

COLLECTING MEXICAN FRESHWATER MUSSELS

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(ABSTRACT)

At the invitation of Dr. Salas, the Director, and other scientists of the Institute of Geology of the University of Mexico, I spent November and December of 1966 in southern Mexico.

The freshwater mussel fauna of Mexico includes members of three families:

The South American MUTELIDAE (MYCETOPODIDAE) are represented by the larger smooth shells of the group of *Anodontites (Patularia) glauca* Lamarck 1819, living as far north as Mazatlán; by the smaller, darker colored *Anodontites (Euryanodon) bambousearum* Morelet 1851, from the Usumacinta River system; and by *Anodontites (Euryanodon) cylindracea* Lea 1838, from the Alvarado system south of the City of Vera Cruz.

The true family UNIONIDAE (subfamily ANODONTINAE) includes only species of *Anodonta* in Mexico. *Anodonta*, s.s. is well represented in the Pacific River systems; in the High Plateau of Mexico by *Anodonta impura* Say 1829, and its relatives; and in the Río Grande (Río Bravo) by *henryana* Lea 1857. *Anodonta (Pyganodon) globosa* Lea 1841, is one of the largest of Mexican mussels. It, or the sub-species *lurulenta* Morelet 1849, was taken alive from a mud-bottom pasture pond near Villa Hermosa, Tabasco; its glochidia are now on record.

The family AMBLEMIDAE (subfamily AMBLEMIDINAE) (often called Quadrulidae, subfamily Quadrulinae) includes many endemic species described from Mexico. *Quadrula*, s.s. is represented only in the Río Grande (Río Bravo) system by one dwarf species, *Quadrula couchiana* Lea 1860. Our familiar

"wash-board," *Megaloniaias gigantea* Barnes 1823, ranges southward into the Río Grande (Río Bravo) system; *M. nickliniana* Lea 1834, is from Panuco and/or Alvarado systems; *M. digilata* Morelet 1851, was named from the Usumacinta. *Elliptio opacata* Crosse & Fischer 1893 was taken alive with glochidia in December in Lake Catemaco. It appears to belong to the group of *Elliptio buckleyi* Lea 1843, so abundant in the lakes of Florida. The closely related *Barynaia*s, peculiarly beaded over all or part of the shell, may include different species in every Atlantic river system of Mexico. One female *Barynaia*s specimen was collected from the Usumacinta system, with glochidia in the outer gills in December.

Members of the genus *Cyrtonaias* were stated by Isaac Lea in 1860 to be relatives of *Elliptio*. *C. coloradensis* Lea 1856, was named from the Colorado River of Texas. In other Texas rivers, including Río Grande (Río Bravo), there is a species named *grandensis* Conrad 1855 (= *berlandieri* Lea 1857). The Panuco system has *C. tampicoensis* Lea 1838, while the Alvarado waters south of Vera Cruz harbor *C. tecomatensis* Lea 1841. *Cyrtonaias* mussels may also have a short breeding season in the cool winter months, as do some of the *Megaloniaias* and the *Elliptio* of Lake Catemaco.

The subfamily LAMPSILINAE is represented in the Río Grande (Río Bravo) by species of the genera *Toxolasma*, *Truncilla*, and *Lampsillis*, s.s. *Actinonaias* and *Disconaias* are among the few groups living in the waters to the south that have been proven Lampsiline, with sexually dimorphic shells. *Pachynaias spheniopsis* with concentrically ridged shells, and the smooth-shelled *Mesonaias explicatus* Morelet 1849, also belong here as endemic Mexican Lampsilinae.