

The Horseshoe Crab Recovery Coalition's Background

There is a crisis facing horseshoe crabs and the fish and birdlife that depend on their eggs for survival. Horseshoe crabs are staring down twin threats – being harvested as bait for commercial fishing, and by the biomedical industry which uses a component of their blood in quality control.

The Horseshoe Crab Recovery Coalition aims to reverse the dramatic decline of this incredibly important and unique species, and restore balance to the fragile ecosystem for birds and marine life on the Atlantic Coast.

About Horseshoe Crabs

Horseshoe crabs are an ancient species, estimated to be 450 million years old. They are so well adapted to their environments, they have survived three major extinction events throughout their existence.

Horseshoe crabs spawn in late spring and early summer, seeking protected beaches in droves and coating shorelines with their eggs. The volume of eggs – potentially in the tens of thousands per square yard of beach in healthy populations – nourish marine ecosystems, providing an important energy source for migrating shorebirds as well as numerous fish species.

Threats to horseshoe crabs

Starting in the 1990's, commercial fishing operations rapidly increased their harvest of horseshoe crabs to be used as bait in the growing whelk fishery. This led to a huge decline in the crab population in key ecosystems like Delaware Bay, and is a key source of the species decline across the coast. The decline has been so prominent in places like the Delaware Bay that there are 95% fewer eggs now than in 1991 – from 100,000 per square yard to fewer than 5,000.

In addition, one of the reasons the species has survived for so many years owes to a remarkable feature of their blood that allows for quick clotting when bacteria are present, so wounds can be quickly sealed-off, limiting infection. That special quirk is incredibly useful in the pharmaceutical industry, where the component that drives this response to bacteria, Limulus Amebocyte Lysate (LAL), is used to detect contamination in vaccines and medications. To obtain LAL, pharmaceutical suppliers literally bleed the crabs – bringing them onboard vessels or to shore-based laboratories to drain their blood, and then return them to the water. The industry estimates that 20% of horseshoe crabs are killed in this process or shortly thereafter, but there is good reason to believe the impacts may be understated.

Impacts Reverberate Through the Ecosystem

The crisis facing birds was well documented in recent studies in the journal *Science*, which concluded there are nearly 3 billion fewer birds alive today than in 1970. Shorebirds have been among the hardest hit populations, suffering a 37 percent decline in that time frame. The decline of horseshoe crab eggs, a primary food resource for migrating shorebirds, including the iconic red knot, along the Atlantic Coast has contributed to this decline.

The red knot completes one of the largest migrations in the world – nearly 8,000 miles – with a critical stopover point in the Delaware Bay, and as horseshoe crabs have crashed, so have red knots – by 75% since 2000, according to the U.S. Fish and Wildlife Service.

The loss of plentiful horseshoe crab eggs as a food source for important fish species has gotten less attention than the impact on birds, but it too is a crisis. Horseshoe crab eggs are consumed by nearly all fish species of Delaware Bay, including popular gamefish like the weakfish. Delaware Bay was once known as the weakfish capital of the world, but tackle shops and charter captains have been feeling the impacts of decline weakfish populations for years.

What Is the Coalition Doing to Recover Horseshoe Crabs?

The Horseshoe Crab Recovery Coalition aims to reverse the dramatic decline of this incredibly important and unique species, and restore balance to the fragile ecosystem for birds and marine life on the Atlantic Coast.

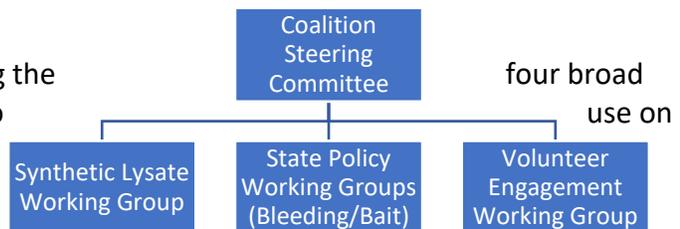
To achieve this goal we believe that we must take specific actions to:

1. Manage horseshoe crab bait fisheries to ensure that populations are large enough to support the needs of other species like red knots and weakfish that consume their eggs.
2. Institute policies that reform the horseshoe crab bleeding industry to reduce mortality and other impacts.
3. Encourage pharmaceutical companies to adopt the use of synthetic LAL alternatives for use in testing procedures.
4. Raise awareness of the importance of the horseshoe crab by engaging volunteers in efforts to conserve crabs across the coast.

The coalition is organized to provide resources, communications materials, share best practices, and support state and national advocacy around these goals. We recognize that we most work across the coast to better manage horseshoe crabs – because reducing it in one state could mean it increases nearby. We also recognize that both the populations and policy opportunities are different state-by-state, and invite coalition members to help us determine the solutions that best fit their states.

What is expected of coalition members?

The least level of commitment is endorsing the goals stated above, and providing a logo to the coalition website. We’re aiming to build a big tent to help raise awareness about horseshoe crabs, and welcome all groups that share our concerns, even if they currently lack capacity for active engagement with the coalition.



The coalition is structured into working groups around these goals. Organizations may join any working group that aligns with interest and capacity. The coalition steering committee has conference calls once per week. Each working group, including as many state-based working groups as develop, will meet as frequently as members deem necessary.

It is important to note that being a member of the coalition does not mean endorsing every single policy in every state. When we conduct advocacy, it will not be done as the Horseshoe Crab Recovery Coalition. We will discuss policy, draft letters, provide talking points, but engagement will always be an organization-level decision.