

## Book Review

**PETER HUEMER 2001. Rote Liste gefährdeter Schmetterlinge Vorarlbergs.** Vorarlberger Naturschau im Auftrag der Vorarlberger Landesregierung, Dornbirn. Pp.1–112, 1 CD-ROM. ISBN 3-902271-00-0. Price € 15.00. [in German]. To be ordered from: Vorarlberger Naturschau, Marktstr. 33, A-6850 Dornbirn, Austria.

Red Data Books document the degree of threats to species and thus provide important information for officials, landscape planners, conservationists and others. More than 1500 Red Data Books have been published in the German speaking countries until 1998. Most of them are simple lists with species names placed in one of the categories “regionally extinct”, “critically endangered”, “endangered”, “vulnerable”, “near threatened”, and “least concern”. Moreover, to a large extent these lists are a matter of very subjective concern, since the authors show no data to underpin why they place a given species in a particular category. It is therefore not surprising that many of those categorised species became known to be misplaced, e.g. “extinct” species subsequently turned out not to be infrequent, whereas others became known to be much more rare than originally thought. Such circumstances are found the more frequently the less studied a taxonomic group is. It is therefore not surprising that the value of Red Data Books is often critically debated. However, there should be a tool available providing efficient information on which animals need more attention than others in nature conservation. Peter Huemer has now shown how to write a Red Data Book in an understandable manner. Based on comprehensive data received from collections, publications, databases and own field work he analysed the occurrence of all the 2307 species of Lepidoptera currently known to occur in the Austrian province of Vorarlberg. Additionally to the categories mentioned above, Huemer adds the two categories “data deficient” and “not evaluated” as well as a list of misidentifications and erroneously recorded species. Explanations are given of how the author defines each category, why each species was placed in it and how urgent the need is for active protection. For some species a map with distribution records from Vorarlberg is included, accompanied by colour photographs. Analysing the quantitative data of species records and their habitats, Huemer shows a significant correlation of species decline by intensification of land use, e. g. in urban settlement or agriculture. The legal situation for conservation with a particular emphasis of species of the fauna-flora-habitat directive of the EU is discussed and regional and national responsibilities and action requirements for conservation are shown. A list of references and a bibliography of the Lepidoptera from Vorarlberg conclude the work. A very useful and important tool of this Red Data Book is the enclosed CD-ROM. For each species, the status within the Red Data Book is given together with quite detailed information on their habitat, vertical distribution, and larval habits. This table makes the entire Red Data Book understandable and may function as a basic tool for forthcoming Red Data Books on Lepidoptera. The Red Data Book of the Lepidoptera from Vorarlberg may be called a successful step in developing intelligent tools for the protection of these animals. Surely, it is not the final quality we want to have. Peter Huemer analysed more than 85.000 data records, the bibliography of the Lepidoptera from Vorarlberg and all its important collections, but for as many as 269 species data remain deficient. Yet it is rather common in entomology that too few specialists have to deal with too many species. Peter Huemer’s Red Data List can be regarded as a land-mark step in the right direction.