

## Book review

**SCHLICK-STEINER, B.C., STEINER, F.M. & SCHÖDL, S. 2003: Ameisen (Hymenoptera, Formicidae). 1. Fassung 2002. Eine Rote Liste der in Niederösterreich gefährdeten Arten. – Amt der NÖ Landesregierung / Abt. Naturschutz, St. Pölten, 75 pp.**

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Today, the most useful instrument through which one can evaluate the degree of threat to animal and plant species is the Red List. The purpose of these lists is to provide nature protection agencies with information essential to achieving their goal of biodiversity protection. However, to assemble reliable and relevant data – even if this information has a short lifespan (Red Lists should be regularly updated) – two basic but main conditions should be met: accurate knowledge of the taxonomy of the group involved and an extended database of the distribution and abundance of the species over the studied area. Even if these two conditions may seem to be easily fulfilled with several groups of vertebrates like birds or amphibians, this is not always the case for invertebrates. The small number of invertebrate specialists (especially taxonomists, indeed a critically endangered species in some countries...) or highly qualified amateurs (compared, e.g., with ornithologists) makes our knowledge relatively poor and scattered. On the other hand, the number of species of some invertebrate families or orders is simply too high to deal with (e.g., 3,500 species of Lepidoptera in Switzerland).

The work of Schlick-Steiner and collaborators on the ant fauna of Lower Austria (Niederösterreich) provides a very valuable example of what could be done. Based on myrmecological literature, museum collections and recent collection and identification work, the authors identified 60,000 specimens from over 1,200 localities distributed over an area of 19,174 km<sup>2</sup>. Their enormous achievement has not only produced a Red List of ants of Lower Austria, but also offers us a very informative publication on this ant fauna. Lower Austria sheltered 111 species (state of November 2002), among them three being introduced species. The ant diversity is rather high if compared with the ant fauna of Central Europe (160 species, Seifert 1996) and Austria (122 species, STEINER & al. 2003). The current situation reveals two extinct species (1.8 %) and 72 threatened species (66.7 %) compared with 29 species (26.9 %) unthreatened. The categories used to classify the status of these species are the 1999 IUCN

criteria (extinct, critically endangered, endangered, vulnerable, near threatened, not enough data to be strictly evaluated, and data deficient). Actually the IUCN Red List Categories have been readapted and the version 3.1 (IUCN 2001) is in use. But in order to compare their list with already published Red Lists of Lower Austria, the authors had to apply the previously used criteria. This is appropriate, but in the next edition, it will be necessary to apply the new criteria (albeit slightly adapted as, e.g., in the recent Red List 2002 of the Swiss dragonflies by GONSETH & MONNERAT 2002).

The publication is subdivided into eight main chapters: A general introduction about ants is followed by the list of ants in Lower Austria. This goes beyond a mere species list since the authors added information on distribution and abundance of the species with regard to biogeography zones of Lower Austria. The next chapter is devoted to the Red List of ant species in Lower Austria. The main body of the publication is a presentation of each species of the Red List with information on its distribution, biology, degree of threat and protection, important references, a map with the known localities (before 1980, before and after 1980, after 1980) and a picture either of the ant or of its habitat. Much fundamental knowledge can be obtained from reading just this part. Here forty-three species are discussed corresponding to the criteria 0 to 4 (extinct to near threatened). The species of the categories 5 and 6 are briefly discussed in the next chapter. A considerable bibliography (over 70 references) can be found along with a very useful index.

In conclusion, this publication offers much more than a simple Red List; it is a complete and very nice book on the ants of Lower Austria and should be adopted not only by specialists but also by everybody concerned with nature protection and biodiversity.

### References

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- SEIFERT, B. 1996: Ameisen: beobachten, bestimmen. – Naturbuch Verlag, Augsburg, 352 pp.
- STEINER, F.M., SCHÖDL, S. & SCHLICK-STEINER, B.C. 2003: Liste der Ameisen Österreichs (Hymenoptera: Formicidae), Stand Oktober 2002. – Beiträge zur Entomofaunistik 3: 17-25.