

Book Review

Book Review: De Nederlandse rivierkreeften (Astacoidea & Parastacoidea)Gerard van der Velde^{1,2}

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Crustaceans belong to one of the most successful groups of aquatic invaders globally. Alien freshwater crayfish are nowadays expanding their areas, colonizing water bodies where they were absent before. Some decades ago it was not useful to make a whole book on freshwater crayfish identification as only a few alien species were established in a small number of countries. This situation has changed drastically in the last few decades. In 2006, two identification guides for Europe written in English were published, viz. Pöckl et al. (2006) and Souty-Grosset et al. (2006) both dealing with 16 species of crayfish, which were all non-native species in some areas via introductions for either aquaculture or the aquarium trade. The first of these guides presents information on diagnostic characteristics, common names, distribution, ecology and life history, impact, legislation, culture and capture fisheries and photos of crayfish species, figures of the carapace, and both chelipeds and other diagnostic characters. The second guide is more extensive providing also information on subjects such as phylogeny, biogeography, habitats, pathogens, parasites and ectocommensals, crayfish conservation and management. This atlas also provides distribution maps for whole Europe.

Now a new guide written in Dutch is presented in the series *Entomologische Tabellen*, providing extensive and also new information on the crayfish species nowadays occurring in the Netherlands (Koese and Soes 2011). This

booklet of 107 pages is very well illustrated with 214 figures and photos, of which most are produced in colour. It is a complete guide for Western Europe with respect to native as well as non-native species and solves some taxonomic puzzles from the past. After an introduction, chapters follow on crayfish biology, holes, predation, diseases and ectocommensals, abiotic factors, their colonization history, environmental and ecological damage, burial behaviour, methods for sampling and observation, capturing the crayfish, and legislation. Subsequent chapters cover body morphology including gonopods, systematics and distribution, and a checklist for the Netherlands, Germany, Belgium, France and Great Britain. Instructions are added on how to use the key. The key itself includes figures and photos of all species, of their chelipeds, abdomen, carapaces, drawings of their gonopods and other body parts. Furthermore it presents descriptions of all species, their habitat, life cycle, including photos of each crayfish species in its natural environment. The guide presents distribution maps of all species (10) recorded in the wild in the Netherlands based on observations of many volunteers, all of which are mentioned in an appendix. Strangely enough, natural history museums such as Naturalis were lacking in this list so it is not clear if museum collections were checked. Neither did the authors use newspaper articles as a source of information. The book ends with a reference list, a summary in English, acknowledgements and

the key in English. Last but not least, a list of observers and institutes such as water boards that provided observations is added, and at the end an index can be found.

Overall we can congratulate the authors on this nice piece of work which is presented so well. This booklet is a must for everyone interested in the biology of crayfish and their invasions. Even when you cannot read Dutch, the numerous illustrations help you in their identification and you can also use the key in English.

References

- Koese B, Soes M (2011) De Nederlandse rivierkreeften (Astacoidea & Parastacoidea). *Entomologische Tabellen* 6: 1-107. ISSN: 1875-760X (Price in euros: 12.50. To order send an e-mail to: eis@ncbnaturalis.nl)
- Pöckl M, Holdich D, Pennerstorfer J (2006) Identifying native and alien crayfish in Europe. European Project Craynet, 47 pp
- Souty-Grosset C, Holdich D, Noël PY, Reynolds JD, Hafner P (eds) (2006) Atlas of Crayfish in Europe. Muséum national d'Histoire naturelle, Paris. 187 pp (Patrimoines naturels, 64)