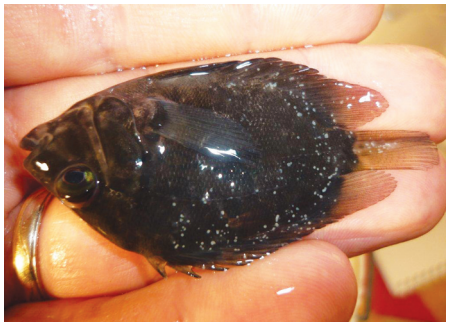
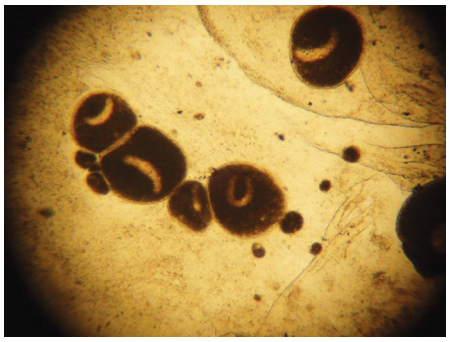




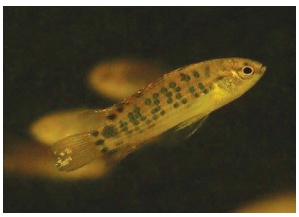
Clockwise from top left: (1) Real white spot (*Ichthyophthirius*) on rainbow fish *Melanotaenia boesemani*; (2) Real white spot Ich on Uaru cichlid; (3) White spot of Uaru under the microscope; (4) New aggressive white spot *Neoichthyophthirius schlotfeldti* on *Chrombotia macrantha.*

It looks like Ich but is it Ich?

Ichthyophthirius multifiliis (or white spot disease, Ich) is one of the most common parasitic infections in ornamental fish. If we are not careful (and do not take heed of biosecurity rules), it can spread in our fish house or breeding tanks. It is very contagious! We are lucky that, in most cases, this parasite shows itself as clear white spots on the fins and skin! At the same time, it also infects the gills. In some rare cases, it hides ONLY in the gills and does not appear on the body of the fish: it seems that gills are a very good location for safety and survival of this parasite.

Infections of Ich usually appear after stress and a drop in temperature, such as during shipping of fish in winter; during fall and spring with fluctuations in temperature; careless water changes (usually refilling with water at too low temperature), *etc*. Prevention is always better than cure. If this infection is detected too late it might become useless to treat since the parasite could have destroyed the skin and gill tissue, with secondary bacterial infections.

Make sure the temperature is "under control" and that good food (recommended with natural immunostimulants like beta-glucans or chlorella) is given to strengthen the resistance of the fish. Be careful with fishing nets, tubes, hoses, hands, *etc* so that there is no contact with other tanks. Especially when a tank has infected fish, make sure you tag the tank clearly so the risk of spreading the parasite is totally avoided.



From left: (1) *Colisa* gourami with white spots that look like Ich but which are actually caused by a sporozoan and is incurable; (2) South American tetra with white spots caused, not by Ich, but by encapsulated digenetic trematodes (also untreatable); (3) *Badis burmanicus* with a cluster of white spots on its tail caused by the virus *Lymphocystis.*

Dr Gerald Bassleer

As treatment, a good water change is recommended (with water of suitable temperature) with siphoning of the tank bottom (which eliminates the free-swimming stage of Ich). Treat the fish for 7-days with malachite green and also an antibacterial treatment when lesions are present (possible secondary bacterial infection). Treatment should be for at least 7 days because this parasite has a life-cycle where we can only kill the free-swimming stage (the juvenile Ich); the big white spots (adult Ich) cannot be killed with our medication.

In recent years, many dealers in tropical ornamental fish have had to deal with a new kind of white spot called *Neoichthyophthirius schlotfeldti* that has a somewhat different appearance (also under the microscope) and that will need at least a 14 days treatment with regular water changes and re-treatments. For more details on commercial medicines and on the life-cycle, the internet is a great help.

Although we are lucky that in most cases we can easily see the white spots, we still have to be careful when making our diagnosis! In some cases we can encounter infections that look like Ich. As some of the photographs show, we can easily be mistaken. This tells us that we should not always rely on our "naked eye" and that a microscope is very useful to determine the real Ich or other look-alike infection.

Dr Gerald Bassleer, a fish pathobiologist, has worked since 1977 in the ornamental fish industry. He has a wholesale facility in Belgium and works as a consultant for exporters, importers, wholesalers and pet shops. He has helped many businesses to survive by cutting down losses through implementing good protocols for staff and equipment. With 35 years of experience and speaking 5 languages, he is an international authority on fish health management.

Most people in the industry are familiar with his comprehensive book The New Illustrated Guide to Fish Diseases (containing 1 000 photographs) that is sold worldwide in six languages. His latest book, The Practical Guide to Fish Diseases, has been published in 2011 in eight languages, and will soon also be published in Chinese and Arabic. He is also the producer of Dr Bassleer Biofish Food with innovative nutraceuticals that help to care for the fish. For more details, please visit: www.bassleer.com.