

ANTS, PLANTS AND TETTIGOMETRIDS (HEMIPTERA, FULGOROMORPHA)

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Only few Fulgoromorpha species are ant-attended. These associations occurred independently from the ancestral habitat (contra Schaefer, 1987) and several times (Bourgoin, in press). Several families are concerned with trophobiosis but Tettigometridae are those which most often enter into mutualistic associations with ants. In tettigometrids such associations should be correlated with several autapomorphic morphological characters (reduction to loss of anal combs, sclerites of the tenth segment almost fused and ring like and probably the loss of the anal apodemes, loss of the jumping apparatus and loss of larval sensory pits) and particular behavioural traits (subsociability, sessile behaviour) (Bourgoin, in press). However, the importance of the host plant in the formation and maintenance of ant-fulgoromorph associations has never been studied and impact of plants on the quality of honeydew produced may also influence these associations (Bristow, 1991).

To check this point, a review of the literature has shown that :

1. Most reports on ant-mutualism with fulgoromorphs concerns Tettigometridae (> 70%).
2. Most records on tettigometrids host-plants concern dicots (> 75%) and within this group Rosidae (> 35%) and Asteridae (\pm 15%) are the more important while Magnoliidae represent only 5%.
3. No more than \pm 50% of tettigometrids appear to be monophagous.
4. When ant-attended, Tettigometridae are almost always observed on Rosidae (> 80%).

Host-plant pattern in Tettigometridae looks a little different from those reported by Wilson *et al.* (1994). These results are discussed in relation with the morphological and behavioural characteristics of the Tettigometridae and their phylogenetic affiliation within the Fulgoromorpha.

References

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PROGRAM & ABSTRACT BOOK



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