

## Horseshoe Crab features

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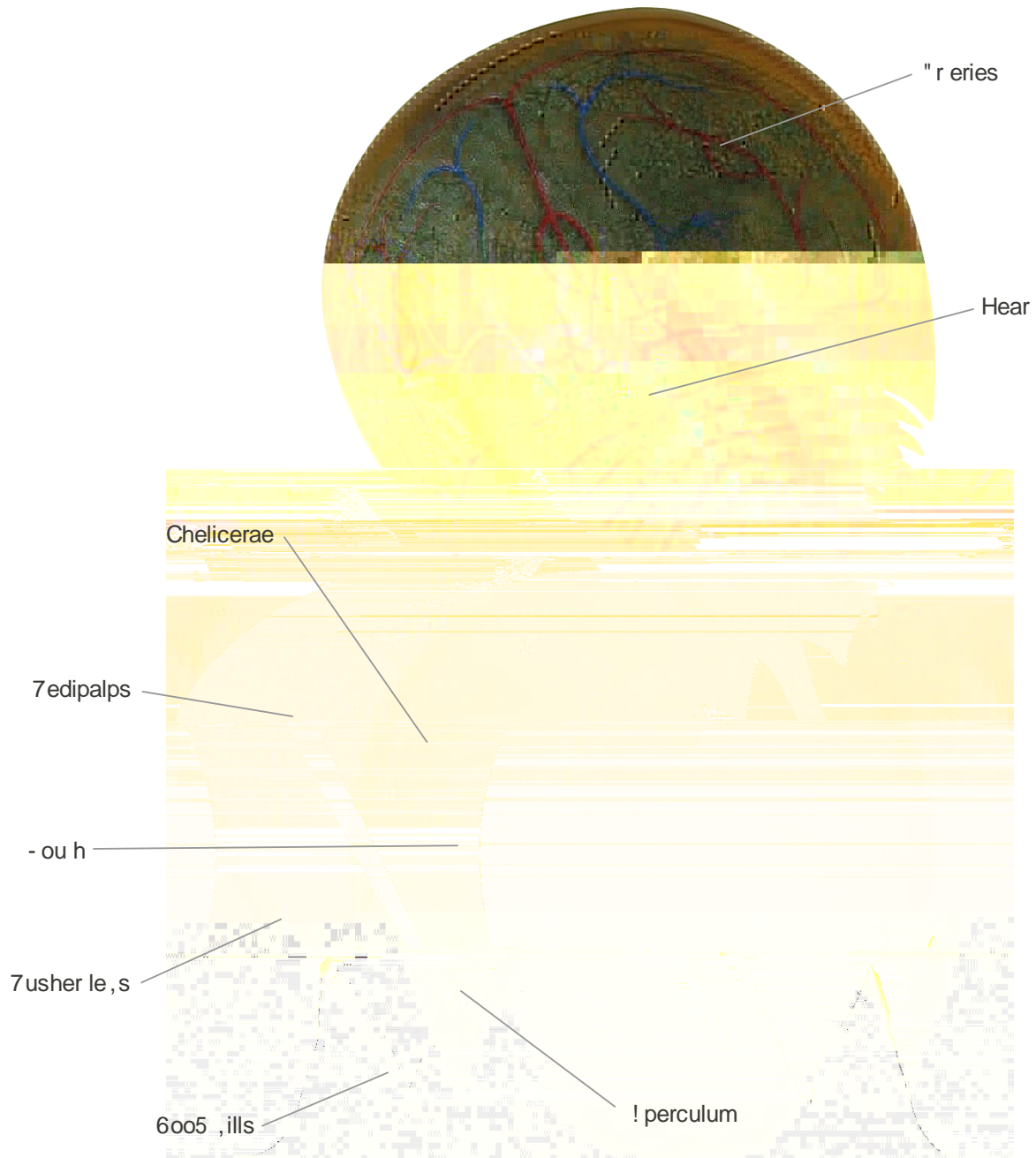


Photo: Ecological Research & Development Group -nc. [www.horseshoecrab.org](http://www.horseshoecrab.org).

# Hooray for Horseshoe Crabs

Who: Ecological Research ?  
Development Group -nc.

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When is a crab not a crab? Like other crabs, horseshoe crabs are arthropods. But so are spiders and scorpions. They all have exoskeletons, a body divided into segments, and legs with joints. But horseshoe crabs are not true crabs. They don't belong to the same class, Crustacea, as the blue crab and other crabs. True crabs have antennae, claws, and only five pairs of legs. Horseshoe crabs don't have antennae or claws and have six pairs of legs. Horseshoe crabs are in a class of their own, Merostomata, which means "mouth surrounded by legs."

Horseshoe crab fossils, similar in form to the ones you see in estuaries today, are found in rocks over 350 million years old. In this exercise, you are going to take a closer look at the anatomy of this ancient creature.

\*. (Read the background information sheet about horseshoe crab anatomy.)

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F?. Why are horseshoe crabs considered to be arthropods? Why are they in the class 5 erastomata?

F,. Where does the horseshoe crab begin its life and how does it grow?

## 6ac5 , round: Horseshoe Crab " na omy

The horseshoe crab's body is divided into three sections. The front section is called the cephalon. The middle section is called the thorax. And the horseshoe crab's tail is called the telson. While the telson may look dangerous, the crab mainly uses it for digging and to help turn itself back over if it gets flipped over on the beach. The telson is very fragile. Horseshoe crabs should never be picked up by their tails.

Horseshoe crabs are benthic animals, meaning that they normally live along the seafloor or bottom of an estuary's bay or lagoon. Horseshoe crabs move underwater along the bottom or out of the water along the flat beach by using their five pairs of jointed legs. The fifth pair of larger

horseshoe crab outgrows its shell, called a carapace. The crab molts, leaving its old shell behind and growing a new, larger shell. A horseshoe crab will molt 6 to 8 times over a period of about 10 years until it reaches adulthood. Horseshoe crabs can live to be about 100 years old if they do not get eaten by predators, get stranded on the beach, become injured, or get a disease.

# Horseshoe Crab: External features # top view\$



These might be the most obvious, but the horseshoe crab has an additional eye on its top, + on its bottom, plus light

light

The head section of the horseshoe crab contains much of the crab's nervous and digestive system, plus the muscles to move its legs.

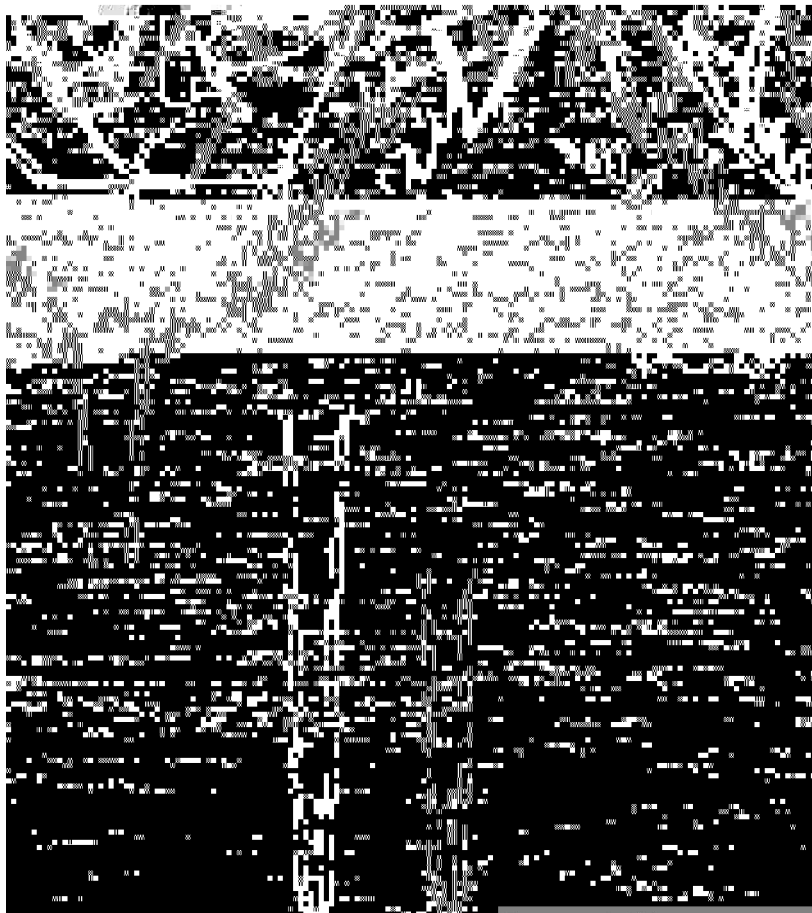
The horseshoe crab's middle section mostly contains the muscles needed to move its tail and to breathe.

Less scary than it looks, the crab can use this to flip itself over if it gets turned over on its back.

# Horseshoe Crab: External features from above

"his first pair of walking legs is also used by the male during spawning.

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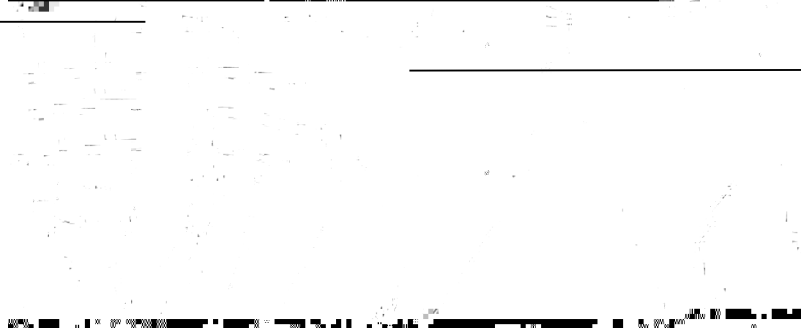




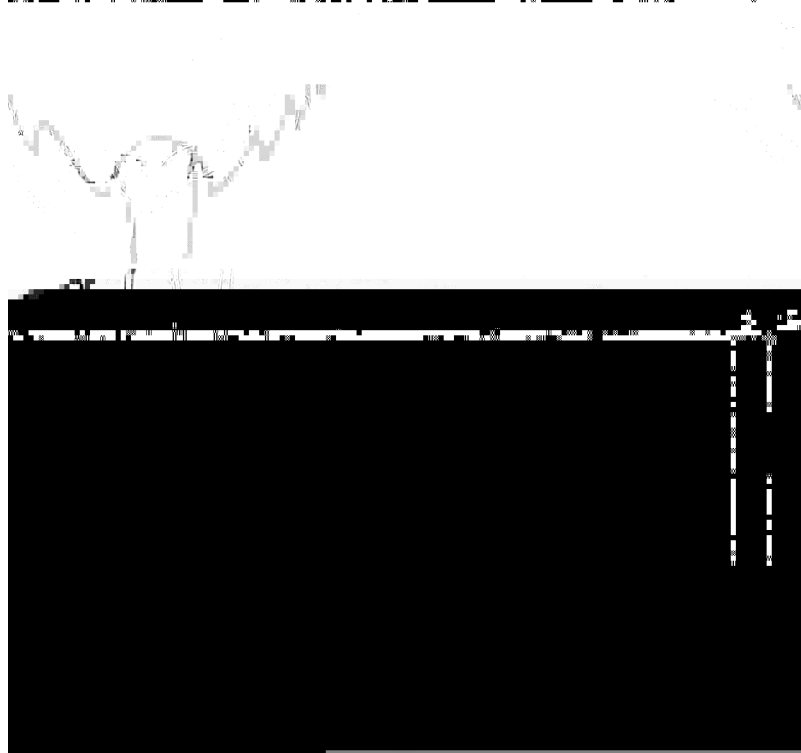
## Horseshoe Crab: Internal Features & Overview



The horseshoe crab's blood leaves through these tubes, eventually going into the book gills to get oxygen before returning to the heart.



The circulatory system extends almost the entire length of the horseshoe crab's body and beats 70+ times per minute.



Horseshoe Crab: =n ernal fea ures #bo om view\$