Courton : A.S. Warthen gr.

# TENTH ANNUAL MEETING

NEW YORK STATE GEOLOGICAL ASSOCIATION

AT

COLGATE UNIVERSITY, HAMILTON, N.Y.

## PRELIMINARY SCHEDULE

HEADQUARTERS: Colgate Inn, Hamilton, New York.

Date: Friday, May 18, and Saturday, May 19, 1934

The following schedule is based on Eastern Standard Time.

FRIDAY, MAY 18

## FRIDAY MORNING:

### REGISTRATION:

Everyone attending the meetings is requested to register at the headquarters desk in the Colgate Inn as soon as possible after arrival in Hamilton, in order to facilitate arrangements for rooms, meals and entertainment.

#### FIELD EXCURSION:

Meet at the Colgate Inn at 10:30 A.M. Several Pleistocene features will be visited, including the great kame loop, Madison Lake delta, and various kettle holes. The trip wibl end at Stockbridge Falls, where lunch will be served.

### LUNCHEON:

A picnic luncheon will be served at Stockbridge Falls, at the conclusion of the morning excursion. Tickets for this luncheon may be obtained at 50¢ each at the headquarters desk in the Colgate Inn.

## Friday, May 18 - concluded.

## FRIDAY AFTERNOON:

#### FIELD EXCURSION:

After luncheon at Stockbridge Falls, the field party will examine exposures of the following formations in the vicinity:

#### DEVONIAN:

Marcellus shale, with Cherry Balley limestone member Onondaga limestone Helderberg limestone

#### SILURIAN:

Manlius limestone

A visit will slao be made to a ravine near Stockbridge Station, a short distance away, in which the following formations will be seen:

#### DEVONIAN:

Helderberg limestone

#### SILURIAN:

Manlius limestone
Rondout limestone
Cobleskill limestone
Bertie dolomite Salina
Camillus shale

#### FRIDAY EVENING:

## DINNER (informal)

At 7:00 P.M., an informal dinner will be held at the Colgate Inn. Tickets may be obtained at the headquarters desk in the Colgate Inn, at \$1 each.

## EVENING MEETING:

After the dinner, Dr. G.A. Cooper of the United States National Museum will give a short talk, which will be followed by an informal discussion and a short business session.

## INFORMAL DANCE:

A complimentary dance (informal) will be given the visitors at the Colgate Inn, after the evening meeting. Admission will be by tickets, which will be given out at the registration desk.

## SATURDAY, MAY 19

## SATURDAY MORNING:

#### BREAKFAST:

A 50¢ breakfast will be served at the Colgate Inn for those who wish it.

#### FIELD EXCURSION:

Meet at the Colgate Inn at 9:00 A.M. Dr. G.A. Cooper will show the party the new divisions of the Hamilton formation, and the newly discovered eastward extension of the Tully formation.

#### LUNCHEON:

Those who wish can obtain luncheon at the Colgate Inn for 50¢. 65¢ or a la carte.

## SATURDAY AFTERNOON:

No formal program has been scheduled for Saturday afternoon, but excursions to the following points will be arranged for those who may be interested:

Colgate University Department of Geology, and Museum of Natural History.
Ilion Gorge
Clinton Iron Mine.

#### GENERAL INFORMATION

#### ACCOMADATIONS AND MEALS:

### ROOMS:

It is desirable to make reservations in advance for tooms, in order that everyone may be accommadated as comfortably as possible. A limited number of rooms will be available at the Colgate Inn, all of which include provate bath. All of these rooms accommodate two persons and some of them three. If rented to one person only, the charge is \$4.00 a night; if used by two or more, the charge is \$2.00 per person per night. A large number of rooms will also be available in private homes in the village of Hamilton, for \$1.00 per night per person.

Please send your request for room reservations to the secretary, Towner B. Root, Hamilton, New York.

## General Information - concluded.

## MEALS:

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Reservations for the following meals should be made in advance with the secretary, or at the headquarters desk in the Colgate Inn, where tickets may be obtained for them.

PIcnic Lunch, Friday, May 18. Price 50¢. Served at Stockbridge Falls

Informal dinner, 7:00 P.M., Friday evening, May 18, at the Colgate Inn. Price \$1.

Other meals may be obtained at the discretion of the individual, since no arrangements have been made for them in advance.

## TOPOGRAPHIC MAPS

The following quadrangles show all points to be visited in the scheduled excursions. These will be on sale at the headquarters desk in the Colgate Inn, at 10¢ per sheet:

Morrisville, New York Norwich, New York Bangerfield, New York

### DETAILED ITINERARY:

A detailed account of routes to be taken and points to be visited will be available at the time of registration, at the headquarters desk in the Colgate Inn.

#### PRELIMINARY BIBLIOGRAPHY:

Preliminary Report of the Terminal Moraine, The second Glacial Epock, by T.C.Chamberlain. 3rd Annual Report, U.S.G.S., 1882, pp. 295-401.

Glacial Flood Deposits in Chenango Valley, by A.P. Brigham.
Bulletin 02, the Geological Society of America, vol.8, pp. 17-30, 1897

Geologic Map of the Tully Quadrangle, by John M. Clarke and D. Dana Luther. Bulletin 82, N.Y. State Museum, 1905.

Geology of the Syracuse Quadrangle, by T.C. Hopkins, Bulletin 171, N.Y. State Museum, 1914.

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Stratigraphy of the Hamilton Group of New York, by G. Arthur Cooper. 1930 American Journal of Science, 5th series, vol. 19, pp 116-134, 214-236

Handbook of Paleontology for Beginners and Amateurs: Part 2, the formations, by Winifred Goldring, N.Y.State Museum Handbook 10. 1931.

For further information, address the secretary: Towner B. Root,
Hamilton, New York.

(Department of Geology and Geography
Colgate U.)

Point. J. Berlan . -

ITINERARY FOR FRIDAY MORNING, MAY 18.

Leave Colgate Inn. 10:30 A.M.

Take road to Bouckville

Turn right on Cherry Valley Turnpike and proceed to Sangerfield Hill, turning left on dirt road. Follow dirt road until meeting highway leading to Oriskany Falls. Turn left. The first stop commands a view of the kame area.

Proceed to Oriskany Falls, noting kames along the road. At Oriskany Falls, turn left and proceed to Madison.

At Madison turn right at traffic light for 4 mile.

Second stop is at the head of the Madison Lake Glacial Delta.

Note the deep kettle hole along the roadside and the gradual passage of the kame area into the Delta. Abundant kettle holes.

Proceed short distance and take left turn to Madison Lake. Third stop- Note the Madison lake ice-block-hole.

Continue on road leading south from Madison Lake to Cherry Valley Turnpike. Sharp right hand turn, USE CARE. Drive over the Delta. Note how the kettle hole topography yields to the flat surface of the delta.

Fourth stop. Just outside of Bouckville, Note the front of the Delta stretching across the valley.

Proceed to Bouckville and turn left toward Hamilton.

Fifth Stop. About  $1\frac{1}{2}$  miles. Note the clays on the bottom of the old glacial lake.

Proceed to Pecksport.

Sixth Stop. Just before crossing R.R.tracks.

This is where the ice dam must have occurred that blocked the Oriskany waters and formed the Glacial Lake.

Turn around and proceed to Pine Woods over cement road. At Pine Woods turn left on Cherry Valley Turnpike for  $\frac{1}{4}$  mile. Leave cement road and proceed northward on macadam road toward Munnsville.

Stop Seven. On top of hill beyond railroad crossing. Note the kame area in this valley. These kames form the divide between the Chenango and Oneida valleys.

Proceed toward Munnsville and turn left at stone house to Stockbridge Falls. USE CARE.

Lunch.

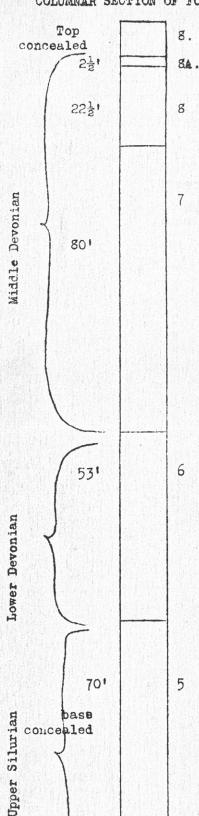
## STOCKBRIDGE FALLS AND VICINITY:

The columnar section on the following page describes the formations to be seen in the vicinity of the picnic grounds. The mud cracks in the floor of the quarry are in the top waterlime layer of the Manlius formation, formation 5. The quarry is in the Helderberg limestone, which extends for several hundred feet up the slope to the west. A sharp rise to a level flat about an eighth of a mile west of the quarry marks the lowermost ledge of the Onondaga limestone, characterized by abundant chert and corals. The uppermost beds of the Onondaga limestone, and the overlying Marcellus shale with the Cherry Valley limestone member, are exposed upstream at a distance of about ½ mile and can be reached readily by car, as marked on the topographic map. Please use care in driving along this roadway, which is rather narrow and winding.

## STOCKBRIDGE STATION RAVINE:

Those interested in details of the section of the Manlius limestone and underlying formations below, will want to visit the section in Stockbridge Station ravine, about three miles northeast of the picnic site, as marked on the topographic map. The ravine is somewhat steep and rocky and the going somewhat difficult, so that all members of the party may not want to take this trip. The columnar section on the last page shows the formations exposed here. The outcrops lie east of the railway right of way, and can be reached either by walking up the road and to the north along the railway to the ravine, or by following the stream up from the parking place. Formations 1 to 7 inclusive of the section on the last page are exposed in the ravine, although only the base of formation 7, the Onondaga limestone, is to be seen and that only at a point about 5/8 mile east of the railway.

## COLUMNAR SECTION OF FORMATIONS EXPOSED IN VICINITY OF STOCKBRIDGE FALLS



Marcellus Shale (Chittenango Shale of Cooper):

black, fissile, few fossils.

Cherry Valley limestone member: hard, dense,

dark gray; many large esphalopods.

Marcellus shale (Union Springs shale of Cooper):
black, fissile, few fossils; calcareous and
more massive in lower portion.

Onondaga limestone: medium gray, fine to coarsely crystalline. Basal 3' to 20' free from chert, abundant crinoid fragments and horn corals.

Main portion, much chert and many corals, particularly horn and honeycomb types. Upper 20' - 30', more argillaceous, with fewer fossils and less chert.

Helderberg limestone: dark bluish gray, finely crystalline, with Gypidula cosymansensis zone 21' above base; another zone of abundant brachiopods 27' above base.

Manlius limestone: bluish gray, finely crystalline, hard, dense, for the most part in thick, massive beds. Top 2½', exposed in floor of quarry, is "waterlime"; drab gray, shaley, laminated; shows prominent mud cracks on upper surface. Stromotoporoids abundant in zones 5', 17', 29' and 37' below top.

Beds 5 to 7 inclusive, are exposed within a radius of  $\frac{1}{4}$  mile from the picnic grounds; the top of bed 7, and beds 8 and 84 are exposed upstream at a distance of about  $\frac{1}{2}$  mile and more, and can be reached readily by

car as marked on the topographic map. 5

## COLUMNAR SECTION OF FORMATIONS EXPOSED IN STOCKBRIDGE STATION RAVINE

Middle	Top oncealed	7 Onondaga limestone: Medium gray cherty limestone with abundant corals: lower 3', no chert, few fossils.
Lower Mi Devonian Dev	611	6 Helderberg limestone: dark bluish gray, finely crystalline. Gypidula coeymansensis zone 23! above base; other zones of abundant brachiopods 29! and 46! above base.
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Upper Silurian	79'	Manlius limestone: bluish gray, finely crystalline, hard, dense; some zones show fine horizontal bedding alternations. Three finely laminated drab-gray shaley *water-lime" zones, one 2½ thick at top; another 3' thick, 13' below the top, and one 1½ thick 42' below the top. Zones of especially abundant stromatoporoids 16', 26', and 32' below the top.
	601	4. Rondout limestone: shaley, thin bedded, gray to bluish gray, some zones largely shale, but all calcareous; brachiopods abundant in some horizons. Basal 16' more massive, becoming a "waterlime", drab in solor, finely laminated, showing little reaction with ECL.
	91 101	3. Cobleskill limestone: gray blue, massive; many cavities, some filled with calcite.  2. Bertie dolomite: upper 4, thick-bedded, drab; lower 64
	10	thin-bedded, shaley, drab to dark bluish gray; little reaction with HCl.
	411	1. Camillus shale (upper portion): calcareous, gray, some- what hard and platey in part; cell bedded. Local con- torted bedding resulting from Jeaching out of salt and
	26'  1A. Fiddler's Green dole	gypsum belonging at this horizon, Lower 15' large con- cealed, lA. Fiddler's Green dolomite member: argillaceous, with thin
	Philip II	shale partings; little reaction with HCl; no fossils distinguished; what appear to be dessication cracks on upper surface.
con	g6: Base cealed	Camillus shale (main portion); shale and impure earthy dolomitic rock; gray to bluish, greenish and clive gray; beds thin to 2" and 3" thick. In outcrops nearby, at a somewhat lower horizon, the vermicular limestone phase of the Camillus appears. Further to the north, the greenish shale grades down into the reddish shale of the Vernon formation.
	Visite.	54

#### ITINERARY FOR SATURDAY MORNING.

- 8. Proceed from Hamilton to Pine Woods. On right at Pecksport R.R. switch and crossing is Pecksport shale. At Pine Woods hard Solsville sandstone makes ledge on both sides of road. Pecksport is exposed above it along road leading northward. At foot of hill to west is the upper part of Bridgewater shale.
- 9 & 10. From Pine Woods take Eaton road to base of hill (about two miles). Mottville limestone exposed at base of hill, overlain by Delphi. Latter becomes sandier vertically. Pompey is in gutter near top of hill. Berwyn dark shale caps hill. On west side of hill near R.R. bridge is upper Delphi.
- 11. Take road to Randallsville then 12-b to Red Gate Stock Farm. Colgate member in quarry and cliffs. Stonemill limestone (Centerfield age) forms cascade. Lower Ludlowville in ravine above falls.
- 12. From Red Gate proceed to Lebanon. One-half mile south of village on west side of ravine is Portland Point and basal Moscow.
- 13. Proceed to point 1 mile NE of Georgetown--upper Moscow, Tully and Geneseo in gully. Geneseo beside road and Sherburne in gully on side of old road to south.

After Georgetown exposures Dr. Cooper will conduct interested parties to Sherburne, Unadilla Valley and Butternut Valley to see Tully exposures. Stop in Sherburne for sandwiches.