

# Fungus gnats (Diptera: Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplatidae and Mycetophilidae) from Møre og Romsdal

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Faunistic data on fungus gnats from the county of Møre og Romsdal in Norway are presented and all species known from the county are summarized in a checklist. Treatment of some 23000 specimens, collected with one Malaise trap and one window trap for a whole year each, resulted in the identification of 315 species from a single site at Jordalsgrend, Sunndal municipality. Material from three other localities in Møre og Romsdal and a few previously published records adds 42 species, bringing the total up to 357 species belonging to the families Bolitophilidae (11), Diadocidiidae (6), Ditomyiidae (2), Keroplatidae (11) and Mycetophilidae (327). Ten of the species are considered to be new to science and three species represented with single females could not be identified to species level. Records of 57 species are published for the first time from Norway, including three species that have been listed from Norway without any published records. The 34 species included in the Norwegian 2006 Red Data List are commented on. The high species diversity found at Jordalsgrend reveals a new picture when compared with other surveys in the Nordic region, and may have implications for future forest management, as boreal-oceanic, old-growth, deciduous forests are underrepresented in most conservation plans.

Key words: fungus gnats, species diversity, checklist, Red List, Norway, Møre og Romsdal.

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## INTRODUCTION

Fungus gnats constitute a rich assemblage of nematocerous flies, traditionally placed in the superfamily Sciaroidea (e.g. Blagoderov & Grimaldi 2004). The family classification is currently under debate, where the latest contribution by Amorim & Rindal (2007) included nine families in the Mycetophiliformia and proposed a new superfamily classification. Five of the families (Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplatidae, and Mycetophilidae)

are by most European authors covered together by the informal name fungus gnats. The majority of fungus gnats with known habitat requirements develop as larvae in fungal substrates, like sporocarps of Agaricales living on the ground, wood inhabiting fungi and mycelia in decaying wood (e.g. Hutson et al. 1980, Yakovlev 1994). Adult fungus gnats are especially common and diverse in damp forest environments. From being largely neglected and underestimated in surveys (Ottesen 1993, Hedström 1994) the species diversity of Nordic fungus gnats have gained a