[©] Entomologica Fennica. 19 April 2002

Book review

Entomological terminology explained

Gordh, G. & Headrick, D. H. 2001: A Dictionary of Entomology.—CABI-Publishing, Wallingford (U.K.) and New York (U.S.A.). 1032 pp.

As an insect physiologist, who has often struggled with specifically taxonomic terms and technical words describing insect body parts, I have frequently wondered why there wasn't a suitable book in the library that I could consult to look up the unknown vocabulary. Our library could be excused in the past for not providing such a book, but with the advent of Gordh and Headrick's hefty volume "A Dictionary of Entomology" there won't be room for excuse any longer. On 1010 pages (22 additional pages are devoted to listing journal titles and entomological books covering common insect names) hundreds of entomological terms and names of entomologists are alphabetically listed. Each entry is followed by a brief explanation, which seems adequate and for the most part correct when it concerns insect taxonomy, morphology, and anatomy.

I appreciated these brief and clear explanations, but I also noticed that this dictionary falls short in its attempt to additionally provide physiological and ethological information. Under 'ultraviolet', for instance, the book states that it is electromagnetic radiation "below the colour violet (ca. 300 nm)." That is simply not true. And neither is the statement under 'compound eye sensitivity' that ultraviolet sensitivity has not been studied extensively: it has been studied in very great detail! In this context not to mention even once in the entire book the Nobel laurate and beedance discoverer Karl von Frisch is unforgivable. UV-wing patterns, so important in numerous species of butterflies (e.g. Meyer-Rochow & Järvilehto 1997), are ignored by the authors and the mentioning of the fact that polarized light can be perceived "by some insects" and then referring to "Lubbock 1882" reads like a joke. Wehner's as well as Horvath's wonderful and much more recent studies on insect orientation and polarization sensitivity are not mentioned (e.g. Wehner 1989, Horvath 1995). A separate entry under 'polarization sensitivity' does not exist.

My worry is that an insect taxonomist or anatomist, familiar with the terms of his/her speciality, may wish to consult this book to obtain information on physiological or molecular terms that he or she is not so familiar with. Those terms, however, this book either does not contain (after all, it is already over 1000 pages thick) or, as seen with my criticisms on ultraviolet and polarization sensitivities above, it gives outdated information. The only entry starting with DNA is 'DNA-probe'; yet more and more specific insect-molecular terminology creeps into the entomological literature and I feel it would have been an advantage to include such words. As someone, who has researched troglobitic as well as troglophilic insects (for definitions, cf. Lamprecht & Weber 1985), I was not at all amused when I discovered that these two important terms are not included in the book either. Entries for the two important research areas 'insect diseases' and 'ethno-entomology' are also missing. Certain inconsistencies in a book of this size and concept are, of course, inevitable, but I wondered why the common garden snail and the "bird-dropping spider" were mentioned, but tarantulas or bird-eating spiders were not. The small beetle family Karumidae is listed under 'K', but in the list of families under Coleoptera the same family is neither to be found under 'K' nor 'C'.

Yet, the book is nevertheless an extremely useful dictionary, especially for readers who want to understand and write entomological articles, but whose native tongue is not English. Incidentally, the dictionary does not give guidelines on pronunciation (which is a bit of a pity as any reader who attends an entomological meeting with participants from many different countries would realize). I suppose the authors of the book would reply to much of my criticism that the book is already quite voluminous and that it would be even thicker (and costlier) if they followed some of my recommendations. Well, perhaps not (see below).

In my view, the book contains far too many names of researchers, take for instance page 485 (the start of the letter 'J'): out of 47 entries, 41 refer to people, starting with *Jablonowski*, *Joseph* and ending with *Janse*, *Antonie Johannes Theodorus*. Are all these men and women really so important that they must occupy valuable space in this Dictionary of Entomology? And what about the earth-scientist Alfred Wegener? As one of the earliest proponents of continental drift, there is some justification to include his name, but please with the correct spelling (not "Wegner, Alfred"). The same holds true for Jacob von Uexküll, misspelled in the dictionary as "Uekull, Jakob Johannes Baron von".

Leaving out many of the less important names would be one way to free up space in the book and allow the inclusion of more relevant material. Another would be to limit the list of appended journal titles. Why have journal titles without publishers' addresses or web pages been included? I found many almost totally unknown journals listed, but our own, Entomologica Fennica, which at least has an impact factor (!), was not among them. Notwithstanding that criticism, the Dictionary would be an excellent addition to many a researcher's own bookshelf and some of our institutional libraries. I wholeheartedly agree with the motto of the book, printed on page *vi* of the dictionary as a quotation of the 19th century vertebrate zoologist Richard Owen: "Terms are the tools of the teacher; and only an inferior hand persists in toiling with a clumsy instrument when a better one lies within one's reach".

References

- Horvath, G. 1995: Reflection-polarization patterns of flat water surfaces and their relevance for insect polarization vision. — J. Theoret. Biol. 175: 27–37.
- Lamprecht, G. & Weber, F. 1985: Time-keeping mechanisms and their ecological significance in cavernicolous animals. — Natl. Speleol. Soc. Bull. (US) 47: 147–162.
- Meyer-Rochow, V. B. & Järvilehto, M. 1997: UV-colours in *Pieris napi* from northern and southern Finland: Arctic females are the brightest! — Naturwissenschaften 84: 165–168.
- Wehner, R. 1989: The hymenopteran skylight compass: matched filtering and parallel coding. — J. Exp. Biol. 146: 63–85.

V. B. Meyer-Rochow