

Fair Isle Wildlife Club: Winter on the Shore

Four brave souls, Daniel, Tommy, Henry and Josie, joined me on the shore at Kirki Geo on a morning of less than promising weather on 31st December (2007). A light drizzle gradually turned to rain driven straight into our study site by a south-east wind. Undeterred, we had a great time amongst the seaweed and rocks below the beach, exposed by the low tide. By the time we made our retreat some fascinating marine life had been encountered, much of it uncovered by Daniel and Henry's enthusiastic searching through the carpets of knotted wrack *Ascophyllum nodosum* and delving under rocks.

Needless to say, common shore crabs *Carcinus maenas* – of various sizes including a particularly large one – were frequent. Out towards the edge of the tide, two small partans *Cancer pagurus* (edible crabs to the uninitiated) were intercepted, but the only fish on view was five-bearded rockling *Ciliata mustela*. Two brittlestars *Amphipholis squamata* were also found. On the shore, cast kelp stipes, mainly of the northern kelp *Laminaria hyperborea*, harboured a variety of encrusting animals and seaweeds, including the blue-rayed limpet *Helcion pellucidum*. This tiny limpet is found in summer on the fronds of the kelp. Little more than 10 mm across, the brown shell could easily be overlooked on the kelp were it not for the electric blue lines across the shell which makes it such a spectacular find for anyone investigating from a small boat. Prior to winter the limpet migrates to the base of the kelp where it finds refuge within the holdfast. It finds food there too, eating away at the stipe itself; and this can weaken the holdfast, making the kelp vulnerable to dislodging by winter seas. The limpet eats itself out of house and home!

The larger, easily identifiable beasties were released immediately. The rest of the finds returned with me to Schoolton in a jar. Just one hour's search of the shore but two days of peering down a microscope to identify a range of minute but beautiful creatures! Worms were very much to the fore. Now, not too many folk get excited over a worm (apart from me of course). However, I challenge anyone who saw them not to marvel at their variety, out-of-this-world form and, dare I say, beauty. My favourites were the two scale-worms. One, *Gattyana cirrosa*, wore a series of overlapping, patterned shields reminiscent of the sides of a viking longship. The other, *Adyte pellucida*, sported delicate, transparent shields with the body clearly visible below. It was indeed delicate, some of the shields falling off in transit. Some worms which had been extracted from loose, fine gravel below large stones were extraordinary. It seemed as if a host of thinner, writhing worms - some red, some yellow - were exuding from their head and body. These were in fact gills, but made the worms look as if they were having a bad hair day. I identified the species as *Cirratulus cirratus*, though its English name of red-threads seemed more telling. One worm that was super abundant in the samples was the flatworm *Procerodes littoralis*. There were dozens of them. We found some last winter, though not in such numbers. Another worm which we saw last year was the bristle-worm *Glycera lapidum*, which in certain lights appeared faintly fluorescent. The gloriously named slugworm (Tubificidae) was also present, a transparent outer casing revealing all its blood-red innards – lovely! A small stone was amongst the sample. The microscope revealed some nematode worms wandering over lines of "sand". However, immersed in water, the tips of these sand lines suddenly "flowered", a bunch of five feathery tentacles revealing yet another worm, the sand-tube worm *Owenia fusiformis*. Alongside these

was a single anemone, also active and not more than a couple of millimetres across and less than 5 mm tall. It was white-translucent apart from some faint brownish hoops on its tentacles. I identified this, eventually, as the sandelled anemone *Actinothoe sphyrodeta*.

Were these the only special finds? Not at all! Several slaters are known for Fair Isle, but the ones I am used to seeing - at least during the summer - were not encountered. Instead, the most frequently met species was *Idotea granulosa*, including a large (20 mm) male. All the individuals were uniform in colour, dull green and no doubt designed to merge in with its habitat. Indeed, expanses of knotted wrack are known to be a preferred habitat. Towards the end of our sampling we intercepted a couple of much smaller slaters with a less pronounced telson (tail) which turned out to be *Idotea pelagica* - two good finds. Apart from that, we recorded for completeness the usual denizens of the Fair Isle shore: toothed top shell *Monodonta lineata*, common periwinkle *Littorina littorea*, flat periwinkle *Littorina obtusata*, dogwhelk *Nucella lapillus*, the tiny snail *Skeneopsis planorbis* and the equally tiny mussel *Musculus discors*. Cast invertebrates included the hydroid *Obelia geniculata* and the hornwrack *Flustra foliacea*, both fauna often mistaken for "seaweeds".

There was far more to see and identify - seaweeds, sea-mats, tiny crustaceans - but time was a factor so the sample was returned to Kirki Geo where much remains still to be discovered and enjoyed.

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