

**Case 2823**

***Acineta* Ehrenberg, [1834] and *Tokophrya* Bütschli, 1889 (Ciliophora, Suctorina): proposed conservation; *Acineta tuberosa* Ehrenberg, [1834] and *Podophrya quadripartita* Claparède & Lachmann, 1859 (currently *Tokophrya quadripartita*): proposed conservation of the specific names**

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**Abstract.** The main purpose of this application is the conservation of the specific name of the much studied suctorian *Acineta tuberosa* Ehrenberg, [1834], the type species of *Acineta*. Ehrenberg believed that his species was the same as that in brief descriptions of *Brachionus tuberosus* and *Vorticella tuberosa* by Pallas (1766) and Müller (1786) respectively. This is not the case, and *tuberosus* has not been used in the Pallas or Müller senses in the past 150 years. *B. tuberosus* Pallas may have been a synonym of the widely used name *Tokophrya quadripartita* (Claparède & Lachmann, 1859). The specific name of *Acineta tuberosa* has recently been attributed to Pallas; this would cause much confusion, as would adoption of the nomen dubium *Volverella astoma* Bory de St Vincent, [1827] for *A. tuberosa* or for *T. quadripartita*, the type species of *Tokophrya*.

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1. Pallas (1766) described a number of freshwater 'zoophytes', and on p. 105 named one of them (species 63) as *Brachionus tuberosus*. Pallas based the brief description on illustrations (pl. 13, figs. 10–12) of Baker (1753), who on p. 341 referred to the organism as 'Clustering polypes'. Following Baker's report of his freshwater species, Pallas gave the habitat of *B. tuberosus* as 'stagna Angliae'.

2. Müller (1786, p. 308, pl. 44, figs. 8–9) described and illustrated *Vorticella tuberosa*. Although using the specific name *tuberosa* he was evidently unsure of the identity of his species with that of Baker and Pallas, since he wrote 'Pall. Zooph. 63?' and 'Baker...t.13. f.10–12?'. The species was said to be found in marshes. Baker, Pallas and Müller were probably dealing with species of *Tokophrya* (see para. 10 below).

3. Bory de St Vincent ([1827], p. 781) erected the new genus *Volverella* containing the single nominal species *V. astoma* (p. 782). He synonymized this with the species described by Baker, Pallas and Müller, but gave no reason for replacing the *tuberosus* and *tuberosa* of the latter authors. Neither *Volverella* nor *astoma* have been used as valid names in the past 150 years and they cannot be identified with confidence; we propose their suppression to prevent any threat to the names *Acineta*, *Tokophrya*, *A. tuberosa* and *T. quadripartita* discussed in this application.



4. Ehrenberg ([1834], p. 284) published the diagnosis of a new genus *Acineta* in which he included three nominal species; *A. tuberosa* was briefly described on p. 287. Although this was marine, from the Baltic Sea, Ehrenberg mentioned Müller and considered that *Vorticella tuberosa* and his own *Acineta tuberosa* were the same. However, the descriptions show they were not.

5. Ehrenberg's paper has usually been quoted with the date 1833, the 'Jahr' of the *Abhandlungen*. However, it reports (e.g. on pp. 233, 266) observations made as late as July 1834. The complete volume was published in 1835, but according to a note by C.D. Sherborn in the copy in the Natural History Museum in London Ehrenberg's paper was issued as a separate in 1834.

6. Ehrenberg (1838) described in detail and illustrated the three species he had placed in *Acineta*, with *tuberosa* being on p. 241 and pl. 20, fig. 9. He stated (p. 241) that *Volverella astoma* Bory de St Vincent, [1827] was not the same as his own species, which he still believed to be *Vorticella tuberosa* Müller, 1786.

7. Claparède & Lachmann (1859, p. 388) discussed *A. tuberosa* Ehrenberg, remarking that Ehrenberg's figures were 'bonnes'. In 1861 (p. 116) Claparède & Lachmann stated that their own freshwater species *Podophrya quadripartita* (1859, p. 382) was perhaps the species of Baker, Pallas and Müller (see paras. 1 and 2). They added that Ehrenberg had apparently never seen *P. quadripartita* and that he had applied the name *tuberosa* to his marine species in error. Claparède & Lachmann nevertheless continued to use *Acineta tuberosa* in Ehrenberg's taxonomic sense, as well as *P. quadripartita*, and so have all later authors.

8. Curds (1985a, p. 80) discussed *Acineta tuberosa* Ehrenberg. Despite his acceptance of Ehrenberg's authorship, three of the listed 'synonyms' were earlier: *Brachionus tuberosus* Pallas, 1766, *Vorticella tuberosa* Müller, 1786, and *Volverella astoma* Bory de St Vincent, 1825 (correctly [1827]). Curds made no comment about his citation of these senior names in the synonymy of *A. tuberosa* Ehrenberg.

9. Following the citations of Curds (1985a), Foissner (1988, p. 4) adopted the name and authorship *Acineta tuberosa* (Pallas, 1766). However, as explained above, the *tuberosus* of Pallas (Baker's species of 1753) was certainly not identical with the species always called *Acineta tuberosa* Ehrenberg. The attribution of the name *tuberosa* to Pallas or Müller would be very destabilizing; *tuberosa* in such a taxonomic sense has not been used as a valid name in the past 150 years. The literature on *A. tuberosa* Ehrenberg is very extensive (see for example Collin, 1912; Guilcher, 1951; Batisse, 1967; Bardele & Grell, 1967; Bardele, 1969, 1970; Farmer, 1980; Curds, 1985a, 1985b; Lee, Hutner & Bovee, 1985; Dale & Blom, 1987; Schödel, 1987; Matthes, Guhl & Haider, 1988). *A. tuberosa* is the type species of *Acineta* by the designation of Collin (1912, p. 336). *Acineta* is in turn the type genus of the ACINETIDAE Ehrenberg, 1838 (described on p. 316 and there spelled Acinetinen, but latinized on p. 533).

10. Bütschli (1889, p. 1928) erected the nominal genus *Tokophrya*, mentioning the species described by Baker, Pallas, Müller and Bory de St Vincent (paras. 1–3 above). Among the included species was *Podophrya quadripartita* Claparède & Lachmann, 1859; this has consistently been placed in *Tokophrya* and was designated the type species by Curds (1985c, p. 169). The name *Tokophrya quadripartita* (Claparède & Lachmann, 1859), a possible synonym of Pallas's *Brachionus tuberosus* (see para. 7 above), is very well established (see the references given in the previous para. and



their bibliographies). To replace *quadripartita* by *tuberosus* Pallas or by *astoma* Bory de St Vincent would be extremely confusing as well as being of doubtful accuracy. The generic name *Tokophrya* is in universal use and to replace it (e.g. by *Volverella*) would be very destabilizing.

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

- (1) to use its plenary powers to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
  - (a) the generic name *Volverella* Bory de St Vincent, [1827];
  - (b) the following specific names:
    - (i) *tuberosus* Pallas, 1766, as published in the binomen *Brachionus tuberosus*;
    - (ii) *tuberosa* Müller, 1786, as published in the binomen *Vorticella tuberosa*;
    - (iii) *astoma* Bory de St Vincent, [1827], as published in the binomen *Volverella astoma*;
- (2) to place on the Official List of Generic Names in Zoology the following names:
  - (a) *Acineta* Ehrenberg, [1834] (gender: feminine), type species by subsequent designation by Collin (1912) *Acineta tuberosa* Ehrenberg, [1834];
  - (b) *Tokophrya* Bütschli, 1889 (gender: feminine), type species by subsequent designation by Curds (1985) *Podophrya quadripartita* Claparède & Lachmann, 1859;
- (3) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *tuberosa* Ehrenberg, [1834], as published in the binomen *Acineta tuberosa* (specific name of the type species of *Acineta* Ehrenberg, [1834]);
  - (b) *quadripartita* Claparède & Lachmann, 1859, as published in the binomen *Podophrya quadripartita* (specific name of the type species of *Tokophrya* Bütschli, 1889);
- (4) to place on the Official Index of Rejected and Invalid Generic names in Zoology the name *Volverella* Bory de St Vincent, [1827], as suppressed in (1)(a) above;
- (5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
  - (a) *tuberosus* Pallas, 1766, as published in the binomen *Brachionus tuberosus* and as suppressed in (1)(b)(i) above;
  - (b) *tuberosa* Müller, 1786, as published in the binomen *Vorticella tuberosa* and as suppressed in (1)(b)(ii) above;
  - (c) *astoma* Bory de St Vincent, [1827], as published in the binomen *Volverella astoma* and as suppressed in (1)(b)(iii) above.

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