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# See the 1-in-50-Million Split-Color Lobster Caught Off the Coast of Massachusetts. It's Carrying Two Sets of Genetic Information

The unusual-looking crustacean is two-toned, with a line dividing its body into an orange side and a brown side. This can happen when two fertilized, unlaid lobster eggs touch—causing one to absorb the other

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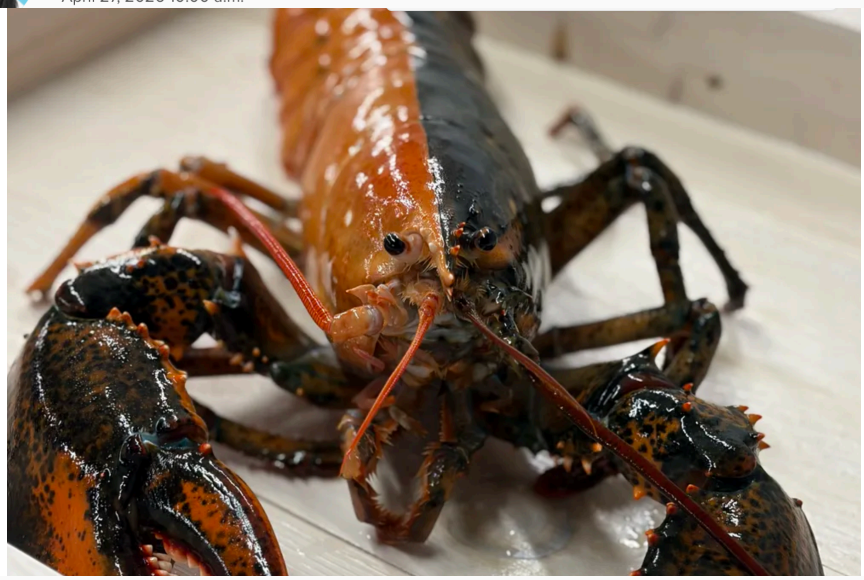

The two-toned lobster will go on display at the Woods Hole Science Aquarium when it reopens next year. Wellfleet Shellfish Company

A rare color combination has saved one lobster from the dinner plate.

On April 16, the crew aboard the *Timothy Michael* spotted an unusual-looking lobster in their haul while fishing off Cape Cod. One half of its body—stretching from head to tail—was orange-red, while the other half was dark brown, with a straight line dividing the two hues, a rare 1-in-50-million example of a "split-color" lobster.

Wellfleet Shellfish Company, which pulled in the rare lobster, decided not to sell it. Rather, the company donated the creature to the Woods Hole Science Aquarium, a Cape Cod institution operated by the National Oceanic and Atmospheric Administration Fisheries.

"Instead of heading to market, she's heading somewhere even more special," the company wrote on social media.

The aquarium, established in 1875 and the nation's oldest public marine aquarium, is currently closed for repairs. But once it reopens early next year, the split-color lobster will be "one of the first animals going back into the aquarium," Julia Studley, an aquarium biotechnician, tells the *Cape Cod Times*' Heather McCarron.

Aquarium staffers haven't named the crustacean yet. American lobsters have long life expectancies, with some living to 100 years old, so they want to get to know the creature a bit better first to make sure they land on a name that's the perfect fit. For now, the crustacean is making herself at home in a large tank at the nearby Marine Biological Laboratory. She's exploring the cave structures in her new home and chowing down on fish.

Split-color lobsters, a type of chimera, look like "two individual lobsters cut lengthwise and spliced together," according to the nonprofit Seacoast Science Center in Rye, New Hampshire. That may sound like something straight out of science fiction, but the analogy is not far off.

"Split-colorization occurs when two fertilized, unlaid eggs contact each other, causing one to absorb the other," Studley tells *Popular Science*'s Laura Baisas. "This creates a lobster with two sets of genetic information, and the ability to store color pigments differently on either side of its shell."

Sometimes, this process can lead to gynandromorphism, meaning the animal is half female and half male, typically split bilaterally down the middle. In 2015, a half-male, half-female common archduke butterfly shocked volunteers when it emerged from its chrysalis at the Academy of Natural Sciences of Drexel University. Three years later, a researcher identified a gynandromorphic sweat bee. And in 2021, ornithologists found a sex-split green honeycreeper.

The striking crustacean has two sets of genetic information. Wellfleet Shellfish Company

Most American lobsters are mottled brown with hints of drab green or blue—hues that help them blend in with their ocean-floor surroundings and avoid being eaten by predators. By contrast, the split-color lobster's unique coloration would have made it an easy-to-spot target, so experts are somewhat surprised it has survived for so long.

"Lobsters with unusual coloring often don't have the camouflage to thrive for long, so the fact that this one reached over three pounds means it's been through a lot," Dan Brandt, chief operating officer of Wellfleet Shellfish Company, tells *Popular Science*.

The split-color crustacean might be the latest eye-catching lobster to make headlines. But these creatures occasionally turn up sporting other unusual hues.

In spring 2021, a speckled crustacean turned up at a Red Lobster restaurant in Virginia. The Virginia Living Museum in Newport News took in the unique creature, dubbed Freckles, but he died roughly a year later.

Last summer, a fisher caught a one-in-two-million blue lobster, later nicknamed Neptune, which he donated to Northeastern University's Marine Science Center in Nahant, Massachusetts. Also last year, a fisher hauled in a 1-in-30-million "calico" lobster with a bright orange shell speckled with bits of black and blue. And in 2024, a fisherman caught a 1-in-100-million "cotton candy" lobster off the coast of New Castle, New Hampshire.

Lobsters can also be albino, meaning they lack all pigmentation and are completely white.