

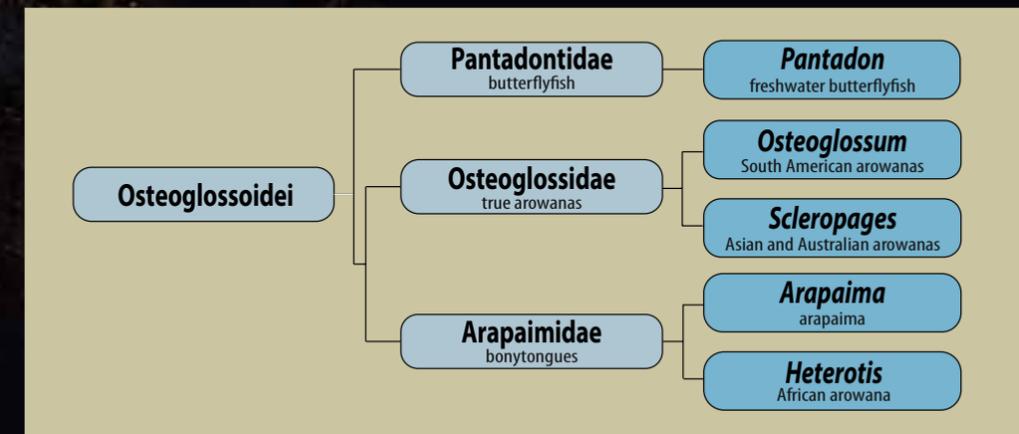


At 19 inches, this African arowana (*Heterotis niloticus*) sifting through the sand is only semi-adult. They can reach 3 feet (1 m) long and weigh over 20 pounds (9 kg). Photo: Joshua Pickett

Inset: Living (extant) species of the Osteoglossoidei family tree, simplified

Opposite page bottom: African arowana have large eyes providing them with acute vision in dark surroundings. Photo: Joshua Pickett

DRAGONS OF THE NILE



by Joshua Pickett • Fossil records indicate that the ancestors of the African arowana (*Heterotis niloticus*) have changed little over the span of millions of years. Josh Pickett introduces us to the ancient *Heterotis* lineage and also provides important information on what it takes to maintain the fish in a home aquarium.

A LARGE, AIR BREATHING, SILVERY DRAGON SWIMS in African water ways, occasionally finding its way into the pet trade. The African arowana (*Heterotis niloticus*) is an observant fish from the prehistoric bonytongue family which first appeared in the late Triassic, 220 million years ago. If you have seen these fish in your local aquarium shop (no doubt they spotted you before you found them), the first thing you probably noticed is their huge eyes relative to their body size. Vision is critically important for them; large eyes gather more light, aiding with vision at dusk and allowing for greater awareness of their surroundings, and prolonged exposure to

bright lighting may damage their eyes. In the aquarium, be sure to provide an area of dense foliage or surface cover (or dimmer lights), so they can seek temporary respite from harsh lighting.

African arowanas have interesting feeding routines that require adults to be on the move regularly; they must be able to see and recognize hiding predators, especially when they feed so close to the bottom where predators wait in camouflage. In aquaria, once they become used to you, African arowanas associate you with food. This is nothing unique among fishes with good vision, as those who keep tetraodontids (puffers) and channids (snakeheads) would agree, although an African arowana may be able to spot you quicker and from further away.

Phylogenetic Relationships

Despite their name, African arowanas are not true arowanas, but rather cousins of the arowana. Both belong to an order of ray-finned fishes called the Osteoglossiformes (commonly called bonytongues). Within this order are the suborders Notopteroidei (elephantfishes, aba knifefish, and featherfin knifefishes) and Osteoglossoidei. Following the path of Osteoglossoidei are three lower classifications, the families Pantadontidae (butterflyfish), Osteoglossidae (true arowanas), and Arapaimidae (also called bonytongues).

Arapaimadae contains two genera, the mighty *Arapaima* genus, a group of giant and bony South American fishes, and the monotypic genus *Heterotis*, to which the single species *H. niloticus* belongs. *Heterotis* has