



On the unnecessary disposal of scientific names—a response to Wood (2026)

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In his recent correspondence, Wood (2026) discusses two old names of eucerine bees, *Eucera nigra* Lepeletier, 1841, and *Tetralonia nigrifacies* Dours, 1873, that were newly reported from Morocco (Sentil *et al.* 2025). He cites Article 59.3 of the ICZN (1999) to advocate for their permanent invalidation and replacement with the junior synonyms *Eucera aterrima* Friese, 1896 and *Eucera commixta* Dalla Torre and Friese, 1895, respectively.

Here, I list arguments why this recommendation is weakly supported, not considered as an ideal solution to the nomenclature problem, and is unnecessary.

The ICZN (1999) lists a number of special procedures for reversal of precedence in order to maintain stability and universality. Article 59.3 is one of these special cases. This article states two exceptions for permanent invalidity of a junior secondary homonym replaced before 1961: 1. “the substitute name is not in use” and 2. “the relevant taxa are no longer considered congeneric”.

Exception 2 is clearly met for both species in question. Both species were among the various Eucerini taxa that were systematically synonymized under a single genus, *Eucera*, by Dalla Torre and Friese (1895), and Dalla Torre (1896). These authors then proposed new specific names to replace the multiple subjective synonyms that they created. However, based on the current classification of the Eucerini, the senior homonyms selected by Dalla Torre and Friese (1895), and Dalla Torre (1896) are no longer congeneric and they cannot be confused with the two species in question. Specifically, *Eucera nigra* cannot be confused with the homonym *Macrocera nigra* Lepeletier, 1841 because this latter species is thought to be an invalid synonym in the Nearctic genus *Melissodes* Latreille, 1829, and has not been in use. Also, the generic associations of *Tetralonia nigrifacies* and *Eucera nigrifacies* Lepeletier, 1841 remain undoubtful in all the studies cited by Wood (2026) based on the number of submarginal cells in the forewing, *i.e.*, three vs two, respectively, the very first diagnostic trait identified in the tribe Eucerini (Dorchin *et al.* 2018).

Exception 1 mentioned above concerns the “use” of substitute junior synonyms, but no definition is provided for the standard considered for name use. For context, another ICZN (1999) article, Article 23.9, lists exceptional procedures for reversal of precedence and requires that authors provide convincing evidence to validate a junior synonym or homonym. Article 23.9.1 specifically requires that evidence is presented from “at least 25 works, published by at least 10 authors in the immediately preceding 50 years, and encompassing a span of no less than 10 years”. The evidence provided by Wood (2026) for use of replacement junior synonyms is far from this standard. For *Eucera aterrima*, a single citation was found (Mazzeo *et al.* 2019), whereas a second citation, that of Risch (2001), explicitly lists it as synonym of *Eucera nigra*. Similarly, for *Eucera commixta*, except for a single citation (Saunders 1908), all other three recent citations provided by Wood (2026) are merely citations in species lists that are disconnected from a species concept. As mentioned by Wood (2026), the authors could not even associate the species with a genus. This very limited and often superficial “use” of junior synonyms is not sufficient for violating basic nomenclature principles of priority and name precedence as intended by the ICZN (1999).

Contrary to Wood’s (2026) claims, preservation of the senior synonyms should not compromise name stability or clarity. The original species names are associated with historical physical type specimens, with species descriptions and verifiable species concepts. In contrast, the replacement names were proposed arbitrarily, not based on comparative work, and none of the authors, or the subsequent authors that cited them have seen the actual types (see Dorchin 2023). The species concepts that Friese (1896) has later associated with them are either not conspecific with the original types or are based on parapatric specimens (*i.e.*, Sicily vs Algeria for *Eucera aterrima* and Spain vs Algeria for *Eucera commixta*) that have never been studied properly, or both. In support of his claims, Wood (2026) presents the sequence of historical changes of generic classification in the Eucerini and the subsequent introduction of replacement names, but this presentation is

superficial with respect to the current discussion. In practice, only a very small number of publications adopted the two introduced replacement names (as detailed above). On the other hand, group specialists have not followed the system of Dalla Torre and Friese (1895) and Dalla Torre (1896), but kept using the two genus names, including the senior synonyms in question (e.g., Pérez 1902, Dusmet y Alonso 1928, Tkalců 1979, Baker 1996, Risch 2001, Dorchin 2023). Finally, while Dorchin *et al.* (2018) also proposed to revert to a single genus, *Eucera*, a reversal to this classification method that would lead to further name changes is highly unlikely given recent phylogenetic results (Freitas *et al.* 2023).

Wood (2026) applies technical considerations that are not strongly supported by evidence to invalidate and discard two historical names in the Eucerini that otherwise meet all standard requirements of the ICZN (1999). Adopting such strict interpretation of the ICZN rules (1999) is unnecessary as elaborated above and is not the best solution in the particular cases; for example, I was able to count at least 12 additional similar cases of junior synonyms that were listed in the catalogues of Dalla Torre and Friese (1895) and Dalla Torre (1896) as replacement names in the Eucerini. Of these, two are synonyms of confirmed valid names, additional five are synonyms of potentially valid names, and there are certainly more synonyms among other bee taxa. Should we discard these senior synonyms, which are all historical species names, in the same systematic manner proposed by Wood (2026)? I believe that this interpretation of the ICZN (1999) rules constitutes a disservice to bee taxonomy.

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