Threats to Wood Ants from Built Development in the Cairngorms National Park

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The James Hutton Institute

The issue

The northern wood ant *Formica lugubris, F. aquilonia,* the Scottish wood ant and the narrow-headed ant *F. exsecta* are key Cairngorms woodland species in the 2002 Cairngorms Local Biodiversity Action Plan. The blood red slave-maker ant *F. sanguinea* is also found in the Cairngorms area. In particular Strathspey supports the largest UK population of, the UK Red Data Book 1 (endangered) species the narrow headed ant *F. exsecta*.

Globally, the *rufa* group species *F. lugubris* and *F. aquilonia* are near threatened (IUCN 1996). With respect to the Nature Conservation (Scotland) Act of 2004 they and *F. exsecta* are on the Scottish Biodiversity List.

Sites supporting wood ants in Strathspey are threatened by proposed built developments. Moreover, surveys of wood ants at development sites are frequently lacking, inaccurate or incomplete.

Examples of threatened sites

Carrbridge

Native pinewood, bog woodland, dry heathland and long established flower-rich grassland and marsh are threatened by a proposal to build 117 houses at Carrbridge. The proposed development site and some adjacent ground support a nationally important *F. exsecta* population (Hughes 2005). This is the most northerly known surviving population in the UK.

The specialist ant-eating and ant-mimic spider *Dipoena torva* (Therididae), a UK BAP Priority Species, has been recorded feeding on *exsecta* at this site.

Nests of *F. exsecta, F. lugubris* and *F. aquilonia* are all threatened by the direct footprint of housing and associated infrastructure. There is also concern that sensitive bog woodland habitat supporting wood ants would be seriously compromised.

A wood ant survey carried out for the developer (Hughes 2005) is both incomplete and out of date and contains assumptions that are inconsistent with a precautionary approach.

Translocation of nests is proposed as mitigation. In Strathspey, attempts at translocating



wood ants have been poorly documented and most appear to have completely failed; locating suitable and unoccupied recipient sites is challenging; and associated species like *Dipoena torva*, or the Scottish Biodiversity List species the shining guest ant *Formicoxenus nitidulus* that is rare in Strathspey cannot be translocated, readily, if at all.

School Wood, Nethybridge

Ant nest at Carrbridge with the Notable Nest of *Formica exsecta* in grassland at

Nest of *Formica exsecta* in grassland at Carrbridge; use of this habitat was overlooked in a survey carried out for the developer Nest of *Formica exsecta* at Carrbridge being used by a basking lizard on a threatened site in bog woodland.

Native woodland on the Ancient Woodland Inventory is threatened by a proposal for 40 houses and industrial units. The ant-eating spider *Dipoena torva* and *Formica rufa* group ant nests have been recorded in the footprint of the site. *F. sanguinea* is also present in the wood.

No wood ant survey has been provided by the developer. The site is within 1km of two Natura sites, one of which holds a significant *F. exsecta* population.

Boat of Garten

Native woodland important for capercaillie, an endangered bird that can feed on wood ants and use wood ant mounds, is threatened by 77 houses. The developer's wood ant survey is incomplete and appears to have incorrectly identified *F. lugubris* as *F. aquilonia*. A vulnerable population of *F. exsecta* exists in surrounding woodland and could suffer from disturbance, habitat loss and fragmentation.





An Camas Mòr

(category B) beetle *Protaetia metallica*

Lowland heath and woodland on the Ancient Woodland Inventory are amongst habitats threatened by a proposal for a new town of 1500 houses (Edwards, 2009). *Formica rufa* group nests are frequent within the proposed development site area and *F. aquilonia* was reported by Townsend (2008) who referred to a "high concentration" of this species. Endorsement of a new town at this site by the National Park authority is controversial.



Wood ant on a threatened site at Boat of Garten where a survey for the developer recently overlooked the presence of nests of *Formica lugubris*.



Signs of capercaillie, an endangered woodland grouse on a wood ant nest at Boat of Garten.



Habitat of lowland heath and regenerating Caledonian pinewood used by wood ants at An Camas Mòr.



Wood ant at An Camas Mòr, where a 2008 survey referred to a high concentration of *Formica aquilonia*

Acknowledgements

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References

Edwards R 2009 Article in the Sunday Herald of 22 November referring to plans for 1500 houses at An Camas Mòr

Hughes J 2005. Planning papers, Cairngorms National Park Authority 05/495/CP

Townsend M 2008. Invertebrate survey in 2008 on land known as An Camas Mor, Aviemore, East Inverness-shire.

Opportunities for Better Delivery of Wood Ant Conservation

Badenoch and Strathspey Conservation Group (BSCG) advocates advance survey of sites to ensure any areas supporting important populations of wood ants are not selected for housing allocations. It would help to include wood ants as special features of designated sites and introduce second tier sites to afford wood ants better protection in the planning process. This was called for by BSCG at a public Local Inquiry in 2009 on the Cairngorms National Park first Local Plan but was unsuccessful.