The aspen hoverfly (*Hammerschmidtia ferruginea*)

The aspen hoverfly is found only in association with large stands of boreal aspen (*Populus tremula*) in the Scottish Highlands. The larvae live under the bark of wet, decaying aspen trees or their branches, although there is evidence that it may also use living trees with some degree of rot. Adults may require flowers such as rose (*Rosa* spp.) and bird-cherry (*Prunus padus*). The branches or trunks used by the aspen hoverfly must be at least 30 cm of diameter, and their decaying sap (or cambium) must build up for about four years. If the bark cracks and dries, the breeding site becomes unsuitable. These are very specific breeding requirements, therefore few trees provide suitable habitat. The aspen hoverfly is rare and thought to be endangered in Europe. In UK, it is restricted to eight localities in northeast Scotland, mostly in Strathspey.

Threats

This hoverfly is threatened by the loss of aspen stands. Fallen aspen is one of the richest habitats for saproxylic flies in the UK, hosting another 15 red-list species. Few of the eight aspen hoverfly localities are protected, and the amount of fallen trees in those sites has decreased since the 1990s. The small size of existing stands also poses a threat because 4.5 ha is thought to be the minimum area for an adequate supply of fallen timber. However, there are only 14 aspen stands known to be over this size left in Scotland. Populations may survive in smaller stands as long as they are close enough to each other (less than 2 km), so that flies may migrate between them.

Actions necessary to promote the conservation of the pine hoverfly

- Dead and fallen aspen should be left undisturbed (See Malloch’s Society’s “Management for aspen hoverfly” leaflet).
- Reduce or exclude grazing to promote natural regeneration.
- Promote recovery of aspen stands by fencing and removal of rabbits.
- Protect breeding sites by covering selected pieces of fallen wood with wire netting to prevent animals from eating the bark.
- Fell windblown trees, snags and dead columns to the ground to reduce desiccation.
- Cut down selected trees to increase the amount of breeding resource where this does not threaten existing aspen woodland.
- Provide two pieces of suitable timber (greater than 15 cm diameter) into the dead wood system each year if this does not occur naturally.
- Reduce fragmentation: aspen stands may be extended by allowing regeneration at edges and by linking isolated stands. This may require protection of saplings and cutting the surrounding vegetation.
- Monitor the quality and quantity of wood.
More information

North East Scotland Local BAP.


UK Biodiversity Action Plan.