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UNIVERSITY OF MICHIGAN

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CHECK LIST OF FOSSIL INVERTEBRATES DESCRIBED FROM THE MIDDLE DEVONIAN TRAVERSE GROUP OF MICHIGAN

BY

ERWIN C. STUMM

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INTRODUCTION

THE rich faunas of fossil invertebrates from the Traverse group of Michigan have been a source of material for paleontological research ever since the pioneer works of James Hall (47) and Alexander Winchell (98). Between 1863 and 1950 more than one hundred

publications have described, figured, or listed fossils from the faunas of this group. The literature is so scattered that it has been difficult for modern workers to assemble the data on the described fossils of a particular formation of the group or on individual phyla and classes represented. For this reason a check list has been assembled to expedite further research on the invertebrate faunas of this group.

The list includes all species of fossil invertebrates described from the Traverse group. It contains references to the original descriptions and all subsequent descriptions and listings of each species. In the case of uncritical fossil lists such as those of Grabau (43), Pohl (66), and Rominger (71), only the species whose presence in the group has been verified by later work have been included. Species identified with forms from the Hamilton group of New York are listed by their generic names only, when specific identity has not been proved.

Heretofore, the stratigraphic positions of some species, especially those of Rominger (72), have been in doubt. The exact stratigraphic positions of most of these species have now been established by comparison of the types with conspecific specimens whose precise stratigraphic positions are known. For these comparisons the large collections in the Museum of Paleontology of the University of Michigan were used. The position of a few species has had to be assigned on the basis of lithology.

Each species from each formation or member is listed under its proper class or order with numbers representing every description or reference made to it. The numbers correspond to the complete references listed in the Literature Cited.

The outcrops of the Traverse group are in three separate geographic areas. These are as follows:

1. Thunder Bay region, comprising the northeastern part of Alpena County and the southwestern part of Presque Isle County, Michigan. The stratigraphic sequence of the formations of the Traverse group and the geographic locations of the major outcrops are described by Warthin and Cooper (96).

2. Afton–Onaway region in western Presque Isle County and

eastern Cheboygan County, Michigan. The stratigraphy and occurrences of the major outcrops are described by Kelly and Smith (54).

3. Little Traverse Bay region in northwestern Charlevoix County and southern Emmet County, Michigan. The stratigraphy in this region is recorded by Pohl (66).

The stratigraphic units in the check list are those used by the authors indicated, except that one unit, the Petoskey limestone of the Little Traverse Bay region, is divided into three parts on the basis of the recommendations of Cooper (17).

THUNDER BAY REGION

Bell Shale

Anthozoa:

Tetracoralla:

Heliophyllum sp. 75
Heterophrentis sp. 66, 102
Hexagonaria sp. 66
Tortophyllum sp. 75

Tabulata:

Drymopora sp. 66
Favosites alpenensis bellensis Swann 82, 83
Favosites valentini Swann 83, 105
Pleurodictyum (Procteria) cornu Stumm 104

Echinodermata:

Blastoidea:

Pentremitidea arrecta Reimann 69
Pentremitidea bellatula Reimann 69

Crinoidea:

Gennaeocrinus goldringae Ehlers 9, 24
Gilbertsocrinus alpenensis Ehlers 9, 24

Bryozoa:

Anomalotoechus tuberatus Duncan 21
Botryllopora sp. 66
Chondraulos granosus Duncan 21
? *Cyphotrypa unica* Duncan 21
Discotrypa vera Duncan 21
Eostenopora compressa Duncan 21
Eostenopora picta Duncan 21
Eostenopora tenuimuralis Duncan 21
? *Eostenopora villosa* Duncan 21
? *Eridocampylus laxatus* Duncan 21
Eridotrypella brevis Duncan 21
? *Eridotrypella simplex* Duncan 21
Eridotrypella spinifera Duncan 21
Eridotrypella valida Duncan 21
Fistulipora vesiculata Hall and Simpson 66
Hederella filiformis (Billings) 8
Hederella nicholsoni Bassler 8
Intrapora acanthopora McNair 59
Intrapora irregularis Stewart 59
Isotrypa megista Deiss 19, 42
Isotrypa oxytropsis Deiss 19, 42
Leptotrypella aequibilis Duncan 21
Leptotrypella gemmata Duncan 21
Leptotrypella ohioensis (Stewart) 21, 66
Leptotrypella varia Duncan 21
Polypora allelomorpha Deiss 19, 42
Polypora finitima Deiss 19, 42
Polypora labellosa Deiss 19, 42
Polypora minuta Deiss 19, 42
Reteporina striata Hall 66
Stenoporella devonica Duncan 21
Stictoporina granulifera Stewart 59
Stigmatella hybrida Duncan 21
Streblotrypa sp. 66

Sulcoretepora alternata McNair 59
Trachytoechus typicus Duncan 21

Brachiopoda:

Articulata:

Atrypa sp. 95
Chonetes fragilis Stewart 66
Chonetes sp. cf. *C. coronatus* (Conrad) 66
Cryptonella sp. aff. *C. attenuata* (Whiteaves) 12
Leiorhynchus lucasi Stewart 66
Leptostrophia sp. 66
Mucrospirifer prolificus (Stewart) 66
Pholidostrophia sp. 66
Spinocyrtia sp. 66
Stropheodonta sp. 66, 102

Mollusca:

Pelecypoda:

Grammysia sp. 66
Cornellites sp. 66

Crustacea:

Trilobita:

Phacops milleri Stewart 66

Ostracoda:

Amphissites diadematus Van Pelt 87, 94
Amphissites subquadratus (Ulrich) 87, 94
Cytherella quaesita Roth 87
Dizygopleura trisinuata Van Pelt 87, 94
Entomis rugulatus Van Pelt 87
Euglyphella primitiva Warthin 91, 97
Graphiodactylus catenulatus Van Pelt 87
Hollina devoniana Van Pelt 87, 94
Hyphasmaphora textiligera Van Pelt 87, 97
Kirkbyella bellipuncta (Van Pelt) 87, 91, 94

Octonaria percarinata Van Pelt 87, 91
Ponderodictya unicornis (Van Pelt) 87
Ropolonellus papillatus Van Pelt 87, 97
Strepulites crescentiformis (Van Pelt) 87, 97
Strepulites nucleolatus (Warthin) 91, 97
Strepulites quadricostatus (Van Pelt) 87, 97
Strepulites singularis (Van Pelt) 87, 97
Strepulites stigmatus (Ulrich) 97
Sulcicuneus porrectinatium Kesling 111

Rockport Quarry Limestone

Stromatoporoidea:

Stromatopora sp. 88

Anthozoa:

Tetracoralla:

"Cyathophyllum" sp. 88
Cylindrophyllum delicatulum Ehlers and Stumm 29
Hexagonaria sp. 88, 96
Spongophyllum romingeri Ehlers and Stumm 28
"Zaphrentis" gregaria Rominger 72

Tabulata:

Favosites alpenensis kellyi Swann 83, 105
Favosites alpenensis peninsulae Swann 83, 105
Favosites digitatus Rominger partim 72, 82

Ferron Point Shale

Anthozoa:

Tetracoralla:

Aulacophyllum hemicrassatum Sloss 75
Cystiphylloides sp. 43
Heterophrentis sp. 43, 102
Hexagonaria sp. 95

Tabulata:

Aulopora sp. 43
Favosites alpenensis peninsulae Swann 83, 105

Echinodermata:

Edrioasteroidea:

Hemicystites devonicus Bassler 7, 9
Lepidodiscus alpenensis Bassler 7, 9

Bryozoa:

Anomalotoechus typicus Duncan 21
Ceramella casei McNair 59
? *Cyclopora lunata* Duncan 21
Cyphotrypa unica Duncan 21
Eridocampylus anceps Duncan 21
Eridocampylus laxatus Duncan 21
Eridocampylus multitabulatus Duncan 21
Eridocampylus obliquus Duncan 21
Eridocampylus ulrichi Duncan 21
Eridotrypella brevis Duncan 21
Eridotrypella granosa Duncan 21
Eridotrypella minuta Duncan 21
Eridotrypella obliqua (Ulrich) 21, 84, 86
Eridotrypella simplex Duncan 21
Eridotrypella spinifera Duncan 21
Eridotrypella valida Duncan 21
Fenestrellina rockportensis McNair 42, 59
Hederella alpenensis Bassler 8
Hederella delicatula Bassler 8
Hederella filiformis (Billings) 8
Hederella michiganensis Bassler 8
Hederella parvirugosa Bassler 8
Hederella robusta Bassler 8
Helopora inexpectata McNair 59
Hernodia cooperi Bassler 8
? *Leptotrypa spinifera* Duncan 21
Leptotrypella aequibilis Duncan 21
Leptotrypella magninodosa Duncan 21
Leptotrypella pellucida Duncan 21
Leptotrypella undans Duncan 21

? *Lioclema alpenense* Duncan 21
Microcampylus ovatus Duncan 21
Microcampylus traversensis Duncan 21
Microcampylus typicus Duncan 21
Polypora amorpha Deiss 19, 42
Polypora indentata Deiss 19, 42
? *Semiopora ehlersi* McNair 59
Stictoporina granulifera Stewart 59
Streblotrypa anomala McNair 59
Sulcoretepora alternata McNair 59
Sulcoretepora bifidiplicata McNair 59
Sulcoretepora obliqua McNair 59
Sulcoretepora ramifera McNair 59

Brachiopoda:

Articulata:

Athyris sp. 96
Atrypa sp. 96
Chonetes sp. 96
Cranaena sp. 43
Cyrtina sp. 96
Meristella sp. 43
Mucrospirifer alpenensis (Mook) 62
Mucrospirifer prolificus (Stewart) 66
Pentamerella sp. 96
Schizophorea sp. 43
Spinocyrtia sp. 43
Stropheodonta sp. 43, 102

Crustacea:

Trilobita:

Phacops milleri Stewart 66

Ostracoda:

Coelonella scapha Stewart 95
Dizygopleura oblonga Warthin 91
Euglyphella primitiva Warthin 97
Thlipsurella swartzi Warthin 91, 97

Genshaw Formation

Stromatoporoidea:

Anostylostroma hamiltonense Parks 65
Anostylostroma hamiltonense papillatum Parks 65
Clathrodictyon latum Parks 65
Clathrodictyon retiforme Nicholson and Murie 65
Stictostroma huronense Parks 65
Stromatoporella granulata (Nicholson) 65
Stromatoporella granulata distans Parks 65

Anthozoa:

Tetracoralla:

Billingsastraea sp. 102
Cyathophyllum sp. 43
Cystiphylloides sp. 43
Heliophyllum sp. 43
Heterophrentis sp. 43
Hexagonaria sp. 43
Pinnatophyllum scyphus (Rominger) 45, 58, 72

Tabulata:

Aulopora sp. 43
Cladopora sp. 43
Drymopora sp. 43
Favosites alpenensis calveri Swann (above Killians member) 82, 83
Favosites alpenensis hindshawi Swann (below Killians member) 83, 105
**Favosites alpenensis killiansensis* Swann 83, 105

Echinodermata:

Blastoidea:

Pentremitidea ovalis michiganense Reimann 69
Pentremitidea preciosa Reimann 69

* Starred species from Killians limestone member only.

Vermes:

Spirorbis sp. 43

Bryozoa:

? *Cyphotrypa maculosa* Duncan 21
Cyphotrypa traversensis Duncan 21
Fenestrellina incisa (Deiss) 19, 42
Fenestrellina megalopora (Deiss) 19, 42
Hederella alpenensis Bassler 8
Hederella cornucopia Bassler 8
Hederella robusta Bassler 8
Hederella romingeri Bassler 8
Hederella thedfordensis Bassler 8
Helopora inexpectata McNair 59
Hernodia cornucopia Bassler 8
Leptotrypella aequibilis Duncan 21
Leptotrypella magninodosa Duncan 21
Leptotrypella ohioensis (Stewart) 21
Leptotrypella pellucida Duncan 21
? *Leptotrypella undans* Duncan 21
? *Leptotrypella varia* Duncan 21
Microcampylus angularis Duncan 21
Microcampylus multitabulatus Duncan 21
? *Microcampylus ovatus* Duncan 21
? *Microcampylus tenuis* Duncan 21
Microcampylus traversensis Duncan 21
Microcampylus typicus Duncan 21
Polypora ambiplana Deiss 19, 42
Polypora brevissima Deiss 19, 42
Polypora magnifica Deiss 19, 42
Polypora pyramidata Deiss 19, 42
Polypora tenuosa Deiss 19, 42
Semicoscinium rhombicum obliquum Deiss 19, 42
Stictoporina granulifera Stewart 59
Stigmatella alpenensis Duncan 21

Sulcoretepora alternata McNair 59
Sulcoretepora ramifera McNair 59
Trachytoechus romingeri Duncan 21

Brachiopoda:

Inarticulata:

Petrocrania sp. 43

Articulata:

Athyris sp. 43
Atrypa sp. 43, 93
Brachyspirifer sp. 43
Chonetes sp. 43
Cranaena sp. 43
Cyrtina umbonata alpenensis Hall and Clarke 51
Cyrtina sp. cf. *C. hamiltonensis* 43
Gypidula romingeri Hall and Clarke 51, 74
Meristella sp. 43
Mucrospirifer multiplicatus (Grabau) 44, 62
Pentamerella sp. 43
Pholidostrophia sp. 43
Productella sp. 43
Protoleptostrophia sp. 43
Schizophoria striatula (Schlotheim) 106
Schizophoria striatula delta Grabau 107
Schizophoria striatula traversensis Grabau 107
Schizophoria sp. 43
Spinocyrtia sp. 43
"Spirifer" johnsoni Grabau 102
"Spirifer" oweni Hall 102
Stropheodonta four sp. 43

Mollusca:

Pelecypoda:

Modiomorpha sp. 43

Cephalopoda:

Gomphoceras sp. 43
**Lyrioceras hindshawi* (Ehlers and Hussey) 22, 39, 55
Michelinoceras sp. 43

Crustacea:

Trilobita:

Phacops sp 43
Proetus sp. 43

Newton Creek Limestone

Anthozoa:

Tetracoralla:

Hexagonaria sp. 40

Tabulata:

Favosites alpenensis alpenensis Winchell 82, 83
Favosites alpenensis calveri Swann 82, 83
Favosites alpenensis tenuimuralis ? Swann 83, 105

Brachiopoda:

Articulata:

Camarophoria sp. 17
Charionella sp. 17
Cranaena casei Foerste 12, 40
Pentamerella sp. 17

Mollusca:

Cephalopoda:

Acleistoceras casei Foerste 39, 40, 55
Acleistoceras nummulatum Foerste 39, 40, 55
Acleistoceras sp. 39
Alpenoceras ulrichi Foerste 39, 40, 55
Michelinoceras anguliferum alpenense (Foerste) 40, 55
Nephriticerina alpenensis Foerste 39, 40, 41, 55

* Starred species from Killians limestone member only.

Alpena Limestone

Stromatoporoidea:

Stromatopora sp. 15, 87

Anthozoa:

Tetracoralla:

Chonophyllum ponderosum Rominger 72, 75
Diversophyllum traversensis (Winchell) 72, 75, 98
Heterophrentis sp. 43
Hexagonaria sp. 15, 43, 96
Microcyclus alpenensis Stumm 81

Tabulata:

Alveolites goldfussi Billings 15, 72
Favosites alpenensis alpenensis Winchell 82, 83
Favosites alpenensis calveri Swann 82, 83
Favosites alpenensis tenuimuralis Swann 83, 105
Favosites placentus Rominger 72, 105
Favosites romingeri saetigera Swann 83, 105
Favosites turbinatus Billings 15, 72

Echinodermata:

Crinoidea:

Dolatocrinus asterias Wood 9, 56, 77, 99
Dolatocrinus costatus Wood 9, 99
Dolatocrinus incisus Springer 9, 56, 77
Dolatocrinus venustus Miller and Gurley 9
Megistocrinus expansus Miller and Gurley 9, 99
Megistocrinus nodosus Barris 9, 99
Megistocrinus regularis Wood 9, 99
Megistocrinus sphaeralis Wood 9, 99

Bryozoa:

Eostenopora picta Duncan 21
Hederella alpenensis Bassler 8
Hederella delicatula Bassler 8

Hederella filiformis (Billings) 8
Hederella magniventra Bassler 8
Hederella michiganensis Bassler 8
Hederella robusta Bassler 8
Isotrypa gigantica Deiss 19, 42
Isotrypa rara Deiss 19, 42
Lioclema alpenense Duncan 21
Microcampylus minutus Duncan 21
Stictoporina granulifera Stewart 59
Sulcoretepora obliqua McNair 59

Brachiopoda:

Articulata:

Atrypa sp. 43
Chonetes sp. 43
Cyrtina sp. 43
Hercostrophia alpenensis Williams 109
Longispina emmetensis (Winchell) 17, 98
Mucrospirifer sp. 43
Pholidostrophia sp. 43
Spinocyrtia sp. 43
Stropheodonta several sp. 43

Crustacea:

Ostracoda:

Hyphasmophora textiligera Van Pelt 97
Ropolonellus papillatus Van Pelt 97

Four Mile Dam Formation

Anthozoa:

Tetracoralla:

Cylindrophyllum magnum Ehlers and Stumm 29
Cystiphylloides americanus Edwards and Haime 72
Depasophyllum adnetum Grabau 29, 45, 46, 58, 80
Eridophyllum archiaci (Billings) 29, 43, 72

Heliophyllum halli Edwards and Haime 72
Heliophyllum juvene Rominger 72
Hexagonaria sp. 43
Iowaphyllum alpenense (Rominger) 15, 17, 72, 80

Tabulata:

Antholites bridghami (Greene) 104
Aulopora "serpens" Goldfuss 72
Cladopora alpenensis Rominger 72, 82
Drymopora sp. 66
Emmonsia digitata (Rominger) partim 72, 82
Emmonsia radiata (Rominger) 72, 82
Favosites billingsi Rominger 72
Favosites clausus Rominger partim 72, 82
Favosites digitatus Rominger partim 72, 82
Favosites placentus Rominger 72, 105
Favosites radiciformis Rominger partim 72, 82
Favosites warthini Swann 83, 105
Platyaxum fischeri (Billings) 72
Pleurodictyum insigne (Rominger) 72, 82, 104, 105
Pleurodictyum wardi (Greene) 104
Striatopora linneana Billings 72
Striatopora sp. cf. *S. iowensis* (Owen) 72
Trachypora alternans (Rominger) 72, 105
Trachypora elegantula Billings 72, 105
Trachypora ornata (Rominger) 72, 105
Trachypora reticulata (Rominger) 72, 105
Trachypora proboscidialis (Rominger) 72, 105

Echinodermata:

Blastoidea:

**Nucleocrinus* sp. 17

Crinoidea:

Dolatocrinus amplus Miller and Gurley 9
Dolatocrinus costatus Wood 9, 99

* Starred species reported from the Dock Street clay member only.

Dolatocrinus triadactylus Barris 43
Dolatocrinus venustus Miller and Gurley 9
Halysiocrinus barrisi (Worthen) 9
Halysiocrinus carinatus Springer 9, 78
Megistocrinus rugosus Lyon and Cassiday 9

Bryozoa:

**Acanthoclema lineatum* McNair 42, 59
**Anastomopora ovata* McNair 42, 59
**Atactotoechus bifoliatus* Duncan 21
**Dioidophragma serratum* Duncan 21
**Eostenopora primiformis* Duncan 21
**Eridocampylus obliquus* Duncan 21
**Fenestrellina alpenensis* McNair 42, 59
Fenestrellina minutiserrata (Deiss) 19, 42
**Fenestrellina regularis* McNair 42, 59
**Fenestrellina striata* (Hall) 42, 59
**Hederella delicatula* Bassler 8
**Hederella magniventra* Bassler 8
**Hederella thedfordensis* Bassler 8
**Hernodia ? cooperi* Bassler 8
**Intrapora puteolata* (Hall) 59
**Leptotrypella moniliformis* (Nicholson) 21
**Loculipora implicata* McNair 42, 59
**Prismopora alpenensis* McNair 59
**Scalaripora variosa* McNair 59
**Strictoporina granulifera* Stewart 59
**Sulcoretepora obliqua* McNair 59
Taeniopora exigua (Nicholson) 59
Vermipora fasiculata Rominger 72

Brachiopoda:

Articulata:

Atrypa sp. 43
Brachyspirifer sp. 43

* Starred species reported from the Dock Street clay member only.

Callipleura nobilis (Hall) 15, 16, 17
Camarospira sp. 15, 17
**Camarotoechia thedfordensis* Whiteaves 15
Camerophoria sp. 15, 17
**Cyrtina* sp. cf. *C. umbonata* 43
Elytha fimbriata (Conrad) 15
Fimbrispirifer venustus (Hall) 14, 15, 17, 96
Megastrophia sp. cf. *M. concava* (Hall) 43
Mucrospirifer sp. 43
Parazyga hirsuta (Hall) 14, 15, 17
Pentamerella cf. P. pavilionensis Hall 74
Spinocyrtia sp. cf. *S. granulosus* (Conrad)
Trematospira sp. 15

Mollusca:

Gastropoda:

Cyrtonella mitella (Hall) 57

Cephalopoda:

Exocyrtoceras reimanni Flower 37

Crustacea:

Ostracoda:

? *Bollia hindei* Jones 94
Richina subcircularis Coryell and Malkin 94
Richina truncata Coryell and Malkin 15

Norway Point Formation

Graptozoa:

Desmograptus vandelooi Ruedemann 106

Anthozoa:

Tabulata:

Aulopora sp. 66
Cladopora sp. 66
Drymopora sp. 43
Striatopora rugosa Hall 43

* Starred species reported from the Dock Street clay member only.

Echinodermata:

Blastoidea:

Pentremitidea americana Barris 9, 69
Pentremitidea clavatiformis Reimann 9, 67
Pentremitidea cooperi Reimann 69
Pentremitidea cooperi breviceps Reimann 69
Pentremitidea filosa Whiteaves 9, 69

Bryozoa:

Atactotoechus creber Duncan 21
Atactotoechus spissus Duncan 21
Atactotoechus typicus Duncan 21
Atactotoechus winchelli (Ulrich) 21, 85
= *Monticulipora hamiltonense* James 53
Dioidophragma serratum Duncan 21
Eridocampylus obliquus Duncan 21
Eridotrypella granosa Duncan 21
Eridotrypella simplex Duncan 21
Fenestrellina foraminosa (Deiss) 19, 42
= *Fenestrellina deissi* (Elias) 101
Hederella alpenensis Bassler 8
Hederella delicatula Bassler 8
Hederella filiformis (Billings) 8
Hederella magniventra Bassler 8
Hederella michiganensis Bassler 8
Hederella persimilis Bassler 8
Hederella robusta Bassler 8
Hemitrypa variosa Deiss 19, 42
Isotrypa angulata Deiss 19, 42
Isotrypa isopeda Deiss 19, 42
Leptotrypella aequibilis Duncan 21
Scalaripora variosa McNair 59
Semicosinium thyene michiganensis Deiss 19, 42
Stereotoechus typicus Duncan 21
Taeniopora exigua Nicholson 59

Brachiopoda:

Articulata:

Athyris, sp. 43
Atrypa sp. 43
Camarotoechia sp. 43
Chonetes sp. 66
Cranaena sp. 43
Cryptonella sp. 43
Cyrtina 3 sp. 43
Megastrophia sp. 66
Mucrospirifer attenuatus (Grabau) 44, 62
Mucrospirifer profundus (Grabau) 44, 62
Pentamerella sp. 43
Pholidostrophia sp. 43
Spinocyrtia granulosus (Conrad) 43, 66
Stropheodonta alpenensis Grabau 102
Stropheodonta sp. 43

Mollusca:

Pelecypoda:

Conocardium sp. 43

Gastropoda:

"Pleurotomaria" several sp. 43

Crustacea:

Trilobita:

Greenops boothi (Green) 92
Phacops sp. 43.

Ostracoda:

Amphissites subquadratus (Ulrich) 91
Bythrocypris devonica borealis Warthin 91
Ctenoloculina cicatricosa (Warthin) 91, 94, 110, 112
Kirkbyella bellipuncta (Van Pelt) 87, 91
Monoceratina casei Warthin 91

Ponderodictya punctilifera (Hall) 93
Ropolonellus extensus (Coryell and Malkin) 97
Strepulites crescentiformis (Van Pelt) 87, 97
Strepulites quadricostatus (Van Pelt) 87, 97
Ulrichia conradi Jones 91, 94
? *Ulrichia fragilis* Warthin 91, 94

Potter Farm Formation

Stromatoporoidea:

Anostylostroma hamiltonense var. Parks 65
Clathrodictyon latum Parks 65
Clathrodictyon undulatum Parks 65
Clathrodictyon vulgare Parks 65
Stictostroma ? *alpenense* Parks 65

Porifera:

Silicispongia:

Astraeospongia sp. 68
Ensiferites sp. 68

Anthozoa:

Tetracoralla:

Cylindrophyllum hindshawi Ehlers and White 25, 29
Cylindrophyllum panicum (Winchell) 25, 29, 75, 97
Cystiphylloides sp. cf. *C. aggregatus* (Billings) 72
Disphyllum compactum Ehlers and Stumm 29
Hallia vesiculata Sloss 75
Spongophyllum alpenense Ehlers and Stumm 28
Synaptophyllum crassiseptatum Ehlers and Stumm 29

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* Reported from Killians limestone member only.

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Mollusca:

Pelecypoda:

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* May be from basal part of Petoskey limestone.

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Bethanyphyllum robustum (Hall) 66
Cylindrophyllum panicum (Winchell) 25, 29, 34, 66, 72, 75. 98
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Spinocyrtia sp. 66
"Spirifer" consors Winchell 26, 98
Stropheodonta sp. cf. *S. demissa* 66
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* May be from the Charlevoix limestone.

Mollusca:

Pelecypoda:

Conocardium bifarum Winchell 11, 98

Gastropoda:

Euomphalus sp. 66

Crustacea:

Trilobita:

Phacops iowensis Delo 18
Phacops sp. cf. *P. rana* 66
Proetus sp. 66

Middle Petoskey Limestone

Anthozoa:

Tetracoralla:

Heliophyllum sp. 66

Tabulata:

Cladopora sp. 66
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Echinodermata:

Blastoidea:

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Pentremitidea cloudi Reimann 69

Bryozoa:

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Hederella persimilis Bassler 8
Hederella robusta Bassler 8
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Brachiopoda:

Articulata:

Atrypa two sp. 66

Crustacea:

Trilobita:

Scutellum tullium depressum Cooper and Cloud 13

Upper Petoskey Limestone

Echinodermata:

Blastoidea:

Pentremitidea imparilis Reimann 69

Crinoidea:

Melocrinus sp. 17

Brachiopoda:

Articulata:

Leptaena sp. 17
Pentamerella sp. 17
Pugnoides sp. 17
"Reticularia" sp. cf. *"R." laevis* 17
Schizophoria sp. 17

Mollusca:

Pelecypoda:

Actinoptera sp. 17

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