

Examples of declining bees and plants:

Scabious bees and Field Scabious are declining

Field scabious (*Knautia arvensis*) provides pollen and nectar to a wide range of insects. One visitor, the scabious bee, *Andrena hattorfiana*, raises her young exclusively on pollen from this plant. Our study shows that both species have recently declined in Britain and the Netherlands. Field scabious is still common, but much less so than several decades ago. In addition, grazing and early cutting of hay meadows makes that field scabious often does not reach the flowering stage. This may be a major cause of the decline of the scabious bee.

The absence of the bee may also play a role in the decline of the plant. The bee has been shown, in a Swedish study, to be a more effective pollinator of field scabious than other bees and hoverfly visitors.

The good news is that adequate habitat management can help the declining bee and its food plant. [For more information see the attached fact sheet of the Aculeate Conservation Group].

*[The story is even more complex. A parasitic wild bee, the scabious cuckoo bee, *Nomada armata* (a UK BAP species), is completely dependent on the scabious bee as a host, and is also declining. For more information see the attached fact sheet of the Aculeate Conservation Group].*



Andrena hattorfiana on field scabious (*Knautia arvensis*). Copyright Gérard Minet.

Bees specialized on wild peas are having a hard time.

It has been suggested that the decline of various bumblebee species has been caused, in part, by the decreased use members of the pea family as fodder for farm animals. Our analysis shows that other species of wild bees that specialize on pollen collection from wild peas are also declining. As an example, the longhorn bees (*Eucera nigrescens*, *Eucera longicornis*) have all but disappeared. *Eucera nigrescens* has become extinct in the UK and is very rare in the Netherlands. This may be a result of a decline in some of their food plants (vetches, vetchlings and clovers).



Eucera nigrescens on clover. Copyright Nico Vereecken.