

AN UPDATE OF GENERA AND SPECIES DESCRIBED IN A.W. GRABAU'S
GEOLOGY AND PALAEOLOGY OF EIGHTEEN MILE CREEK

Compiled by Dr. Richard Batt, July 1994 (revised February 1998)

Grabau, A.W., 1898-99, Geology and Palaeontology of Eighteenmile
Creek and the Lake Shore Sections of Erie County, New York:
Buffalo Society of Natural Sciences Bulletin 6.

INTRODUCTION

The classic work by A.W. Grabau includes descriptions and illustrations of many of the fossil species found in rocks of the Hamilton through West Falls groups (Middle and Early Late Devonian) exposed in Erie County, New York, and remains the best available single guide to their identification and occurrence. Of course, several species were described from local rocks after the 1898-99 publication date; therefore the fossil collector should bear in mind that one may encounter species not found in this book. Years of personal field work have indicated, however, that the majority of local species, at least for certain groups such as brachiopods, pelecypods, and gastropods, are included.

Paleontology, like other fields of geology, is constantly changing as new research introduces new concepts and suggests new relationships. One aspect that has been subject to significant modification is the taxonomy (classification and naming) to which the various species of fossils are assigned. This is an artifact of the international Codes of Botanical and Zoological Nomenclature, the system of rules by which species are named, described, and placed in the taxonomic hierarchy.

According to these rules, the person who first recognizes a species as new (not previously named or described) may by publication assign a (Latinized) name to that species. By the Linnaean system of binomial nomenclature, the newly described species is assigned a genus name (always capitalized) followed by the species name: the species name may not later be changed unless the proposal is proved incorrect. In the literature these names (either italicized or underlined) are commonly followed by the name of the person who named the species in order to aid researchers in locating the original description. For example, *Nautilus magister* Hall was named by James Hall in an 1879 publication of the New York State Geological Survey.

If the new species is believed to be closely related to a species that has already been given a name, it is assigned to the same (previously-named) genus, as in our example (*Nautilus* was introduced in the 1700's by Linnaeus in his description of the Recent *Nautilus pompilius*). If the describer believes that the new species cannot be assigned to a previously named genus, a new genus name is introduced for that species. The first-described

species with a new genus name is the type species for that genus.

Even though the species part of the name may not be changed, subsequent research may indicate that a species assigned to a previously-named genus would better be placed in another (already existing) genus or should be designated as the type species of a new genus. When this change is published, the two-part name of the species is modified, with the newly-assigned genus part replacing the original. The name of the author who described the species is placed in parenthesis to indicate that such a change has occurred and the original species description will be found with a different genus name. In our example, the genus *Nautilus* became restricted to certain more recent species, and *Nautilus magister* was reassigned to the genus *Nephriticeras*, hence *Nephriticeras magister* (Hall). The species part of the name may be modified slightly to make its ending agree with the gender of the new genus name. For example, *Spirifer granulatus* (Conrad) becomes *Spinocyrtia granulosa* (Conrad). As will be seen in the list on the following pages, many of the species in Grabau's work have since been reassigned to other genera.

On occasion, a totally different name is indicated for a species. This may be because the species name in the book is invalid because the specimens described in naming that species were shown to either belong to a previously described species or to be variations within a previously-named species now believed to exhibit a range of intraspecific variation. At times, specimens from a given locality (such as Erie County, New York) may have been assigned a name by comparison to a species described from specimens collected elsewhere but it is later shown that the local specimens belong to a different species.

The list on the following pages provides the current names for most of the species described in Grabau's book, and draws heavily from information contained in the two listed references.

Species for which no change is needed (or for which information is at present not available) are not included in the list. For your convenience the page number on which the species is named in the text is provided, with the name in Grabau's book followed by the updated name, or in some cases a note. In cases where a different species name is indicated, the name of the author of that species name is provided. This list is by no means complete and may be revised as more research is done. It should, however, provide the enthusiast or researcher with the necessary information for accurate identification of most of the species found in the rocks covered.

References:

Buehler, E.J., and I.H. Tesmer, 1963, Geology of Erie County, New York, Buffalo Society of Natural Sciences Bulletin 21, No. 3.

Linsley, D.M., 1994, Devonian Paleontology of New York:
Paleontological Research Institution Special Publication 21.

<u>Page</u>	<u>Name in Grabau's book</u>	<u>Updated Name or Note</u>
120	<i>Dictyonema hamiltoniae</i>	a dendroid graptolite
122	<i>Streptelasma rectum</i>	<i>Stereolasma rectum</i>
122	<i>Streptelasma unguia</i>	<i>Stereolasma unguia</i>
123	<i>Zaphrentis simplex</i>	<i>Heterophrentis simplex</i>
124	<i>Amplexus hamiltoniae</i>	<i>Amplexiphyllum</i> <i>hamiltoniae</i>
124	<i>Amplexus (?) intermittens</i>	<i>Stewartophyllum</i> <i>intermittens</i>
126	<i>Cystiphyllum conifollis</i>	<i>Cystiphyllodes</i> <i>conifollis</i>
126	<i>Cystiphyllum americanum</i>	<i>Cystiphyllodes</i> <i>americanum</i>
127	<i>Cystiphyllum varians</i>	<i>Cystiphyllodes varians</i>
129	<i>Craspedophyllum archiaci</i>	<i>Eridophyllum archiaci</i>
130	<i>Craspedophyllum</i> <i>subcaespitosum</i>	<i>Eridophyllum</i> <i>subcaespitosum</i>
131	<i>Pleurodictyum stylopora</i>	<i>Pleurodictyum americanum</i> Roemer
134	<i>Ceratopora jacksoni</i>	<i>Aulocystis jacksoni</i>
135	<i>Ceratopora dichotoma</i>	<i>Aulocystis (Cladochonus)</i> <i>dichotoma</i>
136	<i>Trachypora limbata</i>	<i>Thamnoptychia limbata</i>
136	<i>Monotrypa fruticosa</i>	<i>Atactotoechus fruticosus</i> - a bryozoan
137	<i>Monotrypa (?) furcata</i>	<i>Atactotoechus furcatus</i> - a bryozoan
137	<i>Monotrypa amplectens</i>	<i>Leptotrypella amplectens</i> - a bryozoan
143	<i>Habrocrinus pentadactylus</i>	<i>Acacocrinus pentadactylus</i>
144	<i>Platycrinus eriensis</i>	<i>Cyttarocrinus eriensis</i>
145	<i>Taxocrinus nuntius</i>	<i>Synaptocrinus nuntius</i>
151	<i>Prioniodus clavatus</i>	<i>Hibbardella clavata</i>
151	<i>Prioniodus angulatus</i>	<i>Hibbardella angulata</i>
151	<i>Prioniodus acicularis</i>	<i>Prioniodina acicularis</i>
152	<i>Prioniodus armatus</i>	<i>Neoprioniodus armatus</i>
152	<i>Prioniodus spicatus</i>	<i>Ligonodina panderi</i>
152	<i>Prioniodus panderi</i>	<i>Ligonodina panderi</i>
153	<i>Prioniodus (?) alatus</i>	<i>Neoprioniodus alatus</i>
155	<i>Polygnathus nasutus</i>	<i>Prioniodina nasutus</i>
155	<i>Polygnathus princeps</i>	<i>Ligonodina princeps</i>
157	<i>Polygnathus punctatus</i>	<i>Palmatolepis punctata</i>
157	<i>Polygnathus palmatus</i>	<i>Palmatolepis palmatus</i>
157	<i>Polygnathus (?) simplex</i>	<i>Polygnathus linguiformis</i> Hinde
161	<i>Reteporina striata</i>	<i>Ptilopora striata</i>
164	<i>Rhombopora (?) transversa</i>	<i>Orthopora transversa</i>

164	<i>Rhombopora polygona</i>	<i>Trematopora polygona</i>
164	<i>Rhombopora hexagona</i>	<i>Orthopora hexagona</i>
165	<i>Rhombopora reticulata</i>	<i>Orthopora reticulata</i>
165	<i>Rhombopora tortalina</i>	<i>Orthopora tortalina</i>
165	<i>Rhombopora lineata</i>	<i>Orthopora lineata</i>
166	<i>Acanthoclema scutulatum</i>	<i>Streblotrypa scutulata</i>
167	<i>Streblotrypa hamiltonense</i>	<i>Stictopora hamiltonense</i>
167	<i>Fistulicella plana</i>	<i>Fistulipora plana</i>
168	<i>Fistuliporina</i> <i>scrobiculata</i>	<i>Pinactotrypa scrobiculata</i>
168	<i>Fistuliporina segregata</i>	<i>Fistulipora segregata</i>
169	<i>Fistuliporina micropora</i>	<i>Fistulipora micropora</i>
169	<i>Fistuliporina minuta</i>	<i>Fistulipora minuta</i>
170	<i>Fistuliporina digitata</i>	<i>Pinactotrypa digitata</i>
171	<i>Paleschara amplexans</i>	<i>Leptotrypella amplexans</i>
172	<i>Stictopora incisurata</i>	<i>Sulcoretipora incisurata</i>
174	<i>Stictopora palmipes</i>	<i>Euspilopora palmipes</i>
177	<i>Glauconome carinata</i>	<i>Penniretipora carinata</i>
183	<i>Orbiculoidea doria</i>	<i>Discina doria</i>
184	<i>Orbiculoidea lodiensis</i>	<i>Orbiculoidea lodensis</i>
184	<i>Schizobolus truncatus</i>	<i>Orbiculoidea truncata</i>
186	<i>Craniella hamiltoniae</i>	<i>Petrocrania hamiltoniae</i>
187	<i>Pholidops hamiltoniae</i>	<i>Craniops hamiltoniae</i>
191	<i>Rhipidomella idonea</i>	<i>Rhipidomella idoneus</i>
193	<i>Orthotheses arctostriatus</i>	<i>Eoschuchertella</i> <i>arctostriata</i>
193	<i>Orthotheses perversus</i>	<i>Eoschuchertella perversa</i>
194	<i>Stropheodonta demissa</i>	<i>Strophodonta demissa</i>
195	<i>Stropheodonta concava</i>	<i>Megastrophia concava</i>
196	<i>Stropheodonta</i> <i>(Leptostrophia)</i> <i>perplana</i>	<i>Prototeleptostrophia</i> <i>perplana</i>
198	<i>Stropheodonta</i> <i>(Donvillina)</i> <i>inaequistriata</i>	<i>Protodouvillina</i> <i>inaequistriata</i>
199	<i>Stropheodonta</i> <i>(Pholidostrophia)</i>	<i>Pholidostrophia nacrea</i>
199	<i>nacrea</i> <i>Stropheodonta</i> <i>(Leptostrophia) junia</i>	<i>Mesoteleptostrophia junia</i> <i>(note: Figure is</i> <i>actually earlier</i> <i>species, M. textilis)</i>
200		
201	<i>Stropheodonta plicata</i>	<i>"Strophodonta" plicata</i>
201	<i>Chonetes mucronatus</i>	<i>Longispina mucronata</i>
	<i>Chonetes vicinus</i>	<i>Longispina deflecta</i> <i>(Hall)</i>
202		
202	<i>Chonetes setigerus</i>	<i>Striatochonetes setigera</i>
203	<i>Chonetes scitulus</i>	<i>Devonochonetes scitulus</i>
203	<i>Chonetes lepidus</i>	<i>Sinochonetes lepidus</i>
204	<i>Chonetes coronatus</i>	<i>Devonochonetes coronatus</i>
205	<i>Productella navicella</i>	<i>Spinulicosta navicella</i>
206	<i>Productella spinulicosta</i>	<i>Spinulicosta spinulicosta</i>

207	<i>Strophalosia truncata</i>	<i>Truncalosia truncata</i>
208	<i>Spirifer mucronatus</i>	<i>Mucrospirifer mucronatus</i>
208	<i>Spirifer tullius</i>	<i>Allanella tullia</i>
	<i>Spirifer (Delthyris)</i>	<i>Megakozlowskiella</i>
	<i>sculptilis</i>	<i>sculptilis</i>
209	<i>Spirifer (Delthyris)</i>	" <i>Mucrospirifer</i> "
210	<i>consobrinus</i>	<i>consobrinus</i>
211	<i>Spirifer granulosis</i>	<i>Spinocyrtia granulosa</i>
	<i>Spirifer granulosis</i> var.	<i>Spinocyrtia granulosa</i>
211	<i>clintoni</i>	<i>clintoni</i>
212	<i>Spirifer audaculus</i>	<i>Mediospirifer audaculus</i>
	<i>Spirifer audaculus</i> var.	<i>Mediospirifer audaculus</i>
213	<i>eatoni</i>	<i>eatoni</i>
	<i>Spirifer angustus</i>	" <i>Mediospirifer</i> "
214		<i>angustus</i>
	<i>Spirifer macronatus</i>	" <i>Mediospirifer</i> "
214		<i>macronatus</i>
215	<i>Spirifer asper</i>	" <i>Spirifer</i> " <i>asper</i>
	<i>Spirifer (Reticularia)</i>	<i>Elita fimbriata</i>
216	<i>fimbriatus</i>	
	<i>Spirifer (Martinia)</i>	<i>Emanuella subumbona</i>
217	<i>subumbonus</i>	
218	<i>Ambocoelia nana</i>	<i>Crurispina nana</i>
218	<i>Ambocoelia praeumbona</i>	<i>Emanuella praeumbona</i>
220	<i>Ambocoelia spinosa</i>	<i>Crurispina spinosa</i>
	<i>Cyrtina hamiltonensis</i>	<i>Cyrtina recta</i>
221	var. <i>recta</i>	
225	<i>Trematospira gibbosa</i>	<i>Leptospira gibbosa</i>
226	<i>Meristella rostrata</i>	<i>Charionella rostrata</i>
	<i>Atrypa reticularis</i>	<i>Pseudoatrypa devoniana</i>
227		<i>Webster</i>
228	<i>Atrypa spinosa</i>	<i>Spinatrypa spinosa</i>
229	<i>Vitulina pustulosa</i>	<i>Pustulatia pustulosa</i>
230	<i>Camarotoechia horsfordi</i>	<i>Cupularostrum horsfordi</i>
231	<i>Camarotoechia sappho</i>	<i>Cupularostrum sappho</i>
231	<i>Camarotoechia dotis</i>	<i>Cupularostrum dotis</i>
232	<i>Camarotoechia congregata</i>	<i>Cupularostrum congregata</i>
	<i>Leiorhynchus multicostus</i>	<i>Eumetabolatoechia</i>
233		<i>multicostatum</i>
	<i>Leiorhynchus</i>	<i>Leiorhynchus</i>
233	<i>quadricostatum</i>	<i>quadricostatus</i>
235	<i>Leiorhynchus limitare</i>	<i>Camarotoechia limitare</i>
236	<i>Trigeria (?) lepida</i>	<i>Rhynchospirina lepida</i>
236	<i>Cryptonella planirostris</i>	<i>Cryptonella planirostra</i>
237	<i>Cryptonella rectirostris</i>	<i>Cryptonella rectirostra</i>
	<i>Dielasma (Cranaena)</i>	<i>Craenena romingeri</i>
240	<i>romingeri</i>	
	<i>Aviculopecten princeps</i>	<i>Pseudaviculopecten</i>
241		<i>princeps</i>
	<i>Aviculopecten exacutus</i>	<i>Pseudaviculopecten</i>
242		<i>exacutus</i>

244	<i>Aviculopecten insignis</i> <i>Pterinea flabella</i>	" <i>Pterinopecten</i> " <i>insignis</i> <i>Cornellites fasciculata</i> Goldfuss
248		
250	<i>Plethomytilus oviformis</i>	<i>Mytilarca oviformis</i>
251	<i>Modiomorpha sub-alata</i> <i>Modiomorpha alta</i>	<i>Modiomorpha subalata</i> <i>Modiomorpha mytiloides</i> Conrad
252	<i>Cypricardella</i>	<i>Cypricardella</i>
253	<i>bellistriata</i>	<i>bellastriata</i>
256	<i>Nucula corbuliformis</i> <i>Schizodus appressus</i>	<i>Nuculoidea corbuliformis</i> <i>Eoschizodus chemungensis</i> (Conrad)
256		
257	<i>Palaeoneilo constricta</i> <i>Palaeoneilo tenuistriata</i>	<i>Paleoneilo constricta</i> <i>Cypricardella</i> <i>tenuistriatus</i>
257		
258	<i>Palaeoneilo fecunda</i>	<i>Paleoneilo filosa</i> Conrad
258	<i>Palaeoneilo muta</i>	<i>Paleoneilo muta</i>
259	<i>Palaeoneilo emarginata</i>	<i>Paleoneilo emarginata</i>
260	<i>Macrodon hamiltoniae</i>	<i>Gramatodon hamiltoniae</i>
262	<i>Grammysia arcuata</i>	<i>Grammysioidea arcuata</i>
262	<i>Conocardium normale</i>	a rostroconch
263	<i>Conocardium eboraceum</i>	a rostroconch
263	<i>Conocardium crassifrons</i>	a rostroconch
264	<i>Lunulicardium fragile</i>	<i>Pterochaenia fragilis</i>
265	<i>Lunulicardium curtum</i>	<i>Lunulicardium curtem</i>
265	<i>Paracyclas lirata</i> <i>Tellinopsis sub-</i>	<i>Paracyclas rugosa</i> Conrad <i>Tellinopsis subemarginata</i>
267	<i>emarginata</i>	
268	<i>Orthonota (?) parvula</i> <i>Cardiola retrostriata</i>	<i>Orthonota parvula</i> <i>Glyptocardia speciosa</i> (Hall)
268		
269	<i>Cypricardinia indenta</i>	<i>Cypricardinea indenta</i>
274	<i>Elymella nuculoides</i>	<i>Glossites nuculoides</i>
274	<i>Platyostoma lineata</i> <i>Platyostoma lineata</i> var.	<i>Naticonema lineata</i> <i>Naticonema lineata</i>
275	<i>emarginata</i> <i>Loxonema hamiltoniae</i>	<i>emarginata</i> <i>Palaeozygopleura</i> <i>hamiltoniae</i>
275	<i>Loxonema delphicola</i>	<i>Palaeozygopleura</i> <i>delphicola</i>
276		
278	<i>Eccyliomphalus laxis</i>	<i>Straparollus laxis</i>
278	<i>Pleurotomaria lucina</i> <i>Pleurotomaria lucina</i> var.	<i>Mourlonia lucina</i> <i>Mourlonia lucina</i>
278	<i>perfasciata</i>	<i>perfasciata</i>
279	<i>Pleurotomaria itys</i> <i>Pleurotomaria itys</i> var.	<i>Euryzone itylus</i> (Hall) <i>Euryzone itylus</i>
279	<i>tenuispira</i> <i>Pleurotomaria capillaria</i>	<i>tenuispira</i> <i>Glyptotomaria</i> (<i>Dictyomaria</i>) <i>capillaria</i>
279	<i>Pleurotomaria</i>	" <i>Bembexia</i> " <i>planidorsalis</i>
280	<i>planidorsalis</i>	

280	<i>Pleurotomaria rugulata</i>	<i>Euryzone rugulata</i>
281	<i>Bellerophon patulus</i>	<i>Ptomatis patulus</i>
283	<i>Bellerophon leda</i>	<i>Retispira leda</i>
	<i>Tentaculites</i>	<i>Viriatellina</i>
286	<i>gracilistriatus</i>	<i>gracilistriata</i>
288	<i>Orthoceras eriense</i>	<i>Fusicoceras eriense</i>
	<i>Orthoceras subulatum</i>	<i>Michelinoceras (?)</i>
288		<i>subulatum</i>
289	<i>Orthoceras exile</i>	<i>Dolorthoceras exile</i>
	<i>Orthoceras telamon</i>	<i>Michelinoceras (?)</i>
289		<i>telamon</i>
290	<i>Orthoceras aulax</i>	<i>Geisonocerooides aulax</i>
290	<i>Orthoceras nuntium</i>	<i>Spyroceras nuntium</i>
	<i>Orthoceras emaceratum</i>	<i>Michelinoceras (?)</i>
291		<i>emaceratum</i>
	<i>Orthoceras constrictum</i>	<i>Michelinoceras (?)</i>
291		<i>constrictum</i>
292	<i>Gomphoceras manes</i>	<i>Brevicoceras manes</i>
292	<i>Gomphoceras lunatum</i>	<i>Cyrtogomphus lunatum</i>
294	<i>Nautilus magister</i>	<i>Nephriticeras magister</i>
	<i>Nautilus (Centroceras)</i>	<i>Centroceras</i>
296	<i>marcellensis</i>	<i>marcellense</i>
	<i>Goniatites (Tornoceras)</i>	<i>Tornoceras uniangulare</i>
297	<i>uniangularis</i>	
	<i>Goniatites (Tornoceras)</i>	<i>Truylosoceras bicostatum</i>
298	<i>bicostatus</i>	
	<i>Goniatites (Probeloceras)</i>	<i>Probeloceras lutheri</i>
299	<i>lutheri</i>	
	<i>Goniatites (Manticoceras)</i>	<i>Manticoceras (?)</i>
301	<i>intumescens</i>	<i>intumescens</i>
	<i>Goniatites (Manticoceras)</i>	<i>Sphaeromanticoceras</i>
301	<i>rhynchostoma</i>	<i>rhynchostomum</i>
	<i>Goniatites (Manticoceras)</i>	<i>Carinoceras sororium</i>
302	<i>sororium</i>	
	<i>Goniatites (Gephyroceras)</i>	<i>Crickites holzapfeli</i>
303	<i>holzapfeli</i>	
304	<i>Primitia seminulum</i>	<i>Halliella seminulum</i>
	<i>Primitiopsis punctulifera</i>	<i>Ponderodictya</i>
304		<i>punctulifera</i>
305	<i>Entomis rhomboidea</i>	<i>Barychilina rhomboidea</i>
306	<i>Strepula sigmoidalis</i>	<i>Euglyphella sigmoidalis</i>
306	<i>Beyrichia hamiltonensis</i>	<i>Hollina hamiltonensis</i>
307	<i>Beyrichia tricollina</i>	<i>Hollinella tricollina</i>
310	<i>Isochilina (?) fabacea</i>	<i>Primitiella fabacea</i>
312	<i>Moorea bicornuta</i>	<i>Bufina bicornuta</i>
314	<i>Homalonotus dekayi</i>	<i>Dipleura dekayi</i>
315	<i>Cryphaeus boothi</i>	<i>Greenops boothi</i>
	<i>Cryphaeus boothi</i> var.	<i>Bellacartwrightia</i>
315	<i>calliteles</i>	<i>calliteles</i>
	<i>Proetus macrocephalus</i>	<i>Monodechenella</i>
316		<i>macrocephalus</i>
316	<i>Proetus rowi</i>	<i>Basidechenella rowi</i>

317	<i>Proetus curvimarginatus</i>	<i>Basidechenella</i>
		<i>curvimarginatus</i>
318	<i>Phaethonides gemmaeus</i>	<i>Mystrocephala gemmaeus</i>
	<i>Cyphaspis ornata</i>	" <i>Otarion</i> " <i>ornata</i>