

THE NAUTILUS.

Wood. King's Keys. Plentiful.
nautilus Morel. Tungla river, near Quiquina, Nic.
 all the rivers beyond the influence of the salt
 identified this shell for me, but Mr. Ancy, who
 shells from Mr. Shackelford, of Clitheroe, Eng.,
 shells "differ from the true *P. corvinus* from Gua-
 author himself." It was my intention to col-
 lect, in order to supply my friends, but when
 on for a shell-collecting trip, some duty turned
 At my request an Indian brought me about
 first sight of them my heart rejoiced, but when
 d perforated the body-whorl of each, I rejected
 some day having opportunity to collect for
 ver came. The Indian's idea of shell collect-
 ing the inside and using the shells as beads;
 at would have been for lady shell-collectors;
 own. Wounta. Found on the beach after
 of the river mouth at that place. Where
 not know, presumably from "up the river."
 ulum, although a dead shell.

King's Keys and Man of War Keys. Much
 than those I have from the West Indies.
 od among the Indians, in turtle-spearing
 much time on the keys.
 Man of War Keys. Abundant.
 3. Ads. Same locality. One specimen.
 Walpa Siksa. On the rocks. Large.

reticulata C. & J. Common in Bluefields
 lagoons and rivers as far up as the brack-
 variety *reticulata* is by far the commoner of
 forty being *lineata*. *Reticulata* averages
 re found on submerged mangrove roots
 bottom itself. The "tingnis," or chan-
 uito Coast are its favorite haunts. It
 water.

THE NAUTILUS.

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Neritina virginea L. On rocks and stones at the water's edge,
 inside the harbor, near the government wharf at Bluefields Bluff.
 As I made annual trips to Bluefields from my station at Wounta
 Haulover, I searched this spot and turned over the stones in April
 of 1899, 1900 and 1901, but saw none of these shells until May 5,
 1902, when I found them in large quantities. The spot is about 200
 yards from the sea, but in the rainy season is washed with fresh
 water for weeks. Have these shells been brought to Nicaragua by
 schooners from Grand Cayman or by fruit steamers from other
 ports? The shell is small, being about the size of *Neritina pupa* L.,
 very uniform in its dark color and modest marking. It is very un-
 like the *N. virginea* I have seen from the West Indies.

Astrarium caelatum Gmel. Man of War Keys. A very abund-
 ant shell on and about all the keys. An article of food among the
 Indians.

Astrarium americanum Gmel. Same locality. Plentiful, but not
 as numerous as *caelatum*.

The Indians use the opercula of these shells for divination. By
 pouring strong banana vinegar over an operculum, the lime is eaten
 and gas liberated. This causes the operculum to "dance" about in
 one direction or another and in that way they find out the particular
 thing they want to know. No amount of explanation was able to
 convince them of their foolishness.

Turbo filosus Fischer. Man of War Keys. I found only two or
 three dead shells.

(To be continued.)

LIST OF WISCONSIN SHELLS.

BY GEORGE HALCOTT CHADWICK.

The following shells were collected in the summer of 1902 with
 the active assistance of the members of the Wisconsin Natural
 History Society, through whose bulletins a more complete annotated
 list will shortly be published. A thorough survey of the State is
 contemplated by the Society, for which this list will constitute a
 beginning. The specimens listed are all in the Milwaukee Public
 Museum.

A. LAND SHELLS.

- Helicina occulta*, Say. Whitefish Bay.
Helix pomatia, Müll. Milwaukee, teste P. Wells.
Vallonia pulchella, Müll. Milwaukee. Common.
Polygyra profunda, Say. Milwaukee and vicinity; Crystal Lake.
Polygyra albolabris, Say. Whitefish Bay; Wauwatosa. Scarce.
Polygyra multilineata, Say. Milwaukee and vic. Scarce.
Polygyra thyroides, Say. Milwaukee and vic. Scarce.
Polygyra hirsuta, Say. Milwaukee; Mishicot, Manitowoc Co.
Polygyra monodon, Rack. Milwaukee and vicinity.
Polygyra monodon fraterna, Say. Milwaukee and vicinity.
Strobilops, cf. *virgo*, Pils. Milwaukee and vic.; Mishicot.
Pupoides marginatus, Say. Kenosha.
Bifidaria armifera, Say. Vicinity of Milwaukee.
Bifidaria contracta, Say. Vicinity of Milwaukee.
Bifidaria corticaria, Say. Wauwatosa.
Bifidaria curvidens, Sterki. Wauwatosa.
Bifidaria pentodon, Say. Vicinity of Milwaukee.
Vertigo milium, Gould. Near Milwaukee.
Vertigo ovata, Say. Near Milwaukee.
Cochlicopa lubrica, Müll. Vicinity of Milwaukee.
Vitrea limpida, Gould. Milwaukee. Rare.
Vitrea cellaria, Müll. Greenhouse, Milwaukee.
Vitrea draparnaldi, Beck. Greenhouses. Common.
Vitrea hammonis, Ström. Vicinity of Milwaukee.
Vitrea indentata, Say. Vicinity of Milwaukee.
Eucomulus fulvus, Müll. 1 specimen.
Zonitoides nitidus, Müll. Milwaukee. Common.
Zonitoides arboreus, Say. Vicinity of Milwaukee; Mishicot.
Zonitoides minusculus, Binn. Vicinity of Milwaukee.
Limax maximus, Linn. Greenhouses, Milwaukee.
Limax flavus, Linn. Greenhouses, Milwaukee.
Agriolimax agrestis, Linn. Abundant about Milwaukee.
Agriolimax campestris, Binn. Milwaukee and vic.
Philomycus dorsalis, Binn. Whitefish Bay.
Pyramidula alternata, Say. Very common about Milwaukee; Mishicot.
Pyramidula perspectiva, Say. Whitefish Bay. 1 shell.
Pyramidula striatella, Anth. Milwaukee and vic. Common.

- Pyramidula striatella catskill*
Helicodiscus lineatus, Say.
Punctum pygmaeum, Drap.?
Succinea retusa, Lea. Vici
Succinea ovalis, Say. Vici
Succinea ovalis, cf. *tottenian*
Succinea avara, Say. Vici

B.

- Lampsilis ventricosus*, Barn
 Lake, Oneida Co.; Lake Win
Lampsilis luteolus, Lam.
 Golden Lake and Fox River
 Oneida Co.; Boom, Winnebag
 Lake Winnebago; ? ancient
 lago Co.
Lampsilis superiorensis, Mar
Lampsilis ligamentinus, La
 Waukesha Co.; Clear Water I
 at Menasha.
Lampsilis rectus, Lam. Fc
 Co. (pathologie).
Lampsilis iris, Lea. Milwa
Lampsilis ellipsiformis, Con
 Waukesha Co.; Hika, Manitow
Lampsilis alatus, Say. L
 Rivers, Manitowoc Co.
Lampsilis gracilis, Barnes.
 Menasha; Boom, Winnebago C
Plagiola donaciformis, Lea.
Strophitus edentulus, Say. M
 Hika, Manitowoc Co.
Anodonta cataracta, ? Say.
 Lake, Waukesha Co.
Anodonta imbecilis, Say. No
Anodonta grandis, Say. M
 River, Okauchee Lake and
 Rivers, Manitowoc Co.; Winne
 Oneida Co.

LAND SHELLS.

- Whitefish Bay.
 Milwaukee, teste P. Wells.
 Milwaukee. Common.
 Milwaukee and vicinity; Crystal Lake,
 Whitefish Bay; Wauwatosa. Scarce.
 y. Milwaukee and vic. Scarce.
 Milwaukee and vic. Scarce.
 Milwaukee; Mishicot, Manitowoc Co.
 Milwaukee and vicinity.
 a, Say. Milwaukee and vicinity.
 Milwaukee and vic.; Mishicot.
 Kenosha.
 Vicinity of Milwaukee.
 Vicinity of Milwaukee.
 Wauwatosa.
 i. Wauwatosa.
 Vicinity of Milwaukee.
 Near Milwaukee.
 Milwaukee.
 Vicinity of Milwaukee.
 Milwaukee. Rare.
 Greenhouse, Milwaukee.
 Greenhouses. Common.
 Vicinity of Milwaukee.
 Vicinity of Milwaukee.
 specimen.
 Milwaukee. Common.
 Vicinity of Milwaukee; Mishicot.
 Vicinity of Milwaukee.
 Greenhouses, Milwaukee.
 Greenhouses, Milwaukee.
 Abundant about Milwaukee.
 n. Milwaukee and vic.
 Whitefish Bay.
 Very common about Milwaukee:
 y. Whitefish Bay. 1 shell.
 Milwaukee and vic. Common.

- Pyramidula striatella catskillensis*, Pils. Wauwatosa; Mishicot.
Helicodiscus lineatus, Say. Vicinity of Milwaukee.
Punctum pygmaeum, Drap.? Whitefish Bay.
Succinea retusa, Lea. Vicinity of Milwaukee.
Succinea ovalis, Say. Vicinity of Milwaukee. Abundant.
Succinea ovalis, cf. *totteniana*, Lea. Vic. of Milwaukee.
Succinea avara, Say. Vicinity of Milwaukee.

B. UNIONIDÆ.

- Lampsilis ventricosus*, Barnes. Milwaukee River; Clear Water Lake, Oneida Co.; Lake Winnebago.
Lampsilis luteolus, Lam. Milwaukee River; Okauchee Lake, Golden Lake and Fox River, Waukesha Co.; Clear Water Lake, Oneida Co.; Boom, Winnebago Co.; Two Rivers, Manitowoc Co.; Lake Winnebago; ? ancient shell heaps at Winneconne, Winnebago Co.
Lampsilis superiorensis, Marsh. ? Two Rivers, Manitowoc Co.
Lampsilis ligamentinus, Lam. Milwaukee River; Fox River, Waukesha Co.; Clear Water Lake, Oneida Co.; ? Winnebago Lake at Menasha.
Lampsilis rectus, Lam. Fox River, near Big Bend, Waukesha Co. (pathologic).
Lampsilis iris, Lea. Milwaukee River at Milwaukee.
Lampsilis ellipsiformis, Conrad. Milwaukee River; Fox River, Waukesha Co.; Hika, Manitowoc Co.
Lampsilis alatus, Say. Lake Winnebago at Menasha; Two Rivers, Manitowoc Co.
Lampsilis gracilis, Barnes. Fox River and Lake Winnebago at Menasha; Boom, Winnebago Co.
Plagiola donaciformis, Lea. Kinnikinnick River, Milwaukee.
Strophitus edentulus, Say. Milwaukee and Kinnikinnick Rivers; Hika, Manitowoc Co.
Anodonta cataracta, ? Say. Maple Lake, Oneida Co.; Golden Lake, Waukesha Co.
Anodonta imbecilis, Say. North shore of Lake Winnebago (juv.).
Anodonta grandis, Say. Milwaukee River; Wauwatosa; Fox River, Okauchee Lake and Golden Lake, Waukesha Co.; Two Rivers, Manitowoc Co.; Winnebago Lake at Menasha; Maple Lake, Oneida Co.

Anodontoides ferussacianus, Lea. Milwaukee and Root rivers, Milwaukee Co.; Jambo Creek, Manitowoc Co.

Symphynota compressa, Lea. Jambo Creek, Manitowoc Co.

Symphynota costata, Raf. Milwaukee River.

Symphynota complanata, Barnes. Milwaukee River; Two Rivers, Manitowoc Co.

Alasmidonta calceola, Lea. Lake Michigan, Milwaukee; Jambo Creek, Manitowoc Co.

Alasmidonta mc. ginata, Say (*truncata*, B. H. Wr.). Milwaukee River.

Unio gibbosus, Barnes. Milwaukee River; Fox River, Waukesha Co.; Two Rivers and Hika, Manitowoc Co.; Lake Winnebago; ancient shell heaps at Winneconne, Winnebago Co.

Quadrula undulata, Barnes. Fox River, Waukesha Co.; Two Rivers, Manitowoc Co.; Clear Water Lake Creek, Oneida Co.; ancient shell heaps, Winneconne, Winnebago Co.

Quadrula pustulosa, Lea. Ancient shell heaps at Winneconne.

Quadrula rubiginosa, Lea. Milwaukee River; Two Rivers, Manitowoc Co.; Clear Water Lake Creek, Oneida Co.

Quadrula trigona, Lea? Milwaukee River at Lindwurm.

A list of the *Limnæidæ*, *Sphæriidæ* and other fresh-water shells will be given in a future number.

PUBLICATIONS RECEIVED.

DESCRIPTIONS OF INDIAN AND BURMESE LAND SHELLS referred to the genera *Macrochlamys*, *Bensonia* *Taphrospira* (gen. nov.), *Microcystina*, *Euplecta*, and *Polita*. By W. T. Blanford (Proc. Zool. Soc., Lond., 1904, pub. Apr. 18, 1905). Eighteen new species are described, and the new genus *Taphrospira* is erected for *Macrochlamys*-like snails with a trench or gutter bordering the suture outwardly. Four species are referred to this group: *T. convallata* Bens., *T. bathycharax* 'Bens.' Fult., *T. compluvialis* Blf. and *T. excavata* n. sp., the last two being figured. This is an unusually well-marked group for the *Zonitidæ*, quite deserving recognition in nomenclature, though differing from *Macrochlamys* only in the sutural gutter. The soft anatomy is unknown. To the above list should be added *Macrochlamys diadema* Dall, described in a former number of this journal.—H. A. P.