



REVISED PLAN MARCH 2016

A CUCKOO BEE *Nomada ferruginata*

FOLLOWING MANY YEARS WITH NO RECORDS, IT IS PROPOSED TO PUT THIS ACTION PLAN ON HOLD UNTIL A SIGHTING IS CONFIRMED.

1. INTRODUCTION

Nomada ferruginata (previously known as *N. xanthosticta*) is one of the rarest of around 30 species of 'nomad' cuckoo bees. Nomad bees are wasp-like bees that are parasites of various mining bees. They can often be found swarming around mining bee nesting colonies and entering the host nest entrances to lay their eggs. The resulting larva then devours the contents of the host's cell (cleptoparasitism).



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Nomad ferruginata is classified as 'Nationally Threatened' and is the cleptoparasite of a bee, *Andrena praecox*, which flies mainly in March and April, foraging exclusively on sallow and willow catkins. The host nests in dry soils fully exposed to the sun, especially sparsely-vegetated clay or sand slopes. It has its strongest Warwickshire populations in limestone quarries, though it also occurs along some disused railway lines and old industrial sites, and occasionally within the wider countryside. This cuckoo bee also visits sallow (*Salix spp.*) blossom. Three Warwickshire localities are currently known, that at Napton Quarry being a relatively strong and constant colony. Other scarce cuckoo bees within the sub-region include *Nomada flavopicta* ('Nationally Scarce'), *N. hirtipes* (Nationally Rare), *N. lathburiana* (Nationally Rare) and *N. pleurosticta* (Nationally Scarce).

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Open Mosaic Habitats on Previously Developed Land', 'Lowland Calcareous Grassland', 'Quarries & Gravel Pits', 'Dotted Bee-fly' and 'Rare Bumblebees'		
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	To monitor and maintain up-to-date listings of sites in Warwickshire.	ON HOLD
B.	To maintain the size and range of known populations of <i>Nomada ferruginata</i> and its host bee.	ON HOLD
C.	To increase population size and range in the sub-region by encouraging strong host bee populations at known Warwickshire sites.	ON HOLD

3. NATIONAL BAP OBJECTIVES & TARGETS

Nomada ferruginata is not on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007([Joint Nature Conservation Committee](#)). It was a UK Priority Species in the original UKBAP Tranches 1 and 2 (1995-1999) and the [Nomada ferruginata](#) BAP (now archived) may still be seen online.

4. CURRENT STATUS

Nomada ferruginata was first discovered in Warwickshire in 1996, when many were observed at the upper sections of Napton Quarry, swarming around the host nesting areas and visiting willow blossom. This colony was checked in 2002 and 2010 and was still strong.

During 2002, single specimens were also encountered at Bishops Bowl, which has a strong host population that forages on both willow and white willow, and also at Dark Lane Quarry (SP32488 55814) at Lighthorne, bearing only a weak host population and limited willow.

Another 10 large limestone quarries were also checked during 2002, without success, though such sites need to be monitored as many support strong host colonies. *N. ferruginata* has been recorded sparingly across southern England, though the Warwickshire sites seem to be the most northerly confirmed ones in Britain. There is some evidence to suggest that it has increased its national distribution over recent years following a period of great rarity, and it is currently graded as Nationally Threatened ([Red Data Book](#) category1) by Falk (1991). The host is widespread but local in the south and east of Warwickshire (about 20 known sites), with the majority of its sites on brown-field land such as limestone quarries, old industrial sites and disused railway lines.

The species was last seen in 2010 at Napton Quarry but has not been seen since; the host bee is still present so *Nomada* may be hanging on at low levels. The species may have been affected by bad weather in the spring in recent years. The action plan will be put on hold until more sightings are recorded. Napton Upper Quarry will continue to be checked by the county recorder. Actions related to its habitat will be continued through the Quarry habitat plan.

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through [Sites of Special Scientific Interest](#) (SSSI) designation, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of

the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

No legal protection exists for the fly itself but Napton Quarry and Bishops Bowl each contain a [Geological Site of Special Scientific Interest](#) (GSSSI) which represent only a tiny part of the sites and both are designated [Local Wildlife Sites](#) (LWS). The habitat at Dark Lane Quarry has changed since 2002 (pers.comm. Steven Falk, 2013). As a Red Data Book species, the bee can be used to support SSSI and LWS designation.

4.2 Current Factors Affecting the Species

- **Threat of development** facing many biodiverse brown-field sites. Bishops Bowl has been subject of some recent development proposals.
- **Scrub encroachment and other successional processes** that result in the loss of host nesting colonies (the host requires reasonable expanses of open habitat for nesting).
- **Excessive removal of willow** (though some control is often essential to maintain the long-term quality of a site).
- **Excessive disturbance of sites** where this leads to catastrophic habitat loss (though piecemeal disturbance can be beneficial by creating new nesting habitat for the host).
- **The lack of formal designation for biodiversity** (SSSI) for all of the three known sites. The geological SSSI status of two of the sites affords little protection for the bee which does not live in the SSSI quarry face but sloping pasture areas nearby. However, all three sites have LWS designation and Bishops Bowl is in an HLS agreement.

5. CURRENT LOCAL ACTION

- Entomological survey work by [Steven Falk](#) has clarified our understanding of the cuckoo bee's status in the county.
- The whole hillside and quarry complex at Napton has LWS designation and there is currently scope for sympathetic management to enhance the wildlife value of the site.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS			
Policy, Legislation & Protection			
PL1. Designate all new <i>N. ferruginata</i> sites that qualify as LWSs at the earliest instance.	LWSP	WWT HBA LAs	ongoing

Site / Species Safeguard & Management			
SM1. Prepare and implement management plans that increase the quality at all 3 existing sites to fulfil the habitat requirements of <i>N. ferruginata</i> and its host.	WCC	NE WWT LWSP SDC LOs QOs	ON HOLD
SM2. Work with quarrying companies and other key landowners to produce new sites suitable for the <i>N. ferruginata</i> as opportunities arise.	WCC	LWSP LAs WWT QOs LOs	
SM3. Using information gained by RM3 , encourage 5 new colonies of <i>N. ferruginata</i> aiming at strategic locations to strengthen existing populations and extend the range, potentially in the Harbury and Ufton area.	WCC	WWT QOs CRec	
SM4. Actively target appropriate sites to include the habitat requirements of <i>N. ferruginata</i> in the management agreements of agri-environment schemes.	NE	WCC	
Advisory			
A1. Contact owners/managers of known <i>N. ferruginata</i> sites, explaining the significance of the populations on their land and providing advice on best practice management.	WCC	NE WWT SDC LWSP QOs LOs	ON HOLD
Research & Monitoring			
RM1. Maintain an up-to-date listing of <i>N. ferruginata</i> sites and monitor losses and gains.	WBRC	CRec	ON HOLD
RM2. Monitor the effectiveness and success of habitat management, enhancements and creation undertaken at key sites, and write up case studies.	WBRC	WWT HBA Unis	
RM3. Identify more potential sites for the host bee, targeting areas near to existing colonies of <i>N. ferruginata</i> .	WBRC	Unis WWT HBA	

Abbreviations: CRec – County Recorder, HBA - Habitat Biodiversity Audit partnership, LOs – landowners, LWSP – Local Wildlife Sites Project, NE – Natural England, QOs - Quarry owners, SDC – Stratford District Council, Unis – Universities, WBRC – Warwickshire Biological Record Centre, WCC - Warwickshire County Council, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2017 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

8. BIBLIOGRAPHY

Anon. (1999). *Nomada ferruginata* (a cuckoo bee) Species Statement. In: UK Biodiversity Group Tranche 2 Action Plans. Volume IV – Invertebrates. English Nature (now Natural England), Peterborough.

Falk, S. J. (1991). A review of the scarce and threatened bees, wasp and ants of Great Britain. Research & survey in nature conservation. No.35. Natural England, Peterborough.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

Defra (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

RSPB (2016) [State of Nature](#) – a stocktake of all our native wildlife by over 50 wildlife organisations.

Natural England (2016) The [Conservation Strategy for the 21st Century](#) sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

9. FURTHER INFORMATION

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 ([JNCC](#)) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

Kirby, P. (1992). [Habitat management for Invertebrates](#): a Practical Handbook. RSPB.

MineralsUK - the British Geological Survey's [Centre for Sustainable Mineral Development](#). This website has a wealth of information on mineral resources, mineral planning, policy and legislation, sustainable development, statistics and exploration.

[Nature After Minerals](#) is a resource for everyone with an interest in quarry restoration & minerals planning for biodiversity.

[Warwickshire CC Mineral Strategy](#) - the minerals development framework consists of a number of documents.

[Buglife](#) - the Invertebrate Conservation Trust

10. CONTACT

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