

# Aculeate Information Sheets

*How the habitat requirements of BAP aculeates relate to their HAP*



Photo: J. Devalez

*Colletes halophilus*, a bee of saltmarshes.

Produced by Hymettus Ltd -  
The UK Aculeate Conservation Group.

Conservation Action for Ants, Bees and Wasps

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## General biology

*Colletes halophilus* is a mining bee which is associated uniquely with coastal saltmarshes and adjacent stabilised sandy dune areas, sea walls and low maritime cliffs.

The bee has a very restricted range globally, and its association with salt marshes makes it particularly vulnerable to climate change, the associated rise in sea level and the policy outcomes associated with coastal management and sea defence.

The bees are active in late summer and are on the wing in August and September. The female bees forage predominantly at the flowers of Sea-Aster (*Aster tripolium*). However, they will also visit flowers of other members of the plant family Asteraceae for nectaring, or when their preferred pollen source is unavailable.

The nest burrows are excavated in stabilised sandy material with sparse vegetation cover to ensure maximum ground surface temperatures. In ideal sites, the nests may be formed into large aggregations numbering many thousands of individual burrows.

## Status in UK

In UK, the bee is found along the North Sea and Channel coasts, from Spurn Point in the north, southwards through Lincolnshire, Norfolk, Suffolk, Essex, Kent, and then east through Sussex to Hampshire and the easternmost parts of Dorset. There is a single, anomalous, record from the Breckland heathlands.

The bee nests close to its forage plants in suitable exposed places. Occasionally, large nesting aggregations can be found but these are rare in UK

The bee was not listed in the Red Data Book <sup>1</sup> (1987), but was accorded Nationally Notable (a) status in the subsequent Review <sup>2</sup> (1991). The extreme localisation of the species, both nationally and globally, has resulted in it being included in the new BAP lists (2007)

Reduction and degradation of salt marshes, strengthened existing coastal defences, expanding urban sprawl, continued development of brownfield sites, and inappropriate grazing regimes all place increasing pressure on this specialised bee species. Carefully considered and controlled "managed retreat" may, conversely, provide opportunities for conservation.

<sup>1</sup> Shirt, DB (ed) 1987 British Red Data Books: 2. Insects. Nature Conservancy Council.

<sup>2</sup> Falk, SJ 1991. A Review of the Scarce & Threatened Bees, Wasps & Ants of Great Britain. Research & survey in nature conservation, No. 35 Nature Conservancy Council

## The Global distribution of *Colletes halophilus*

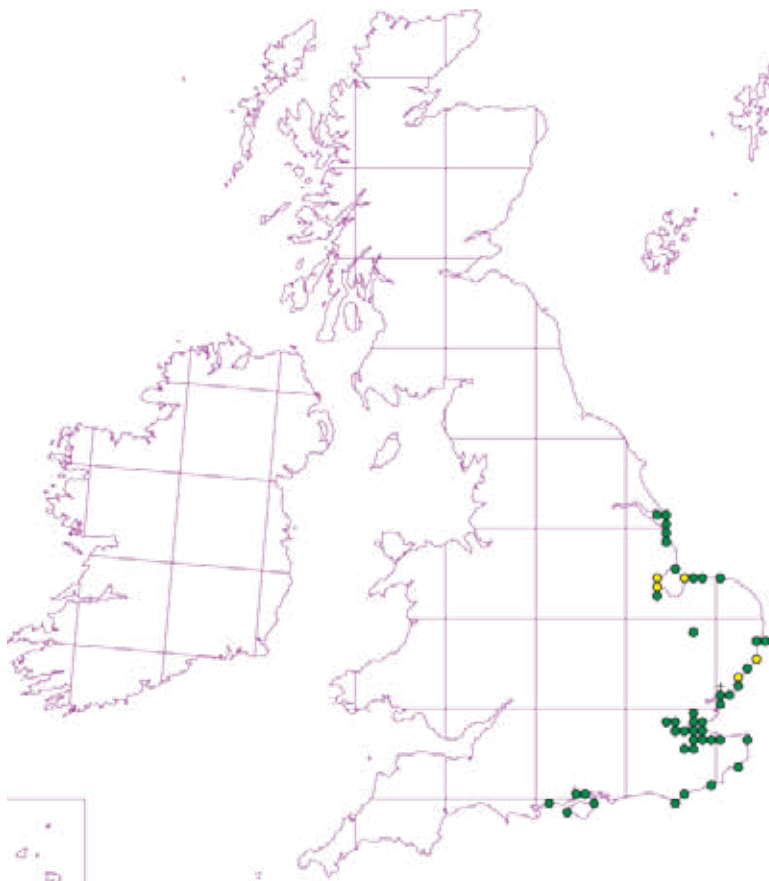
*Colletes halophilus* is restricted to the Atlantic region of Europe, from the Friesian islands in the north to the south western Biscay coast of France. There are also important populations on the eastern and southern coasts of England



(Map prepared from M. Kuhlmann dataset)

## The current distribution of *Colletes halophilus* in the UK

Known from the south and east coasts of England, from Christchurch Harbour to Spurn Head. There is a single inland record from a sandy Breckland heath



(Map prepared from BWARS dataset)



A mating ball of males of *Colletes halophilus* on sandy nesting substrate at Saeftinghe (NL). Photo N.L. Vereecken

Key Points:

- The bee has an extremely restricted distribution globally
- The bee is liable to be vulnerable to rising sea levels
- Effective management requires conservation action to protect the 2 partial habitats needed for nesting and foraging
  1. Stabilised exposures of sand or clay
  2. Large stands of Sea-Aster
- The bee requires its key habitat components to be available on a landscape scale

