97

' THE ACADEMY OF

Lucina, sp. 57. 1850.

Hab .__ ?

Zool. Proc. 910, t. 44, f. 10. 1867.

Port Jackson.

ina, sp. 57. 1850.

Ins. Muerte.

Jonch. ii. 72 t. 2, f. 10-12. 1851.

W. Coast Africa.

i. Lucina, sp. 56. 1850.

West Indies.

viii. 32. 1862.

Hakodadi Bay.

Blatt. i. 166. 1857.

Sís. Magellan.

Proc. iii. 252. 1850.

Palagonia.

st. Proc. ii. 9. 1845.

West Indies.

SHELLS OF HERKIMER AND ADJACENT COUNTIES IN THE STATE OF NEW YORK.

BY JAMES LEWIS.

AT various times I have prepared catalogues and other papers relating to the shells of this region. The latest catalogues of shell-bearing mollusca of Herkimer and adjacent counties was printed in the Proceedings of the Academy of Natural Sciences in 1860. Since that date several species have been found which previously had not been noticed. Corrections have also been made of species wrongly named.

A few rare land-shells have been detected in obscure retreats, where the progress of civilization has not reached them. For convenience of reference I arrange the species alphabetically, without following the most recent classification, my object being geographical distribution rather than classification.

Amnicola Cincinnatiensis? Anthony.

Eric Canal and Mohawk River. In the rivers, this shell sometimes attains remarkable size. Specimens submitted to Mr. Tryon were pronounced to be *Cincinnatiensis* or new. I do not feel disposed to quote this as a new species on account of its size, for the reason that other shells not recognized as new species sometimes attain remarkable size in this region.

A. lustrica, Say.

Schuyler's Lake, Otsego County; Little Lakes, Herkimer County; Smith's Pond, Litchfield, Herkimer County; Eric Canal. The shells found in Eric Canal are doubtlessly introduced. Have been seen there only on one occasion (1869).

A. pallida, Hald.

Lakes, rivers, and canal. I can distinguish these shells from those shells of Massachusetts called A. porata, Say, by Gould, only by their color, due to locality.

Ancylus fuscus, Adams.

Schuyler's Lake and Little Lakes, New York.

Ancylus parallelus, Hald.

Schuyler's Lake and Little Lakes, New York. 1872.

[July 16,

Ancylus tardus, Say.

Mohawk River. Found under stones along the margin of the stream at low water. I have found them only during the fall months. None could be found in 1871.

Anodonta edentula, Say.

Mohawk River and Erie Canal; also streams running south to the Susquehanna River.

Anodonta fluviatilis, Lea.

In ponds and streams near Schuyler's Lake.

Anodonta imbecilis, Say.

Erie Canal. Very scarce and small.

Anodonta lacustris, Lea.

Schuyler's Lake, Little Lakes, Smith's Pond, and a small pond at Herkimer. A small variety occurs in a marshy creek on the hills eight miles south of Mohawk.

Anodonta Lewisii, Lea.

Erie Canal and Mohawk River. During the last ten years this species has been very nearly exterminated in the canal, affected, no doubt, by chemicals introduced in the armory sewage at Ilion.

Anodonta subcylindracea, Lea.

Erie Canal, Mohawk River, and ponds at Herkimer. Not abundant.

Anodonta undulata.

Erie Canal and Mohawk River. Scarce.

Bythinella obtusa, Lea.

Erie Canal and Mohawk River. In the rivers this species sometimes grows very large; it is usually much larger here than specimens I have seen from other localities.

Carychium exiguum, Say.

On moist land in the Valley of the Mohawk. I have not found it abundant elsewhere.

Goniobasis livescens, Menke.

Erie Canal and Mohawk River. The shells vary, exceedingly, under the influences of station. The shells are characterized here as elsewhere by a weak epidermis, easily worn off. The species has, no doubt, been introduced from western waters by way of the canal. It is extremely abundant on rocks and hard[July 16,

clay banks in the Mohawk Riv no doubt a variety of this specie Gon. Haldemani.

Coniobasis virginica, Gmelin.

Common enough in the canal been introduced since 1856. I River, and in streams near But Mohawk River.

In 1871 I found specimens whof this species, but which exhaulike it. They seem to blend ulare and Goniobasis livescens size of Gon. virginica. I am attending them that they are h. Gon. virginica, and perhaps b named. The supposed hybrids Feeling unwilling to assume the bridity in a case which others new species, I submitted specifor his opinion. I feel privilege to my view respecting the shells Helix albolabris, Say.

A common species. A vartown of Litchfield. A single a Mohawk in June, 1871.

Helix alternata, Say.

This is the most abundant offer any notable varieties.

Helix arbores, Say.

Formerly somewhat abundar valley of the Mohawk.

Helix chersina, Say.

Damp grounds along the va is rare, and very few have been Helix concava, Say.

Somewhat abundant in damp Helix dentifera, Binney.

Found in ravines in the town 1872.7

r stones along the margin of the found them only during the fall in 1871.

l; also streams running south to

huyler's Lake.

small.

. Smith's Pond, and a small pond occurs in a marshy creek on the /k.

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The shells are characterized idermis, easily worn off. The duced from western waters by y abundant on rocks and hard[July 16,

clay banks in the Mohawk River, preferring swift water. I have no doubt a variety of this species furnished the type of Mr. Tryon's Gon. Haldemani.

Goniobasis virginica, Gmelin.

Common enough in the canal at long intervals. Has no doubt been introduced since 1856. Is said to abound in the Hudson River, and in streams near Buffalo. Is very seldom found in the Mohawk River.

In 1871 I found specimens which attain nearly the size of adults of this species, but which exhibit colors and forms somewhat unlike it. They seem to blend the colors of Trypanostoma subulare and Goniobasis livescens, and approximate the form and size of Gon. virginica. I am persuaded by the circumstances attending them that they are hybrids, and probably derived from Gon. virginica, and perhaps both the other two mollusca just named. The supposed hybrids are not found apart from virginica. Feeling unwilling to assume the responsibility of suggesting hybridity in a case which others might have settled by proposing a new species, I submitted specimens to Mr. Charles M. Wheatley for his opinion. I feel privileged to say that Mr. Wheatley assents to my view respecting the shells.

Helix albolabris, Say.

A common species. A variety with a tooth is found in the town of Litchfield. A single reversed specimen was found near Mohawk in June, 1871.

Helix alternata, Say.

This is the most abundant Helix of this region. It does not offer any notable varieties.

Helix arborea, Say.

Formerly somewhat abundant, but now extremely rare in the valley of the Mohawk.

Helix chersina, Say.

Damp grounds along the valley of the Mohawk. This species is rare, and very few have been seen for many years.

Helix concava, Say.

Somewhat abundant in damp ravines.

Helix dentifera, Binney.

Found in ravines in the town of Litchfield (1871). Only a very 1872.

few specimens have been found. Some of these have the reflected margin of the aperture of a beautiful rose color.

Helix electrina, Gould.

Formerly abundant, but now quite scarce.

Helix fallax, Say.

Two specimens from Litchfield (1871), appear to belong to this species. They differ essentially from the variety of tridentala found here—heretofore regarded as fallax.

Helix fuliginosa, Griffith.

Abundant in some of the ravines in Litchfield.

Helix hirsuta, Say.

I have never found this species. Col. E. Jewett, of Utica, informs me he had found it several years ago near New Hartford.

Helix indentata, Say.

Always rare. It has not been found for several years.

Helix intertexta, Binney.

Found in ravines and on hillsides shaded by poplars. It is not a very abundant species, but may usually be obtained in the months of July and August.

Helix ligera, Say.

I have found a single specimen only. Dr. William Brown, of Litchfield, has half a dozen specimens taken from under an old fence on a hill in Litchfield. The shells are smaller than typical ligera and the apex is less pointed. It may be placed between typical ligera and demissa, and seems to identify these forms as varieties of one type.

Helix lineata, Say.

A rare species. Scarcely twenty living specimens have been found since 1854. [Since the above was written, Dr. Brown has presented numerous specimens found in Litchfield.]

Helix inornata, Say.

Common in ravines. Apparently more abundant than in former years.

Helix minuscula, Binney.

A rare species. Wet land in the Mohawk Valley.

Helix minutissima, Lea.

A few specimens have been found (1871).

Helix nitida, Mull.

Usually found abundantly on wet and lakes. More common in the valuelix palliata, Say.

Not abundant. Occurs somewhat field ravines than elsewhere.

Helix perspectiva, Say.

Litchfield; very scarce. (1871.)

Helix pulchella, Meill.

Common on damp soil in many le Helix Sayii, Binney.

Common in ravines, but not so a out laborious search.

Helix striatella, Anthony.

Sometimes very numerous in the elsewhere.

Helix tridentata, Say.

A small variety. Common in re Helix thyroides, Say.

Seen only in the Mohawk Valle this species abundant and associat of the railroad embankment, seven specimens I have found occurred Mohawk.

Lymnæa catascopium, Say.

Eric Canal and Mohawk River. dently referable to this species, in of Herkimer County.

Lymnæa columella, Say.

Lakes. Not abundant.

Lymnæa desidiosa, Say. Common.

Lymnæa elodes, Say.

Stagnant water in various local

[July 16.

Some of these have the reflected tiful rose color.

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Mohawk Valley.

[July 16,

Helix minutissima, Lea.

A few specimens have been found in Litchfield by Dr. Brown (1871).

Helix nitida, Mull.

Usually found abundantly on wet ground, near streams, ponds, and lakes. More common in the valley of the Mohawk.

Helix palliata, Say.

Not abundant. Occurs somewhat more plentifully in the Litchfield ravines than elsewhere.

Helix perspectiva, Say.

Litchfield; very scarce. (1871.)

Helix pulchella, Meill.

Common on damp soil in many localities.

Helix Sayii, Binney.

Common in ravines, but not so abundant as to be found without laborious search.

Helix striatella, Anthony.

Sometimes very numerous in the valley; usually not abundant elsewhere.

Helix tridentata, Say.

A small variety. Common in ravines.

Helix thyroides, Say.

Seen only in the Mohawk Valley. Col. Jewett, of Utica, finds this species abundant and associated with albolabris by the side of the railroad embankment, seven miles east of Utica. The few specimens I have found occurred in an alder swamp west of the Mohawk.

Lymnæa catascopium, Say.

Erie Canal and Mohawk River. I have seen a few shells, evidently referable to this species, in a small lake in the south part of Herkimer County.

Lymnæa columella, Say.

Lakes. Not abundant.

Lymnæa desidiosa, Say.

Common.

Lymnæa elodes, Say.

Stagnant water in various localities.

1872.]

Lymnæa gracilis, Say.

Schuyler's Lake. At times very abundant. Usually scarce.

Lymnæa humilis, Say.

Less abundant than desidiosa.

Lymnæa pallida, Adams.

Little lakes. Very scarce.

Lymnæa stagnalis, Say.

Traces of this species have been found in the lakes elsewhere named. A single dried specimen (with the soft parts) was found in the Erie Canal, spring of 1871. Probably introduced from Cayuga Lake.?

Lymnæa umbilicata, Adams.

None have been seen for many years. All that have been found inhabited a pool of stagnant water in a wood lot that has long since been cleared, and the pool dried up.

Margaritana marginata, Say.

Erie Canal and Mohawk River; not abundant.

Margaritana rugosa, Barnes.

More abundant than the preceding, in the same localities.

Margaritana undulata, Say.

Single specimens have been found in the Erie Canal and Mohawk River. The species abounds in streams emptying into Schuyler's Lake.

Melantho decisus, Say.

Inhabits Schuyler's Lake and Little Lakes without any associate species. Found also in the Erie Canal and Mohawk River with the two species next named. A few reversed specimens have been found.

Melantho integer, Say.

The opercle of the adult has the form of that of *M. ponderosus* Say. I am inclined to regard these shells as varieties of *ponde*, rosus. Reversed and malformed specimens occur sometimes in considerable numbers in the Eric Canal. Largest shell found is over two inches long.

Melantho rufus, Haldeman.

This species, as well as integer, has evidently been introduced [July 16.

here, but at a more recent date. been found here earlier than 185 gradually increased in size and n found is 1.83 inches long. It is i M. Wheatley, of Phænixville, Pa. Physa heterostropha, Say.

Common in rivers and streams; of the varieties simulate the form gra, but I do not think, from all I species can be entered here.

Physa hypnorum, Drap.

A small variety. Not common Planorbis armigerus, Say.

Sometimes very abundant in st in the stations where found.

Planorbis bicarinatus, Say.

Eric Canal, Mohawk River, Sc Smith's Pond. Shells found in Sivory. Those found in Little Lawhite as those of Smith's Pond.

Planorbis campanulatus, Say.

Lakes and ponds. The few flike bicarinatus in the same pone

Planorbis deflectus, Say.

Lakes. Not abundant.

Planorbis exacutus, Say.

Lakes. Not abundant.

Planorbis parvus, Say.

Stagnant water. Sometimes

Planorbis trivolvis, Say.

Canal, rivers, lakes, and stag

Planerbis hirsutus, Say.

Schuyler's Lake. Rare.

Pisidium abditum, Haldeman.

I think *P. variabile*, Prime, as a synonym. The shells occ 1872.]

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here, but at a more recent date. No shells of this species have been found here earlier than 1855, since which time they have gradually increased in size and numbers. The largest shell yet found is 1.83 inches long. It is in the collection of Mr. Charles M. Wheatley, of Phœnixville, Pa.

Physa heterostropha, Say.

Common in rivers and streams; also in stagnant water. Some of the varieties simulate the forms of gyrina, ancillaria, and inte-pra, but I do not think, from all I have seen, that either of those species can be entered here.

Physa hypnorum, Drap.

A small variety. Not common.

Planorbis armigerus, Say.

Sometimes very abundant in stagnant water. It is not constant in the stations where found.

Planorbis bicarinatus, Say.

Eric Canal, Mohawk River, Schuyler's Lake, Little Lakes, and Smith's Pond. Shells found in Smith's Pond are very white, like ivory. Those found in Little Lakes are small and pale, but not so white as those of Smith's Pond.

Planorbis campanulatus, Say.

Lakes and ponds. The few found in Smith's Pond are white, like *licarinatus* in the same pond.

Planorbis deflectus, Say.

Lakes. Not abundant.

Planorbis exacutus, Say.

Lakes. Not abundant.

Planorbis parvus, Say.

Stagnant water. Sometimes (rarely) abundant.

Planorbis trivolvis, Say.

Canal, rivers, lakes, and stagnant water.

Planorbis hirsutus, Say.

Schuyler's Lake. Rare.

Pisidium abditum, Haldeman.

I think P. variabile, Prime, may be included under this species as a synonym. The shells occur in a great variety of stations. 1872.]



Pisidium æquilaterale, Prime.

Ditches and Erie Canal. Sometimes plenty.

Pisidium compressum, Prime.

Erie Canal and Mohawk River; also lakes and ponds.

Pisidium ventricosum, Prime.

The shells of this region are between ventricosum and subrotundatum, Prime. I am inclined to believe subrotundatum is a small variety of ventricosum. My local specimens were obtained from a stagnant pool near Mohawk, and from Little Lakes.

Pisidium virginieum, Bgt.

Erie Canal and Mohawk River.

Pupa contracta, Say.

Damp flat lands, Mohawk Valley.

Pupa pentodon, Say.

Damp flat lands, Mohawk Valley.

Somatogyrus subglobosus, Say.

Erie Canal. Introduced since 1860. This species comes from the west, and in a very few years has become numerically more abundant than any other molluse in the canal.

Sphærium croceum, Lewis.

I described this species many years ago. Mr. Prime puts it in the synonyms of one of his species (S. secure). Since the publication of Mr. Prime's papers I have had opportunity to study S. croceum, and find it in very different circumstances from those which determine the habits of S. secure, typical specimens of which I have collected in Massachusetts. My shells are found usually in coarse angular gravel anchored by a byssus. They are more abundant in a small stream that connects the two "Little Lakes" in the south part of this county than elsewhere.

Sphærium fabale, Prime.

Small stream in the town of Litchfield, Herkimer County (headwaters of the Unadilla River). Found in the fall of 1871. Brought to notice by Dr. Litchfield.

Sphærium occidentale, Prime.

Stagnant waters, subject to drying. Not unusually found alive in the soil of dried stations.

Sphærium rosaceum, Prime.

This shell I proposed as "Cyc ago. Mr. Prime puts it in his syno to me, however, that the habits of of S. partumeium, Say, which spec water, while Mr. Prime's rosaceum the most fragile of their class that knowledge of species and their hat my species. I have found these trunks of the "dwarf button-ball more solid variety sometimes occu

Sphærium simile, Say.

Lakes. Abundant.

Sphærium solidulum, Prime.

Mohawk River. Not plenty.

Sphærium striatinum, Lamarek.

Mr. Say's description of Cycla derstanding that his idea of the a was the reverse of the present us the shells here referred to. This Schuyler's Lake, in swift water occurs in still water in mud in the supposes striatinum to be the you servintinum occurs as far east as theld, Massachusetts, and is found to New York, Ohio, and States the Eric Canal, less so in the Mc in Oncida Lake. (F. E. Spinner.)

Sphærium transversum, Say,

Sometimes abundant in the car summer months in the Mohawk I coss, introduced, though known si

Succinea aurea? Lea.

A small, orange-colored species dame around the "Little Lak and been authoritatively deter

Succinea avara, Say.

A large variety, sometimes 11-2

[July 16.

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ying. Not unusually found alive

[July 16,

Sphærium rosaceum, Prime.

This shell I proposed as "Cyclas errans," a number of years ago. Mr. Prime puts it in his synonymy of S. rosaceum. It seems to mr. however, that the habits of this mollusc are more like those of S. partumeium, Say, which species is usually found in stagnant water, while Mr. Prime's rosaceum is a river shell. My shells are the most fragile of their class that I have seen. From my present knowledge of species and their habits, I am induced now to reclaim my species. I have found these shells usually adhering to the trunks of the "dwarf button-ball" growing in a stagnant pool; a more solid variety sometimes occurs in ditches.

Sphærium simile, Say.

Lakes. Abundant.

Sphærium solidulum, Prime.

Mohawk River. Not plenty.

Sphærium striatinum, Lamarek.

Mr. Say's description of Cyclas edentula, if read with the understanding that his idea of the anterior and posterior of bivalves was the reverse of the present usage, will be found to accord to the shells here referred to. This species occurs in the outlet of Schuyler's Lake, in swift water among gravel, while S. simile occurs in still water in mud in the same stream. A recent writer supposes striatinum to be the young of simile. This is an error. S. striatinum occurs as far east as the Connecticut River at Springfield, Massachusetts, and is found in many of the larger streams in New York, Ohio, and States westward. Is very abundant in the Eric Canal, less so in the Mohawk River. It has been found in Oncida Lake. (F. E. Spinner.)

Sphærium transversum, Say.

Sometimes abundant in the canal. A few may be found in latesummer months in the Mohawk River. Evidently a western species, introduced, though known since 1853 to inhabit the canal.

Succinea aurea? Lea.

A small, orange-colored species found sometimes in the month of June around the "Little Lakes" may be aurea. The species has not been authoritatively determined.

Succinea avara, Say.

A large variety, sometimes 11-20 inch long, is found on the moist muddy banks of the Mohawk River, sometimes very plenty, some-

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times rare. Smaller shells abound along water-margins on the hill regions south, at Little Lakes, and at Schuyler's Lake. Dr. Brown finds it in Litchfield.

Succinea obliqua, Say.

Damp, shaded grounds along the Mohawk. This species is sometimes found on vegetation and trees, several feet from the ground. S. Totteniana, Lea, has similar habits, and has been found on apple-trees or hill-sides near woods.

Succinea ovalis, Gould.

Margins of ditches, river banks, lake-shores, &c. Sometimes very abundant.

Succinea Totteniana, Lea.

Inhabits ravines and hill-sides, wooded. Is nearly as large as obliqua, and has similar arborial habits.

Trypanostoma subulare, Lea.

Eric Canal and Mohawk River. Prefers still water and a muddy slope. Very abundant.

Unio cariosus, Say.

Mohawk River and Erie Canal. Scarce.

Unio complanatus, Lea.

Canal, rivers, muddy streams, &c., but not in lakes. Our most abundant species.

Unio lutiolus, Lam.

Mohawk River. Eric Canal, rarely. It is probably more abundant in the river a few miles below Little Falls.

Unio radiatus, Lam.

Lakes. The only Unio found in Little Lakes and Schuyler's Lake, though complanatus occurs in the outlet of Schuyler's Lake. and in streams emptying into the lake.

Unio Tappanianus, Lea.

Mohawk River. Abundant only at times. Some cause not understood makes them scarce only in exceptional seasons, as is the case with many other molluses.

Valvata tricarinata, Say.

Erie Canal, Mohawk River, Schuyler's Lake, and Little Lakes. In "Little Lakes" the shells are varied; bicarinata and simples. occurring as prevailing forms in the upper lake; along the marshy borders V. sincera, Say, occurs. I am disposed to believe sincera is only a variety of tricarinata; : the usual forms to the influence of in marshes in Michigan.

Vertigo Bollesiana, Morse.

On vegetation by roadside, ma 1871. Those I have are from Dr.

Vertige milium ? Gould. A small species is sometimes f the rivers at high water in the sp

Vertigo ovata, Say.

Litchfield, with V. Bollesiana occur in the valley; but specin species were referred by Morse to

Vertigo ventricosa, Morse. Sometimes found alive in bogs water drift floated into windrows

Vitrina limpida, Gould.

In November and December, of large, fine specimens of this a ditch on the flats near Mohaw Since that time no specimens of bawk though repeated search ha of Litchfield, finds Vitrina in hi soil, the castern slope of a hil about 1260 feet above the sea merous, but are apparently per Vivipara contectoides, W. C. Binney.

A colony (from Illinois) pla is now thriving. A few specia of 1871, remarkable for their b Zua lubrica, Leach.

Stations are numerous, but

MOHAWK, N. Y., Jan. 15, 1879

¹ Since the preceding notes we: tuerous large adult specimens takpparently identical with those of being slightly tinged with green mens are not so dark as those f have been observed in the soft pr

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ler's Lake, and Little Lakes. ied; bicarinata and simplex, upper lake; along the marshy n disposed to believe sincera

is only a variety of tricarinata; and it owes its deviation from the usual forms to the influence of station. "V. sincera" is found in marshes in Michigan.

Vertigo Bollesiana, Morse.

On vegetation by roadside, margin of a swamp in Litchfield, 1871. Those I have are from Dr. Brown.

Vertigo milium ? Gould.

A small species is sometimes found among the drift floated by the rivers at high water in the spring, near Mohawk.

Vertigo ovata, Say.

Litchfield, with V. Bollesiana, 1871. It may possibly also occur in the valley; but specimens heretofore regarded as this species were referred by Morse to the following species.

Vertigo ventricosa, Morse.

Sometimes found alive in bogs. Oftener found dead in the highwater drift floated into windrows by the river.

Vitrina limpida, Gould.

In November and December, 1864, I found immense numbers of large, fine specimens of this Vitrina along the shaded slopes of a ditch on the flats near Mohawk. The soft parts were very dark. Since that time no specimens of Vitrina have been seen near Mohawk though repeated search has been made for them. Dr. Brown, of Litchfield, finds Vitrina in his yard. His residence is on a rich soil, the eastern slope of a hill, at an elevation supposed to be about 1260 feet above the sea-level. His specimens are not numerous, but are apparently perennial.

Vivipara contectoides, W. C. Binney.

A colony (from Illinois) planted in the Erie Canal, fall of 1867, is now thriving. A few specimens were found there in the spring of 1871, remarkable for their beauty and perfect development.

Zua lubrica, Lench.

Stations are numerous, but shells not abundant.

Mohawk, N. Y., Jan. 15, 1872.

¹ Since the preceding notes were written, Dr. Brown has presented numerous large adult specimens taken late in the fall of 1871. The shells are apparently identical with those of the colony of 1864, but are not so pale—being slightly tinged with green. The soft parts of Dr. Brown's specimens are not so dark as those found in 1864. Similar variations in color have been observed in the soft parts of well-known species of Succinea.