



The problem of hemihomonyms and the on-line hemihomonyms database (HHDB)

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Abstract

Hemihomonyms (same nomina which are used for taxa from different nomenclature jurisdictions) are an overlooked but genuine nuisance in biological nomenclature. We compiled the first list of hemihomonyms for nomina in bacteriological, botanical and zoological nomenclatures and prepared an on-line database, the “Hemihomonym database” or *HHDB* (<<http://herba.msu.ru/shipunov/os/homonyms/index.php>>). *HHDB* now includes 1164 nomina, including 12 triple hemihomonyms. A simple suffix-based solution (like “*Oenanthe* (z)” for *Oenanthe* in zoology) could be used in case of hemihomonymy. More effort should be afforded towards the resolution of long-standing nomenclature confusing situations such as hemihomonymy, including regarding the nomina of higher taxa, nomina of intermediate ranks and ambiregnal nomina.

Keywords: hemihomonyms, homonyms, biological nomenclature, databases

Introduction

If a scientific name or nomen is used for more than one species, genus or other taxon, this nomen is considered to be a homonym. The common opinion is that homonyms are invalid in biological nomenclature. However, historical development of biological taxonomy led to the establishment of different Codes of nomenclature. Homonyms are “illegal” within every Code (i.e., “*incorrect*” in botanical nomenclature, “*invalid*” in zoological nomenclature” or “*inadequate*” according to the terminology of Dubois 2011b), but what happens if the nomina in question are under the jurisdiction of different Codes? This situation is not regulated by any Rules and therefore the same nomina for different taxa are not homonyms in the strict sense. Starobogatov (1991) proposed the term “hemihomym” for such situations. Hemihomonyms (like the plant generic nomen *Oenanthe* and the bird generic nomen *Oenanthe*) are often considered as nomenclatural curiosities which probably was the right approach in previous centuries. *The International Code of Zoological Nomenclature* (Anonymous 1999) simply states that “*The name of an animal taxon identical with the name of a taxon which has never been treated as animal is not a homonym for the purposes of zoological nomenclature*”. However, contemporary large-scale databases and search engines revive the problem of hemihomonyms. The simple experiment with Google image search for *Oenanthe* will immediately show the problem: whereas scientific names are often considered to be unique identifiers, the hemihomonyms will spoil the result: the user will retrieve images for both the plant and the bird. Therefore, as long as hemihomonyms exist, and the result of such a search is not unambiguous, we cannot achieve the ultimate goal of nomenclature, i.e., a one-to-one relation between nomen and taxon. In large databases, hemihomonyms will not only hamper the effectiveness of the system, but could also be misleading. Computer-based tools do not