

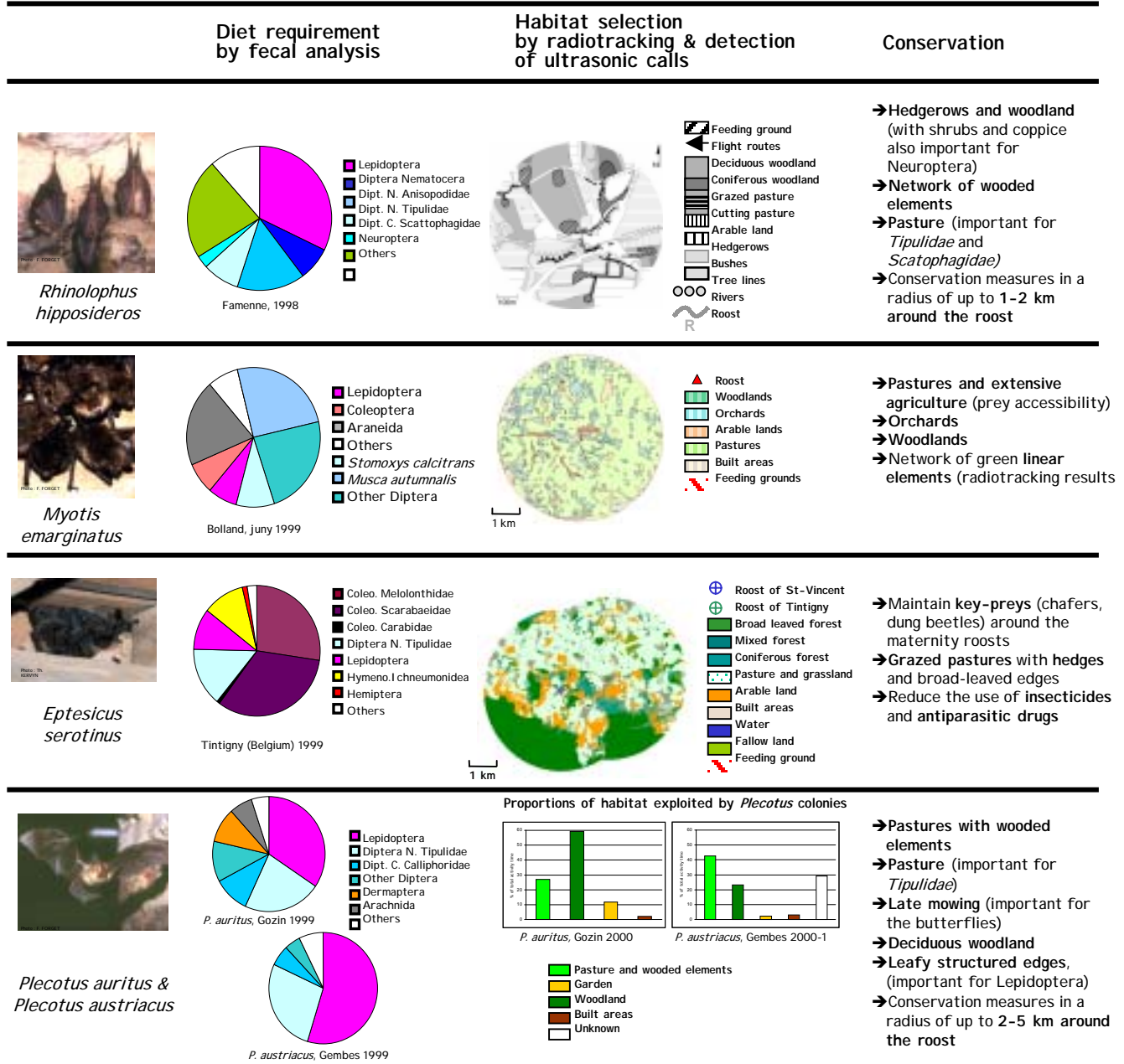
Eco-ethological studies of bats demonstrate the need for a propitious large-scale landscape management to improve their conservation status

Th. Kervyn, G. Motte, M-C. Godin, R. Libois

Université de Liège, Institut de Zoologie, Unité de Recherches Zoogéographiques
(G.Motte@student.ulg.ac.be), 22 Quai Van Beneden, B-4000 Liège

Introduction

In the bat preservation policy, focus has long been put on the conservation of hibernation caves and, more recently, on their maternity roosts. Research developed by our team since more than five years on different threatened species have evidenced the major interest of a third component of the bats life : food and feeding grounds. The study of the diet and of its seasonal and local variations as well as investigations about the habitat use have shown the major importance of some insect taxa as well as the predominant use of some habitat features.



Conclusion

Different arthropod species: spiders, cockchafers, *Aphodius*, tipulids and, in the case of *M. emarginatus*, the blood-fly (*Stomoxys calcitrans*) play a key-role in the energy balance of the bats. Some of them are very sensitive to the use of helminthocides in the cattle. To implement an efficient bat conservation programme, special attention should be paid to this problem. Some habitat features, such as hedges, meadows, deciduous forest edges and some types of deciduous forests are preferred by the bats as feeding grounds. The preservation of a semi-open landscape (with hedges, isolated trees, tree rows...) or of a convenient forest cover is of peculiar importance for the conservation of bats. As they forage at distances varying from the immediate vicinity of their roost to several kilometres, strong landscape restoration or preservation measures should be taken at least in a radius of 2 km from the roosts. When designed for every bat species, the Natura 2000 areas should be large enough to incorporate the feeding grounds and their connective elements.