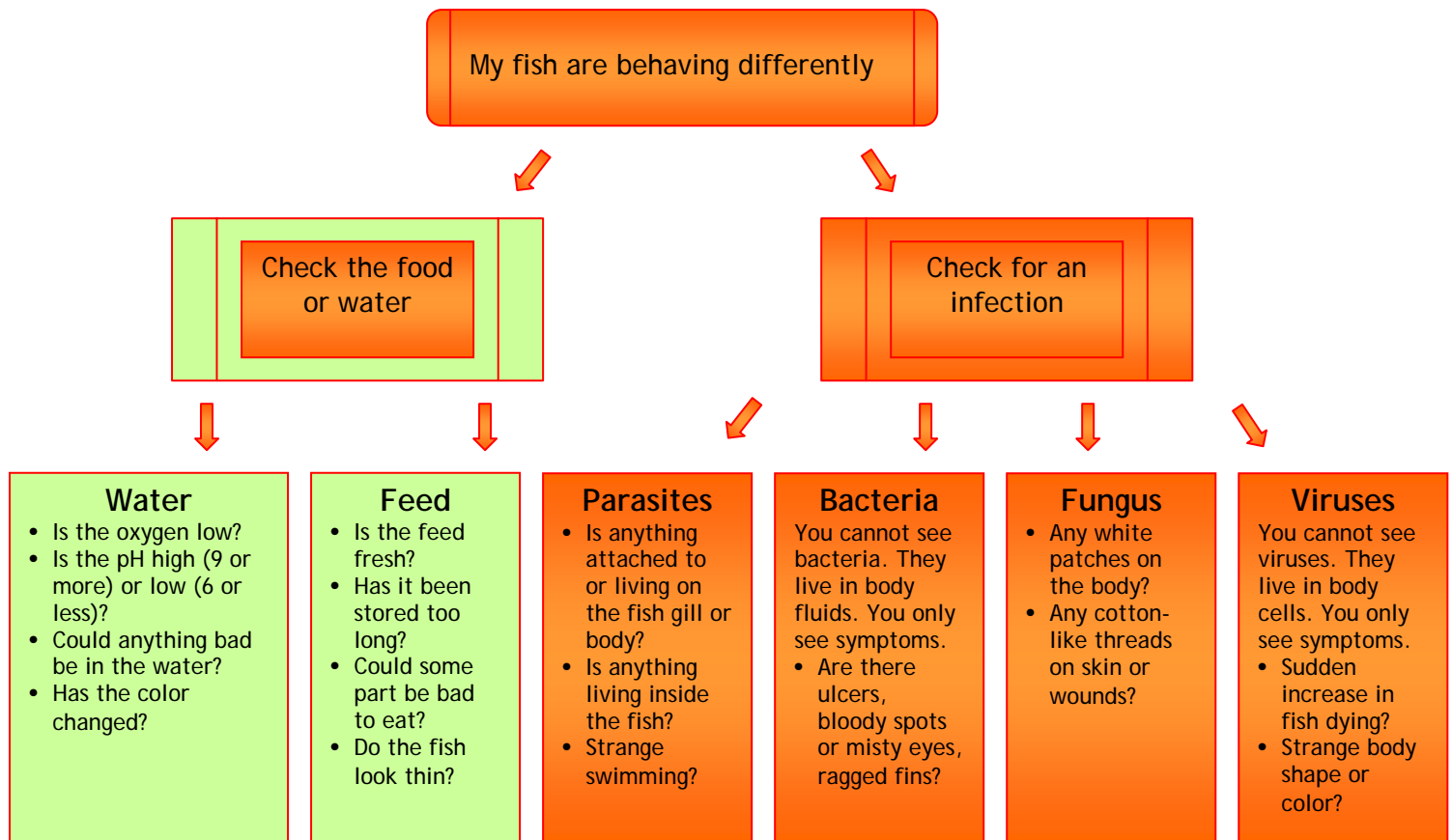


Recognizing and Managing Common Fish Diseases

If the place where fish live is good and healthy, fish rarely die from diseases. If we stress fish by roughly handling them, by keeping too many together, or by not feeding them well, they may suffer from disease. Depending on the disease, we may see lots of fish die in a short time, small numbers of fish deaths every day, reduced growth, marks on the fish, or a change in the way they look or swim.

What is the problem?



What you can do about it

Water

- **Oxygen low** - Add fresh water. Beat the water with sticks. Pump water around. Add potassium permanganate.
- **pH high or low** - Add lime to water and spread it over the pond at 250 kg/ha.
- **Pollution** - Look to see if anything dirty has got into the water. Remove it or move the fish.
- **Algae which are bad** - We fertilize to get tiny plants that fish eat. But algae are bad and kill fish. Ask a fisheries officer if you think you have this problem.

Feed

- **Fresh** - Try to use feed when it is fresh.
- **Store it carefully** - Keep feed dry and out of the sun.
- **Don't use bad feed** - If feed is covered by white threads, it may be affected by fungus and should not be used.
- **Feed enough** - Make sure the fish have enough to eat from natural feed and added rice bran and oilcake.

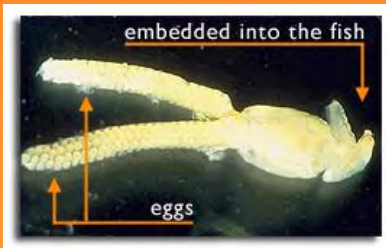
Parasites

- Look carefully at fish that are behaving differently (sick fish that are alive are more useful than dead ones).
- Look at the skin, inside the gills and inside the body.
- Can you see any worm-like or crab-like animals attached to or moving on the fish? Is there a lot of slime on the fish? Are there ulcers on the skin?



I'm a fish louse.
I attach to the body or move about on the skin.
You can see me, I'm about this big ↔
I cause a lot of problems in ponds with a lot of organic matter.
I feed on blood, leaving big ulcers. The fish make lots of slime.
I cause damage which allows other things to attack the fish.
The fish try to scrape me off. They become sluggish and don't eat.

- For fish louse and anchor worm the fish can be bathed for 1 minute once a week for 3 weeks in Malathion (0.25 mg/l). TAKE CARE since this is a pesticide. See a fisheries officer.
- Clean up the pond.



I'm an anchor worm.
I attach to the gills and body.
You will see a large number of dark, thread-like tails.
I am a big problem for Catla.
Fish affected by anchor worm become weak.



We are flukes that attach to the gills and skin.
You may see blood and white patches of skin.
We cause a lot of problems in ponds rich in organic matter and kill lots of fish in nurseries.
We cause damage which allows other parasites to attack the fish.

- Bath the fish in formalin at 20-25 mg/l. TAKE CARE since formalin is toxic. See a fisheries officer.
- Clean up the pond.

Some parasite are less easy to see, but you see the symptoms.



I'm the problem but you can't see me.

I cause white spot disease. Fish look like they have been sprinkled with salt.
I kill fry and fingerlings.
I am really difficult to treat.
My life is like this: (over 5 days) I grow on the fish. I burst out and go to the pond bottom. Babies are born and swim about affecting other fish.



I'm the problem but you can't see me

I cause damage to the gills and skin.
You may see blood or white patches on the skin.
Fish become slimy. Some have problems breathing. I kill fry and fingerlings.

- Bath fish in salt solution for 1 minute (mix 20 g of salt per liter of water in the bath).

Bacteria

- If you notice fish are dying, a few each day or in larger numbers, you may have a disease caused by bacteria.
- Sometimes there are symptoms which you can recognize.

'COTTON WOOL' DISEASE appears as white spots on the head, lips and fins and may then cover the whole body.

This is different from the fungus diseases below.

- A 15-minute bath in potassium permanganate (20 mg/l) or its wiping onto the affected areas of the body is a good cure.

TAIL AND FIN ROT DISEASE affects all the stages of fish, from fry to adults, resulting in the gradual loss of tail and fins.

- Treatment with copper sulphate (500 mg/l) on the affected area.

ULCER DISEASE appears as white tuft-like patches on the body, which damage the skin and leave circular, dark red ulcers. When acutely diseased, the fish dies.

- Clean up the pond and use lime at regular intervals. Add Oxytetracycline (25 mg/kg) to the feed for seven days (this is an antibiotic).

BLOOD POISONING is when large bleeding cuts appear on the mouth and gill covers, around the anus and the base of the fins, and causes young fish to die.

- Add Oxytetracycline (50-70 mg/kg) to the feed for ten days.
- Add methylene blue (4 mg/l) to pond water each week.

EDWARDS DISEASE can kill all your spawn in 1-3 days. It is a common disease of carps, especially mrigal, during winters in ponds poor in fish food. The fish become pale and thin, sometimes with pinhead-sized reddish spots over the body and, when cut, give out an offensive smelling liquid.

- Water quality improvement is the only solution to curb the disease from spreading further.

Fungus

COTTON WOOL DISEASE affects eggs, fry and fingerlings, and fish that are injured due to netting and handling, or when affected by other diseases causing skin problems.

This is different from the bacteria diseases above.

- Treat infected eggs or fish with 1 mg/l Malachite green bath for up to 1 hour.
- Fry benefit from a 2% salt bath which helps them to flush the fungus from their gills.



EUS is caused by fungus. It occurs soon after the rains or the beginning of winter, leaving red ulcers on the body that become infected, for example, with cotton wool disease. The disease is common and can spread rapidly.

- CIFAX, developed at CIFA, Bhubaneswar, when used at 1 l/ha-m stops EUS from developing and treats infected fish, stopping mortality and improving the condition within seven days.

Viruses

It is not possible to treat viruses!



A milligram is small (1/1,000 grams) and difficult to weigh. For the treatments discussed above, ask a fisheries officer for help.

Useful Contacts

Other Better-Practice Guidelines

There are many more Better-Practice Guidelines in this series.

You can get more copies of this and other Better-Practice Guidelines from your local One-stop Aqua Shop, STREAM India Communications Hub, from the STREAM Regional Office or from the STREAM Website.

www.streaminitiative.org

We would like your feedback about these Better-Practice Guidelines. You can let us know by phoning, emailing or writing to the Communications Hub Manager at your STREAM Country Office.

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