mitata? Dall.
ostorgaardi n. sp.
pease Sby.
kewaloensis Dall.
tabanula Lam.
thaanumi n. sp.
ticaonica vagans n. sp.
tuberosa Rve.
tusa Rve.
litromorpha hawaiiense Dall.
forula ochrostoma Blainv.
porphyrostoma Rve.
atica marochiensis.
so dionedae Dall.
liva sandwichensis.
topleura diminuta Dall.
eristernia chlorostoma Sby.
cf. newcombi A. Ads.
marmorata.
xanthostigmata Dall.
hilbertia luteola Dall.
laysanensis Dall.
mighelsi Iredale.
lanaxis labiosus A. Ads.
olynices mamilla L.
upa alveola Souv.
yramidella oahuensis Dall.
sulcata A? Ads.
anella (Aspella) anceps Lam.
pusilla Brod.
hizocheilus madreporarum Sby.
issoina ambigua Gld.
miltozona Tomlin.
tridentata Mich.
stearnsi Dall.
ibulina metcalfei A. Ads.

Strombus maculatus Nutt.
maculatus var.
samar Dillw.
Terebra albula Mke.
clappi Pils.
crenulata L.
dislocata Say.
inconstans Hds.
lanceata oahuensis n. sp.
langfordi Pils.
lauta Pse.
maculata L.
nodulare Desh.
pertusa Born.
straminea Gray.
Thericium nassoide Sby.
Trifora (Biforina) cingulifera Pse.
Trochus sandwichensis.
Turbo intercostalis Mke.
Turris brevicaudata Rve.
brevicaudata var.
Vexilla turben kanaka Pils.
vexillum Chemn.

A NEW ANODONTOIDES FROM WISCONSIN.

BY FRANK COLLINS BAKER.*

ANODONTOIDES BIRGEI, new species.

Shell rather solid, elongated, cylindrical, inequilateral, inflated; anterior end broadly rounded, posterior end pointed, distinctly biangulate; ventral margin straight or somewhat concave; dorsal margin straight, forming an angle with the posterior end; dorsal margin developing a small but well-marked wing; beaks raised about the hinge line, swollen; beak sculpture as in *A. ferussacianus* but finer, with the bars close together and with a tendency to become double-looped; posterior ridge sharply rounded, very distinct, with a postero-dorsal excavated area: the shell is greatly inflated anterior to this ridge; epidermis yellowish-horn or olive, the rest periods showing as brown concentric bands; surface rayless; hinge edentulous, but reinforced beneath the beaks by swellings representing rudimentary pseudocardinal teeth; the shell beneath the ligament is also thickened; beak cavity shallow; muscle scars faintly impressed; nacre bluish-white, silvery, tinged with salmon or pinkish,

* Contribution from the Museum of Natural History, University of Illinois, No. 27.

especially below the beak cavities. Female shell not as much incurved ventrally as male shell, otherwise there is little difference between the sexes.

Length, 61; height, 30; width, 26 mm. Type.
Length, 58; height, 29; width, 23 mm. Paratype.
Length, 29; height, 17; width, 10 mm. Paratype.
Length, 82; height, 37; one valve.

The animal is similar to that of *Anodontoides ferussacianus*. Mantle connection between anal and supra-anal openings much shorter than anal; anal opening fringed with fine papillæ on the inner edge; labial palpi connected at the base as in *ferussacianus*; inner gills larger than outer gills, especially anteriorly; the inner lamina of the inner gills are free from the abdominal sac as in *ferussaciamus*; outer gills marsupial. Mantle purplish-white, openings edged with brown; gills whitish; foot and abdomen creamy-white. Glochidia similar to those of *ferussacianus buchanensis*, but a trifle smaller; length and width 0.280 mm. The breeding season is probably the same as in *ferussacianus;* gravid specimens examined in middle of August.

Ecology: Shore of a bay exposed to the full force of the waves, buried in sandy-clay or clay bottom, at depths of from two to six feet.

Type locality: Sturgeon Bay, Door County, Wisconsin, west of bridge.

Anodontoides birgei is related to *A. modesta*, having the same form of beak sculpture. It differs markedly, however, in the shape of the shell, being more cylindrical and more inflated, with a well-marked posterior ridge and with the beaks longer. The swelling of the beaks extends downward on the side of the shell, giving it a greatly swollen appearance when viewed from the dorsal margin. Comparisons have been made with *modesta* from Long Lake, near Kalamazoo Michigan.

This Anodontoides occurs in great abundance on the shores of Sturgeon Bay and has been produced, evidently, by the lake environment. There is some variation in the form of the shell and in the degree of development of the posterior ridge. All have the cylindrical shape when mature, but young and immature individuals are more compressed and have a rounded ridge.

A small form of Anodontoides of Green Bay, which somewha has the beak sculpture of *fer* referable to the latter race.

I take great pleasure in ded Dr. Edward A. Birge, Presider and Director of the State C Survey.

DESCRIPTION OF A NEW LYMN

BY FRANK CO

LYMNAEA CAPERATA WARTHINI,

Shell differing from typical globose with a very short, w inner lip narrower and less ref chink; whorls 4–5; sculpture type; color dark chestnut.

Length, 7.0; width, 5.0; a mm. Topotype.

Length, 6.5; width, 4.0; a mm. Paratype.

Length, 5.8; width, 4.8; a mm. Paratype.

This little Lymnaeid differs which is also found in Yellows by Berry), in its more globose umbilical region. It was colle rocks wet with spray at the foo the Yellowstone, in Septemb submitted to the writer by Mr fornia, who has been an un knowledge of the distribution o

* Contribution from the Museum o No. 29.

A small form of Anodontoides occurs in a creek, six miles east of Green Bay, which somewhat resembles *birgei*, but this form has the beak sculpture of *ferussacianus* and *buchanensis* and is referable to the latter race.

I take great pleasure in dedicating this interesting species to Dr. Edward A. Birge, President of the University of Wisconsin and Director of the State Geological and Natural History Survey.

DESCRIPTION OF A NEW LYMNAEA FROM YELLOWSTONE PARK.

BY FRANK COLLINS BAKER.*

LYMNAEA CAPERATA WARTHINI, new variety.

Shell differing from typical *caperata* in being smaller, more globose with a very short, wide spire; aperture rounder, the inner lip narrower and less reflexed over the narrow umbilical chink; whorls 4–5; sculpture of coarse spiral lines as in the type; color dark chestnut.

Length, 7.0; width, 5.0; aperture length, 4.0; width, 2.3 mm. Topotype.

Length, 6.5; width, 4.0; aperture length, 3.5; width, 2.0 mm. Paratype.

Length, 5.8; width, 4.8; aperture length, 3.5; width, 2.0 mm. Paratype.

This little Lymnaeid differs markedly from the typical form, which is also found in Yellowstone Park (Swan Lake, collected by Berry), in its more globose form, short spire and narrower umbilical region. It was collected by Dr. A. S. Warthin from rocks wet with spray at the foot of the Upper Falls, Canyon of the Yellowstone, in September, 1922. The specimens were submitted to the writer by Mr. S. S. Berry, of Redlands, California, who has been an untiring student in extending our knowledge of the distribution of western mollusks. It is named

* Contribution from the Museum of Natural History, Museum of Illinois, No. 29.