

# Resource partitioning between the breeding migrant Cyprus Wheatear, *Oenanthe cypriaca*, and the passage migrant Spotted Flycatcher, *Muscicapa striata*, in Cyprus

(Aves: Passeriformes)

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**Abstract.** The foraging behaviour of the passage migrant Spotted Flycatcher, *Muscicapa striata* (Pallas, 1764), was compared with the breeding migrant Cyprus Wheatear, *Oenanthe cypriaca* (Homeyer, 1884), in Cyprus during May 2009. *M. striata* preferred higher perches, had shorter distances to the next perch, made more aerial sallying per minute and less perch-pounce foraging, and showed a higher overall foraging rate per minute. Based on a principal component analysis, *M. striata* was characterised by high perches and exclusively aerial foraging, while *O. cypriaca* was characterised by perch-pounce foraging and larger distances to the next perch. Despite some niche overlap, both species differed in some aspects. Six direct encounters between *O. cypriaca* and *M. striata* have been observed, and *O. cypriaca* was always the winner. *M. striata* showed a higher foraging speed which is in line with observations in resident-migrant bird assemblages in Africa, where migrants also often had a higher foraging speed. By contrast, the breeding species *O. cypriaca* was more flexible in its foraging strategies.

**Key words.** Breeder-migrant assemblage, coexistence, foraging mode, resource partitioning.

## Introduction

Resource partitioning has often been studied in breeding bird communities, mainly with a focus on foraging and/or habitat choice (e.g. CODY & WALTER 1976, CODY 1985). Some studies also looked at competition between resident species and winter visitors in the winter quarters (e.g. GREENBERG 1995, SHERRY & HOLMES 1996, SALEWSKI et al. 2003), while resource partitioning between resident breeders and migrant species during migration periods has received less attention (see e.g. HERRERA 1978, HUTTO 1985, GREENBERG 1986). Many migrant bird species roost on small islands in the Mediterranean Sea, sometimes in considerable numbers, and these individuals may compete with migrant breeders for food. I therefore compared the foraging behaviour of the passage migrant Spotted Flycatcher, *Muscicapa striata* (Pallas, 1764), with the migrant breeder Cyprus Wheatear, *Oenanthe cypriaca* (Homeyer, 1884), in Cyprus.

*Oenanthe cypriaca* has been treated as a species separate from *O. pleschanka* (Lepechin, 1770) since 1982 (SLUYS & VAN DEN BERG 1982) because of morphometric measurements, less pronounced sexual dichromatism and a significantly different song (SLUYS & VAN DEN BERG 1982, KABOLI et al. 2007). In comparison to other species of the genus *Oenanthe*, *O. cypriaca* is rather vegetation tolerant and breeds even in areas with a relatively dense cover of trees and bushes. As regards foraging strategies, *O. cypriaca* is the most arboreal species with the highest perches compared to all other *Oenanthe* species, and it often forages by aerial sallying in a flycatcher-like manner (RANDLER et al. 2010).