



## Recognition of *Sterletus Rafinesque 1820* as a *nomen oblitum* and *Huso Brandt & Ratzeburg 1833* as a *nomen protectum*: A response to Kottelat and Freyhof (2025)

CHASE DORAN BROWNSTEIN<sup>1,2\*</sup> & THOMAS J. NEAR<sup>1,3</sup>

<sup>1</sup>Department of Ecology and Evolutionary Biology, Yale University, New Haven CT, USA

<sup>2</sup>Stamford Museum and Nature Center, Stamford CT, USA

<sup>3</sup>Yale Peabody Museum, New Haven CT, USA

✉ [thomas.near@yale.edu](mailto:thomas.near@yale.edu); <https://orcid.org/0000-0002-7398-6670>

\*Corresponding author; ✉ [chase.brownstein@yale.edu](mailto:chase.brownstein@yale.edu); <https://orcid.org/0000-0003-4514-9565>

Recently, we proposed a phylogenetic rank-free taxonomy of sturgeons (*Acipenseriformes: Acipenseridae*), a lineage of freshwater and anadromous fishes with ancient common ancestry in the Cretaceous. Here, we respond to a recent criticism of our taxonomy that highlights a potential senior synonym of the genus *Huso* Brandt & Ratzeburg 1833. We show this conclusion is not supported by the facts nor the International Code of Zoological Nomenclature. *Huso* Brandt & Ratzeburg 1833 is valid and a *nomen protectum* and *Sterletus Rafinesque 1820* is a *nomen oblitum*.

Phylogenetic rank-free taxonomies are becoming available for many clades across the Tree of Life (Queiroz & Cantino 2020), including the over 35,000 species of ray-finned fishes (*Actinopterygii*) (Near & Thacker 2024). Recently, we (hereafter BN2025) proposed a new phylogenetic rank-free taxonomy of sturgeons (*Acipenseriformes: Acipenseridae*) that incorporates insights from phylogenies generated using DNA sequences from nuclear genes, mtDNA, and morphology (Brownstein & Near 2025). In a subsequent paper, Kottelat and Freyhof (hereafter KF2025) criticize our use of the genus *Huso* to encompass a clade of Eurasian species that forms the sister lineage to *Pseudoscaphirhynchus*. Considering that KF2025 agree with us that the phylogeny of sturgeons necessitates a revision of *Acipenseridae* and the inclusion of all species under one genus, *Acipenser*, is untenable, we focus on another issue. KF2025 also voice skepticism with the revised taxonomy primarily based on the assertion that *Huso* Brandt & Ratzeburg 1833 is a junior synonym of *Sterletus Rafinesque 1820*. Subsequently, we highlight why *Sterletus* is invalid as a *nomen oblitum*.

KF2025 assert that *Huso* in fact cannot be attributed to Brandt & Ratzeburg (1833) and that BN2025 and many previous authors who have cited Eschmeyer's Catalog of Fishes (Fricke *et al.* n.d.) erred in doing so. KF2025 highlight that because the Latin, 3<sup>rd</sup> declension, nominative plural form, *Husones* (*hūsōnēs*), is used by Brandt & Ratzeburg (1833: 3, 349), which is written in German and not Latin, Lovetzky (1834:257) is the earliest available publication to which the genus *Huso* can be properly attributed. This represents an incorrect application of the International Code of Zoological Nomenclature (ICZN). ICZN Article 11.8 states (emphasis added in bold):

“11.8 A genus-group name (see also Article 10.3) must be a word of two or more letters and must be, or be treated as, a noun in the nominative singular.

11.8.1. A genus-group name proposed **in Latin text** but written otherwise than in the nominative singular because of the requirements of Latin grammar is available, provided that it meets the other requirements of availability, but it is to be corrected to the nominative singular.”

KF2025 misapplied this section. It is not necessary for the *text* to be in Latin, but only for the *name* to be in Latin. The name first appears in Brandt & Ratzeburg (1833: 3) as the Latin nominative plural *Husones* and is referred to as a ‘subdivision of sturgeons: “Man kann sie in folgende Unterabtheilungen bringen: A. *Husones* ...” (Brandt & Ratzeburg 1833: 3). Secondly, Brandt & Ratzeburg (1833: 3) capitalize *Huso* and put the name in parentheses in their synonymy of *Acipenser huso* Linnaeus 1758 as *Acipenser (Huso)*, indicating they are treating *Huso* as a subgenus. Brandt & Ratzeburg (1833) clearly structured their text to refer to four principal subdivisions of sturgeons in the genus *Acipenser* that each contain species, and therefore *must* be a supraspecific rank below the genus name *Acipenser*. This makes *Huso/Husones* a subgenus. Thus, Brandt & Ratzeburg (1833: 3, 349) is the correct attribution for the genus *Huso*.

We also have reason to believe that *Sterletus* Rafinesque (1820) (Rafinesque 1820) is a *nomen oblitum* (and thus *Huso* is a *nomen protectum*), contra KF2025. KF2025 assert that the use of the name *Sterledus* by Berg (1911: 137, 174, 200) (Berg 1911) represents a use of the name *Sterletus* after 1899, thus meaning *Sterletus* has precedence over *Huso*. This hinges on the identification of *Sterledus* as used by Berg (1911) as a misspelling of *Sterletus* and incorrect attribution of that name to Bonaparte (1846) (Bonaparte 1846). Article 33.3 of the ICZN states (bold emphasis added):

“Any subsequent spelling of a name different from the correct original spelling, other than a mandatory change or an emendation, is an “incorrect subsequent spelling”; it is not an available name and, like an incorrect original spelling [Art. 32.4], it does not enter into homonymy and cannot be used as a substitute name, but

33.3.1. when an incorrect subsequent spelling is in prevailing usage **and is attributed to the publication of the original spelling**, the subsequent spelling and attribution are to be preserved and the spelling is deemed to be a correct original spelling.”

Let us assume that Berg (1911) was attributing the name *Sterletus* to Bonaparte (1846) but had misspelled it as *Sterledus*. This is an incorrect attribution; the correct attribution would be *Sterletus* Rafinesque (1820), as given by Bonaparte (1846) and as acknowledged by KF2025. Thus, Berg (1911) suffers from **both** misspelling and incorrect attribution of the name *Sterletus* and so this cannot be said to be attributed to the publication of the original spelling, which is *Sterletus* Rafinesque (1820). Furthermore, Berg (1911) clearly regards *Sterledus*, and not *Sterletus*, as valid, as Berg (1911) places *Acipenser ruthenus* in subgenus *Sterledus*, and not *Sterletus*. Thus, following Article 23.9.1 of the ICZN, we find that the senior synonym *Sterletus* has not been used as a valid name after 1899, and the junior synonym *Huso* has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years (Google Scholar, Accessed Sept. 5, 2025, lists 32,400 results for *Huso huso* alone for 1985 to 2025, and the satisfaction of Article 23.9.1.2 by *Huso* is not in question as noted by KF2025). Thus, *Huso* Brandt & Ratzeburg (1833) is designated herein as valid and a *nomen protectum* and *Sterletus* Rafinesque (1820) as a *nomen oblitum*.

## References

- Berg, L. (1911) *Faune de la Russie et des pays limitrophes. Poissons (Marsipobranchii et Pisces). Vol. 1. Marsipobranchii, Selachii et Chondrostei*. Izdatelstvo Akademii Nauk, St-Petersburg, 337 pp.
- Bonaparte, C.-L. (1846) *Catalogo metodico dei pesci Europei*. Stamperia e Cartiere del Fibreno, Napoli, 97 pp.  
<https://doi.org/10.5962/bhl.title.59507>
- Brandt, J.-F. & Ratzeburg, J.T.C. (1833) *2 Medizinische Zoologie oder getreue Darstellung und Beschreibung der Thiere, die in der Arzneimittellehre in Betracht kommen*. Trowitzsch und Sohn, Berlin, 364 pp. [<https://www.biodiversitylibrary.org/bibliography/120464>]
- Brownstein, C.D. & Near, T.J. (2025) Toward a Phylogenetic Taxonomy of Sturgeons (Acipenseriformes: Acipenseridae). *Bulletin of the Peabody Museum of Natural History*, 66 (1), 3–23.  
<https://doi.org/10.3374/014.066.0101>
- Fricke, R., Eschmeyer, W.N. & Laan, R.V.D. (n.d.) *Eschmeyer's Catalog of Fishes: Genera, Species, References. Electronic Version*. Available from: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (accessed 30 December 2024)
- Lovetzky, A. (1834) *Diagnosis piscium ad genus Acipenserinum pertinentium, praepreimis eorum, qui habitant in aquis Imperii Rossici. Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou*, 3, 253–263.
- Near, T.J. & Thacker, C.E. (2024) Phylogenetic classification of living and fossil ray-finned fishes (Actinopterygii). *Bulletin of the Peabody Museum of Natural History*, 65 (1), 3–302.  
<https://doi.org/10.3374/014.065.0101>
- Queiroz, K. de & Cantino, P. (2020) *International Code of Phylogenetic Nomenclature (PhyloCode)*. CRC Press, Boca Raton, Florida, 190 pp.
- Rafinesque, C. (1820) Fishes of the Ohio River (concluded). *Western Revue and Miscellaneous Magazine, a monthly publication, devoted to literature and science*, 3 (4), 244–252.