

WE HAVE VISITORS IN OUR BAY!
...AND THEY HAVE BEEN COMING TO THOMAS POINT BEACH
FOR OVER 300 MILLION YEARS!!

Around the Full Moon in May and again about mid-June, the Horseshoe Crabs gather for several days in Thomas Bay



at Thomas Point Beach to perform their "Annual Mating Ritual" just like they have been doing for over 300 Million years!

Because it has remained almost unchanged for millions of years, the Horseshoe Crab is often called a "Living Fossil". The Horseshoe Crab is one of the Earth's oldest creatures, appearing over 100 million years before the dinosaurs!

Horseshoe Crabs are well known for their highly visible mating activities and habits. The peak in spawning activity usually coincides with the full moon and evening spring tides. Adults prefer beaches, bays and coves which are protected from rough water.

Long before the dinosaurs, there were hundreds of species of Horseshoe Crabs and their relatives, the sea scorpions. The Horseshoe Crabs belongs to the group of animals called Arthropoda, which includes lobsters, crabs, insects, spiders and scorpions. Even though it looks crab-like, the Horseshoe Crab is more closely related to scorpions and spiders. Today sea scorpions are extinct and only 4 species of Horseshoe Crabs remain. Three of these are in the Far East, from Japan through Vietnam; the fourth is found along the Atlantic Coast, from Nova Scotia and Northern Maine, south to Mexico's Yucatan peninsula. Delaware Bay is the principal breeding location for Horseshoe Crabs and is also the second largest staging area for shorebirds in North America. If timed correctly, shorebirds will arrive in the Delaware-Chesapeake region at the peak of Horseshoe Crab mating in mid-May and June. These migratory birds rely on horseshoe crab eggs to replenish their fat supply during their trip to Canadian breeding grounds.

The health of the Horseshoe Crab is critical to the health of both the coastal ecosystem and humans. The Horseshoe Crab is also invaluable to human health. If you or someone you love has ever been hospitalized, it's likely that the Horseshoe Crab played a role in your recovery. A clotting factor in the crab's blood, which can be removed without harming the crab, is used to detect bacteria in human blood, in intravenous drugs, and even in prosthetics such as heart valves prior to implantation. The crab's blood is milky blue in color. The crab's blood system can be drained, the crab is tagged then released back to sea. Amazingly, it will restore it's blood supply and return back to shore the following year.

Currently the Maine Department of Marine Resources is conducting a survey of Maine Horseshoe Crab Spawning Populations, which includes beautiful Thomas Point Beach in Brunswick as a significant Breeding Site.

Horseshoe Crabs are NOT dangerous.
Don't bother them and they won't bother you.

This information provided by Thomas Point Beach
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"CELEBRATION OF LIFE" AT THOMAS POINT BEACH

HORSESHOE CRAB FUN FACTS

- Horseshoe Crabs come to spawn on the high tide of the new and full moon in late spring and early summer.
- They require a sloping sandy beach to lay their eggs.
- It takes 9-12 years for a Horseshoe Crab to reach maturity, so all the Horseshoe Crabs you see on the beach are at least 9 years old and have a life span of 16-40 years. The Crabs grow by molting or shedding and emerge 25 % larger with each molt. Molting occurs several time during the first two to three years and about once a year there after. After 16 molts (usually between 9 and 12 years) they will be fully grown adults. Females reach maturity 1 year later than males and consequently, go through an additional molt. Mature Crabs then repeat what has occurred for years, an annual spring migration to inshore spawning areas. They spend their life in the deeper water and when they reach maturity, the females move to the beaches only to spawn.



- The female, carrying the male, moves up on the beach, buries herself and lays 20,000-60,000 eggs, the male then fertilizes the eggs. Many of the eggs are eaten by birds and others animals and there is also a good chance of stranding on the beach. Single males that don't find a female crowd around the mating pairs on the beach trying to fertilize some of the eggs.
- Adults males are two-thirds the size of the females and have a modified front pincher to attach to the female to mate. The body is sometimes two feet long. Alive, it is brownish-green in color. After it dies, the adult is dark brown. They breathe by means of gills attached to the underside of the last pair of abdominal legs.



- The Horseshoe Crab can swim upside down in the ocean.
- The Horseshoe Crab's mouth, located on the under body and is surrounded by its legs and, while harmless, it is advisable to handle these Crabs with care or not at all. The Crabs feed mostly at night and burrow for worms and mollusks. However, they will feed at any time.
- The Horseshoe Crab's tail, while scary, is not a weapon. The tail is used to plow the crab through the sand and muck, to act as a rudder and to right the crab up when it accidentally tips over. If they cannot get turned back over, they will die.
- Horseshoe Crabs have 2 compound eyes on the top of their shell with a sight range of about 3 feet. By recording electrical impulses from the crab's optic nerve in its lateral eye, many principles underlying the functioning of all visual systems were discovered and gave Dr H. Keffer Hartline a shared part of the 1967 Nobel Prize.
- Horseshoe Crabs also have a very important use for humans. The medical profession uses an extract from the Crabs blue, copper-based blood, called lysate, to test the purity of medicines. Certain properties of the shell have also been used to speed blood clotting and to make absorbable sutures. Horseshoe Crabs have also been used to benefit cancer research. Pharmaceutical companies extract up to one-third of the animals blood volume and the animal is returned safely to the water and bled animals have a 90% survival rate.