

Rediscovery of *Lasius bicornis* (FÖRSTER, 1850) in Belgium (Hymenoptera : Formicidae)

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Abstract

During the summer of 2003, an alate gyne of *Lasius bicornis* (FÖRSTER, 1850) was collected in a Malaise trap at Sint-Pieters-Voeren (Belgium) in a mixed oak, beech plantation on a former grassland that was abandoned at the end of the 80's. The only other Belgian record of this ant species goes back to 1912 when BONDROIT found a gyne of *L. bicornis* in the Hautes Fagnes close to Aix-la-Chapelle. *L. bicornis* is now again reported from the adjacent Voeren region. Possibilities to gather other *L. bicornis* records in the same and adjacent regions are discussed.

Introduction

Ant species, which have not been found during the last 50 years in our country, are considered to be extinct. Most of them were found on one or only a few occasions a long time ago and their persistent existence in Belgium is considered as uncertain (DEKONINCK & VAN-KERCKHOVEN, 2001). Recently two of them were rediscovered in Belgium (*Plagiolepis vindobonensis* LOMNICKI, 1925: BAUGNÉE, 2002 and *Myrmica lobicornis* (FÖRSTER, 1850): DEKONINCK *et al.*, 2004) and comments were made on the possibilities to rediscover these and other rare and doubtful Belgian ant species (DEKONINCK *et al.*, 2004).

One of these species, *L. bicornis* was only known from the Hautes Fagnes (locality: "Province de Liège: Hautes-Fagnes, Prusse rhénane: Aix-la-Chapelle; région située sur la frontière belgoprussienne à l'est de Spa") where one gyne was found in 1912 (BONDROIT, 1912; 1918). All over Europe *L. bicornis* is considered as a very rare ant species. In The Netherlands the last record goes back to 1926. All 'formerly' Dutch localities (3) are situated in the south of the country near the Belgian border (BOER, 2004; LOON VAN, 2004). According to SEIFERT (1988) *L. bicornis* is not known from the British Isles but elsewhere widely distributed all over continental Europe. It is apparently nowhere abundant and only seldomly found. Because of its rare status only few data on its ecology, nuptial flights and chorology are available. *L. bicornis* nests are known to occur in mouldered branches of living and decaying trees along

forest edges, in parks and orchards (SEIFERT, 1996; LOON VAN, 2004). In Germany alate specimens have been collected from the end of April until September (SEIFERT, 1993; 1996).

Rediscovery of *Lasius bicornis* in Belgium

The site where *L. bicornis* was rediscovered in Belgium after 91 years is an abandoned pasture that was planted with oak and beech at the end of the 80s of last century, in the Alserbos in Sint-Pieters-Voeren (UTM code: FS9823). One alate gyne was collected with a Malaise trap (02.VII.2003-07.VIII.2003) and probably caught during the nuptial flight. The specimen is deposited at the RBINS.

The place where the gyne was caught, a rather young dense and close plantation of small oak



Fig. 1. Alate gyne of *Lasius bicornis* collected in Sint-Pieters-Voeren and detail of head (head width = 1316 μ m and scape length/head width = 0.722) and petiolus.

and beech is not what we would call a suitable nest locality for this species. A search for the exact nest location in the neighbourhood in the summer of 2004 did not lead to the discovery of the nest. But nevertheless the Alserbos and a lot of other forest relicts in the Voeren region are surrounded with many old orchards and the nest is likely to be present there. Between the scattered forest relicts, besides orchards also hedges, hollow roads and isolated old trees (other possible nest localities) are more common than elsewhere in the country.

Status of *L. bicornis* and conclusions

In The Netherlands *L. bicornis* is considered to be a very rare species known from southern Limburg only and it is possibly already extinct in the Netherlands (LOON VAN, 2004). In most of the other European countries where it is recorded, the species is mentioned as a very rare and threatened ant species (COLLINGWOOD, 1979; SEIFERT, 1998; RADCHENCKO *et al.* 1999; STEINER *et al.*, 2002; BOER *et al.*, 2003). We assume this is also the case for Belgium. We add therefore *L. bicornis* as critical species (CR) to the Provisional Red List of Flemish ants (DEKONINCK *et al.*, 2003a; 2005).

We can conclude that although *L. bicornis* remained unrecorded for a long time, it can not be considered anymore as extinct in Belgium. This is probably also the case for some other species mentioned in DEKONINCK *et al.* (2004). Perhaps pitfall, white water and Malaise trap sampling or other intensive inventory work in regions and sites where those old records were noticed, will result in more ant rediscoveries. This record confirms that the Voeren region, where recently also other interesting and rare ant species were recorded (DEKONINCK *et al.*, 2003b; 2004), is a relatively under-explored region, that we can catalogue as a hotspot for ant diversity in Belgium.

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Quelques données biogéographiques intéressantes pour la faune belge de Myriapodes

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Abstract

Pitfall trapping of the hemi-edaphic forest fauna by the water and forest and the Biogeography and Ecology units of the Catholic University of Louvain has led to the capture of a number of remarkable species of myriapods. Their discovery has reinforced the view that while the most common species in the Ardennes are primarily Central European in origin, there is a strong connection with the Pyrenean fauna and with some Alpine species. Several taxa, including some new to Belgium, previously thought to be endemics in the Pyrénées and Alpes mountains have now been uncovered in semi-natural forests in the Ardennes, where they may be relict species. Three of these species are new to the Belgian fauna and reported for the first time.

Keywords: Myriapoda, Chilopoda, Diplopoda, Centipedes, Millipedes, *Lithobius*, *Ceratosphys*.

Résumé

Des piègeages réalisés par les unités des Eaux et Forêts et d'Écologie et de Biogéographie de l'Université catholique de Louvain ont donné d'intéressantes découvertes de Myriapodes en Ardenne détaillées dans cet article. Les captures réalisées ont confirmé le caractère centro-européen des espèces les plus communes de l'Ardenne. De plus, on a pu mettre en évidence des similitudes avec la faune pyrénéenne et avec certaines espèces alpines. Ainsi, plusieurs taxa, que l'on pensait précédemment endémiques aux Pyrénées et aux Alpes, ont été découverts dans des forêts semi-naturelles ardennaises où il pourrait s'agir d'espèces reliques. Trois de ces espèces sont nouvelles pour la faune belge.