 18) right P^4 , P77.7.126 (no. 19) right P^4 , P77.7.127 (no. 24) left M^3 , P77.7.128 (nos. 21, 26) right M_2 , P77.7.131 (nos. 20, 25) right M_3 , P77.8.163 (no. 23) right (?) M^1 ; Paleocene, Bullion Creek Formation, North Dakota.

Insectivore indet.

HOLTZMAN, 1978, p. XX, fig. 5, no. 14.

FIGURED: P77.7.89 right (?) P^4 ; Paleocene, Bullion Creek Formation, North Dakota.

Leptacodon tener

HOLTZMAN, 1978, pp. 34, 35, fig. 6, nos. 1-4.

FIGURED: P77.8.72 left M^3 , P77.8.74 (nos. 1-3) left mandible w/ $P_4 - M_1$; Paleocene, Bullion Creek Formation, North Dakota.

Litolestes lacunatus

HOLTZMAN, 1978, pp. 35-37, fig. 6, no. 5-7, 9-14.

FIGURED: P77.8.78 (no. 5) right P^3 , P77.8.80 (no. 6) right P^4 , P77.8.82 (no. 7) left maxilla w/ $M^1 - M^2$, P77.8.86 (nos. 11, 13) right mandible w/ $P_3 - P_4$, P77.8.100 (nos. 12, 14) left mandible w/ $M_1 - M_2$, P77.8.105 (nos. 9, 10), left M_3 ; Paleocene, Bullion Creek Formation, North Dakota.

Macropus altus (Owen)

see *Phascalagus altus*

Macropus (Protemnodon) *anak*

OWEN, 1874, p. 275, pl. 25, figs. 1, 2.

PLASTOHOLOTYPE: P81.8.157 C dentition (BM (NH) M1895); Pleistocene, Darling Downs, Qld., Australia.

Megalonyx jeffersoni (Desmarest)

ERICKSON, 1968, pp. 1-6, pl. 1, 2, fig. 1.

FIGURED: P68.40.1 phalanx (ungual); Post Pleistocene, Ramsey County, Minnesota.

Mesodma sp.

HOLTZMAN, 1978, pp. 25, 26, fig. 3, nos. 10, 13, 16.

FIGURED: P77.8.33 (nos. 13, 16) left P⁴, P77.8.34 (no. 10) right P₄; Paleocene, Bullion Creek Formation, North Dakota.

Miacid sp.

HOLTZMAN, 1978, p. 55, fig. 10, nos. 4-7.

FIGURED: P77.6.66 (nos. 5, 7) left M₁, P77.8.191 (no. 4) left P³, P77.8.192 (no. 6) left P⁴; Paleocene, Bullion Creek Formation, North Dakota.

Microcosmodon woodi

HOLTZMAN and WOLBERG, 1977, pp. 6-13, fig. 2, nos. 5-9.

FIGURED: P77.8.2 (nos. 5, 7) right P⁴, P77.8.3 (no. 9) right I P77.8.4 (no. 6) left P₄, P77.8.6 (no. 8) right M¹; Paleocene, Bullion Creek Formation, North Dakota.

Multituberculate sp.

ERICKSON, 1982a, p. 2, fig. 1.

FIGURED: P74.24.130 mandible w/dentition; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Nannodectes sp.

HOLTZMAN, 1978, pp. 45, 46, fig. 8, nos. 11-17.

FIGURED: P77.8.154 (no. 11) left I¹, P77.8.156 (no. 12) left M₁, P77.8.159 (no. 13) right M², P77.8.160 (nos. 14, 16) right P₃, P77.8.162 (nos. 15, 17), right M₃; Paleocene, Bullion Creek Formation, North Dakota.

Neoplagiaulax hazeni

ERICKSON, 1982a, p. 2, fig. 1.

FIGURED: P74.24.130 right dentary; Paleocene, Bullion Creek Formation, North Dakota.

Neoplagiaulax hunteri

HOLTZMAN, 1978, pp. 26, 27, fig. 4, nos. 1-3.

FIGURED: P77.7.58 (nos. 2, 3) right P⁴, P77.7.60 (no. 1) left P₄; Paleocene, Bullion Creek Formation, North Dakota.

Neoplagiaulax manophus

HOLTZMAN, 1978, pp. 27, 28, fig. 4, no. 4.

HOLOTYPE: P77.7.61 right P₄; Paleocene, Bullion Creek Formation, North Dakota.

Neoplagiaulax sp.

HOLTZMAN, 1978, pp. 28, 29, fig. 4, nos. 5-11.

FIGURED: P77.6.28 (nos. 8, 11) left P⁴, P77.8.49 (nos. 6, 9) right P⁴, P77.8.51 (no. 5) left mandible w/P₃-P₄, P77.8.55 (nos. 7, 10) right P⁴; Paleocene, Bullion Creek Formation, North Dakota.

Nothocyon roii

MACDONALD, 1963, pp. 139-238, 30 figs.

PLASTOHOLOTYPE: P72.12.2 C (pt. right mandible w/P₃-M₂, SDSM 53321); Miocene, Early Arikareean, Sharp Formation, South Dakota.

Palaeoryctes sp., cf. *P. punctatus*

HOLTZMAN, 1978, pp. 31-33, fig. 5, nos. 8, 9, 10.

FIGURED: P77.7.76 (nos. 9, 10) right M₂, P77.8.62 (no. 8) left M₂; Paleocene, Bullion Creek Formation, North Dakota.

Palorchestes azael

OWEN, 1876, p. 197.

PLASTOHOLOTYPE: P81.8.131 C dentition (BM (NH) M34); Pleistocene, Qld., Australia.

= *Palorchestes crassus* (Owen)

Palorchestes crassus (Owen)

see *Palorchestes azael*

Peradectes elegans

HOLTZMAN, 1978, pp. 30, 31, fig. 5, nos. 5, 6.

FIGURED: P77.8.58 (no. 5) left M³, P77.8.60 (no. 6) left M₁; Paleocene, Bullion Creek Formation, North Dakota.

Pararyctes pattersoni

HOLTZMAN, 1978, pp. 33, 34, fig. 5, nos. 11-13.

FIGURED: P77.8.66 (no. 11) right M¹, P77.8.67 (nos. 12, 13) right M₁; Paleocene, Bullion Creek Formation, North Dakota.

Paractypodus sp.

HOLTZMAN, 1978, pp. 29, 30, fig. 3, no. 12, 15, 18.

FIGURED: P77.6.30 (no. 12) left P₄, P77.8.56 (nos. 15, 18) left P⁴; Paleocene, Bullion Creek Formation, North Dakota.

Phascolagus altus

OWEN, 1874, p. 261, pl. 22, figs. 1, 2.

PLASTOTYPE: P81.8.147 C dentary (BN (NH) M10779); Pleistocene, Gowrie, Wellington Valley, NSW., Australia.

= *Macropus altus* (Owen)

Phascolomys medius

OWEN, 1872, p. 241, pl. 32, figs. 2-7.

PLASTOSYNTYPE: P81.8.15 C left mandibular ramus (BN (NH) 39990); Pleistocene, Gowrie, Qld., Australia.

Phascolomys thompsoni

OWEN, 1872, pls. 18:8, 9; 21:7.

PLASTOHOLOTYPE: P81.8.132 C dentition (BM (NH) 38608); Pleistocene, Darling Downs, Qld., Australia.

Phenacodus primaevus

HOLTZMAN, 1978, pp. 58, 59, fig. 11, no. 20.

FIGURED: P77.7.154 left maxilla w/P³-M²; Paleocene, Bullion Creek Formation, North Dakota.

Pierodontid sp.

HOLTZMAN, 1978, p. 52, fig. 9, no. 16.

FIGURED: P77.8.187 right M¹; Paleocene, Bullion Creek Formation, North Dakota.

Plesiadapis rex

HOLTZMAN, 1978, pp. 41-44, fig. 8, nos. 1-10.

FIGURED: P77.6.36 (no. 3) right M¹, P77.6.39 (no. 2) right M², P77.6.45 (nos. 7, 8) right mandible w/I₁, P₃-M₂, P77.6.56 (nos. 9, 10) left M₃, P77.7.90 (no. 6) left I₁, P77.7.95 (no. 5) right P³, P77.7.96 (no. 4) right P⁴, P77.7.103 (no. 1) right M³; Paleocene, Bullion Creek Formation, North Dakota.

Plesiadapis sp.

ERICKSON, 1982a, p. 4, fig. 2.

FIGURED: P78.14.16 right dentary; Paleocene, Bullion Creek Formation, North Dakota.

Prochetodon sp.

HOLTZMAN, 1978, p. 25, fig. 3, nos. 6, 8, 9.

FIGURED: P77.7.55 (no. 8) left P², P77.7.56 (nos. 6, 9) left P⁴; Paleocene, Bullion Creek Formation, North Dakota.

Propalaeosinopa albertensis

HOLTZMAN, 1978, pp. 37, 38, fig. 7, nos. 1-4.

FIGURED: P77.7.86 (no. 1) right M^1 , P77.7.88 (nos. 3, 4) right M_2 , P77.8.108 (no. 2) right P_4 ; Paleocene, Bullion Creek Formation, North Dakota.

Protemnodon antaeus

OWEN, 1877, p. 448, pl. 110, figs. 1-3.

PLASTOHOLOTYPE: P81.8.146 C dentition (BM (NH) M2258); Pleistocene, Qld., Australia.

Protemnodon mimas

OWEN, 1874, p. 278, pl. 26, figs. 1-3.

PLASTOHOLOTYPE: P81.8.145 C left mandible w/dentition (BM (NH) 43351); "alluvial drift" Gowrie Creek, Darling Downs, Qld., Australia.

Protemnodon og

OWEN, 1874, p. 277, pl. 25, figs. 5, 6.

PLASTOHOLOTYPE: P81.8.151 C mandible w/dentition (BM (NH) 35963); Pleistocene, Gowrie Creek, Darling Downs, Qld., Australia.

Protictis paralus

HOLTZMAN, 1978, pp. 52-54, fig. 10, nos. 1-3.

HOLOTYPE: P77.6.64 (nos. 1, 2) right mandible w/C, $P_4 - M_2$, paratypes: P77.7.139 (no. 3) left M^1 , P77.7.140 right M_1 ; Paleocene, Bullion Creek Formation, North Dakota.

Ptilodus kummae

KRAUSE, 1977, pp. 1-36.

PLASTOHOLOTYPE: P76.15.1 C skeleton w/o skull; Paleocene, Ravenscrag Formation, Sask., Canada.

Ptilodus montanus

HOLTZMAN, 1978, pp. 21, 22, fig. 3, no. 2.

FIGURED: P77.8.26 right P_4 ; Paleocene, Bullion Creek Formation, North Dakota.

Ptilodus wyomingensis

HOLTZMAN, 1978, pp. 22-24, fig. 3, nos. 1, 4, 5, 7.

FIGURED: P77.6.8 (no. 4, 7) left P^4 , P77.6.20 (no. 1) right P_4 , P77.7.6 (no. 5) left P^2 ; Paleocene, Bullion Creek Formation, North Dakota.

Thryptacodon australis

HOLTZMAN, 1978, pp. 55-57, fig. 11, nos. 1-3, 5-10.

FIGURED: P77.6.68 right dP^4 , P77.6.69 (no. 2) right M^1 , P77.6.71 (no. 3) right M^2 , P77.7.143 (nos. 5, 8) left. M_1 , P77.7.144 (nos. 6, 9) right M_2 , P77.7.145 (nos. 7, 10) left M_3 ; Paleocene, Bullion Creek Formation, North Dakota.

Thylacoleo oweni

OWEN, 1871.

PLASTOTYPE: P81.8.160 C left mandible w/dentition (BM (NH) 39994); Pleistocene, Gowrie, Qld., Australia.

Unuchinia dysmathes

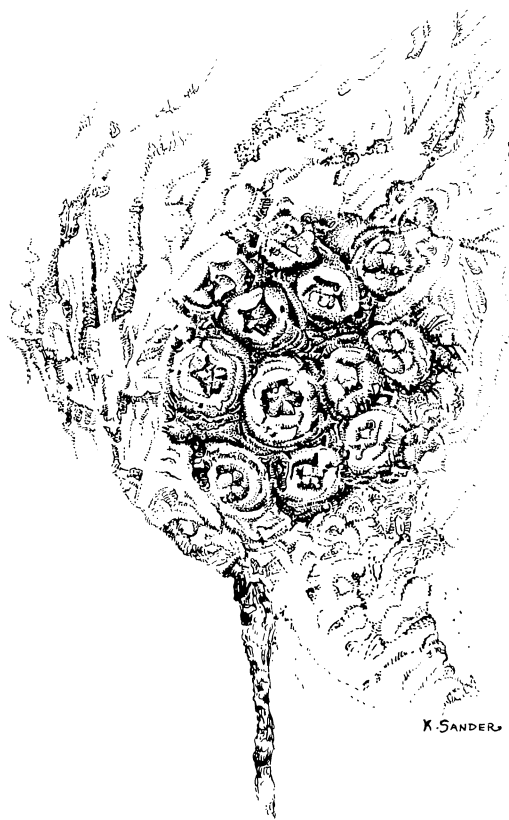
HOLTZMAN, 1978, pp. 39-41, fig. 7, nos. 7, 9, 10.

HOLOTYPE: P77.6.31 right mandible w/ $M_1 - M_3$; Paleocene, Bullion Creek Formation, North Dakota.

Viverravine sp.

HOLTZMAN, 1978, pp. 54, 55, fig. 10, no. 8.

FIGURED: P77.7.141 left P^4 ; Paleocene, Bullion Creek Formation, North Dakota.



Oreopanax dakotensis holotype, SMM P75.9.40. X6.

PLANTS

CLASS ALGAE

Cryptozoon

POWELL, 1935, p. 29, pl. 2, fig. 3.

FIGURED: 31-2366; Ozarkian, Oneota Formation, Altura, Minnesota.
(missing)

Cryptozoon

POWELL, 1935, p. 29, pl. 2, figs. 1, 2.

FIGURED: 31-2367; Ozarkian, Oneota Formation, Altura, Minnesota.
(missing)

CLASS ARALIACEAE

Oreopanax dakotensis

MELCHIOR, 1976, pp. 3-8, figs. 1, 2.

HOLOTYPE: P75.9.40 fruiting head; Paleocene, Bullion Creek Formation, North Dakota.

CLASS ISOETINAE

Isoetites horridus

MELCHIOR, 1977, pp. 3-11, fig. 1.

FIGURED: P76.26.1 corms w/leaf impressions; Paleocene, Bullion Creek Formation, North Dakota.

Isoetites horridus

MELCHIOR, 1977, pp. 3-11, fig. 2.

FIGURED: P76.26.2 leaf frag. impressions; Paleocene, Bullion Creek Formation, North Dakota.

CLASS FILICINEAE

Azolla stanleyi

MELCHIOR and HALL, 1983, pp. 139-142, pl. 1, fig. 11, pl. 2, figs. 1-7.

FIGURED: P75.9.367 plant (megaspore); Paleocene, Bullion Creek Formation, North Dakota.

Crossotheca sagittata

JANSSEN, 1939, p. 141, fig. 125.

FIGURED: P39-2062 fertile plant; Carboniferous, Mazon Creek Formation, Willmington, Illinois.

Mariopteris nervosa

JANSSEN, 1939, p. 120, fig. 100.

FIGURED: P39-2035 pinnules; Carboniferous, Mazon Creek Formation, Willmington, Illinois.

Minerisporites mirabilis

MELCHIOR and HALL, 1983, pp. 135-138, pl. 1, figs. 1-10.

FIGURED: P76.26.1 plant (megaspore); Paleocene, Bullion Creek Formation, North Dakota.

Minerisporites sp.

MELCHIOR and HALL, 1983, p. 138, pl. 1, figs. 9, 10.

FIGURED: P76.26.4 (fig. 9) plant (megaspore), P76.26.36 (fig. 10); Paleocene, Bullion Creek Formation, North Dakota.

OTHER PLANTS

Peat pollen

MELCHIOR, 1983, pp. 27-39, pl. 2, figs. 1-7.

FIGURED: P83.10.8 slide prep. (figs. 3, 5, 6, 7), P83.10.9 slide prep. (figs. 1, 2, 4), slide specimens; Paleocene, Sentinel Butte Formation, North Dakota.

TRACE FOSSILS

Coprolites

GRANDE, 1980, p. 164, fig. II, 96.

FIGURED: P78.9.7 several spec. on slab; Eocene, Green River Formation, Wyoming.

Coprolite

GRANDE, 1980, p. 164, fig. II, 97.

FIGURED: P78.9.26 fish bone inclusions; Eocene, Wasatchian, Green River Formation, Wyoming.

Crocodylian sp.

GRANDE, 1980, p. 199, fig. III, 7a.

FIGURED: P78.9.30 osteoscuta (external mold); Eocene, Bridgerian, Green River Formation, Wyoming.

Dictyothylakos sp.

MELCHIOR and HALL, 1983, pp. 142, 143, pl. 2, figs. 8, 9, 10.

FIGURED: P76.26.1 insect larval net and case; Paleocene, Bullion Creek Formation, North Dakota.

Leidyosuchus formidabilis

SAWYER, 1981, pp. 22-28, figs. 2-5, 7, 8.

FIGURED: P79.6.9 (fig. 4), P79.6.19 (fig. 3), P79.6.35 (fig. 2, C), P79.6.50 (fig. 2, B), P79.6.53 (fig. 2, A), P79.6.98 (fig. 5, C), P79.6.105 (fig. 8), P79.6.111 (fig. 7, A), P79.6.113 (fig. 7, B), P79.6.133 (fig. 5, B), P79.6.195 (fig. 5, A) coprolites; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Liticuniculatus erectus

MELCHIOR and ERICKSON, 1979, pp. 11-13, fig. 6.

ICHNOHOLOTYPE: P78.7.1 burrow; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Lizard trackway

GRANDE, 1980, p. 196, fig. III, 5.

FIGURED: P78.9.50; Eocene, Vintan, Green River Formation, Wyoming.

Oligichnos limnos

MELCHIOR and ERICKSON, 1979, pp. 7-10, figs. 2-5.

ICHNOHOLOTYPE: P78.6.1 (fig. 2), rhnoparatypes: P78.6.2 (fig. 4), P78.6.4 (fig. 5), P78.6.5 (fig. 3), P78.6.6 (P. 8), P78.6.7 (P. 8) fodinichnia; Paleocene, Bullion Creek Formation, Billings County, North Dakota.

Ropy anastomosing chert

POWELL, 1935, p. 29, pl. 3, fig. 1.

FIGURED: 31-2193 organic (?) chert; Ozarkian, Oneota Formation, Caledonia, Minnesota. (missing).

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