Lake George Association

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Non-native species of clam found in Lake George

Lake George, NY – The European Fingernail Clam, *Sphaerium corneum*, has been documented in Lake George. A number of live individuals were found at Snug Harbor Marina in October of 2007 and in October 2008 a few live animals and a number of empty shells were found at the Hague public boat launch. The clams were found during zebra mussel surveys being conducted by the Darrin Fresh Water Institute. Interestingly, no zebra mussels were found at these sites during the survey. The clams were found by dive team member Steve Resler from Innerspace Scientific Diving in 2007. Dive team member Dan Marelli of Scientific Diving International identified the clams, and the identification was confirmed by Dr. William Heard, a North American expert on clams in the Family Sphaeriidae. Dan Marelli then found the clams at Hague in 2008.

The clam has an oval, brown to gray shell that is pretty thin and can grow up to 14 mm in size. The clam is native to Eurasia and was first recorded in the Lake Ontario in 1924. It has since spread to the other Great Lakes, where it is most common in Lake Ontario and Lake Erie, and has also been documented in the Hudson River, Lake Champlain, and now Lake George.

The European fingernail clam can be found in freshwater lakes and slow-moving rivers. It prefers eutrophic lakes and is found in the sediment in areas of shallow water with vegetation. It also likes hard water, with high levels of magnesium and calcium. So Lake George does not sound like its usual environment, considering we are an oligotrophic lake with low calcium. In the St. Lawrence River, densities can reach 500–8000 clams per m2. This might sound like a lot, but when you compare that to the 700,000 zebra mussels found per m2 at one power plant in Michigan it doesn't sound so crowded anymore! Also keep in mind that zebra mussels are typically <50 mm, while the European fingernail clam only gets up to 14 mm – and you thought zebra mussels were small!

While the common toad (*Bufo bufo)* can aid the clam in dispersing in Europe, as the clam can attach to the amphibian's toe and thus be transferred from one place to another, more then likely the clam was introduced into Lake George on boats, not toads. There have not been any harmful impacts documented from this species, so it is termed non-native or exotic, and not invasive. But that is not to say that we shouldn't keep our eye on it, and

keep in mind to always clean our boats so as to avoid transporting anything – native or not - into Lake George.

Photo by Dan Marelli of clams found in Ticonderoga.

What is the difference between invasive and non-native?
An invasive species is defined as being non-native to the ecosystem under consideration and also causing harm – to either the environment, the economy, or to human health. It needs to fit both criteria to be termed invasive.

A non-native species (or exotic species) is not native to the ecosystem under consideration, but does not necessarily cause harm. So everything that is invasive is non-native, but not everything that is non-native is invasive. Think of a flower garden for example. There are many non-native plants that we use in gardening. In fact, around 35% of the plant species found growing in New York State today are non-native. However it is only a very small percentage of them that become invasive, such as purple loosestrife.

The LGA is a not-for-profit membership organization of people interested in working together to protect, conserve, and improve the beauty and quality of the Lake George Basin. For more information, contact the LGA at (518) 668-3558 or check out LGA on the web at www.lakegeorgeassociation.org.