

Grimmberger E (2014) *Die Säugetiere Deutschlands: Beobachten und Bestimmen*. Quelle & Meyer Verlag, Wiebelsheim. ISBN 978-3-494-01539-2. Price: €19.95.

The first field guide of European mammals ever published was written by the Dutch naturalist Frederik Hendrik van den Brink in 1957. The extraordinary popularity of this book, which was reprinted principally in German many times, was evidence of how badly mammalogists across the continent were in need of a concise compilation of data on European mammals. More field guides followed and since 1987 when Martin Görner and Hans Hackethal included the European part of the former Soviet Union in their manual, we have access to compiled information on mammals ranging between the Atlantic coast in the west and the Ural Mts. in the east. Within this wider geographic scope, Eckhard Grimmberger co-authored a comprehensive Atlas of the mammals of Europe, south-western Asia and northern Africa in 2009, which set a milestone as the first complete photographic collection of mammalian species of the western Palaearctic. The most recent Grimmberger's publication deals with the mammals of Germany. Despite this restricted geographic scope I believe that the guide will attract attention on a broader European scale.

In 561 pages using a pocket guide format, Grimmberger has managed to condense a whole wealth of information on 132 species of mammals. Because several domesticated forms (cattle, sheep, pig, horse and ferret) duplicate their wild ancestors, the actual number of species is less than 132. Besides, several species do not occupy Germany yet, but are expected to reach its territory in the near future while spreading their ranges northwards (these are found under the category "possible newcomers"). Some other mammals which are infrequent fugitives from captivity ("occasional escapees") and "irregular visitors" further downscale the number of species which may be accepted as genuine occupants of Germany (category "native free living"). Within the latter category, Grimmberger lists 103 mammals, but this number also includes indisputable exotics of various age (e.g. rats, house mice and a musk rat) as well as reestablished extinct species such as wild horses and aurochs which can hardly be regarded as genuinely free living animals. In a world so strongly influenced by man, as is the case with Central Europe, categorizing mammals as being "natural" occupants or not is arbitrary in many cases and Grimmberger escapes the trap by employing an unorthodox grouping of native fauna. One of the categories contains "landscape maintainers", i.e. (semi)domestic browsers and grazers which are of key importance in maintaining landscape in early successional stages.

The main body of the book is organized taxonomically, from orders down to species. Taxonomy and nomenclature conform to general usage, with several minor



deviations. For example, the long-fingered bat is in the family Miniopteridae (more commonly treated as a subfamily of Vespertilionidae), the western and eastern forms of house mice are classified as distinct species (normally a subspecies), and the mouflon is considered to belong to *Ovis gmelini* (frequently classified as *O. orientalis*). Contrary to the still widespread usage of the generic name *Myodes* for bank voles, Grimmberger returns to the once widespread name *Clethrionomys*, which is correct from the formal nomenclatural point of view.

Supraspecific categories are described briefly, but wherever appropriate contain details on recognition of taxa within their scope. Species accounts have a standard structure with scientific and vernacular names, followed by accounts on characteristic features, a comparison with similar species, distribution, habitat occupied, mode of living and conservation status. Text is accompanied by 1075

colour figures and a great majority of them are of top quality. Included in the figures are entire animals and parts of their body, particularly if relevant for taxonomic identification. Further photographs of habitat, tracks, excrement, characteristic behavioural postures, and abnormal colour morphs are also most helpful in giving one a better idea of the animal in question. Illustrations are nicely designed and integrated into the narrative part of the book. Distributions are shown on 37 maps. Although some mammals are widespread in Germany, and as such do not require maps, I would appreciate seeing maps of all species with fragmented ranges and those whose range borders cross the country. Needless to say, the guide contains an introductory part and is reasonably well referenced.

This book is a field manual, and from such publications, one expects to be able to identify species seen in nature. Due to their secret nocturnal life and abundance of cryptic species, mammals are certainly not an easy group to be dealt with in a popular field guide. Grimmberger devotes considerable attention to this topic and has made the guide user-friendly by including a plethora of photographs showing important morphological details. The majority of the photographs are good and some are breathtakingly sharp. Bats are particularly well elaborated in this respect. Despite the high quality of the illustrations, I came across figures which are below the overall level of the publication. Molars of murids frequently lack the necessary shape to comfortably recognize individual cusps, and in several cases (e.g. in the coypu) the pattern of cusps or enamel folds is heavily worn out. Homologous structures are not always in the same position, which will probably cause unnecessary troubles to the reader. For example, the lingual or the labial sides of the mandible are shown interchangeably, as is the left or the right semi-mandible. The lack of consistency is even more disturbing in complex structures such as arvicoline molars. In the majority of cases, the anterior of the structure is at the top, but the reverse is the case with the cheek-teeth of a coypu. More care should be devoted to ensure symmetry of the photographed skulls. In addition, I believe it would be more helpful for the user to see the skulls in one of the three traditional positions (dorsal, ventral or lateral), instead of the semi-lateral one, which is not always shown at the same angle. When the skull belongs to an immature animal (as is the case with the ship rat found on p. 325) users should be alerted to this. It would also help the reader to

see more narrative information on the body parts to be integrated in the figures. For example, photographs of the mesopatagium of several *Pipistrellus* bats (pages 103, 106, and 113) would benefit if the position of the elbow joint and the wrist would be indicated.

There are a number of oversimplified or superficial statements throughout the text. The edible dormouse, the stone marten and the ermine are all reportedly (almost) widespread in Europe although they are absent from significant parts of the continent: the stone marten from Scandinavia and large segments of Eastern Europe, the ermine from Southern Europe, and the edible dormouse from the majority of Spain and Eastern Europe, as well as from Scandinavia; the pine marten reaches western (and not eastern) Siberia; the Alps are not the southern range border for the European pine vole since a significant portion of its range is in the Balkans, the long-tailed field mouse does not reach Asia and so forth. The European snow vole is characterized as an occupant of high altitudes, which certainly does not hold throughout its range. The species depends on the accumulation of rocks and boulders which are exposed above the tree line in the mountains in Germany. Truly, none of these errors are fatal, and the majority would be eradicated by checking the ranges on the IUCM Red List webpage.

Despite the above criticism, the positive aspects of the book heavily outweigh its weak points and errors. The manual is well organized and more than worthy of further upgrades. This edition is entirely in German which makes sense for a field guide devoted to German naturalists, but is a handicap from the position of potential non-German users. It is my hope that in future, the author will decide to expand the geographic scope, perhaps to cover Central Europe, and translate the text into English. However, I am convinced that mammalogists will be interested in the current edition, most notably to gain insight into the morphological details of species which are figured with great accuracy. The price is very reasonable for the amount, scope and quality of this work and I would not hesitate to recommend it to anyone interested in European mammals.

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