

## Book Review

**Miaud, C., Muratet, J.** (2004): *Identifier les œufs et les larves des amphibiens de France*. Institut National de la Recherche Agronomique (INRA), Paris. 200 pages. ISBN 2-7380-1086-5 (soft cover, 12 × 19 cm). Price 35 €.

This is the first book to focus on the determination of the egg and larval stages of all amphibian species found in France. Its aim is not to give developmental tables but to help field herpetologists to identify amphibian species on the basis of their eggs and larvae. Despite the presence of identification keys and drawings or photographs in other field books, none of them provided such a detailed illustration of the developmental stages. Yet this is an important point because the shape of amphibian larvae and tadpoles changes over time from hatching to metamorphosis. Thirty-one native and two introduced (*Rana catesbeiana* and *Xenopus laevis*) species are described in the book. Corsican (*Eurproctus montanus*, *Salamandra corsica*, *Discoglossus montalentii*, *D. sardus* and *Hyla sarda*) and narrowly distributed (*Rana pyrenaica* and *Salamandra lanzai*, but also *Salamandra atra* and *Speleomantes strinatii* at the scale of the French territory) species are all included. The different “species” of green frogs within *Rana* synkl. *esculenta* are treated together. For each amphibian or aquatic species, colour pictures of the eggs and larvae are given. The pictures represent different sized tadpoles and larvae in ventral, dorsal, and lateral view. Twelve to fifteen pictures are provided for the urodele larvae and anuran tadpoles respectively (but, three for *Salamandra salamandra*, *S. corsica*, *Eurproctus asper*, *E. montanus* and *Xenopus laevis*). In addition, one picture of the mouth is

given for the tadpoles and one of the eggs for the aquatic breeders. For the two obligatory viviparous species (*Salamandra atra* and *S. lanzai*) and the species that exhibits direct development (*Speleomantes strinatii*), the juveniles are illustrated. Unfortunately, no data is available on the origin of the photographed animals. The photographs are nice, but not presented in high resolution. In complement to the figures, a concise but informative text gives useful details on the geographic distribution (including a map), the aquatic habitat, the breeding habits, the egg-laying, the larval stage, and the phenology of the different species in France. An introductory overview on amphibian biology and an identification key is also provided. The key is split according to the developmental stages for an easier determination: the eggs for all oviparous species; at hatching, with forelimbs, and with four limbs for most of the urodeles; and at hatching, at a size inferior to 10 mm length, with hindlimbs, and with four limbs for the anurans. The key is quite easy to follow, but presents only the main pattern and thus does not encompass population variation. It is thus sometimes needed to gather additional information elsewhere in the text. Finally, the book ends with a useful glossary. In conclusion, this is a valuable book that is of interest for all naturalists looking for amphibians. It will nicely supplement other field guides that focus on the adult stage.

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