NORTHERN EXPOSURE or WITH BUS-PASS TO THE POLE by Robert Angus

One of the conspicuous unanswered questions left by the first account of my chromosomal investigations of the *Stictotarsus griseostriatus* species complex is the nature of *S. griseostriatus strandi* Brinck, found in coastal rock-pools in the extreme northeast of Norway (the southern shore of the Varangerfjord) and the adjacent area of Russia (Petsamo and the western Kola) (Dutton & Angus 2007). As matters stand, *S. g. strandi* differs from "normal" (Baltic coast) *S. griseostriatus* only in its slightly larger size, and its highly disjunct distribution. *S. griseostriatus* is characteristic of coastal rock pools on the Swedish and Finnish Baltic shore, as well as on the northern coasts of Lake Ladoga and, perhaps more surprisingly, on the Skagerrak and Atlantic coasts of Norway, but no further north than Trondheim. In inland areas of Finland and Scandinavia, the beetles are paler and with the pattern of yellow and black stripes on the elytra more discrete. This is the form for which Falkenström coined the name *multilineatus*, shown by Dutton & Angus (2007) to be a separate species, with two fewer pairs of chromosomes than *griseostriatus*.

By all accounts, *S. g. strandi* appeared to be readily obtainable in the Bugøynes area in late July or early August, so I decided to go and get it. David Bilton was keen to come, too, and so was my wife Barbara. The local Norwegian airport for this region is at Kirkenes, many miles from the nearest destinations of either EasyJet or Ryanair, so Google and "cheap flights + Kirkenes" had to be invoked. Actually, not too bad, with SAS and departing from Heathrow. A second try, using Ivalo in Finland was much dearer! So, we discussed dates and chose to leave on Monday 28 July and return on Saturday 2 August, which, we hoped, would give us time enough and also some flexibility. The departure from Heathrow was early afternoon, which allowed David time to get a bus from Plymouth to Heathrow, while Barbara and I took the bus to the airport, from our road-end! And yes, I christened my newly acquired Bus-Pass – not exactly to the Pole, but a start and offered as homage to Top Gear's epic journey in a Toyota pickup! Norway is a seriously expensive country, and we were concerned to try and arrange some reasonably priced accommodation, especially for the Monday night as we were not due to arrive until after 8.30 in the evening. Web information was patchy, and a bit inconsistent. Sometimes a Youth Hostel appeared, as if through the mist, while on other occasions there was not trace of it. It also didn't seem possible to contact this hostel. Oh well, time would tell. The travel arrangements worked like clockwork and soon we were driving out of Kirkenes airport in our hire-car (VW Passat, very good, though inadvertent switching on of the heated seat caused a novel sensation, especially as it took a little while to discover how to switch it off!). I was also heartened to be told by the car-hire man that we would have no difficulty in finding the youth hostel as it was on the way to the town. Yes! Only we couldn't find it – anywhere. The road was good; the kamikaze reindeer were an added bonus, but no hostel. Eventually we went back to the Airport in the hope there might still be someone at the Information desk. Our luck held, and the two people there could not have been more helpful. They spoke excellent English, understood the problem about the hostel (it had closed down!), and booked inexpensive accommodation at "Pedersen's Overnatting" near the harbour in Kirkenes. They would, we were told, be expecting us, and also, Mrs Pedersen was Russian! This made my life a lot easier – I don't speak Norwegian at all! Well, we found the place without further ado and I was able to get things sorted out with Mrs Pedersen. Barbara and I had an attic room, David's was half-way up, and the "facilities" were in the basement. We declined Mrs Pedersen's offer of a po for night-time necessities, and anyway, when the beer-drinking led to the inevitable consequences the light Arctic night came to our rescue! But David and Barbara, after our long day's travel,

found the experience of listening to a reasonably involved Russian conversation somewhat surreal!

David at the *Stictotarsus g. strandi* site in the bluffs at Lausklubben, with the clear water of the Arctic Ocean (Varangerfjord) below

Tuesday morning dawned bright and not too breezy, so we assembled our gear in the car and drove in to town to get breakfast and some goodies for a picnic lunch. The local bakery (Amundsen's) did very good filled rolls for breakfast, and sold excellent bread for picnic lunches, so we were soon sorted and on our way. Most of the land round Kirkenes is covered by thin birch woodland, and we were surprised to see large areas of this stripped bare of leaves, so that we wondered if there had been extensive fires. However, looking at the other vegetation, this did not seem to be the case, and David eventually worked out that it was likely the effect of *Epirrita autumnata* (autumnal moth) and *Operophtera brumata* (winter moth) caterpillars. To get to the Bugøynes headland you drive west, towards Tana Bru, until you reach the turn-off to take you along the part of the south coast of the Varangerfjord which ends at Bugøynes. Once we had done this we quite soon came to an area of rocky bluffs overlooking the shore, apparently called Lausklubben. We parked up, started exploring and very soon found ourselves in an area of small rocky pools about 10 – 20 metres above sea level. These had quite a few beetles in them, including *Agabus thomsoni* (Sahlberg), though not many *strandi.* But at least it was there and we were in business. After a good hour's collecting we had enough *strandi* on board to feel able to move on – firstly to have a look round Bugøynes, and then to have lunch and resume collecting. Looking round Bugøynes did not take long, so we headed back the way we had come, but soon found a coastward turn-off which promised both further collecting and a good spot for lunch. And it delivered well on both counts, producing lots of *Agabus infuscatus* Aubé and *A. thomsoni* together with the *strandi* from small rock pools, and *Agabus adpressus* Aubé from a tundra stream. So, now we had *strandi* from two, albeit very similar, localities in the Bugøynes area, I was keen to move on to Grense Jakobselv, the Russian border east of Kirkenes. This would give us *strandi* from as wide an area as we could get! We hadn't gone very far when we found a sort of flooded sand-pit, away from the coast, so we stopped for more collecting. There were a few beetles, including *Ilybius angustior* (Gyllenhal) and some well-marked *griseostriatus*, though these seemed a bit smaller than the *strandi* we had been getting along the coast. Anyway, we stashed them and continued on our journey. As we travelled on I began to feel slightly sleepy. Definitely time to stop and draw breath. I remembered a "comfort stop" zone not far away, and thought that might just solve several problems. It did! The bolt on the privy door wasn't a riot, but in that deserted landscape it scarcely seemed to matter. Then suddenly it did! The door was shaken (successfully defended!) and there outside was a whole busload of cheerful Russians out on a jolly from Murmansk! They found the whole thing hilarious – an Englishman out there, with his trousers down, speaking adequate Russian and knowing the slang word for a "bug" (bukashka). After that the journey to Grense Jakobselv was uneventful! More rocky bluffs with pools and more *strandi*. All in all an excellent day – and the weather kind to us.

Grense Jakobselv. A site for *Stictotarsus g. strandi* on the bluffs on the Norwegian side of the border – the bluffs in the distance are Russia and in the background is the open Arctic Ocean

So, back to Kirkenes, another pizza in the Pizzeria Siciliana (or, as the menu said once we were inside, Pizzeria Iciliana!), and this time we found a useful pub for the after dinner beer. Next morning we settled our bill with the Pedersens and also arranged to return on the Friday night – a good job we did as that weekend Kirkenes was having a music festival – "Glastonbury on Tundra", so the town got quite full. We, however, set off into Finland on Wednesday morning, aiming for Inari where I had stayed in a Youth Hostel in August 1967. One of my new maps (the Norwegian one) marked a Youth Hostel at Inari, though I was a bit concerned that my Finnish map did not show it! Very soon after turning off south to Finland the landscape changed, with the loose birch woodland giving way to the pine forest characteristic of much of Finnish Lapland. This type of forest, Scots Pine on a sandy substrate, is what the Russians call "bor" – they reserve the term "taiga" for damper, spruce-dominated forest. Anyway, as we travelled through the forest towards the great lake of Inari, we passed quite a decent sandy pool in a clearing, near Sevettijärvi. We stopped and got quite a reasonable selection of beetles including, to my satisfaction, a number of nice, pale, stripy "*multilineatus*-type" beetles. So now we had the lot! We drove on a bit, and then decided it was lunch time. A picnic site carpeted with *Linnaea borealis*! A pity about the mosquitoes, though! Once we reached Inari it became clear that the Finnish map was the correct one – the Youth Hostel had gone! However, the young lady in the Information Centre, who spoke excellent English, directed us to a spanking new Youth Centre a few miles out of town. This really was excellent, clean, comfortable, well-appointed and inexpensive. Back in Inari we bought food for our evening meal (on both this night and the next one David did us proud in the kitchen!), and this with a 12-pack of Lappinkulta beer meant we did not suffer at all! However, water levels were surprisingly low, and there were relatively few beetles, but lots of species nonetheless. We did a good circuit through the forest on the following day (Thursday), stopping at a number of roadside ponds and wetlands, which produced, amongst others, *Hydroporus geniculatus* Sharp*, H. rufifrons* (Müller) (in a few places), *Hydroporus submuticus* Thomson*, Agabus labiatus* (Brahm) and *Berosus luridus* (L.). The Lapp museum in Inari also proved interesting!

Friday was to be our last day, and the plan was to go back into Norway and up on to the tundra plateau north of the Varangerfjord. This we did, but the weather was appalling – cold, wet and windy! I had hoped for some *Agabus bipustulatus* var. *solieri* Aubé for student chromosome work, but it was not to be had. David got some good stuff, though – including *Helophorus sibiricus* (Motschulsky) and *H. glacialis* Villa. Back in August 1967 I had crossed part of this plateau – form Tana Bru to Alta – on a moped. The weather had been very kind! I must have been stark, staring bonkers! (So no change there then). Anyway, back to Kirkenes, check-in at Pedersen's, and another Pizza and the pub! Next day, sadly, home! But all in all, a very good trip, and the one day we had really needed the good weather (Tuesday), we got it!

I now have the chromosomal data on all the beetles, and the result is unexpected – all the material is *S. griseostriatus*, with 2n = 60 autosomes plus X0 (♂) or XX (♀) sex chromosomes. Perhaps even more unexpected is the facts are now published, along with my data on *S. macedonicus* (Guéorguiev) (Angus R B 2008. Further karyosystematic investigations of the *Stictotarsus griseostriatus* (De Geer) group of sibling species (Coleoptera: Dytiscidae). *Comparative Cytogenetics* **2** (2) 151 – 156. So *S. g. strandi* is indeed a form of *griseostriatus*. It is interesting to look at the size data for our material. The summary is as follows: *strandi*, all coastal localities, ♂, mean length 4.88 mm, 95% confidence intervals 4.81 – 4.95 mm, range 4.6 – 5.2 mm. N = 22. ♀, mean 4.96, 95% CI 4.84 – 5.08, range 4.6 – 5.3 mm. N = 17. Inland Bugøynes (5 ♂♂): Mean = 4.76, 95% CI 4.61 – 4.9, range 4.6 – 4.9 mm. *S. griseostriatus* Sevettijärvi (8 ♂♂, 1 ♀): mean 4.53, 95% CI 4.35 – 4.71, range 4.2 – 5.0 mm. These data make *S. g. strandi* slightly smaller than reported by Brinck (1943. *Norsk Entomologisk Tidsskrift* **6** 140 – 153) (*strandi* mean length 5.3 mm, range 4.8 – 5.5 mm, typical *griseostriatus* mean 4.5 mm, range 4.0 – 4.8 mm), but they back up the notion that *S. g. strandi* is somewhat larger than the typical form, and in this context it is a pity the inland Bugøynes sample is so small as the beetles appear slightly smaller than the coastal material, but still larger than typical (Baltic coastal) *griseostriatus.* The Sevettijärvi material is different – stripy *griseostriatus* looking more like *multilineatus*, and invites questions about how widely distributed *multilineatus* is, and whether any of the Norwegian *griseostriatus* might in fact be boldly marked rock-pool *multilineatus.*

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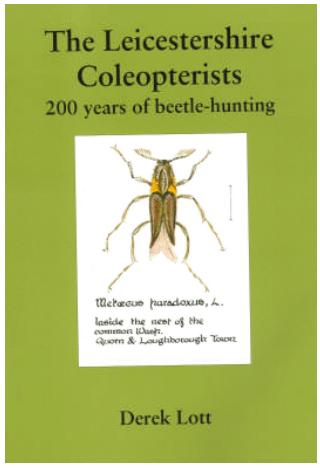
COLEOPTERISTS IN VC 55 AND DAMP PLACES

📖 LOTT D 2009. The *Leicestershire Coleopterists. 200 years of beetle-hunting.* Loughborough Naturalists' Club. ISBN 978-0-9562815-0-0. Available from Subbuteo Natural History Books at £8 + postage.



The English Midland counties of Leicestershire and Rutland together constitute recording vice-county 55, and have been remarkable for spawning a number of beetle-collectors. The first paper about Leics. (for short) would appear to be by Henry Walter Bates, writing at the age of 18 *Note on coleopterous insects frequenting damp places* (1843. *Zoologist* **1** 114-115). Bates should perhaps be best remembered for having met Alfred Russel Wallace in Leicester in 1844 and persuaded him to take up the study of beetles. They travelled to the Amazon together in 1848. Other early notables were John Power, born in Leics but unfortunately not active as a coleopterist there, and Thomas Vernon Wollaston, who had family connections near Market Bosworth (as it happens, Power's birthplace). This first period of productivity ended in 1860. The second was not so good, but is well detailed in the book, and Derek has named the third, from 1908-1959 the age of collectors, followed by 1960-1981 as the age of recorders. It would be wrong to pick out one individual as more important than any of the others in these periods but Don Tozer (1907-1993) comes to the fore in several ways, not least for his recounting how a complete beginner, one H.W. Barrow, using a child's net, took several *Hydrophilus piceus* (L.) in the Barrow Brothers' Brickyard in Leicester.

This is a great read, critically researched and raising plenty of questions. The first might be "Could the same be done for the neighbouring counties?" and then "What about the present?". The next chapter, from 1982 to now, would certainly have its own very important individual.