



A saddled bichir (*Polypterus endlicherii*) glides through dark waters. Photo: Dany Kurniawa/Shutterstock

BICHIR: Through the Ages

article & images by Joshua Pickett, unless noted • Author of *The Bichir Handbook*, Joshua Pickett takes us on a journey into the deep past. Long before humans roamed the earth, there were bichirs...

IT'S A WARM, ARID MORNING, you wake up to find yourself lost in what appears to be a shallow marsh, surrounded by rough terrain as far as the eye can see, without any notable landmarks. It's silent, not even the chirping of insects or birds is audible. All you hear is a stream trickling at your feet. It's starting to get hotter, but there are no trees in sight, no respite from the sun. The only plants you can see are mosses and ferns—hardly enough protection! You panic. The air suddenly feels thinner, and you struggle to catch your breath. Unbeknownst to you, the oxygen is 75 percent of what you're used to, the equivalent of being 1.2 miles (2 km) above sea level. You have awoken in the Devonian Period—384 million years ago (mya).

You are on Gondwana, the super continent which once comprised the landmasses of Africa, South America, Arabia, India, Antarctica, and Australia. Terrestrial life is limited to microbes, primitive plants, and arthropods. That stream, however, is home to something special. Within it is an early ray-finned fish, the most basal in fact—the single ancestor of all the bichirs we enjoy in the aquarium hobby today. It is only a few centimeters in length with a short, heavy set body, but still looks recognizable as a type of bichir. How is it that this humble fish will survive through the next four major