



BETTAS LINEAGES

Classification and Technical Details of Betta Matrices:

Colors and Color Distribution



STARTING WITH BETTAS

Breeding bettas in all regions of the world has two basic purposes: to generate income for the breeder and/or to generate satisfaction for the breeder. So, it's for professional purposes or amateur creation.

Betta breeders usually start the hobby with one specimen. They begin to enjoy handling – which is almost like a “therapy” – and start aiming for the reproduction of the goldfish. After some time, the aquarist buys a female and tries to reproduce them, if the first specimen is still alive.

With the passage of time and frustrated attempts, the aquarist begins to search for information in literature (books and articles) and on the Internet, social networks and contact with other breeders who have more experience. Retry attempts are made until there is a spawn.

When the aquarist finally obtains the first spawn, some problem may still occur in the development process of fingerlings in adults: lack of live food, temperature shock, variation in the search for physicochemical water parameters in the handling of fingerlings, and another infinity of these.

Finally, the aquarist is right in the reproductive management and starts to carry out several crossings, exchanging or donating fish to other breeders, friends and family, otherwise he starts to sell his specimens to other people and/or stores.

After this phase, the breeder begins to realize that his litters have an aesthetic beauty below what he imagined, with bettas without an aesthetic standard, totally random in their colors and color distribution (in addition to shapes) and, finally, without any consistency to the over the generations. That is, he wants to improve the betta's esthetic beauty and he can't; their crosses are thrown at random.

For certain creators who are reading these lines, it is possible that so far there is nothing new. But, anyway, we had to tell this story to introduce the need that breeders have to obtain in their litter's specimens of good genetic quality, that is, specimens that maintain their aesthetic beauty (colors and distribution of colors) with consistency, where most of the litter presents the desired and fixed pattern.

From this, the following questions emerge:

- a) What are the established worldwide color distribution standards?
- b) What are the strains that fit these standards?
- c) How to work these patterns?

This work aims to answer the above questions, as well as point to other works that we have developed up to the date of distribution of this ebook.

Come on?



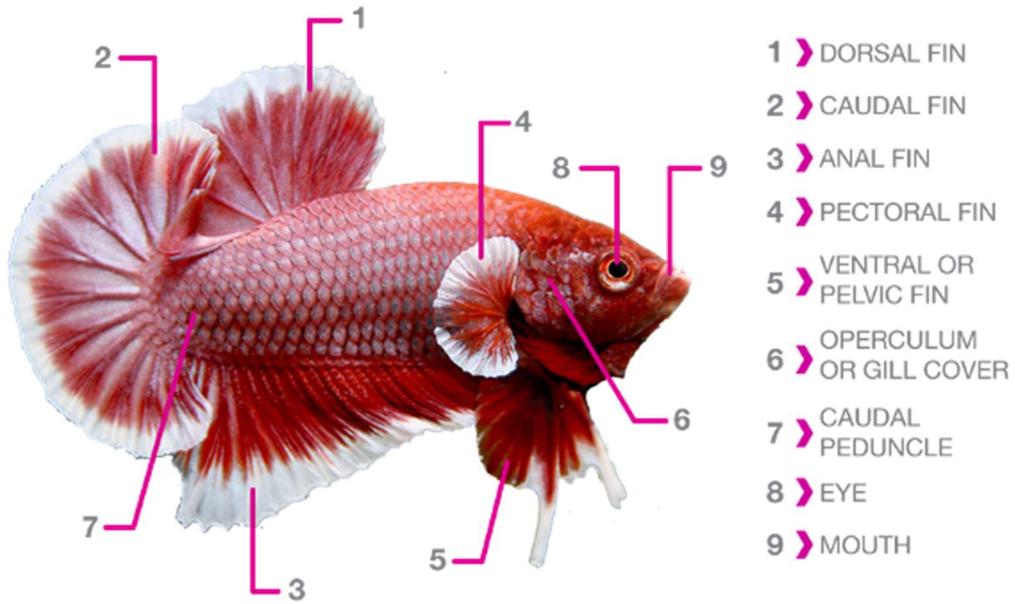
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1. Basic concepts

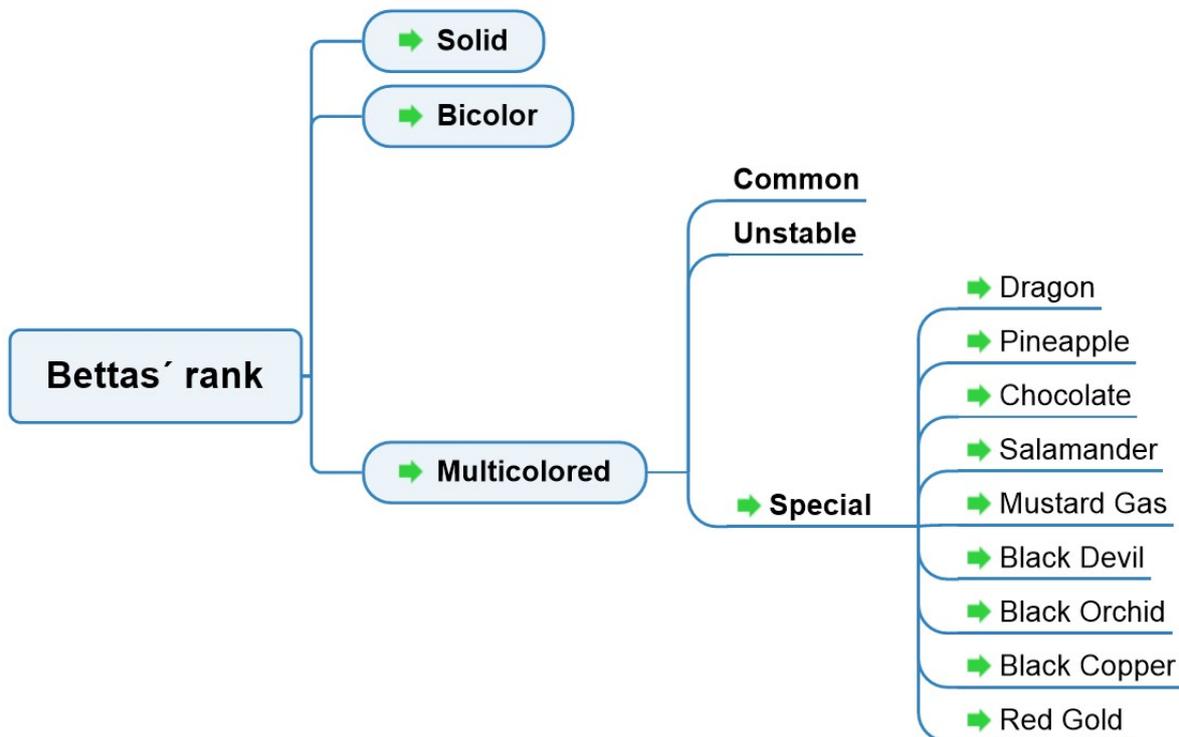
Initially, we need to briefly contextualize some terms. Without this, there may be gaps in some readers' understanding of this material. As our objective with this material is to standardize the level of information among interested parties, this becomes necessary. Are they:

- **Color distribution:** concerns how colors and hues are arranged (or distributed) on the betta's body and fins;
- **Color:** it is worth remembering: "color is defined as the sensation produced when light of different wavelengths strikes the retina of the human eye".
- **Color tone:** defines whether the color is lighter or darker;
- **Shapes in bettas:** determine the characteristics of the fins and body. That is, if the fin cloth is smooth, in the shape of a bird feather, rose tail, crown tail and others; the opening of the caudal fin, the size of the dorsal...
- **Aesthetics of the betta's body:** it is the body and fins proportionality; it is the set as a whole, from the point of view of formats;
- **Cloak:** corresponds to the color that only covers the betta's body (excluding fins);
- **Edge of the fins:** is the color that exists (if present) around the fins. It can be presented in just some or in all of them. Later you will understand better;
- **Phenotype:** it is an important concept adopted in Genetics and is usually defined as the set of observable characteristics of an organism;
- **Lineage:** a lineage betta is that specimen that transmits a set of visual characteristics (colors, color arrangement and formats) that are perpetuated in subsequent generations;
- **Fins:** see the image below. She introduces them, along with other parts of the betta.



2. Bettas´ rank

After all, what ranks bettas? Ratings for breeder display and greenhouse/breed analysis purposes are given by color distribution and, in some of them, by colors as well. The mind map below presents these classifications.



Note that there is a green arrow in some classifications and not others. This goes back to what a lineage is. Later, you will understand the complications that exist in classification groups without the aforementioned arrows.

This list will always be growing and updating. Nothing prevents new strains to emerge over time (stability and consistency). And who knows, if this lineage is yours? It would be nice! Let's now deepen our search for information about rankings!

SOLID BETTAS**3. Solid bettas****What are solid bettas?**

Are those specimens that have a color throughout the body and fins;

What are the criteria for evaluating solid bettas?

- Ideal: single color in a single shade on body and fins;
- If not, they will lose points in careful evaluations.



Blond Turquoise



Yellow



White Platinum



Red



Royal Blue

4. Bicolor bettas

What are bicolor bettas?

They are those specimens that have one color on the body and another on the fins.

What are the criteria for evaluating bicolor bettas?

- Ideal: pectoral fins the same color as the other fins;
- There must not be different infiltrations in the body and fins (iridescent shine, scratches, spots or spots) or dark net over the body;
- There must be no color failure on the fins;
- If not, they will lose points in careful evaluations.



Chocolate



Red and Blue



Camboja

Note that the chocolate betta is a strain framed as a special multicolor, which classifies it by color. In our analysis of bicolors, it obeys the bicolor classification, although it is not correct, as it has its own class.

COMMON MULTICOLORED BETTAS

5. Common multicolored bettas

What are common multicolor bettas?

They have two or more colors on the body and fins, not complying with any of the other classifications.

What are the criteria for evaluating common multicolored bettas?

There are no color and color distribution criteria for these bettas. They should be disregarded from serious breeder shows, as they do not have replicability of their phenotype over generations. They do not have colors and/or pattern defined that are replicable. That is, they are not of bloodline. See some examples below:



6. Unstable Multicolor Bettas

What are unstable multicolor bettas?

Unstable multicolored bettas are those that have a change in color and/or color distribution over a lifetime, regardless of the amount of color, thus altering the characteristics of the phenotype.

What are the criteria for evaluating unstable multicolor bettas?

There are no evaluation criteria for unstable bettas. In serious exhibitions for creators, they cannot be used as an exhibition object. They are limited to decorative bettas, as a pet.

Still, they do not allow the development of strains, as their instability of colors and/or distribution of colors mischaracterizes the strain.



7. Special Multicolor Bettas

What are special multicolor bettas?

Special multicolor bettas are strains that have fixed over time. They are, therefore, stable works, where the tank class pattern can be applied (different specimens from the same litter with the same colors and distribution of colors) submitted to exhibition, where they will characterize the lineage. Are they:

7.1 Pineapple

- Are non-red bettas;
- They have a grayish greenish color;
- Yellowish or yellowish green fins;
- May have a dark edge over the scales and all the edges of the fins;



7.2 Chocolate

- Are non-red bettas;
- Brownish color body or coffee with milk;
- Yellowish or yellowish green fins;
- May have dark edges like pineapple;
- It could be classified in the bicolor and solid classes, as long as the fins were yellowish or yellowish green;
- Dark edged on the fins;



7.3 Dragon

- Pigmented base color on fins: red, black, yellow, cambodian, pink, orange, pineapple or chocolate
- Over the pigmented color, cloak with a strongly opaque iridescent color (white, blue, greenish or Copper)
- Preferably, they should have a sensation of convexity in the scales (opaque sediment on them);
- The less opaque dust on the fins, the better the dragon pattern;
- Mantle: must be closed. Infiltrations of the mantle, transverse to the fin rays, are not welcome;
- Radial infiltration of fins is acceptable;



7.4 Salamander

- Betta with a pigmented body color and/or iridescent color, and all fins also with butterfly, including pectoral fins, this color being equal to or different from that of the body;
- In the classic type of Salamander bettas, the head does not keep up with the remaining opacity in the body, but some newer ones have already started to show the same color composition on the head as the rest of the body.
- Salamander must have the butterfly trace. This means that all fins must have this marking, otherwise it cannot be classified as a butterfly, either with wide or narrow bands (thin edged).
- The best examples have lipstick in the color of the butterfly;
- If the body color is pigmented, you can have the iridescent steel blue color over it;
- In case of body with an iridescent color, or pigmented homogeneously mixed with an iridescent color, we can only have a scattered whitish powder on the body;



Lavender



Blue Salamander



Purple Salamander



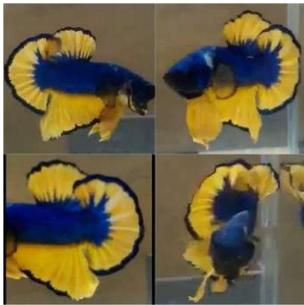
Pink Salamander



Yellow Salamander

7.5 Mustard Gas

- Multicolored bettas, with a dark royal blue or steel blue body marking;
- Greenish yellowish fins with royal blue or black butterfly, either in the form of edging or a wider band.
- Some have yellowish or orange fins;



7.6 Black Orchid

- They have a dark body and an iridescent, steel blue or turquoise infiltration over it;
- Fins have a black background, and on them the same radial infiltrations present in the body;
- Must not have any other pigmented infiltration besides black, that is, reddish, orange or yellowish;



7.7 Black Devil

- It has a dark or black body, with a steel blue infiltration and red fins, like a black butterfly;
- Most have a crowntail fin shape, but any other fin shape can be found;



7.8 Black Copper

- Feature Copper dark copper – jade green, gold and even purple;
- Fins showing brighter radial infiltrations, in the same copper tone as the body;
- Must not have any pigmented infiltration other than black, which is inherent to black Copper.



7.9 Red Gold

- They are reddish cambodian bettas that exhibit a sepia transparent layer on the betta's pink body – a coppery golden color;
- This transparent layer may or may not be mixed with a strong opacity on the body and a slight opacity on the fins;
- They must show a golden radial infiltration in the fins;
- Must not display any butterfly;



8. How can those strains be obtained?

Do you remember the story we presented at the beginning of this work, when the breeder starts his journey in the **bettas with Superior Genetics**? At this point, it is important for the breeder to seek information and apply it to his squad, through the selection and analysis of his matrices. Note that the betta has a multitude of shapes, which characterize the fin cloth, betta size, fin contour, aesthetic pattern, colors, and color distribution.

In our **Course on Betta Genetics** we present 99+ genotypes of working with bettas and 60+ traits that define the visual characteristics (the aesthetic beauty) of the betta. Our proposal is video lessons accompanied by additional material that allow the breeder to have more information in their analysis aiming at the selection of breeders, significantly increasing their chances of better results in their litters.

If you are one of these breeders who want to improve the genetic quality of your litters, visit our course. On our website we provide more information.

We wish you success with your bettas!

Regards,

Betta Project Team

www.bettaproject.com