

The beasties of Muckle Uri Geo, 27th December 2006

Linda & Melissa, Haa Tommy, Liz & Henry, Daniel, Kenaby Ian & Lowri, Pat, Neil, Naomi and I spent low tide on the morning of 27th December exploring the shallows, rocks and shoreline of Mid, Udi and Muckle Uri Geos. The first two geos were not too productive, though one sturdy pale orange Northern Henricia starfish was found, so most of the time was spent at Muckle Uri Geo – with some exciting results.

I attribute the finds to sharp eyes, boundless enthusiasm and a systematic approach. I spent most of my time peering into the collecting trays as specimen after specimen arrived. Considering that mid winter is not the time of maximum abundance, it is amazing how many little beasties were found. Indeed, one foot-sized pebble handed to me by Linda supported a township of life. The upper, exposed, surface was sprinkled with numerous *Spirorbis* tube-worms but nothing else. In contrast, a diverse community occupied the sheltered sides and lower surface – including tiny brittlestars *Amphipholis squamata* and even tinier anemones of two species - the stripey *Hormathia coronata* and the taller, thinner *Edwardsiella carnea* - none of which appear to have been recorded before on the isle.

We were able to name and comment on some of the captures as they came in. Many were familiar denizens of our rocky shores: small periwinkle *Littorina neritoides*, flat periwinkle *L. obtusata*, edible periwinkle *L. littorea*, common whelk *Buccinum undatum*, toothed topshell *Monodonta lineata*, common mussel *Mytilus edulis* and the common shore crab *Carcinus maenas*. The group was also familiar with the hieroglyphic white scribblings on the rocks, but not that the chalky tubes were occupied by a “worm” – the tubeworm *Spirorbis borealis*. I also introduced them to bryozoans: sea-mats. Observers could be forgiven for thinking that the pale brown hand-and-fingers-like hornwrack *Flustra foliacea* was a dead seaweed, and not a dense colony of animals. The same applied to the hairy sea-mat *Electra pilosa* and the encrusting *Membranipora membranacea* embracing many a seaweed frond.

The beasties we could not name comfortably in the field were transferred to Schoolton where we gathered later in the day to peer down a microscope at a fascinating, hidden world. I was already familiar with the isopod (slater) *Jaera ischiosetosa*, the ragworm *Nereis diversicolor*, the tiny mussel *Musculus discolor*, the gammarid shrimp *Hyale nilssoni*, and the flatworm *Procerodes littoralis*. But there was more. The sheer abundance of minute beasties active in the water and on the various tufts of seaweed under the microscope was impressive. Folk expressed surprise to find the seaweed alive with mites. They belonged to the sea mite family Halacaridae, and there were at least two species. *Skeneopsis planorbis*, a flattened mollusc about 1 mm across, was abundant in the same seaweed. I know the species well, but it was interesting to find so many because my Handbook describes it as “rare in winter” - milder winters?

Also amongst the seaweed fronds were what looked like miniature whitish to slightly translucent dried peas. These were ostracods, a type of crustacean which protects itself within a pea-shaped outer casing. With the microscope, various body extremities – legs? feeding appendages? – were visible sticking out. There were at least two species, *Cytherura gibba*, an ostracod pointed at one end, and a more elongated one which may have been a *Leptocythere*. The fronds of the dense, dark green seaweed

Cladophora rupestris harboured the hydroid *Obelia geniculata* which revealed its presence by protruding its “arms” to feed. Once again surprise was expressed that an apparent plant, or plant attachment, was in fact a member of the animal kingdom.

The following day I returned to the task of sorting captures and eventually came up with a far from comprehensive list before time and the need to release them back where we found them intervened. A 1.5 mm long red-banded shrimp we had watched dashing madly about the dish turned out to be *Stenula rubrovittata* – common amongst algae, and it also associates with hermit crabs according to my book. A very dark green worm which was at times ridiculously long and thin, then short and thicker I eventually tracked down to *Lineus viridis*. I identified an orange copepod, common amongst the captures, as *Tigriopus fulvus* and a tubeworm occupying the underside of a large cobble as *Fabricia stellaris*. A tiny 3 mm high spire shell proved to be *Cingula trifasciata*.

Muckle Uri Geo rockpool is washed by the tide, often vigorously, twice a day. It has some fresh water input from rain, and Fair Isle has had plenty of that this winter - even by late December. Species such as the isopod *Jaera ischiosetosa* and the ragworm are tolerant of reduced salinity. Nevertheless, a chironomid (midge) larva was a most interesting surprise capture. Few insects cope with the sea. The most unexpected find was not at all small. A large shell, gathered in by our eager beavers, had all the characteristics of the carpet shell *Venerupis saxatilis* – fine except this is a southern species, occurring only as far north as the Clyde. However, I cannot see what else it could be.

I must add that, though my confidence is high (to borrow the catchphrase of Dr Weather, Dave Wheeler) for most identifications, I cannot guarantee they are all correct – especially amongst the smallest and most obscure species.

Towards the end of the field trip we deviated briefly from the task, as I took the opportunity to introduce some of the group to the lichen, *Anaptychia ciliaris mamillata*. I am informed that the only known Scottish sites for this rare lichen are the banks of the Clyde and a few rocky outcrops around Muckle Uri Geo, where it is abundant. Pat took some photos with her magic 21st century camera, the best of which appears here.



Nick Riddiford, February 2007