Something's fishy: We got arms, legs and other skeletal features from our aquatic ancestors

In his 20 years as an ichthyologist, [John Sparks has] seen a lot of fish—intact and not. He's traveled to Madagascar, the Indo-Pacific, South America, and the Caribbean to inventory marine and freshwater species. And of course, he's helped tend to the 2,500,000 or so specimens back at the New York collection.

Here are some of Sparks's favorite facts about fish bones, people bones, and everything in between.

Humans owe a lot of their skeletons to fish.

Our ancient vertebrate ancestor, the lobe-finned fish or sarcopterygii, had pectoral and pelvic fins that evolved into arms and legs as tetrapods took to land. Though we don't currently waddle around with fins, the lobe-finned fish's pelvic girdle made our modern limbs possible.

Less widely known are the shared <u>bony ear structures</u> between fish and humans. As Sparks explains, fishy gill arches <u>evolved into our inner ear bones</u>. Some people are even born with the remnants of gills, which show up as <u>pinpricks</u> above their ears.

Fish show more variation in their bones than birds and lizards, Sparks says. That's why there's less morphological research on those other animal groups—their skeletons are relatively uniform. In contrast, fish have different skeletal features throughout the evolutionary tree.

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