Glossary of Aquarium Terms

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simple guide to "fish speak"

The aquarium world can be a confusing place if you don't understand what is being said. Aquarists have their own language and knowing the lingo will make it easier for you to navigate through reading materials. Here are a few terms that may be important for the beginning aquarist:

Acclimation - The process of slowly introducing and adjusting fish or other organisms to new water conditions, usually following purchase or transport from one aquarium to another.

Air Pump - Mechanical device that compresses air and forces it into your aquarium, via flexible tubing. Used to run air stones, undergravel filters, or decorations and create air bubbles that add oxygen to aquarium water.

Ammonia (NH_3) - Toxic chemical byproduct produced during the breakdown of proteins in uneaten fish food, decaying wastes, or excreted by fish through natural metabolic processes. It is converted into nitrite and then nitrate by naturally occuring beneficial bacteria in a process called the nitrogen cycle.

Antibiotics - A type of medication generally used to kill or inhibit the growth of bacteria.

Aquascape - Contraction of "aquarium

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landscape." Refers to the overall physical design and layout of the aquarium interior including rock, plants, and accessories.

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Biological Filtration - The natural process of beneficial bacteria breaking down harmful ammonia to nitrite and then converting nitrite to less toxic nitrate.

BPM - Acronym for "bubbles per minute," used to measure the amount of carbon dioxide bubbles released into an aquarium system when using a CO_2 system.

Brackish - Water that has a slight salt content with a specific gravity ranging from 1.006-1.015. Found naturally where rivers meet the ocean.

Brine Shrimp - Tiny crustaceans often used as food for both freshwater and marine fish. Readily available live or in flake, freeze-dried, and frozen forms.

Bubble Nest - A floating nest of air bubbles held together by saliva to support the eggs laid by the female Anabantoid (such as Gouramis and Bettas), which are guarded by the male parent.

Canister Filter - Versatile, large capacity external filtration device located below the aquarium. An integrated water pump pulls water through layers of customizable filter media and returns clean water to the aquarium via hoses.

Carnivore - Organism that almost exclusively feeds on animals.

Chemical Filtration - The process of removing dissolved particulates through chemical reactions. The most popular example of chemical media are activated carbon and resins.

Chiller - Mechanical unit commonly used to lower water temperature to compensate for warmer ambient temperature. Heat generated by certain aquarium devices, such as pumps, filters, and lighting can facilitate the seasonal use of chillers.

Chloramine - Chemical compound of chlorine and ammonia used to treat municipal water, often as an alternative to chlorine. Harmful to aquarium inhabitants.

CO_2 System - Series of devices assembled to introduce and regulate carbon dioxide for aquarium use. Often used to supplement CO_2 levels to encourage lush plant growth. Also, a vital component of a calcium reactor.

Community Tank - An aquarium populated with fish of several different species, all of which are compatible with one another. They may originate from different regions of the world but are able to be housed together since they share similar water parameter requirements.

Cycling - Process of establishing biological filtration in an aquatic system by promoting the growth of nitrifying bacteria.

Doser - A liquid distribution system, either gravity-fed or mechanically pumped, used to maintain aquarium water levels. They can also be used to add a controlled supply of additives, such as kalkwasser, or trace elements to your system.

Filter - A device that circulates and removes some impurities from aquarium water. May be biological, chemical, or mechanical.

Fry - Recently hatched fish.

Herbivore - Organism whose diet consists mainly of vegetable matter.

Hydrometer - Sensitive instrument that measures the specific gravity and salinity of marine and brackish water aquariums.

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Ich - A very common parasitic disease characterized by white, salt-like specks all over the fish.

Internal Filter - A filter operated completely inside the tank, either fully or partially submerged. Examples include undergravel and sponge filters, which cultivate beneficial bacteria for biological filtration. Internal power filters provide superior 3-stage filtration.

Invertebrates - Organisms without a backbone, such as corals, snails, shrimp, and other shellfish.

Light Meter - Precision instrument that measures light intensity. It is the most accurate way to gauge how much light your aquarium inhabitants actually receive. This is especially important for photosynthetic corals.

Live-bearer - Any fish that gives birth to live young, such as Guppies, Platies, Mollies and Swordtails.

Mechanical Filtration - The process of physically removing solid debris such as fish waste, sludge, uneaten food, or dust from your aquarium as water passes through a filter media. Mechanical filter media varies by porosity, which controls the size of the particulate you can extract.

Nitrate - Chemical compound formed during the final stage of the nitrogen cycle. It is the least toxic nitrogen byproduct often used by live plants. In large quantities, however, nitrate is still dangerous to your aquarium inhabitants.

Nitrite - A toxic byproduct of the nitrogen cycle. Nitrite is often broken down and used by plants in a planted aquarium or can be removed with water changes.

Nitrogen Cycle - The natural process by which certain bacteria turn harmful ammonia, from fish waste and other decaying matter, into nitrite and then into less harmful nitrate.

Omnivore - Organism which feeds both on animal and plant matter.

pH - Measurement of relative alkalinity or acidity. A pH reading of 7.0 is considered neutral, with readings higher than 7.0 (up to 14) being alkaline and readings lower than 7.0, acidic.

Plankton - Small organisms that float or drift in sizeable colonies in fresh or saltwater and serve as food for fish and other aquatic organisms.

ppm - Abbreviation for parts per million, a measurement of a particular element commonly used in test kits.

Powerhead - Small, submersible water pump used to power undergravel filters, wavemakers, and other aquatic devices. When used alone they can create currents in stagnant aquarium areas, increase oxygen content, or aid in evenly dissolving supplemental additives.

Protein Skimmer - Filter that removes dissolved organic waste and particles from saltwater. These impurities are divided out of the water via air bubbles and channeled out of your aquarium in a foam form for disposal. Also known as a foam fractionator.

Quarantine Tank - An aquarium setup for newly acquired or sick fish to isolate them from the main aquarium for observation or treatment until they can be safely introduced.

Refugium - Aquariums used as an extension of saltwater or reef systems. They help filter and cycle water, grow natural food sources, stabilize water conditions, and serve as nurseries, acclimation, or isolation areas.

R/O Units - Short for reverse osmosis units, which are water purification devices that force pressurized water through a semi-permeable membrane. The membrane allows only pure water to pass through while trapping minerals and impurities.

Siphon - Usually refers to a tube/hose commonly used during water changes. Uses gravity and pressure to transfer water from your aquarium into another container at a lower level.

Slime coat - The slippery, protective mucous layer that covers the scales of fish. Helps reduce friction when swimming, defends against disease.

Specific Gravity - Measurement of the relative density, or salt content, of your aquarium water in comparison to pure water.

Substrate - Sometimes called aquarium gravel. Placed on the bottom of an aquarium, substrate can be purely decorative or functional. Decorative substrate is inert, causing little or no chemical/biological reactions while functional substrate contains minerals that influence water parameters such as pH and alkalinity.

Undergravel Filter - Filter placed underneath a layer of aquarium substrate. Powered by an air pump or powerhead, they pull water through the substrate, where beneficial bacteria colonize for biological filtration. They may also include a

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carbon or filter cartridge in the uptake tube for added chemical or mechanical filtration, respectively.

Water Change - The process of removing old aquarium water and replacing it with new water. Critical for maintaining a healthy underwater environment, free of pollutants.

Water Parameters - Usually refers to specific aspects of aquarium water chemistry necessary for maintaining healthy aquarium inhabitants. Fundamental water parameters include, pH, alkalinity, ammonia, nitrite, nitrate, and water temperature.

Wet/Dry Filters - Filter that exposes beneficial bacteria to both water (wet) and air (dry) for ultimate biological filtration. Unlike conventional biological filters, the filter media is not submerged. Rather, water is pumped through or over the bio-media, as it mixes with air, to promote optimum aerobic bacterial growth.

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