

Hopewell Township Environmental Newsletter

A Publication of the Environmental Commission

Environmental Commission Members

Beth McClain - Chair
Jane Hankins - Vice Chair
Cheryl Lalancette - Secretary
Ken Strait - Liaison to Land Use Board
Burt Doremus
Jerry Lewis
Marion Carll - Editor

Meetings

The Hopewell Township Environmental Commission meets the first Wednesday of each month @ 7 PM. The meetings are open to the public and all are welcome to attend.

Newsletters are available on the township website, and on the township Facebook page. Printed copies available in the municipal building and the senior center

Websites for more info:

<https://nationalzoo.si.edu/animals/news/10-incredible-horseshoe-crab-facts>

American Littoral Society

www.capemaymag.com

What is This Strange and Wonderful Critter?

Description:

Dome shaped shell - 3.5 - 33 inches

Brown to gray in color

12 legs under shell; 5 pairs for walking, a set of tiny pinchers long spiky tail

Atlantic coast, in and around shallow coastal marine and brackish water on soft, sandy or muddy bottoms

Facts:

Species has been living more than 400 million years

Closely related to spiders and scorpions, rather than crabs

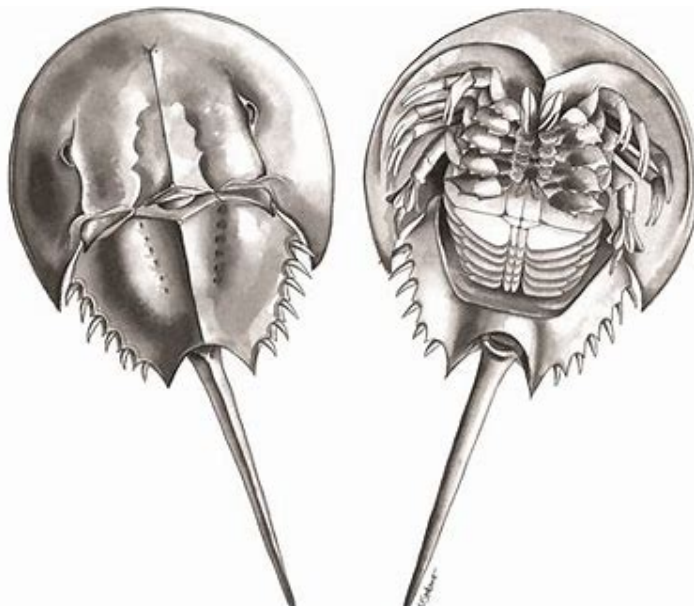
9 eyes in total with various light receptors

Females can lay between 60,000 and 120,000 eggs in batches of a few thousand at a time

Diet consists of marine worms, clams, mussels, crustaceans, slugs

Largest concentration of breeding horseshoe crabs is found along the Delaware Bay

Moratorium on the harvest of horseshoe crabs within the state



Other Incredible Facts about Horseshoe Crabs

THEY ARE NOT TRUE CRABS BUT ARE ARTHROPODS

HORSESHOE CRABS PREDATE DINOSAURS - THEY ARE LIVING FOSSILS

THEY HAVE BLUE BLOOD

HORSESHOE CRAB BABIES LOOK JUST LIKE ADULTS — BUT WITH TRANSLUCENT SHELLS

A HORSESHOE CRAB'S POINTED TAIL IS NOT FOR SELF-DEFENSE BUT AS A RUDDER OR TO FLIP OVER

THEY CAN SWIM UPSIDE DOWN

THEY GLOW UNDER ULTRAVIOLET LIGHT

MANY SHOREBIRDS CAN'T SURVIVE WITHOUT HORSESHOE CRABS

THEY WALK ON 10 LEGS AND USE THEIR LAST PAIR TO MOVE FOOD INTO THEIR MOUTHS WHICH THEY CRUSH BETWEEN THEIR LEGS

ATLANTIC HORSESHOE CRABS HAVE THEIR LARGEST POPULATIONS IN THE DELAWARE BAY

HORSESHOE CRABS DO NOT BITE OR STING

TO GROW, THE CRAB MUST SHED ITS OLD EXOSKELETON AND FORM A NEW, BIGGER ONE

Why these Critters are so Important

1. *Horseshoe Crab Blood is Blue* - Human blood is red because of hemoglobin, the protein in red blood cells that transports oxygen throughout the body and it contains iron. Horseshoe crabs have a different oxygen-carrying protein, called hemocyanin. Hemocyanin has copper rather than iron, which gives the horseshoe crab blood its bright blue color. Their blood also contains a unique enzyme called limulus ameocyte lysate (LAL). It causes the blood to coagulate when exposed to bacterial endotoxins, which can be deadly. Biomedical companies use LAL to test medicines, vaccines, implants, and more for endotoxins. It is used to ensure medical equipment is safe for people. Thank the horseshoe crab.
2. *Eggs that feed the populations of migrating birds* - Thousands of shorebirds descend on the Delaware Bay in May/June to feast on horseshoe crab eggs. Red knots (*federally protected*), ruddy turnstones, sanderlings, and other species rely on the fat and protein packed eggs to power their long flights. For red knots, in particular, this important stopover is the last chance to fuel up before the epic 9,300 mile migration from South America to the Arctic. The crabs are also used as bait to catch eels and whelk (sea snails) therefore, the crab populations are getting smaller. Some states have made it illegal to catch horseshoe crabs. If the harvests continue, the crabs could disappear and likewise the birds who feed on their eggs as well.

The horseshoe crab's existence helps to hold nature's intertwined net of biodiversity together in the Delaware Bay region. They are often overlooked for their importance and are threatened by over harvesting, human population growth, and climate change.



See littorialsociety.org for more info on how you can help to protect these remarkable creatures