

# Sexing koi

So you thought that telling the difference between male and female koi was easy? Think again! Mike Snaden explains...



Here you can see two koi together that are 'brother' and 'sister' from the same breeding. You can clearly see that the female (left) has much softer colour than her brother. The male koi has very high quality colour indeed, yet if the female koi had this redder colour, then she would be much less valuable, as her future would not be a good one.

**M**any people think that the sexing of koi is extremely straight forward, and that things like body shape, pectoral fin shape, or flipping the koi over and looking at the vent will give us the answer conclusively in just a few seconds.

Whereas this may be a relatively simple task, there are many misunderstandings over what constitutes a male, or female. My hope with this article is to help you to understand how the Japanese ascertain the sex of a koi before it is offered for sale, or kept as tategoi.

Sexing large koi is usually quite easy, and obvious. In most cases, a breeder can simply

## About the author:



**Mike Snaden** is the proprietor of Yume Koi in Bristol, specialising solely in very high end koi. He has supplied three out of the last four BKKS Grand Champions. Mike's specialised field is water and growing koi to their maximum potential, as a Japanese breeder would. This approach has given him considerable insight into koi.

One of the most common misconceptions, is that male koi have bigger pectoral fins than females



This four-year-old koi possesses the perfect body type in order to get Jumbo. She was 59cm as nisai, and now 75 as yonsai. Some might think that this body type were perhaps male as a smaller koi, but a joi with Jumbo genes will grow easily, and put on weight later in life. Beware of the plump koi!



Above: If you look closely at the fin of a female the surface, and particularly the leading ray, should appear as smooth as silk.

Below: The female vent in a sexually mature koi tends to protrude slightly, and also has a more prominent transverse 'slit' running across.



This female koi is a sibling of the male pictured on page 13. As you can see, the colour is softer, as you would expect. Other than that, there is little to differentiate between them. Such koi, as this one, need to be kept carefully in order that they don't finish up too soon, as their beauty can be short lived if finished quickly.

Whilst female koi will tend to have cleaner skin than males, their condition can change depending on their surroundings

flip the koi over and observe the vent or, if in doubt, check the koi for milt. With younger koi like tosai however, it is more a case of checking various aspects of the koi, and coming up with a percentage of odds of sex, like perhaps '80% female'. Although male tosai can be used for breeding in some cases, it is quite common for tosai not to be producing milt. This is when sexing as a measure of 'odds' comes into play.

## misconceptions

One of the most common misconceptions, is that male koi have bigger pectoral fins than females. A koi's fin size is absolutely no indication of sex. It is fair to say that some males can sometimes have pectoral fins that are a little more rounded, like table tennis bats, but just because a koi has fins that are this shape, or aren't, is no sensible way of sexing them.

What we can glean from a koi's pectoral fins though is from their texture, and profile. Males will tend to have rough leading rays to their fins, but this isn't always the case.

Sometimes this roughness can't be felt, but can be seen. This is why you will see breeders lift a koi from the bowl and watch the water run off the surface of the pectoral fin. If female it should appear shiny and smooth, but a male will look somewhat grainy as the water runs off. In addition to doing this, the breeder will also check the profile of the leading ray of the fin. You see, a male koi's leading ray will tend to be thicker (stronger), with a slightly blunt front edge. Females, on the other hand, will have a more delicate leading ray, with a front ray profile that draws to a finer front edge.

A more common way of checking if a koi is male (when looking for males for breeding) is to check the gill covers for roughness. But this method is only really good for checking if a male is in breeding condition, as during the rest of the season the koi will more often than not have smooth gill covers, so this method is useless if you are looking for female koi.

## colour development

Male koi tend to develop more quickly in



Above: Despite this male koi's fin feeling smooth to the touch, you can clearly see that when the water runs off the fin the surface of the leading ray is grainy in appearance.

Below: The male vent tends to be tighter and slightly receded in appearance in koi that are sexually mature. In the case of tosai, male and female koi can often not appear any different.



This male is of reasonably high quality and, as you can see, the colour is very red. Male koi stay in good condition very easily, and are very well suited to harsher environments.



If you are looking for a male koi for breeding purposes, you can gently squeeze and run your hand towards the vent. If milt comes out, then it's male. But, don't assume that the fish is female if there isn't milt!

terms of colour and sumi. This is largely why small males are frequently entered into koi shows. So, a male Go-Sanke will generally have redder colour, and the sumi will tend to be more developed and finished. But, once again, this isn't a method that should be used when trying to sex koi. Even from the same breeding some male koi will have colour that appears softer, like a female, and some females will have colour that appears harder, like a male.

To further complicate things, different quality levels between siblings exist, as well as the fact that some koi will take on characteristics, like colour, from the male parents, and some will have the characteristics of the female parent.

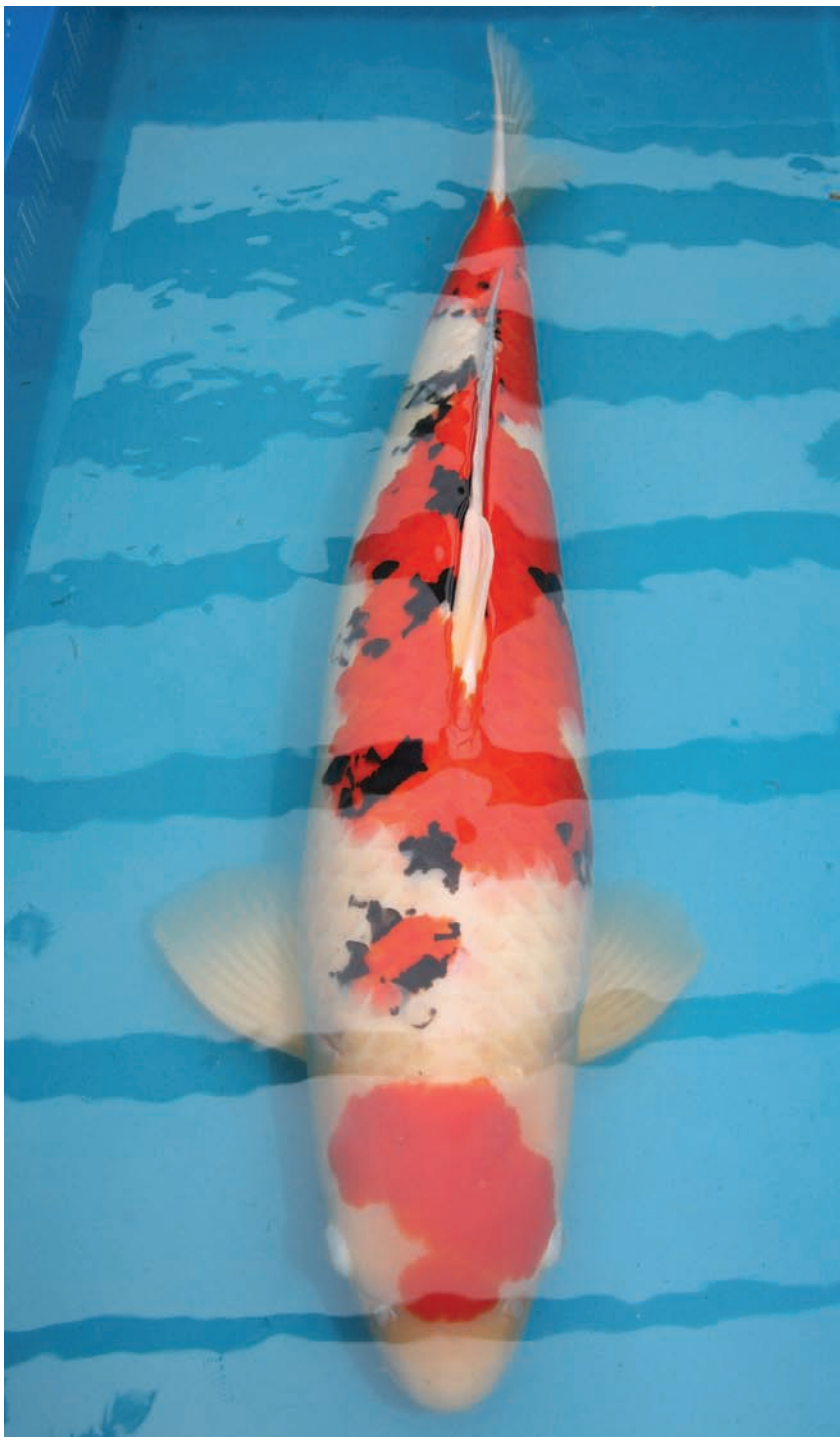
It is quite commonplace for people to express their opinion of the sex of a koi because of the appearance of its skin, or perhaps the white skin on the head looks a little yellow. This can be the case with koi but, once again, is something that should be disregarded. Confused? Whilst female koi will tend to have cleaner skin than

males, their condition can change depending on their surroundings. The feeding of higher protein food, particularly at warmer temperatures, can cause the skin to become either slightly muddy in appearance, or very slightly yellow. Colour enhancing foods can also cause the same effect. It is also common for females (particularly large koi) to take on a muddy or yellow appearance during late August and September. This happens because of the koi going through its natural process of breaking down and disposing of eggs. Once this process is complete the skin will become brighter once again.

### body shape

Body shape is a tricky area when it comes to choosing koi. Many inexperienced hobbyists will often make the mistake of thinking that a female koi is in fact male, or vice versa, based on its body shape. Not only is it possible to make a mistake by judging a body shape, but it is also possible to buy an inferior koi if judged on this basis. ▶

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This koi is one I have grown from tosai of 28cm, and now measures 75cm as yonsai. It is rumoured that male koi don't get big. But, there are exceptions to the rule, providing the koi has the right body type and genes. It is my intention to grow this koi to 85cm despite being male. Even female koi have to have the right credentials in order to be potentially Jumbo.

With high-end female tategoi the challenge is to keep the koi from finishing until it becomes Jumbo...

Male koi will tend to be slimmer than females, granted. But, young males will tend to have more body to them, and have a tendency to become slimmer as they get bigger. But this isn't always the case. Some male koi can become Jumbo, and even have big bodies like females. Likewise, female koi can often appear to have male bodies. In fact, when buying relatively young koi, like nisai (two-years old), a more desirable

female will have a strong, but slim, body. A koi with a great deal of volume at this size, and particularly one that appears to be carrying eggs, will seldom get big.

It should also be pointed out that not many female koi will grow Jumbo. Genetics plays a huge part and, even with the right genetics, you need to buy a koi with the right body type if you want one that will get big. In other words, don't simply buy female koi because you think they all get big.

## reaching a peak

Another consideration when looking at male or female koi, is the duration of fun you can have from them. Male koi develop faster but are generally easier to keep, and stay looking good for a long time. Females on the other hand are the ultimate fun, if you have good raising techniques.

With high-end female tategoi the challenge is to keep the koi from finishing until it becomes Jumbo, and then slowly raise it to its optimum condition. The reason for growing females in this manner is that their colour and sumi develops more slowly than males. Also, once a female reaches its peak it will then start to decline again in quality a year or two later. This is the reason that high-class females should be nurtured ideally in softer water, or mud ponds. The mud pond inhibits the koi's development, hence creating a koi that reaches its peak later in life, making for a much more beautiful koi as Jumbo.

If on the other hand you raise a koi in harder water, or you choose to use a lot of clays or other mineral additives, the koi will reach its peak much earlier in life. Whereas these clays and mineral additives are great for conditioning koi for shows, they also limit the growth of the koi. If raising koi in such a manner, it is almost pointless trying to make it Jumbo as the condition of the koi will be on the decline a long time before it gets big!

## look to your limits

As far as growing koi to Jumbo are concerned, if you know that you can keep females in fantastic condition, and make them Jumbo, great! But if you can only perhaps grow (or only wish to grow) koi to a maximum of say 70cm, then perhaps you are better off looking for male koi that have a likelihood of getting reasonably big. At least such koi will keep in good enough condition for them to get as big as you are hoping for. 鯉