

# The Amazon ant *Polyergus rufescens* (Latreille, 1798) (Hymenoptera, Formicidae) in Norway

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The Amazon ant *Polyergus rufescens* (Latreille, 1798) is recorded in Norway. Two cohorts were observed at Skåtøy, Kragerø municipality (TEY, EIS 11), 9 July 1995, raiding pupae of *Formica fusca* Linnaeus, 1758, which is one of the most reported hosts of the Amazon ant in Europe. These are the first records of *P. rufescens* in Norway. About 30 workers were collected, all deposited in the collections at the Natural History Museum of Oslo. The distribution and biology of the species are briefly discussed.

Key words: Formicidae, Formicinae, *Polyergus rufescens*, *Formica fusca*, Amazon ant, distribution, amasonemaur, biology, Norway.

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## Introduction

The knowledge of Norwegian ants is increasing and new contributions have recently been released (e.g. Suvak 2013, Ødegaard 2013). According to Ødegaard (op. cit.), the number of species in Norway has just reached 57, which is close to 60 – the number of Norwegian species estimated by Ottesen (1993).

The genus *Polyergus* Latreille, 1804, usually referred to as the Amazon ants, includes five species in the Holarctic, and three of them occur in the Palearctic (Czechowski *et al.* 2002). Members of this genus raid nests of ants belonging to the subgenus *Serviformica* Forel, 1913, and carry away pupae to be reared as auxiliaries in the home nest. This contribution treats the first record of the Amazon ant *Polyergus rufescens* (Latreille, 1798) in Norway. The record were actually done 20 years ago.

## The record

Two cohorts were observed at Burøy, Skåtøy, Kragerø municipality, Telemark County [TEY], 9 July 1995 by the senior author (RM). One cohort was moving along a path in a south faced slope [N58.856198° E9.517202° ±50m], about 10 m.a.s.l. The other cohort was observed close to the road [Skåtøyveien] [N58.855674° E9.518483° ±50m], about 7 m.a.s.l., and after a while crossing the road. The observations were done close to the seashore. About 30 workers were dry collected, all deposited in the collections at the Natural History Museum of Oslo (NHMO). Both cohorts were active raiding pupae of *Formica fusca* Linnaeus, 1758, and several workers could be seen carrying pupae in their mandibles (Figure 1). The area is considered as «warm» with both favorable summer and winter temperatures. Habitus and head of one of the workers are illustrated (Figures



**FIGURE 1.** Workers of *Polyergus rufescens* (Latreille, 1798) raiding pupae of *Formica fusca* Linnaeus, 1758. Photo: Reidar Mehl.

2–3). The species has later been observed in the same area in 2014 (Artsdatabanken 2014).

### Distribution

*P. rufescens* is recorded from most over Central and Southern Europe, southern part of Eastern Europe; the Caucasus, southern parts of Western Siberia and northern Kazakhstan; and eastwards to the Altai Mountains (Czechowski *et al.* 2002, Radchenko 2014). In Northern Europe it is recorded from Finland, the Baltic countries, Central and Southern Sweden, i.e. Skåne (Sk), Blekinge (Bl.), Halland (Hall), Södermanland (Sdm) and Uppland (Upl), usually very local and mainly restricted to the coastal areas (Collingwood 1979, Douwes *et al.* 2012). The record from Denmark by Radchenko (2014) is due to an error (Radchenko pers. med., Douwes *et al.* 2012.). The species is rarely observed in Europe, probably due to its cryptic lifestyle during most of the season.

### Biology

*Polyergus rufescens* is an obligatory social parasite or «slavemaker», entirely dependent on its hosts, which include ant species of the subgenus *Serviformica* Forel, 1913 (Czechowski *et al.* 2002, Douwes *et al.* 2012). *Formica fusca* Linnaeus, 1758, *F. cinerea* Mayr, 1853, *F. rufibarbis* Fabricius, 1793, *F. cunicularia* Latreille, 1798, *F. lusatica* Seifert, 1997 and *F. gagates* Latreille, 1798 are the most reposed hosts in Europe. According to Seifert (2007) *F. fusca* is the 2<sup>nd</sup> most observed host after *F. cunicularia* in Central and Northern Europe. The workers raid the nests and carry away pupae, which are later reared as auxiliaries in the home nests. The queens and workers are unable to feed themselves or raise broods, and are, thus, entirely dependent on captive hosts to survive. The nests are laid in dry and sunny areas at sheltered places (Czechowski *et al.* 2002, Douwes *et al.* 2012). The size of the colonies varies from a few dozen up to several thousand workers and even more slaves. The raids



**FIGURE 2.** Worker of *Polyergus rufescens* (Latreille, 1798), lateral view. Photo: Karsten Sund.



**FIGURE 3.** Head of *Polyergus rufescens* (Latreille, 1798), front view. Photo: Karsten Sund.

seem well organized and are conducted in July and August. The nuptial flight occurs at the same time. Only at this time the Amazon ants reveal their presence (Czechowski *et al.* 2002, Douwes *et al.* 2012).

The genus *Polyergus* includes three Palearctic and two more Nearctic species (Czechowski *et*

*al.* 2002, Douwes *et al.* 2012). They are easily recognizable from other formicine ants by the long falcate toothless mandibles and the thin and reduced palps (Figure 3). Only *P. rufescens* is known from Europe.

#### **Vernacular name**

The vernacular name «amasonemaur» is already proposed and well established in Norway (Artsdatabanken 2014). However, the name has sometimes erroneously been written «amazonmaur» or «amasonmaur » (Wikipedia 2014), probably confused with the Swedish «amasonmyra» or English «Amazon ant». However, in Norwegian these names only refer to «the ant from Amazonas», and not as the real etymological meaning, «the females raiding [men]», like the Amazons in Greek mythology.

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