



# REEL REWARDS INVASIVE FISH BOUNTY PROGRAM

## Paying community members to help restore Middle Branch Harbor, Baltimore

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### THREE INVASIVE FISH IN THE CHESAPEAKE BAY

Invasive Northern Snakehead, Blue Catfish, and Flathead Catfish threaten the Chesapeake Bay's ecosystem and economy. The following traits enable these fish to take over non-native habitat:

- Apex predators and lack local predators
- Out-compete native species important to anglers and businesses
- Resilient to environmental and diet changes
- High offspring survival rate

It is important to remove and study these invasive fisheries to better address their environmental impacts. It is also important that the public recognizes the impacts that these species have and help stop the spread of these fish.



**NORTHERN SNAKEHEAD**



**BLUE CATFISH**



**FLATHEAD CATFISH**

Credit: (Top to bottom) Brian Slacum, Danaz Williams

### INJUSTICE IN MIDDLE BRANCH HARBOR, BALTIMORE



Credit: Veronica M. Lucchese; Data: NOAA NGDC, Esri, Garmin, NaturalVue, City of Baltimore, Baltimore County Government, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

The Middle Branch Harbor (shown in map below) is a part of the Patapsco River in the Chesapeake Bay. It is located in South Baltimore and has a deep maritime history. The neighborhoods surrounding this waterbody (outlined in red) are home to diverse communities and a notable veteran population. Local anglers attest to these invasive fish being in the Middle Branch since the 1980's. Despite experiencing environmental injustices, there is a lack of research on this waterbody and its fisheries.

### REEL REWARDS INVASIVE FISH BOUNTY PROGRAM

To address this problem, the Environmental Justice Journalism Initiative (EJJI) and partners are hosting the Reel Rewards Invasive Fish Bounty Program. This program pays anglers \$30 per invasive fish removed from the Middle Branch. Anglers can receive a \$10 reward for participating in the angler survey. The angler survey aims to better understand community behaviors and awareness of the local environment and management. This community based program compensates residents for their time and cooperation in the ongoing restoration of the Middle Branch and providing important data to researchers.



Images from Reel Rewards events. The images on the left show EJJI staff holding snakehead and blue catfish heads turned in for bounty. The images on the right show community engagement. Credit: (Left to right) Christien Martin, Donzell Brown, Veronica M. Lucchese

### PROGRAM IMPACT ON THE COMMUNITY AND ECOSYSTEM

Beginning in May 2024, EJJI staff and volunteers use data from the fishing tournament app, iAngler, and onsite verification at weekly fish collection sites (shown as black and red pins on the map) to issue bounty amounts.

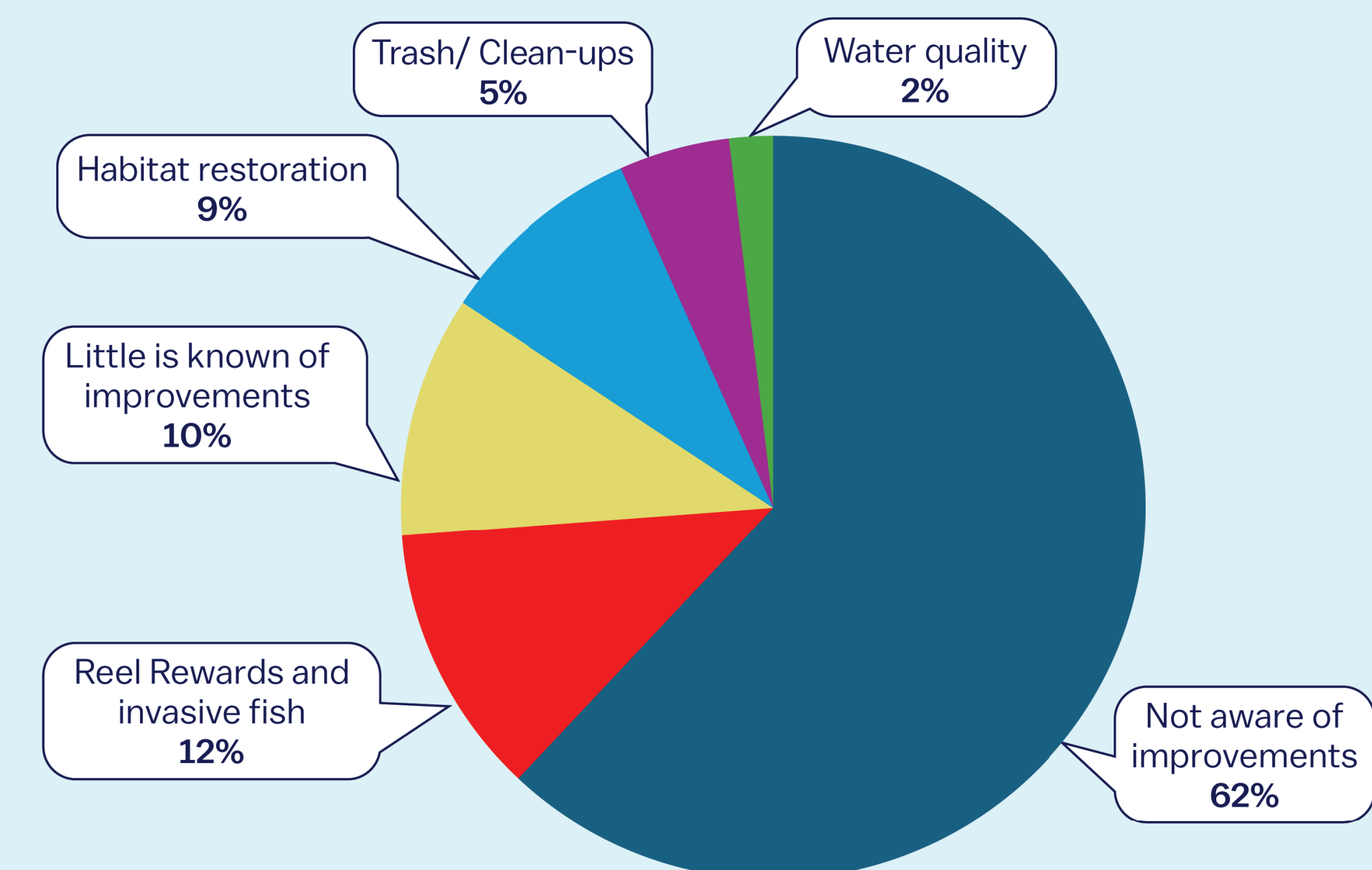
Over 300 people have registered for Reel Rewards with new registrations still coming. The program has been well received by the angler community with people noting that the program helps both the environment and the people. Reel Rewards has been promoted by the Washington Post, Maryland Dept. of Natural Resources, news channels, and social media.

During the **first three months** of the program, the following amount of fish were turned in:

- 256 Snakeheads
- 37 Blue Catfish
- 6 Flathead Catfish

To date, **\$8,460** of bounty have been paid directly to anglers in the form of virtual Visa gift cards

### REEL REWARDS REGISTRANTS' PERCEPTIONS OF ENVIRONMENT IMPROVEMENTS IN THE MIDDLE BRANCH



### SURVEY RESULTS AND FUTURE WORK

Based on the chart above, 72% of registrants were not aware or knew little about Middle Branch Improvements. Further analysis of survey data show that 62% of registrants also were willing to learn more about local environmental improvements. This highlights community willingness to participate in environmental management if given an avenue to be included.

The Reel Rewards is an ongoing community based research project aimed to run again in summer 2025. Currently, environmental DNA (eDNA) analysis of the Middle Branch and survey analysis are being done. This research aims to better understand both social and biological processes and aid in the monitoring and restoration of the area.

Participants have shared their desire for the program to continue. Reel Rewards partners are actively searching for additional funding to expand the program locations and duration. The Potomac River and Annapolis are some locations for future consideration.

**SCAN HERE TO LEARN MORE ABOUT THE REEL REWARDS PROGRAM**



[WWW.EJJI.ORG/REEL-REWARDS](http://WWW.EJJI.ORG/REEL-REWARDS)



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