# Betta

**Betta**, /<u>'bɛtə/</u> is a large <u>genus</u> of small, often colorful, <u>freshwater</u> ray-finned fishes, known as "**bettas**", in the <u>gourami family</u> (Osphronemidae). The best known *Betta* species is *B. splendens*, commonly known as the Siamese fighting fish.

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#### **Characteristics**

All the *Betta* species are small fishes, but they vary considerably in size, ranging from under 2.5 cm (1 in) total length in *B. chanoides* to 14 cm (5.5 in) in the Akar betta (*B. akarensis*). [1]

Bettas are <u>anabantoids</u>, which means they can breathe atmospheric air using a unique organ called the <u>labyrinth</u>. This accounts for their ability to thrive in low-oxygen water conditions that would kill most other fish, such as rice paddies, slow-moving streams, drainage ditches, and large puddles. [2]

The bettas exhibit two kinds of spawning behaviour: some build bubble nests, such as B. splendens, while others are mouthbrooders, such as B. picta. The mouthbrooding species are sometimes called "pseudo bettas", and are sometimes speculated to have evolved from the nest-builders in an adaptation to their fast-moving stream habitats. [3]

A phylogenetic study published in 2004 concluded tentatively that bubble-nesting was the ancestral condition in *Betta*, and that mouthbrooding has evolved on more than one occasion in the history of the genus. However it was unable to establish a correlation with any of three habitat variables studied: whether a species was found in lowland or highland streams, whether it was found in peat swamp forests, and whether it was found in water with fast or slow currents. [4] Mouthbrooding species tend to exhibit less sexual dimorphism, perhaps because they do not need to defend a territory as the bubble-nesters do. [4]



- Anostoma van Hasselt, 1859
- Micracanthus Sauvage, 1879
- Parophiocephalus Popta, 1905
- Oshimia D. S. Jordan, 1919
- Pseudobetta Richter, 1981

#### Name

Siamese fighting fish (B. splendens) are frequently sold in the <u>United States</u> simply as "bettas". In fact, as of 2017, around 73 species are classified within the genus Betta. A useful distinction is that while the <u>generic</u> name Betta is italicized and capitalized, when used as a common name it is usually neither italicized nor capitalized. The common name of B. pugnax, for example, is thus Penang betta.

The name *Betta* (or betta) is pronounced  $/\underline{b} \in \overline{\partial}/\underline{b}$ ; the first part is the same as the English word bet. The name is often pronounced  $/\underline{b} \in \overline{\partial}/\overline{\partial}$  in American English, and may be spelled with one 't'. The name of the genus is derived from the Malay word *ikan betah* ("persistent fish"). [6]

The vernacular name "plakat", often applied to the short-finned ornamental strains, derived from *pla kad* which means "fighting fish", is the <u>Thai</u> name for all members of the *B. splendens* species complex (All have aggressive tendencies in the wild and all are extensively line-bred for aggression in eastern <u>Thailand</u>). The Thai phrase is not restricted to one specific strain. The term "fighting fish" is generalized to all members of the *B. splendens* species complex, including the Siamese fighting fish. [7][8]



Betta splendens, the Siamese fighting fish, is often referred to simply as a "betta" in the U.S.

### **Diet**

Wild *Betta* fish are hardy and eat almost any animal small enough for these small fish to consume, including worms, larvae of mosquitoes or other insects, and smaller fish. Their natural environment is often resource-limited, so many *Betta* species are generalist feeders.

### Conservation

While many *Betta* species are common and *B. splendens* is ubiquitous in the aquarium trade, other bettas are threatened. The <u>IUCN Red List</u> classifies several *Betta* species as Vulnerable. In addition, <u>B. livida</u> is Endangered, and <u>B. miniopinna</u>, <u>B. persephone</u>, and <u>B. spilotogena</u> are Critically Endangered. [9]

The <u>United Nations Environment Programme</u> lists an unconfirmed species, *Betta* cf. *tomi*, as having become extinct in <u>Singapore</u> between 1970 and 1994. This likely refers to the <u>extirpated</u> Singaporean population of <u>B. tomi</u>, which continues to exist in the wild in <u>Indonesia</u> and <u>Malaysia</u>, as well as in captivity; the Red List classifies it as Vulnerable. [11][12]

# **Species**

There are currently 73 recognized species in this genus. The currently described *Betta* species can be grouped into <u>species</u> complexes: [1][13][14][15]

- B. akarensis complex:
  - Betta akarensis Regan, 1910 (Akar betta)
  - Betta antoni H. H. Tan & P. K. L. Ng, 2006
  - Betta aurigans H. H. Tan & K. K. P. Lim, 2004
  - Betta balunga Herre, 1940



A pair of Betta smaragdina

- Betta chini P. K. L. Ng, 1993
- Betta ibanorum H. H. Tan & P. K. L. Ng, 2004
- Betta obscura H. H. Tan & P. K. L. Ng, 2005
- Betta pinguis H. H. Tan & Kottelat, 1998
- *B. albimarginata* complex:
  - Betta albimarginata Kottelat & P. K. L. Ng, 1994
  - Betta channoides Kottelat & P. K. L. Ng, 1994
- *B. anabatoides* complex:
  - Betta anabatoides Bleeker, 1851 (giant betta)
  - Betta midas H. H. Tan, 2009
- *B. bellica* complex:
  - Betta bellica Sauvage, 1884 (slim betta)
  - Betta simorum H. H. Tan & P. K. L. Ng, 1996
- *B. coccina* complex:
  - Betta brownorum K. E. Witte & J. Schmidt, 1992
  - Betta burdigala Kottelat & P. K. L. Ng, 1994
  - Betta coccina Vierke, 1979
  - Betta hendra I. Schindler & Linke, 2013
  - Betta livida P. K. L. Ng & Kottelat, 1992
  - Betta miniopinna H. H. Tan & S. H. Tan, 1994
  - Betta persephone Schaller, 1986
  - Betta rutilans K. E. Witte & Kottelat, 1991
  - Betta tussyae Schaller, 1985
  - Betta uberis H. H. Tan & P. K. L. Ng, 2006
- *B. dimidiata* complex:
  - Betta dimidiata T. R. Roberts, 1989
  - Betta krataios H. H. Tan & P. K. L. Ng, 2006
- *B. edithae* complex:
  - Betta edithae Vierke, 1984
- *B. foerschi* complex:
  - Betta dennisyongi H. H. Tan, 2013
  - Betta foerschi Vierke, 1979
  - Betta mandor H. H. Tan & P. K. L. Ng, 2006
  - Betta rubra Perugia, 1893 (Toba betta)
  - Betta strohi Schaller & Kottelat, 1989
- B. picta complex:
  - Betta falx H. H. Tan & Kottelat, 1998
  - Betta picta (Valenciennes, 1846) (spotted betta)
  - Betta simplex Kottelat, 1994
  - Betta taeniata Regan, 1910 (Borneo betta)
- *B. pugnax* complex:



Male Betta tussyae

- Betta apollon I. Schindler & J. Schmidt, 2006
- Betta breviobesus H. H. Tan & Kottelat, 1998
- Betta cracens H. H. Tan & P. K. L. Ng, 2005
- Betta enisae Kottelat, 1995
- Betta ferox I. Schindler & J. Schmidt, 2006
- Betta fusca Regan, 1910 (dusky betta)
- Betta kuehnei I. Schindler & J. Schmidt, 2008
- Betta lehi H. H. Tan & P. K. L. Ng, 2005
- Betta pallida I. Schindler & J. Schmidt, 2004
- Betta prima Kottelat, 1994
- Betta pugnax (Cantor, 1849) (Penang betta)
- Betta pulchra H. H. Tan & S. H. Tan, 1996
- Betta raja H. H. Tan & P. K. L. Ng, 2005
- Betta schalleri Kottelat & P. K. L. Ng, 1994
- Betta stigmosa H. H. Tan & P. K. L. Ng, 2005
- *B. splendens* complex (fighting fish):
  - Betta imbellis Ladiges, 1975 (crescent betta)
  - Betta mahachaiensis Kowasupat, Panijpan, Ruenwongsa & Sriwattanarothai, 2012
  - Betta siamorientalis Kowasupat, Panijpan, Ruenwongsa & Jeenthong, 2012
  - Betta smaragdina Ladiges, 1972 (Blue betta)
  - Betta splendens Regan, 1910 (Siamese fighting fish)
  - Betta stiktos H. H. Tan & P. K. L. Ng, 2005
- *B. unimaculata* complex:
  - Betta compuncta H. H. Tan & P. K. L. Ng, 2006
  - Betta gladiator H. H. Tan & P. K. L. Ng, 2005
  - Betta ideii H. H. Tan & P. K. L. Ng, 2006
  - Betta macrostoma Regan, 1910 (spotfin betta)
  - Betta ocellata de Beaufort, 1933
  - Betta pallifina H. H. Tan & P. K. L. Ng, 2005
  - Betta patoti M. C. W. Weber & de Beaufort, 1922
  - Betta unimaculata (Popta, 1905) (Howong betta)
- B. waseri complex:
  - Betta chloropharynx Kottelat & P. K. L. Ng, 1994
  - Betta hipposideros P. K. L. Ng & Kottelat, 1994
  - *Betta pardalotos* H. H. Tan, 2009<sup>[16]</sup>
  - *Betta pi* H. H. Tan, 1998
  - Betta renata H. H. Tan, 1998
  - Betta spilotogena P. K. L. Ng & Kottelat, 1994
  - Betta tomi P. K. L. Ng & Kottelat, 1994
  - Betta waseri Krummenacher, 1986

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### **External links**

- Betta (https://curlie.org/Recreation/Pets/Fish\_and\_Aquaria/Freshwater/Species/Labyrinth\_Fish\_es/Bettas) at Curlie
- The Aquarium Wiki category on Betta care information for sub varieties

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