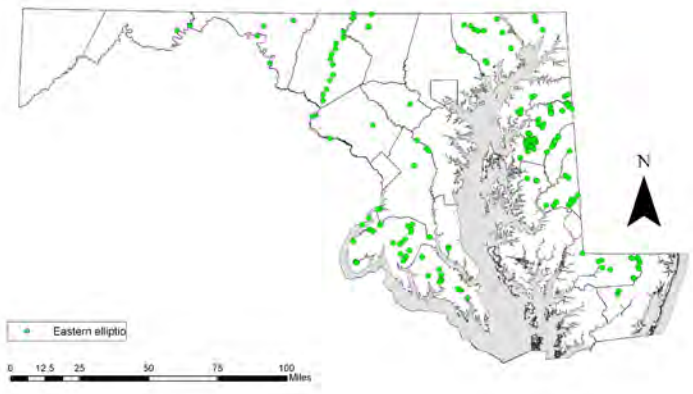
Eastern elliptio

Elliptio complanata

Identification

The Eastern elliptio is highly variable in its appearance. They can reach 100 mm in length and live up to 100 years. Their shells are typically oval or trapezoidal, olive to dark brown, may have distinct or faint green rays, and be thin or thick. The area inside of Eastern elliptio shells, called the nacre, can be colored white, purple, pink, or salmon. This variability within single locations and across their range has led some scientists to believe they may be many different species that seemingly look alike. At the right is a typical *Elliptio complanata* from an Eastern shore stream in Maryland.



Range/Habitat

Through the statewide stream survey, we found the Eastern elliptio was not likely to be found in a stream that lacked American eels, its favorite host. Eastern elliptio were most often found in streams in southern Maryland and on the eastern shore. In general, they lived in wider streams in larger watersheds with little urban lands, low nutrients, and higher biological index scores compared to streams where they were not found. Our results further support the idea that freshwater mussels are indicators of healthy streams.

General Information

There are 16 native freshwater mussel species found in Maryland. Several of the species found in the state only live at a few locations across the country. The Eastern elliptio (*Elliptio complanata*) is the most common species in the Maryland, though it is also not as common as it was decades ago. Mussels have a unique life cycle that needs a host, in the case of the Eastern elliptio usually the American eel, in order to successfully reproduce. Freshwater mussels are also among the most imperiled groups of organisms in North America. Because of this, the Maryland Department of Natural Resources studies freshwater mussel resources across the state, partly through the Maryland Biological Stream Survey.

Importance to the Ecosystem

Freshwater mussels do important jobs in streams, rivers, and lakes, such as filtering nutrients and sediments from the water, and providing habitat and food to other animals. Because they filter water, are long lived, and tend to remain in one general place for their entire life, mussels are considered good indicators of stream health. In some streams, they have dense populations that can filter the entire volume of water flowing through a stream in a day.

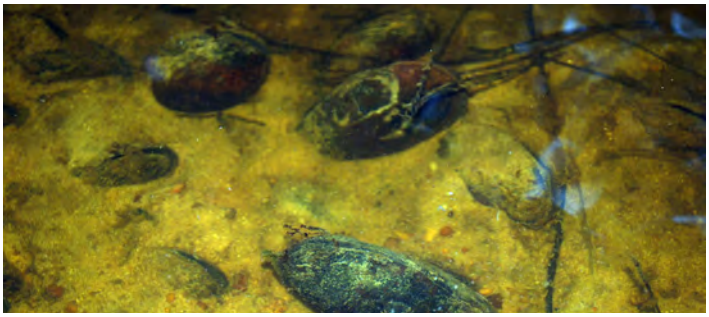


Photo: Eastern elliptio bed with multiple specimens