

Observation is Your Most Important Pond Keeper's Tool

By Ray Jordan

In the colder months it is easy to become a complacent pond keeper. Most plants go dormant and to a certain extent so do your fish. Because of cooler temperatures we feed fish less or stop feeding for a period of time. Also, because it is colder outside we spend less time watching our ponds and fish. This makes spotting problems more of a challenge.

Recently I was sitting by my pond and noticed some odd behavior. "Pearl" my large Shiro Utsuri (Black & White koi) was having her lip suckled by another koi. It almost looked like they were kissing. As I bent down closer to get a better look I saw a pink area on the outside of Pearl's mouth. Since pink isn't a normal color on this type of fish I wanted a closer look in case it was a scrape or something that needed to be treated.

I caught Pearl and found a raw bloody area about the size of a half dollar that was mostly hidden in the crease between her lip and jaw on the side of her mouth. Since I was not feeding much with the cooler temperatures I had not seen a problem until now. Luckily I saw the unusual behavior and a flash of pink something and decided to get a closer look.

I put Pearl and some pond water in a large cooler and could now see there was a problem that needed attention. I added an anesthetic to put her to sleep. Some of you may feel uneasy about putting your fish out in order to treat them but I feel it is much kinder and less stressful to both you and your fish than trying to wrestle with them.

The cheapest and easiest anesthesia to obtain is Oil of Cloves which is sometimes called "Eugenol." This can be purchased at most pharmacies or health food stores. Use 5-10 drops per gallon of water to be treated. (Note - be sure to aerate the water vigorously when using anesthesia to insure your fish do not suffer from lack of oxygen while they are unconscious) I usually start with about 5 drops per gallon and add more if the fish has not gone under in 10-15 minutes. For some fish you might need to add more drops to put them asleep. Also, I have occasionally heard that some oil of cloves may be "weaker" than others? Anyway, start low and go slow until you have some experience. The size of the fish only matters in that you will need more gallons of water to cover larger fish and therefore more anesthetics but the concentration per gallon will be the same for small or large fish. You can tell when the fish are ready by rolling them on their backs, if they do not struggle, you can begin work.

After treatment gently return fish to the pond or hospital tank. They will need to be cradled in your hands upright just under the surface until they are ready to swim on their own. This usually takes a few minutes. You can help them wake up by gently pushing them forward and backward to pump fresh water over their gills. After Pearl went under I was able to examine her thoroughly. I found several small red bloody places under the skin on her belly. Now I was really alarmed. These spots most likely indicate some type of internal infection.

More extensive treatment was now going to be required. Instead of a simple topical antiseptic treatment of the sore on Pearl's mouth, it was apparent that Pearl was in serious trouble and needed antibiotic injections and a few weeks in a heated hospital tank to stimulate her immune system. Systemic (internal) infections have to be treated early and seriously to be successful.

Here are the steps I went through to treat this infection.

First, I gave Pearl an injection of Amikacin which is a proven antibiotic for fish infections. Then I carefully laid Pearl on a plastic bag on the lawn and using several clean paper towels I wiped all the protective slime off the infected area near her mouth. This is so the antiseptic can saturate the infected area completely. However, you do not want to remove the protective slime from the rest of a fishes body so laying it on a plastic bag helps keep its slime intact. I use a strong (5%) iodine solution for an antiseptic. Drugstores usually only stock the weaker 2% iodine but you can ask them to special order the stronger 5%. Then I placed Pearl in my heated filtered hospital tank with Oxolinic acid (antibacterial power) added to the water. I also added salt at a rate of 1.5 lbs per 100 gallons.

For the next two days I anesthetized Pearl and gave her additional antibiotic injections. (Note: It is important not to reapply antiseptic to the same area!) Healing usually begins very quickly in fish and if you reapply antiseptic to the infected area you are destroying the thin fragile new growth of tissue and slime that is trying to cover and protect the area.

The red patches on her belly had disappeared and the sore on her mouth had started to fade and heal by the fourth day so I stopped the antibiotic injections and water treatments and continued monitoring to make sure she continued to recover. After ten days she was back in perfect shape without even a hint of the earlier problems. I plan to leave her in the heated hospital tank for another two weeks just to be sure she is completely well.

I have a couple of additional comments regarding treatment of bacterial infections in koi & goldfish. Unless you have great water quality and can raise the water temperature to 70 degrees you are likely to fail no matter what you do. Stress is the major culprit in fish diseases and the worse type of stress is caused by poor water quality. You need a treatment tank that has a healthy and active biological filter to be able to rehabilitate your fish in the best conditions. This means you need to have a couple of small fish that live in this tank at all times to keep the filter active. Also, you need to be able to heat the water to about 70 degrees. I use four 300 watt submersible aquarium heaters to heat a 400 gallon tank. It seems to take about 300 watts per 100 gallons. You will need to insulate your tank in some way and it will need to be covered with something to prevent the loss of heat and maintain a 70 degree temperature.

Also be careful about adding too much salt to your treatment tank. 1-2 lbs per 100 gallons is about right. If you add too much salt it will interfere with the healing process. A normal fishes skin and slime coat contains many types of "good" bacteria that help maintain its healthy condition. If you use too much salt or if you use antibacterial water

treatments beyond the first few days be aware that you are making it more difficult for the beneficial bacteria to thrive as well.

A few years ago I learned a lesson when one of my favorite fish developed an infection. It was an expensive fish so I decided to get very aggressive with the treatments. I injected the fish daily with antibiotics, heavily salted the water to about 3-4 lbs. per 100 gallons and doubled the normal dose of antibiotic water treatment. Unfortunately, the fish did not respond well. The ulcer did not get worse but it did not start healing after a week of treatment. (As ulcers begin to heal the edges of the ulcer will turn white and the bloody tissue will darken. As the healing continues the entire ulcer area will turn white.)

I repeated the treatments for a second week. I still couldn't see much improvement. This was unusual in my experience because fish normally get well pretty quickly or occasionally worsen and then the koi die but again pretty quickly. I called Andy Moo the owner of Andrew's Koi International in Anaheim, California. I told him what I had been trying and he told me I had been over treating. I stopped all antibiotic treatments and reduced the salt level to no more than 1 lb. per 100 gallons by doing a major water change. To my joy and amazement the fish started healing quickly and recovered completely.

I have learned to avoid the temptation to increase the recommended amount of treatment and follow the recommended dosages. Over use of antibiotics can result in killing the "good" bacteria not only in your filter but also on your fish.

Your fish's behaviors can tell you if something is wrong. You just need to be observant and "tuned" into their normal behavior patterns. If they are all acting similar and things appear OK the odds are everything is fine. However, if a fish acts different or hangs off by itself something is probably wrong. A pretty clear indicator of a problem is a fish that doesn't swim or feed with the other fish. One of the best times to observe your fish is while feeding. Look to be sure all your fish are feeding actively. Look at their open mouths and bellies and at their anal vent area for redness or sores. If in doubt about what you are seeing, catch the fish gently and examine it carefully. Early detection is always the best prevention of more serious problems. Happy Ponderings