

Andrena hattorfiana (Fabricius) in Cornwall

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Fig. 1: *Andrena hattorfiana* Daymer Bay 18th July 2004

Chris Haes had suggested a joint trip on 13th July 2004 to Trevoze Golf Course in North Cornwall to check out the known site for the RDB3 bee, *Andrena hattorfiana*. Identification would clearly be left to Chris, as my first glance, some years back, at the serried ranks of hymenoptera illustrations in Michael Chinery's paperback insect guide had long convinced me of the impossibility of ever putting names to these little black jobs with their varying degrees of stripeiness – and Chinery says he is illustrating the distinctive ones! On the morning, Chris phoned to say he was not able to get away. With what I considered to be totally misplaced optimism, he assured me that I would have no problem with this one - on field scabious, bit larger than a honey bee, black body with a red 'tail', and legs covered in scabious pollen. Well, it was a sunny day, perhaps a bit windy, but it would give me a chance to try out my new digital camera.

After parking in the lay-by at SW865755, a few yards walk and I was in the first of the two fields where the bees had previously been recorded. Although within the golf course, the two narrow fields are separated from the fairways by a private road on one side and a tall hedge on the other. The fields were crossed by several permissive paths, so access was no problem. The dominant flowers were Common Knapweed *Centaurea nigra*, and, happily for this visit, Field Scabious *Knautia arvensis*. Within a few moments, there on a scabious flower was a bee exactly fitting Chris' description. The most distinctive feature were the back legs, absolutely smothered in bright orangey-pink field scabious pollen. The bee was too busy collecting more pollen and nectar to be concerned about the looming camera, and allowed me to get some nice macro shots to enable Chris to confirm this was the object of my quest. There were about half a dozen of these bees seen on the scabious, all near the sandy road bank and concentrated around the large bramble bush at SW862755. Despite being so comparable, no *A. hattorfiana* were seen in the second field nearer the sea. A similar bee, with white legs, was photographed on knapweed, which was identified as the Nb *Andrena pilipes*, and a photograph of a very hairy bee on a hawkweed species turned out to be a male of the Nb *Dasygaster hirtipes*. Two common conopid flies were also noted; several *Physocephala rufipes*, and a single *Sicus ferruginea*.

On 18th July, Rock Dunes was visited to see if the old colony by the car park could be refound. It was believed this was destroyed when the car park was extended in 1992. Around the car park, were no field scabious, and no *A. hattorfiana*. Extending the search all over the dune system of several square kilometres revealed the paucity of field scabious here. There were just a few small clumps of one or two flowers, which would be an insufficient resource for this bee. On walking north to the adjacent Daymer Bay, a large clump of field scabious, covering about 10m by 3m with over 100 flowers, was seen at SW929775. Almost immediately, there was a female *A. hattorfiana* (Fig. 1), with a second a few metres away. A male with its white face was also noted. This is a new location.

Mary Atkinson told me that she had seen very good numbers of field scabious on the Camel Cycle Trail between Padstow and Wadebridge. On 28th July, on a warm, if relatively sun-less, afternoon this part of the trail was walked. Generally, the pathside vegetation is fairly devoid of insects, as the cycles coat the foliage with a fine dust. However, 1km south of Padstow, by a picnic area, was an extensive clump of field scabious, some 100 metres by 3 metres, on a raised bank above the trail. At SW933742 a single female *A. hattorfiana* was seen, another new location.

Paul Gainey had reported sighting this bee around Porth Joke, West Pentire, between Newquay and Perranporth. This was yet another previously unrecorded site. On 4th August, I visited the West Pentire headland. The only significant amounts of field scabious were in the lower half of the fields above Porth Joke, where there was an extensive patch about 300 metres by 50 metres containing many thousands of flowers, extending from SW772606 to SW773604. Over the whole patch, 23 females were seen. Four *A. pilipes* were also noted.

In recent years *A. hattorfiana* has been recorded at just 3 other Cornish sites; Penhale Dunes (SW77/55 and SW77/56), Gwithian Towans (SW57/40, SW58/40 and SW58/41) and St Uny Churchyard (SW54/37). Chris Haes was able to visit all three of these sites in summer 2004 and established their continued presence.

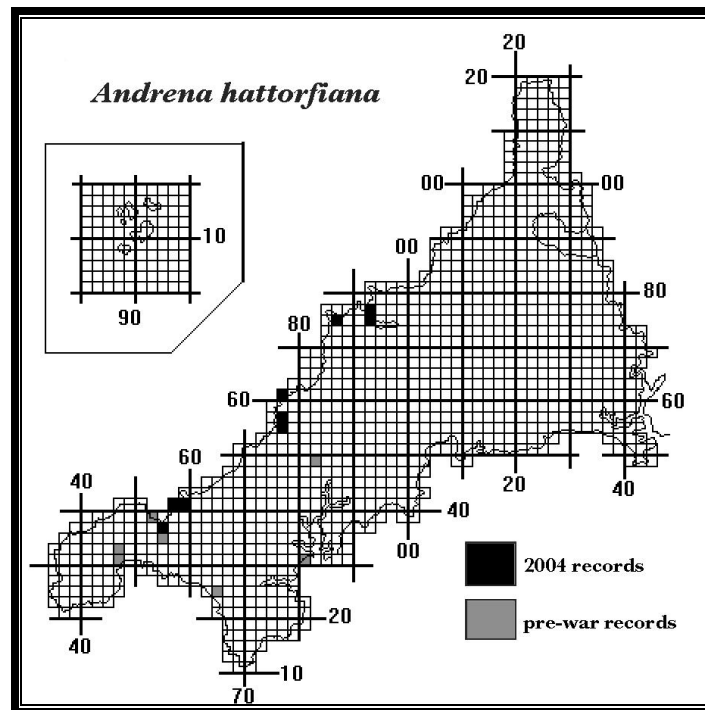


Fig. 2: Cornish records of *Andrena hattorfiana*

The historical records for this species are summarised in Haes 2003, all of which pre-date the Second World War. Professor James Clark wrote the Aculeate Hymenoptera section of the 1906 Victoria County History of Cornwall, in which he stated “*A. hattorfiana*, the finest species in the genus, occurs regularly every year about Trevaylor [SW46/32] and elsewhere in the Penzance district [SW47/30]. It has been taken at Loe Pool [SW64/24], at Falmouth [SW80/31], at Bishop’s Wood, Truro [SW82/48], and along the banks of the Lynher [SX35]”. K Le Marchant made frequent summer visits to Cornwall between 1911 and 1937, and found this bee around St Minver, which probably meant Rock Dunes in St Minver parish. In the late 1920s/early 1930s, Reverend Thornley recorded the species at Carbis Bay (SW52/38), Lelant (SW54/37) and St Erth (SW54/35), all near to the existing colony at St Uny.

The need for good stands of field scabious will limit the distribution of this bee in Cornwall. The *Flora of Cornwall* notes that this plant is most common within a mile or so of the coast, which accords with the distribution of *A. hattorfiana* in Fig. 2. It is only when you are specifically looking out for a plant that you appreciate its true distribution. My experiences this year lead me to conclude that, whilst the odd plant is to be found in many rough grassy areas, large patches are very uncommon.

These large patches are also vulnerable, as Chris Haes found this year when he visited the St Uny colony on 29th July, a warm sunny day. He found the formerly extensive field scabious patch had been decimated by nibbling rabbits and a greatly increased density of ground layer herbage. Just 3 years ago, the population here had been the largest in Cornwall, with 30 foraging females and 2 worn males. This year, just one female was gathering pollen. Rabbit damage had previously reduced the Gwithian colonies.

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