

## The Orkneys Expedition 29 August to 10 September 2016

Professor John Long from Flinders University and SA Museum along with 16 Waterhouse Club members searched some Scottish quarries, remote beaches, foreshores, and several sites on the Orkney Isles, for 350 million year old Devonian red sandstone fish fossils. Several local palaeontologists joined us to introduce and guide our group to some wonderful fossil specimens. These will be used for research and training at Flinders University and eventually adorn the collection shelves at the SA Museum.

Commencing in Edinburgh, Dr Nick Fraser, Head of Science at the National Museum of Scotland introduced us to the collections at the museum and at the Granton repository. We were privileged to be shown some of the vast and excellent collection of Devonian fish fossils.



En route to Inverness we visited Culloden to observe the 1746 battlefield along with the grand displays and dioramas of this memorable killing field of 5000 of Bonnie Prince Charlie's highlanders.

Just north of Inverness, we visited Cromarty walking towards South Suter where Bob Davidson assisted us in our search for fish "nodules" with his great geological interpretation and a view of his special specimens. We were desperate for a *Pterichthyodes milleri* but were happy with bits of cheiracanthus, glyptolensis, agnathons and placoderms etc. We had so much success here we revisited a few days later to hammer and chisel again. We were told as amateur geologists we would need to "crack" at least 100 rocks until a significant fossil was found – we all cracked about 99! A highlight in Cromarty was our visit to the Hugh Miller's cottage and museum, which displayed the wonderful collection from the Old Red Sandstones and collections the mid-19<sup>th</sup> century stonemason Hugh Miller was responsible for discovering and interpreting.

We headed west from Inverness to Forrest to look at the ancient Pictish Sueno's Stone before stopping in Elgin. Here the local museum had an excellent interpretation of the upper to lower Devonian period with samples of their representative fish fossils. The ruined Elgin Cathedral is a monument to behold. John wanted to see Scaat Craig nearby, being the first place in the world where Tetrapods were found. As with all Scottish visits, our next stop was at Glen Grant distillery. Here we were given an extensive tour and an ample sampling of single and silky smooth Glen Grant whiskies. Our last chore for the day was to purchase some hammers and chisels, which we did at the local Nickel & Dime store in Inverness.

After another "crack" at Cromarty, we did a short trip to Urquhart Castle and a look at Loch Ness, being mandatory for any visit to Scotland.

Heading further north we stopped in Dornoch having a morning coffee in the old courthouse and a look at the famous golf course in the adjacent sand dunes. A stop at Cairn Laith, an old broch near Dunrobin Castle, enabled us to imagine life thousands of years ago. The Duke of Sutherland who resided in the nearby castle, was responsible for the horrid highland clearances resulting in many of our forebears emigrating to Australia! This clearance was evident further north at Helmsdale with the heart-rending statute of "father with child and mother". We had a stopover at the remote and isolated Lybster harbour for lunch before travelling further north to visit John O'Groats and then on to Thurso.

In Thurso we met up with Mike Newman and Jan den Blaauwen who we entertained at dinner. They were our local guides for our visit to Acchanarus Quarry. At the quarry, we encountered our first sample of Scottish wind and rain; nevertheless, we picked out a lot of good fossils. We went to Castle Mey and some walked the local beach finding even more fossils. A visit to the northern most tip of UK at Dunnet Head gave us a bird's eye view to the Orkneys 20 miles to the north. Some of us enriched our palates with the local Lobster at a great little seafood restaurant on the Thurso foreshore.

The ferry S.S. Hamanavoe took us from Scrabness to Stromness on the west coast of the Orkneys. The passage was very scenic with a highlight, the passing close to the Old Man of Joy, a 137 metre high rock monolith of red sandstone on the western coast of the Orkneys. The Orkney Isles are renowned for Neolithic sites. Our first stop was at Skara Brae, a 5,000 year old village which was uncovered in a huge storm in 1850. We were very fortunate to visit as the windy morning was followed in the afternoon by severe winds resulting in its closure! After a visit to Maes Howe tomb, we walked around the oldest Norse stones at the Ring of Brodgar, and close to the Stones of Stenness. In the NW of the isle we walked across the causeway to the Brough of Birsay to the ancient Viking village and looked for more fossils on the nearby beaches.

On arrival at Kirkwall we met our other two local guides, Roger Jones from London, and Professor Nigel Trewin from Aberdeen University. The next day we travelled south over the Churchill barriers on our way to the Tomb of the Eagles where we had an explanation of the ancient bronze, stone and Neolithic findings by the local farmer. In the afternoon, we visited the cliffs of Yesnaby seeing remnants of the WWII embattlements and several 380 million year old stromatolites. A walk under the tutelage of world renowned geologist Professor Nigel Trewin explaining the huge stacks or "Yesnaby Castle" rocks and the geology of the Devonian red sandstone cliffs.

The group split into some who went by ferry to the island of Sanday to look for more fossils while others remained at Kirkwall visiting the Italian Chapel and Kirkwall's St Magnus Cathedral, along with some shopping!

The final day was a trip south to Houston Bay, where we had a long meander along the remote beach to a fossil site where we spent a few hours breaking rocks, in search of Microbraccia. A stop at St Margaret's Hope was followed by a visit to Burray's Orkney Fossil and Heritage Centre. This was another highlight with many specimens, including many excellent specimens of Devonian fish that had been donated in the past by our local paleontological guides. The final afternoon plan was curtailed when our bus had a broken fan belt and we were left to our own devices.

That evening we had our farewell speeches, drinks and thanks to our visitors before dining at the Ayre Hotel.

The key highlights of this Expedition follow.

- WHC members collected excellent specimens, some unique and first recorded findings. These will be utilised for teaching and research at Flinders University before being added to the Museum's collections.
- Excellent specimens were donated by Professor Nigel Trewin (Aberdeen University), Bob Davidson, Roger Jones and Mike Newman. Some were an arranged swap for some 'excess' South Australian fossils.
- John was able to visit important Devonian sites and to liaise with local paleo's, assist local paleo's identify fossils, and exchange knowledge.
- The first fin find of a *Tristichoterus alatus* was discovered.
- John received an invitation to present work and to a seminar in Cromarty in 2017.
- The expedition opened Waterhouse Club members' eyes to the fascinating world of fossil discovery and rock breaking!

This was a very happy trip with a combination of fossil collecting, sightseeing and good food in a wonderful part of the world. We were blessed with excellent weather and happy travellers.

**Tim Tolley**  
**Expedition Leader**