

Case 3681***Liancalus* Loew, 1857 and *Scellus* Loew, 1857 (Insecta, Diptera, DOLICHOPODIDAE): proposed conservation of the names by designation of *Dolichopus regius* Fabricius, 1805 as type species for *Anoplomerus* Rondani, 1856**

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Abstract. The purpose of this application, under Article 81.1 of the Code, is to conserve the genus-group names *Liancalus* Loew, 1857 and *Scellus* Loew, 1857 (Diptera, DOLICHOPODIDAE), widely distributed and well-established genera of dolichopodid flies whose names have been used consistently for more than one-and-a-half centuries. They are threatened by a change in the type species of *Anoplomerus* Rondani, 1856, made in a largely-overlooked unpaginated corrigendum on the last page of Rondani (1856). *Liancalus* Loew, 1857 is a replacement name for the homonym *Anoplomerus* and automatically takes its type species. It is proposed that *Liancalus* Loew, 1857 and *Scellus* Loew, 1857 be conserved by designating *Dolichopus regius* Fabricius, 1805 as type species for *Anoplomerus* Rondani, 1856 under the Commission's plenary power. This solution will protect both names and serve to promote nomenclatural stability.

Keywords. Nomenclature; taxonomy; Diptera; DOLICHOPODIDAE; *Anoplomerus*; *Anoplopus*; *Liancalus*; *Scellus*; *regius*; *spinimanus*; long-legged flies; Afrotropical; Nearctic; Oriental; Palearctic.

1. The name *Anoplomerus* was proposed as a new genus by Rondani (1856, p. 141) with *Hydrophorus regius* (Fabricius, 1805) (originally described as *Dolichopus regius* Fabricius, 1805) initially designated (p. 141) as type species and the only species included. However, in a corrigendum published within this paper (Rondani, 1856: unpaginated last page), he changed the type species from *Hydrophorus regius*

(Fabricius) to '*Hydrophorus notatus* Meigen'. Meigen never described a dolichopodid named *notatus* and Rondani was actually referring to *Musca notata* Fabricius, 1781 (see O'Hara et al., 2011, p. 30). *Anoplomerus* Rondani, 1856 is a junior homonym of *Anoplomerus* Guérin-Méneville, 1844 (Coleoptera).

2. The name *Anoplopus* was proposed by Rondani (1857, p. 14) as a new replacement name for the junior homonym *Anoplomerus* Rondani, 1856. Following the corrigendum in Rondani (1856), the type species of *Anoplopus* Rondani, 1856 is automatically '*Hydrophorus notatus* Meigen' [= *Musca notata* Fabricius, 1781] (Article 67.8). *Anoplopus* Rondani, 1856 is a junior homonym of *Anoplopus* Wagler, 1830 (Reptilia).

3. Loew (1857, p. 22) proposed the name *Liancalus* as a new replacement name for *Anoplomerus* Rondani, 1856. The type species of *Liancalus* is automatically '*Hydrophorus notatus* Meigen' [= *Musca notata* Fabricius, 1781] (Article 67.8). Loew clearly intended *Liancalus* as a replacement name for *Anoplomerus* Rondani, 1856: on page 22, after stating that *Liancalus* is a suitable name for the group, Loew writes 'Herr Rondani hat den bereits früher an eine Käfergattung vergebenen Namen *Anoplomerus* dafür vorgeschlagen, der verworfen werden muss.' ['Mr. Rondani has already proposed the name *Anoplomerus* for this, which has previously been given to a beetle genus, and which must be rejected']. Most workers, including Rondani (1861, p. 11), have treated *Liancalus* as a replacement name for *Anoplomerus* (e.g. Ulrich, 1972, p. 3; Dyte, 1975, p. 242; Dyte & Smith, 1980, p. 455; Negrobov, 1991, p. 41; Pollet et al., 2004, p. 52; Yang et al., 2006, p. 246).

4. Loew (1857, p. 22) proposed the name *Scellus* and included the species *Hydrophorus notatus* (Fabricius, 1781) and *Hydrophorus spinimanus* Zetterstedt, 1843 but did not designate a type species. Coquillett (1910, p. 603) subsequently designated *Hydrophorus spinimanus* Zetterstedt, 1843 as the type species, and considered *Anoplomerus* Rondani, 1856 as a junior synonym.

5. Many workers have missed Rondani's (1856, unpaginated last page) corrigendum changing the type species of *Anoplomerus* from *Hydrophorus regius* (Fabricius) [now treated in *Liancalus* Loew, 1857] to *Hydrophorus notatus* "Meigen" [= *Musca notata* Fabricius, 1781] [now treated in *Scellus* Loew, 1857] and incorrectly listed *Anoplomerus* Rondani, 1856 and *Anoplopus* Rondani, 1857 as synonyms of *Liancalus* with type species *Musca virens* Scopoli, 1763 [= *Dolichopus regius* Fabricius, 1805] [(e.g. Dyte (1975, p. 241); Dyte & Smith (1980, p. 455); Negrobov (1991, p. 41); Pollet et al. (2004, p. 52) Yang et al. (2006, p. 246)]. Ulrich (1972) was the first to note the corrigendum of Rondani (1856, unpaginated last page) but claimed that the note on Rondani's (1856) correction page was itself a mistake and should be ignored. However, there is no clear reason for that conclusion, and it could be overturned by any subsequent author. This, therefore, leaves the correct type species open to confusion, and endangers the stability of two commonly used generic names. Corrections of spellings within the text of a publication are covered in Article 33.2.1, but that rule applies only to changes in the original spelling. Therefore, the rules in that Article cannot be directly applied here, although the logic may seem appropriate. We treat the correction in Rondani (1856, last unpaginated page) as valid herein. Hurley (1995, p. 139) correctly listed *Anoplomerus* Rondani, 1856 and *Anoplopus* Rondani, 1857 [published after 20 September 1857 (O'Hara et al., 2011)] as synonyms of *Scellus* Loew, 1857 [published 6 April 1857 (Evenhuis, 1992)]. O'Hara et al. (2011)

also noted the corrigendum and followed Hurley's (1995) interpretation of the synonymy of the two Rondani genera under *Scellus* Loew, 1857.

6. Coquillett (1910, p. 561) interpreted *Liancalus* Loew as a new genus-group name and not a new replacement name when he designated *Musca virens* Scopoli, 1763 [= *Dolichopus regius* Fabricius, 1805] as type species. This designation is invalid under Article 70.2.

7. *Liancalus* Loew, 1857 is a widespread genus of long-legged flies in the subfamily HYDROPHORINAE Lioy, 1864 in the family DOLICHOPODIDAE Latreille, 1809. It is found in all the world's zoogeographical realms except Australasia/Oceania and contains 21 known species (Yang et al. 2006; Runyon & Hurley, 2015). Adults are some of the largest species of DOLICHOPODIDAE and are commonly found on or near waterfalls and seeps. The name has been frequently and consistently used in its current concept since its proposal in 1857, including taxonomic works (e.g. Aldrich, 1893; Dyte, 1967; Evenhuis & Bickel, 2011; Runyon & Hurley, 2015) and major catalogues (Aldrich, 1905; Robinson, 1970; Dyte, 1975; Dyte & Smith, 1980; Negrobov, 1991; Pollet et al., 2004; Yang et al., 2006; Bickel, 2009). A representative list of 70 references using *Liancalus* in its current concept has been provided to the Commission Secretariat. A Google search on "*Liancalus* DOLICHOPODIDAE" returned over 8,500 hits. Moreover, species of *Liancalus* are some of the most recognizable and best known dolichopodids: their immature stages (Vaillant, 1948; Corpus, 1986; Masunaga, 2001), courtship behavior, particularly in regard to evolution of visual signals (Crossley, 1988; Zimmer et al., 2003; Runyon & Hurley, 2015), and prey (Masunaga, 2001; Ulrich, 2004; Runyon & Hurley, 2015) have been described. Thus, this name is used in the sense proposed not just in the taxonomic literature, but widely in other fields of biology.

8. *Scellus* Loew, 1857 is a widespread genus of large long-legged flies in the subfamily HYDROPHORINAE in the family DOLICHOPODIDAE, which occurs throughout the Nearctic and Palearctic zoogeographical realms and contains 25 known species (Hurley, 1995; Yang et al., 2006). Adults are also some of the largest species of DOLICHOPODIDAE and are noted for possessing unusual flag-like abdominal structures called cingula that are thought to function in courtship (Hurley, 1995; Sivinski, 1997; Runyon, 2008). Like *Liancalus*, the name *Scellus* has been frequently and consistently used in its current concept since its proposal in 1857, including in taxonomic works (e.g. Aldrich, 1893; Greene, 1924; Harmston, 1939; Stackelberg, 1951; Hurley, 1995) and major catalogues (Aldrich, 1905; Negrobov, 1991; Pollet et al., 2004; Yang et al., 2006; Bickel, 2009). A representative list of 55 references using *Scellus* in its current concept has been provided to the Commission Secretariat. A Google search on "*Scellus* DOLICHOPODIDAE" returned over 8,300 hits.

9. Recognition of Rondani's change in type species to '*Hydrophorus notatus* Meigen' [= *Musca notata* Fabricius, 1781] would mean that *Liancalus* Loew, 1857 and *Scellus* Loew, 1857 are synonyms. Since both were published in the same work, the senior name would need to be determined by the First Reviser (Article 24.2.2). Accepting the type species change by Rondani (1856, unpaginated corrigendum) would change the current genus concept of *Liancalus*, leaving the species currently in *Liancalus* without a generic name. This action would threaten the current usage of both *Liancalus* and *Scellus*, names and concepts that have been frequently and consistently used for more than 150 years. This would create significant nomenclatural instability and confusion. We seek stabilization of these issues to allow current usage to continue.

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

- (1) to use its plenary power to designate *Dolichopus regius* Fabricius, 1805 as the type species of *Anoplomerus* Rondani, 1856;
- (2) to place on the Official List of Generic Names in Zoology the name *Anoplomerus* Rondani, 1856 (gender: masculine), type species *Dolichopus regius* Fabricius, 1805, as ruled in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *regius* as published in the binomen *Dolichopus regius* Fabricius, 1805 (specific name of the type species of *Anoplomerus* Rondani, 1856, as ruled in (1) above);
- (4) to place on the Official List of Generic Names in Zoology the name *Liancalus* Loew, 1857 (gender: masculine), type species *Dolichopus regius* Fabricius, 1805 (determined automatically);
- (5) to place on the Official List of Generic Names in Zoology the name *Scellus* Loew, 1857 (gender: masculine), type species *Hydrophorus spinimanus* Zetterstedt, 1843 by subsequent designation by Coquillett;
- (6) to place on the Official List of Specific Names in Zoology the name *spinimanus* as published in the binomen *Hydrophorus spinimanus* Zetterstedt, 1843 (specific name of the type species of *Scellus* Loew, 1857).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).