

## Letter to the Editor

### On the Correct Scientific Names of Urodeles

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Urodeles are extensively used in experimental zoology and it is highly desirable that a stable nomenclature be adopted by workers in different countries. Unfortunately the most commonly used species have had unstable nomenclatural histories. Actions by the International Commission on Zoological Nomenclature have given hope that stability may be at hand, but these important rulings seem to be unknown by major segments of the experimental zoology community. The purpose of this letter is to draw these facts to the attention of readers of this journal, and to place them in the context of what is known concerning the evolutionary relationships of urodeles.

I will restrict my comments to members of the families Ambystomatidae and Salamandridae, where the nomenclature problem is acute.

1. Ambystomatidae is the correct spelling, and the spelling Ambystomidae was placed on the Official Index of Rejected and Invalid Family Group Names in Zoology by the Commission (Opinion 649, [1]).

2. *Ambystoma* is the correct spelling for the commonly used genus that includes several species of American urodeles and the extensively cultured axolotls. The names *Amblystoma*, *Siredon* and *Axolotus* were placed on the Official Index of Rejected and Invalid Generic Names in Zoology by the Commission [1].

3. *Ambystoma maculatum* (not *Amblystoma* or *Ambystoma punctatum*) is the correct name of the spotted salamander of North America [1].

4. Newts comprise about three-fourths of the species of the family Salamandridae. It is now clear that these species should be placed in several genera (see, for example, Wake and Özeti [2]; Thorn [3]). The various newts of Europe are properly placed in the genus *Triturus* (*T. alpestris*, *T. boscai*, *T. cristatus*, *T. helveticus*, *T. italicus*, *T. marmoratus*, *T. montandoni*, *T. vittatus*, *T. vulgaris*). The newts of North America are placed in two genera: *Notophthalmus* (*N. meridionalis*, *N. perstriatus*,

*N. viridescens*) and *Taricha* (*T. granulosa*, *T. rivularis*, *T. torosa*). Japanese newts are *Cynops pyrrhogaster*. The Hong Kong newt is *Paramesotriton hongkongensis*. There are additional newts in the Far East (*Cynops orientalis*, *C. cyanurus*, *Hypselotriton wolterstorffi*, *Pachytriton brevipes*, *Paramesotriton chinensis*, *P. deloustali*) and the Middle East (*Neurergus crocatus*) but they are rare. The name *Diemictylus* was placed on the Official Index of Rejected and Invalid Names in Zoology by the Commission when it chose instead *Notophthalmus* (Opinion 635 [4]).

5. The ribbed newt is very distinct from other newts and is properly placed in a distinct genus *Pleurodeles*. The most commonly used species is *Pleurodeles waltli*, frequently but incorrectly written *Pleurodeles waltlii*.

*Comments.* Minor spelling differences are trivial and unlikely to lead workers astray. However, assigning European newts to American genera, and vice versa, leads to confusion. If it is desired to indicate to readers that the species being used has previously been reported by workers who used a different name, that fact should be noted in a footnote. The old name should not be placed in parentheses following or interspersed in the correct scientific name, for such an arrangement has a special meaning in the taxonomic literature. The correct, full scientific name also consists of the author and the date. Typically the latter items are ignored, which is justified if a nomenclature has reached stability.

#### References

1. International Commission on Zoological Nomenclature: *Bull. Zool. Nomencl.* **20**, 102, 1964
2. Wake, D. B., Özeti, N.: *Copeia* **1969**, 124, 1969
3. Thorn, R.: *Les Salamandres d'Europe, d'Asie et d'Afrique du Nord*. Paris: Lechevalier, P. (ed.) 1968
4. International Commission on Zoological Nomenclature: *Bull. Zool. Nomencl.* **19**, 152, 1962