

Case 3293***Nicrophorus olidus* Matthews, 1888 (Insecta, Coleoptera): proposed precedence over *Nicrophorus quadricollis* Gistel, 1848**

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to give precedence to the widely used name *Nicrophorus olidus* Matthews, 1888 for a species of burying beetle (family SILPHIDAE) over the little used name *Nicrophorus quadricollis* Gistel, 1848 whenever the two names are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Coleoptera; SILPHIDAE; NICROPHORINAE; *Nicrophorus olidus*; *Nicrophorus quadricollis*; burying beetles; Nearctic.

1. Species of the genus *Nicrophorus* Fabricius, 1775 (p. 71) (family SILPHIDAE, subfamily NICROPHORINAE) are large, colorful beetles commonly called 'burying beetles' due to their unique reproductive strategy (interment of small vertebrate carcasses as breeding resources). These beetles have a considerable presence in the popular literature (field guides, magazines, websites, etc.) and have been the focus of intense behavioral, ecological, and conservation research over the last two decades; there were over 444 publications up to 1980 (see Sikes et al., 2002).

2. Gistel (1848, 1857a, b) proposed a number of *Nicrophorus* species names, including *Nicrophorus quadricollis* Gistel, 1848 (p. 190). As far back as Strand (1917), these have long been a source of confusion in the taxonomy of *Nicrophorus*. It is understood that there are no type specimens for these nominal species (G. Scherer, Zoological Museum of Munich, in litt. 1984 as cited in Peck & Anderson, 1985). Mroczkowski (1959, p. 65) commented 'they [the *Nicrophorus* species names used by Gistel] are almost certainly synonyms . . .'. Hatch (1928) and others have treated Gistel's names as nomina dubia. A study of translations of the original descriptions combined with a thorough knowledge of diagnostic characters in the genus indicates that Gistel's *Nicrophorus* species names most probably have better-known synonyms (see Sikes et al., 2002).

3. Gistel's description of *Nicrophorus quadricollis* Gistel, 1848 (type locality Mexico) matches the diagnostic characteristics of the Mexican species widely known as *Nicrophorus olidus* Matthews (1888, p. 92). Gistel's name is older and so has priority over Matthews's name.

4. The name *Nicrophorus olidus* Matthews is the only name that has been used as valid for this species and has appeared in at least 24 different publications by 17 different authors during the years 1924–2001 (the Commission Secretariat holds these references; see also Sikes et al., 2002). At least six of these publications were primarily ecological in focus.

5. However, the name *Nicrophorus quadricollis* Gistel has appeared in only four publications by three authors since Gistel's original description (1848, p. 190) and redescription (1857, p. 565). Strand (1917, p. 83) considered the name a nomen dubium. Hatch (1928, p. 153) considered the name incertae sedis. Blackwelder (1944, p. 100; 1973, p. 6) considered the name valid but listed it without synonyms (i.e. he did not consider the name a senior synonym of *N. olidus*, which he also listed as valid). Thus, Gistel's name, *Nicrophorus quadricollis*, has never been considered the senior synonym of any name.

6. Despite the goal of Article 23.9.1 to preserve the stability of established usage against unused senior synonyms, the name *N. quadricollis* Gistel, 1848 cannot automatically be made a nomen oblitum, because one author (Blackwelder, 1944, 1973) used it as a valid name after 1899 in two checklist publications. However, adherence to the Principle of Priority in this case and use of *N. quadricollis* over the junior name *N. olidus* would destabilize nomenclature. Accordingly, we propose that the Commission give the name *N. olidus* precedence over the name *N. quadricollis* whenever they are considered to be conspecific.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, precedence over the name *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the names:
 - (a) *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, with the endorsement that it is to be given precedence over the name *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, whenever the two are considered to be synonyms;
 - (b) *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, with the endorsement that it is not to be given priority over the name *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, whenever the two are considered to be synonyms.

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