

NOTES ON WATER QUALITY FOR GENERAL FISH BREEDING

by Joe Schill

The soft waters of tropical regions are very poor in bacteria and other unicellular organisms. According to Mr Stoli the following bacterial counts were recorded in the Amazon region, at a pH of 5.8-6.7:-

Hardness (°DH)	number of bacteria/mL of water
1	8
8	2 700
15	60 000

This may possibly explain why the eggs and fry of certain tropical fish seem particularly sensitive to attack by bacteria and other unicellular parasites. On the other hand, such attacks may perhaps be only secondary symptoms of direct chemical damage resulting from exposure to unsuitable waters.

The Preparation of Tap Water

In general, water drawn directly from the domestic supply is not suitable for immediate use in an aquarium, except, perhaps, in small amounts for topping up. Thus one usually needs to pre-treat tap water before it can be used on a large scale.

Because water in the supply system is generally colder than ambient temperatures and, moreover, is under considerable pressure, it contains quite large quantities of dissolved gases. These gases are mainly nitrogen and oxygen, derived from the atmosphere, but some chlorine is often present, as a hangover from the treatment plant. The chlorine and all but equilibrium concentrations of the air gases are dissipated when the water is allowed to stand at room temperature in an open (preferably wide-mouthed) container for 24 hours. Provided no bubbles are visible on the sides of the container, the water should then be suitable for aquarium use.

Note: never attempt to breed fish in softer water than 4° DH, better 6° DH>
