



## Save the Rays Coalition: Frequently Asked Questions

### **Question: Why are people concerned about protecting the cownose ray population?**

**Answer:** Rays are vulnerable to overfishing and contest participants are massacring large numbers of rays...often killing pregnant females.

- Scientific evidence shows that, since rays don't mate until they are several years old and female rays give birth to just one pup a year, their population growth is slow and the species is vulnerable to overfishing.
- These contests often take place in June when female rays are pregnant, so their unborn pup is killed too.
- According to [National Aquarium General Curator Jack Cover](#), "Cownose rays play a part in the ecology of the Bay, and it's a real danger to over-fish them. When you start taking out numbers of these types of animals... you really put the population in jeopardy."

### **Question: Are cownose rays native to the Chesapeake?**

**Answer:** Yes – they are native species; they are not invasive.

- They have been a part of the Chesapeake Bay ecosystem since before Captain John Smith arrived there.
- These animals are integral members of the Bay's ecology and have coexisted with oysters and scallops for thousands of years.

### **Question: What effect do rays have on oyster population?**

**Answer:** Oysters have been found to be a small part of rays' diet, and recent studies show that cownose rays are not responsible for oyster population declines.

- A final report from a [cownose ray scientific workshop](#) (convened on October 15, 2015 at the National Aquarium), which included experts on cownose ray biology, explains that, while cownose rays are known to consume oysters, oysters are not a significant portion of their diet.
- A 2016 report by Florida State University's [Dean Grubbs et al.](#) backs this up. It explains that the oyster populations had declined because of overfishing, disease and habitat loss.
- The Grubbs report also states that oysters and hard clams were found in **less than three percent of cownose rays' stomachs** examined in the Chesapeake Bay, and only five percent of rays harvested from commercial oyster grounds actually contained any oysters.
- Furthermore, cownose rays may actually help disperse large, reproductively mature oysters throughout the Bay.<sup>1</sup> A 2011 study found that cownose rays' jaws aren't strong enough to crush and eat larger oysters, but this physical limitation doesn't stop rays from trying. The result?

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<sup>1</sup> <http://vaseagrant.vims.edu/cownose-ray-may-play-a-role-in-dispersing-oysters-in-bay/>

Cownose rays pick up and swim away with large oysters, but eventually drop them after failing to crack the shells open.

- While localized and intensive feeding on smaller oysters or clams can occur, the solution is not to kill the rays. In a natural occurring oyster bed, small seed oysters are mixed with larger oysters. The larger oysters serve as protection for the seed oysters from the rays. In a manmade oyster reef, seed oysters and spat (oyster larvae) are planted. Without larger oysters for protection it is easy for the rays to access the small oysters. If restoration efforts and aquaculturists [protect smaller oysters](#), those oysters will eventually grow to be too big for rays to eat.

**Question: Can you keep rays from eating oysters, even small ones?**

**Answer:** Cages and bags are being very successfully employed to keep rays away from oysters and are deemed to be a superior way to obtain oysters. Furthermore, cownose rays have long been a part of the Bay ecosystem and harmoniously coexisted with oysters.

**Question: What else do cownose rays eat?**

**Answer:** Rays rarely eat blue crabs. They eat mud crabs<sup>2</sup>, and they may actually help the oyster population by doing so.

- Blue crabs are fast and [difficult for them to catch](#).<sup>3</sup>
- In his studies of cownose rays, Robert Fisher, Virginia Institute of Marine Science Fishery Specialist, has found blue crabs to be a negligible part of their diet.<sup>4</sup>
- Mud crabs consume oysters, and if the ray population is significantly reduced it could contribute to an increase in mud crabs, endangering the oyster population.
- An example of this occurred when bat rays were killed in California: “When California's oyster growers launched a program to eradicate oyster-eating bat rays, the campaign appeared to backfire and cause more oyster mortality,” according to ray researchers and Sonja Fordham, President of Shark Advocates International. As it turned out, the California rays were not eating many oysters, but they were eating oyster predators, such as crabs, which became more numerous.<sup>5</sup>

**Question: Do cownose rays have an impact on underwater grass beds?**

**Answer:** Pollution has done far more damage to underwater grass beds than cownose rays.<sup>6</sup> In fact, the rays’ foraging behavior in grass beds may actually be beneficial for blue crabs and other organisms by diversifying habitat and stirring up nutrients.

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<sup>2</sup> Peyton Robertson, director of national marine fisheries services for the National Oceanic and Atmospheric Administration’s Chesapeake Bay office:

[http://www.myeasternshoremd.com/news/kent\\_county/article\\_e5119b88-09f8-5def-bbd1-cc9d6f439e03.html](http://www.myeasternshoremd.com/news/kent_county/article_e5119b88-09f8-5def-bbd1-cc9d6f439e03.html)

<sup>3</sup> [http://www.chesapeakebay.net/channel\\_files/23141/cnr\\_workshop\\_report\\_final\\_1-29-16.pdf](http://www.chesapeakebay.net/channel_files/23141/cnr_workshop_report_final_1-29-16.pdf)

<sup>4</sup> [http://www.myeasternshoremd.com/news/kent\\_county/article\\_e5119b88-09f8-5def-bbd1-cc9d6f439e03.html](http://www.myeasternshoremd.com/news/kent_county/article_e5119b88-09f8-5def-bbd1-cc9d6f439e03.html)

<sup>5</sup> <http://www.cbf.org/about-the-bay/more-than-just-the-bay/creatures-of-the-chesapeake/misunderstood-cownose-ray>

<sup>6</sup> <http://www.cbf.org/document.doc?id=2534> (page 9)

- “When cownose rays migrate to the Chesapeake Bay in mid-summer and search for prey in SAV [submerged aquatic vegetation] beds, their excavations uproot eelgrass shoots and create bare patches, thereby increasing overall eelgrass edge habitat (Orth 1975; Hovel and Lipcius 2001). Such activities often produce a mosaic of seagrass patches of varying size and complexity interspersed with areas of bare sand...the mosaic effects in SAV beds caused by cownose ray feeding may positively affect blue crab populations.”<sup>7</sup>

**Question: Do sharks eat cownose rays? If not, do we need to worry about overpopulation of rays?**

**Answer:** Recent studies show that sharks rarely eat rays, so their populations probably have little impact on the rays’ population.

- The [Grubbs report](#) reviewed 39 published diet studies for the large coastal shark species, and determined that “cownose rays have been identified only in the stomachs of blacktip and sandbar sharks in the northwest Atlantic, but at low frequencies of occurrence.” In blacktips, cownose rays were only 3% of the diet, while in sandbar sharks they were a mere 0.3%.
- Shark populations probably don’t impact ray populations much. (Grubbs et al., also claim the shark populations haven’t plummeted as much as had been reported.) Per the Grubbs report: “Species other than large sharks also prey on cownose rays though it was [incorrectly] asserted that large sharks are the only significant source of predation mortality. For example, cownose rays were found in 9% of cobia stomachs in Chesapeake Bay, a higher proportion than published diet studies for any shark species in the northwest Atlantic.”
- According to Matt Ogburn at the Smithsonian Environmental Research Center: “There has been worldwide concern for declining shark populations and populations of other ray species. At the same time there has been this idea that cownose rays are somehow different and that their population is just exploding. One of the things [my recent study](#) indicates is that cownose rays may be a species we should add to the group we’re concerned about.”

**Question: Do people eat the rays after they kill them?**

**Answer:** There is no commercial market for cownose rays – they have an unappealing taste and they are rarely eaten.

- Virginia’s considerable efforts to market ray meat in the U.S., Europe and Asia have failed due to the difficulty of preparing it and because of its “urine flavor.”
- Contestants have been filmed dumping rays’ bodies back into the water or tossing them into dumpsters, which is the legal definition of wanton waste: to intentionally waste something negligently or inappropriately. It’s also legalized blood sport.

**Question: How do tournament participants kill the rays?**

**Answer:** Usually, the rays are gaffed (impaled) and then clubbed. This practice is not humane.

- The rays are sizable animals who flail wildly when caught. They are caught by being impaled, which causes them stress and trauma.
- Killing a ray without causing them even more suffering requires substantial experience and skill.

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<sup>7</sup> <http://www.mdsg.umd.edu/sites/default/files/files/EBFM-Blue-Crab-Briefs.pdf>

- Contestants were filmed repeatedly and mercilessly beating the rays, ineptly using hammers and other implements. Subjecting sentient animals to such cruelty for entertainment is unjustifiable animal abuse. (Rays were also suffocated to death.)

**Question: Would there be an economic impact to stopping the contests?**

**Answer:** Very few people profit from these tournaments that kill large numbers of rays.

- This bill does not affect charter boat captains; it only bans the contests.
- One of the biggest contest organizers is from New York state. New Yorkers should not profit from killing Maryland's natural resources.
- Some 150,000 people have signed a petition against the contests. The contests have been condemned in international, mainstream media. This animal abuse is detrimental to Maryland's image and may very negatively affect tourism here.

**Question: Would you be seeking other restrictions on hunting and fishing?**

**Answer:** No. This situation is unique and this legislation only applies to cownose ray killing tournaments.

- Contestants are killing these rays in huge numbers—more than 100 contestants may compete in just one tournament, and rays are extremely easy to catch.
- Unlike traditional hunting and fishing, these rays are thrown away. Participants have been filmed dumping rays' bodies back into the water or tossing them into dumpsters, which is the legal definition of wanton waste.
- Rays have been scapegoated for decades, and they are a species whose population could very easily be endangered.