

# Conditioning Cichlids

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A primary goal of any aquarist be it freshwater or marine, should be habitat restoration for the housed species. This purist concept is firmly embedded in the marine hobby, but has not been prominently accepted by the freshwater hobbyist. Habitat restoration is more imperative within the Cichlid family than any other freshwater group. It is considered the largest and most diverse in the world of fish keeping, and continues to grow with the discovery of new species almost weekly. Most Cichlids are easily adapted to environments other than those from which they came, but in doing so, the aquarist sacrifices the coloring, behavior, and development seen in nature. Although Cichlids are easily adapted to a variety of environments, they will not thrive under such conditions.

Up until the early nineties, Cichlid products were designed as though all Cichlid environments were chemically the same, which they certainly are not. With the advent of Seachem's African Cichlid line, aquarists were able to provide the most natural environment for Cichlids regardless of the lake of origin by specifically targeting lake salt and pH parameters.

Cichlids housed using these additives have displayed dramatic improvements in appearance and health, notably increased growth rates, enhanced coloration and increased spawning activity. Seachem's Cichlid line is unique in the thoroughness of its formulation and dosing and is ideal for the replication of the different lake conditions.

The importance of a balanced concentration of essential ions, such as calcium, magnesium, potassium, and sodium cannot be overstated. Because of their location and surrounding terrain, the Rift Valley Lakes (Tanganyika, Malawi, & Victoria) have developed a high

concentration of dissolved minerals. Establishing and maintaining the correct concentrations in the Cichlid aquarium is essential to its success.

A testament to their importance comes from Doug Conkling, head of Northeast ProAqua, a Cichlid hatchery in New York. After experiencing improper development and high mortality rates with several substrate spawning groups, Conkling tested his water. He was surprised to find that total dissolved solids (TDS) had dropped well below what they had been in the past. This drop was likely the culprit, but at this point was hardly conclusive.

"Seachem contacted me when they began development of a new line of Cichlid salts. They planned to duplicate as nearly as possible the actual chemical analysis from the three great lakes of Africa: Malawi, Tanganyika and Victoria. This is in contrast to the available additives which were little more than combinations of Epsom salt and bicarbonate of soda".

Conkling devised an experiment to determine whether the decrease in dissolved solids was causing the fry problems or was merely coincidental. "Twelve substrate-spawning pairs were selected. Six received salt treatment (Seachem's Cichlid Lake Salt™); the other none. Of their next spawns, all six 'salt pairs' produced 100% viable spawns. The control group exhibited the die-off pattern seen previously." He determined that somewhere between 120 and 180 ppm TDS, there is a threshold at which fry development is threatened.

"[Conkling] also tracked the overall fry production since making the additions. Granted this is not a controlled situation. Breeding groups have been added and subtracted, foods and breeding techniques have



varied. Still the sample is large, and the 70% increase in total output is persuasive. Mouthbrooders as a group are harder to evaluate than egg layers. With the latter, you can monitor the development of an egg plaque. Mouthbrooders are more of a mystery. Often perfectly good eggs are spit or swallowed. Again (thanks to databases), [Conkling] could compile the before and after numbers. Focusing on 42 breeding colonies of *Tropheus*, fry production increased by 28% during the five-month test period."

Conkling admits to trying other similar products, and after experiencing no noticeable benefits, returned to using Seachem exclusively. He notes that as a matter of hatchery practice, he adds Seachem salts to all breeding and fry-raising tanks. "Since this time, I've used Seachem salts throughout my hatchery; especially with newly imported wild breeding stock. Closely matching the lake chemistry reduces stress during the acclimatization phase."

Conkling, Doug. "Guest commentary: Dissolved Solids and Fry Viability in Tanganyikan Cichlids." *Cichlid News* July 1998.