

Aculeate Information Sheets

How the habitat requirements of BAP aculeates relate to their HAP



Photo: Paul Westrich

1. *Nomada armata*, a cuckoo bee of grasslands.

**Produced by Hymettus Ltd -
The UK Aculeate Conservation Group.**

Conservation Action for Ants, Bees and Wasps

June 2006.

Nomada armata

General biology

Nomada armata is a cuckoo bee which lays its eggs only in the nest of the very large mining bee *Andrena hattorfiana*. In order to conserve the *Nomada* it is first necessary to understand the habitat requirements of the host *Andrena* bee.

A. hattorfiana is very strongly associated with the flowers of Field Scabious *Knautia arvensis*, where it gets the pollen with which to provision its nest. It follows that the basic requirement for the conservation of the *Nomada* is not even its host species, but the Field Scabious.

To be of use to the *Andrena* it is essential that the Scabious is actually flowering, not just present as a rosette. As the plant is very palatable to grazing stock, and also comes into flower at about the time most hay meadows are cut, both grazing at this time of year, and hay-cutting, are completely incompatible management procedures.

This is not to say that some of the resource might not be lost through appropriate management procedures which may increase the overall resource eventually; but that a co-ordinated landscape management plan which takes into account the need to maintain the flowering resource is essential.

Nomada armata needs a high density of its host in order to maintain its population, hence the range of the *Nomada* is considerably more restricted than that of the *Andrena*.

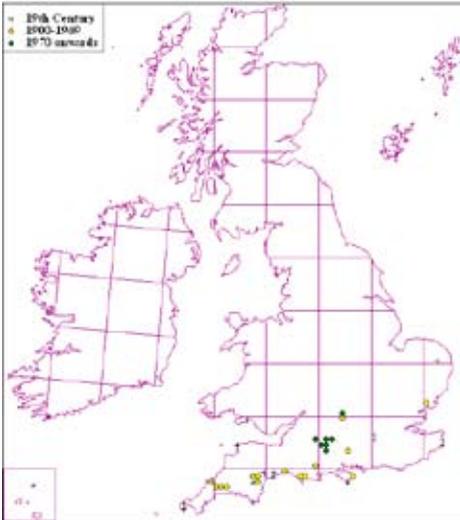


Left: Good foraging habitat for *Andrena hattorfiana* with plentiful Field Scabious on Salisbury Plain. This develops in the second year following grazing (below) and the area will be grazed again in the third year.

Right: This area, beside that in the photo above, was grazed in the year of the photo and will not be grazed again for two years. This illustrates the importance of landscape scale management strategies in maintaining a variety of vegetation structures and resources.



Nomada armata (1999 Atlas data)



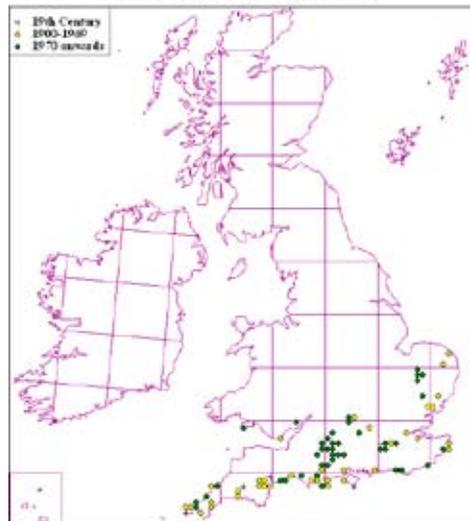
The current distribution of *Nomada armata*

This species has always been restricted to Southern England with very one old record from South Wales. Its modern distribution is entirely within Salisbury Plain, where its host has remained sufficiently plentiful to support the cuckoo.

The current distribution of *Andrena hattorfiana*

The host is still widespread in suitable habitat in Southern England and Wales, but rarely plentiful. As Field Scabious is readily established in restored grassland, including this plant species and undertaking appropriate landscape scale management is an essential first step to recovery of *Nomada armata*.

Andrena hattorfiana (1999 Atlas data)





The host of *Nomada armata*, the mining bee *Andrena hattorfiana*, collecting pollen from its sole pollen source, Field Scabious, *Knautia arvensis*.

Photo: Paul Westrich

Key points.

- To devise strategies for the conservation of *Nomada armata* it is essential to understand the biology of its host and the associated plant species.
- The system relies upon the presence of flowers of Field Scabious
- Host bee forage availability is essential on a landscape scale.
- A mosaic of habitat structures is essential to provide nesting and foraging sites.