

## Teachers learn 10 key things about horseshoe crabs at Audubon workshop

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Local teachers gather during a workshop about horseshoe crabs.

Milford teachers who attended a workshop given by Project Limulus June 13 at the Connecticut Audubon Coastal Center learned 10 things about horseshoe crabs right off the bat.

Then, for the next 36 hours, they discovered things they may never have dreamed of about these fascinating creatures.

For example, horseshoe crabs (*Limulus polyphemus*) have been on Earth around 445 million years, way before the dinosaurs came and went, even before flowers; they are economically valuable; their blood saves human lives; they are more closely related to spiders than to crabs; they smell and eat with their feet; they only live three places in the world — the Yucatan Peninsula in Mexico, Southeast Asia, and the US Atlantic coastline.

The workshop, entitled “Green Eggs & Sand,” was led by Jennifer Mattei, a biology professor at Sacred Heart University, who does at least one annual workshop at the Audubon Coastal Center each year.

This year she worked in conjunction with Gary Kreamer, project director for the Green Eggs & Sand/Project Limulus. Among the sponsors are the Milford Environmental Protection Initiative (MEPI), and the Disney Worldwide Conservation Fund. Part of MEPI’s \$1,000 grant to the workshop paid in full for Milford teachers to attend.

Drs. Mark L. Botton of Fordham University, and Jane Brockman of the University of Florida, both scientists studying horseshoe crabs, volunteered their time to attend Green Eggs & Sand,” give lectures and supply abundant

information on the ecological importance of the horseshoe crab to estuarine and coastal communities such as Milford.

The workshop offered not only local and national expert faculty, but also a midnight field-trip to see horseshoe crabs spawning on the beach, a day-trip to observe horseshoe-crab eggs and shorebird feeding, and a visit with a local fisherman who uses horseshoe crabs for bait.

Participants also received age-graded literature on horseshoe crabs, tagging kits, and egg hatching/larval feeding kits to take back to their classes. As workshop leaders say, "Kids learn science by doing science."

Evidence shows that the horseshoe crabs' habitat is threatened by coastal development and rising sea levels.

The loss of this living fossil would have devastating consequences for medicine, fishing economies and the wider coastal ecology, experts say. They are a model species for teaching environmental science.

Project Limulus scientists teach teachers about the horseshoe crab, and those teachers, in turn, pass the learning on to K-12 students.

The process cycles around, Professor Mattei said, so that "Project Limulus becomes a community research program where students of all ages learn about the importance of horseshoe crabs to their health and to the health of the Long Island Sound estuary."