

How You Can Help:

- If you find a horseshoe crab stranded upside-down, gently flip it over (by its shell) so it can use its legs to return to the water.
- If you observe horseshoe crabs mating in Florida, please report the location and date to the Florida Marine Research Institute (call toll-free 1-866-252-9326, or e-mail horseshoe@fwc.state.fl.us).
- Please also report your sighting to ERDG at www.horseshoecrab.com/act/sighting.html.

To learn more about horseshoe crabs

- www.horseshoecrab.com—ERDG's award-winning Web site
- www.floridamarine.org—Florida Fish and Wildlife Commission, Florida Marine Research Institute (search: horseshoe crab)



UNIVERSITY OF FLORIDA
IFAS EXTENSION

ERDG



Ecological Research & Development Group

Brochure created by the UF/IFAS Florida Master Naturalist Program and the Ecological Research & Development Group (ERDG).

<http://www.masternaturalist.ifas.ufl.edu>
<http://edis.ifas.ufl.edu/UW200>



Wild-Life-Saver Series

The Horseshoe Crab

The horseshoe crab is not dangerous!

The horseshoe crab won't bite or sting you. In fact, it may save your life!



Sometimes this gentle animal needs a helping hand to survive!

The **American horseshoe crab** (*Limulus polyphemus*) ranges from northern Maine to the Yucatan peninsula in Mexico, including Florida coastal waters. Horseshoe crabs are not actually crabs, but more closely are related to spiders and ancient trilobites that existed millions of years ago.

Horseshoe crabs are important to the marine ecosystem

- At least 11 species of migratory birds use horseshoe crab eggs as their primary food supply during northern migration.
- Sea turtles, fish, crabs, and other marine species also feed on horseshoe crabs and/or their eggs and larvae.
- Horseshoe crabs disturb and aerate the sea floor with plow-like feeding behavior, enhancing species diversity and abundance.

When are we most likely to encounter horseshoe crabs on the beach?

- Horseshoe crab adults move into coastal areas to mate during spring and summer, especially when the moon is full or in new phases. They prefer sandy beaches within bays and coves that are protected from wave energy.
- Horseshoe crabs molt and shed their shells as they grow in size, and molts (cast-off shells) may be found along the beach and in tidal flats.



© Frans Lanting (ERDG)



© Jami McLaughlin

When stranded upside-down, horseshoe crabs need a helping hand to flip them back onto their legs. These gentle creatures won't bite or sting you.

Horseshoe crabs help save and improve human lives

- If you've ever received an injection or undergone surgery, horseshoe crabs have helped you.
- Horseshoe crabs have blue, copper-based blood that contains a special clotting agent called LAL (Limulus Amebocyte Lysate). LAL clots when exposed to endotoxins, which are chemical poisons released by certain infectious bacteria. The FDA requires an LAL test on all human and animal injectable and intravenous drugs, on the medical devices used to deliver these injectable drugs, and on all prosthetic devices (such as hip replacements or heart valves).
- Researchers have discovered important principles about the functions of human eyes by studying horseshoe crab eyes and optic nerves.
- Chitin, a cellulose-like component from the shell of the horseshoe crab, is used to make chitin-coated sutures and wound dressings for burn victims. The chitin-coated sutures reduce healing time by 35 to 50%.

Horseshoe crabs mate during the spring and summer. They prefer sandy beaches within bays and coves that are protected from wave energy.