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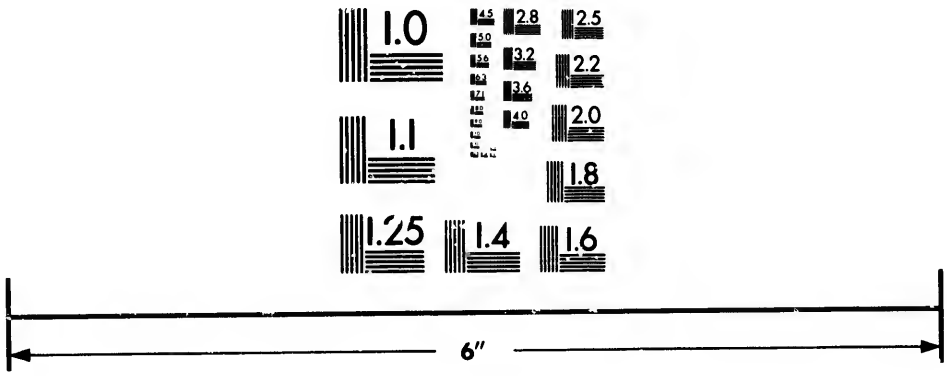

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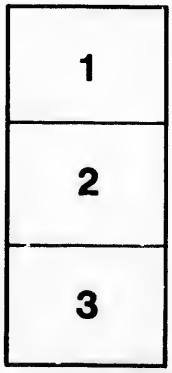

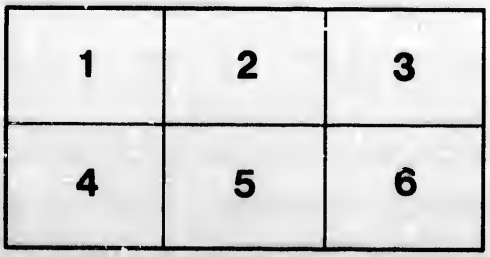

A CATALOGUE

OF THE

FOSSILS OF INDIANA,

Accompanied by a Bibliography of the Literature Relating to Them.

BY EDWARD M. KINDLE.

In the present paper the writer has endeavored to present all of the information which is at present recorded concerning the geological range and distribution within the State of the species listed.

In such a list as the present one, which includes faunas from the Ordovician to the Pleistocene, it has not been possible to do more than present the results of the work of those who have occupied themselves in this field. The list is therefore offered only as a provisional one and as an aid to further study. Many fossils known from other States which are not here listed, as well as new species, will undoubtedly be added in the future; while some species may be found to have been based on incorrectly determined specimens. But it is hoped that it may be useful in aiding other students to add to our present imperfect knowledge of the range and distribution of species within the State, by indicating what has already been accomplished.

The writer wishes to acknowledge here his indebtedness to Prof. W. S. Blatchley for access to the collections of the State Museum, to Prof. H. S. Williams for valuable suggestions, and to Mr. A. C. Benedict for the loan of literature.

PART I. CATALOGUE OF INDIANA FOSSILS.*

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
PROTOZOA.												
**Endothyra baileyi* Hall. (*Rotalia baileyi*) Gosport, Greencastle, Owen County and Harrison County (Hall).								×				
**Fusilina cylindrica* Fischer Lodi (C. A. White), Harrison County.									×	×		
Rotalia baileyi												
☞ *see* Endothyra baileyi.												
Moellerina greenei Ulrich Falls of the Ohio (E. O. Ulrich).				×								
COELENTERATA.												
Acervula in davidsoni E. & H., 11 Jeffersonville (White).				×								
**Acrophyllum onvidaense* Billings, 12 Falls of the Ohio (W. J. Davis).				×								
**Alveolites goldfussi* Billings, 11 Louisville, Ky. (W. J. Davis), Delphi.				×								
Alveolites indianensis Hall, 11 Delaware County (Phinney).												
Alveolites labiosa Billings Falls of the Ohio (Rominger).				×								
**Alveolites megastoma* Winch. Falls of the Ohio (Rominger).				×								
Alveolites squamosus Billings Falls of the Ohio (W. J. Davis).				×								
Amplexis cinctutus Miller, 18 St. Paul.			×									
**Amplexis coralloides* Sow. Lanesville.												
Amplexus fragiles White & St John Crawfordsville, Providence, and Harrison County.							×					
Amplexus (?) *rockfordensis* M. & G. Rockford (Miller & Gurley).						×						

*NOTE.—Those fossils which are represented in the collections of the State Museum, according to the Sixteenth Annual Report of the State Geologist, are marked in the list with a star.

Numbers following the names of species refer to the volumes of the State Geological Survey which contain the authority for including them in the list. They have been numbered as follows:

(1).	Geological	Report	of	Indiana,	1837–38	(11).	Geological	Report	of	Indiana,	1881
(2).	"	"	"	"	1859–60	(12).	"	"	"	"	1882
(3).	"	"	"	"	1869	(13).	"	"	"	"	1883
(4).	"	"	"	"	1872	(14).	"	"	"	"	1884
(5).	"	"	"	"	1873	(15).	"	"	"	"	1885–86
(6).	"	"	"	"	1874	(16).	"	"	"	"	1888
(7).	"	"	"	"	1875	(17).	"	"	"	"	1891
(8).	"	"	"	"	1876–78	(18).	"	"	"	"	1893
(9).	"	"	"	"	1879	(19).	"	"	"	"	1894
(10).	"	"	"	"	1880	(20).	"	"	"	"	1895

When the State Reports are not cited as the authority for a species, the name of the authority is usually placed in parenthesis after the localities mentioned.

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Xaskaskia.	Mansfield.	Coal Measures.	Drift.
**Amplexus shumardi* Milne E. Louisville, Ky., and Charlestown (W. J. Davis).			×									
**Amplexus yandelli* Milne E., 11. Falls of the Ohio, Madison (Rominger, Cornett).				×								
**Astraeospongia hamiltonensis* M. & W. Clark County.				×								
**Astylospongia burra* Hall, 11 Waldron.			×									
Astylospongia imbricato-articulata F. Roem. 11. Waldron.			×									
**Astylospongia praemorsa* Hall, 11. Waldron.			×									
Astylospongia praemorsa var. *nuxmoschata* Hall, 11 Waldron.			×									
Astylospongia stellatim—sulcata Roem. Waldron.			×									
Aulacophyllum convergens Hall, 12 Falls of the Ohio and Clark County.				×								
Aulacophyllum cruciforme Hall, 12. Falls of the Ohio.				×								
Aulacophyllum insigne Falls of the Ohio (W. J. Davis).				×								
Aulacophyllum pinnatum Hall, 12 Falls of the Ohio.				×								
Aulacophyllum poculum Hall, 12. Falls of the Ohio.				×								
Aulacophyllum praeciptum Hall, 12. Falls of the Ohio.				×								
Aulacophyllum princeps Hall, 12. Falls of the Ohio.				×								
Aulacophyllum prateriforme Hall, 12 Falls of the Ohio.				×								
Aulacophyllum reflexum Hall, 12 Falls of the Ohio.				×								
**Aulacophyllum sulcatum* d'Orb., 12. Louisville, Ky. (W. J. Davis).				×								
Aulacophyllum tripinnatum Hall, 12. Falls of the Ohio.				×								
Aulacophyllum trisulcatum Hall, 12 Charlestown and Falls of the Ohio.				×								
Aulopora arachnoidea Hall Franklin County, Richmond, Madison, (Rominger (W. S. T. Cornett).	×											
Aulopora cornuta Falls of the Ohio (W. J. Davis).				×								
Aulopora edithana Falls of the Ohio (W. J. Davis).				×								
**Aulopora gigas* Rominger, 8 Owen County, Crawfordsville, Greencastle, Harrison County, Fordice, Lanesville, Washington County, Monroe County.								×				
Aulopora precius Hall, 11. Louisville, Ky., Waldron (James Hall) (W. J. Davis).			×									
Aulopora vanclevii Hall, 12. Indiana and Kentucky.			×									
Aulopora serpens Goldfussi Falls of the Ohio (W. J. Davis).				×								
Axophyllum rudis White & St. J., 13. Newport (C. A. White).										×		
Baryphyllum d'orbignyi E. & H. Charlestown.				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Barypbyllum fungulus White			×									
Waldron (C. A. White).												
**Blothrophyllum acuminatum* (?) Hall				×								
Falls of the Ohio.												
Blothrophyllum approximatum Nich.				×								
Falls of the Ohio.												
**Blothrophyllum decorticatum* Billings, 11				×								
Falls of the Ohio, Rominger (W. J. Davis).												
Blothrophyllum promissum Hall, 12.				×								
Falls of the Ohio.												
Bucanophyllum gracile Ulrich				×								
Falls of the Ohio (Ulrich).												
Calamopora goldfussi d'Orb.				×								
Madison and Jennings County (Rominger).												
Calapoecia huronica Roming			×									
Madison (Rominger).												
Calceola attenuatus V. W. Lyon			×									
Louisville, Ky. (V. W. Lyon).												
Calceola corniculum V. W. Lyon			×									
Louisville, Ky. (V. W. Lyon.)												
Calceola coxi V. W. Lyon			×									
Louisville, Ky. (V. W. Lyon).												
Caleisphaera lemoni Knowlton				×								
Falls of the Ohio (Knowlton.)												
Campophyllum torquium Owen, 13											×	
Vanderburgh County.												
Chaetetes approximatus Nicholson												
see Monticullipora dalli.												
Chaetetes consimilis Hall, 11	×											
see Monotrypella consimilis.												
Chaetetes corticans Nicholson	×											
see Spatiopora tuberculata.												
Chaetetes discoideus James	×											
see Amplexopora discoidea.												
Chaetetes frondosa d'Orb.	×											
see Monticulipora frondora.												
Chaetetes lycoperdon	×											
see Monticulipora lycoperdon.												
Chaetetes mammulatus	×											
see Monticulipora mammulatus.												
**Chaetetes milleporaceus* E. & H.											×	
Vanderburgh County, Newberg.												
Chaetetes newberryi Nich.	×											
see Prasopora Newberryi.												
Chataetes ortoni Nich.	×											
see Atactoporella ortoni.												
Chaetetes ponderosus	×			×								
Falls of the Ohio (C. Rominger), Madison (Cornett).												
Chaetetes pulchellus Edw. & Haime	×											
see Monticulipora andrewsi.												
Chaetetes subpulchellus Nicholson	×											
see Monticulipora subpulchellus.												
**Chaetetes tuberculata*	×											
see Spatiopora tuberculatus.												
**Chonophyllum magnificum* Billings				×								
Charlestown Landing, Falls of the Ohio, Logansport.												
**Chonophyllum niagarense* Hall			×									
Waldron, Falls of the Ohio (Rominger), Huntington County.												
**Chonophyllum ponderosum* Rominger				×								
Charleston.												

	ORDOVICIAN	SILURIAN.		DEVONIAN.		CARBONIFEROUS.						QUATERNARY.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Chonophyllum vadum Hall, 12 Louisville, Ky.			×									
Cladopora alpenensis Rominger Falls of the Ohio (W. J. Davis).				×								
**Cladopora aspera* Rominger Falls of the Ohio.				×								
Cladopora billingsi Louisville, Ky. (W. J. Davis).				×								
**Cladopora cryptodens* Bill. Falls of the Ohio.				×								
**Cladopora expatiata* Rominger Falls of the Ohio (W. J. Davis).				×								
**Cladopora fischeri* Billings Falls of the Ohio, Charleston Landing (Rominger).				×								
Cladopora imbricata Rominger Falls of the Ohio (Rominger) (Davis).				×								
Cladopora iowensis Falls of the Ohio (W. J. Davis).				×								
**Cladopora labiosa* Billings Falls of the Ohio (W. J. Davis).				×								
**Cladopora laqueata* Rominger Falls of the Ohio.			×									
Cladopora lichenoides Rominger Falls of the Ohio (Rominger).				×								
Cladopora linneana Roming., 11 Shelby County.				×								
**Cladopora ornata* Rominger Clark County.				×								
Cladopora pinguis Falls of the Ohio (W. J. Davis).				×								
Cladopora pulchra Rominger Falls of the Ohio (W. J. Davis).				×								
Cladopora reticulata Hall, 11 Louisville, Ky. (W. J. Davis), Delaware County.			×									
Cladopora rimosa Rominger Falls of the Ohio (W. J. Davis).				×								
**Cladopora robusta* Rominger Falls of the Ohio (W. J. Davis), Falls of the Ohio (Rominger).				×								
Cladopora roemeri Louisville, Ky. (W. J. Davis).				×								
Cladopora sarmentosa Hall, 11 Waldron.			×									
**Cladopora verticillata* W. & M. Louisville, Ky.			×									
Clisiophyllum conigerum Rominger, 12 Falls of the Ohio.				×								
Clisiophyllum oneidaense Billings, 11 *see* Acrophyllum oneidaense.												
Coenites crassus Rominger Louisville (W. J. Davis).			×									
Coenites laminatus Hall Louisville (W. J. Davis).			×									
Coenites ramulosa Hall (Rominger).			×									
Coenites verticillata Louisville, Ky. (W. J. Davis).			×									
Coenostroma monticulifera Winch. (Stromatopora monticulifera) Falls of the Ohio.				×								
Coleophyllum pyriforme Hall, 12 Falls of the Ohio (Hall).				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Columnaria inequalis Hall	×											
Madison (Cornett).												
Columnopora cribiformis Nich.	×											
see Calapoecia cribiformis.												
Constellaria antheloidea Hall. 11												
see Stellipora antheloidea.												
**Cyathophyllum arctifossa* Hall, 12				×								
Falls of the Ohio.												
**Cyathophyllum brevicorne* Rominger				×								
Falls of the Ohio (W. J. Davis).												
Cyathophyllum caliculum		×										
Osgood (Foerste).												
Cyathophyllum caespitosum Goldfuss				×								
Madison												
Cyathophyllum colligatum				×								
Louisville, Ky. (W. J. Davis).												
Cyathophyllum corralliferum				×								
Falls of the Ohio (W. J. Davis).												
**Cyathophyllum corniculum* Milne E. 11				×								
Falls of the Ohio (W. J. Davis) Shelby County.												
**Cyathophyllum davidsoni* Milne E. 11				×								
Falls of the Ohio (W. J. Davis) Shelby County.												
Cyathophyllum depressum Hall				×								
Falls of the Ohio.												
Cyathophyllum exiguum				×								
Falls of the Ohio (W. J. Davis).												
**Cyathophyllum geniculatum* Rominger				×								
Bartholomew County.												
Cyathophyllum halli				×								
Falls of the Ohio (W. J. Davis).												
**Cyathophyllum houghtoni* Rominger				×								
Hartsville.												
Cyathophyllum impositum Hall				×								
Falls of the Ohio.												
Cyathophyllum juvene Rominger, 11				×								
Louisville, Ky. (W. J. Davis) Shelby County.												
Cyathophyllum radiendum Rominger			×	×								
Charlestown (Rominger) Louisville Ky. (W. J. Davis).												
**Cyathophyllum robustum*				×								
Falls ot the Ohio (W. J. Davis).												
**Cyathophyllum rugosum* Milne E., 12				×								
Falls of the Ohio (Rominger) Jackson County, Jennings County and Madison.												
**Cyathophyllum scyphus* Rominger, 11				×								
Louisville, Ky. (W. J. Davis), Shelby County.												
Cyathophyllum tornatum				×								
Louisville, Ky. (W. J. Davis).												
**Cyathophyllum validum* Hall				×								
Falls of the Ohio.												
Cyathophyllum vesiculatum Hall				×								
Falls of the Ohio.												
Cyclospongia discus Miller				×								
Bunker Hill.												
**Cystiphyllum americanum* E. & H.			×									
Falls of the Ohio (W. J. Davis).												
Cystiphyllum cayugaensis				×								
Louisville, Ky. (W. J. Davis).												
Cystiphyllum grande				×								
Falls of the Ohio (W. J. Davis).												
Cystiphyllum greenii Miller, 18				×								
Falls of the Ohio.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Cystiphyllum niagarense* Hall, 11			×									
Louisville, Ky. (W. J. Davis), Delaware County.												
Cystiphyllum ohioense Nich				×								
Louisville, Ky. (W. J. Davis).												
Cystiphyllum postulatum Hall, 12				×								
Falls of the Ohio.												
**Cystiphyllum squamosum*				×								
Falls of the Ohio (W. J. Davis).												
Cystiphyllum sulcatum Billings, 11				×								
Falls of the Ohio (Rominger).												
Cystiphyllum vesiculosum Goldf., 11				×								
Falls of the Ohio (W. J. Davis).												
Dendrograptus channograptus novellus Hall, 11			×									
Waldron.												
Dendropora alternans				×								
Louisville, Ky. (W. J. Davis).												
Dendropora neglecta				×								
Falls of the Ohio (Rominger), Louisville, Ky. (W. J. Davis).												
Dendropora proboscidalis				×								
Falls of the Ohio (W. J. Davis).												
Dictyostroma undulata Nicholson			×									
Louisville, Ky. (Nicholson).												
Diplotrypa milleri Ulrich			×									
Osgood (Ulrich).												
Diphyphyllum adnatum Hall, 12				×								
Falls of the Ohio.												
Diphyphyllum archiaca Bill., 11				×								
Louisville, Ky. (W. J. Davis) Shelby County.												
Diphyphyllum gigas				×								
Falls of the Ohio (W. J Davis).												
**Diphyphyllum apertum* Hall, 12				×								
Falls of the Ohio.												
**Diphyphyllum angosum* E. & H				×								
Falls of the Ohio (Rominger).												
**Diphyphyllum arundinaceum* Billings, 11				×								
Logansport.												
**Diphyphyllum cæspitosum* Hall			×									
Delphi and Grant County.												
**Diphyphyllum huronicum* Billings			×									
Wabash.												
Diphyphyllum paniceum				×								
Louisville, Ky. (W. J. Davis).												
Diphyphyllum simcoense Billings, 11				×								
Falls of the Ohio (W. J. Davis), Shelby County.												
**Diphyphyllum stramineum* Billings, 12				×								
Logansport and Falls of the Ohio.												
Diphyphyllum strictum				×								
Falls of the Ohio (W. J. Davis and Nicholson.)												
Diphyphyllum tumidulum Hall, 12				×								
Falls of the Ohio.												
Diphyphyllum veraeuilanum				×								
Louisville, Ky. (W. J. Davis).												
Drymopora intermedia				×								
Falls of the Ohio (W. J. Davis).												
Drymopora nobilis				×								
Falls of the Ohio (W. J. Davis).												
**Duncanella borealis* Nicholson			×									
Hartsville.												
Emmonsia cylindrica, 8				×								
Madison (Cornett.)												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Emmonsia hemisphærica Troost, 8				×								
Carroll Co., Madison (Cornett.)												
Eridophyllum arundinaceum				×								
see Diphyllum arundinaceum.												
Eridophyllum dividium												
see Diphyphyllum dividium.												
Eridophyllum huronicum												
see Diphyphyllum huronicum.												
Eridophyllum rugosum Edw. and Haime, 12												
see Diphyphyllum rugosum.												
Eridophyllum simcoense, 12												
see Diphyphyllum simcoense.												
Eridophyllum strictum Edwards and Haime, 11				×								
see Diphyphyllum simcoense.												
Favistella stellata Hall 12 and 11	×											
Madison (Rominger).												
**Favosites canadensis* Billings, 11				×								
Falls of the Ohio (W. J. Davis) Shelby County.												
**Favosites cavernosa* Rominger				×								
Falls of the Ohio.												
**Favosites clausus* Rominger, 11				×								
Falls of the Ohio (Rominger) (Davis).												
**Favosites cristatus*			×									
Louisville (Davis).												
Favosites cristatus var. *major*			×									
Falls of the Ohio (Davis).												
Favosites favosus Hall, 11	×											
Delaware County.												
**Favosites digitatus* Rominger				×								
Louisville, Ky. (Davis).												
**Favosites emmonsi* Rominger, 12												
Louisville, Charlestown, Falls of the Ohio (Davis).												
**Favosites epidermatus* Rominger, 11				×								
Falls of the Ohio, Logansport, Bartholomew County.												
Favosites fibrosa				×								
Madison (Cornett).												
**Favosites favosus* Goldfuss, 12			×									
Franklin County (Moore), Louisville (Davis)												
Favosites forbesi			×									
Louisville (Davis).												
**Favosites forbesi var. occidentalis* Hall, 11			×									
Waldron, Franklin County (Moore).												
Favosites goldfussi												
see Calamopora goldfussi.												
Favosites gothlandicus Lamark, 8				×								
Madison.												
**Favosites hemisphericus* Y. and S., 12				×								
Falls of the Ohio, Franklin County (Moore).												
Favosites hisingeri Milne Edwards			×									
(Rominger).												
**Favosites hispidus* Rominger			×									
Delphi.												
Favosites intertextus Rominger				×								
Falls of the Ohio (Rominger).												
**Favosites limitaris* Rominger, 12				×								
Falls of the Ohio (Rominger).												
Favosites maximus Troost				×								
Falls of the Ohio (Rominger).												
**Favosites niagarensis* Hall			×									
Louisville (Davis) Waldron, Madison, Charlestown, Wabash County, Huntington County, Miami County.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Favosites placenta* Rominger. Falls of the Ohio (Davis).				×								
**Favosites pleurodictyoides* Nicholson. Charlestown.				×								
Favosites polymorpha Goldfuss, 11. Madison.				×								
**Favosites radiatus* Rominger. Falls of the Ohio, Hartsville (Davis).				×								
**Favosites radiciformis* Rominger. Falls of the Ohio (Davis).				×								
Favosites ramosa, 8. Madison.				×								
**Favosites springerus* Hall, 11. Waldron (James Hall).			×									
**Favosites spongilla* Rominger. Louisville (Davis), St. Paul (Rominger).			×									
**Favosites tuberosus* Rominger. Charlestown, Falls of the Ohio (Rominger).				×								
**Favosites turbinatus* Billings. Falls of the Ohio.				×								
Favosites venustus Hall, 12. Louisville (Davis).			×									
Favosites winchelli Rominger. Falls of the Ohio (Rominger).				×								
**Fistulipora acervulosa* Rominger. Falls of the Ohio.				×								
Fistulipora canadensis Billings, 11. (Rominger).				×								
Fistulipora intercellata Hall. Falls of the Ohio (Hall).				×								
Glossotrypa paliformis Hall. Falls of the Ohio (Hall).				×								
**Hadrophyllum d'orbignyi*. Louisville, Ky., Clark County (W. J. Davis).				×								
**Halysites catenulatus* Linn., 11. Franklin County (Moore), Wabash County, Carroll County, Huntington County, Osgood (Foerste).		×	×									
**Halysites labyrinthicus* Goldf. Delphi.			×									
Heliolites interstinctus Linn., 12. Huntington (Rominger).			×									
Heliolites megastoma McCoy, 11. Louisville (W. J. Davis), Delaware County.			×									
Heliolites pyriformis Guettard. Louisville (W. J. Davis).				×								
Heliolites subtubulatus McCoy. Louisville (W. J. Davis).				×								
Heliophyllum annulatum Hall, 12. Scott and Clark Counties.				×								
**Heliophyllum coalitum* Rominger, 12. Delphi.				×								
Heliophyllum compactum Hall, 12. Falls of the Ohio.				×								
Heliophyllum corniculum Hall, 12. Falls of the Ohio.				×								
Heliophyllum denticulatum Hall, 12. Falls of the Ohio.				×								
Heliophyllum distans Hall, 12. Falls of the Ohio.				×								
Heliophyllum equum Hall, 12. Falls of the Ohio.				×								
**Heliophyllum exiguum* Bill., 11. Falls of the Ohio, Shelby County.				×								

	Ordovician	Silurian		Devonian		Carboniferous						Quaternary
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Heliophyllum fecundum Hall, 12				/								
Falls of the Ohio.												
Heliophyllum gemmatum Hall, 12				/								
Falls of the Ohio.												
Heliophyllum germinferum Hall				/								
Falls of the Ohio.												
Heliophyllum halli E. & H., 12				/								
Falls of the Ohio.												
Heliophyllum incrassatum Hall, 12				/								
Falls of the Ohio.												
Heliophyllum invaginatum Hall, 12				/								
Falls of the Ohio												
Heliophyllum laterivescens Hall, 12				/								
Falls of the Ohio.												
Heliophyllum nettlerothi Hall, 12				/								
Falls of the Ohio.												
Heliophyllum sordidum Hall, 12				/								
Falls of the Ohio.												
Heliophyllum parvum Hall, 12				/								
Falls of the Ohio.												
Heliophyllum scyphulus Hall, 12				/								
Charlestown.												
Heliophyllum tenuimurale Hall, 12				/								
Charlestown, Falls of the Ohio.												
Hippothoa inflata Hall												
see Stomatopora inflata.												
Houghtonia huronica Rominger												
see Calapoecia huronica (Rominger).												
Hydrophyllum arbignyi Edwd. and Haime, 8		/	/	/								
Madison.												
Intrepora pretcolata Hall				/								
Falls of the Ohio (Hall).												
Iocaulis divaricata Hall, 11			/									
Waldron.												
Lichenalia alternata Hall				/								
Falls of the Ohio.												
Lichenalia (Odontotrypa) alveata Hall				/								
Falls of the Ohio (Hall).												
Lichenalia bistriata Hall				/								
Falls of the Ohio.												
Lichenalia (Selenopora) circincta Hall				/								
Falls of the Ohio.												
Lichenalia (Pileotrypa) clivulata Hall												
see Pileotrypa clivulata.												
Lichenalia (Selenopora) complexa Hall				/								
Falls of the Ohio (Hall).												
Lichenalia concentrica Hall, 11			/									
Waldron.												
Lichenalia emulata Hall				/								
Falls of the Ohio (Hall).												
Lichenalia (Pileotrypa) denticulata Hall												
see Pileotrypa denticulata.												
Lichenalia geometrica Hall				/								
Falls of the Ohio (Hall).												
Lichenalia (Lichenotrypa) longispina Hall												
see Lichenatrypa longispina.												
Lichenalia lunata (Rominger) Hall												
see Buscopora lunata.												
Lichenalia maculata Hall			/									
Waldron.												
Lichenalia orata Hall				/								
Falls of the Ohio.												
Lichenalia (?) (*Glossotrypa*) *paliformis* Hall												
see Glossotrypa paliformis.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Lichenalia (Pilcotrypa) pyriformis Hall				×								
Falls of the Ohio. (Hall).												
Lichenalia subcava Hall				×								
Falls of the Ohio.												
Lichenalia substellata Hall				×								
Falls of the Ohio.												
Lichenotrypa longispina Hall			×									
Falls of the Ohio (Ulrich).												
Limaria ramulosa Hall												
see Coenites ramulosa.												
**Lithostrotian can...?* see Castlemanii, 8								×				
Owen County, Putnam County, Orange County, Harrison County, Montgomery County												
Lithostrotian mamillatus Herzer, 3								×				
Harrison County.												
**Lithostrotian proliferum* Hall, 8						×	×	×				
Orange County, Owen County, Monroe County, Putnam County, Harrison County.												
Lophophyllum proliferum McChesney, 13											×	
Throughout the coal measures.												
**Lyellia americana* E. & H., 11			×?									
Louisville (Davis).												
Lyellia glabra			×	×								
Louisville (Davis).												
**Lyellia papillata* Rominger			×									
Louisville (Davis).												
**Lyellia parvituba* Rominger			×									
(Rominger).												
**Michelinia cloppi* (Milne E.) Rominger				×								
Falls of the Ohio (Rominger).												
**Michelinia cylindrica* E. & H				×								
Falls of the Ohio (Davis).												
Michelinia eugenene White, 13											×	
Vermillion County (C. A. White).												
**Michelinia favistoidea* Billings				×								
Falls of the Ohio (Davis).												
**Michelinia insignis* Rominger				×								
Falls of the Ohio (Rominger).												
Monotrypella subquadrata Ulrich	×											
Osgood (Miller), (Ulrich).												
**Monticula approximata* Nicholson, 12	×											
Madison.												
Monticulipora dalii E. & H., 8	×											
Madison (Cornett).												
Monticulipora discoidea James (Hall), 12	×											
**Monticulipora fibrosa* Goldfuss	×	×										
North Vernon, Madison (Cornett).												
**Monticulipora filiosa* d'Orb.												
Richmond, Madison (James).												
**Monticulipora frondosa* d'Orb., 11	×											
Madison.												
Monticulipora gracilis James (Hall)	×											
Monticulipora irregularis d'Orb.	×											
Hamilton County.												
**Monticulipora jamesi* Nich.	×											
Madison.												
**Monticulipora lycoperdon* Say	×											
Madison.												
Monticulipora mamulata d'Orb., 12	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Monticulipora ortoni* Hall Madison.	×											
**Moticulipora papillata* McCoy Richmond.	×											
**Monticulipora petechialis* Nich. Richmond and Madison.	×											
**Monticulipora petropolitanus* Pander Madison.	×											
**Monticulipora pulchella* E. & H. Madison.	×											
Monticulipora (*Fistulipora*) *rustica* Ulrich (James).	×											
Monticulipora simulatrix Ulrich (James).	×											
**Monticulipora subpulchella* Nich. Richmond.	×											
Monticulipora tuberculata E. & H. (Hall), 12	×											
**Ophyma verrucosa* Louisville, Ky. (W. J. Davis).			×									
**Palaeophyllum divaricans* Nich., 11 Franklin County (Moore).	×											
Paleacis cuneata M. & W., 11 Harrison County, Washington County, Spergen Hill.								×				
Paleacis enormis M. & W., 8 Rockford, Harrison County.								×				
**Paleacis obtusus* M. & W. Harrison County, Lanesville.							×	×				
**Phillipsastrea gigas* Owen Charlestown.				×								
**Phillipsastrea verneuili* E. & H. Madison, Jasper County.				×								
**Phillipsastrea yandelli* Rominger Charlestown, Falls of the Ohio (Rominger).				×								
**Plasmopora elegans* Louisville (Davis).			×									
**Plasmopora follis* Milne-Edwards Pauls Station, Charlestown Landing (Rominger).			×									
Plasmopora scita? Milne-Edwards Pauls Station (Rominger).			×									
Prismopora sparsipora Hall Falls of the Ohio (Ulrich).			×									
Prismopora triquetra Hall Falls of the Ohio (Hall).				×								
Protarea vetusta Hall, 11 Madison (W. S. T. Cornett), Richmond (Winchell & Schuchert).	×											
Ptychophyllum stokesi Louisville, Ky. (W. J. Davis).			×									
**Receptaculites elrodi* Miller, 18 Hartsville.				×								
**Receptaculites hemisphericus* Hall Grant County and Delphi.			×									
**Receptaculites sacculus* Hall 11			×									
**Receptaculites subturbinatus* Hall, 11 Hartsville.			×									
Romingeria umbillifera Falls of the Ohio (W. J. Davis).				×								
Sphenopterium cuneatum *see* Paleacis cuneatum.												

	Ordovician	Silurian.		Devonian.		Carboniferous.							Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Sphenopterium enorme M and N. see Paleacis enorme.												
**Stellipora antheloides* Hall Madison (Cornett).	×											
Stenopora fibrosa see Monticulipora fibrosa.												
Stenopora petropolitana Madison (W. S. T. Cornett).	×											
Stomatopora inflata Hall (Hippothoa inflata). Franklin County (Moore).	×											
Streptelasma (*Duncanella*) *borealis* Hall, 11 Waldron (Hall).			×									
Streptelasma coarctatum Hall, 12 Louisville, Ky.				×								
**Streptelasma crassum* Hall Richmond.	×											
**Streptelasma corniculum* Hall, 11 Madison, Richmond (Rominger), Franklin County (Moore).	×		×									
Streptelasma inflatum Hall, 12 Falls of the Ohio.				×								
Streptelasma mammiferum Hall, 12 Falls of the Ohio.				×								
Streptelasma obliquum Foerste Hanover.		×										
Streptelasma papillatum Hall, 12 Falls of the Ohio.				×								
Streptelasma parvulum Madison (W. S. T. Cornett).	×											
**Streptelasma radicans* Hall, 11 Waldron (Hall), Franklin County (Moore).	×		×									
Streptelasma rusticum Bill. Richmond, (Wilchell and Schuchert).	×											
Streptelasma simplex Hall, 12 Falls of the Ohio.				×								
**Streptelasma spongiaxis* Rominger Hartsville, Grant County, and St. Paul.			×									
Streptelasma tenue Hall, 12 Falls of the Ohio.				×								
**Striatopora cavernosa* Rominger Falls of the Ohio.				×								
Striatopora gorbyi Miller, 18 St. Paul			×									
Striatopora huronensis Rominger Falls of the Ohio (Davis).				×								
Striatopora linnaeana Billings, 11 Falls of the Ohio (Rominger).				×								
**Stromatopora concentrica* Goldfuss Madison (Cornett).		×		×								
**Stromatopora constellata* Hall Logansport, Falls of the Ohio.				×								
**Stromatopora densum* Nich., 12 Charlestown.				×								
**Stromatopora granulata* Nich. Falls of the Ohio.				×								
Stromatopora indianensis James Connersville (James).	×											
**Stromatopora mammillata* Nich. Clark County.				×								
**Stromatopora monticulifera* W. & M. see Coenostroma monticulifera.												
**Stromatopora nodulata* Nich., 11 Shelby, Clark and Cass Counties.				×								

	Ordovician	Silurian.		Devonian.		Carboniferous						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Stromatopora perforata* Nich. Cass County.	....	....	....	×	....	....	....	....	....	....	....	....
**Stromatopora substriatella* Nich. Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
**Stromatopora cylindrica* James Madison.	....	....	....	....	....	....	....	....	....	....	....	....
Stromatopora tuberculata Nich., 11 Shelby County.	....	....	....	×	....	....	....	....	....	....	....	....
**Strombodes mamillaris* D. D. Owen Charlestown (Rominger).	....	....	×	....	....	....	....	....	....	....	....	....
**Strombodes pentagonus* Louisville, Ky. (W. J. Davis).	....	....	×	....	....	....	....	....	....	....	....	....
Strombodes pygmoeus Louisville, Ky. (W. J. Davis).	....	....	×	....	....	....	....	....	....	....	....	....
Strombodes separatus Ulrich Louisville, Ky. (Ulrich).	....	×	....	....	....	....	....	....	....	....	....	....
**Strombodes striatus* d'Orb Indiana (Rominger).	....	....	×	....	....	....	....	....	....	....	....	....
Syringopora attenuata, Rominger, 7 Montgomery County.	....	....	....	....	....	....	....	....	×	....	....	....
Syringopora bonchardi Falls of the Ohio (W. J. Davis) (Rominger).	....	....	....	×	....	....	....	....	....	....	....	....
**Syringopora hisingeri* Billings (Rominger).	....	....	....	×	....	....	....	....	....	....	....	....
**Syringopora maclurii* Billings, 11 Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
**Syringopora multattenuata* McChesney, 8 Washington County, Orange County, Harrison County, Monroe County, Greencastle.	....	....	....	....	....	....	....	×	×	....	....	....
**Syringopora perelegans* Billings, 11 and 12 Falls of the Ohio (W. J. Davis).	....	....	....	×	....	....	....	....	....	....	....	....
Syringopora ramulosa? Goldfuss, 8 Warsaw, Greencastle, Harrison County, Monroe County.	....	....	....	....	....	....	....	×	×	....	....	....
**Syringopora tabulata* E. & H. Madison, and Falls of the Ohio (Rominger).	....	....	....	×	....	....	....	....	....	....	....	....
Syringopora tenella Rominger (Rominger).	....	....	×	....	....	....	....	....	....	....	....	....
**Syringopora tubiporoides* Y. & S. Madison (Cornett), Falls of the Ohio (W. J. Davis).	....	....	....	×	....	....	....	....	....	....	....	....
Syringopora verticillata Goldfuss, 12	....	....	....	×	....	....	....	....	....	....	....	....
**Tetradium fibratum* Safford Ripley County, Jennings County, Madison (Cornett).	×	....	×	....	....	....	....	....	....	....	....	....
Thamniscus nanus Hall Falls of the Ohio (Ulrich).	....	....	×	....	....	....	....	....	....	....	....	....
**Theca major* Rominger 12 Charlestown Landing (Rominger).	....	....	×	....	....	....	....	....	....	....	....	....
Theca minor Rominger Louisville (Rominger).	....	....	×	....	....	....	....	....	....	....	....	....
**Theca ramosa* Rominger Falls of the Ohio (Rominger).	....	....	....	×	....	....	....	....	....	....	....	....
**Theca swindernana* Goldfuss Louisville (Davis).	....	....	×	....	....	....	....	....	....	....	....	....
Thecostegitis bonchardi Milne E. see Syringopora bonchardi.	....	....	....	....	....	....	....	....	....	....	....	....
**Zaphrentis bilateralis* Hall Madison (Cornett).	....	×	....	....	....	....	....	....	....	....	....	....
Zaphrentis cassedayi Milne Ed. 15 Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Zaphrentis celator Hall, 11 Waldron, Wabash County (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Zaphrentis centralis E. and H., 8. Harrison County.								×				
Zaphrentis compressa Rominger, 12. Falls of the Ohio (W. J. Davis).				×								
Zaphrentis concava Hall, 12. Falls of the Ohio.				×								
Zaphrentis conigera Rominger, 11. Falls of the Ohio (Rominger).				×								
**Zaphrentis convoluta* Hall, 12. Falls of the Ohio.				×								
**Zaphrentis cornicula* Leseur. Falls of the Ohio, Charlestown (Rominger), Madison.				×								
Zaphrentis cornucopia, 10. Putnam County and Monroe County.						×	×					
Zaphrentis (*Amplexus*) *cruciforme* Hall, 12. Falls of the Ohio.				×								
Zaphrentis cyathiformis Hall, 12. Falls of the Ohio.				×								
**Zaphrentis dalei* E. and H. Monroe County, Putnam County, Harrison County, Owen County, Greencastle, Crawfordsville.						×	×					
**Zaphrentis davisiana* Miller. Falls of the Ohio.				×								
Zaphrentis declinus Miller. New Providence (Miller).							×					
Zaphrentis deformis Hall, 12. Charlestown.				×								
Zaphrentis duplicata Hall, 12. Falls of the Ohio.				×								
Zaphrentis elegans Hall, 12. Falls of the Ohio.				×								
Zaphrentis elliptica White, 8. Harrison County, Spergen Hill (R. P. Whitfield).								×				
Zaphrentis exiguum Billings. Falls of the Ohio.				×								
Zaphrentis foliata Hall, 12. Falls of the Ohio.				×								
Zaphrentis gibsoni White. Vermillion County (C. A. White).											×	
**Zaphrentis gigantia* Rafinesque, 11. Madison, Jennings County, Falls of the Ohio (Rominger).				×								
**Zaphrentis herzeri* Hall, 12. Charlestown.				×								
Zaphrentis nitida Hall, 12. Falls of the Ohio.				×								
Zaphrentis nodulosa Rominger. Falls of the Ohio (W. J. Davis).				×								
Zaphrentis ovalis Hall, 12. Falls of the Ohio.				×								
Zaphrentis planima Hall, 12. Falls of the Ohio.				×								
Zaphrentis ponderosa Hall, 12. Falls of the Ohio.				×								
**Zaphrentis profunda* Hall, 12. Falls of the Ohio.				×								
**Zaphrentis prolifica* Billings. Louisville, Ky. (W. J. Davis).				×								
Zaphrentis radicans. Louisville, Ky. (W. J. Davis).			×									

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Zaphrentis rafinesque* E. & H., 11				×								
Falls of the Ohio, Jennings County, Madison (W. J. Davis).												
Zaphrentis subcompressa Hall, 12				×								
Falls of the Ohio.												
**Zaphrentis spinulitera* Hall, 8							×	×	×			
Harrison County, Lanesville, Reelsville, Putnam County, Greencastle, and Washington County.												
**Zaphrentis spinulosa* E. & H., 8								×	×			
Spergen Hill (R. P. Whitfield), Montgomery County, Orange County, Bloomington and Harrison County.												
Zaphrentis spira Hall, 12				×								
Falls of the Ohio.												
Zaphrentis spongiaxis			×									
Louisville, Ky. (W. J. Davis)												
**Zaphrentis stokesi* E. & H			×									
Grant County.												
Zaphrentis terebrata Hall, 12				×								
Falls of the Ohio.												
Zaphrentis torta Hall, 12				×								
Falls of the Ohio and Clark County.												
Zaphrentis trisulcata Hall, 12				×								
Falls of the Ohio.												
Zaphrentis umbonata Rominger			×									
Louisville (Rominger).												
**Zaphrentis vagula* Rominger, 12				×								
Falls of the Ohio (Rominger).												
Zaphrentis yandelli E. & H				×								
Falls of the Ohio (W. J. Davis).												
ECHINODERMATA.												
Abrotocrinus cymosus Miller, 16							×					
Washington County.												
Actinocrinus abnormis Lyon												
see Megistocrinus abnormis.												
Actinocrinus agassizi Troost, 8							×					
Harrison County.												
Actinocrinus biturbinatus, 8												
see Enctocrinus biturbinatus.												
Actinocrinus bronteus Hall, 8							×					
Harrison County.												
Actinocrinus calyculus Hall, 8												
see Batocrinus calyculus.												
Actinocrinus cassedayi Lyon, 8												
see Germaeocrinus cassedayi.												
Actinocrinus coreyi Lyon & Casseday							×					
Washington County (L. & C.)												
Actinocrinus gibsoni M. & G							×					
Indian Creek near Crawfordsville (Miller & Gurley).												
Actinocrinus gouldi												
see Dorycrinus gouldi.												
Actinocrinus grandis Miller, 16							×					
Washington County.												
Actinocrinus indianensis L. & C., 8												
see Batocrinus indianensis.												
Actinocrinus kentuckensis Schumard												
see Gemalocrinus cornigerus.												
Actinocrinus lagunculus												
see Batocrinus lagunculus.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Actinocrinus lowii* Hall, 8 Hindostan, Monroe County, Harrison County.							×					
Actinocrinus magnifica Troost, 8 Harrison County.							×					
Actinocrinus meekii Lyon *see* Macrostylocrinus meeki.												
Actinocrinus nashvillae Troost, 8 Harrison County.							×					
**Actinocrinus pernodosus* Hall Crawfordsville.							×					
Actinocrinus ramulosus Hall, 8 *see* Eretmocrinus ramulosus.												
Actinocrinus unicornis O. & S. *see* Doryerinus unicornis.												
Actinocrinus wachsmuthi, 10 *see* Batocrinus wachsmuthi.												
Aethocystites sculptus Miller, 18 St. Paul.			×									
Agaricocrinus americanus Rominger, 15 Washington County (Gorby).								×				
Agaricocrinus calyculus Hall, 15 Washington County (Gorby).								×				
Agaricocrinus gorbyi Miller, 17 Montgomery County.							×					
Agaricocrinus indianensis Miller, 17 Washington County.							×					
Agaricocrinus nodosus M. & W. Washington County.							×					
Agaricocrinus pentagonus Hall Washington County.							×					
Agaricocrynus splendens Miller & Gurley, 16 Crawfordsville (Miller & Gurley).							×					
Agaricocrinus springeri White, 16 and 11 Crawfordsville.							×					
Agaricocrinus tuberosus Troost, 8 Harrison County.							×					
**Agaricocrinus wortheni* Hall, 8 Washington County.							×					
**Agassizocrinus conicus* Owen & Schmard, 8 Harrison County, Orange County (Collett).									×			
Agassizocrinus conoideus, 8 Harrison County (Collett).									×			
**Agassizocrinus dactyliformis* Troost, 8 Harrison County (Collett).									×			
Agassizocrinus pentagonis Worthen, 8 Reelsville, Putnam County, Orange County, Harrison County.								×	×			
Agelacrinus faberi Miller Osgood and Versailles (M. & F.).	×											
Agelacrinus squamosus Meek & Worthen, 16 Crawfordsville and Harrison County.							×					
Agaricocrinus splendens Miller Crawfordsville.							×					
**Agricocrinus wortheni* Hall Harrison County, Washington County.							×					
Allocrinus benedicti Miller, 17 St. Paul.			×									
**Alloprosallocrinus conicus* Cassaday & Lyon Lanesville and Monroe County.								×				
Ampheristocrinus typus Hall, 11 Waldron.			×									
**Amphoracrinus vininalis?* Hall Fountain County.							×					

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Ancyrocrinus bulbosus* Hall Falls of the Ohio.				×								
Ancyrocrinus spinosus Hall Clark County.				×								
Archaeocidaris agassizi Hall, 8 Harrison County.							×	×				
**Archaeocidaris keokuk* Hall Bono.							×					
**Archaeocidaris norwoodi* Hall, 8 Harrison County.							×					
**Archaeocidaris wortheni* Hall, 8 Harrison County and Orange County.							×	×				
Barycrinus elrodi Miller & Gurley Spergen Hill (Miller & Gurley).								×				
Barycrinus formosus M. & G. Washington County (Miller & Gurley).							×					
**Barycrinus hercules* M. & W., 16 Crawfordsville, Harrison County.							×					
Barycrinus hoveyi Hall, 8 (*Cyathocrinus hoveyi*), 16 Harrison County, Crawfordsville (Meek & Worthen).							×					
**Barycrinus magister* Hall. (Cyathocrinus magister,) 8 Harrison County, Spergen Hill & Lanesville (R. P. Whitfield).							×					
**Barycrinus pentagonus* Worthen, 8 Harrison County and Crawfordsville.							×					
Barycrinus princeps Miller, 16 Crawfordsville.							×					
Barycrinus sculptiles Hall. (Cyathocrinus sculptiles) Clark County.				×								
Barycrinus spectabilis M. & W., 8 Harrison County.							×					
**Barycrinus stellatus* Troost Crawfordsville.							×					
Barycrinus stellifer Miller, 18 Harrison County.							×					
Barycrinus tumidus Hall Monroe County.							×					
Barycrinus washingtonensis Miller & Gurley, 27 Washington County (Miller & Gurley).							×					
**Batocrinus aequalis* Hall Smithville.							×					
Batocrinus agnatus Miller, 17 Montgomery County.							×					
Batocrinus arcula Miller & Gurley Washington County (Miller & Gurley).								×				
Batocrinus asteriscus M. & W., 8 Harrison County.								×				
**Batocrinus biturbinatus* Hall. (Actinocrinus biturbinatus) Spergen Hill, Monroe and Harrison Counties (R. P. Whitfield).							×	×				
Batocrinus cantonensis Miller, 16 Canton.							×					
**Batocrinus caroli* Hall Lanesville.								×				
Batocrinus cistula Miller & Gurley Lanesville (Miller & Gurley).								×				
Batocrinus crawfordsvillensis Miller, 17 Crawfordsville.							×					
Batocrinus calyculus Hall, 15 Washington County.								×				

	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
	CEROVICIAN.	SILURIAN.		DEVONIAN.		CARBONIFEROUS.						QUATERNARY.
Batocrinus decorus Miller, 17. Spergen Hill.								×				
Batocrinus decrepitus, 18. Montgomery County.								×				
Batocrinus facetus Miller, 16 Canton.							×					
**Batocrinus icosidactylus* Casseday, 8. Spergen Hill, Monroe County, Harrison County (R. P. Whitfield), Greencastle, Washington County.								×				
**Batocrinus indianaensis* Casseday & Lyon (Actinocrinus indianaensis), 16. Crawfordsville, Harrison County, Monroe County and Washington County.							×					
**Batocrinus inaequalis* Hall, 8 Harrison County.								×				
**Batocrinus irregularis* Casseday, 8. Spergen Hill, Monroe County, Washington County, Harrison County.								×				
Batocrinus jucundus Miller & Gurley, 16. Crawfordsville (Miller & Gurley).							×					
**Batocrinus lagunculus* Hall (Actinocrinus lagunculus) Washington and Monroe counties.								×				
Batocrinus marinus Miller & Gurley, 16. Crawfordsville (Miller & Gurley).							×					
Batocrinus montgomeryensis Worthen Crawfordsville (A. H. Worthen).							×					
**Batocrinus mundulus* (?) Hall. Washington County.							×	×				
Batocrinus pileus Miller & Gurley. Washington County (Miller & Gurley).								×				
Batocrinus pistillum M. & W., 15. Washington County and Edwardsville.							×					
**Batocrinus plano-discus* Hall, 15. Washington County, Bono.							?	×				
**Batocrinus pyriformis* Schumard Washington County.							×					
Batocrinus sacculus Miller & Gurley. Washington County (Miller & Gurley).								×				
Batocrinus spergensis Miller, 17 Spergen Hill.								×				
Batocrinus wachsmuthi White (Actinocrinus wachsmuthi), 16 Crawfordsville.							×					
**Batocrinus whitii* Wachs. & Spr. Bono (Wachs. & Springer).							×					
Calceocrinus? bradleyi Meek *see* Deltacrinus bradleyi.												
Calceocrinus indianensis Miller, 17. St. Paul and Jefferson County.			×									
Calceocrinus nodosus Hall *see* Deltacrinus nodosus.												
Calceocrinus stigmatus Hall, 11 *see* Deltacrinus stigmatus.												
Callicrinus beachleri W. & S St. Paul (Wachs & Spr).			×									
Caryocrinus ellipticus Miller & Gurley Osgood (Miller & Gurley).			×									
**Caryocrinus ornatus* Say. Madison, Jennings County, Utica, Clark County and Ripley County.		×	×	×								
**Catillocrinus bradleyi* M. & W., 8. Harrison County, Crawfordsville.						×	×					

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Catillocrinus tennessee Troost, 15 Washington County.								×				
Catillocrinus wachsmuthi M. & W. (Synbathocrinus wachsmuthi) 8 Harrison County.							×					
Codaster americanus Shumard Falls of the Ohio (Shumard).				×								
Codaster attenuatus Lyon Falls of the Ohio (Lyon).				×								
Codaster pentalobus Hall, 11 Waldron.			×									
Codaster pulchellus Miller & Dyer, 11 Waldron (Miller & Dyer).			×									
Codaster pyramidatus Shumard Falls of the Ohio (Shumard).				×								
Cyathocrinus (*Poteriocrinus*) *aemulus* Hall, 11 Waldron.			×									
**Cyathocrinus arboreus* M. & W., 16 Crawfordsville.							×					
Cyathocrinus benedicti Miller, 17 Hartsville.			×									
Cyathocrinus crawfordsvillensis Miller Crawfordsville (Miller).							×					
Cyathocrinus decadactylus L. & C. Washington County, Montgomery County (Lyon & Cassady).							×					
Cyathocrinus gorbyi Miller, 18 Gosport, Owen County.							×					
Cyathocrinus gurleyi Miller, 17 Washington County.							×					
Cyathocrinus harrisi Miller, 16 Crawfordsville (Miller).							×					
Cyathocrinus hexadactylus Lyon & Cassaday *see* Vasocrinus lyoni.												
Cyathocrinus hoveyi Hall *see* Barycrinus hoveyi.												
Cyathocrinus inspiratus? Lyon, 16 Crawfordsville.							×					
Cyathocrinus lyoni Hall *see* Vasocrinus lyoni.												
Cyathocrinus magister Hall, 8 *see* Barycrinus magister.												
**Cyathocrinus multibrachiatus* L. & C., 16 and 11 Washington County and Crawfordsville.							×	×				
Cyathocrinus nucleus Hall, 11 Waldron (James Hall).			×									
Cyathocrinus opinus Miller, 16 Crawfordsville.							×					
Cyathocrinus polyxo Hall, 11 Waldron (James Hall).			×									
Cyathocrinus(?) poterium M. & W., 16 Crawfordsville (Meek & Worthen).							×					
Cyathocrinus sculptilis Lyon *see* Barycrinus sculptilis.												
Cyathocrinus signatus M. & G Washington County (Miller & Gurley).							×					
Cyathocrinus tumidulus M. & G Indian Creek, near Crawfordsville (Miller & Gurley).							×					
Cyathocrinus waldronensis Miller & Gurley Hartsville (Miller & Gurley).			×									
Cyclicocrinus canaliculatus Miller, 18 St. Paul.			×									

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Cyclocrinus (?) indianensis Mill. & G. St. Paul (Miller & Gurley).			×									
Cyphocrinus gorbyi Miller, 18. St. Paul.			×									
Dendrocrinus ancilla Hall, 11. Waldron.			×									
**Dendrocrinus polydactylus* Shumard (Homocrinus polydactylus). Richmond, Madison and Franklin Counties (Shumard).	×											
Dichocrinus constrictus M. & W., 8. Monroe County, Harrison County and Washington County.								×				
Dichocrinus cornigerus Shumard, 8. Harrison County.									×			
Dichocrinus dichotomus Hall, 15. Washington County.								×				
**Dichocrinus expansus* M. & W. Harrison County.							×					
**Dichocrinus ficus* Cassaday & Lyon, 16. Harrison County, Montgomery County, Crawfordsville (C. & L.).							×	×				
Dichocrinus lineatus M. & W., 8. Harrison County.							×	×				
Dichocrinus pisum Meek & Worthen, 8. Harrison County.								×				
Dichocrinus polydactylus Cassaday & Lyon, 16. Montgomery County (Cassaday & Lyon).							×					
Dichocrinus sculptus C. & L., 10. Monroe County.							×					
Dichocrinus sexlobatus Shumard, 8. see Talarocrinus sexlobatus.												
**Dichocrinus simplex* Shumard. Harrison County, Bloomington, Washington County, Monroe County, Spergen Hill (Whitfield).							×	×				
Dichocrinus spinifera, 10. Reelsville, Putnam County.									×			
Dichocrinus striatus O. & S., 8. Harrison County.							×					
Dichocrinus ulrichi Miller, 16. Bono.							×					
Dolatocrinus amplus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus aplatus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus approximatus (Miller & Gurley). Louisville, Ky. (Miller & Gurley).				×								
Dolatocrinus argutus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus bellulus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus bellarugosus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus bradleyi (Calceocrinus bradleyi), 16. Crawfordsville (Meek).							×					
Dolatocrinus bulbaceus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus caelatus Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus charlestownensis Miller & Gurley. Charlestown (Miller & Gurley).				×								
Dolatocrinus corporosus Miller & Gurley. Charlestown (Miller & Gurley).				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Dolatocrinus exornatus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus grandis Miller & Gurley				×								
Louisville, Ky. (Miller & Gurley).												
Dolatocrinus greenei Miller & Gurley				×								
Louisville, Ky. (Miller & Gurley).												
Dolatocrinus indianensis Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus lacus Lyon				×								
Falls of the Ohio and Silver Creek, Clark County (Lyon).												
Dolatocrinus lineolatus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus magnificus Miller & Gurley				×								
Falls of the Ohio (Miller & Gurley).												
Dolatocrinus marshi Lyon				×								
Falls of the Ohio and Charlestown.												
Dolatocrinus neglectus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus nodosus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus ornatus var. *asperatus* (Miller & Gurley)				×								
Charlestown (Miller & Gurley).												
Dolatocrinus pulchellus (Miller & Gurley)				×								
Charlestown (Miller & Gurley).												
Dolatocrinus succulus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus salebrosus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus spinosus Miller & Gurley				×								
Charlestown (Miller & Gurley).												
Dolatocrinus stellifer Miller & Gurley				×								
Louisville, Ky. (Miller & Gurley).												
Dolatocrinus stigmatus Hall (Calceocrinus stigmatus)			×									
Waldron (J. Hall).												
**Dorycrinus gouldi* Hall (Actinocrinus gouldi)								×				
Monroe County.												
**Dorycrinus unicornus* O. & S. (Actinocrinus unicornus)								×				
Washington County.												
Ectenocrinus simplex Hall	×											
Madison.												
Elentherocrinus cassedayi Y. & S.				×								
Clark County.												
Emperocrinus indianensis Miller & Gurley			×									
St. Paul (Miller & Gurley).												
Eretmocrinus adultus Wachs. & Spr.							×					
Canton and Edwardsville (Wachs. & Spr.).												
Eretmocrinus intermedius Wachs. & Spr.							×					
Bono (Wachs. & Spr.).												
Eretmocrinus originarius Wachs. & Spr.				×								
Bono (Wach. & Springer).												
**Eretmocrinus ramulosus* Hall (Actinocrinus ramulosus)							×					
Monroe and Harrison Counties.												
Eretmocrinus praegravis Miller, 18							×					
Washington County.												
**Eucalyptocrinus caelatus* Hall, 11			×									
Utica, Clark County, Waldron (James Hall).												
Eucalyptocrinus constrictus Hall, 11			×									
Waldron.												

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	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Eucalyptocrinus crassus* Hall, 11 ..... Miami County, Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Eucalyptocrinus elliptica Miller, 17 ..... Hartsville.	....	....	×	....	....	....	....	....	....	....	....	....
**Eucalyptocrinus elrodi* Miller, 17 ..... Hartsville, Waldron (Gorby).	....	....	×	....	....	....	....	....	....	....	....	....
**Eucalyptocrinus ovalis* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Eucalyptocrinus splendidus* Troost ..... Charlestown.	....	....	×	....	....	....	....	....	....	....	....	....
Eucalyptocrinus subglobosus Miller, 17 ..... Hartsville.	....	....	×	....	....	....	....	....	....	....	....	....
Eucalyptocrinus tuberculatus Miller & Dyer ..... Waldron (Miller & Dyer).	....	....	×	....	....	....	....	....	....	....	....	....
Eupachycrinus boydi (Meek & Worthen), 8 ..... Harrison County.	....	....	....	....	....	....	....	....	×	....	....	....
Exactinopora grandis M. & W., 8	....	....	....	....	....	....	×	....	....	....	....	....
Exactinopora sexradiata M. & W., 8 ..... Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Forbesocrinus meeki Hall, 8 ..... *see* Taxocrinus meeki.	....	....	....	....	....	....	....	....	....	....	....	....
Forbesocrinus ramulosus Hall, 8 ..... *see* Taxocrinus ramulosus.	....	....	....	....	....	....	....	....	....	....	....	....
Forbesocrinus shumardanus Hall, 8 ..... *see* Taxocrinus shumardanus.	....	....	....	....	....	....	....	....	....	....	....	....
Forbesocrinus speciosus Miller, 16 ..... Washington County.	....	....	....	....	....	....	×	....	....	....	....	....
Forbesocrinus washingtonensis Miller & Gurley ..... Washington County (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Forbesocrinus wortheni Hall, 16 ..... Spergen Hill, Harrison County, Crawfordsville (Whitfield).	....	....	....	....	....	....	×	×	×	....	....	....
Gazacrinus inornatus Miller, 18 ..... St. Paul.	....	....	×	....	....	....	....	....	....	....	....	....
Gennaeocrinus cornigerus L. & C. (Actinocrinus kentuckensis) ..... Clark County.	....	....	....	×	....	....	....	....	....	....	....	....
Gilbertsocrinus greni Miller & Gurley ..... Charlestown (Miller & Gurley).	....	....	....	×	....	....	....	....	....	....	....	....
Gilbertsocrinus indianensis M. & G. ..... Charlestown (Miller & Gurley).	....	....	....	×	....	....	....	....	....	....	....	....
**Glyptaster inornatus* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Glyptaster occidentalis Hall, 11 ..... Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Glyptaster occidentalis* var. *crebescens* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Glyptocrinus baeri Meek ..... *see* Xenocrinus baeri.	....	....	....	....	....	....	....	....	....	....	....	....
Glyptocrinus carleyi Hall, 11 ..... *see* Mariacrinus carleyi.	....	....	....	....	....	....	....	....	....	....	....	....
**Glyptocrinus decadactylus* Hall ..... Madison (?) (Meek.).	×	....	....	....	....	....	....	....	....	....	....	....
**Glyptocrinus dyeri* Meek ..... Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Goniasteroidocrinus lyonanus M. & G. ..... Indian Creek, near Crawfordsville (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
**Goniasteroidocrinus tuberosus* L. & C., 17 ..... Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Granatocrinus curtis Shumard, 15 ..... Washington County.	....	....	....	....	....	....	....	×	....	....	....	....

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	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Granatocrinus ficus, 10							×					
Hindostan, Monroe County.												
Granatocrinus granulosus M. & W., 10							×					
Hindostan, Monroe County.												
Granatocrinus norwoodi Owen & Shumard							×					
Washington County.												
Graphiocrinus wachsmuthi Meek & Worthen (Scaphiocrinus wachsmuthi)							×					
Washington County.												
Hetærocrinus heterodactylus Hall	×											
Ripley County.												
Heterocrinus suberassus												
see Iocrinus suberassus.												
Holocystites abnormis Hall			×									
Madison.												
Holocystites adipatus Miller, 17			×									
Jefferson County.												
Holocystites affinis Miller & Faber			×									
Madison (Miller & Faber).												
Holocystites amplus Miller, 18			×									
Madison (Miller).												
Holocystites aspei Miller & Gurley			×									
Madison (Miller & Gurley).												
Holocystites brauni Miller			×									
Jefferson County (Miller).												
Holocystites benedicti Miller, 17			×									
Jefferson County.												
Holocystites baculus Miller			×									
Ripley County (Miller).												
Holocystites colletti Miller, 17			×									
Jefferson County.												
Holocystites commodus Miller, 17			×									
Jefferson County.												
Holocystites cylindricus Hall			×									
Madison.												
Holocystites dyeri Miller			×									
Ripley County (Miller).												
Holocystites elegans Miller			×									
Jefferson County (Miller).												
Holocystites globosus Miller			×									
Jefferson County (Miller).												
Holocystites gorbyi Miller, 17			×									
Jefferson County.												
Holocystites indianensis Miller, 17			×									
Jefferson County.												
Holocystites madisonensis Miller, 17			×									
Jefferson County.												
Holocystites ornatissimus Miller, 17			×									
Jefferson County.												
Holocystites ornatus Miller			×									
Jefferson County (Miller).												
Holocystites ovatus Hall			×									
Madison.												
Holocystites papulosis Miller, 17			×									
Jefferson County.												
Holocystites pa[illegible] Miller, 17			×									
Jefferson [illegible]ty.												
Holocystites pe[illegible]us Miller			×									
Ripley County (Miller).												
Holocystites plenus Miller			×									
Jefferson County (Miller).												
Holocystites pustulosus Miller			×									
Waldron (Miller).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia	Mansfield.	Coal Measures.	Drift.
Holocystites rotundus Miller			×									
Ripley County (Miller).												
Holocystites scitulus Miller, 17			×									
Jefferson County.												
Holocystites spangleri Miller, 17			×									
Jefferson County.												
Holocystites sphæroidalis M. & G.			×									
Madison (Miller & Gurley).												
Holocystites splendens M. & G.			×									
Madison (Miller & Gurley).												
Holocystites subovatus Miller, 17			×									
Jefferson County.												
Holocystites subrotundus Miller			×									
Ripley County (Miller).												
Holocystites tumidus Miller			×									
Ripley County (Miller).												
Holocystites turbinatus Miller			×									
Orgood and Ripley County (Miller).												
Holocystites ventricosus Miller			×									
Ripley County (Miller).												
Holocystites wetherbyi Miller			×									
Ripley County (Miller).												
Holocystites wykoffi Miller, 17			×									
Jefferson County.												
Homocrinus polydactylus												
see Dendrocrinus polydactylus.												
Hydreionocrinus armiger M. & W., 8								×				
(Zeacrinus armiger) Harrison County.												
Hydreionocrinus mucrospinus McChesney											×	
(Zeacrinus mucrospinus) Rush Creek (McChesney).												
Hyptiocrinus typus W. & S.			×									
St. Paul (Wachs. & Spr.).												
Ichthyocrinus clarkensis Miller & Gurley							×?					
Clark County (Miller & Gurley).												
Ichthyocrinus simplex Hall			×									
Waldron.												
Ichthyocrinus spinozulus Miller & Gurley				×								
Clark County (Miller & Gurley).												
Ichthyocrinus subangularis Hall, 11			×									
Waldron (James Hall).												
Ichthyocrinus pusillus (?) Hall			×									
Waldron (J. Hall).												
Idiocrinus elongatus W. & S.			×									
St. Paul (Wachs. & Spr.).												
Idiocrinus suberassus Meek & Worthen	×											
Heterocrinus suberassus (W. S. T. Cornett).												
Idiocrinus ventricosus W. & S.			×									
St. Paul (Wachs. & Spr.).												
Indianocrinus punctatus M. & G.			×									
St. Paul (Miller & Gurley).												
Lampterocrinus parvus Hall, 11			×									
Waldron.												
Lecanocrinus greenei Miller & Gurley			×									
Louisville, Ky. (Miller & Gurley).												
**Lecanocrinus pusillus* Hall, 11			×									
Waldron (James Hall).												
Lepodocrinus moorei Meek	×											
Richmond (Meek).												
Lepidesthes colletti White, 16							×	×				
Crawfordsville, Washington County, Salem and Harrison Counties (C. A. White).												
Lepidesthes coreyi M. & W., 16							×					
Crawfordsville (Meek & Worthen).												

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Lichenocrinus dyeri Hall. Ripley County.	×											
Lichenocrinus pattersoni Miller. Versailles (?) (Miller).	×											
Lichenocrinus tuberculatus Miller. Ripley County, three miles south of Osgood (Miller).	×											
Lyriocrinus melissa Hall, 11 (Rhodocrinus melissa) (James Hall).			×									
Macrostylocrinus fasciatus Hall, 11. Waldron (James Hall).			×									
Macrostylocrinus indianensis M. & G. St. Paul (Miller & Gurley).			×									
Macrostylocrinus meeki Lyon (Actinocrinus meeki). Utica, Clark County.			×									
Macrostylocrinus ornatus Hall. Waldron (James Hall).			×									
Macrostylocrinus striatus Hall, 11. Waldron.			×									
Macrostylocrinus striatus var. *granulosus* Hall, 11. Waldron (James Hall).			×									
Mariacrinus aureatus Miller, 17. St. Paul.			×									
Mariacrinus carleyi Hall (Glyptocrinus carleyi) Waldron (James Hall).			×									
Mariacrinus granulosus Miller, 17. St. Paul.			×									
Mariacrinus obconicus Hall. Waldron and Clark County.			×									
Marsupiocrinus tennesseensis Roemer. Delphi.			×									
Megistocrinus abnormis Lyon (Actinocrinus abnormis). Clark County and Falls of the Ohio (Lyon).				×								
Megistocrinus expansus Miller & Gurley. Louisville, Ky. (Miller & Gurley).				×								
Megistocrinus hemisphericus M. & G. Clark County (Miller & Gurley).				×								
Megistocrinus knappi (Lyon & Cassaday). Falls of the Ohio (Lyon).				×								
Megistocrinus ornatus Miller & Gurley. Clark County (Miller & Gurley).				×								
Megistocrinus rugosus L. & C. Clark County, Falls of the Ohio.				×								
Megistocrinus spinosulus Lyon. Falls of the Ohio (Lyon).				×								
Melocrinus equalis Miller, 18. St. Paul.			×									
Melocrinus obconicus Hall, 11. Utica, Clark County, Waldron (James Hall).			×									
Melocrinus oblongus W. & S. St. Paul (Wachs. & Spr.).			×									
Melocrinus parvus W. & S. St. Paul (Wachs. & Spr.).			×									
Melonites indianensis M. & G. Greenville, Harrison Co. (Miller & Gurley.)								×				
Melonites multiporis Owen & Norwood, 8. Harrison County.							×	×				
Nucleocrinus angularis Lyon (Olivanites angularis). Falls of the Ohio.				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Kaysaw and St. Louis.	Caskaskia.	Mansfield.	Coal Measures.	Drift.
Nucleocrinus greenei M. & G. Louisville, Ky. (Miller & Gurley).				×								
**Nucleocrinus verneuili* Troost (Olivanites vernenili) Falls of the Ohio.				×								
Nucleocrinus venustus M. & G. Louisville, Ky. (Miller & Gurley).				×								
**Oligoporus danae* M & W. Lawrence County.							×					
**Oligoporus nobilis* M. & W., 8. Harrison County and Greencastle.							×					
Olivanites angularis Lyon. see Nucleocrinus angularis.												
Olivanites verneuili Troost. see Nucleocrinus verneuili.												
Ollacrinus tuberosus Lyon & Cass., 16. Crawfordsville.							×					
Onychaster flexilis M. & W., 16. Crawfordsville, Harrison County, Meek & Worthen.							×					
Onychocrinus cantonensis Miller, 16. Canton.							×					
**Onychocrinus exculptus* (Lyon & Casseday), 16 and 11. Washington County and Montgomery County (L. & C.), Crawfordsville.							×	×				
Onychocrinus parvus M & G. Shoals, Martin County (Miller & Gurley).									×			
**Onychocrinus ramulosus* L. & C., 16 and 11. Crawfordsville.							×					
Onychocrinus ulrichi Miller & Gurley, 16. Crawfordsville (Miller & Gurley).							×					
Onychocrinus whitfieldi Hall, 8. Harrison County.								×				
Palaeaster crawfordsvillensis Miller. Crawfordsville (Miller).							×					
Palaeaster speciosa M. & D. Richmond (James).	×											
Palaeaster wykoffi M. & G. Madison (Miller & Gurley).	×											
**Pentremites burlingtonensis* M. & W., 8. Harrison County, Hindostan, Monroe County							×					
**Pentremites calycinus* Lyon. Orange County.								×				
**Pentremites cervinus* Hall. Orange County.								×				
**Pentremites cherokeus* Troost. Orange County.									×			
**Pentremites conoideus* Hall, 12 and 10. Owen County, Montgomery County, Harrison County, Washington County, Greencastle, Spergen Hill, Bloomington, Jackson Co.							×	×				
Pentremites globosus Say, 8. Harrison County.									×			
**Pentremites godoni* DeFrance, 8 and 10. Reelsville, Putnam County, Harrison County, Owen County, Clay County, Orange County, Dubois, Crawford.?									×			
Pentremites grosvenori Shumard. see Troostocrinus grosvenori.												
**Pentremites koninckianus* Hall, 12. Monroe County, Greencastle, Spergen Hill, Bloomington, Washington County and Harrison County (Hall).								×				

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Pentremites laterniformis* Owen & Shumard, 8.. Harrison County and Bedford.	....	....	....	....	....	....	....	×	....	....	....	....
Pentremites lineatus Troost, 8..... *see* Troostocrinus lineatus.	....	....	....	....	....	....	....	....	....	....	....	....
Pentremites longicostalis Hall, 15..... Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
**Pentremites obesus* Lyon, 8..... Owen County, Clay County, Montgomery County, Harrison County.	....	....	....	....	....	....	....	×	×	....	....	....
Pentremites obliquatus, 8..... *see* Tricollocrinus obliquatus.	....	....	....	....	....	....	....	....	....	....	....	....
Pentremites pyramidatus Hall, 8..... Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
**Pentremites pyriformis* Say, 8 and 10..... Orange County, Reelsville, Putnam County, Montgomery County, Harrison County, Down Hill, Crawford County.	....	....	....	....	....	....	....	....	×	....	....	....
Pentremites quadrilateralis? Hall? 8..... Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
Pentremites reinwardti Troost..... *see* Troostocrinus reinwardti.	....	....	....	....	....	....	....	....	....	....	....	....
Pentremites robustus Lyon..... Orange County.	....	....	....	....	....	....	....	....	×	....	....	....
Pentremites subconoideus M. & W., 8..... Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
**Pentremites sulcatus* Roemer, 8..... Harrison County and Orange County.	....	....	....	....	....	....	....	×	×	....	....	....
**Pentremites symmetricus* Hall, 8..... Harrison County and Orange County.	....	....	....	....	....	....	....	....	×	....	....	....
Pentremites varsouviensis, 8..... *see* Tricoelocrinus varsouviensis.	....	....	....	....	....	....	....	....	....	....	....	....
Pentremites woodmani M. & W., 8..... *see* Tricoelicrinus woodmani.	....	....	....	....	....	....	....	....	....	....	....	....
Pentremites wortheni Hall, 8..... Harrison County, Owen County, Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Pisocrinus baccula Miller & Gurley..... St. Paul (Miller & Gurley).	....	....	×	....	....	....	....	....	....	....	....	....
Pisocrinus benedicti Miller..... Marion, Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Pisocrinus campana Miller, 17..... Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
**Pisocrinus gemmiformis* Miller..... Wabash County, Madison and Osgood.	....	....	×	....	....	....	....	....	....	....	....	....
**Pisocrinus globosus* Ringueberg..... St. Paul.	....	....	×	....	....	....	....	....	....	....	....	....
Pisocrinus gorbyi Miller, 17..... Wabash County and Marion.	....	....	×	....	....	....	....	....	....	....	....	....
**Platycrinus bonensis* White..... Bono, Lawrence County (C. A. White).	....	....	....	....	....	....	×	....	....	....	....	....
**Platycrinus discordens* Owen & Shumard..... Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
**Platycrinus halli* Shumard..... Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
**Platycrinus hemisphericus* M. & W., 16 and 11... Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
**Platycrinus lei* Lyon..... Jeffersonville.	....	....	....	×	....	....	....	....	....	....	....	....
Platycrinus lodensis M. & W., 15..... Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Platycrinus planus Owen & Shumard, 15..... Harrison County, Washington County.	....	....	....	....	....	....	×	....	....	....	....	....
Platycrinus saffordi Troost, 8..... Monroe County, Greencastle.	....	....	....	....	....	....	....	×	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Platycrinus sarac* Hall, Lonesville.								×				
**Platycrinus siluricus* Hall, 11, Waldron.			×									
Platycrinus subspinosus? Hall, 8, Harrison County.									×			
**Platycrinus yandelli* Owen & Shumard, 7, Crawfordsville (Collett).							×					
Poteriocrinus amoenus Miller, 17, Montgomery.							×					
Poteriocrinus arcanus Miller, 16, Washington County.							×					
Poteriocrinus bisselli Worthen, 8, Harrison County and Orange County.									×			
Poteriocrinus? calyx Hall, 11, Waldron.			×									
Poteriocrinus cantonensis Miller, 16, Canton.							×					
Poteriocrinus casei Meek, Richmond (Meek).	×											
Poteriocrinus chesterensis Meek & Worthen, 8, Harrison County.									×			
Poteriocrinus circumtextus M. & G., Crawfordsville (Miller & Gurley).							×					
Poteriocrinus concinnus M. & W., 16, Crawfordsville (Meek & Worthen).							×					
**Poteriocrinus coreyi* Worthen, 16, Crawfordsville.							×					
Poteriocrinus coryphaeus Miller, 17, Montgomery County.							×					
Poteriocrinus crawfordsvillensis Miller & Gurley, 16, Crawfordsville (Miller & Gurley).							×					
Poteriocrinus davisianus Miller, Deputy (Miller).				×								
Poteriocrinus depressus M. & W., 16, Crawfordsville.							×					
Poteriocrinus divaricatus Hall, 15, Washington County.								×				
Poteriocrinus gibsoni White, 16, Crawfordsville.							×					
Poteriocrinus grandis W. & S., 16, Crawfordsville.							×					
Poteriocrinus granilineus Miller & Gurley, 16, Crawfordsville (Miller & Gurley).							×					
Poteriocrinus gurleyi White, 16, Crawfordsville.							×					
**Poteriocrinus hoveyi* Worthen, Crawfordsville.							×					
**Poteriocrinus indianensis* M. & W., 16, Harrison County and Crawfordsville.							×					
Poteriocrinus missouriensis Shumard, 8, Harrison County.								×				
Poteriocrinus nettelrothanus Miller, Deputy (Miller).				×								
Poteriocrinus nodobrachiatus H., 16, Crawfordsville.							×					
**Poteriocrinus pencilliformis* Worthen, Crawfordsville.							×					
Poteriocrinus (*Dendocrinus*) *polydactylus* (Shumard), *see* Homocrinus polydactylus.												
Poteriocrinus robustus H., 16, Crawfordsville.							×					

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Poteriocrinus subaequalis W. & S., 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Poteriocrinus subramosus Miller, 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Poteriocrinus unicus H., 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Poteriocrinus versus Miller, 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Protaster granuliferus Meek. Moore's Hill (Meek).	×	....	....	....	....	....	....	....	....	....	....	....
Protaster gregarius M. & W., 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Rhodocrinus benedicti Miller, 18. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Rhodocrinus (*Lyriocrinus*) *melissa* Hall. *see* Lyriocrinus melissa.	....	....	....	....	....	....	....	....	....	....	....	....
Sabatocrinus swallosi Hall, 8. Harrison County.	....	....	....	....	....	×	....	....	....	....	....	....
Saccocrinus benedicti Miller, 18. St. Paul.	....	....	×	....	....	....	....	....	....	....	....	....
**Saccocrinus christyi* Hall, 11. Utica, Clark County, Waldron (Jas. Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Saccocrinus corbyi Miller, 17. Decatur County.	....	....	×	....	....	....	....	....	....	....	....	....
Saccocrinus howardi Miller, 18. St. Paul.	....	....	×	....	....	....	....	....	....	....	....	....
Saccocrinus umbrosus M. & G. St. Paul (Miller & Gurley).	....	....	×	....	....	....	....	....	....	....	....	....
**Scaphiocrinus aequalis* Hall, 8. Crawfordsville and Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus arrosus M. & G. Washington County (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus bellus Miller, 16. Bono.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus bonoensis Miller, 16. Bono.	....	....	....	....	....	....	×	....	....	....	....	....
**Scaphiocrinus coreyi*. Crawfordsville (Meek & Worthen).	....	....	....	....	....	....	×	....	....	....	....	....
**Scaphiocrinus decadactylus* Meek & Worthen, 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
**Scaphiocrinus depressus* M. & W. Crawfordsville (Meek & Worthen).	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus disparilis Miller, 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus equalis Hall. Crawfordsville (Meek & Worthen).	....	....	....	....	....	....	×	....	....	....	....	....
**Scaphiocrinus gibsoni* White, 10. Bono, Lawrence County, Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
**Scaphiocrinus gurleyi* White, 10. Crawfordsville (C. A. White).	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus granuliferus Miller, 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus graphicus Miller, 16. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus lacunosus Miller, 16. Bono.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus lyoni Miller. Montgomery County.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus maniformis Miller, 18. Washington County.	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus manus (Miller & Gurley) 16. Crawfordsville (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Scaphiocrinus martinensis M. & G. Shoals, Martin County (Miller & Gurley).	....	....	....	....	....	....	....	....	×	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Scaphiocrinus nodobranchiatus Hall, 7 Crawfordsville.							×					
Scaphiocrinus porrectus Miller? Crawfordsville.			×									
Scaphiocrinus praemorsus Miller, 16 Washington County.							×					
Scaphiocrinus repertus Miller, 16 Bono.							×					
**Scaphiocrinus robustus* Hall, 17 Crawfordsville (Hall).							×					
Scaphiocrinus unicus Hall, 8 Crawfordsville, Harrison County.							×					
Scaphiocrinus wachsmuthi see Graphiocrinus wachsmuthi.												
Steganocrinus benedicti Miller, 18 Canton, Washington County.							×					
Steganocrinus spergensis M. & G. Spergen Hill (Miller & Gurley).								×				
Stenaster grandis Meek Richmond (Meek).	×											
Stephanocrinus cornetti Miller, 18 Madison.			×									
Stephanocrinus elongatus Miller, 17 Madison.			×									
Stephanocrinus gemmiformis Hall, 11 Waldron (James Hall).			×									
Stephanocrinus hammelli Miller, 17 Madison.			×									
Stephanocrinus obpyramidalis Miller, 17 Madison.			×									
Stephanocrinus osgoodensis Miller 17 Osgood and Madison (Miller).			×									
Stereocrinus indianensis M. & G. Charlestown (Miller & Gurley).			×									
Stribalocystites gorbyi Miller, 18 St. Paul.			×									
Stribalocystites tumidus Miller, 17 St. Paul.			×									
Stribalocystites spheroidalis M. & G. St. Paul (Miller & Gurley).			×									
Strotocrinus perumbrosus Hall, 8 Harrison County.								×				
Synbathocrinus dentatus, O. & S., 8 Harrison County.								×				
Synbathocrinus oweni Hall Rockford (James Hall).						×						
Synbathocrinus? robustus Shumard, 8 Harrison County.							×	×				
**Synbathocrinus swallovi* Hall, 8 Harrison County, Spergen Hill (Whitfield).							×	×				
Synbathocrinus wachsmuthi M. & W., 8 see Cutillocrinus wachsmuthi.												
Synbathocrinus wortheni Hall, 8 Harrison County.							×					
Talarocrinus cornigerus Shumard Harrison County.									×			
**Talarocrinus sexlobatus* Shumard (Dichocrinus sexlobatus) Harrison County and Crawford County.								×	×			
Taxocrinus crawfordsvillenis M. & G. Crawfordsville (Miller & Gurley).							×					
**Taxiocrinus meeki* Hall (Forbesocrinus meeki) Harrison County.							×					

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield	Coal Measures	Drift.
**Taxiocrinus multibrachiatus* L. & C., 16. Crawfordsville	....	....	....	....	....	....	×	....	....	....	....	....
**Taxiocrinus multplicatus* var. *colletti*. Crawfordsville.	....	....	....	....	....	....	×	....	....	....	....	....
**Taxiocrinus ramulosus* Hall (Forbesocrinus ramulosus, 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Taxiocrinus shumardanus Hall (Forbesocrinus shumardanus), 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Taxiocrinus shumardi Hall, 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Taxiocrinus ungula Miller & Gurley. Crawfordsville (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Taxiocrinus subovatus Miller, 16. Canton.	....	....	....	....	....	....	×	....	....	....	....	....
Taxiocrinus splendens M. & G. Crawfordsville (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Tricoelocrinus obliquatus Roemer (Pentremites obliquatus). Spergen Hill, Monroe and Harrison County (R. P. Whitfield).	....	....	....	....	....	....	....	×	....	....	....	....
Tricoelocrinus varsouviensis Worthen (Pentremites varsouviensis). Greencastle.	....	....	....	....	....	....	....	×	....	....	....	....
Tricoelocrinus woodmani M. & W. (Pentremites woodmani), 15. Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Troostocrinus grosvenori Shumard (Pentremites grosvenori). Spergen Hill.	....	....	....	....	....	....	....	×	....	....	....	....
Troostocrinus lineatus Shumard (Pentremites lineatus), 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Troostocrinus nitidulus Miller & Gurley, 16. Lanesville.	....	....	....	....	....	....	×	....	....	....	....	....
Troostocrinus reinwardti Troost (Pentremites reinwardti). Utica, Clark County.	....	....	....	....	....	....	....	....	....	....	....	....
**Vasocrinus lyoni* Hall (Cyathocrinus hexadactylus), 16. Crawfordsville (J. Hall, Lyon & Casseday).	....	....	....	....	....	....	×	....	....	....	....	....
Vasocrinus sculptus Lyon. Falls of the Ohio (Lyon).	....	....	....	×	....	....	....	....	....	....	....	....
Xenocrinus baeri (Glyptocrinus baeri). Richmond (Meek).	×	....	....	....	....	....	....	....	....	....	....	....
Zeacrinus armiger Meek & Worthen, 8. see Hydreionocrinus armiger.	....	....	....	....	....	....	....	....	....	....	....	....
Zeacrinus bellulus M. & G. Shoals, Martin County (Miller & Gurley).	....	....	....	....	....	....	....	....	×	....	....	....
Zeacrinus doverensis M. & G. Dover Hill (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....
Zeacrinus dubius Miller, 16. Bono.	....	....	....	....	....	....	×	....	....	....	....	....
Zeacrinus intermedius Hall, 8. Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
**Zeacrinus maniformis* Y. & S. Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
Zeacrinus mucrospinus McChesney. see Hydreionocrinus mucrospinus.	....	....	....	....	....	....	....	....	....	....	....	....
Zeacrinus ramosus Hall, 8. Harrison County.	....	....	....	....	....	....	×	....	....	....	....	....
Zeacrinus salemensis M. & G. Salem (Miller & Gurley).	....	....	....	....	....	....	×	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield	Coal Measures.	Drift.
Zeacrinus troostianus M. & W., 8 Harrison County.							×					
Zophocrinus howardi Miller, 17 St. Paul.			×									
VERMES.												
Cornulites elevata Cozzens (Cozzens).				×								
**Cornulites proprius* Hall, 11 Waldron (James Hall).			×									
Ortonia minuta Madison (W. S. T. Cornett).	×											
Spirorbis annulatus Hall, 12 Spergen Hill, Bloomington, Harrison and Washington Counties.								×				
Spirorbis annulatus var. *nodulosus* Spergen Hill (Hall).								×				
Spirorbis carbonarius Dawson Newberg.											×	
Spirorbis inornatus Hall, 11 Waldron (James Hall).			×									
Spirorbis nodulosus Hall, 12 Spergen Hill and Lanesville.								×				
MOLLUSCOIDEA.												
BRYOZOA.												
Archimedes arctica (Ethridge)								×?				
**Archimedes laxus* Hall, 11 and 8 Harrison County.									×			
Archimedes meekanus Hall Orange County and Crawfordsville.								×	×			
**Archimedes owenanus* Hall, 16 Greencastle, Montgomery County, Crawfordsville, Owen County and Harrison County.							×	×	×			
**Archimedes reversus* Hall, 16 Crawfordsville, Harrison County and Washington County.							×	×				
**Archimedes swallovanus* Hall, 8 Harrison County.								×	×			
Archimedes wortheni Hall, 8 Harrison County, Orange County and Washington County.								×	×			
Beatricia nodulata Billings Richmond (James).	×											
Beatricia nodulosae Bill. Connersville (James).	×											
Buscopora dentata Ulrich see Buscopora lunata, Rominger.												
Buscopora lunata Rominger (Buscopora dentata) Ulrich Falls of the Ohio (Ulrich).				×								
Callopora cervicornis Hall, 11 Waldron.			×									
Callopora ? diversa Hall, 11 Waldron.			×									
Callopora elegantula Hall, 11 Osgood (Ulrich), Waldron.			×									

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Nursaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Callopora exsul Hall, 11 Waldron (Jas. Hall).			×									
Callopora singularis Hall, 11 Waldron (Jas. Hall).			×									
Ceramopora agellus Hall, 11 Waldron.			×									
Ceramopora confluens Hall, 11 Waldron.			×									
Ceramopora ? (Lichenalia) *explanata* H. 11 Waldron.			×									
Ceramopora labecula Hall, 11 Waldron.			×									
Ceramopora (*Paleschara?*) *nothus* H., 11 Waldron.			×									
Ceramopora raripora Hall, 11 Waldron.			×									
Clathropora frondosa Hall Osgood, Hanover (Foerste).		×										
Cleodictya gloriosa Hall, 16 Crawfordsville.							×					
Cleodictya? mobri Hall, 16 Crawfordsville.							×					
Clenopora semireducta Hall Falls of the Ohio (Ulrich).			×									
Coscinatrypa cribriformis var. *carinata* Hall Falls of the Ohio (Hall).				×								
**Coscinium asterium* Prout., 8 Harrison County and Washington County.							×	×				
Coscinium elegans Prout., 8 Washington County and Harrison County.							×	×				
Coscinium escharense Prout., 8 Spergen Hill (R. P. Whitfield).								×				
**Coscinium escharoides* Prout., 8 Harrison County, Edwardsville and Washington County.							×	×				
Coscinium kepserlingi Prout., 15 Washington County.								×				
**Coscinium michelinia* Prout., 8 Harrison County and Monroe County.							×	×				
Coscinium tuberculatum Prout., 8 Harrison County.								×				
**Coscinium worthenii* Prout., 8 Harrison County and Monroe County.							×	×				
**Cycloporo discordea* Prout Lanesville.								×				
Cyclopora polymorpha Prout., 8 Harrison County.									×			
Cystopora geniculata Hall Falls of the Ohio (Hall).				×								
Dictyophyton cattiliforme Whitf. see Phrogmodictya cattiliforme.												
Dictyophyton cylindricum Whitf., 16 Crawfordsville (Whitfield).							×					
Discotrypa devonica Ulrich Falls of the Ohio (Ulrich).				×								
Ectenodictya excentrica Hall, 16 Crawfordsville.							×					
Eridopora minima Ulrich Falls of the Ohio (Ulrich).				×								
Escharopora (*Ptilodyctia*) *angusta* Hall, 11 Waldron.			×									
Eructinopora grandis M. & W., 8 Harrison County.							×					

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Eractinopora sexradiata M. & W., 8. Harrison County.							×					
Fenestella (*Unitrypa*) *acanlis* Hall. see Unyeriypa acs alis.												
Fenestella (*Unitrypa*) *acanlis* var. *inclinis* H. Falls of the Ohio.				×								
Fenestella (*Polypora*) *aculeata* Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Polypora*) *adnata* Hall. see Polypora adnata.												
Fenestella aemea Hall, II. Waldron (James Hall).			×									
Fenestella ambigua Hall, II. see Loculipora ambigua.												
Fenestella bellistriata Hall, II. Waldron.			×									
Fenestella bifurca Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Fenestella bigeneris Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Fenestella biimbricata Hall. Falls of the Ohio (Hall).				×								
Fenestella biserrulata Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Polypora*) *celsipora* var. *minima* Hall. see Polypora celsipora var minima.												
Fenestella conferta Hall, II. Waldron.			×									
Fenestella confertipora Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Hemitrypa*) *cribrosa* Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Polypora*) *cultellata* Hall. see Polypora cultellata.												
Fenestella cultrata Hall. Falls of the Ohio (Hall).				×								
Fenestella curvijunctura Hall. Falls of the Ohio (Hall).				×								
**Fenestella delicata* Meek. Edwardsville.							×					
Fenestella depressa Hall. Falls of the Ohio (Hall).				×								
Fenestella equalis Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Unitrypa*) *fastigata* Hall. see Unitrypa fastigata.												
Fenestella hemitrypa Prout. Spergen Hill (R. P. Whitfield).								×				
Fenestella interrupta Hall. Falls of the Ohio (Hall).				×								
Fenestella (*Polypora*) *laevistriata* Hall. see Polypora laevistriata.												
Fenestella (*Polypora*) *laevinodata* Hall. see Polypora laevinodata.												
Fenestella latijunctura Hall. Falls of the Ohio (Hall).				×								
Fenestella lunulata Hall. Falls of the Ohio (Hall).				×								
**Fenestella parvulipora* Hall, II. Wabash County and Waldron (James Hall).			×									
Fenestella patellifera Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Fenestella perplexa Hall. Falls of the Ohio (Hall).				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Fenestella percrassinata Hall				×								
Falls of the Ohio (Hall).												
Fenestella pertenuis Hall, 11				×								
Falls of the Ohio.												
Fenestella plumosa Prout.												
see Hemytrypa plumosa.												
Fenestella (*Unitrypa*) *projecta* Hall				×								
Falls of the Ohio (Hall).												
Fenestella prolixa Hall, 11			×									
Waldron.												
Fenestella prisca		×										
Madison.												
Fenestella pulchella Ulrich				×								
Falls of the Ohio (A. E. Ulrich).												
Fenestella punctostriata Hall, 11			×									
Waldron (James Hall).												
Fenestella (*Polypora*) *quadrangularis* Hall				×								
Falls of the Ohio (Hall).												
Fenestella sculptilis Ulrich				×								
Falls of the Ohio (A. E. Ulrich).												
Fenestella semirotunda Hall				×								
Falls of the Ohio (Hall).												
Fenestella serrata Hall				×								
Falls of the Ohio (Hall).												
Fenestella shumardi Prout., 8							×	×				
Harrison County.												
Fenestella singularitas Hall				×								
Falls of the Ohio (Hall).												
Fenestella stellata Hall				×								
Falls of the Ohio (Hall).												
Fenestella (*Unytrypa*) *stipata* Hall												
see Unytrypa stipata.												
Fenestella (*Polypora*) *striatopora* Hall												
see Polypora striatopora.												
Fenestella (*Polypora*) *submutans* Hall												
see Polypora submutans.												
Fenestella tantulus Hall, 11			×									
Waldron (Jas. Hall).												
Fenestella (*Unytrypa*) *tegulata* Hall												
see Unitrypa tegulata.												
Fenestella tenella Hall				×								
Falls of the Ohio (Hall).												
Fenestella (*Unytrypa*) *transversa* Hall				×								
Falls of the Ohio (Hall).												
Fenestella variopora Hall				×								
Falls of the Ohio (Hall).												
Fenestella verrucosa Hall				×								
Falls of the Ohio (Hall).												
Fistulipora halli Rominger			×									
Waldron (C. Rominger).												
Fistulipora neglecta Rominger												
see Lichenalia concentrica.												
Fistulipora normalis Ulrich								×				
Falls of the Ohio (Ulrich).												
Fistulipora spergensis Rominger								×				
Spergen Hill (Rominger).												
Hiderella canadensis Hall				×								
Falls of the Ohio (Hall).												
Hemitrypa plumosa Prout., 15								×				
(Fenestella plumosa) Washington County.												
Idiotrypa parasitica Ulrich								×				
Osgood (Ulrich).												
Labechia montifera Ulrich	×											
Madison (James).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Lichenalia concentrica* Hall (Fistulipora neglecta) Waldron (Rominger).			×									
Lichenalia concentrica var. *maculata* Hall Waldron (James Hall).			×									
Lichenalia concentrica var. *pa: ula* Hall Waldron (James Hall).			×									
Lichenotrypa cavernosa Ulrich Falls of the Ohio (Ulrich).				×								
Lyrodictya romingeri Hall Crawfordsville.							×					
Orthopora rhombifera Hall (Trematopora orthopora rhombifera). Falls of the Ohio.				×								
Paleschara incrassata Hall, 11 Waldron (James Hall).			×									
Paleschara maculata Hall, 11 Waldron and Wabash County (James Hall).			×									
Paleschara offula Hall, 11 Waldron (James Hall).			×									
Paleschara? (*Chetetes?*) *sphaerion* Hall, 11 Waldron (James Hall).			×									
Paleschara tuberculata Prout Spergen Hill (R. P. Whitfield).								×				
Phractopora cristata Hall Falls of the Ohio (Hall).				×								
Phractopora cristata var. *lineata* Hall Falls of the Ohio.				×								
Phaenopora multifida (*Van Cleve*) Hall Hanover (Foerste).		×										
Phragmodictya cutillaformis Whitfield, 16 Crawfordsville.							×					
Phragmodictya lineata Hall, 16 Crawfordsville.							×					
Phragmodictya patilliformis, 16 Crawfordsville.							×					
Phynospongia dawsoni Whitf. (*Uphantaenia dawsoni*) Crawfordsville (Whitfield).							×					
Pileotrypa clivulata Hall Falls of the Ohio (Hall).				×								
Pileotrypa denticulata Hall Falls of the Ohio.				×								
Polypora adnata Hall (*Fenestella* (*Polypora*) *adnata*) Falls of the Ohio.				×								
Polypora blandida Ulrich Falls of the Ohio (Ulrich).				×								
Polypora celsipora var. *minima* Hall. (*Fenestella* (*Polypora*) *celsifrora* var. *minima*) Falls of the Ohio (Hall).				×								
Polypora cultellata Hall (*Fenestella* (*Polypora*) *cultellata*) Falls of the Ohio (Ulrich).			×									
Polypora halliana Prout, 8 Harrison County.								×				
Polypora laevistriata Hall (*Fenestella* (*P.*) *laevistriata*) Falls of the Ohio (James Hall).			×									
Polypora laevinodata Hall (*Fenestella* (*Polypora*) *laevinodata*) Falls of the Ohio (Ulrich).			×									
**Polypora strangula* White Dubois County.											×	

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Polypora submarginata Meek. Dubois County.											×	
Polypora submutans Hall (*Fenestella* (*P.*) *submutans*). Falls of the Ohio (Ulrich).			×									
Polypora quadrangularis Hall (*Fenestella* (*Polypora*) *quadrangularis*). Falls of the Ohio (Hall).				×								
Polypora transversa Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Prismopora serrata Meek (*Stictopora serrata*), 8. Harrison County.							×	×				
Ptilodictya carbonaria, 8. see Stictopora carbonaria.												
Ptilodictya falciformis Nich., 12.	×											
Ptilopora pronti Hall, 8. Harrison County.							×					
Rhinopora verrucosa Hall. Hanover (Foerste).		×										
Sagenella elegans Hall. Wabash County and Waldron (James Hall).			×									
Scalaripora scalariformis Hall. Falls of the Ohio (Hall).				×								
Scalaripora subconcava Hall. Falls of the Ohio.				×								
Semicoscinium infraporosa Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Semicoscinium obliquatum Ulrich. Falls of the Ohio (A. E. Ulrich).				×								
Semicoscinium rhomboideum Prout. Falls of the Ohio (Prout).				×								
Semicoscinium tuberculatum Prout. Falls of the Ohio (Prout).				×								
Stictopora carbonaria Meek, 8. Harrison County.							×					
Stictopora gilberti (Meek) Ulrich. Falls of the Ohio.				×								
Stictopora orbipora Hall, 11. Waldron (Hall).			×									
Stictopora ovatipora Hall. Falls of the Ohio.				×								
Stictopora serrati Meek, 8. see prismopora serrati.												
Stictopora similis Hall, 11. Waldron (James Hall).			×									
Stictopora vermicula Hall. Falls of the Ohio (Hall).				×								
Stomatopora auloporoides Nich. Richmond.	×											
Stomatopora frondosa James. Madison.	×											
Stomatopora inflata Hall. Madison.	×											
Stromatocerium richmondense Miller. Richmond (Miller).	×											
Subretepora angulata Hall. Delaware County.			×									
Synocladia biserialis Swallow, 13. Throughout the coal measures (C. A. White) Harrison County.								×	×		×	
Thamniscus niagarensis Hall, 11. Waldron (James Hall).			×									

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Trematella annulata (*Trematopora* (*Trematella*) *annulata*)				×								
Falls of the Ohio (Hall).												
Trematopora (*Trematella*) *annulata* Hall												
see Trematella annulata.												
Trematopora (*Trematella*) *arborea* Hall				×								
Falls of the Ohio (Hall).												
Trematopora (*Chaetetes*) *crebripora* Hall, II			×									
Waldron.												
Trematopora echinata Hall, II			×									
Waldron (James Hall).												
Trematopora spiculata Hall, II			×									
Waldron (James Hall).												
Trematopora granulifera Hall, II			×									
Waldron and Wabash County (James Hall).												
Trematopora halli Ulrich			×									
Waldron (Ulrich).												
Trematopora hirsuta Hall				×								
Clark County.												
Trematopora infrequens Hall, II			×									
Waldron (James Hall).												
Trematopora minuta Hall, II			×									
Waldron (James Hall).												
Trematopora oscitum Hall, II			×									
Waldron (James Hall).												
Trematopora (*Orthopora*) *regularis* Hall				×								
Falls of the Ohio (Hall).												
Trematopora (*Orthopora*) *rhombifera* Hall												
see Orthopora rhombifera.												
Trematopora spiculata Hall			×									
Waldron (James Hall).												
Trematopora varia Hall, II			×									
Waldron and Wabash County (James Hall).												
Trematopora (*Trachypora?*) *macropora* H., II			×									
Waldron.												
Trematopora variolata Hall, II			×									
Waldron (James Hall).												
Trematopora whitfieldi Ulrich			×									
Waldron (Ulrich).												
Unytrypa acaulis (*Fenestella* (*Unytrypa*) *acaulis*)				×								
Falls of the Ohio (Hall).												
Unytrypa conferta Ulrich				×								
Falls of the Ohio (A. E. Ulrich).												
Unytrypa fastigata Hall (*Fenestella* (*Unytrypa*) *fastigata*)				×								
Falls of the Ohio (Hall).												
Unytrypa retrusa Ulrich				×								
Falls of the Ohio (A. E. Ulrich).												
Unytrypa stipata Hall (*Fenestella* (U.) *stipata*)				×								
Falls of the Ohio (Hall).												
Unytrypa tegulata Hall (*Fenestella* (U.) *tegulata*)				×								
Falls of the Ohio (Hall).												
Uphantaenia dawsoni Whitf.												
see Physiospongia dawsoni.												
†BRACHIOPODA.												
Ambocelia umbonata Conrad, II				×								
Shelby County.												
Anastrophia internascens Hall, II			×									
Waldron (James Hall).												
Anastrophia recneuili Hall			×									
Waldron.												

†The author regrets that he has been unable to adopt in the present list the revised nomenclature of the *Brachiopoda* used by Mr. Schuchert in Bull. 87 U. S. G. S., owing to the appearance of that work after the present paper was in the hands of the printer.

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Athyris ambigua Sowerby, 8 and 10								×	×			
Orange County, Owen County, Putnam County, Montgomery County.												
Athyris densa H. & C.								×				
Washington County (Hall & Clark).												
**Athyris hirsuta* Hall, 12.								×	×			
Greencastle, Washington County, Bloomington, Harrison and Monroe County.												
Athyris incrassata Hall, 8.								×				
Harrison County.												
**Athyris lamellosa* L'Eveillé, 8.							×	×				
Harrison County, Washington County, Greencastle and Monroe County, Crawfordsville (Hall & Clark).												
Athyris planosulcatus Phillips, 8.								×				
Warren County.												
Athyris royissi Leveille, 8							×	×	×			
Harrison County, Crawfordsville and Orange County.												
**Athyris subquadrata* Hall, 8.								×				
Harrison County.												
**Athyris spiciferoides* Eaton			×	×								
Utica, Clark County and Charlestown.												
**Athyris sublamellosa* Hall, 8.							×		×			
Greencastle, Harrison County, Reelsville and Putnam County.												
**Athyris subtilita* Hall, 13.									×		×	
Vanderburgh County, Harrison County, Orange County, Owen County, Montgomery County, Clay County (C. A. White).												
**Athyris trinuclea* Hall (*Terebratula trinuclea*), 12.								×				
Greencastle, Spergen Hill, Monroe County, Harrison County, Washington County, Bloomington (Hall).												
Athyris vittata Hall, 11.				×								
Falls of the Ohio. Charlestown Ldg. (Nettleroth).												
**Atrypa aspera* Schlotheim			×	×								
Falls of the Ohio, Charlestown, Clark County (Nettleroth).												
Atrypa cuspidata												
see Triplesia cuspidata.												
Atrypa ellipsoida Nettleroth				×								
Falls of the Ohio (Nettleroth).												
Atrypa marginalis Dalman		×										
Hanover (Foerste).												
Atrypa marginalis var. *multi-striata* Foerste		×										
Hanover (Foerste).												
**Atrypa reticularis* Linn., 11.		×	×	×								
Henry County, Utica, Clark County, Madison, Falls of the Ohio, Wabash County, Charlestown, Carroll County, Waldron (Hall).												
Atrypa latacorrugata Foerste		×										
Ripley County (Foerste).												
Atrypa reticularis var. *niagarensis* Nettleroth			×									
Clark County (Nettleroth).												
**Camarophoria subtrigona* Meek & Worthen							×					
Harrison County and Crawfordsville.												
Camarospira eucharis Hall				×								
Cass County (Hall & Clark).												
Camarotoechia carolina Hall				×								
Falls of the Ohio (Hall & Clark).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Chonetes acutiradiatus Hall				×								
Falls of the Ohio, Utica and Clark County (James Hall) (Nettleroth).												
Chonetes coronata Conr.				×	×							
Scott County, New Albany (Borden).												
**Chonetes fisheri* N. & P.					×							
Montgomery County.												
**Chonetes granuliferus* Owen, 8.									×		×	
Harrison County and Vigo County.												
**Chonetes lepidus* Hall					×							
New Albany, Scott County, Lexington and Jennings County (Whitfield).												
Chonetes logani Norwood & Pratten, 8.						×	×					
Harrison County.												
Chonetes mesolobus N. & P.											×	
Clay County and Vanderburg County.												
Chonetes nana de Verneuil				×								
Falls of the Ohio (Norwood & Pratten).												
Chonetes nova-scotia Hall, 11			×									
Waldron (James Hall).												
**Chonetes planumbonus* M. & W., 8.						×	×	×				
Clark County, Crawfordsville, Washington and Harrison Counties.												
Chonetes subquadrata Nettleroth				×								
Falls of the Ohio (Nettleroth).												
Chonetes undulatus, Hall, 11			×									
Waldron (James Hall).												
Chonetes verneuilianus N. & P., 13											×	
Every county in coal measures (C. A. White).												
**Chonetes yandellanus* Hall, 11			×									
Falls of the Ohio, Utica and Clark County (Nettleroth).												
Cleiothyris hirsuta Hall								×				
Washington County (Hall & Clark).												
Coelospira disparilis Hall, 11			×									
Waldron (Hall).												
Crania bordeni Hall & Whitf.				×								
Watson (Nettleroth).												
Crania greenii Miller, 18				×								
Falls of the Ohio.												
**Crania laelia*	×											
Richmond and Versailles (M. & F.).												
Crania modesta White and St. John, 13											×	
Vermillion and Sullivan Counties (C. A. White).												
Crania reticularis Miller	×											
Brookville (Miller).												
**Crania setifera* Hall, 11			×									
Waldron (James Hall).												
Crania siluriana Hall, 11			×									
Waldron (James Hall).												
Crania spinigera Hall, 11			×									
Waldron.												
Cryptonella leos Hall				×								
Clark County.												
Cryptonella ovalis Miller, 17				×								
Bunker Hill.												
Cyrtina crassa Hall				×								
Falls of the Ohio, Utica (Nettleroth).												
**Cyrtina hamiltonensis* Hall				×								
Clark County (Nettleroth).												
Cyrtina hamiltoniae var. *recta* Hall				×								
Falls of the Ohio (Nettleroth.)												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Derbya crassa Meek & Hayden (H. crassus), 8 and 13. Harrison County.									×		×?	
Derbya ruginosa Hall & Clarke. New Providence (Hall).							×					
Delthyris acutilirata Conr. *see* Orthis acutilirata.												
**Discina ampla* Hall. Charlestown.				×								
**Discina convexa* Shumard, 13. Dubois County.											×	
Discina doria Hall. Clark County (Nettleroth).				×								
**Discina grandis* Hall. Watson and Charlestown (Nettleroth).				×								
Discina seneca Hall. Charlestown.				×								
**Discina nitida* Phillips, 8. Harrison County? (Collett), (C. A. White).											×	
Eichwaldia reticulata Hall, 11. Waldron (James Hall).			×									
Eumetria verneuiliana Hall (Retzia verneuiliana) 12. Harrison County, Bloomington and Spergen Hill (Hall), Greencastle.								×				
**Eumetria vera* Hall, 8. Harrison, Montgomery and Orange Counties.								×	×			
Hemipronites crassus Meek & Hayden, 13. *see* Derbya crassa.												
Hemipronites crenistriatum Phillips. *see* Streptorhynchus crenistriatum.												
Hemipronites subtenta Conr. *see* Streptorhynchus subtentum.												
Hemipronites sulcata de Verneuil. *see* Streptorhynchus sulcatum.												
**Leiorhynchus limitare* Vanuxem 6. Scott County.					×							
**Leiorhynchus quadricostatum* Vanuxem, 8. Harrison County, New Albany, Jennings County, Scott County (Whitfield) (Nettleroth).				×	×	×						
**Leptaena sericea* Sowerby? (Foerste). Ripley County, Madison, Richmond, etc. (Cornett).	×	×										
Leptaena transversalis? Wahlenberg, 6. Madison.	×											
Leptaena transversalis var. *elegantula* Foerste. Hanover (Foerste).		×										
Lingula crawfordsvillensis Gurley. Crawfordsville (Gurley).							×					
Lingula gibbosa Hall, II. Waldron.			×									
Lingula indianensis M. & G. Crawfordsville (Miller & Gurley).							×					
**Lingula spatulata* Vanuxem. Jennings County and New Albany.				×								
Lingula subspatulata M. & W. Clark County.			×									
Lingula triangulata Nettleroth. Falls of the Ohio (Nettleroth).				×								
Lingula umbonata Cox, 13. Vermillion County (C. A. White).											×	
Lingula vanhorni Miller. Versailles and Ripley County (Miller).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Meekella striatocostata Cox, 13. Vigo County.	....	....	....	....	....	....	....	....	....	....	×	....
**Meristella harkinsi* Hall. Charlestown.	....	....	....	×	....	....	....	....	....	....	....	....
**Meristella nasuta* Hall. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Meristella rectirosta Hall, 11. Waldron	....	....	×	....	....	....	....	....	....	....	....	....
Meristella umbonata? Billings. Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
**Meristella uninulcata* Conrad. Utica, Clark County and Falls of the Ohio (Nettleroth).	....	....	×	....	....	....	....	....	....	....	....	....
Meristina maria Hall, 11. Waldron (James Hall) (Nettleroth).	....	....	×	....	....	....	....	....	....	....	....	....
**Meristina nitida* Hall, 1. Waldron and Wabash County (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Nucleospira concinna Hall. Utica, Clark County and Falls of the Ohio (Nettleroth).	....	....	×	....	....	....	....	....	....	....	....	....
Nucleospira indianensis Miller, 17. Bunker Hill.	....	....	....	×	....	....	....	....	....	....	....	....
**Nucleospira pisiformis* Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Orthis (Platystr.) acutilirata* Conr., 10. Richmond, Madison, and Clarksville (Miller & White).	×	....	....	....	....	....	....	....	....	....	....	....
Orthis benedicti Miller, 17. Wabash County and Hartsville).	....	....	×	....	....	....	....	....	....	....	....	....
Orthis biforata Schlotheim. Hanover, Madison and Osgood (Foerste).	....	×	×	....	....	....	....	....	....	....	....	....
**Orthis biloba* Linn., 11. Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
**Orthis borealis* Billings. Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Orthis calligrama Dalman. Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
Orthis (Orthis dinorthis) calligrama Dalman. Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
**Orthis centrosa* Miller. Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Orthis dentata* Pander. Madison and Ripley County.	×	....	....	....	....	....	....	....	....	....	....	....
**Orthis dubia* Hall, 12. Harrison County, Spergen Hill, Bloomington, Greencastle, and Washington County (Hall)	....	....	....	....	....	....	×	×	....	....	....	....
**Orthis ella* Hall. Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Orthis elegantula* Dalman, 11. Waldron (James Hall), Hanover (Foerste), Wabash County.	....	×	×	....	....	....	....	....	....	....	....	....
**Orthis emacerata* Hall. Madison and Franklin County (Moore).	×	....	....	....	....	....	....	....	....	....	....	....
Orthis emacerata var. *multisecta*, 6. Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Orthis fissicosta* Hall. Madison and Lawrenceburg (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Orthis goodwini Nettleroth. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Orthis hybrida* Sowerby, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Orthis insculpta Hall, 6. Madison, Franklin County (Moore).	×	....	....	....	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Orthis iowensis Hall, 10. Charlestown.				×								
**Orthis keokuk* Hall (O. umbraculum). Jackson County, Smithville and Spergen Hill (Hall).							×	×				
**Orthis laticosta* Meek. Madison.	×											
**Orthis leucosia* Hall. Charlestown.				×								
**Orthis licia* Billings. Utica, Clark County (Nettleroth).				×								
**Orthis lynx* Eichwald. Ri ley County, Madison and Franklin County.	×											
Orthis michelina L'Eveille, 8. Washington County, Harrison County, Scott County (Borden).						×	×					
Orthis occasus Hall. Rockford (James Hall).					×							
Orthis occidentalis Hall, 10. Richmond, Madison, Ripley, Madison and Franklin County (Moore).	×											
Orthis pecosi Marcou, 13. Vermillion County (C. A. White).											×	
Orthis penelope Hall. Scott County (Borden).						×						
Orthis plicata var. *vanuxemi*. *see* Spirifer vanuxemi.												
**Orthis plicatella* Hall. Madison.	×											
**Orthis resupinata* Martin. Montgomery County.									×			
**Orthis retrossa* Salter? Madison (Meek).	×											
Orthis subnodosa Hall, 11. Waldron (Hall).			×									
**Orthis sinuata* Hall. Ripley County, Madison, Versailles and Weisberg.	×											
**Orthis subquadrata* Hall, 10. Richmond, Versailles and Madison (Miller), Franklin County (Moore), Richmond and Madison (Meek).	×											
**Orthis testudinaria* Dalman. Newton County and Ripley County.	×		×?									
**Orthis tricenaria* Conr. Madison.	×											
Orthis umbraculum DeKoninck. *see* Orthis keokuk.												
Orthis vanuxemi Hall. Clark County (Hall).				×								
Pentamerella arata Hall. Clark County, Falls of the Ohio (Hall).				×								
Pentamerella papilionensis Hall. Falls of the Ohio (Nettleroth).				×								
Pentamerella thusnelda Nettleroth. Falls of the Oh o (Nettleroth).				×								
Pentamerus aratus. *see* Pentamerella aratus Conrad.												
Pentamerus chicagoensis Winch. & Marcy. Carroll County.			×									
Pentamerus colletti Miller, 17. Kokomo.			×									

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield	Coal Measures	Drift.
Pentamerus fornicatus var., Hall, 11 Waldron.			×									
**Pentamerus galeatus* Dalman Huntington			×									
**Pentamerus knighti* Sowerby Carroll County and Clark County. (Nettleroth).			×	×								
Pentamerus l gueatus Conr. Del hi (Conrad).			×									
Pentamerus nysius Hall, 11 Charleston and Huntington.			×									
**Pentamerus oblongus* Sowerby, 11 Huntington and Jefferson Counties and Delaware county.			×									
Pentamerus occidentalis Hall Carroll County.			×									
**Pentamerus ventricosus* Hall Madison.			×									
Pholidops calceola Hall & Clark, 11 Falls of the Ohio (Clark & Hall).			×									
Pholidops ovalis Hall, 11 Waldron (James Hall).			×									
Productella semiglobosa Nettleroth Falls of the Ohio (Nettleroth				×								
**Productella spinulicosta* Hall (Productus spinulicos a), 11 Charlestown and Shelby County.				×								
**Productella subtata* Hall Falls of the Ohio.				×								
Productella subaculeata Hall Jeffersonville (Hall).			×	×								
Productella subaculeatea var. *cataracta* H. & W. Utica, Clark County (Nettleroth).			×									
**Productus æquicostatus* Shumard Dubois County.											×	
Productus alternatus Norwood & Pratt., 8 Harrison County and Crawfordsville.							×					
Productus altonensis N. & P., 8 Harrison County.								×	×			
**Productus biseriatus* Hall, 12 Washington County, Bloomington and Tippecanoe County.								×				
Productus buchianus de Koninck Posey County (Norwood & Pratt).											×	
Productus burlingtonensis M. & W. Harrison county.							×					
**Productus cestriensis* Worthen									×			
Productus cora d'Orbigny, 8 Owen County, Reelsville, Putnam County, Crawfordsville, Clay County, Orange County, Greencastle, Vanderburgh County, Montgomery County, Monroe County, Harrison County, Quincy, Jackson county.							×	×				
**Productus cora* var., *mogoyoni* Marcon Spergen Hill.								×				
**Productus costatus* Sowerby, 13 and 10 Throughout the coal measures.											×	
Productus fimbriatus Sowerby Posy County (Norwood & Pratt.)											×	
Productus flemingi Sowerby Leavenworth (Norwood & Pratt.) and Harrison County.							×		×?			

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Productus indianensis Hall, 12												
Spergen Hill (Hall), Tippecanoe County and Washington County.												
Productus inflatus McChesney												
see P. semireticulatus.												
**Productus keokuk* Hall							×					
Putnam County.												
Productus longispinus Sowerby, 13											×	
Throughout the coal measure region (C. A. White).												
**Productus magnus* M. & W., 16						×						
Crawfordsville and Harrison County.												
Productus marginicinctus Prout												
Spergen Hill.												
**Productus mesialis* Hall							×					
Crawfordsville.												
**Productus nebrascensis* Owen, 13											×	
Fountain, Vermillion, Pike and Vigo Counties (C. A. White).												
**Productus ovatus* Hall								×				
New Providence (Hall & Clark), Greencastle and Washington County.												
**Productus punctatus* Martin, 16 and 11							×	×	×		×	
Crawfordsville (Vermillion, Vigo and Sullivan Counties, C. A. White), Montgomery, Clay County, Harrison County, Washington County, Greencastle, Owen County, Vanderburgh County and Monroe County.												
Productus reticulatus Gabb						×						
Scott County (Borden).												
**Productus semireticulatus* Martin, 13							×	×	×		×	
Spergen Hill (R. P. Whitfield), Clay County, Tippecanoe County, Jacksonville, Montgomery County, Crawfordsville, Reelsville, Putnam County, Harrison County, Orange County, Washington County. Throughout the coal measures (C. A. White).												
**Productus setigerus* Hall												
Crawfordsville												
Productus splendens Nor. & P.											×	
Posey County (Norwood & Pratt.)												
**Productus tenuicostatus* Hall, 8												
Washington County, Greencastle and Harris n County.												
Productus undiferous de Kon											×	
Posey County (Norwood & Pratt.)												
Productus vittatus Hall, 8								×				
Spergen Hill (R. P. Whitfield), Harrison County, Crawfordsville.												
Productus wabashensis Nor. & P.											×	
New Harmony (Norwood & Pratt.)												
**Productus wortheni* Hall							×					
Putnam County.												
Rensselaeria ovoides Eaton				×								
Madison (Cornett).												
**Retzia crax* Hall, 11			×									
Waldron (James Hall)												
Retzia mormonii Marcou, 13											×	
Widely distributed (C. A. White).												
**Retzia vera*												
see Eumetria vera.												
**Retzia verneuilana* Hall												
see Eumetria verneuilana.												

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	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Rhynchonella acinus var. *convexa* Foerste ..... Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
**Rhynchonella acinus* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Rhynchonella capax* Conrad, 10 ..... Ripley County, Madison, Boone County, Franklin County (Moore), Richmond and Madison (Meek).	×	....	....	....	....	....	....	....	....	....	....	....
Rhynchonella carolina Hall ..... Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
Rhynchonella colletti Miller, 18 ..... Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Rhynchonella cuneata Sow., 11 ..... Delaware County.	....	....	×	....	....	....	....	....	....	....	....	....
**Rhynchonella dentata* Hall, 10 ..... Richmond, Madison (Meek).	×	....	....	....	....	....	....	....	....	....	....	....
Rhynchonella explanata McChesney ..... New Harmony (McChesney).	....	....	....	....	....	....	....	....	×	....	×	....
Rhynchonella greeniana Ulrich ..... New Albany (Ulrich).	....	....	....	....	....	×	....	....	....	....	....	....
**Rhynchonella grosvenori* Hall, 12 ..... Spergen Hill, Bloomington (Hall), Washington County, Harrison County, Lanesville.	....	....	....	....	....	....	....	×	....	....	....	....
**Rhynchonella indianensis* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Rhynchonella kokomoensis Miller, 18 ..... Kokomo (Miller).	....	....	×	....	....	....	....	....	....	....	....	....
Rhynchonella louisvilleensis Nettleroth ..... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Rhynchonella macra* Hall, 12 ..... Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
**Rhynchonella missouriensis* Shumard ..... Rockford (Meek and Worthen).	....	....	....	....	....	×	....	....	....	....	....	....
**Rhynchonella mutata* Hall, 12 ..... Washington County, Harrison County, Monroe County, Montgomery County, Orange County and Greencastle.	....	....	....	....	....	....	×	×	×	....	....	....
**Rhynchonella neglecta* Hall, 11 ..... Waldron (Hall), Madison.	....	×	×	....	....	....	....	....	....	....	....	....
Rhynchonella (*Etonia*) *obsolescens* Hall ..... Rockford (Hall).	....	....	....	....	....	×	....	....	....	....	....	....
Rhynchonella osagensis, 8 ..... see R. utah.	....	....	....	....	....	....	....	....	....	....	....	....
**Rhynchonella vicinula* Hall, 12 ..... Spergen Hill (Hall) Greencastle, Washington Co., Harrison Co. and Monroe Co.	....	....	....	....	....	....	....	×	....	....	....	....
**Rhynchonella stricklandii?* Sowerby, 11 ..... Waldron (James Hall) (Nettleroth).	....	....	×	....	....	....	....	....	....	....	....	....
**Rhynchonella subcuneata* Hall, 12 ..... Spergen Hill and Bloomington (Hall), Montgomery County, Orange County, Owen County, Greencastle, Crawfordsville, Quincy, Putnam County, Harrison County and Monroe County.	....	....	....	....	....	....	×	×	×	....	....	....
Rhynchonella tennesseensis Roemer, 10 ..... Waldron (White).	....	....	×	....	....	....	....	....	....	....	....	....
Rhynchonella tenuistriata Nettleroth ..... (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Rhynchonella tethys Billings, 11 ..... see tenochisma tethys.	....	....	....	....	....	....	....	....	....	....	....	....
**Rhynchonella utah* Marcou (R. osagensis), 13 and 8 ..... Throughout the coal measures (C. A. White), Harrison County.	....	....	....	....	....	....	....	....	×	....	×	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia	Mansfield.	Coal Measures.	Drift
**Rhynchonella ventricosa* Hall ..... Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Rhynchonella whitii* Hall, 11..... Wal ron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Rhynchonella wortheni Hall, 15..... Washington County	....	....	....	....	....	....	....	×	....	....	....	....
**Rhynchonotreta cuneata* var. *americana* Hall, 11. (Rhynchonella cuneata var. americana). (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Schizocrania filosa* Hall..... Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Spirifer acuminata* Conrad 10..... Falls of the Ohio (Hall) Clark, Scott, Jefferson, Jennings and Jackson Counties (Kindle).	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer angusta* Hall, 11..... Charlestown and Shelby County.	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer arctisegmenta* Hall..... Clark County. (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer aspera Hall, 8..... H rrison County.	....	....	....	....	....	×	....	....	....	....	....	....
Spirifer atwaterana Miller..... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer auritisma..... Carroll County.	....	....	....	....	....	....	....	....	....	....	....	....
Spirifer bicostata? var. *petila* Hall, 11..... Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Spirifer bifurcata* Hall, 12..... Spergen Hill (Hall), Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
**Spirifer biplicata* Hall..... Morgan County.	....	....	....	....	....	×	....	....	....	....	....	....
Spirifer byrnesi Nettleroth ..... Clark County (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer camerata* Morton, 13 and 10..... Throughout the coal measures (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
**Spirifer carteri* Hall, 8..... *see* Syringothyris carteri.	....	....	....	....	....	×	×	....	....	....	....	....
**Spirifer consobrina* d'Orbigny..... Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer crispa* Hisinger, 11..... Waldron (James Hall), Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Spirifer crispa var. *simplex* Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Spirifer cuspidatus, 7..... Owen County.	....	....	....	....	....	....	×	....	....	....	....	....
Spirifer davisi Nettleroth..... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer divaricata* Hall..... Clark County and Bunker Hill (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer duodenaria Hall. ..... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer eudora Hall, 11..... Miami County, Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Spirifer euruteines* Owen, 11..... Falls of the Ohio (Hall), Charlestown (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer euruteines var. *fornacula* Hall..... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer fastigata M & W., 16..... *see* S. mortonana.	....	....	....	....	....	....	....	....	....	....	....	....
Spirifer fimbriata Conrad..... Clark County (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer forbesi* N. & P..... Gosport.	....	....	....	....	....	....	....	×	....	....	....	....

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Spirifer fultonensis Worthen, 8. Harrison county.								×				
Spirifer glabra Martin, 15. Washington County.								×				
**Spirifer gregaria* Clapp. 10. Falls of the Ohio (Hall), Scott County, Clark County.			×	×								
Spirifera grieri H 11. Falls of the Ohio (Nettleroth).				×								
Spirifer grimesi Hall, 8. Washington County and Harrison County.							×					
Spirifer hobbsi Nettleroth. Falls of the Ohio (Nettleroth).				×								
Spirifer incrassatus. 7. Montgomery County.								×				
Spirifer increbescens Hall, 8. Harrison County.									×			
Spirifer kentuckensis, 7. Vanderburgh County and Owen County.									×			
**Spirifer keokuk* Hall, 16. Greencastle, Crawfordsville, Washington County, Harrison County, Quincy, Putnam County, Owen County, Scott County (Borden).						×	×	×				
Spirifer lateralis Hall, 8. Greencastle, Washington County and Harrison County.							×	×				
Spirifer leidyi N. & P., 8. Spergen Hill (R. P. Whitfield), Quincy, Putnam County, Harrison County, Owen County and Orange County.								×	×			
**Spirifer lineata* Martin, 11 and 13. Throughout the coal measures (C. A. White), Montgomery County and Orange County.							×	×	×		×	
**Spirifer logani* H 11. Crawfordsville.							×					
Spirifer maceonathii Nettleroth. Falls of the Ohio (Nettleroth).				×								
Spirifer manni Hall. Clark County.				×								
Spirifer marionensis Schumard, 8. Harrison County (Collett), Falls of the Ohio (Nettleroth).				×		×						
Spirifer medialis Hall. Falls of the Ohio, Clark County (Nettleroth).			×									
**Spirifer mortonana* Miller (Sp. fastigatus). Crawfordsville and Harrison County (Meek & Worthen).							×					
**Spirifer mucronata* Conrad? Clark County (Nettleroth).				×								
Spirifer neglecta Hall, 8. Greencastle, Harrison County, Edwardsville, Owen County, Monroe County and Washington County.							×					
Spirifer niagarensis Hall, 11. Delaware County.			×									
Spirifer norwoodiana Hall, 15. Spergen Hill (Hall), Washington County?								×				
**Spirifer opimus* (Hall). see S. rockymontana. New Harmony (McChesney).											×	
**Spirifer oweni* Hall, 11. Falls of the Ohio (Hall) and Charlestown.				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield	Coal Measures.	Drift.
Spirifer peculiaris Shumard, 8. Harrison County.	....	....	....	....	....	×	....	....	....	....	....	....
Spirifer (Martinia) *planoconvexa* Shumard, 13. Throughout the coal measures (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
**Spirifer plena* Hall. Washington County.	....	....	....	....	....	....	×	....	....	....	....	....
Spirifer propinqua Hall, 15. Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
**Spirifer pseudolineata* Hall, 8. Greencastle, Jackson County, Edwardsville, Owen County, Harrison and Monroe Counties.	....	....	....	....	....	....	×	×	....	....	....	....
**Spirifer radiata* Sowerby, 11. Waldron (James Hall), Allen County, Miami County and Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Spirifer raricosta* Conrad. Clark County, Falls of the Ohio (Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Spirifer rockymontana Marcou (Sp. opimus). New Harmony.	....	....	....	....	....	....	....	....	....	....	×	....
Spirifer (*Cyrtia*) *rostellum* Hall, 3. Louisville, Ky. (Foerste), Greencastle and Harrison County and Altors.	....	....	×	....	....	....	....	....	....	....	....	....
Spirifer sculptilis Hall. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Spirifer setigera* Hall, 8. Wayport, Harrison County and Greencastle.	....	....	....	....	....	....	....	×	....	....	....	....
Spirifer segmenta Hall, 11. Falls of the Ohio and Charlestown Landing (Hall), Shelby County.	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer semiplicata Hall. Rockford (James Hall).	....	....	....	....	....	×	....	....	....	....	....	....
**Spirifer spinosa* N. & P. *see* Spiriferina spinosa.	....	....	....	....	....	....	....	....	....	....	....	....
Spirifer suborbicularis Hall, 8. Crawfordsville and Harrison County.	....	....	....	....	....	....	×	×	....	....	....	....
Spirifer subcordiformis Hall, 8. Washington County and Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
**Spirifer subcuspidatus*, 8. *see* Sp. cuspidatiformis.	....	....	....	....	....	....	....	....	....	....	....	....
**Spirifer striatiformis* Meek. Tippecanoe County.	....	....	....	....	....	....	....	×	....	....	....	....
Spirifer striata Martin, 8. Clay County, Montgomery County, Harrison County, Crawfordsville, Owen County, Washington County and Orange County.	....	....	....	....	....	....	×	....	×	....	....	....
**Spirifer texta* Hall, 10. *see* Syringothyris texta.	....	....	....	....	....	....	....	....	....	....	....	....
**Spirifer tenuicostata* Hall, 8. Spergen Hill (R. P. Whitfield), Washington County, Harrison County and Orange County.	....	....	....	....	....	....	....	×	....	....	....	....
**Spirifer tullia* Hall. Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer vanuxemi Hall (Orthis vanuxemi). Ripley County.	×	....	....	....	....	....	....	....	....	....	....	....
**Spirifer varicosa* Hall, 11. Charlestown Landing (Hall), Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Spirifer (?) *waldronensis* Miller & Dyer. Waldron (M. & D.).	....	....	×	....	....	....	....	....	....	....	....	....
Spiriferina kentuckensis Shumard, 13. Vermillion, Vigo Knox, Gibson, Posey, Vanderburg, Dubois and Spencer Counties (C. A. White), Harrison County.	....	....	....	....	....	×?	....	....	×	....	×	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Spiriferina norwoodana Hall, 12	....	....	....	....	....	....	....	×	....	....	....	....
Spergen Hill.												
**Spiriferina spinosa* Norwood and Pratton (Spirifer spinosa), 8	....	....	....	....	....	....	....	×	....	....	....	....
Bloomington (Hall), Spergen Hill (R. P. Whitfield), Harrison County.												
Spirigera hirsuta	....	....	....	....	....	....	....	....	....	....	....	....
see Athyris hirsuta.												
Stenochisma tethys Billings (Rhynchonella tethys)	....	....	....	×	....	....	....	....	....	....	....	....
Clark County and Falls of the Ohio.												
Streptorhynchus chemungensis var. *arctostriata* H.	....	....	....	....	....	....	....	....	....	....	....	....
Falls of the Ohio (Nettleroth).												
Streptorhynchus crenistriatum Phillips, 8	....	....	....	....	....	×	×	×	×?	....	....	....
Spergen Hill (R. P. Whitfield), Harrison County, Park County, Greencastle, Washington County, Reelsville and Putnam County.												
Streptorhynchus (*Strophomena*) *elongatum* James.	×	....	....	....	....	....	....	....	....	....	....	....
(James).												
Streptorhynchus keokuk Hall, 8	....	....	....	....	....	×	....	....	....	....	....	....
Scott County (Borden), Harrison County.												
**Streptorhynchus nutans* Meek	×	....	....	....	....	....	....	....	....	....	....	....
Madison.												
Streptorhynchus planumbonum Hall (Strophomena planumbonum)	×	....	....	....	....	....	....	....	....	....	....	....
Richmond (Meek), Madison (Hall).												
**Streptorhynchus planoconvexum* Hall	×	....	....	....	....	....	....	....	....	....	....	....
S. E. Indiana.												
Streptorhynchus pectinaceum H.	....	....	....	....	....	×	×	....	....	....	....	....
New Albany (Hall).												
**Streptorhynchus subtentum* Conrad (Strophomena plicata)	×	....	....	....	....	....	....	....	....	....	....	....
Richmond and Madison.												
Streptorhynchus subplanum Conrad, 11	....	....	×	....	....	....	....	....	....	....	....	....
Waldron (James Hall).												
Streptorhynchus tenue Hall, 11	....	....	×	....	....	....	....	....	....	....	....	....
Waldron (James Hall).												
**Streptorhynchus umbraculum* Von Buch., 12	....	....	....	....	....	×	....	....	....	....	....	....
New Providence.												
Streptorhynchus (*Strophomena*) *vetustum* James	×	....	....	....	....	....	....	....	....	....	....	....
(James).												
Strophodonta arcuata Hall, 11	....	....	....	×	....	....	....	....	....	....	....	....
Shelby County.												
**Strophodonta concava* Hall	....	....	....	×	....	....	....	....	....	....	....	....
Charlestown.												
Strophodonta demissa Conrad, 11	....	....	....	×	....	....	....	....	....	....	....	....
Charleston and Shelby County (Nettleroth)												
**Strophodonta hemispherica* Hall	....	....	×	×	....	....	....	....	....	....	....	....
Falls of the Ohio (Hall), Clark County.												
**Strophodonta inequistriata* Conrad	....	....	....	×	....	....	....	....	....	....	....	....
Falls of the Ohio (Nettleroth).												
Strophodonta nacrea Hall	....	....	....	×	....	....	....	....	....	....	....	....
Falls of the Ohio (Nettleroth).												
Strophodonta perplana Conrad	....	....	....	×	....	....	....	....	....	....	....	....
Falls of the Ohio (Nettleroth).												
Strophodonta plicata Hall	....	....	....	×	....	....	....	....	....	....	....	....
Falls of the Ohio (Nettleroth).												
Strophodonta profunda Hall, 11 and 16	....	....	×	....	....	....	....	....	....	....	....	....
Waldron (James Hall), Allen County.												
**Strophodonta semifasciata* Hall	....	....	×	....	....	....	....	....	....	....	....	....
Waldron												
**Strophodonta striata* Hall, 11	....	....	×	....	....	....	....	....	....	....	....	....
Waldron (James Hall).												

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Strophomena alternata Conrad, 10 S. E. Indiana.	×											
Strophomena alternata var. *alternistriata* Hall Madison.	×											
Strophomena filitexta Madison.	×											
**Strophomena fracta* Meek, 6 Madison.	×											
Strophomena hanoverensis Foerste Hanover (Foerste).		×										
Strophomena incurrata (Shepard) Ripley County (Borden).	×											
**Strophomena nasuta* Conrad Madison.	×											
Strophomena nutans *see* Streptorhynchus nutans.												
Strophomena patenta Hall Hanover (Foerste).		×										
Strophomena planoconvexa Hall *see* Streptorhynchus planoconvexum.												
Strophomena planumbona Hall, 10 *see* Streptorhynchus planumbonum.												
Strophomena plicata *see* Streptorhynchus subtentum.												
**Strophomena rhomboidalis* Wilckens, 11 Madison (Meek). Waldron (James Hall), Hartsville, Franklin County, Jasper County, Wabash County, Clark County (Nettleroth).	×	×	×	×			×					
Strophomena rugosa Dalman, 6 Madison.		×	×									
Strophomena striata *see* Strophodonta striata.												
Strophomena sulcata de Verneuil Richmond (Meek), Madison.	×											
**Strophomena tenuistriata* Sowerby Richmond.	×											
Strophomena tenuis Hall Hanover (Foerste).		×										
Strophonella semifasciata Hall, 11 Waldron (James Hall).			×									
Syntrielasma hemiplicata Hall, 13 Coal Measures (C. A. White).											×	
Syringothyris carteri Hall, (?) 8 (Sp. carteri) Monroe, Harrison and Clark Counties						×						
Syringothyris texta Hall, 8 Scott County (Borden), Borden and New Albany (Hall), Jackson County and Harrison County												
**Terebratula bovidens* Morton, 13 Widely distributed throughout the Coal Measures (C. A. White), Greencastle, Orange County, Montgomery County, Vanderburgh County, Harrison County, Parke County and Monroe County.								×	×		×?	
Terebratula calvini Hall and Whitfield, 8 Harrison County						×						
**Terebratula formosa* Hall, 12 Spergen Hill and Bloomington (Hall), Greencastle, Harrison County, Washington County, Monroe County.								×				
Terebratula gorbyi Miller, 17 Edwardsville.							×					

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Terebratula harmonia H. Falls of the Ohio (Hall).				×								
* *Terebratula hastata* Sowerby, 8 Owen County, Greencastle and Harrison County.							×	×				
Terebratula inornata McChesney, 8. Harrison County.							×	×				
* *Terebratula jucunda* Hall Falls of the Ohio (Nettleroth).				×								
* *Terebratula lincklaeni* Hall Falls of the Ohio (Nettleroth).				×								
Terebratula romingeri Hall Clark County (Nettleroth).				×								
Terebratula suculus Martin, 16 Crawfordsville.							×					
Terebratula subcuneata see Athyris trinuclea.												
Terebratula subtilita Hall see Athyris subtilita.												
Terebratula trinuclea Hall Spergen Hill (Hall), Washington County, Owen County and Greencastle.								×				
* *Terebratula turgida* Hall, 12 Bloomington and Spergen Hill (Hall), Washington County, Greencastle, Harrison and Monroe Counties.								×				
Trematospira hirsuta Hall Utica and Clark County and Falls of the Ohio.			×	×								
Trematospira mathewsoni McChesney Madison (McChesney).			×									
* *Trematospira nobilis* Hall Charlestown.				×								
Triplesia cuspidata Hall (Atrypa cuspidata), 6 Madison.	×											
Triplesia pulillus Hall, 11 Waldron.			×									
* *Triplesia waldronensis* M. & D. Waldron.			×									
* *Tropidoleptus carinatus* Conrad Scott County (Borden), Clark County (Nettleroth).				×	×							
* *Whitfieldia maria* Hall Waldron.			×									
* *Zygospira headii* Billings Madison (W. S. T. Cornett), Madison (Meek)	×											
Zygospira minima Hall, 11 Waldron.			×									
* *Zygospira modesta* Say Madison (W. S. T. Cornett), Richmond and Madison (Meek), Franklin County (Moore)	×											
* *Zygospira modesta* var. *cincinnatiensis* James Madison.	×											
MOLLUSCA.												
LAMELLIBRANCHIATA.												
Actinopteria boydi Conr. Falls of the Ohio (Nettleroth) (Hall).				×								
* *Allorisma cuneatum* Swallow Warren County.											×	
* *Allorisma sinuatum* McChesney, 8 Harrison County.								×				

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Allorisma subcuneatum Meek & H., 13 and 16.... Throughout the coal measures (C. A. White)	....	....	....	....	....	....	....	....	....	....	×	....
Ambonychia acutirostra Hall, 11 and 17.... Waldron (James Hall), Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Ambonychia alata.... see Anomalodonta alata.	....	....	....	....	....	....	....	....	....	....	....	....
Ambonychia amygdaloidea, 6.... Madison (Cornett).	×	....	....	....	....	....	....	....	....	....	....	....
Ambonychia bellistriata Hall.... Franklin County.	×	....	....	....	....	....	....	....	....	....	....	....
Ambonychia carinata Goldfuss.... Madison (W. S. T. Cornett).	×	....	....	....	....	....	....	....	....	....	....	....
Ambonychia radiata Hall.... Richmond, Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Amphicœlia costata Meek.... Huntington County.	....	....	×	....	....	....	....	....	....	....	....	....
Amphicœlia levigi Hall, 11.... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Anotina leda Hall.... Rockford (James Hall).	....	....	....	....	....	×	....	....	....	....	....	....
Anadontopsis? milleri Meek.... Versailles.	×	....	....	....	....	....	....	....	....	....	....	....
Angellum cuneatum Miller.... Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Anomalodonta casei M. & W., 7.... Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Anomalodonta gigantea Miller.... Versailles and Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Astartella concentrica McChesney, 8.... Big Creek and Sullivan County.	....	....	....	....	....	....	....	....	....	....	×	....
Astartella vera Hall.... Coal measures (Hall)	....	....	....	....	....	....	....	....	....	....	×	....
Aviculopecten amplus M. & W.... Owen County and Edwardsville.	....	....	....	....	....	....	×	....	....	....	....	....
Aviculopecten aviculatus Swallow.... Dubois County.	....	....	....	....	....	....	....	....	....	....	×	....
Aviculopecten carboniferous Stevens, 13.... Fountain and Vermillion County and Dubois County (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Aviculopecten colletti Worthen.... Crawfordsville (A. H. Worthen).	....	....	....	....	....	....	×	....	....	....	....	....
Aviculopecten crassicostatus Hall.... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Aviculopecten fasciculatus Hall.... Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Aviculopecten indianensis Meek & Worthen, 16.. Spergen Hill (R. P. Whitfield), Harrison County and Crawfordsville, Edwardsville, Greencastle.	....	....	....	....	....	....	×	×	....	....	....	....
Aviculopecten intercostalis Winchell.... Charlestown.	....	....	....	×	....	....	....	....	....	....	....	....
Aviculopecten oblongus M. & W.... Edwardsville.	....	....	....	....	....	....	×	....	....	....	....	....
Aviculopecten occidentalis Shumard, 13.... Pike and Gibson Counties (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Aviculopecten pectenformis Conrad.... Falls of the Ohio, Charlestown (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Aviculopecten princeps Conrad.... Falls of the Ohio (James Hall).	....	....	....	×	....	....	....	....	....	....	....	....
Aviculopecten providencensis Cox.... Dubois County.	....	....	....	....	....	....	....	....	....	....	×	....
Aviculopecten rectilaterarius Cox.... Vanderburg County, Vigo County and Clay County.	....	....	....	....	....	....	....	....	....	....	×	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Aviculopecten spinuliferous Worthen Crawfordsville (A. H. Worthen).											×	
Aviculopecten winchelli Meek, 8 Harrison County.							×					
Avicula corrugata James *see* Pterinea corrugata.												
Avicula demissa *see* Pterinea demissa.												
Avicula insueta *see* Pterinea insueta.												
Byssonychia tenuistriata Ulrich Richmond (Ulrich).	×											
Cardiamorpha missouriensis Shumard, 7 Vanderburg County.											×	
Cardiamorpha radiata M. & W. *see* Cardiopsis radiata.												
Cardiamorpha subglobosa Meek Washington County.						×						
Cardiola radiaues? *see* Panenka radians.												
Cardiopsis radiata Meek & Worthen (Cardiamorpha radiata) Rockford (Meek & Worthen).						×						
Chaenomya rhomboidea? M. & W., 7 Orange County.								×				
Clidophorus fabula Hall Versailles (Miller).	×											
Clinopistha antiqua Meek Clark County (Nettleroth).				×								
Clinopistha radiata Hall, 13 (C. A. White).											×	
Clinopistha striata Nettleroth Clark County (Nettleroth).				×								
Clinopistha subnasuta (H. & W.) Hall Louisville, Ky. (James Hall), Clark County (Nettleroth).				×								
Clionychia excavata Ulrich Richmond (Ulrich).	×											
**Conocardium attenuatum* Conrad Waldron.			×									
**Conocardium carinatum* Hall, 12 Bloomington, Spergen Hill, Harrison and Washington Counties.								×				
Conocardium catastonum Hall, 12 Spergen Hill (Hall), Washington County.								×				
Conocardium constrictum Hall, 8 Harrison County.								×				
**Conocardium cuneata* Hall, 12 Bloomington and Spergen Hill (Hall), Monroe and Washington Counties, Greencastle and Harrison County.								×				
‡*Conocardium cuneus* Conr. Pendleton.												
Conocardium elrodi Miller, 17 Hartsville.			×									
Conocardium equilaterale Hall, 12 Spergen Hill (Hall), Washington County.								×				
Conocardium exiguum Miller, 17 Bunker Hill.				×								
Conocardium indianense Miller, 17 Crawfordsville.							×					
Conocardium meekanum Hall, 12 Washington County.								×				

‡ Schoharie-grit (James Hall).

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Conocardium ohioense Meek. Falls of the Ohio (James Hall), Madison.	....	....	....	×	....	....	....	....	....	....	....	....
Conocardium parvulum Miller, 17. Bunker Hill.	....	....	....	×	....	....	....	....	....	....	....	....
Conocardium prattenanum Hall, 12. Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
* *Conocardium trigonale* Hall, 11. Madison (Meek) Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Crenipecten retiferus Shumard (Lima retifera). Knox, Gibson and Posey Counties (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Cycloconcha milleri Meek. Versailles (Ulrich).	×	....	....	....	....	....	....	....	....	....	....	....
Cypricardella uncleata Hall, 12. Spergen Hill (Hall), Harrison County and Washington County.	....	....	....	....	....	....	×	×	....	....	....	....
Cypricardella oblonga Hall, 12. Spergen Hill and Bloomington (Hall), Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Cypricardella plicata see Goniophora plicata.	....	....	....	....	....	....	....	....	....	....	....	....
Cypricardella subelliptica Hall, 12. Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Cypricardia indianensis see Cypricardinia indianensis.	....	....	....	....	....	....	....	....	....	....	....	....
Cypricardia subplana see Edmondia subplana.	....	....	....	....	....	....	....	....	....	....	....	....
Cypricardia undulata Gurley. Vermillion County (Gurley).	....	....	....	....	....	....	....	....	....	....	×	....
Cypricardia ventricosa Hall. Rockford (James Hall).	....	....	....	....	....	×	....	....	....	....	....	....
Cypricardites hainesi Miller. Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
* *Cypricardites sterlingensis* M. & W. (?). Richmond (Miller & Meek).	×	....	....	....	....	....	....	....	....	....	....	....
Cypricardinia arata Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Cypricardinia cataracta Conr. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Cypricardinia (?) *cylindrica* H. & W. Louisville, Ky. (James Hall), Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Cypricardinia indenta (Con.) Hall. Falls of the Ohio (James Hall).	....	....	....	×	....	....	....	....	....	....	....	....
Cypricardinia indianensis Hall (Cypricardia indianensis, 12. Spergen Hill (Hall).	....	....	....	....	....	....	....	×	....	....	....	....
Cypricardissia inflata var. *subequivalvis* H. & W. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Cythere carbonaria Hall. Spergen Hill (Hall), Greencastle and Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
Edmondia subplana Hall (Cypricardia subplana), 12. Spergen Hill (Hall).	....	....	....	....	....	....	....	×	....	....	....	....
Entolium avicularum Swallow, 13. Fountain, Vermillion, Vigo Pike, Dubois, Perry and Spencer Counties (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Glyptodesma cancellata Nettleroth. Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Glyptodesma occidentale Hall. Falls of the Ohio (James Hall).	....	....	....	×	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Goniophora plicata Hall (Cypricardella plicata), 12. Bloomington (Hall).								×				
Goniophora speciosa Hall, 11. Waldron.			×									
Goniophora truncata Hall. Falls of the Ohio (Nettleroth).				×								
Grammysia arcuata (Con). H. Falls of the Ohio (James Hall).				×								
Grammysia gibbosa H. & W. Falls of the Ohio (Nettleroth).				×								
Grammysia rhomboydalis M. & W. Washington County.						×						
Grammysia ventricosa Meek. Washington County.						×						
Ischyrodonta decipiens. Richmond (Ulrich).	×											
Ischyrodonta elongata Ulrich. Richmond (Ulrich).	×											
Ischyrodonta miseneri Ulrich. Richmond (Ulrich).	×											
Ischyrodonta modioliformis Ulrich. Richmond (Ulrich).	×											
Ischyrodonta ovalis Ulrich. Richmond (Ulrich).	×											
Leda bellistriata. *see* Nuculana bellistriata.												
Leda nasuta Hall, 12. Spergen Hill and Lanesville.								×				
Lima retifera Shumard, 13. *see* Crenipecten retiferus.												
Limoptera cancellata Hall. Falls of the Ohio (James Hall).				×								
**Lithophaga linguadis* Phillips, 16. Crawfordsville and Harrison County.							×					
Lithophaga pertenuis M. & W. Lanesville.								×				
Lunulicardium fragile Hall. Scott County (James Hall).					×							
Macrondon obsoletus Meek. Spergen Hill (R. P. Whitfield).								×				
Megaptera casei M. & W., 10. Richmond.	×											
Megambonia lyoni. Rockford (James Hall).						×						
Modiolodon declivis Ulrich. Richmond (Ulrich).	×											
Modiolodon subre tus Ulrich. Richmond (Ulrich).	×											
Modiolodon subovalis Ulrich. Versailles (Ulrich).	×											
Modiolodon truncatus Hall. Versailles (Ulrich).	×											
**Modiolopsis cincinnatiensis* H. & W. Richmond.	×											
Modiolopsis concentrica Hall & White (Ulrich).	×											
**Modiolopsis modiolaris*. Madison and Richmond.	×											
**Modiolopsis perlata* Hall, 11. Waldron (James Hall).			×									
**Modiolopsis pholadiformis* Hall. Richmond (Miller).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Modiolopsis subulata Hall, 11			×									
Waldron (James Hall).												
Modiolopsis versailleensis Miller	×											
Versailles (Miller).												
Modiomorpha affinis Hall				×								
Clark County (James Hall).												
Modiomorpha alta Hall				×								
Falls of the Ohio and Charlestown (James Hall).												
Modiomorpha charlestownensis Nettleroth				×								
Clark County (Nettleroth).												
Modiomorpha concentrica Hall				×								
Falls of the Ohio and Charlestown (James Hall).												
Modiomorpha mytiloides Conr				×								
Clark County (Nettleroth).												
Modiomorpha recta Hall				×								
Clark County (James Hall).												
Monopteria longipina Cox											×	
Dubois County.												
Monopteria gibbosa M. & W., 13											×	
Vermillion, Sullivan and Posey Counties (C. A. White).												
Monotis (?) *gregaria* M. & W							×					
Crawfordsville (Meek & Worthen).												
Myalina concentrica M. &. W								×				
Spergen Hill (Meek & Worthen).												
**Myalina keokuk* Worthen, 8						×	×	×				
Harrison and Washington Counties and Crawfordsville.												
Myalina subquadrata Shumard, 13											×	
Knox, Gibson and Posey Counties (C. A. White).												
**Myalina swallori* McChesney, 13											×	
Park, Vermillion and Vigo Counties (C. A. White). Dubois County.												
Mytilarca sigilla Hall, 11			×									
Waldron (James Hall).												
Nucula hyans Hall					×							
Rockford (James Hall.												
Nucula inflata, 7											×	
Vanderburgh County.												
Nucula lirata Conrad, 11				×								
Shelby County.												
Nucula neda H & W				×								
Louisville, Ky. (James Hall), Falls of the Ohio (Nettleroth).												
**Nucula niotica* H. & W				×								
Falls of the Ohio (James Hall) (Nettleroth).												
Nucula herzeri Nettleroth				×								
Falls of the Ohio (Nettleroth).												
Nucula nasuta Hall												
see Nuculana nasuta.												
Nucula shumardana Hall, 15								×				
Washington County.												
Nucula ventricosa Hall, 11											×	
Sullivan County (C. A. White).												
Nuculana bellistriata Stevens, 13											×	
Vermillion, Sullivan, Vanderburgh and Warrick Counties (C. A. White).												
Nuculana nasuta Hall (Nucula nasuta)								×				
Washington County (Hall).												
Nuculana shumardana, 12								×				
Spergen Hill (Hall).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Opisthoptera casei White Richmond (Ulrich).	×											
Opisthoptera obliqua White Richmond (Ulrich).	×											
Orthodesma canaliculatum Ulrich (Ulrich).	×											
**Orthodesma parallelum* Hall Madison.	×											
**Orthodesma rectum* H. & W. Madison.	×											
Orthodesma subangulatum Richmond (Ulrich).	×											
Ortonella hainesi Miller Richmond (Ulrich).	×											
Palaeomeilo bedfordensis Meek Washington County.						×						
Panenka radians Conrad (Cardiola radians) Scott County (Whitfield).					×							
**Paracyclas elliptica* Hall, 10 Falls of the Ohio, and Clark County (James Hall).				×								
**Paracyclas elliptica* var. *occidentalis* Hall Centreville.				×								
Paracyclas elongata Nettleroth Clark County (Nettleroth).				×								
**Paracyclas lirata* (Con.) Hall Falls of the Ohio and Clark County (James Hall.)				×								
Paracyclas octerlonii Nettleroth Falls of the Ohio (Nettleroth).				×								
Paracyclas ohiocensis Meek Clark County (Nettleroth).				×								
Pinna subspatulata Worthen, 8 Washington and Harrison Counties.							×	×				
**Pinna peracuta* Shumard, 13 Orange County (C. A. White).									×		×	
**Pterinea brisa*, Hall, 11 see Pterinea striaecosta.												
Pterinea corrugata James (Avicula corrugata) Wayne County (James).	×											
**Pterinea concentrica* Con. Charlestown.				×								
**Pterinea demissa* Conrad (Avicula demissa) Madison (W. S. T. Cornett)	×											
**Pterinea flabellum* Conr., 11 Falls of the Ohio and Shelby County.				×								
Pterinea grandis Hall Scott County (James Hall).				×								
Pterinea insueta Emmons (Avicula insueta) Madison (Cornett).	×											
Pterinea striaecosta McChesney (Pterinea striaecosta) Waldron (James Hall).			×									
Pterinopecten nodosus Hall Falls of the Ohio (James Hall).				×								
Pterinopecten reflexus Hall Falls of the Ohio (James Hall).				×								
Pteronites spergensis Whitfield Spergen Hill and Bloomington (R. P. Whitfield)								×				
Ptychodesma knappianum H. & W. Falls of the Ohio (James Hall).				×								
Rhytimya byrnesi Miller Richmond (Ulrich).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Sanguinolites? multistriatus Worthen	....	....	....	....	....	....	×	....	....	....	....	....
Crawfordsville (A. H. Worthen).												
Schizodus medinensis Meek	....	....	....	....	....	×	....	....	....	....	....	....
Washington County.												
**Solenomya anadontoides* Meek	....	....	....	....	....	....	....	....	....	....	×	....
Dubois County.												
Solonomya (Janeia) vetusta Meek	....	....	....	×	....	....	....	....	....	....	....	....
Falls of the Ohio (James Hall).												
Sphenolium richmondense Miller	×	....	....	....	....	....	....	....	....	....	....	....
Richmond (Miller & Faber).												
Tellinomya cingulata Ulrich	×	....	....	....	....	....	....	....	....	....	....	....
Madison (Ulrich).												
Tellinomya hilli Miller	×	....	....	....	....	....	....	....	....	....	....	....
Osgood (Miller).												
Whitella obliquata Ulrich	×	....	....	....	....	....	....	....	....	....	....	....
(Ulrich).												
Yoldia? oweni McChesney	....	....	....	....	....	....	....	....	....	....	×	....
New Harmony (McChesney). Rush Creek.												
Yoldia rushensis McChesney	....	....	....	....	....	....	....	....	....	....	×	....
New Harmony (McChesney).												
Yoldia? valvulus H. & W.	....	....	....	×	....	....	....	....	....	....	....	....
Clark County (Nettleroth).												
SCAPHOPODA.												
Dentalium acutisulcatum Gurley	....	....	....	....	....	....	....	....	....	....	×	....
Newport and Vermillion County (Gurley).												
Dentalium primarium Hall, 8	....	....	....	....	....	....	×	×	×	....	....	....
Greencastle, Montgomery County, Crawfordsville, Harrison County and Orange County.												
Dentalium primevum, 7	....	....	....	....	....	....	×	....	....	....	....	....
Owen County.												
Dentalium venustum, M. & W., 8	....	....	....	....	....	....	....	×	....	....	....	....
Harrison County.												
GASTROPODA.												
**Bellerophon bilobatus* Sowerby	×	....	....	....	....	....	....	....	....	....	....	....
Bellerophon cancellatus Hall	....	....	....	....	....	....	....	×	....	....	....	....
Bloomington and Spergen Hill (Hall).												
**Bellerophon carbonarius* Cox. 13	....	....	....	....	....	....	....	....	×	....	×	....
Vanderburgh County, Sullivan County, Orange County and Vigo and Harrison Counties.												
Bellerophon crassus M. & W., 13	....	....	....	....	....	....	....	....	....	....	×	....
Sullivan and Posey Counties (C. A. White).												
Bellerophon crenistria Hall	....	....	....	×	....	....	....	....	....	....	....	....
Clark County.												
**Bellerophon cyrtolites* Hall	....	....	....	....	....	×	....	....	....	....	....	....
Rockford (Hall), (Meek & Worthen).												
Bellerophon exiguus Foerste	....	×	....	....	....	....	....	....	....	....	....	....
Hanover (Foerste).												
**Bellerophon gibsoni* White, 11	....	....	....	....	....	....	....	×	....	....	....	....
Washington County, Greencastle and Orange County.												
Bellerophon gorbyi Miller, 17	×	....	....	....	....	....	....	....	....	....	....	....
Dearborn County.												
Bellerophon leda H. H.	....	....	....	×	....	....	....	....	....	....	....	....
Clark County (Nettleroth).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Bellerophon levis, 7 Orange County.								×				
Bellerophon lineolatus Hall. Rockford (James Hall).						×						
Bellerophon lyra Hall. Falls of the Ohio (Hall).				×								
Bellerophon marcouanus (?) Geinetz, 8 Harrison County.								×				
Bellerophon mohri Miller. Richmond (Ulrich).	×											
**Bellerophon montfortanus* N. & P., 7 Vanderburgh County.											×	
**Bellerophon nodocarinatus* Hall, 13 New Harmony and Sullivan County (C. A. White).											×	
**Bellerophon patulus* Hall, 11 Charlestown and Shelby County.				×								
**Bellerophon pelops* Hall. Charlestown.				×								
**Bellerophon percarinatus* Conrad, 13 Throughout the Coal Measures (White).											×	
Bellerophon subangularis Ulrich Richmond (Ulrich).	×											
**Bellerophon sublaevis* Hall, 12 Spergen Hill and Bloomington (Hall), Washington, Owen and Harrison Counties, Greencastle.							×	×				
Bellerophon textilis Hall, 12 Spergen Hill, Bloomington and Lanesville (H. H).								×				
Bellerophon tuber Hall, 11 Waldron (James Hall).			×									
**Bucania chicagoensis* McChesney Grant County.			×									
Bucania devonica H. & W. Clark County (Nettleroth).				×								
Bucania crassa Ulrich Richmond (Ulrich).	×											
Bucania expansa Hall Richmond.	×											
Bucania simulatrix Ulrich Richmond (Ulrich).	×											
Bulimorpha bulimiformis Hall see Bulimorpha bulimiformis.												
Bulimella canaliculata Hall see Bulimorpha canaliculata.												
Bulimella elongata Hall see Bulimorpha elongata.												
Bulimorpha bulimiformis Hall, 12 Washington County								×				
Bulimorpha canaliculata Hall, 12 Washington County.								×				
Bulimorpha elongata Hall, 15 Washington County.								×				
Callonema bellatula Hall. Falls of the Ohio (Nettleroth).				×								
Callonema imitator H. & W. Clark County (Nettleroth).				×								
Capulus acutirostris see Platyceras acutirostrum.												
Capulus equilateralis Hall Crawfordsville (Keyes).							×					
Capulus infundibulum Meek & W. Crawfordsville (Keyes).							×					

	Ordovician	Silurian.		Devonian.		Carboniferous						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Capulus parvus Swallow											×	
Coal Measures (Keyes).												
Capulus sulcatinus Keyes							×					
Crawfordsville (Keyes).												
Chiton carbonarius Stevens, 8								×				
Spergen Hill (R. P. Whitfield), Harrison County.												
Conradella dyeri cellulosa Ulrich	×											
Richmond and Versailles (Ulrich).												
**Cyclonema bilex* Conrad, 19	×											
Franklin County (Moore), Madison (Meek), Richmond (White).												
**Cyclonema bilex* var. *conicum* Miller	×											
Madison.												
Cyclonema cancellatum 6		×										
Madison (Cornett).												
Cyclonema fluctuata James	×											
(James).												
Cyclonema humerosum Ulrich	×											
Richmond and Versailles (Ulrich).												
Cyclonema leavenworthana Hall, 12 (Pleurotomaria leavenworthana)								×				
Spergen Hill and Bloomington (James Hall), Harrison and Washington Counties.												
Cyclonema mediale (Ulrich)	×											
(Ulrich).												
Cyclonema pulchellum Mill. & G.						×						
New Albany (Miller & Gurley).												
Capulus sulcatinus Keyes							×					
Crawfordsville (Keyes).												
Cyclonema subangulatum Hall (Pleurotomaria subangulatum), 12								×				
Washington County and Spergen Hill (Hall).												
**Cyclora minuta* Hall	×											
Madison (Cornett).												
Cyclora parvula Hall	×											
Versailles (Miller).												
Cyclora pulcella Miller	×											
Versailles (Miller).												
Cyrtolites inornatus Hall	×											
Franklin County (Moore).												
Cyrtolites magnus Miller	×											
Richmond (Miller).												
Cyrtolites ornatus Conr.	×											
Versailles (Miller), Madison (W. S. T. Cornett).												
Cyrtolites sinuosus Hall, 11			×									
Waldron (James Hall).												
Cyrtolites youngi Foerste		×										
Hanover Foerste).												
Eotrochus concavus Hall (Pleurotomaria concavus), 12								×				
Harrison County, Spergen Hill and Bloomington.												
**Euomphalus cyclostomus* Hall, 11				×								
Shelby County.												
Euomphalus decewi Bill., 11												
see Pleuronotus decewi.												
**Euomphalus disjunctus* Hall			×									
Rensselaer and Huntington.												
Euomphalus lens Hall												
see Straparollus lens.												

	Ordovician	Silurian		Devonian		Carboniferous						Quaternary
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Euomphalus planispira Hall, 12								×				
Spergen Hill and Blooming on (Hall), Harrison County, Monroe County, Greencastle and Washington County												
Euomphalus planorbiformis Hall, 8								×	×			
Harrison County, Washington County and Orange County.												
Euomphalus quadrivolvus, 12												
see St aparollus quadrivolvus.												
Euomphalus rugosus Hall, 13												
see Euomphalus subrugosus.												
**Euomphalus sampsoni* Nettleroth				×								
Clark County (Nettleroth).												
Euomphalus spergensis, 12												
see Straparollus spergensis.												
Euomphalus spergensis var. *planorbiformis*, 12												
see Straparollus spergensis.												
Euomphalus spirorbis												
see Straparollus spirorbis.												
Euomphalus subrugosus M. & W. (E. rugosus)											×	
Throughout the Coal Measures (C. A. White).												
**Euomphagus tioga* Hall				×								
Charlestown.												
Helicotoma marginata Ulrich	×											
Richmond (Ulrich).												
Holopea grandis Miller & Gurley						×						
New Albany (Miller & Gurley).												
Holopea hubbardi Miller, 18	×											
Madison.												
Holopea prontana Hall, 12								×				
Spergen Hill (Hall), Washington County.												
**Isonema lichas* Hall				×								
Charlestown.												
Liospira vitruvia Bill	×											
(Ulrich).												
Lophospira acuminata n. sp. or var. *peracuminata*	×											
Richmond (Ulrich).												
Lophospira ampla Ulrich	×											
Richmond (Ulrich).												
Lophospira bowdeni Safford	×											
(Ulrich).												
Lophospira multigrama Miller	×											
Madison and Richmond and Versailles.												
Loxonema hamiltonae Hall				×								
Clark County (Nettleroth).												
Loxonema hydraulicum H. & W.				×								
Charlestown (Nettleroth).												
Loxonema laeviusculum Hall				×								
Falls of the Ohio (Nettleroth).												
Loxonema nexile Phillips, 11				×								
Shelby County.												
Loxonema rectistriatum Hall				×								
Falls of the Ohio (Nettleroth).												
Loxonema teres Hall				×								
Falls of the Ohio and Charlestown.												
Loxonema vincta Hall												
see Murchisonia vincta.												
Loxonema yandellanum Hall, 12								×				
Spergen Hill (Hall), Washington County.												
Macrocheilus fusiformis												
see Soleniscus fusiformis.												
Macrocheilus (?) *littonanus* Hall, 12								×				
Bloomington.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Macrocheilus primogenius Con. see Macrochilina primogenius.	....	....	....	....	....	....	....	....	....	....	....	....
Macrocheilus primigenia Vigo County.	....	....	....	....	....	....	....	....	....	....	×	....
**Macrocheilus ponderosa* Conrad Sullivan County and Vigo County.	....	....	....	....	....	....	....	....	....	....	×	....
**Macrocheilus ventricosa* Hall Sullivan and Vigo Counties.	....	....	....	....	....	....	....	....	....	....	×	....
Macrocheilina carinatus Nettleroth Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
**Macrocheilina klipparti* Meek Dubois County.	....	....	....	....	....	....	....	....	....	....	×	....
Macrocheilina littonana Hall (Natica littonana). Bloomington (James Hall).	....	....	....	....	....	....	....	×	....	....	....	....
**Macrocheilina primogenia* Conrad (Macrocheilus (?) littonanus), 12 Bloomington.	....	....	....	....	....	....	....	×	....	....	....	....
Microceras inornatum Hall Versailles (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia attenuata, 12 Spergen Hill (Hall), Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
**Murchisonia bellicincta* Hall Madison and Richmond (Cornett), Ripley County.	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia bicincta see M. milleri.	....	....	....	....	....	....	....	....	....	....	....	....
Murchisonia desiderata Hall Falls of the Ohio (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Murchisonia elegantula see Pleurotomaria elegantula.	....	....	....	....	....	....	....	....	....	....	....	....
**Murchisonia gracilis* Hall Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia hammelli Miller, 18 Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia indianensis Miller & G. New Albany (Miller & Gurley).	....	....	....	....	....	×	....	....	....	....	....	•
Murchisonia insculpta Hall, 12 Spergen Hill and Bloomington (Hall), Washington and Harrison Counties.	....	....	....	....	....	....	....	×	....	....	....	....
Murchisonia (Pleurotomaria) limitaris Hall Rockford (James Hall).	....	....	....	....	....	×	....	....	....	....	....	....
**Murchisonia milleri* Hall (M. bicincta) Ripley County and Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia multigruma Miller Richmond and Versailles (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia terebriformis Hall, 12 Bloomington (Hall), Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Murchisonia turritella Hall, 12 Spergen Hill (Hall), Washington County.	....	....	....	....	....	....	....	×	....	....	....	....
Murchisonia vermicula Hall 12 Spergen Hill and Bloomington (Hall), Washington and Harrison Counties.	....	....	....	....	....	....	....	×	....	....	....	....
**Murchisonia ventricosa* Hall Madison.	×	....	....	....	....	....	....	....	....	....	....	....
Murchisonia vincta Hall, 12 (Loxonema vincta). Spergen Hill (Hall).	....	....	....	....	....	....	....	×	....	....	....	....
Natica carleyana see Naticopsis carleyana.	....	....	....	....	....	....	....	....	....	....	....	....
Natica littonana Bloomington (Hall).	....	....	....	....	....	....	....	×	....	....	....	....
**Naticopsis carleyana* Hall, 12 (Natica carleyana) Spergen Hill and Bloomington (Hall).	....	....	....	....	....	....	....	×	....	....	....	....
**Naticopsis gigantea* Hall Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Naticopsis laevis* Meek Charlestown.				×								
Naticopsis nana Meek & Worthen, 13 (C. A. White).											×	
Naticopsis shumardiana Hall, 8 Harrison County.								×				
Naticopsis wheeleri Swallow, 13 Vigo County (C. A. White).											×	
Patella levettei White, 11 Spergen Hill.								×				
**Platyceras acutirostre* Hall, 12 Owen County and Washington County, Bloomington.								×				
**Platyceras ammon* Hall Charlestown.				×								
Platyceras (?) *arctiostoma* Ulrich Falls of the Ohio (Ulrich).			×									
Platyceras attenuatum Hall, 6 Madison.				×								
Platyceras bucculentum H. Clark County (Nettleroth).				×								
**Platyceras carinatum* Hall Charlestown and Falls of the Ohio.				×								
Platyceras compressum Nettleroth Falls of the Ohio (Nettleroth).				×								
**Platyceras conicum* Hall Falls of the Ohio (Nettleroth).				×								
**Platyceras cymbium* Hall Charlestown.				×								
**Platyceras cyrtolites* McChesney New Harmony.											×	
**Platyceras dumosum* Conrad Clark County and Jennings County (Nettleroth).				×								
Platyceras dumosum var. *rarispinum* Hall Falls of the Ohio.				×								
**Platyceras echinatum* Hall Clark County (Nettleroth).				×								
Platyceras equilaterales Hall, 8 and 10 Harrison County, Monroe County, Crawfordsville and Washington County.							×					
**Platyceras erectum* Hall Charlestown (Nettleroth).				×								
**Platyceras fissurellum* Hall, 8 Harrison County, Alters, Crawfordsville and Owen County.							×					
Platyceras (*Orthonychia*) *fluctuosum* Ulrich Falls of the Ohio (Ulrich).				×								
**Platyceras haliotoides* M. & W. Rockford.						×						
Platyceras indianensis Miller & Gurley Charlestown (Miller & Gurley).				×								
Platyceras infundibulum M. & W., 8 Washington County, Harrison County, Monroe County and Crawfordsville.						×	×					
Platyceras milleri Nettleroth Falls of the Ohio (Nettleroth).				×								
**Platyceras multispinosum* Meek Falls of the Ohio (Nettleroth).				×								
Platyceras nebrascense Meek, 13 Eugene, Edwardsport (C. A. White), Harrison County.									×		×	
Platyceras quinquesinuatum Ulrich Falls of the Ohio (Ulrich).				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Kinderhook and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Platyceras rictum Hall. Clark County (Nettleroth).				×								
Platyceras serratum Ulrich. Falls of the Ohio (Ulrich).				×								
**Platyceras subundatum* Conrad. Falls of the Ohio.				×								
Platyceras symmetricum Hall. Clark County (Nettleroth).				×								
**Platyceras thetis* Hall. Falls of the Ohio, Charlestown (Nettleroth).				×								
Platyceras uncum Meek & Worthen, 8. Harrison County and Crawfordsville.						×	×	×				
**Platyceras ventricosum* Conrad. Clark County (Nettleroth).				×								
**Platystoma hemisphericum* Hall. Delphi.			×									
Platystoma lineata Hall. Clark County (Nettleroth).				×								
Platystoma lineata var. *callosa* Hall. Clark County (Nettleroth).				×								
Platystoma niagarense Hall, 11 and 10. Waldron (Hall), Madison and Carroll County.			×									
Platystoma plebeium H., 11. Waldron (J. Hall).			×									
Platystoma turbinata Hall. Falls of the Ohio (Nettleroth).				×								
Platystoma turbinata var. *cochleata* H. Louisville, Ky. (Nettleroth).				×								
**Pleuronotus decewi* Billings, 11 (E. decewi). Falls of the Ohio (Nettleroth), Shelby County				×								
Pleurotomaria arabella Nettleroth. Clark County (Nettleroth).				×								
Pleurotomaria bilex Conrad. *see* Cyclonema bilex.												
**Pleurotomaria carbonarius* N. & P. Vanderburgh County.											×	
Pleurotomaria concavus Hall, 8. *see* Eotrochus concavus.												
Pleurotomaria conulus Hall, 12. Spergen Hill (Hall), Washington County.								×				
**Pleurotomaria elegantula* Hall, 12 (Murchisonia elegantula). Bloomington (Hall)							×	×				
**Pleurotomaria ella* Hall. Delphi.			×									
**Pleurotomaria grayvillensis* N. & P. Vanderburgh County and Vigo County.											×	
Pleurotomaria humilis Hall, 12. Bloomington and Spergen Hill (Hall), Washington County.								×				
**Pleurotomaria hoyi* Hall. Huntington.			×									
**Pleurotomaria idia* Hall. Huntington (Hall).			×									
Pleurotomaria imitator Hall. Charlestown. Falls of the Ohio (Hall).				×								
**Pleurotomaria lucina* Hall. Charlestown and Bartholomew County.				×								
**Pleurotomaria lucina* var. *perfasciata* Hall. Falls of the Ohio, Clark County (Nettleroth).				×								
Pleurotomaria leavenworthana. *see* Cyclonema leavenworthana.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Pleurotomaria meekana* Hall, 12. Spergen Hill and Bloomington (Hall), Washington County.								×				
Pleurotomaria mitigata Hall. Rockford (James Hall).						×						
**Pleurotomaria nodulostriata* Hall, 12. Spergen Hill and Bloomington (Hall), Washington County.								×				
**Pleurotomaria occidens* Hall. Delphi.			×									
Pleurotomaria piasaensis Hall, 15. Washington County.								×				
Pleurotomaria procteri Nettleroth. Clark County (Nettleroth).				×								
Pleurotomaria rotundata see Pleurotomaria subglobosa.												
**Pleurotomaria shumardi* M. & W., 8. Harrison County and Crawfordsville.							×					
**Pleurotomaria sphæroulata* Conrad, 13. Vanderburgh and Vigo (White).											×	
Pleurotomaria tabulata Conrad., Hall (Hall).											×	
Pleurotomaria subangulatum Hall. see Cyclonema subangulatum Hall.												
Pleurotomaria subglobosa Hall, 12 (Pleurotomaria rotunda). Spergen Hill and Bloomington.								×				
**Pleurotomaria sulcomarginata* Conrad. Watson's Station and Falls of the Ohio (Hall)				×								
Pleurotomaria subconica, Hall. Richmond.	×											
Pleurotomaria swallovana Hall, 12. Spergen Hill and Bloomington (Hall), Washington County.								×				
**Pleurotomaria tabulata* Conrad, 10 and 13. Rush Creek, Vigo County, and Posey County (White).											×	
Pleurotomaria textiligera Meek. Washington County.						×						
Pleurotomaria trilineata Hall, 12. Spergen Hill (Hall), Washington County.								×				
Pleurotomaria tropidophora Meek. Versailles (Miller), Madison (W. S. T. Cornett).	×											
Pleurotomaria turbiniformis M. & W., 13. Vigo County (C. A. White).											×	
Pleurotomaria vadosa H. Rockford (James Hall).						×						
**Pleurotomaria wortheni* Hall, 12. Spergen Hill and Bloomington (Hall), Washington County, Monroe and Harrison Counties.								×				
Polyphemopsis fusiformis Hall, 10. Newport (C. A. White).											×	
Polyphemopsis louisvillae H. & W. Falls of the Ohio (Nettleroth).				×								
Polyphemopsis nitidula M. & W., 11. Vermillion County (C. A. White).											×	
Protowarthia cancellata Hall. (Ulrich).	×											
Protowarthia subcompressa Ulrich. Versailles (Ulrich).	×											
Raphistoma richmondensis Ulrich. Richmond (Ulrich).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Salpingostoma richmondensis Ulrich. Richmond (Ulrich).	×											
Schizolopha manei Ulrich. Richmond (Ulrich).	×											
Soleniscus? (Macrocheilus) medialis M. & W., 13. Vermillion County (C. A. White).											×	
Soleniscus fusiformis Hall (Machrocheilus fusiformis), 7. Vanderburgh County.											×	
Soleniscus (Macrocheilus) paludinaeformis Hall, 13. Vermillion County (C. A. White).											×	
Soleniscus? (Macrocheilus) primigenus Conrad. (C. A. White).											×	
Trochonema madisonensis Ulrich. Madison (Ulrich).	×											
**Straparollus lens* Hall (E. lens). Rockford (Jas. Hall).						×						
•*Straparollus planidorsatis* M. & W. Orange County.									×			
Straparollus quadrivolvis Hall. Washington County.								×				
**Straparollus spergensis* Hall (Euomphalus spergensis). Spergen Hill, Greencastle and Monroe County (J. Hall).								×				
Straparollus spergensis var. *planorbiformis* Hall. (E. spergensis var. planorbiformis). Bloomington and Spergen Hill (J. Hall).								×				
Straparollus spirorbis Hall (Euomphalus spirorbis). Rockford (James Hall).						×						
Strophostylus cyclostomus var. *disjunctus* Hall, 11. Waldron (James Hall).			×									
Strophostylus cyclostomus Hall, 11. Waldron (J. Hall).			×									
Strophostylus varians Hall. Falls of the Ohio (Nettleroth).				×								
Subulites benedicti Miller, 17. Franklin County.			×									
Temnocheilus coxanum M. & W., 8. Harrison County.								×				
Temnocheilus nioteuse M. & W., 8. Harrison County.								×				
Trochonema rectilintera Hall. Falls of the Ohio (Nettleroth).				×								
Trochonema pantellana Hall & W. Falls of the Ohio (Nettleroth).				×								
Tryblidium indianense Miller, 17. Fayette County.	×											
Tryblidium madisonense Miller, 18. Madison.	×											
Turbo shurmardi de Verneuil. Clark County (Nettleroth).				×								
PTEROPODA.												
Coleolus spinulus Hall, 11. Waldron.			×									
•*Coleolus tenuicinctus* Hall (Coleoprion tenuicinctus). Falls of the Ohio and Charlestown (Hall).				×								

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Conularia crawfordsvillensis R. Owen Crawfordsville (R. Owen).							×					
Conularia formosa Miller & Dyer Versailles (Miller & Dyer).	×											
Conularia gratiosa M. & G. Spergen Hill (Miller & Gurley).								×				
Conularia infrequens Hall, 11 Waldron.			×									
Conularia intertexta Miller, 18 West Point.							×					
**Conularia micronema* Meek, 8 Clark County						×						
**Conularia missouriensis* Swallow, 8 and 10 Harrison County, Washington County and Ellettsville.								×	×			
**Conularia niagarensis* Hall Grant County and Waldron.			×									
**Conularia newberryi* Winchell, 8 Harrison County and New Albany.						×						
**Conularia quadrisulcata* (?) Miller Waldron.			×									
**Conularia subcarbonaria* Meek & Worthen, 8 Harrison County, Washington County and Crawfordsville.							×					
Conularia subulata Hall, 12 Alton (Hall).								×				
Conularia spergensis M. & G. Spergen Hill (Miller & Gurley).								×				
Hyolithes aculeatus Hall (Puginculus aculeatus) Rockford (James Hall).						×						
Hyolithes (?) *dubius* M. & F. Versailles (M. & F.).	×											
Hyolithes versaillesensis M. & F. Versailles (M. & F.).	×											
Puginculus (?) (*Theca*) *aculeatus* H. *see* Hyolithes aculeatus.												
Styliola fissurella Hall (Tentaculites fissurella). New Albany and Scott Counties (Whitfield), Falls of the Ohio (Nettleroth).				×	×							
Tentaculites dexithea Hall. Pendleton (H. H).				×								
**Tentaculites fissurella* Hall *see* Styliola fissurella.												
Tentaculites flexuosa *see* Conocoelites flexuosus.												
**Tentaculites richmondensis* Miller Richmond (Miller) (Hall)	×											
Tentaculites scalariformis Hall Clark County (Nettleroth).				×								
**Tentaculites tenuistriatus* M. & W. Richmond.	×											
Tentaculites niagarensis Hall, 11 Delaware County.			×									
CEPHALOPODA.												
Ascoceras indianensis Newell Delphi (Newell).			×									
Ascoceras newberryi Bell Delphi (Newell)			×									
Cyrtoceras amoenum Miller Richmond (Miller).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Cyrtoceras howardi Miller, 18 St. Paul.	....	....	×	....	....	....	....	....	....	....	....	....
Cyrtoceras indianense Miller, 17 St. Paul and Hartsville.	....	....	×	....	....	....	....	....	....	....	....	....
Cyrtoceras lamellatum, 6 Madison (Cornett).	×	....	....	....	....	....	....	....	....	....	....	....
**Cyrtoceras ohioensis* Meek Charlestown.	....	....	....	×	....	....	....	....	....	....	....	....
Cyrtoceras tenuiseptum Faber Versailles (Faber).	×	....	....	....	....	....	....	....	....	....	....	....
Cyrtoceras thompsoni Miller, 18 Fayette County.	×	....	....	....	....	....	....	....	....	....	....	....
Endoceras approximatum ? Hall Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
**Endoceras magniventrum* Hall Madison.	×	....	....	....	....	....	....	....	....	....	....	....
**Endoceras proteiforme* Hall Franklin County.	×	....	....	....	....	....	....	....	....	....	....	....
Gomphoceras clarki Miller, 17 Corydon (Miller).	....	....	....	....	....	....	....	×	....	....	....	....
Gomphoceras indianensis Miller & Faber Versailles and Madison (Miller & Faber).	×	....	....	....	....	....	....	....	....	....	....	....
Gomphoceras linearis Newell Wabash City (Newell).	....	....	×	....	....	....	....	....	....	....	....	....
Gomphoceras minum Beecher Falls of the Ohio (J. Hall).	....	....	....	×	....	....	....	....	....	....	....	....
**Gomphoceras oviforme* Hall Charlestown (Nettleroth).	....	....	....	×	....	....	....	....	....	....	....	....
Gomphoceras projectum Newell Delphi (Newell).	....	....	×	....	....	....	....	....	....	....	....	....
**Gomphoceras raphanus* Hall Charlestown	....	....	....	×	....	....	....	....	....	....	....	....
**Gomphoceras septore* Hall, 11 Delaware County, Delphi and Wabash.	....	....	×	....	....	....	....	....	....	....	....	....
**Gomphoceras subgracile* Hall Delphi. Wabash and Charlestown.	....	....	×	....	....	....	....	....	....	....	....	....
**Gomphoceras turbiniforme* M. & W. Charlestown (Meek & Worthen), (Nettleroth)	....	....	....	×	....	....	....	....	....	....	....	....
Gomphoceras wabashensis Newell, 17 Delphi (Newell) Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Goniatites brownensis Miller, 17 Brown County (Miller).	....	....	....	....	....	×	....	....	....	....	....	....
Goniatites discoideus Hall Falls of the Ohio (Nettleroth).	....	....	×	....	....	....	....	....	....	....	....	....
Goniatites greeni Miller, 18, New Albany.	....	....	....	....	....	×	....	....	....	....	....	....
Goniatites greencastlensis Miller & Gurley Greencastle (Miller & Gurley).	....	....	....	....	....	....	....	×	....	....	....	....
Goniatites hyas Hall see G. lyoni.	....	....	....	....	....	....	....	....	....	....	....	....
Goniatites indianensis Miller, 17 Clark County (Miller).	....	....	....	....	....	×	....	....	....	....	....	....
**Goniatites ixion* Hall (G. rotatorius) Scott County and Rockford (J. Hall).	....	....	....	....	....	×	....	....	....	....	....	....
**Goniatites lyoni* M. & W. Rockford (Meek & Worthen).	....	....	....	....	....	×	....	....	....	....	....	....
**Goniatites oweni* Hall, 10. Scott County and Rockford.	....	....	....	....	....	×	....	....	....	....	....	....
**Goniatites oweni* var. *parallelus* Hall Rockford (J. Hall).	....	....	....	....	....	×	....	....	....	....	....	....
Goniatites rotatorius de Kon ? see G. ixion.	....	....	....	....	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Gyroceras abruptum Hall, 11			×									
Waldron.												
Gyroceras baeri M. & W.	×											
(Trochoceras baeri), Richmond (Miller) & (Meek).												
**Gyroceras elrodi* White, 11			×									
Hartsville, St. Paul and Delaware County.												
**Gyroceras gracile* Hall						×						
Rockford (J. Hall).												
**Gyroceras inelegans* Meek				×								
Falls of the Ohio.												
**Gyroceras spinosum* Conrad				×								
Logansport.												
Gyroceras? rockfordensis M. & W.						×						
Rockford (Meek & Worthen).												
Hexameroceras cucubiformis Newall, 17			×									
Wabash County.												
Hexameroceras delphicolum Newell			×									
Delphi (Newell).												
Kionoceras columnare Hall (O. columnare)			×									
Wabash City (Newell).												
Kionoceras strix H. & W. (O. strix). 17			×									
Wabash City (Newell), Delphi and Grant County.												
Lituites bickmoreanus Whitfield, 17			×									
Wabash County.												
Lituites graftonensis M. & W., 17			×									
Wabash County.												
**Lituites marshi* Hall, 11 and 17			×									
Wabash County, Delaware County.												
Lituites multicostatus Whitfield, 17			×									
Wabash County.												
**Nautilus clarkanus* Hall								×				
Spergen Hill (Hall), Washington and Tippecanoe Counties.												
Nautilus (Solenochilus) collectus M. & W.												
see Solenchilus collectum.												
**Nautilus coxanus*, 12												
see Temnochilus coxanum.												
**Nautilus decoratus* Cox								×				
Vanderburgh, Clay and Vigo Counties and Greencastle.												
Nautilus digonus M. & W.												
see Trematodiscus digonus.												
Nautilus forbesianus McChesney, 13											×	
Newport (C. A. White).												
Nautilus maximus Conrad												
Falls of the Ohio (Nettleroth).												
Nautilus missouriensis Swall?, 13											×	
Fountain County (C. A. White).												
**Nautilus occidentalis* Swallow											×	
Dubois County.												
Nautilus oceanus Hall, 11			×									
Waldron.												
**Nautilus planorbiformis* M. & W.											×	
Dubois County.												
**Nautilus (Cryptoceras) rockfordensis* M. & W.						×						
Rockford (Meek & Worthen).												
Nautilus trisulcatus M. & W.												
see Trematodiscus trisulcatus.												
Nautilus (Discus) trisulcatus M. & W.						×						
Rockford (Meek & Worthen).												
Nautilus winslowi M. & W., 13												
see Temnochilus winslowi.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Cornilerous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Ormoceras tenuifilum Hall, 6	×											
Madison (W. S. T. Cornett).												
Orthoceras amycus Hall			×									
Waldron.												
* *Orthoceras annulatum* Sowerby, 11			×									
Newton County, Grant County, St. Paul and Hartsville.												
Orthoceras bilineatum, 6	×											
Madison (W. S. T. Cornett).												
Orthoceras caldwellensis Miller & Gurley				×								
Clark County (Miller & Gurley).												
* *Orthoceras clavatum* Hall			×									
North Vernon.												
* *Orthoceras columnare* Hall, 17			×									
see Kionoceras columnare												
* *Orthoceras crebescens* Hall, 11			×									
Wabash County, Grant County, Delaware County, Miami County and North Vernon.												
* *Orthoceras crebristriatum* M. & W.			×									
Waldron.												
Orthoceras epigrus Hall, 12								×				
Spergen Hill (Hall), Lanesville.												
Orthoceras expansum Meek & Worthen, 8							×	×				
Harrison County												
Orthoceras franklinense Miller, 18			×									
Franklin County.												
Orthoceras gorbyi Miller 18	×											
Franklin County.												
Orthoceras (eu-orthoceras?) hanoverensis Foerste		×										
Hanover (Foerste).												
* *Orthoceras heterocinctum* Winch						×						
Rockford												
Orthoceras icarus Beecher						×						
Rockford (J. Hall).												
Orthoceras (eu-orthoceras?) ignotum Foerste		×										
Hanover (Foerste).												
* *Orthoceras imbricatum* Sowerby			×									
St. Paul.												
Orthoceras indianense Hall						×						
Rockford (J. Hall).												
Orthoceras juncum Hall	×											
Madison (W. S. T. Cornett)												
Orthoceras longicameratum Hall			×									
Waldron.												
Orthoceras marcellensis Vanuxem						×						
Rockford (J. Hall).												
Orthoceras medulare Hall, 11			×									
Waldron.												
Orthoceras mohri Miller	×											
Versailles (Miller).												
Orthoceras obstructum Newell, 17			×									
Wabash County (Newell).												
Orthoceras rigidum Hall, 17			×									
Peru (Newell), Wabash County.												
* *Orthoceras rushense* McChesney, 13											×	
Eugene, Newport, Lodi, Merom, Graysville, New Harmony, Newberg and Vanderburgh County.												
* *Orthoceras simulator* Hall, 11			×									
Waldron (J. Hall), Newton County and Carroll County.												
Orthoceras spinale	×											
Madison (W. S. T. Cornett).												

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Orthoceras subcancellatum* Hall, 11 St. Paul and Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Orthoceras subulatum* Hall Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Orthoceras strix* Hall, 17 *see* Kinoceras strix.	....	....	....	....	....	....	....	....	....	....	....	....
Orthoceras unionense Worthen, 17 Wabash County (Newell).	....	....	×	....	....	....	....	....	....	....	....	....
**Orthoceras whiti* Winch Rockford.	....	....	....	....	....	×	....	....	....	....	....	....
Orthoceras winchelli M. & W. Greencastle.	....	....	....	....	....	....	....	×	....	....	....	....
Orthoceras (*Actinoceras*) *youngi* Foerste Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
Pentamereroceras mirum Barrande Delphi (Newell).	....	....	×	....	....	....	....	....	....	....	....	....
Phragmoceras angustum Newell, 17 Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
**Phragmoceras ellipticum* H. & W. Clark County, Grant County and Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
**Phragmoceras linearis* New Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
**Phragmoceras nestor* Hall, 17 Grant County, Marion and Monon.	....	....	×	....	....	....	....	....	....	....	....	....
**Phragmoceras parvum* H. & W. Grant County	....	....	×	....	....	....	....	....	....	....	....	....
Phragmoceras projectum Newell, 17 Wabash County	....	....	×	....	....	....	....	....	....	....	....	....
Phragmoceras walshi? M. & W. Jeffersonville.	....	....	....	×	....	....	....	....	....	....	....	....
Remeleceras clarkense Miller & Gurley Sampson Springs, Clark County (Miller & Gurley).	....	....	....	....	....	×	....	....	....	....	....	....
Soleniscus rockfordense Miller, 17 Rockford.	....	....	....	....	....	×	....	....	....	....	....	....
Solenochilus henryvillensis M. & G. Henryville (Miller & Gurley).	....	....	....	....	....	×	....	....	....	....	....	....
Solenochilus rockfordense Miller Rockford (Miller).	....	....	....	....	....	×	....	....	....	....	....	....
Streptodiscus indianensis Miller, 18 West Point.	....	....	....	....	....	....	×	....	....	....	....	....
**Temnocheilus coxanum* Meek & Worthen, 8 Orange County and Greencastle.	....	....	....	....	....	....	....	×	....	....	....	....
Temnocheilus niotense M. & W., 8 Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
**Temnocheilus winslowi* M. & W. (Nautilus winslowi) Danville and Dubois Counties (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Trematodiscus digonus M. & W. (Nautilus digonus) Jackson County.	....	....	....	....	....	×	....	....	....	....	....	....
Trematodiscus trisulcatus M. & W. (Nautilus trisulcatus) Rock ord (Meek & Worthen).	....	....	....	....	....	×	....	....	....	....	....	....
Trochoceras desplainense McChesney, 17 Wabash County.	....	....	×	....	....	....	....	....	....	....	....	....
Trochoceras (?) *bueri* M. & W. *see* Gyroceras bueri.	....	....	....	....	....	....	....	....	....	....	....	....
**Trochoceras waldronense*, 11 Waldron (Hall).	....	....	×	....	....	....	....	....	....	....	....	....

	Ordovician	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift
ARTHROPODA.												
CLASS CRUSTACEA.												
PALEOSTRACA.												
Acidaspis fimbriata Hall, 11 ..... Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
Asaphus gigas De Kay, 6. (Isotelus gigas) ..... Madison (Cornett), Ripley County.	×	....	....	....	....	....	....	....	....	....	....	....
Asaphus megistus Locke, 7 ..... Ripley County.	×	....	....	....	....	....	....	....	....	....	....	....
**Calymene blumenbachii* ..... see Calymene niagarensis.	....	....	....	....	....	....	....	....	....	....	....	....
Calymene nasuta Ulrich ..... Osgood, Ripley County (Miller).	....	....	×	....	....	....	....	....	....	....	....	....
**Calymene niagarensis* Hall, 11 (C. blumenbachii) Waldron (Hall), Wabash County, Jefferson County, Fayette County, Ripley County, Miami County and Madison.	×	....	×	....	....	....	....	....	....	....	....	....
Calymene callicephala Green (C. senaria) ..... Richmond (Meek), Franklin County.	×	....	....	....	....	....	....	....	....	....	....	....
Calymene platys Green ..... Falls of the Ohio (Hall & Clark).	....	....	....	×	....	....	....	....	....	....	....	....
Calymene senaria Conrad, 10 ..... see C. callicephala.	....	....	....	....	....	....	....	....	....	....	....	....
Ceraurus icarus Billings ..... Richmond (Meek).	×	....	....	....	....	....	....	....	....	....	....	....
**Ceraurus* (Cheirurus) *niagarensis* Hall, 11 ..... Waldron and Marion County (Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Cyphaspis christyi* Hall, 11 ..... Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
Carcinosoma ingens Claypole ..... Kokomo (Claypole).	....	....	×	....	....	....	....	....	....	....	....	....
Carcinosoma newlini Claypole ..... Kokomo (Claypole).	....	....	×	....	....	....	....	....	....	....	....	....
Dalmania calypso Hall ..... see Dalmanites calypso.	....	....	....	....	....	....	....	....	....	....	....	....
Dalmania pleione ..... see Dalmanites pleione.	....	....	....	....	....	....	....	....	....	....	....	....
Dalmania limulurus ..... see Dalmanites limulurus.	....	....	....	....	....	....	....	....	....	....	....	....
Dalmanites anchiops var. *sobrinus* H. & C. ..... Falls of the Ohio (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
Dalmanites (*Coronura*) *aspectans* Conrad ..... Falls of the Ohio (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
Dalmanites bucanis Hall, 11 ..... Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Dalmanites carleyi Meek, 6 ..... Madison (Cornett).	....	....	×	....	....	....	....	....	....	....	....	....
Dalmanites (*Chasmops*) *calypso* Hall ..... Falls of the Ohio (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
**Dalmanites limulurus* Green (Dalmania limulurus) ..... Madison and Jefferson Counties (Cornett).	....	....	....	....	....	....	....	....	....	....	....	....
**Dalmanites micrurus* Green ..... Louisville, Ky.	....	....	×	....	....	....	....	....	....	....	....	....
**Dalmanites ohioensis* Meek & Worthen ..... Madison and Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
Dalmanites (*Cryphaeus*) *pleione* Hall (Dalmania pleione) ..... Falls of the Ohio and Jennings County (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
**Dalmanites pleuropteryx* Green Louisville, Ky.	....	....	×	....	....	....	....	....	....	....	....	....
**Dalmanites verrucosus* Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Dalmanites vigilans* Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Encrinurus punctatus Wahlenberg. Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
Euproops colletti White, 13. Vigo County (White).	....	....	....	....	....	....	....	....	....	....	×	....
Eurypterus kokomoensis Miller & Gurley. Kokomo (Miller & Gurley).	....	....	×	....	....	....	....	....	....	....	....	....
Eurypterus lacustris Claypole. Kokomo (Claypole).	....	....	×	....	....	....	....	....	....	....	....	....
**Homalonotus delphinocephalus* Green 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Illaenus ambiguus Foerste. Hanover (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
**Illaenus armatus* Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Illaenus daytonensis H. & W. Osgood (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
Illaenus insignus Hall, 6. Madison.	....	×	....	....	....	....	....	....	....	....	....	....
Illaenus madisonensis Foerste. Osgood (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
**Illaenus ioxus* Hall, 11. Renessaleur & Waldron.	....	....	×	....	....	....	....	....	....	....	....	....
**Isotelus gigas*. *see* Asaphas gigas. Richmond.	....	....	....	....	....	....	....	....	....	....	....	....
Lichas bolton var. *occidentalis* Hall, 11. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
**Lichas breviceps* Hall, 11. Waldron & Charlestown (James Hall), Hanover (Foerste).	....	×	×	....	....	....	....	....	....	....	....	....
Lychas byrnesanus M. & G. Madison (Miller & Gurley).	....	....	×	....	....	....	....	....	....	....	....	....
Lichas emarginatus Hall. Waldron (James Hall).	....	....	×	....	....	....	....	....	....	....	....	....
Lichas hanoverensis M. & G. Hanover (Miller & Gurley).	....	....	×	....	....	....	....	....	....	....	....	....
**Phacops bufo* Green. Charlestown, N. Vernon and Falls of the Ohio (Miller & Gurley).	....	....	....	×	....	....	....	....	....	....	....	....
Phacops cristata var. *pipa* H. & C. Falls of the Ohio (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
Phacops gallicephalus, 6. Madison (Cornett).	×	....	....	....	....	....	....	....	....	....	....	....
**Phillipsia bufo* M. & W., 10. Spergen Hill (Whitfield), Crawfordsville, Jacksonville and Harrison County.	....	....	....	....	....	....	×	×	....	....	....	....
Phillipsia doris (Hall), Winch. (Proteus doris). Rockford (Herrick), (Hall).	....	....	....	....	....	×	....	....	....	....	....	....
**Phillipsia meramecensis* Shumard. Lanesville and Bloomington.	....	....	....	....	....	....	....	×	....	....	....	....
**Phillipsia portlocki* M. & W. Harrison County and Washington.	....	....	....	....	....	....	×	×	....	....	....	....
Phillipsia rockfordensis Winch. Rockford (Herrick).	....	....	....	....	....	×	....	....	....	....	....	....
Phillipsia (*Griffithides?*) *sangamonensis* M. & W. Perrysville, Eugene, Lodi, Silverwood, Newport and Dubois County (C. A. White)	....	....	....	....	....	....	....	....	....	....	×	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Phillipsia (Griffithides) scitula M. & W., 13. Perryville, Eugene, Lodi, Silverwood and Newport (C. A. White).	....	....	....	....	....	....	....	....	....	....	×	....
Phillipsia seminifera Morrison, 8. Harrison County.	....	....	....	....	....	....	....	×	....	....	....	....
**Phillipsia stevensoni* Meek. Orange County.	....	....	....	....	....	....	....	....	×	....	....	....
Piliolites ohioensis Cozzens. Falls of the Ohio (Cozzens).	....	....	....	×	....	....	....	....	....	....	....	....
Proëtus canaliculatus Hall & Clark. Falls of the Ohio (Hall & Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
Proëtus clarus Hall. Falls of the Ohio (Jas. Hall & J. M. Clarke).	....	....	....	×	....	....	....	....	....	....	....	....
**Proëtus crassimarginatus* Hall. Falls of the Ohio (Hall).	....	....	....	×	....	....	....	....	....	....	....	....
‡*Proëtus curvimarginatus* H. & C. Pendleton (Hall & Clark). ‡Schoharie grit (Hall & Clark).	....	....	....	....	....	....	....	....	....	....	....	....
Proëtus determinatus Foerste. Ripley County (Foerste).	....	×	....	....	....	....	....	....	....	....	....	....
Proëtus doris Hall. see Phillipsia doris.	....	....	....	....	....	....	....	....	....	....	....	....
‡*Proëtus latimarginatus* H. & C. Pendleton (Hall & Clark).	....	....	....	....	....	....	....	....	....	....	....	....
**Proëtus longicaudus* Hall. Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
Proëtus microgemma H. & C. Falls of the Ohio (Hall & Clark).	....	....	....	×	....	....	....	....	....	....	....	....
**Proëtus planimarginatus* Meek. Madison, Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
EUOSTRACA.												
Macrocaris gorbyi Miller, 18. West Point.	....	....	....	....	....	....	×	....	....	....	....	....
ENTOMOSTRACA.												
Aparchites inornatus Ulrich. Falls of the Ohio (E. O. Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Barychilina puncto-striata Ulrich	....	....	....	×	....	....	....	....	....	....	....	....
Barychilina puncto-striata var. *custa* Ulrich. Falls of the Ohio (Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Barychilina pulchella Ulrich. Falls of the Ohio (Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Beyrichia chambersi Miller. Richmond (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Beyrichia granulosa Hall, 11. Waldron (Hall).	....	....	....	....	....	....	....	....	....	....	....	....
Beyrichia hammelli M. & F. Versailles (M. & F.).	×	....	....	....	....	....	....	....	....	....	....	....
Beyrichia (? *Deprancella*) *limodina* Jones. Falls of the Ohio (Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Beyrichia lyoni Ulrich. Falls of the Ohio (Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Beyrichia striato-marginatus Miller. Osgood (Miller).	×	....	....	....	....	....	....	....	....	....	....	....
Bollia obesa Ulrich. Falls of the Ohio (Ulrich).	....	....	....	×	....	....	....	....	....	....	....	....
Bollia pumila Ulrich. Weisburg.	....	....	....	? ×	....	....	....	....	....	....	....	....

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Bythrocypris indianense Ulrich Falls of the Ohio (A. E. Ulrich).				×								
Bythocypris punctulata Ulrich Falls of the Ohio (A. E. Ulrich).				×								
Ceratopsis chambersi Miller Richmond and Versailles (A. E. Ulrich.)	×											
Ctenobolbina (? Bollia) antespinosa Ulrich Falls of the Ohio (Ulrich).				×								
Ctenobolbina informis Ulrich Falls of the Ohio.				×								
Ctenobolbina papillosa Ulrich Falls of the Ohio (Ulrich).				×								
Cythere carbonaria Hall *see* Leperditia carbonaria.												
Cytherellina glandella Whitfield *see* Cytheropsis glandella.												
Cytheropsis glandella Whitfield Spergen Hill (R. P. Whitfield).								×				
Entomis madisonensis Ulrich Madison (Ulrich).	×											
Entomis waldronensis Ulrich Waldron (Ulrich).		×										
Eurychilina striatomarginata Miller Osgood (S. A. Miller).	×											
Hallietta retifera Ulrich Falls of the Ohio (Ulrich).				×								
Isochilina rectangularis Ulrich Falls of the Ohio (Ulrich).				×								
Kirkbya subquadrata Ulrich Falls of the Ohio (Ulrich).				×								
Labichia montifera Ulrich Madison (Ulrich).	×											
Leaia tricarinata Meek & Worthen Vermillion County (C. A. White), Vigo County.											×	
Leperditia caecigena Miller Madison (E. O. Ulrich), Versailles and Osgood (Miller).	×											
Leperditia carbonaria Hall, 12 (Cythere carbonaria) Bloomington and Lanesville, and Washington County.								×				
Leperditia faba Hall Waldron (J. Hall).			×									
Leperditia (?) *subrotunda* Ulrich Falls of the Ohio (E. O. Ulrich).				×								
Octonaria clavigera Ulrich Falls of the Ohio (A. E. Ulrich).				×								
Octonaria devonica Ulrich Falls of the Ohio (A. E. Ulrich).				×								
Octonaria ovata Ulrich Falls of the Ohio (E. O. Ulrich).				×								
Octonaria stigmata Ulrich Falls of the Ohio (E. O. Ulrich).				×								
Octonaria stigmata var. *loculosa* Ulrich Falls of the Ohio (E. O. Ulrich).				×								
Octonaria stigmata var. *oblonga* Ulrich Falls of the Ohio (E. O Ulrich).				×								
Pachydomella tumida Ulrich Falls of the Ohio (A. E. Ulrich).				×								
Strepula quadrilirata var. *simplex* Weisburg (Ulrich).	×											
Tetradella quadrilirata H. & W. Richmond and Versailles (Ulrich).	×											

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
INSECTA.												
Paoli vetusta S. I. Smith, 20. French Lick.	....	....	....	....	....	....	....	....	....	×	....	....
PISCES.												
Antilodus arcuatus N. & W. Greencastle (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Antliodus minutis N. W. Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Antliodus similis Newberry & Worthen Harrison County (Newberry).	....	....	....	....	....	....	×	....	....	....	....	....
Archaeobatis gigas New. Greencastle (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Aspidotus crenulatus Newberry & Worthen *see* Psephodus crenulatus.	....	....	....	....	....	....	....	....	....	....	....	....
Chomatodus angustus Newberry. Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Chomatodus obliquus Newberry. Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Chomatodus pusillus N. & W., 8. Harrison County (Collett).	....	....	....	....	....	....	....	×	....	....	....	....
Chomatodus sellaformis Newberry. Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Cladodus gracilis N. & W. Posey County (Newberry & Worthen).	....	....	....	....	....	....	....	....	....	....	×	....
Ctenoptychius semicircularis N. & W. *see* Peripristis semicircularis.	....	....	....	....	....	....	....	....	....	....	....	....
Deltodus cinctus St. John & Worthen Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Deltodus grandis? N. & W. Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Deltodus spatulatus N. & W. Harrison County (Newberry).	....	....	....	....	....	....	×	....	....	....	....	....
Diplodus compressus Newberry. Posey County (Newberry & Worthen).	....	....	....	....	....	....	....	....	....	....	×	....
Diplodus latus Newberry Posey County (Nowberry & Worthen).	....	....	....	....	....	....	....	....	....	....	×	....
Edestus heinrichsi N. & W. Vermillion County, Parke County (Hitchcock) (Newberry).	....	....	....	....	....	....	....	....	....	....	×	....
Edestus minor Newberry Posey County (Newberry & Worthen).	....	....	....	....	....	....	....	....	....	....	×	....
Helodus coniculus Newberry & Worthen Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Helodus laevis Newberry Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Labodus marginatus Greencastle (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Lisgodus affinis Newberry Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Macropetalichthys rapheidolabis Norwood & Owen (Norwood & Owen) Falls of the Ohio.	....	....	....	×	....	....	....	....	....	....	....	....
Orodus colletti Newberry Harrison County (Newberry).	....	....	....	....	....	....	....	×	....	....	....	....
Orodus elegantulus N. & W. Harrison County (Newberry).	....	....	....	....	....	....	×	....	....	....	....	....
Orodus multicarinatus N. & W. Rockford (Norwood & Worthen).	....	....	....	....	....	×	....	....	....	....	....	....
Orodus ornatus N. & W. Harrison County (Newberry).	....	....	....	....	....	....	×	....	....	....	....	....

	Ordovician	Silurian		Devonian		Carboniferous						Quaternary
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures	Drift.
Orthopleuradus carbonarius New. & W. Posey County (St. John & Worthen).											×	
Petalodus knappi Newberry Harrison County (Newberry).							×					
Peripristis semicircularis N. & W. (Ctenoptychius semicircularis) Posey County (Newberry & Worthen).											×	
Petrodus occidentalis (Newberry & Worthen), 7 Vigo County, Clay County, Vanderburgh County, Owen County.											×	
Sandalodus minor New. & Worthen (Trigonodus minor) Harrison County (Newberry).								×				
Taeniodus regularis St. John & Worthen Bedford (St. John & Worthen).								×				
Thrinacodus bicornis Newberry Harrison County (Newberry).								×				
Trigonodus minor N. & W. see Sandalodus minor.												
Polyrhizodus littoni N. & W. Greencastle (Newberry).								×				
Psammodus glyptus St. J. & W. Greencastle (Newberry).								×				
MAMMALIA.												
Cariacus dolichopsis Cope, 15. Harrison County.												×
Castoroides ohioensis Foster, 15. Richmond, Hancock County, near Greenfield, Randolph County (J. Moore), Vanderburgh, Carroll and Kosciusko Counties.												×
Cervus virginianus Wabash County.												×
Dicotyles nasutus Leidy, 15 Gibson County.												×
Dicotyles torquatus?, 15												×
Elephas americanus Blum, 15. Vigo, Parke, Vermillion, Wayne, Putnam, Vanderburgh and Montgomery Counties.												×
Elephas primigenius, 15. Clinton and Wabash Counties.												×
Equus fraternus Leidy, 15												×
Equus major DeKay, 15												×
Mastodon americanus Blum., 15. Covington, Fountain County, and Wabash County.												×
Megalonyx jeffersoni Cuv., 15 Henderson, Ky.												×
Platygonus compressus Le Conte, 15. Laketen, Wabash County.												×
Tapirus terrestris? 15 Evansville.												×
PLANTAE.												
Alethopteris grandiflora Newberry, 7. Vigo County.											×	
Alethopteris niagarensis, 7 Vigo County.											×	

	Ordovician.	Silurian.	Devonian.		Carboniferous.					Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Annularia longifolia Brongniart, 10. Vigo County, Shelburn.											×	
Annularia sphenophylloides Zuker, 7. Vigo County.											×	
Asterophyllites coxii Lesquereux, 13. New Harmony.											×	
Asterophyllites equisetiformis Scholt. Clay County.			×									
Bathrotrephis gracilis var. *crassa* Hall, 11. Waldron (J. Hall).										×	×	
Calamites cannæformis Schlotheim, 8. Harrison County.											×	
Callipteridium sullivanti Lesq. (Callipteris sullivanti), 7. Spring Creek and Perrysville.											×	
Callipteris sullivanti, see Callipteridium sullivanti.											×	
Carpolithes fasciculatus Lesqx., 8. Harrison County.							×		×			
Cauleropites marginatus Lesquereux? 8. Harrison County.												
Cordaites colletti Lesquereux, 8. see Taonurus colletti.												
Cordaites angustifolius Lesquereux, 8. see Cordaites diversifolius.												
Cordaites herassifolia Sternb., 8. Harrison County, Montgomery County, Vigo County and Clay County.												
Cordaites diversifolius Lesq. (C. angustifolius). Clay County, Vigo County and Harrison County.												
Cyclopteris elegans Lesq., 7. Vigo County.												
Hymenophyllites alata, see Sphenopteris alata.												
Hymenophyllites primatifidus Lesq., 7. Vigo County.												
Lepidodendron aculeatum Sternberg.												
Lepidodendron dichotomum Sternberg. Orange County (Lesquereux).												
Lepidodendron diplostegioides Lesq.												
Lepidodendron elegans Sternberg, 7. Vigo County.												
Lepidodendron foveolatum Lesq.											?	
Lepidodendron obovatum Sternberg. Orange County.											?	
Lepidodendron rushvillense. Orange County (Lesquereux).											?	
Lepidodendron veltheimianum Sternberg. Orange County (David White).												
Lepidophloios macrolepidotus Goldf., 13. Orange County (Lesquereux) Grape Creek.												
Lepidophyllum brevifolium Lesqx., 8. Harrison County.												
Lepidophyllum imbricata Sternberg? 8. Harrison County.												
Lycopodites strictus Lesqx. New Harmony (Lesquereux).												
Neuropteris biformis Lesqx. French Lick (David White).												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Neuropteris collinsi Lesqx. Vigo County.											×	
Neuropteris elrodi Lesqx. Orange County (Lesquereux).										×	×	
Neuropteris hirsuta Lesqx. Shelburn, Sullivan County, Spring Creek, Vermillion County (C. A. White), Vigo County and Clay County.											×	
Neuropteris loshi Brong., 7 Vigo County.											×	
Neuropteris rarinervis Bunbury, 10 Clay County and Vigo County (C. A. White.)												
Neuropteris smithsii Lesqx. ? Orange County (David White).										×		
Odontopteris subcuneata Bunbury, 10. Vermillion County (C. A. White), Spring Creek.												
Paleophycus divaricatum Lesq., 13 Salt Creek, Vigo County (Lesquereux).											×	
Paleophycus gracile Lesq., 13. Salt Creek, Vigo County (Lesquereux).												
Palaeophycus lineare Duden New Albany.					×							
Paleophycus milleri Lesq., 13. Salt Creek, Vigo County (Lesquereux).												
Palaeophycus new-albense Duden New Albany (Duden).												
Paleoxyris corrugatum *see* Spirangium corrugatum.												
Paleoxyris prendelli *see* Spirangium prendelli.												
Parenchymophycus asphalticum Duden New Albany (Duden).												
Pecopteris callosa *see* Pseudopecopteris callosa.												
Pecopteris arborescens Scholtheim Vigo County.												
Pseudopecopteris callosa Lesq. (Pecopteris callosa) Vigo County.												
Pseudopecopteris latifolia Brongn. (Sphenopteris latifolia) Orange County (Lesquereux).												
Pseudopecopteris muricata Brongn., 13 and 20 Orange County (Lesquereux) and (David White).												
Rhacophyllum flabellatum Sternb., 13 (Lesquereux.)												
Sigillaria menardi Brongniart, 7 Vigo County.												
Sigillaria obovata Lesq., 7 Vigo County.												
Sigillaria oculata Scholtheim, 7 Vigo County.												
Sigillaria reniformis? Brongn., 8 Harrison County.												
Sphenophyllum emarginatum Brongn., 11 Warren County.												
Sphenophyllum schlotheimii Brongn., 11 Vigo and Clay Counties.												
Sphenopteris alata Brongniart (Hymenophylites alata). Vigo County.												

	Ordovician.	Silurian.		Devonian.		Carboniferous.						Quaternary.
	Cincinnati.	Clinton.	Niagara and Water Lime.	Corniferous and Hamilton.	New Albany Shale.	Knobstone and Rockford Limestone.	Burlington and Keokuk.	Warsaw and St. Louis.	Kaskaskia.	Mansfield.	Coal Measures.	Drift.
Sphenopteris hoeninghausii (Bron.), 20 Orange County (David Whi	....	....	....	....	....	....	....	....	....	×	....	....
Sphenopteris latifolia Brongniart... see Pseudopecopteris latifolia.	....	....	....	....	....	....	....	....	....	....	....	....
Sphenopterus tridactylites Brongn. Orange County (Lesquereux).	....	....	....	....	....	....	....	....	....	×	....	....
Spirangium prendeli Lesq. (Paleoxyris prendelli) Vigo County.	....	....	....	....	....	....	....	....	....	....	×	....
Sporangites radiatus Duden, 21 New Albany (Duden).	....	....	....	....	×	....	....	....	....	....	....	....
Stigmaria ficoides Brongn., 8 Monroe and Harrison Counties.	....	....	....	....	....	....	....	....	×	×	....	....
Stigmaria hightowerai Kront. Crawfordsvill	....	....	....	....	....	....	×	....	....	....	....	....
Stigmaria stellata Goeppert, 8 Harrison County.	....	....	....	....	....	....	....	....	....	×	....	....
Stigmaria undulata Goeppert?, 8 Harrison County.	....	....	....	....	....	....	....	....	....	×	....	....

PART II. BIBLIOGRAPHY OF INDIANA PALEONTOLOGY.

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1843. HALL, JAS. Notes explanatory of a section from Cleveland, Ohio, to the Mississippi River, in a southwest direction, with remarks upon the identity of the Western formations with those of New York. Assoc. Am. Geol. Trans., 1843, pp 267–293, plate.

1843. HALL, JAS. On the geographical distribution of fossils in the older rocks of the United States. Am. Jour. of Sci., Vol. 45, 1843, pp. 157–160, 162–163.

1844. HALL, JAS. Geographical distribution of fossils. Am. Jour. Sci., Vol. 47, 1844, pp. 117–118.

1851. HALL, JAS. Parallelism of the Paleozoic deposits of the United States and Europe. Foster and Whitney's Rep't on Lake Superior. Pt. II, 1851, pp. 285–318. Compares the Paleozoic rocks of the West with those of New York.

1856. HALL, JAS. Description of new species of fossils from the Carboniferous Limestones of Indiana and Illinois. Trans Alb. Inst., Vol. 4, pp. 1–36. A large number of new species, all from the St. Louis group of Indiana and Illinois, with one exception, are described but not figured.

1857. HALL, JAS. Descriptions of Paleozoic fossils. 10th Reg. Rep't N. Y., 1857, pp. 41–186. Describes some new brachiopods from the Devonian and *Spirifer texta* from the Knobstone.

1858. HALL, JAS. Paleontology of Iowa. Geol. Surv. of Iowa, Vol. 1, Pt. 2, pp. 473–724, pls. 1–29. A number of the fossils which were described from the St. Louis L. S. at Spergen Hill, Indiana, in the Trans. of the Albany Institute, Vol. IV, are illustrated in this volume.

1860. HALL, JAS. Descriptions of new species of Crinoidea from the Carboniferous rocks of the Mississippi Valley. Bost. Jour. Nat. Hist., Vol. 7, pp. 261–328. The author describes six new species of Crinoids from the Keokuk at Crawfordsville. These are *Scaphiocrinus unicus*, *S. nodobranchiatus*, *S. robustus*, *S. aequalis*, *Cyathocrinus hoveyi* and *C. lyoni*.

1860. HALL, JAS. Upon the fossils of the Goniatite limestone in the Marcellus Shale of the Hamilton group in the eastern and central parts of the State of New York and those of the Goniatite beds of Rockford, Indiana; with some analogous forms

from the Hamilton group. 13th Ann. Rep't Regents Univ. N. Y., 1860, pp. 95–112, figs. 1–22. A large list of new species from Rockford is described, most of which are not figured.

1861. HALL, JAS. Supplementary note. 14th Ann. Rep't Regents Univ. N. Y., 1861, p. 81. The age of the Rockford Goniatite beds and of the Black Shale is discussed. It is suggested that the former is the equivalent of the Chemung.

1861. HALL, JAS. Preliminary notice of the Trilobites and other Crustacea of the Upper Helderberg, Hamilton and Chemung groups. 14th Ann. Rep't Regents Univ. of N. Y., 1861, pp. 82–114. Three Trilobites from the Falls of the Ohio are described. *Dalmania calypso*, *D. pleione* and *Proteus crassemarginatus*.

1862. HALL, JAS. Notice of some new species of fossils from a locality of the Niagara group in Indiana, with a list of identified species from the same place. Trans. Albany Inst., Vol. 4, 1862, pp 195–228. The new species described in this paper are figured in the 16th Ann. Rep't Regents Univ. of N. Y.

1867. HALL, JAS. Descriptions and figures of the fossil Brachiopoda of the Upper Helderberg, Hamilton, Portage and Chemung groups. Pal. of N. Y., Vol. 4, Pt. 1, 1867, pp. I–XIII, 1–422, pls. 1–63. A number of the species described occur at the Falls of the Ohio and elsewhere in Indiana rocks.

1878. HALL, JAS. Note upon the history and value of the term Hudson River in American geological nomenclature. Am. Assoc. Adv. Sci. Proc., Vol. 26, pp. 259–265, 1878. Abstract Am. Jour. Sci., 3d ser., Vol. 16, p. 482.

1879. HALL, JAS. The fauna of the Niagara group in Central Indiana. 28th Ann. Rep't N. Y. State Mus. Nat. Hist., 1879, pp. 99–199, pls. 1–34. The species occurring at Waldron, Indiana, are described and figured in this report.

1882. HALL, JAS. Descriptions of fossil corals from the Niagara and Upper Helderberg groups of Indiana. 12th Ann. Rep't Ind. Dept. Geol. and Nat. Hist., pp. 271–375.

1882. HALL, JAS. Vancleve's fossil corals, identified and compiled by Dr. Jas. Hall. 12th Ann. Rep't Ind. Dept. Geol. Nat. Hist., 1882, pp. 239–318, pls. 1–28.

1884. HALL, JAS. Lamellibranchiata of the Upper Helderberg, Hamilton, Portage and Chemung groups (Monomyaria). Pal. N. Y., Vol. 5, Pt. 1, 1884, pp. I–X, 1–268, pls. 1–33, 81–92. The

following species are figured and described from the Falls of the Ohio: *Aviculopecten princeps*, *Pterinopecten reflexus*, *P. nodosus*, *Pterinea grandis*, *Glyptodesma occidentale*, *Limoptera cancellata*. *Pterinea grandis*, a new species from Scott County, is described.

1884. HALL, JAS. Descriptions of fossil corals from the Niagara and Upper Helderberg groups. 35th Ann. Rep't N. Y. State Mus. Nat. Hist., pp. 407–464, pls. 16, 23–30. Describes and figures a large number of new species from the Falls of the Ohio.

1884. HALL, JAS. Descriptions of the species of fossil Reticulate Sponges constituting the family Dictyospongia. 35th Ann. Rep't N. Y. State Mus. Nat. Hist., pp. 465–481, pls. 18–21. Species from the Keokuk at Crawfordsville are described.

1885. HALL, JAS. Lamellibranchiata (Dimyaria), Pal. N. Y., Vol. 5, Pt. I, pp. 269–561, pls. 34–96. Eighteen species from Indiana are described and figured in this volume, some of which are new.

1887. HALL, JAS. Corals and Bryozoa. Pal. of N. Y., Vol. 6, 1887, pp. I–XXVI, 1–298, pls. 1–66. In this volume Prof. Hall describes and figures about seventy species, many of which are new, from the "Corniferous Limestone" at the Falls of the Ohio.

1888. HALL, JAS. Pteropoda of the Niagara, Lower and Upper Helderburg, Hamilton and Waverly Groups. Pal. N. Y., Supplement Vol. 5, Pt. 2, pp. 5–7, pl. 104, 1888. Describes and figures *Tentaculites dexithea* from Pendleton.

1888. HALL, JAS. Tubicolor Annelida, Pal. N. Y., Supplement Vol. 5, Pt. 2, pp. 8–24, pl. 116, 1888. Describes and figures *Cornulites proprius* from Waldron, and figures *Tentaculites richmondensis* Miller from Richmond.

1888. HALL, JAS. Supplement containing descriptions and illustrations of Pteropoda, Cephalopoda and Annelida. Pal. N. Y., Vol. 5, Pt. 2, 1888, pls. 114–129. Three Cephalopods from Indiana are figured in this supplement. These are *Gomphoceras minum* from the Falls of the Ohio, *Orthoceras indianense* and *O. icarus* from Rockford, Indiana.

1888. HALL JAS., AND CLARK, J. M. Trilobites and other Crustacea of the Oriskany, Upper Helderberg, Hamilton, Portage, Chemung and Catskill Groups. Pal. of N.Y., Vol. 7, 1888, pp. I–LXIV, 1–236, pls. 1–36. Two new species from what Hall considers a

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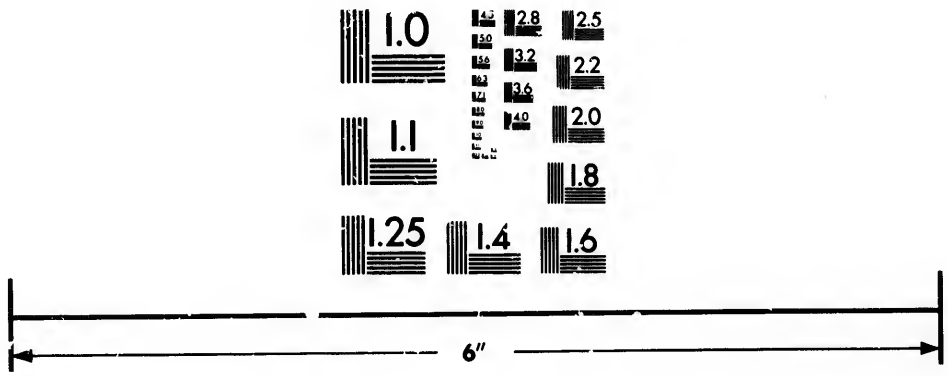

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Schoharie grit horizon at Pendleton, Indiana, are described. These are *Poetus curvimarginatus* and *P. latimarginatus*. Other new species from the Falls of the Ohio are figured.

1892. HALL, JAS., AND CLARK, J. M. An introduction to the study of the genera of Paleozoic Brachaeopoda. Pal. of N. Y., Vol. 8, Pt. 1, 1892, pp. 182, 346. Two new Brachiopods from Indiana are described and figured in this volume. *Derbya ruginosa* from the Keokuk and *Pholidops calceola* from the Corniferous Ls.

1872. HALL, JAS., AND WHITFIELD, R. P. Descriptions of new species of fossils from the vicinity of Louisville, Kentucky, and the Falls of the Ohio. 24th Ann. Rep't Regents of the Univ. of N. Y., 1872, pp. 223–239. The plates were published in the 27th Ann. Rep't Reg Univ. N. Y., 1875, Nos. 9–13.

1844. HAYMOND, RUFUS. Notices of remains of Megatherium, Mastodon and Silurian fossils. Am. Jour. Sci., Vol. 46, pp. 294–296, 1844.

1887. HERRICK, C. L. A sketch of the geological history of Licking County, accompanying an illustrated catalogue of Carboniferous fossils from Flint Ridge, Ohio. Denison Univ. Bull., Vol. 2, pp. 62, 63. Gives descriptive notes on three Trilobites from Rockford, Indiana. They are *Phillipsia scitula* M. & W., *P. doris* (Hall) Winch. and *P. rockfordensis* Winch.

1891. HUBBARD, GEO. C. The Upper limits of the Lower Silurian at Madison, Indiana. Proc. Ind. Acad. Sci., 1891, pp. 68–70. Places the limit 50 feet above the Favistella reef.

1891. HUBBARD, GEO. C. The Cystideans of Jefferson County, Indiana. Proc. Ind. Acad. Sci., 1891, p 68. Gives no list of species. Mentions Big Creek as a good locality for collecting.

1891. HUBBARD, GEO. C. Hudson River fossils of Jefferson County, Indiana. Proc. Ind. Acad. Sci., 1891, p. 68. Gives a summary by families of number of species. No specific names given.

1874. JAMES, U. P. Descriptions of new species of fossils from the Lower Silurian formation, Cincinnati group. Cin. Quart. Sci., Vol. 1, 1874, pp. 239–242. Describes a new species from Wayne County—*Avicula corrugata*—and mentions Indiana localities for some other species.

1886. JAMES, J. F. Cephalopoda of the Cincinnati group. Jour. Cin. Soc. Nat. Hist., Vol. 8, 1886, pp. 235–253. The paper contains a convenient key to the species of Cephalopoda and gives Indiana localities for a number of species.

1886. JAMES, J. F. Protozoa of the Cincinnati group Jour. Cin. Soc. Nat. Hist., Vol. IX, No. 3, pp. 244–252, 1886. Gives a synopsis of genera and species of the Protozoa of the Hudson River group. Notes *Labechia montifera* from Madison and *Stromatocerium richmondense* Miller, Hudson River group, Richmond.

1892. JAMES, J. F. Manual of the Paleontology of the Cincinnati group. Jour. Cin. Soc. Nat. Hist., Pt. 3, in Vol. 15, No. 2, 1892, pp. 88–100; Pt. 4, Vol. 15, Nos. 3 and 4, pp. 144–160; Pt. 5, Vol. 16, 1894, pp. 178–208; Pt. 6, Vol. 18, 1895; Pt. 7, Vol. 18, pp. 115–140.

1897. JAMES, J. F. Article XII—Manual of the Paleontology of the Cincinnati group. Jour. Cin. Soc. Nat. Hist., Vol. XIX, No. 3, pp. 99–118. The following species from Indiana localities are included: *Xenocrinus beeri* M., Richmond, *Glyptocrinus decadactylus* H., Madison.

1889. KEYES, C. R. The Carboniferous Echinodermata of the Mississippi basin. Am. Jour. Sci., 3d Ser., Vol. 3, p. 186. Gives table showing range of principal carboniferous genera.

1890. KEYES, C. R. Synopsis of American Carbonic Calyptræidæ. Proc. Phila. Acad. Nat. Sci., 1890, pp. 150–181, Pl. 2. Three species from Crawfordsville are figured—*Capulus sulcatinus*, *C. equilateratis*, *C. infundibulum*—and one from the Coal Measures, *C. parvus*.

1896. KINDLE, E. M. The Whetstone and Grindstone rocks of Indiana. 20th Ann. Rep't Ind. Dept. Geol. and Nat. Res., 1895, p. 349. Describes occurrence of *Lepidodendrons* standing upright in the Whetstone quarries near French Lick, and republishes the original figure of *Paola vetusta*.

1889. KNOWLTON, F. K. Description of a problematic organism from the Devonian at the Falls of the Ohio. Am. Jour. Sci., 3d Ser., Vol. 37, 1889, pp. 202–209, fig. 1–3. The organisms are referred provisionally to the genus Calcisphaera.

1870. LESQUEREAUX, LEO. Description of new species, and an enumeration, with remarks on species already known. Geol. Surv. of Ill., Vol. 4, 1870, pp. 379–477, pls. 5–31. One new coal plant is described from Indiana, without figure—*Chondrites colletti*—and mention is made of another.

1875. LESQUEREAUX, LEO. Species of fossil marine plants from the Carboniferous Measures. Geol. Survey of Ind., 1875, pp. 135–145. Five new species are described and figured. Four of these are from Indiana and one from Illinois.

1875. LESQUEREAUX, LEO. Geol. Survey of Ind., 1875, p. 7. Eight species of fossil plants from the Millstone grit are given by Cox, which were determined by Lesquereaux.

1883. LESQUEREAUX, LEO. Principles of Paleozoic Botany and the fauna of the Coal Measures. 13th Ann. Rep't Ind. Geol. Surv., 1883, pp. 1–185, pls. 1–22. Gives descriptions of the fossil plants which have been and are likely to be found in Indiana.

1884. LESQUEREAUX, LEO. A list of the species of fossil plants found at each locality. 2d Geol. Surv. Pa., Vol. 3, p. 852. Gives list of species known from the Whetstone beds.

1849. LYELL, CHAS. A second visit to the U. S. Vol. II, pp. 269–278, London, 1849. Describes fossil *Sigilaria* at New Harmony and the Coral reef at Louisville.

1857. LYON, SYDNEY S. Description of new species of organic remains. Ky. Geol. Surv., Vol. 3, 1857, pp. 467–498, pls. 1–5. The following new crinoids from the Falls of the Ohio are figured and described: *Actinocrinus abnormis*, *Dalatocrinus lacus*, *Vasocrinus sculptus*, *Olavanites verneuilii*, *O. angularis*, *Codaster alternatus*.

1859. LYON, SYDNEY S. AND CASSEDAY S. A. Description of nine new species from the Subcarboniferous rocks of Indiana and Kentucky. Am. Jour. of Sci. and Arts, Vol. XXIX, pp. 68–79, 1859. Describes five species without figures from the Indiana Subcarboniferous, *Cayathocrinus decadactylus*, *C. hexadactylus*, *Actinocrinus indianensis* and *Onychocrinus exculptus*, from Montgomery County, and *Actinocrinus coreyi*, from Washington County.

1859. LYON, S. S., AND CASSEDAY. Description of nine new species of Crinoidea from the Subcarboniferous rocks of Indiana. Am. Jour. Sci., Vol. 28, 2d ser., pp. 233–246, 1859. The species which are described here without figures are figured in the Geol. Surv. of Ill., Vol. 7.

1861. LYON, SIDNEY S. Descriptions of new Paleozoic fossils from Kentucky and Indiana. Proc. Acad. Nat. Sci. Phila., pp. 409–414, 1 plate, 1861. Describes two new species from strata just below the Hydraulic limestone at the Falls of the Ohio, *Onochocrinus exculptus* and *Megistocrinus spinulosus*.

1882. MCCASLIN, DAVID S. Geology of Jay County. 12th Ann. Rep't Ind. Dept. Geol. and Nat. Hist., 1882, p. 166. Gives a list of fifteen species from Niagara at Jay City.

1869. McCHESNEY, J. H. Descriptions of Paleozoic rocks of the Western States, with illustrations. Trans. Chic. Acad. of Sci., Vol. 1, 1867–1869, pp. 1–57, pls. 1–9. Several species from the Coal Measures of Indiana are described, and also one from the Hudson River group, *Trematospira mathewsoni.*

1865. MEEK, F. B. Descriptions of nine species of Crinoidea, etc., from the Paleozoic rocks of Illinois and some of the adjoining States. Proc. Phila. Acad. Sci., 1865, pp. 143–166. Describes some new Crinoids from Crawfordsville.

1869. MEEK, B. F. Description of new Crinoidea and Echinoidea from the Carboniferous rocks of the Western States, with a note on the Genus Onychaster. Proc. Phila. Acad. Nat. Sci., 1869–70, pp. 67–83. Describes *Calceocrinus bradleyi* from Crawfordsville.

1871. MEEK, F. B. Descriptions of new Western Paleozoic fossils, mainly from the Cincinnati group of the Lower Silurian series of Ohio. Proc. Phila. Acad. Sci., 1871, pp. 308–336. Refers *Homocrinus polydactylus* Shum. from Richmond, Indiana, to *Poteriocrinus* (*Dendrocrinus*) *polydactylus.*

1871. MEEK, F. B. On some new Silurian Crinoids and Shells. Am. Jour. Sci. and Arts, Vol. II, 3d ser., 1871, pp. 295–302. Describes two new Crinoids *Dendrocrinus casei* and *Lepocrinites moorei*, from Richmond, Indiana.

1872. MEEK, F. B. Descriptions of two new star-fishes and a Crinoid from the Cincinnati group of Ohio and Indiana. Am. Jour. of Sci. and Arts, Vol. III, 3d ser., p. 260. Describes *Glyptocrinus baeri* and *Stenaster grandis* from Richmond, Indiana.

1872. MEEK, F. B. Descriptions of two new star-fishes and a Crinoid from the Cincinnati group of Ohio and Indiana. Am. Jour. of Sci., 3d ser., Vol. 3, 1872, pp. 257–262. These descriptions, with illustrations, are republished in the Pal. of Ohio.

1873. MEEK, F. B. Spergen Hill fossils identified among specimens from Idaho. Am. Jour. Sci., 3d ser., Vol. 5, 1873, pp. 383–384.

1873. MEEK, F. B. Descriptions of invertebrate fossils of the Silurian and Devonian systems. Geol. Surv. of Ohio, Vol. I, Pt. II, pp. 1–243. Gives Indiana localities of many Lower Silurian fossils.

1860. MEEK, F. B., AND WORTHEN, A. H. Descriptions of new Carboniferous fossils from Illinois and other Western States. Proc.

Phila. Acad. Nat. Sci., 1860, pp. 447. Several fossils from Rockford are described, some of which are figured in Vol. 2, Geol. Surv. of Ill.

1861. MEEK, F. B., AND WORTHEN, A. H Remarks on the age of the Goniatite Limestone at Rockford, Indiana, and its relations to the "Black Slate" of the Western States and to some of the succeeding rocks above the latter. Am. Jour. Sci., 2d ser., Vol. 32, pp. 167–177. Gives list of species from Rockford known to be identical with Chateau Ls. species in Missouri and Illinois.

1865. MEEK, F. B., AND WORTHEN, A. H. Descriptions of new Crinoidea, etc., from the Carboniferous rocks of Illinois and some of the adjoining States. Proc. Phila. Acad. Nat. Sci., 1865, pp. 155–166. Describes several Crinoids from Crawfordsville.

1865. MEEK, F. B, AND WORTHEN, A. H. Contributions to the Paleontology of Illinois and other Western States. Proc. Phila. Acad. of Sci., 1865, pp. 251–275. *Gyroceras? rockfordensis* and *Nautilus (Cryptoceras) rockfordensis* are described from Rockford, Indiana.

1866. MEEK, F. B., AND WORTHEN, A. H. Invertebrate fossils of the Kinderhook group. Geol. Surv. of Ill., Vol. 2, 1866, pp. 145–166, pl. 14. Several species from Rockford originally described in Proc. Phila. Acad. Sci., 1860, are figured in this volume.

1868. MEEK, F. B, AND WORTHEN, A. H. Paleontology. Geol. Surv. of Ill., 1868, Vol. 3, Pt. 2, pp. 291–565, pls. 1–20. A number of fossils from Indiana, previously described in the Proc. Phila. Acad. of Sci. without illustrations, are figured in this volume.

1868. MEEK, F. B., AND WORTHEN, A. H. Fossils of the Hamilton group. Geol. Surv. of Ill., Vol. 3, 1868, pp. 419–449, pls. 10–12. A few Indiana species previously described in Proc. Chic. Acad., Vol. 1, and Proc. Acad. Nat. Sci. Phila., 1866, are figured in this volume.

1870. MEEK, F. B., AND WORTHEN, A. H. Descriptions of new species and genera of fossils from the Paleozoic Rocks of the Western States Proc. Phil. Acad. Nat. Sci., 1870, pp. 22–64. A number of species from Indiana are described but not figured in this paper. Some of them have since been figured in Vol. 7, Geol. Surv. of Ill.

1873. MEEK, F. B., AND WORTHEN, A. H. Descriptions of invertebrates from the Carboniferous System. Geol. Surv. of Ill.,

Vol. 7, 1873, pp. 32?–52?, pls. 1–17. This paper figures a number of Crawfordsville Crinoids which were described by the authors without figures in the Proc. Phila. Acad. Nat. Sci., 1870, p. 22, and by Lyon and Cassiday in Am. Jour. Sci., Vol. 28, 2d ser., p. 233.

1874. MILLER, S. A. Monograph of the Gasteropoda of the Cincinnati group. Cin. Quart. Jour. Sci., Vol. 1, 1874, pp. 302–321, fig. 30–34. One new species from Richmond, Indiana (*Bellerophon mohri*) is described, and Indiana localities of several other species are given.

1874. MILLER, S. A. Monograph of the Lamellibranchiata of the Cincinnati group. Cin. Quart. Jour. Sci , Vol. 1, 1874, pp. 211–236, fig. 20–29. Several new species of *Tentaculites* and *Beyricia*, and some new *Lamellibranches* are described and figured from Richmond, Osgood and Versailles, Indiana.

1874. MILLER, S. A. Notice of *Modiolopsis pholadiformis* (Foster & Whitney). Cin. Quart. Jour. Sci., Vol. 1, 1874, p. 282. A Lamellibranch from Richmond is identified with this species.

1875. MILLER, S. A. *Crania reticularis*. Cin. Quart. Jour. Sci , Vol. 2, 1875, p. 280, fig. 22. This species is described from a specimen obtained from Brookville, Indiana.

1875. MILLER, S. A. Class Cephalopoda (Cuvier), as represented in the Cincinnati group. Cin. Quart. Jour. Sci., Vol. 2, 1875, pp. 121–134. Indiana localities are given for several species.

1875. MILLER, S. A. Monograph of the Class Brachiopoda of the Cincinnati group. Cin. Quart. Jour. Sci., Vol. 2, 1875, pp. 6–62. Indiana localities are given for a large number of the species considered.

1878. MILLER, S. A. Descriptions of a new genus and eleven new species of fossils. Jour. Cin. Soc. Nat. Hist., Vol 1, 1878, pp. 100–108, pl. 3 and 4. Four new species from the Hudson River group of Indiana are described; these are *Cyrtolites magnus, Murchisonia multigruma, Cyrtoceras amoenum and Angellum cuneatum.*

1878. MILLER, S. A. Description of eight new species of Holocystites from the Niagara group. Jour. Cin. Soc. Nat. Hist., Vol. 1, No. 3, pp. 129–136, pls. V. and VI., 1878. Describes and illustrates with good figures the following new species: *H. brauni, H. ornatus, H. globosus, H. elegans, H. pleonus,* from the Niagara, Jefferson County, Indiana; *H. wetherbyi* Niagara, Ripley County, Indiana; *H. perlongus* Niagara, Waldron, Indiana.

1879. MILLER, S. A. Description of twelve new fossil species and remarks upon others. Cin. Soc. Nat. Hist., Vol. II, No. 2. 1879, pp. 104–118, pls. 9–10. Describes the following species from Niagara strata, Ripley County: *Holocystites tumidus*, *H. baculus*, *H. rotundus*, *H. subrotundus*, *H. dyeri*, *H. ventricosus*, *Pisocrinus gemmiformis*. From Osgood, *Stephanocrinus osgoodensis*.

1879. MILLER, S. A. Catalogue of fossils found in the Hudson River, Utica Slate and Trenton groups, as exposed in southeastern Indiana, the southwestern part of Ohio and northern part of Kentucky. Ind. Geol. Rep't, 1876–77–78

1879. MILLER, S. A. Remarks upon the Kaskaskia group, and descriptions of new species of fossils from Pulaski County, Kentucky. Jour. Cin. Soc. Nat. Hist., Vol. II, No. 1, pp. 31–42, 1879. The paper gives the views of Hall, Shumard and Worthen on the stratigraphic relations of the Kaskaskia group, and concludes that the name Kaskaskia must displace Chester in nomenclature by reason of ten years priority in publication.

1879. MILLER, S. A. Description of two new species from the Niagara group and five from the Keokuk group. Jour. Cin. Soc. Nat. Hist., Vol. II, No. 2, 1879, pp. 254–259, pl. XV. Describes *Cyathocrinus harrisi* and *Palaeaster crawfordsvilleusis* from the Keokuk at Crawfordsville, and *Holocystites turbinatus* from the Niagara, Ripley County.

1881. MILLER, S. A. Observations on the unification of geological nomenclature, with special reference to the Silurian formation of North America. Jour. Cin. Soc. of Nat. Hist., Vol. IV, No. 3, pp. 267–293, 1881. Describes the Silurian rocks as they occur in Indiana and elsewhere in the United States, and discusses their paleontological features in detail.

1881. MILLER, S. A. Description of new species of fossils. Jour. Cin. Soc. Nat. Hist., Vol. IV, No. 3, pp. 259–262, pl. 6, 1881. Describes and figures one new species from the Hudson River group at Versailles and Osgood, Indiana, *Leperditia calcigena*.

1882. MILLER, S. A. Description of two new genera and eight new species of fossils from the Hudson River group, with remarks upon others. Jour. Cin. Soc. of Nat. Hist., Vol. V, pp. 34–44, pl. 1–2, 1882. One new sponge is described from Richmond, *Stromatocerium richmondense*. This was described as "pisolitic balls" by J. T. Plummer in the A. J. S., Vol. 44, p. 281.

1882. MILLER, S. A. Description of three new orders and four new families in the class Echinodermata and eight new species from the Silurian and Devonian formations. Jour. Cin. Soc. Nat.

Hist., Vol. V, 1882, pp. 221–231, pl. IX. Describes *Lichenocrinus tuberculatus*, from the Hudson River group three miles south of Osgood; *Cyclora pulcella*, from the Hudson River at Versailles, and *Poteriocrinus davisanus* and *P. nettlerothanus*, from the Upper Helderberg at Deputy, Indiana.

1882. MILLER, S. A. Descriptions of ten new species of fossils. Jour. Cin. Soc. Nat. Hist., Vol. V, 1882, pp. 79–88, pls. 3 and 4. Describes *Cyathocrinus crawfordsvillensis* from Crawfordsville.

1888. MILLER, S. A. The structure, classification and arrangement of American Paleozoic Crinoids into families. 16th Rep't Ind. Dept. of Geol. and Nat. Hist., 1888, pp. 302–326. The author indicates the systematic relations as understood by him of the Paleozoic genera, including those from Indiana.

1891. MILLER, S. A. Paleontology. 17th Rep't Ind. Dept. of Geol. and Nat. Hist., 1891, pp. 611–705, pls. I–XX. This paper describes and figures sixty-eight new species of Indiana fossils from the Carboniferous, Devonian and Silurian rocks; also several from Kentucky and Missouri.

1893. MILLER, S. A. Paleontology. 18th Rep't Ind. Dept. of Geol. and Nat. Hist., 1893, pp. 257–356, pls. I–XII. The author describes forty new species from the Carboniferous, Devonian and Silurian rocks of Indiana. Several new species from Ohio, Kentucky, Missouri and Kansas are described.

1894. MILLER, S. A., AND FABER, CHAS. Jour. Cin. Soc. Nat. Hist., Vol. 17, pp. 22–33, pl. 1. New species of fossils from the Hudson River group and remarks upon others. The authors describe a new Lamellibranch—*Bodmania insuetum*—which is the type of a new genus from Richmond, Indiana.

1888. MILLER, S. A., AND GURLEY, F. E. Description of some new genera and species of Echinodermata from the Coal Measures and Subcarboniferous rocks of Indiana, Missouri and Iowa. 16th Rep't Ind. Dept. of Geol. and Nat. Hist., 1888, pp. 326–373, 10 pls. Describes and figures thirty-one new species of Crinoidea from the Keokuk group of Indiana.

1890. MILLER, S. A., AND GURLEY, W. F. E. Description of some new genera and species of Echinodermata, from the Coal Measures and Subcardoniferous rocks of Indiana, Missouri and Iowa. Jour. Cin. Soc. Nat. Hist., 1890, pp. 3–25, pl. 1–4. The following new species of crinoids are described from Crawfordsville: *Agaricocrinus splendens*, *Onychocrinus ulrichi*, *Batocrinus ulrichi*, *Batocrinus marinus*, *B. jucundus*, *Poteriocrinus granilineus*, *P. crawfordsvillensis*, *Scaphiocrinus manus*.

1895. MILLER, S. A., AND GURLEY, WM. F. E. Description of some new species of invertebrates from the Paleozoic rocks of Illinois and adjacent States. Bull. No. 3, Ill. State Mus. Nat. Hist., 1893, pp. 1–81, pls. 1–8. The paper describes from Indiana two new Trilobites—*Lichas hanoverensis*, *Lichas byrnesanus*, *Lingula indianensis*, *Conularia gratiosa*, *C. spergensis* and a number of new Crinoids.

——. MILLER, S. A., AND GURLEY, WM. F. E. New and interesting species of Paleozoic fossils. Bull. 7, Ill. State Mus. Nat. Hist. pp. 1–89, pls. 1–5. Several Indiana species are described.

1896. MILLER, S. A., AND GURLEY, WM. F. E. New species of Echinodermata and a new Crustacean from the Paleozoic rocks. Bull. 10 Ill. State Mus. Nat. Hist., p. 90, pl. 5. Describes *Eurypterus kokomoensis* from Kokomo.

1896. MILLER, S. A., AND GURLEY, WM. F. E. New species of paleozoic invertebrates from Illinois and other States. Bull. 11 Ill. State Mus. Nat. Hist., pp. 1–50, pls. 1–5. Describes three *Gastropods*, a *Goniatite*, an *Orthoceras* and a *Conularia*.

1897. MILLER, S. A., AND GURLEY, WM. F. E. New species of Crinoids, Cephalopods and other Paleozoic fossils. Bull. 12 Ill. State Mus. Nat. Hist., pp 1–69, pls. 1–5. Describes several species from Indiana.

1878. MILLER, S. A., AND DYER, C. B. Contributions to Paleontology. Jour. Cin. Soc. Nat. Hist., Vol. 1, 1878, pp. 24–39, pls. 1–2. Three new species from Waldron are described—*Codaster pulchellus*, *Eucalyptocrinus tuberculatus*, and *Spirifera(?) waldronensis*. A new species from Versailles, Indiana—*Conularia formosa*—is described and figured.

1892. MILLER, S. A., AND FABER, C. Some new species and new structural parts of fossils. Jour. Cin. Soc. Nat. Hist., Vol. 15, 1892, pl. 1. A new species from the Niagara at Madison, Indiana—*Holocystites affinis*—is described and figured.

1894. MILLER, S. A., AND FABER, C. L. Description of some Cincinnati fossils. Jour. Cin. Soc. Nat. Hist., Vol. 17, 1894, pp. 137–158, pl. 7 and 8. The authors describe the following new species from Indiana: *Gomphoceras indianensis*, *Hyolithes versaillensis*, *Hyolithes (?) dubius* and *Berychia hammelli*.

1886. MOORE, D. R. Fossil corals of Franklin County, Indiana. Bull. Brookville Society of Nat. Hist., No. 2, 1886, pp. 50–51. This paper gives a list of twenty-three species from the Upper and Lower Silurian, and four from the Drift.

1886. MOORE, D. R. Two hours among the fossils of Franklin County, Indiana. Bulletin of the Brookville Society of Natural History, No. 1, pp. 44–45. The paper gives a list of seventeen Lower Silurian fossils.

1893. MOORE, JOS. The recently found Castoroides in Randolph County, Indiana. Am. Geol., Vol. 12, 1893, pp. 69–74, pl. 3. *Castoroides ohioensis* Foster.

1890. MOORE, JOS. Concerning a skeleton of the great fossil beaver, *Castoroides ohioensis*. Jour. Cin. Soc. of Nat. Hist., Oct. 1890, pp. 138–169. Gives detailed description and twenty-five figures of a specimen from Randolph County, Indiana.

1890. MOORE, JOS. Concerning some portions of *Castoroides ohioensis* not heretofore known. Proc. Am. Assoc. Adv. Sci., Vol. 39, 1890, pp. 265–267. Specimen from Randolph County.

1873. NEWBERRY, J. S. Descriptions of fossil fishes. Geo. Surv. of Ohio, Vol. I, Pt. II, pp. 247–355. The author refers to the species referred incorrectly by Owen and Norwood to the Upper Silurian at Madison (p. 262), and calls attention to a bone bed at North Vernon, Indiana. Reports *Gyrocanthus compressus* from Dearborn County.

1879. NEWBERRY, J. S. List of fossils of Harrison County. 8th, 9th and 10th Ann. Rep'ts Geol. Surv. Ind., 1879, pp. 341–349. The list of fossils by Collett has appended a list of species of fishes determined by Newberry. The new species described are *Chomatodus selliformis*, *C. angustus*, *C. obliquus*, *Lisgodus affinis*, *Orodus colletti*, *Helodus laevis*, *Deltodus cinctus*, *Petalodus knappi*, and *Archaeobatis gigas*. The last genus is also new.

1890. NEWBERRY, JOHN S. The Paleozoic fishes of North America. Monog. U. S. Geol. Surv., Vol. 16, 340 pages, 53 pls., Washington, 1890. A few species from Indiana are figured.

1866. NEWBERRY, J. S., AND WORTHEN, A. H. Descriptions of new species of Vertebrates, mainly from the Subcarboniferous Limestone and Coal Measures of Illinois. Geol. Surv. of Ill., Vol. 2, 1866, pp. 11–141, pls. 1–13. Five species of fishes from Posey County are described—*Cladodus gracilis*, *Diplodus latus*, *D. compressus*, *Ctenoptychius semicircularis*, *Edestus minor*—and one from Rockford, *Orodus multicarinatus*.

1889. NETTLEROTH, HENRY. Kentucky fossil shells. A monograph of the fossil shells of the Silurian and Devonian rocks of Kentucky. Ky. Geol. Surv., pp. 1–245, pls. I–XXXVI, Frankfort, Ky. A large number of Devonian fossils from Clark County, Indiana, and the Falls of the Ohio are figured and described.

1888. NEWELL, FREDERICK H., Niagara Cephalopods from Northern Indiana. Pr. Bost. Soc. Nat. Hist., Vol. 23, pp. 466–486.

1875. NICHOLSON, H. ALLEYNE. Description of the corals of the Silurian and Devonian systems. Geol. Surv. of Ohio, Vol. II, 1875, pp. 183–242. The author reports *Eridophyllum strictum* from the Corniferous at Louisville.

1875. NICHOLSON, H. ALLEYNE. Descriptions of Amorphozoa from the Silurian and Devonian formations. Geol. Surv. of Ohio, Vol. II, 1875, pp. 245–255. Reports *Dictyostroma undulata* from the Niagara of Louisville, Ky.

1848. NORWOOD, J. G. Proc. Bost. Soc. Nat. Hist., Vol. 2, 1848, p. 102. In a letter to the society, Norwood announces the discovery of fossil fishes at a locality sixteen miles north of Madison.

1846. NORWOOD, JOS. G., AND OWEN, D. D. Description of a new fossil fish from the Paleozoic rocks of Indiana. Am. Jour. Sci., 2d Ser., Vol. 1, pp. 367–371, figs. 1 and 2. The fish described is *Macropetalichthys rapheidolabis*, from the Corniferous.

1858. NORWOOD, J. G., AND PRATTON, HENRY. Notice of the genus *Chonetes*, as found in the Western States and Territories with descriptions of eleven new species. Proc. Phila. Acad. Nat. Sci., 1855–1858, Vol. 3, 2d ser., pp. 23–31, pl. 1. Figures *C. nana* from Falls of the Ohio.

1858. NORWOOD, J. C., AND PRATTON, HENRY. Notice of Producti found in the Western States and Territories, with descriptions of twelve new species. Proc. Phila. Acad. Sci. 1855–58, Vol. 3, 2d ser., pp. 522, pls. 1–2. Describes and figures *P. flemingii* de Kon. from the "Mountain Limestone," and from the Coal Measures in Posey County *P. buchianus* de Kon., *P. fimbriatus* Sow., *P. wabashensis* nov. sp., *P. flemingii* de Kon., *P. undiferous* de Kon.

1843. OWEN, D. D. On fossil palm trees in Indiana. Am. J. S. and A., Vol. 45, 1843., pp. 336–337 (abstract). Describes specimens from the Coal Measures at Big Creek, twelve miles from New Harmony and Bug Creek.

1859–60. OWEN, RICHARD. Report of a geological reconnoissance of Indiana, 1859–60, pp. 1–368. Gives lists of the characteristic Lower Silurian, Upper Silurian and Devonian fossils found in the State. The following fossils are figured: *Siphonia digitata*, *Halysites sexto-attenuatus*, *Bucania euomphaloides*, *Gyroceras rhombolinearis*, *Columnaria inequalis*, *Ceriopora lyra*, *Lithostrotion canadense*, *Pileopis pabulocrinus*, *Conularia crawfordsvillensis*. Figures very poor.

1881. PHINNEY, A. J. Delaware County. 11th Ann. Rep't Ind. Dept. Geol. and Nat. Hist., pp. 126–149. Gives list of fossils found in the county.

1843. PLUMMER, JOHN T. Suburban geology about Richmond, Indiana. Am. Jour. Sci., Vol. 44, 1843, p. 281. Describes "pisolitic balls" which have since been described by S. A. Miller as a sponge, *Stromatocerium richmondense.*

1858. PROUT, H. A. Descriptions of Bryozoa from the Paleozoic rocks of the Western States and Territories. Trans. St. Louis Acad. Sci., Vol. 1, pp. 443–452, 571–581, pls. 15–18. Two new species from the Falls of the Ohio are described—*Semicoscinium rhomboideum*, *Limaria falcata* and *Semicoscinum tuberculatum.*

1843. ROGERS, H. D. On Marcellus and Hamilton of the West and South. Am. Jour. Sci., Vol. 41, pp. 161–162, 1843.

1866. ROMINGER, C. Observations on Chaetetes and some related genera in regard to their systematic position, with an appended description of some new species. Proc. Phila. Acad. of Sci., 1866, pp. 113–123. Three new species from Indiana are described—*Fistulipora neglecta*, *F. halli* and *F. spergensis.*

1876. ROMINGER, C. Fossil corals. Geol. Surv. of Mich., Vol. 3, Pt. 2, 1876, pp. 1–155, pls. 1–55. The paper describes or mentions about fifty species of corals from Indiana, many of which are figured.

1892. ROMINGER, C. On the occurrence of typical Chaetetes in the Devonian strata at the Falls of the Ohio, and likewise in the analogous beds in Germany. Am. Geol., Vol. 10, pp. 56–62, pl. 3. Describes one new species, *Chaetetes ponderosus.*

1890. ROWLEY, R. K. Some observations on the natural casts of Crinoids and Blastoids from Subcarboniferous Limestones of Indiana, Iowa, Illinois, Kentucky and Alabama. Am. Geol., Vol. 6, pp. 66–67.

1886. SEELEY, H. M. The genus Strephochetus: Distribution and species. Am. Jour. Sci., ser. 3, Vol. 32, p. 31. Sponge found at Madison. Describes *S. richmondensis* Miller from Richmond and Madison.

——. SHALER, N. S. On the fossil Brachiopods of the Ohio Valley. Ky. Geol. Surv., pp. 1–44, pls. 1–8. This paper gives very full descriptions, with tables of measurement of several Lower Silurian species of the family Strophomenidae, together with notes on their geological and geographical range. It bears no date.

1858. SHUMARD, B. F. Description of new fossil Crinoidea from the Paleozoic rocks of the western and southern portions of the United States. From St. Louis Acad. Sci., Vol. I, pp. 71–80, pl. 1. Describes and figures *Homocrinus polydactylus* from the Lower Silurian at Richmond.

1858. SHUMARD, B. F. Descriptions of new species of Blastoidea from the Paleozoic rocks of the Western States, with some observations on the structure of the summit of the genus Pentremites. Trans. St. Louis Acad. Sci., Vol. 1, pp. 238–248, pl. 9. Describes three species from Indiana—*Codaster pyramidatus*, *C. americanus*, *Pentremites grosvenore*.

1871. SMITH, S. I. Notice of a fossil insect from the Carboniferous formation of Indiana. Am. Jour. Sci., Ser. 3, Vol. 1, pp. 44–46. The paper describes a new insect, *Paolia vetusta*, from the Hindostan Whetstone beds at French Lick. The original figure is republished in the 20th Ann. Rept. Geol. Surv. of Ind., p. 356.

1858. STEVENS, R. P. Description of new Carboniferous fossils from the Appalachian, Illinois and Michigan coal fields. Am. Jour. Sci., 2d ser., Vol. 25, pp. 258–265. Describes *Chiton parvulus* from Bergen Hill (Spergen Hill?).

1883. ST. JOHN, ORESTES, AND WORTHEN, A. H. Descriptions of fossil fishes. Geol. Survey of Ill., Vol. VII, 1883, pp. 57–264. Records *Taeniodus regularis* nov. sp. from Bedford, and *Orthopleurodus carbonarius* (N. and W.) from Posey County.

1886. THOMPSON, MAURICE. Fossil mammals of the Post Pliocene in Indiana. 15th Ann. Rep't of Ind. Dept. of Geol. and Nat. Hist., 1885 and '86, pp. 283–285. Gives brief descriptions and localities of all species certainly identified.

1891. THOMPSON, MAURICE. Geology of Carroll County. 17th Rep't Ind. Dept. of Geol. and Nat. Hist., 1891, pp. 171–191. Mentions a few fossils found at Delphi, by which he identified Niagara and Devonian strata at this point.

1886. THOMPSON, W. H. Geological Survey, Clinton County. 15th Ann. Rep't Ind. Dept. of Geol. and Nat. Hist., 1885–86, p. 155. Notes the discovery of *Elephas primigenius*.

1879. ULRICH, E. O. Description of a Trilobite from the Niagara group of Indiana. Jour. Cin. Soc. Nat. Hist., Vol. II, No. 2, pp. 131–134, 1879. Describes and figures *Calymene nasuta* from the Niagara group at Osgood, Ripley County.

1879. ULRICH, E. O. Descriptions of new genera and species of fossils from the Lower Silurian about Cincinnati. Jour. Cin. Soc. Nat. Hist., Vol. II, No. 1, pp. 8–30, 1879. Describes and figures *Tellinomya cingulata* n. sp., found at Marble Hill, near Madison, and at Louisville, Kentucky.

1880. ULRICH, E. O. Catalogue of fossils occurring in the Cincinnati group of Ohio, Indiana and Kentucky. 31 pages, Cincinnati, 1880.

1882. ULRICH, E. O. American Paleozoic Bryozoa. Jour. Cin. Soc. Nat. Hist., Vol. V, 1882, pp. 232–257, pls. 10–11. Notes the following species from Osgood, Indiana: *Diplotrypa milleri* n. sp., *Monotrypella subquadrata* n. sp., *Callopora elegantula*.

1883. ULRICH, E. O. American Paleozoic Bryozoa. Jour. Cin. Soc. Nat. Hist., Vol. VI, pls. 10–14, pp. 245–279, 1883. Describes and figures the following new species from the Niagara group of Indiana: *Trematopora halli* n. sp. from Waldron, *T. whitfieldi* n. sp. from Waldron, and *Idiotrypa parasitica* n. sp. from Osgood.

1886. ULRICH, E. O. Descriptions of new Silurian and Devonian fossils. Contributions to American Pal., Vol. I, No. 1, 1886, pp. 3–35, pls. 1–3, Cincinnati. A number of new species of Bryozoa and Gastropods are described from Indiana rocks, also a new Brachiopod from the Knobstone—*Rhynchonella greeniana*—and a new species of foraminifera—*Moelerina greenei*.

1888. ULRICH, E. O. A correlation of the Lower Silurian horizons of Tennessee and of the Ohio and Mississippi valleys with those of Canada. Am. Geol., Vol. I, pp. 100–110, 179–190, 305–315; Vol. II, pp. 39–44, 1888. Gives description of paleontology, stratigraphy and structure of the Lower Silurian of the Ohio Valley.

1888. ULRICH, E. O. A correlation of the Lower Silurian horizons of Tennessee and the Ohio and Mississippi valleys with those of New York and Canada. Am. Geol. 1, 1888, pp. 39–44, 100–110, 305–315.

1890. ULRICH, E. O. New and little known American Paleozoic Ostracoda. Jour. Cin. Soc. Nat. Hist., Vol. 13, 1890, pp. 104–137, 173–211, pls. 7–18. Nearly thirty new species from Indiana are described in this paper.

1890. ULRICH, E. O. New Lamellibranchiata. Am. Geol., Vol. 6, Sept., 1890.

1893. ULRICH, E. O. New and little known Lamellibranchiata from the Lower Silurian rocks of Ohio and adjacent States. Geol. Surv. of Ohio, Vol. VII, pp. 627–693, pls. 45–56. Describes the following new species from Indiana: *Ichyrodonta miseneri, Ichyrodonta modioliformis, Modiolodon subrectus, M. declivis, M. subovalis, Clionychia excavata.*

1894. ULRICH, E. O. The Lower Silurian Ostracoda of Minnesota. Geol. and Nat. Hist. Surv. Minn., Vol. III, pp. 633–693, pls. 43–46, 1894. The author mentions two species of Ostracoda occurring at Richmond and Versailles which he figures; they are *Ceratopsis chambersi* Miller and *Tetradella quadrilirata* H. & W.

1897. ULRICH, E. O. The Lower Silurian Gastropoda of Minnesota. Geol. of Minn., Vol. 3, Pt. 2, pp. 815–1081, pls. 61–82. A large number of Gastropods from Indiana rocks are figured, some of which are new species.

1897. ULRICH, E. O. The Lower Silurian Ostracoda of Minnesota. Geol. of Minn., Vol. 3, Pt 2, pp. 629–693, pls. 43–46. Two species are mentioned from the Cincinnati group of Indiana —*Ceratopsis chambersi* var. *robusta* and *Tetradella quadrilirata* Hall and White.

1897. ULRICH, E. O. The Lower Silurian Lamellibranchiata of Minnesota. Geol. of Minn., Vol. 3, Pt. 2, pp. 475–628, pls. 35–42. Four species are reported from the rocks of the Cincinnati group in Indiana. They are *Bussonychia tenuistriata, Modiolopsis concentrica* Hall. & Whit., *Orthodesma canaliculatum* Ulrich, *Whitella obliquata* Ulrich.

1847. VERNEUIL, ED. DE. Note sur le parallesme des roches des depots paleozoiques de l'Amerique Septrionale avec ceux de l'Europe, suive d'un tableau des especes fossiles commones aux deux continents, avec l'indication des etages on elles as recountreut, et terminee par un examen critique de chacune de ces especes. Bull. Soc. Geol. de France, (2) t IV, pp. 640–710, 1847. Translated and condensed by Jas. Hall. Am. Jour. Sci., 2d ser., Vol. 5, 1848, pp. 176–183, 359–370; also Vol. 6, pp. 45–51, 218–231. de Verneuil considers the Black shale of Indiana and Kentucky equivalent to the Genesee of New York.

1889. VOGDES, ANTHONY W. The genera and species of North American Carboniferous Trilobites. Ann. N. Y. Acad. Sci., Vol. 4, pp. 69–105, pls. 2 and 3. Republishes the original descriptions of *Phillipsia doris* (Hall) Winch. and *P. rockfordensis* Winchell.

1881. WACHSMUTH, CHAS., AND SPRINGER, FRANK. Revision of the Paleo-Crinoidea, Part II. Proc. Phila. Acad. Nat. Sci., 1881, pp. 177–414, pls. 17–19. Describes the following new species from the Keokuk group in Indiana: *Eretmocrinus originarius*, *E. intermedius*, *E. adultus* and *Batocrinus whitei*.

1892. WACHSMUTH, CHAS., AND SPRINGER, FRANK. Description of two new genera and eight species of Camerate Crinoids from the Niagara group. Am. Geol., Vol. 10, 1892, pp. 135–144.

1878. WETHERBY, A. G. Description of a new family and genus of Lower Silurian Crustacea. Jour. Cir. Soc. Nat. Hist., Vol. I, 1878, No. 4, pp. 162–166. Describes the new Crustacean genus *Enoploura* from specimens found at Richmond and Osgood, Indiana, and Ohio localities, to which he transfers Meek's species, *balanoides*, from the Cystidae. See Meek's description in A. J. S., Vol. III (3d ser.), p. 423, 1872; also see review and sharp criticism of Wetherby's genus in Geological Magazine, May, 1880, by Dr. Henry Woodward.

1878. WHITE, C. A. Descriptions of new species of invertebrate fossils from the Carboniferous and Upper Silurian rocks of Illinois and Indiana. Proc. Phila. Acad. of Sci., 1878, pp. 29–37. The following species from Indiana are described without figures: *Baryphyllum fungulus*, *Platycrinus boncnsis*, *Scapiocrinus gibsoni*, *Lepidesthes colletti* and *Scaphiocrinus gurleyi*.

1880. WHITE, C. A. Fossils of the Indiana rocks. 2d Ann. Rep't Dept. Stat. and Geol. of Ind., 1880, pp. 471–522, pls. 1–11. A few of the more common fossils of each of the formations in Indiana are described and figured.

1883. WHITE, C. A. Fossils of the Indiana rocks, No. 3. 13th Ann. Rep't Geol. Surv. Ind., 1883, pp. 107–186, pls. 23–39. The principal species of the Coal Measures are described.

1896. WHITE, DAVID. Report on the Fossil Plants from the Hindostan whetstone beds in Orange County, Indiana. 20th Ann. Rep't Ind. Dept. Geol. and Nat Res., 1896, pp. 354–355. Gives list of species identified from a collection of plant fossils transmitted by E. M. Kindle.

1874. WHITFIELD, R. P. 6th Ann. Rep't Geol. Surv. Ind., pp. 179–182. Gives a list of fossils from the black shale, with notes.

1881. WHITFIELD, R. P. Remarks on Dictyophyton, and descriptions of new species of allied forms from the Keokuk beds at Crawfordsville, Indiana. Bull. Am. Mus. Nat. Hist., Vol. I, 1881, pp. 10–20, pls. 3, 4. Three new species are described—*Uphantaenia dawsoni*, *Dictyophyton cattiliforme* and *D. cylindricum*.

1882. WHITFIELD, R. P. On the fauna of the limestones of Spergen Hill, Indiana, with a revision of the descriptions of its fossils hitherto published and illustrations of the species from the original type series. Bull. Am. Mus. Nat. Hist., Vol. I, 1882, pp. 39–97, pls. 6–9. Two new species are described from the St. Louis L's, at Spergen Hill—*Pteronites spergensis* and *Cytherellina glandella.* A list of species identified from this locality in addition to the species described by Hall is given.

1885. WHITFIELD, R. P. Notice of a new Cephalopod from the Niagara rocks of Indiana. Bull. Am. Mus. Nat. Hist., 1885, Vol. I, No. 6, p. 192, pl. 21.

1884. COPE, E. D., AND WORTMAN, J. L. Postpliocene vertebrates of Indiana. 14th Ann. Rep't Dept. Geol. and Nat. Hist. Surv.

1876. WINCHELL, N. H. Vegetable remains in the drift deposits of the Northwest. Am. Assoc. Adv. Sci. Proc., Vol. 24, Part 2, pp. 43–56, 1876.

1865. WINCHELL, ALEXANDER. Descriptions of new species of fossils from the Marshall group of Michigan and its supposed equivalents in other States; with notes on some fossils of the same age previously described. Proc. Phila. Acad. Nat. Sci., 1865, pp. 109–133 Describes and gives notes on six species of fossils from Rockford, Indiana.

1869. WINCHELL, ALEXANDER. On the geological age and equivalents of the Marshall group. Proc. Am. Phil. Soc., Vol. XI, pp. 57–83; Vol. XII, pp. 385–478. Gives a catalogue of the fossils of the Marshall group and its equivalents in the States where it has been recognized, including Indiana.

1895. WINCHELL, N. H., AND SCHUCHERT, C. Sponges Graptolites and Corals from the Lower Silurian of Minnesota. Geol. of Minn., Vol. 3, Pt. 1, pp. 55–95, pls. F. and G. Describes and figures some corals from Indiana—*Streptelasma rusticum* and *Protarea vetusta.*

1884. WORTHEN, A. H. Descriptions of two new species of Crustacea, fifty-one species of Mollusca, and three species of Crinoids from the Carboniferous formation of Illinois and adjacent States. Bull No. 2, Ill. State Mus. Nat Hist., 1884, pp. 1–27. The following new species from Crawfordsville are described without figures: *Sanguinolites? multistriatus*, *Aviculopecten spinuliferous*, *A. colleti* and *Batocrinus montgomeryensis.*

1889. WORTHEN, A. H. Catalogue of American Paleozoic fossils: the collection of Prof. A. H Worthen, deceased. pp. 1–75, Warsaw, Ill., 1889. This collection, which is now the property of the State of Illinois, includes about 752 types, 240 of which are Crinoids. Many of the specimens are from Indiana.

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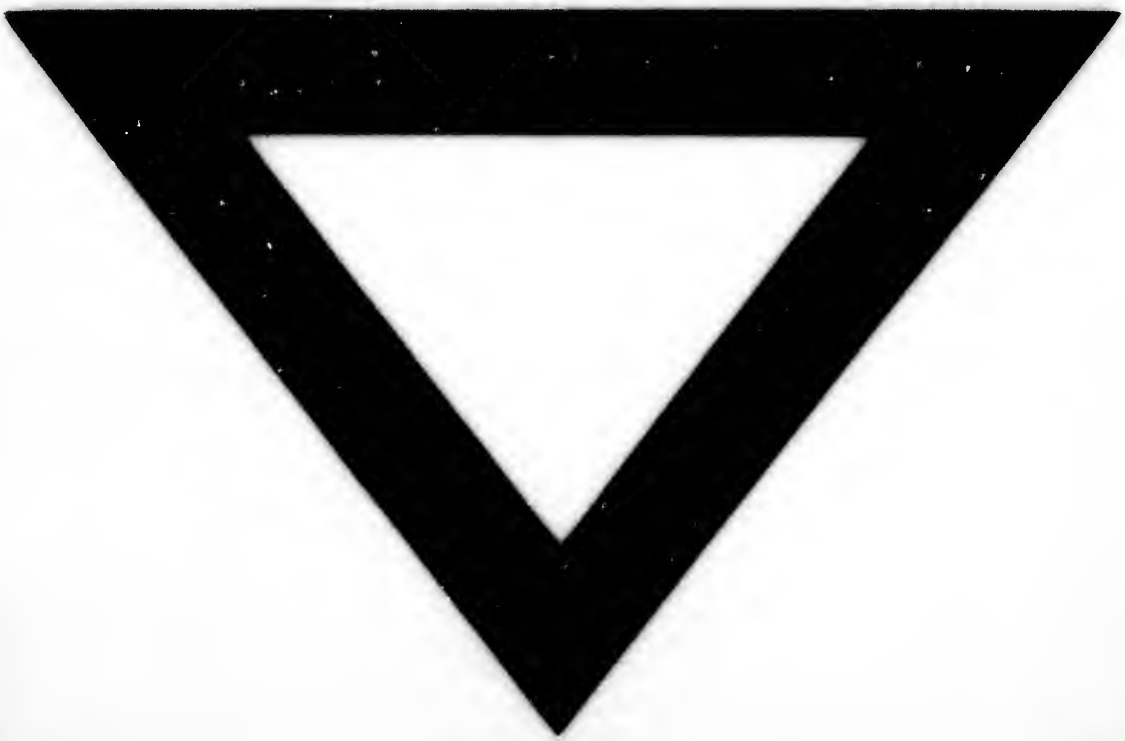
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