

Peter Huemer 2004. Die Tagfalter Südtirols. – Veröffentlichungen des Naturmuseums Südtirols 2: 232 pp. – Hardcover (ISBN 3-85256-280-5). 44,40 €. (in German)

The butterflies of South Tyrol in northern Italy are now treated in the book “Die Tagfalter Südtirols” by Peter Huemer. South Tyrol, situated in the eastern Alps, comprises an area of just 7,400 km², but altitudes extends from 210 m to 3902 m providing extreme different habitats. Still until the 1970s, South Tyrol was famous as a paradise for Lepidoptera, but since that time man occupied much more land, especially for settlement and apple plantations. However, the impact of these changes on the composition of the butterfly species communities was not well known yet. For three years, Peter Huemer studied the relevant faunistic literature from the very beginning in the late 18th century to the beginning of the third millennium. Further, he studied south tyrolian butterflies in several institutional and private insect collections and went out himself to look for rarely recorded species, visiting localities where certain butterfly species occurred formerly or investigated areas from which butterflies have rarely been recorded. After all, the butterfly fauna of South Tyrol comprises 185 species (after elimination of doubtful records). The book starts with a general chapter, giving an introduction into geography, geology, climate, and vegetation of South Tyrol, methods used and a summary of the main results, e.g., occurrence of butterflies at different altitudes, ecological adaptation of the species and threats. The main chapter treats the species. For every species, information is given for identification, general distribution, regional occurrence, habitat, phenology, larval food plants, life history, and threats including recommendations for conservation. Records from South Tyrol are shown on relief maps and are distinguished between those made either before or after 1980. The book is completed by a list of references cited, a systematic index of the taxa, an alphabetic index of the scientific names and an alphabetic index of the German names.

The book is printed in colour throughout. More than 100 butterfly species are figured by colour photos taken from living specimens in nature, plus images from immatures and butterfly habitats. The text is written concisely and full of information. Among others, the reader will learn about *Libythea celtis* (Laicharting, 1782), which is the first lepidopterous species originally described from South Tyrol. At the beginning of the 20th century, it was still that common that it was mentioned as a pest, but it is regarded as endangered today. Its larval food plant, *Celtis australis*, naturally grows in the same areas which are especially suitable for apple. The displacement of natural stands of *Celtis australis* by apple orchards and the use of pesticides are therefore regarded as the main threats for the decline of *Libythea celtis*. Indeed, a summary of the main threats for the butterflies of South Tyrol lists agricultural management including the use of pesticides, intensive forestry, and urban settlement. Fortunately, the highest number of butterfly species can be found between 1000–1500 m altitude, an area which is not in favour for these activities by man and this holds much more true for alpine species. A revised version of the regional red data book of the 185 butterfly species lists 11 species as regionally extinct, 8 are critically endangered, 8 are endangered, 10 are vulnerable, 46 are nearly threatened, 70 are least concern, and for 25 species the data are deficient.

“Die Tagfalter Südtirols” by Peter Huemer is a basic tool for all who are interested in the butterflies from South Tyrol and their conservation. It is scientific and popular. The book has a high potential to fascinate South Tyrolians and especially young people for their native butterflies. They will find all necessary information in this lovely made book to start studying these creatures in nature. And this is what sustainable conservation of butterflies needs today: beginners.

MATTHIAS NUSS