Handbook of European Freshwater Fishes. Maurice Kottelat. Jörg Freyhof. 2007. Kottelat, Cornol, Switzerland and Freyhof, Berlin, Germany. ISBN 978-2-8399-0298-4. 646 p. $130.00 (hardcover).—To paraphrase Ralph Waldo Emerson, “The taxonomy of one age is the literary entertainment of the next.” In their opinion, the ESC allows a population that can be diagnosed to be recognized as a species. A species is what a taxonomist or, in this instance a pair of taxonomists, say it is. Subspecies and polytypic species are not recognized.

The last entry for each account, Further reading, provides references relevant to that species account. This is, in my opinion, another weakness even though I have seen this approach in other recently published books on fishes. No citations appear in the text; instead, relevant references are provided at the end of each account. I fail to see how this approach is an improvement over the tried-and-true method of citing specific sources with the information. One assumes that information in the Handbook, other than original data or thought by the authors, comes from one of the cited references. To find the source, the reader must guess which references are relevant and search through them for the information. Why is that better than citing specific sources for important information, as in done in scientific journals? I suppose it saves citing one reference five or six times in an account, but that doesn’t necessarily save space in the book overall given that individual references are listed in many species accounts.

The taxonomy.—How did Kottelat and Freyhof come up with so many more species of fishes in Europe than others had reported? They did it in three ways. First, the area covered is larger. Here, Europe is defined as the area west of the former Soviet Union. ‘‘Freshwaters of Europe west of the former Soviet Union.’’ Secondly, some species were recently described or removed from synonymy. Kottelat (1997) included only one species of Phoxinus. Since then, three new species from Greece and France were described, and three were removed from the synonymy of Phoxinus phoxinus (Kottelat, 2007). The third reason is explained in two essays, Source of data, data transformation, causes of errors, limitations of data, and a little human psychology (p. 14–15), and Species, populations, ESUs (p. 20–21), and in more detail in Kottelat (1997). The authors adopt and define the Evolutionary Species Concept, “an entity composed of organisms that maintains its identify from other such entities through time and over space and that has its own evolutionary fate and its own historical tendencies.” In their opinion, the ESC allows a population that can be diagnosed to be recognized as a species. A species is what a taxonomist or, in this instance a pair of taxonomists, say it is. Subspecies and polytypic species are not recognized.

BOOK REVIEWS