

Invasives 101

HOW EATING THINGS THAT AREN'T FROM HERE COULD BE A BOON FOR THE BAY

BY LEIGH GLENN

ILLUSTRATIONS BY ELIZABETH GRAEBER

What do a foreign fish that has starred in horror films, a catfish that can grow up to 100 pounds and plants that can spread like wildfire across ecosystems have in common? They're all invasive species in the Chesapeake—and eating them might be one of the best ways to keep them in check.

Snakeheads, blue catfish, water chestnut, Chinese mitten crab and garlic mustard are each robust reproducers that actually thrive in the Chesapeake watershed's compromised ecosystems and tend to displace long-adapted species. While eating locally farmed oysters boosts demand and helps filter more water, eating snakehead and blue catfish is encouraged because it helps curb their populations. Foraging for garlic mustard enables Eastern temperate trees to re-seed and they, in turn, help filter runoff and prevent erosion. All of this gives much-loved species, including striped bass, blue crab and American shad, more of a fighting chance in the waters they've long called home.

Creating markets for snakehead and blue catfish was one of Steve Vilnit's (pictured below) main focuses during his stint as fisheries marketing director at Maryland's Department of Natural Resources. He took chefs out on boats and urged them to add more of these species to their menus. Now, as the director of marketing and business development for Jessup, Md.-based seafood purveyor J.J. McDonnell, Vilnit is continuing the charge. In a Q&A with Edible DC, Vilnit encouraged eating these "malicious but delicious" species as an Rx for the bay.



PHOTO BY DANNY SPRY

HOW DID THE IDEA OF EATING THINGS LIKE SNAKEHEAD AND BLUE CATFISH COME ABOUT?

We were sitting in a management-team meeting one day and talking about snakeheads and I asked a biologist, "Are they edible?" Not only are they edible, they're delicious. Chefs tried and loved it. We showed it to wholesalers and a market was created.

This is especially true with blue catfish. They're a great-tasting fish. Four years ago, no one was really selling it. Now, you go around the city—Baltimore or DC—and you're hard-pressed to find a restaurant without blue catfish on the menu. I've talked to people in Chicago and New York who are using that fish.

Snakeheads are also available, but because of the method of harvest—typically bow and arrow—they're not quite as easy or inexpensive to catch as blue catfish. With blue cats, you can catch tens of thousands of pounds at a time. Humans are great at overfishing, and this is an instance where we want it to be overfished! It's a win-win-win. Chefs get a low-cost protein. Fishermen can fish year round. And the environment gets the fish taken out.

ANY RESTRICTIONS ON CONSUMPTION?

With blue catfish, they are fast growing and have less of a tendency to bioaccumulate

(or absorb) toxins when the catch is kept at three to eight pounds.

WHAT STRIDES HAS THE INDUSTRY MADE ON TACKLING INVASIVES?

Four or five years ago, no one was eating snakehead or blue catfish. Today, chefs fight for snakehead. And there's more awareness—that's almost as important as eating these—knowing you can't just take something out of an aquarium and throw it in the water.

These markets will continue to grow. Either the population of the fish will start to decrease or they will have saturated the markets, in terms of restaurants putting it on the menu. That is unless proposed federal

regulations are created, for example something that would designate catfish as meat by their standards and require every fisherman to have a USDA inspector on staff to monitor processing. That could stop the blue catfish harvest entirely, because it would be cost-prohibitive.

BESIDES EATING BLUE CATFISH AND SNAKEHEAD, HOW ELSE CAN PEOPLE HELP STABILIZE THE BAY'S ECOSYSTEMS?

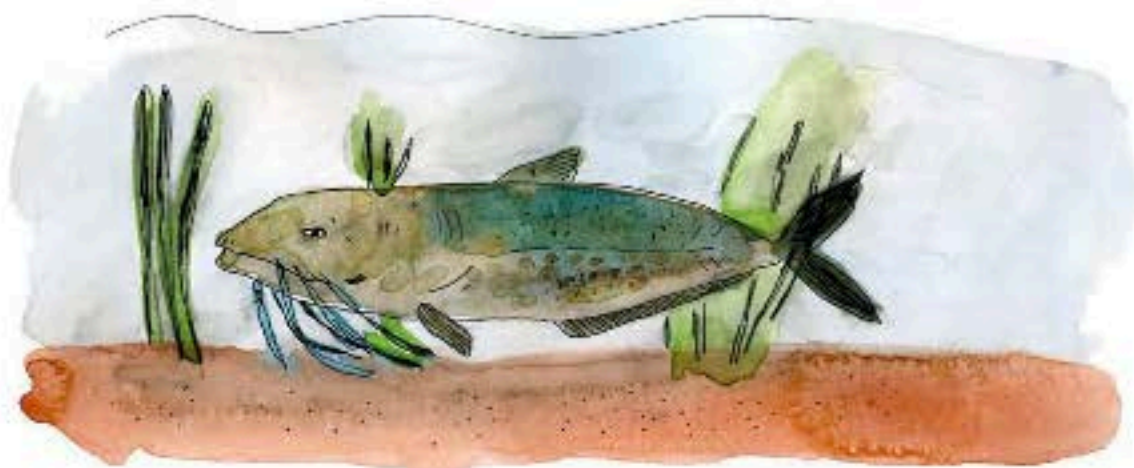
Everybody needs to be aware that whatever they do on land has an impact on the bay. It's not, "Hey, I live 70 miles from the bay, I pour fertilizer on my lawn. It has no impact." It does.



SNAKEHEAD

BLUE CATFISH
ICTALURUS FURCATUS

Released into the James River in 1974 for sport fishing. Now found in major waterways in Virginia, DC and Maryland. Sub for any flaky, white fish and can be batter-fried, blackened, seared, baked or grilled. Look for it on local menus and find it at many area grocers and fish markets.



CATFISH

WATER CHESTNUT
TRAPA NATANS

Don't confuse this with the Chinese water chestnut you might find in a stir-fry. Escaped from Harvard's botanic garden to the Charles River in the late 1870s. Now found in many places around the Chesapeake. As a prolific reproducer, this plant can quickly clog waterways and block sunlight.

Edible? Maybe. Reportedly, it can be eaten raw, boiled, roasted, fried, preserved in honey, candied, dried and ground into flour for bread or confections. Caveat: It's known to contain metals and pollutants so boiling is suggested. A local forager who tried this chestnut says it tasted like the mud from which it was harvested.



WATER CHESTNUT

CHINESE MITTEN CRAB
ERIOCHEIR SINENSIS

First found on the East Coast in the Chesapeake near Baltimore in 2005. Arrived either through intentional release or in ballast water. Highly edible (just ask Gordon Ramsay and Brits who've dined on it in London) and eaten steamed or stir-fried. And no, the creepy "mittens" aren't steamed away.

This species, which lives in freshwater and breeds in saltwater, likes to burrow into stream banks and threatens to erode those portions of the bay. Hope you don't find it, but if you

do: save, freeze and report it to the Smithsonian Environmental Research Center's Chinese Mitten Crab hotline: 443-482-2222 or e-mail SERCmitten crab@si.edu.



CHINESE MITTEN CRAB

NORTHERN SNAKEHEAD
CHANNA ARGUS

Found in Maine and California before being caught in 2002 in a pond in Crofton, Md. Two years later, they were found in the Potomac and have since spread throughout the bay watershed. Native to Asia, arrived via live food fish trade and spread with unauthorized releases.

How to eat? How not! Its dense flesh can be baked, battered and fried, grilled, caked, ceviche-d. Bow-fishing makes it more expensive. A few fishmongers sell it and several DC restaurants feature it.



GARLIC MUSTARD

GARLIC MUSTARD
ALLIARIA PETIOLATA

Though its name smacks of culinary possibilities, this allelopath was initially brought from Europe to Long Island in the mid-1800s as a food and medicine. But it suppresses soil mycofungal activity in the forests where it is plentiful and inhibits germination of tree seeds. Get creative! All parts are edible, though tastiness varies based on season. Stems are reportedly tough. Consider young leaves raw in a salad or processed for pesto. Older leaves can be cooked and used in a warm potato salad or in cold salads with grains. Both are great for marinades, condiments or sauces.