

# 10 Surprising Traits That Make These Fish Unique

Perhaps you've stopped in your tracks to admire their vibrant red, green, and royal blue hues and maybe you've even brought one home. But you may not have known how these intelligent, feeling beings can learn to recognize their owners and perform tricks.

Reviewed by Dr. Becker

## STORY AT-A-GLANCE

- Betta fish are coveted for their bright colors and fancy fins, but they're also intelligent and can be trained to do tricks
- Bettas have a special organ called the labyrinth organ, which allows them to breathe air from the surface
- Bettas don't have to be kept solitary; males can live with other fish species and females can live together
- Betta fish should not be kept in small bowls or vases; they require ample space to swim and a stimulating habitat
- Provide items for your fish to explore — plants, rocks, structures, ceramic objects, etc — and a place to hide. It's important to make sure the "furniture" you add to your fish tank is nontoxic

***Editor's Note: This article is a reprint. It was originally published March 13, 2015.***

Betta fish, also known as Siamese fighting fish, are native to Thailand, Vietnam, Cambodia, and Laos. In the wild, their colors are quite drab, except when they get agitated. The betta fish popular in aquariums, however, have been bred to display vibrant red, green, and royal blue colors.

This, along with their elaborate fins, makes them extremely popular with hobbyists. They're second only to goldfish in home aquariums.<sup>1</sup> You've probably seen betta fish at your local pet stores or even grocery store.

They're the ones that are often kept in very small plastic containers, isolated in solitary confinement ostensibly to protect their safety (and the safety of other fish). But don't be fooled. Betta are quite intelligent as fish go, and they can even be trained to recognize their owners and do tricks.

They require stimulation and space to live well, and, as you might suspect, a tiny plastic cup doesn't provide that. Betta are often transported to stores in blue-colored water (in tiny plastic bags!) that contains tranquilizing agents to reduce their agitation,<sup>2</sup> so once you get your fish home, you'll likely see an entirely other side of him.

## 10 Cool Facts About Betta Fish

Paw Nation recently listed 10 unique facts about betta fish that show what makes them such popular pets.<sup>3</sup> These fish are not simply decorative, they're living creatures with some pretty incredible features.

1. **Betta refers to 70 fish species** — When most people think of bettas, they're thinking of betta splendens, or Siamese fighting fish. However, the term betta actually refers to dozens of different fish species.
2. **Bettas are territorial and aggressive** — They're called Siamese fighting fish for a reason ... bettas, especially the males, are territorial and will attack other male bettas (this isn't always "to the death," as commonly believed, although it can cause serious injuries). However, female betta fish can live together and male betta fish may be able to live with other species of fish.<sup>4</sup>
3. **Bettas are omnivores** — In the wild, bettas eat insects (crickets, flies, grasshoppers, etc.) and insect larvae, typically collected from the surface of the water, along with algae. They may also eat bloodworms, shrimp, or freeze-dried bloodworms.
4. **Bettas have different tail shapes** — Part of what makes bettas so fascinating are their wide variety of shapes and colors. The tail shapes alone include comb, crown, delta, double feather, halfmoon, halfsun, plakot, rose, round, spade, veil, and more.
5. **Wild bettas are a dull brown and green color** — As mentioned, the vibrantly colored bettas you see in stores got that way through selective breeding. In the wild, bettas are a dull brown or green color and their fins are smaller and much more understated.
6. **Males and females are easy to tell apart** — Male bettas are not only larger than females but they also tend to have brighter colors and more ornate fins. Most pet bettas are therefore male.
7. **Bettas breathe air and can survive out of water for short periods** — Bettas have a special organ called the labyrinth organ, which allows them to breathe air from the surface. This is what allows them to survive in waters with low-oxygen content, such as shallow rice paddies, stagnant ponds, or even polluted waters.<sup>5</sup> They can even survive outside of water for short periods, provided they're kept moist.

Because betta fish sometimes live in water with low oxygen, this doesn't mean they prefer it ... and it also doesn't mean bettas should be kept in vases with flowers. Unfortunately, the idea that you can keep a betta in a flower vase is widely circulated, but this is not a healthy or humane way to house these fish.

8. **Bettas build bubble nests** — Male bettas build bubble nests, and once the female releases the eggs (during an elaborate courtship ritual) the male gathers them in his mouth and "spits" them into the nest. Because creating bubble nests is an instinctive behavior, your betta will likely build a bubble nest even in captivity without a mate present.
9. **Male bettas guard their offspring** — The male betta not only builds the nest, he also watches over the eggs until they hatch. The female doesn't participate and is, in fact, typically chased away by the male.
10. **Bettas are intelligent** — Betta fish can learn to recognize their owners and perform tricks, such as following your finger around the bowl, swimming through hoops, or pushing a ball into a goal.

## Fish Are Intelligent and Can Feel Pain, Anger

When choosing a fish as a pet, it's important to understand that they require care and compassion, just as furry and feathered pets do. Though they speak an entirely different "language," fish perception and cognitive abilities match or exceed that of other vertebrates.

In a review published in *Animal Cognition*,<sup>6</sup> Dr. Culum Brown, a professor in the Department of Biological Sciences at Macquarie University, showed evidence that fish:<sup>7</sup>

- Perform multiple complex tasks simultaneously (a trait that was once believed to exist only among humans)

- Recall the location of objects using "feature cues" (which humans figure out how to do around age 6)
- Have excellent long-term memories
- "Cooperate with one another and show signs of Machiavellian intelligence such as cooperation and reconciliation"
- Use tools

In addition, there's evidence that fish display pain-related behaviors, such as increasing their ventilation rate and rubbing their lips against the sides of their tank after being shocked.<sup>8</sup> Fish also show behavioral changes in response to their living environment.

Fish living in large aquariums with complex (i.e. stimulating) habitat were significantly less aggressive than those living in smaller barren spaces.<sup>9</sup> The fish living in cramped, uninspired quarters showed mild disgust by flaring their fins, and displayed more significant anger by chasing, nipping, charging, and even killing one another.

## How to Create a Stimulating Environment for Your Betta Fish

A betta fish can live up to three years if it's well cared for. Remember that bettas don't necessarily have to be kept solitary. A male betta can be kept in a community of fish (without other male bettas) and female bettas can be kept together. In addition, the tips that follow will help you create a stimulating environment to keep your betta happy and healthy.

- Provide ample space — at least 24 square inches of water for every one inch of fish
- Provide a quiet pump and filter that keeps water clean and flowing
- Install an air pump for oxygen and a thermometer to monitor water temperature (this should generally be between 68 and 76° Fahrenheit but depends on the species of fish – bettas prefer a water temperature toward the upper end of this, about 72-82°F)
- Provide items for your fish to explore — plants, rocks, structures, ceramic objects, etc. You should also provide a place for your fish to hide. It's important to make sure the "furniture" you add to your fish tank is non-toxic
- Keep your fish in a quiet area away from loud televisions and radios, and out of direct sunlight
- Provide the right type of food for the species of fish (fish may vary in their nutritional requirements)
- Clean the tank regularly and use pure water (most tap water contains fluoride, chlorine, and impurities that can harm fish)
- Take care not to startle your fish with sudden changes in lighting or noise
- If your fish seems sick, take him to a **fish vet** along with a sample of tank water
- While some fish do better alone, most enjoy companionship and should be kept in pairs (or more); your fish may even enjoy some interaction with you on a daily basis

### Sources and References

<sup>1,3</sup> [Paw Nation September 9, 2014 \(Archived\)](#)

<sup>2</sup> [Peta2.com August 19, 2013 \(Archived\)](#)

<sup>4</sup> [Peta.org Betta Fish](#)

<sup>5</sup> [Encyclopedia of Life, Betta Fish](#)

<sup>6</sup> [Anim Cogn 18, 1–17 \(2015\)](#)

<sup>7</sup> [Huffington Post July 1, 2014](#)

<sup>8</sup> [Applied Animal Behavior Science April 8, 2023 \(Archived\)](#)

<sup>9</sup> [Journal of Applied Animal Welfare Science, 14\(4\), 340–360](#)

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