

Does Aquarium Water pH Matter?

Aquarium water pH is important in almost all situations.

By Jeremy Gosnell

Q. I have a freshwater aquarium with a mix of platies, mollies, guppies, swordtails and blue crayfish. I checked my pH only once and that was over a year ago when I first set up my aquarium. This made me wonder; does pH really matter that much? I can't even remember what the result of the pH test was and have never checked it since. All my tropical fish seem healthy and I have had very few losses. Perhaps the species I keep are just tolerant of my pH, or does the pH even have that big of an effect? I do frequent partial water changes and never add anything to the water to adjust pH. Am I just lucky?
Sandra W.
Missouri

A. I think most seasoned aquarists would agree that pH is of importance in almost all situations. The tropical fish you have are all fairly hardy and my guess is that your tap water's pH is in the somewhat acidic to neutral zone, (6.8 to 7.0). While in your experience pH has not seemed to be important, many other aquarists keep species not as pH tolerant and struggle with these values daily. An example would be the cichlids of Africa's Lakes Tanganyika and Malawi. They prefer a very alkaline pH of 8.5 or more, while the fish you are keeping prefer a lower pH with neutral being acceptable. Many people don't realize that the pH scale increases and decreases in multiples of 10. So a change from say 7.0 to 8.0 is actually very dramatic and effects tropical fish physiology quite a bit.

My assumption is that it isn't your original pH value that has kept your tropical fish from having problems, but the stability of your pH. Since many freshwater fish are born and raised in captivity they can adjust to a variety of water parameters; as long as they are properly acclimated. Many aquarists research a specific species and try to meet its pH requirements 100 percent. In some cases this is necessary, though often times a certain animal can be kept at a different pH than what it would be found in naturally. Discus fish are found in waters with very low acidic pH values and little dissolved oxygen. Though, they are bred in captivity in pH values of 8.0 or more.

All in all, I think pH is an important value even for freshwater hobbyists like you. A reliable pH test kit or electronic probe is an important piece of equipment for all aquarists. I recommend testing pH on a weekly basis just to make sure no sudden swing has taken place and so the hobbyist has a frame of reference about their aquarium's normal pH. Sudden pH swings can stress tropical fish causing a lack in immunities, parasitic outbreaks, bacterial infections and more. In some species too drastic a swing can cause a quick death.

If you are successful as a tropical fishkeeper, then my recommendation is to keep doing what you've been doing. Monitoring your pH will only help aid in your success and doing frequent partial water changes is often the best defensive and offensive approach to keeping your aquarium healthy. Sometimes aquarists go too far with the use of chemicals to alter pH. Many of these are highly unreliable and do nothing but stress aquatic life and cause major headaches for the aquarist. It sounds like in your case, partial water changes and the right selection of aquarium fish species has proven to be a far better and easier approach.