

## OPINION 1971

### ***Leucocytozoon* (Protista, Haemosporida): Berestneff (1904) adopted as the author and date, and *Leukocytozoen danilewskyi* Ziemann, 1898 adopted as the type species**

**Keywords.** Nomenclature; taxonomy; Protista; Haemosporida; blood parasites; *Leucocytozoon*; *Leucocytozoon danilewskyi*.

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#### **Ruling**

- (1) Under the plenary power the name *Leukocytozoen* Ziemann, 1898 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *Leucocytozoon* Berestneff, 1904 (gender: neuter), type species by monotypy *Leukocytozoen danilewskyi* Ziemann, 1898, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *danilewskyi* Ziemann, 1898, as published in the binomen *Leukocytozoen danilewskyi* (specific name of the type species of *Leucocytozoon* Berestneff, 1904), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Leukocytozoen* Ziemann, 1898, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

#### **History of Case 3089**

An application to confirm the authorship and date of the generic name *Leucocytozoon* as Berestneff (1904), with the type species by monotypy as *Leukocytozoen danilewskyi* Ziemann, 1898, was received from Dr Gediminas Valkiūnas (*Institute of Ecology, Vilnius, Lithuania*) on 13 March 1998. After correspondence the case was published in BZN 56: 168–170 (September 1999). Notice of the case was sent to appropriate journals.

Comments in support of the application from Dr Roger W. Crosskey (*The Natural History Museum, London, U.K.*), Prof M.A. Anwar (*University of Oxford, Oxford, U.K.*) and Dr Tatjana A. Iezhova (*Institute of Ecology, Vilnius, Lithuania*) were published in BZN 57: 39–42 (March 2000). A further comment in support from Dr John R. Baker (*Cambridge, U.K.*) was published in 57: 108 (June 2000).

An opposing comment from Dr M.A. Pierce (*International Reference Centre for Avian Haematozoa, Wokingham, Berkshire, U.K.*) was published in BZN 57: 39–41 (March 2000), with a further comment in BZN 57: 108 (June 2000). Dr Pierce would have preferred to attribute authorship and date of the name *Leucocytozoon* to Sambon (1908), and to adopt *Haemamoeba ziemanni* Laveran, 1902 as the type species. A reply by the author of the application, published in BZN 57: 108–109, maintained the original proposals.

The name *danilewskyi* Ziemann, 1898 is in latinised form, even though the text of the work is in German, indicating that it was intended as a scientific name; it was

made available from Ziemann's (1898) illustrations under Article 12.2.7 of the Code. Under Article 11.9.3.1 the purported generic name '*Leucocytozoen*' with which the species name was combined need not be valid or even available (para. 1 of the application). The application proposed the suppression of *Leucocytozoen* in order to put its status beyond dispute.

A recent comment from Dr John O. Corliss (*Bala Cynwyd, Pennsylvania, U.S.A.*) was noted on the voting paper: 'As a protistologist I wish to add my support to the proposals submitted in the carefully composed application by Gediminas Valkiūnas. I have reviewed the related literature (which extends considerably beyond the entirely adequate list given in the application) and have come to the conclusion that the interests of workers on haemosporidian parasites will be best served by the Commission's approval of the case.

While I am convinced that Dr Valkiūnas is accurate in his nomenclatural interpretations, based on priority, I am equally pleased that his conclusions support the long-standing usage of names. Although various members of the parasitological community have been uncertain for many years on the best solution to 'the *Leucocytozoon* problem', respected leaders in the field (including the esteemed and highly perceptive malarial authority, the late Prof P.C.C. Garnham) have often adopted — as is evident by perusal of the overall vast literature involved — the generic and/or specific names and authorships proposed in the application.

Favorable action by the Commission will lay to rest this vexatious nomenclatural matter'.

A further recent note from Drs E. Bychkova and A. Babushnikova (*Institute of Zoology, Academy of Sciences of Belarus, Minsk, Belarus*) recorded: 'We have faced the problem of the name, authorship and date for *Leucocytozoon* in our research and fully support the application'.

### Decision of the Commission

On 1 December 2000 the members of the Commission were invited to vote on the proposals published in BZN 56: 169. At the close of the voting period on 1 March 2001 the votes were as follows:

Affirmative votes — 19: Bock, Bouchet, Brothers, Calder, Eschmeyer, Kerzhner, Kraus, Lamas, Macpherson, Mahnert, Minelli, Ng, Nielsen, Papp, Patterson, Rosenberg, Ride, Song, Štys

Negative votes — 3: Alonso-Zarazaga, Cogger and Martins de Souza.

No votes were received from Dupuis and Mawatari.

Voting for, Bouchet commented: 'I am not entirely convinced that Dr Valkiūnas's arguments are technically correct but the solution offered is pragmatic and favours stability'. Patterson commented: 'I have noted the comments of Dr Pierce and I have some sympathy for them. However, I believe that there is an overwhelming consensus for the proposed resolution and thus stability'. Voting against, Alonso-Zarazaga commented: 'I vote against proposals (1), (2) and (4) of para. 7 of the application, while I agree with (3). I feel that the author should have considered the merits of treating the name *Leucocytozoen* Ziemann, 1898 as an incorrect original spelling, which was corrected by Berestneff (1904) to the present spelling *Leucocytozoon*. The author could then have proposed that *Leucocytozoon* be made available from the earlier authorship of Ziemann (1898), with *L. danilewskyi* Ziemann, 1898 as the type

species by monotypy'. Cogger commented: 'The Commission could have been asked to rule simply that the name *Leucocytozoon* Berestneff, 1904 is a justified emendation of *Leukocytozoen* Ziemann, 1898. This would have achieved the proposed nomenclatural outcome and type species, eliminating uncertainty. The authorship (Ziemann, 1898) would have differed from that proposed but there has been no consistency of cited authorship in the literature'.

### Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

- danilewskyi*, *Leukocytozoen*, Ziemann, 1898, *Ueber Malaria- und andere Blutparasiten nebst Anhang. Eine wirksame Methode der Chromatin- und Blutfärbung*, p. 128, pl. 3, figs. 29–33.
- Leucocytozoon* Berestneff, 1904, *Archiv für Protistenkunde*, 3: 376.
- Leukocytozoen* Ziemann, 1898, *Ueber Malaria- und andere Blutparasiten nebst Anhang. Eine wirksame Methode der Chromatin- und Blutfärbung*, p. 128, pl. 3, figs. 29–33.