

# On the trail of a nation's favourite fossil

by Lara Reid

*We reported in our latest newsletter, Hugh's News No 25, Summer 2015, that Hugh Miller's Devonian fish topped a poll as Scotland's favourite fossil group. Here science writer Lara Reid cites good reasons why she thinks they may have been chosen.*

Recently, though albeit a little quietly, the public voted for their top five favourite fossils originating from Scotland. The poll was organised by the Scottish Geodiversity Forum to promote Scotland's fossil record as being one of the most diverse and interesting in the world, as well as encourage public engagement with the range of fossils on their doorstep. Many people were intrigued to learn of Scotland's fossil record, and were amazed that Scotland laid claim to so many species spanning many millions of years.

From giant sea scorpions to trilobites, from ammonites to fossilized dinosaur footprints, from some of the earliest life on earth in the form of stromatolites and early land plants, we are lucky enough to have them all. So which fossil came out on top as the public's favourite? With dinosaurs in the running you may be surprised to hear that it was actually the Devonian fish that won the poll.

As the Scottish Geodiversity Forum's resident science writer (!), I was in charge of compiling and writing the publicity on the poll, including the write-ups on each of the candidates. This led me on my own 'voyage of discovery' into quite beautiful, ancient landscapes and seas. I ended up with so many favourites that I couldn't decide which I really wanted to win. When the results were announced at the end of March, I was delighted – how wonderful that the public choose something a little unexpected.

So why did the fish win? My initial reaction is two-fold. Firstly, they are beautiful. Many of the fish fossils are immaculately preserved – they could almost leap off the rocks as though they were still alive. The intricate detailing in their fish scales, their tails and heads intact in many specimens. They are fossils that are easy to understand and anyone and everyone can 'see' them, without having to imagine the rest of a creature from a vertebrae or leg bone (no offence to the dinosaurs!).

There is also the historical link with one of Scotland's highly respected geologists, Hugh Miller. An avid fossil collector, Miller's own personal collection of over 6000 fossils – including many Devonian fish – now makes up the main body of the fossil collection at the National Museum of Scotland. He meticulously pieced together hundreds of fragments of Devonian fish

specimens, genuinely fascinated by interpreting how they looked and how they lived. His discoveries still provide science with new insights into these creatures today.

But perhaps there is also something else in the choice of the Devonian fish: the appeal of the unknown, the mysterious depths of the oceans, which enticed people to claim the fish as their favourite. There is, for me at least, a mythical quality about the 'age of the fishes'. Back in the Devonian period, 417 to 354 million years ago, Scotland lay south of the equator, enjoying a seasonal climate and warm seas. In these seas, fish had evolved rapidly, and a dazzling array of different fish of all shapes and sizes flourished. These fish then swam into the rivers and lakes of the land which would become Scotland, a landscape of Old Red Sandstone.

Alternating seasons led to these lakes and rivers drying up periodically, at times causing mass fatalities in the fish populations. Scotland's Devonian fish fossils have therefore been found, in certain places, in large groups – preserved during their vain attempts to stay alive in the little pools in the middle of dried-up lakes. Some of the sandstones in which the fish are preserved have since been used as building and pavement stones – so the Devonian fish also decorate the streets of our towns and cities, a quiet reminder of ancient life and Scotland's geological history.

Are we also curious as to the metamorphoses of the rest of life on Earth from these creatures? The fact that early tetrapods – the link between amphibians and reptiles – came in close behind the fish in the poll suggests perhaps so. Whatever the reasons, I am thrilled the public voted for the Devonian fish – and I hope the poll helps all those involved with studying and preserving our fossil record to promote their cause and raise public awareness of the importance and diversity of Scotland's fossils in future.

#### **Sources and further information:**

[www.scottishgeology.com](http://www.scottishgeology.com)

[www.scottishgeodiversityforum.org](http://www.scottishgeodiversityforum.org)

[www.thefriendsofhughmiller.org.uk](http://www.thefriendsofhughmiller.org.uk)

[www.hughmiller.org](http://www.hughmiller.org)

**Footnote:** Lara has accepted an invitation to be our guest speaker at next year's AGM-timed public meeting (date tbc).