- 1904b. Recherches de morphologie phylogénétique sur les molaires supérieures des ongulés. *An. Mus. nac. Buenos Aires*, vol. 3 (10), pp. 1–541.
- BOND, M. & VUCETICH, M. G. 1983. *Indalecia grandensis* gen. et sp. nov. del Eocene Temprano del Noroeste Argentino . . . *Rev. Assoc. geol. Argentina*, vol. 38 (1), pp. 107–117.
- SIMPSON, G. G. & MINOPRIO, J. L. 1950. La fauna del Deseadense de Mendoza. Resumen. Colaboración. *An. Soc. cient. Argentina*, vol. 149, pp. 245–253.
- , & PATTERSON, B. 1962. The mammalian fauna of the Divisadero Largo formation, Mendoza, Argentina. *Bull. Mus. comp. Zool. Harvard*, vol. 117 (4), pp. 239–293.

COMMENTS ON THE APPLICATION CONCERNING *ATRACTOCERA*
LATIPES MEIGEN, 1804. Z.N.(S.)2393
 (see vol. 41, pp. 83–93, 211)

(1) By I. M. Kerzhner (*Zoological Institute, Academy of Sciences, Leningrad*
199034, U.S.S.R.)

Professor I. A. Rubtsov has asked me, as Secretary of the Soviet committee on zoological nomenclature, to comment on the disputed views of this case put forward by him and by Dr Crosskey. I am not a dipterologist, but I prefer a stable nomenclature and objective information. Prof. Rubtsov has provided me with some facts but I have personally verified all the references and have studied many other sources not indicated by him. I use *latipes* throughout in the pre-1972 sense and do not differentiate between narrow and broad applications of the name (the latter for a group of sibling species) because I regard both usages as important. References to RAE followed by the year and number of the work reviewed are to the *Review of Applied Entomology Ser. B. Medical and Veterinary*. Nearly all the other references are to works already mentioned in the discussion.

Rubtsov puts forward the following arguments:

(1) *Medical and veterinary importance of the species*. — Rubtsov stated: 'As a very active bloodsucker it has great medical and veterinary importance. It is included in many monographs . . . , in many bulletins of WHO . . . and in hundreds of papers'. Crosskey & Davies, 1972, said, to the contrary: 'not a blackfly species of any medical and veterinary importance'. Crosskey, 1984, remarks: 'In North America and Europe . . . the species has no such importance, and indeed there are extraordinarily few biting records for it. There is some man-biting nuisance attributable to the species, but localised to eastern U.S.S.R. The species has never been the target of any control operation nor is it even mentioned in a recent book concerned with SIMULIIDAE as pests (Laird, 1981)'. The above statements are the only ones seen by me.

For the U.S.S.R. (half of the area of the species) Rubtsov, 1956, stated: 'Malicious bloodsucker. Attacks man and domesticated animals' and Gutsevich included the species ('mass attacks on man and livestock') in the Soviet *Great Medical Encyclopaedia* (ed. 2, 1961, vol. 19, p. 367). Neither of these references limits the pest to 'eastern U.S.S.R.'. I have also found references to 'important species biting man and livestock' (RAE 1983, 2007, Switzerland) and 'mass bloodsucking species' (RAE 1983, 2333, Czechoslovakia). In England it was shown by Davies and others, 1962, *Trans. r. entomol. Soc. London*, vol. 114, pp. 25–26, using serological methods, that the species feeds mostly on birds, predominantly domestic birds, but also on man and domestic animals. In Canada it is, and in England it is supposed to be (Davies *et al.*, loc. cit.; RAE 1976, 1333, etc.) a vector of leucocytozoonosis, a dangerous and widely distributed disease of domestic and wild birds (see Laird, ed., 1981, p. vii). References to bloodsucking habits, abundance and wide distribution of the species are numerous. Davies *et al.* (loc. cit.) analysed about 280 bitings of *latipes*, much more than of any other British species.

The title of Laird's 1981 book — *Blackflies: the future for biological methods in integrated control* — shows his concern. Crosskey's chapter on geographical distribution contains a table of 43 'more important' species in the world fauna with a note that not all vectors of leucocytozoonosis are included. It is the only general review of blackfly species as pests in the book and does not include *latipes*. But the species is mentioned in the book on 15 pages (add p. 292 to the index) in six papers by eight authors working in England, West Germany, Czechoslovakia, Canada and U.S.A. All used '*latipes*' or '*latipes* auctt.' and none mentioned '*vernum*'. This goes counter to Crosskey's arguments. In the index to the book I found only 14 other species mentioned on 14 or more pages.

(2) *Importance of latipes as a type species.* — This is not commented on by Crosskey & Davies, 1972 or Crosskey, 1984. Regardless of the taxonomic status of *Cnetha*, there will be no problem if Rubtsov's proposal is accepted. Otherwise, the type species of *Cnetha* and *Pseudonevermannia* will have to be designated by the Commission using its plenary powers (Art. 70a).

(3) *Doubtful status of the presumed holotype.* — Rubtsov suggested that the presumed holotype disagrees with Meigen's figure and with the known distribution of the species. Neither point is mentioned by Crosskey & Davies, 1972 or by Zwick & Crosskey, 1981, and only the second is discussed by Crosskey, 1984. He regards Rubtsov's suggestion that the specimen was received from France or England after 1804 as a 'remarkable, groundless and unwarranted assumption' although Zwick & Crosskey, 1981, correctly mentioned that Meigen received much material from various countries after 1804. In 1818 or later Meigen obtained the Baumhauer collection (50,000 specimens) mainly from western and southern France and including many small and delicate species of the suborder Nematocera to which the blackflies belong. English Diptera (but perhaps not Nematocera) were sent to Meigen by Leach (see Morge, 1974, pp. 121, 122, 'Leach' misprinted as 'Beach'; Meigen, 1818–1838, *Syst. Besch. zweifl. Ins.*, numerous references to Baumhauer; for Leach see vol. 2, p. 348, vol. 3, p. 292, etc.).

According to Horn & Kahle, 1936, *Entomol. Beihefte Berlin-Dahlem*, vol. 3, p. 171, Meigen specimens, possibly including types, exist in Vienna, Bonn and Halle/Saale, besides Paris. I can add Berlin and Leningrad. No effort seems to have been made to study these specimens in revising Meigen's blackfly species.

The problem of 'types' in old collections is discussed by Mayr, 1969, *Principles of systematic Zoology*, para 13.48, and I agree with his conclusions: 'Evidence derived from old types must be treated with extreme care and discrimination and never be used to upset stable nomenclature.' I agree further with Rubtsov that, even in the absence of any doubts about the holotype, conservation of the name in its accustomed use was necessary.

(4) *Usage of the name*. — Crosskey in Laird, ed., 1981, lists selected identification keys mostly published in taxonomic monographs. According to my calculations, 12 of these (for the Palaearctic, U.S.S.R., Scandinavia, British Isles, France, Roumania, Czechoslovakia, Italy, east Canada and parts of U.S.A.) use *latipes* and only two (for Iceland and Michigan) use *vernum*. Numerous papers in which this common and widespread species is used in ecological, physiological, parasitological and other studies and published before 1972 use *latipes*. For the post-1972 period I used the indexes to RAE. I agree that such evidence is not complete and that it does not reflect the nature and importance of publications, but I think it gives objective evidence on the usage of names, and in my opinion, usage is usage (Art. 79b(ii)) and cannot be discounted even if the author is dead or did not show awareness of the proposed nomenclatural changes. From 1972 to 1975, RAE indexes only *latipes* (except for Crosskey & Davies, 1972). From 1976 to 1984, number 5, 16 papers using *latipes* are given and 20 using *vernum*. Clearly, even in recent years, *vernum* has not acquired very considerably predominant usage.

The problem of a neotype is identical in both Rubtsov's proposal and Crosskey's counterproposal (for *vernum*). In both cases a neotype is desirable, but the identity of the species can be fixed by reference to Davies, 1966, as already indicated by Rubtsov.

(2) By Heide Zwick, *Limnologische Flussstation d. Max-Planck-Instituts f. Limnologie, Postfach 260, D-6407 Schlitz, West Germany*

I wish to comment on the proposal by Rubtsov (1984, *Bull. zool. Nom.* 41(2), pp. 83–86) and counter-proposal by Crosskey (*ibid.*, pp. 86–93) on the interpretation of the name *latipes* Meigen, 1804, and in particular to comment on paragraphs 9 and 13 of Rubtsov's application.

For more than 15 years I have studied SIMULIIDAE, and have spent much time elucidating the identity and status of European species described by early workers such as Enderlein, Fries, Friederichs, Lundström, Meigen, and Zetterstedt. A paper on Meigen's types has already been published (Zwick & Crosskey, 1981) and the results of studies on the other workers are now being prepared for publication. Thus I am well aware of the *latipes* — *vernum* problem, and I feel qualified to comment on the proposals.

I fully agree with Crosskey, and strongly support his arguments which have been made in accordance with the International Code of Zoological Nomenclature. His proposal to introduce the name *vernum* Macquart, 1826 for *latipes* sensu auct., nec Meigen (Crosskey & Davies, 1972) has been accepted by most simuliid specialists. Even in countries where current literature can be difficult to obtain authors are beginning to use the name *vernum* (e.g. Jedlička, 1976; Joost & Zimmermann, 1983).

The main point which arises from Rubtsov's proposal (paragraph 9) seems to be that he does not accept that the single male in the Meigen collection under the name *latipes* is in fact the holotype male of *latipes* Meigen, 1804.

The Meigen collection of simuliids has been carefully looked after since it was purchased in 1840 by the Muséum national d'Histoire naturelle, Paris. So closely has it been looked after that it was not until 1969 that experienced simuliid workers first received permission to make genital preparations which are essential for identifying species. Earlier workers had to be content with examining unsatisfactory external features, and many of their identifications are no more than guesswork.

In 1978 I studied the male *latipes* of Meigen and I am convinced (like Crosskey & Davies, the first revising authors) that it is the male which Meigen refers to in his original description (1804) for the following four reasons:

- (1) the male bears a label '*latipes*' in Meigen's handwriting (note Zwick & Crosskey 1981, p. 227);
- (2) Meigen very precisely noted: 'Ich fing nur einmal ein Männchen im Mai in einer Hekke'. The proper translation is: Only once I caught one male on a hedge in May. Later, in 1818, he repeated: 'Nur einmal im Mai das Männchen'. (Translation: Only once a male [was caught] in May) and gave a more detailed description which evidently must have been based on the same specimen as in 1804;
- (3) in the old catalogue of the Paris Museum (from 1840 — compare fig. 1 in Zwick & Crosskey, 1981) there are 2 specimens mentioned under the name of *latipes* (No. 525). Two specimens are in the collection of Meigen: one being a male, the other being a female (which has not been mentioned by Meigen) and misidentified;
- (4) the figure of *latipes*, drawn by Meigen (pl. 223, fig. 9) shows a male and is in accordance with his descriptions.

I cannot agree with Dr Rubtsov's argument that because the male in question has no collecting label it may have been added to the collection subsequently. At the time of Meigen it was not usual to give locality information on labels. Furthermore, if it was a subsequently added specimen, it would mean that the holotype male was lost and someone must have placed another male in the correct place and added the handwritten label of Meigen onto the pin!

Taking all these points into account I consider that there is no reason to reject this specimen as being the holotype of *latipes* Meigen. If even more absolute proof is required before this conclusion can be accepted by others we may as well stop all our efforts to identify and revise the type-specimens of early authors [and thereby lose one of our fundamental bases in taxonomy].

Paragraph 13.

In my view a neotype is not needed for *latipes* Meigen, 1804. I consider that the specimen in the MNHN, Paris, number 525, is the holotype of *latipes* Meigen, 1804 as shown by the first revising authors (Crosskey & Davies, 1972). The name *vernum* Macquart, 1826 has been successfully introduced for the species *latipes* sensu auct. (=sensu Edwards, 1915, 1920; Rubtsov, 1956, 1959–1964; Davies, 1966, 1968).

To the best of our knowledge types of *vernum* Macquart do not exist, and the designation of a neotype would be desirable. However, this is not necessary at the moment, and should only be done by a specialist who is revising all species of the *vernum*-group.

Finally, I would like to comment on Rubtsov's paragraph 12. The type locality of *vernum* Macquart is most probably northern France, as Macquart lived at Lille. Despite a special collecting trip by Dr L. Davies to this area at the right time (May), there is still no appropriate specimen available to make a neotype designation. The only specimens I could provide are from Schlitz, Federal Republic of Germany, some 300 km east of Lille, and these would not be appropriate for such an important designation.

REFERENCES

- CROSSKEY, R. W. & DAVIES, L. 1972. The identities of *Simulium lineatum* (Meigen), *S. latipes* (Meigen) and *S. vernum* Macquart (Diptera: Simuliidae). *Entomologist's Gaz.* vol. 23, pp. 249–258.
- JEDLIČKA, L. 1976. Black flies (Diptera, Simuliidae) spread in middle Slovakia. *Acta F.R.N. Univ. Comen.* — Zoologia vol. XX, Bratislava, pp. 97–127.
- JOOST, W. & ZIMMERMANN, W. 1983. *Dreijährige Emergenz-Untersuchungen an einem rhithralen Gewässer des Thüringer Waldes als Beitrag zur Ökologie, insbesondere Produktionsbiologie merolimnischer Fraktionen der Bergbach-Biozönose.* — Dissertation zur Promotion A. Karl-Marx-Universität Leipzig, Sektion Biowissenschaften, Leipzig, Juni 1983, 275 pp. + XLII pp.
- ZWICK, H. & CROSSKEY, R. W. [1981]. The taxonomy and nomenclature of the blackflies (Diptera: Simuliidae) described by J. W. Meigen. *Aquatic Insects*, vol. 2 (1980), pp. 225–247. [issued in 1981].

(3) By Jan E. Raastad (Zoological Museum, Oslo University, Oslo, Norway N-0562)

It is correct, as stated by Rubtsov, that *latipes* sensu Edwards, now commonly recognised as *vernum* Macquart, 1826, is very common and widely distributed and that it is a very active blood sucker. However, the species seems to be almost exclusively a bird biter of little or no veterinary medical importance. The species will therefore be of little practical interest, but for the taxonomist much time-consuming work will be caused by an attempt to separate what are possibly sibling species covered under the shadow of a long-standing misidentification.

This species has for long been placed in the genus-group taxon *Eusimulium* Roubaud, 1906. Rubtsov, 1974, *AN SSR Trudy zool. Inst.* vol. 53, pp. 230–281, erroneously split *Eusimulium* and re-assessed *Cnetha* Enderlein, 1921, which correctly has *Atractocera latipes* Meigen, 1804 as type species. Raastad, 1979, *Rhizocrinus*, vol. 11, pp. 1–28, argued against this course and re-evaluated *Cnetha* Enderlein, 1921, which is based on *latipes* Meigen sensu Enderlein.

It seems reasonable to question the identity of the species that was before Enderlein. Was it *latipes* Meigen, 1804, or *latipes* auctorum? Enderlein does not say much about this species, which he clearly did not know very well, and there is not much in the literature to clarify the matter. However, in 1936 (*Tierwelt Mitteleuropas*, vol. 6 (3)2, pp. 36–42 he presents a fairly accurate drawing (fig. 82) of the third leg of a female *Cnetha latipes* showing a deep tibial pedisulcus. This shows that Enderlein was not basing his *Cnetha* on the true *latipes* Meigen as that species

has only a very shallow pedisulcus. Apparently Enderlein followed Edwards (*Bull entomol. Res.* vol. 6, pp. 23–42) in his misidentification of *latipes* Meigen. If so (and this is what we have to assume), *Cnetha* is a genus based on a misidentified type species and *vernum* Macquart, 1838 would be its most suitable type species.

Thus there is not much to support Rubtsov's view. On the contrary, his proposal means a threat to existing stability of nomenclature. To follow his application would mean setting back simuliid taxonomy at least 10 years. I must therefore fully support the alternative action proposed by Crosskey.

(4) By R. W. Crosskey (*British Museum (Natural History), London*)

I had not intended to advert again to Rubtsov's request concerning the simuliid specific name *latipes* Meigen, 1804, but the comments by Dr Kerzhner in support of Rubtsov's position do not give a sufficiently exact account of the situation; further comment is now needed on matters raised by Dr Kerzhner so that the Commission can be more fully informed before deciding its standpoint.

Three main issues are involved in Rubtsov's request and in my opposition to it (*Bull. zool. Nom.*, vol. 41, pp. 83–93, 1984). They are:

(1) Is the male specimen accepted as the holotype of *latipes* Meigen, 1804, by Crosskey & Davis, 1972, to be recognised and treated as the holotype or not?

(2) Even if it is held to be the holotype, are there grounds for disregarding its characters and interpreting *latipes* in its misidentified sense? That is to say, are there grounds for reverting to pre-1972 usage based on a then-unrecognised misidentification and for maintaining 'usage'.

(3) What is the type species of *Cnetha* Enderlein, 1921, a genus based on the nominal species *latipes* Meigen, 1804?

(1) *The holotype question.* Dr Heide Zwick has dealt so carefully and effectively with this matter in her comment (pp. 111–113) that there can be no reason to doubt that the male specimen labelled by Meigen as *latipes* (Paris Museum) is the one referred to in Meigen's works. There is *no* contrary evidence, and therefore no ground for not accepting it as the holotype.

Kerzhner refers to the 'doubtful status of the presumed holotype', though it is hard to see how it can be doubtful in the light of Zwick's comments. As I stressed earlier, if we do not accept evidence of the kind marshalled by Zwick as sufficiently conclusive for type status then we might as well cease all attempts to fix the identity of early-described species by objective appeal to their types.

In his comments Kerzhner disputes the Crosskey and Zwick interpretation of the specimen as holotype on the grounds that Meigen received Diptera from various sources (including France and England) after the 1804 description of *latipes* and might have substituted another specimen for the original one. Rubtsov and Kerzhner appear to assume that this actually happened, but provide no substantiating evidence that it did or even might have done. References by Kerzhner to

Meigen's receipt of dipterous specimens from England and France do nothing to support the Rubtsov-Kerzhner position. As I said previously, 'there is no documentary evidence that Meigen ever received *simuliid* material from these countries' (I stress the word *simuliid* because Kerzhner appears to have overlooked it and to have assumed that my statement referred to *Diptera* as a whole). Meigen described certain other *Diptera* from these countries in his 1818 et seq. works, but not *simuliids*. Rubtsov's statement (*Bull. zool. Nom.* vol. 41, p. 84) that *subexcisum* (= *latipes*) 'has never been found in West Germany' is not correct. It was found there a few years ago by Prof. Dr W. Rühm at Brückel (Hannover) (unpublished, Zwick to Crosskey, in *litt.* 23. ii. 1985), and is currently being reported from West Germany at the present time (Erpelding, in press).

On the type question, Kerzhner states that some of Meigen's *Diptera* material 'possibly including types' is present in Museums other than in Paris. This is correct, and a few of Meigen's nominal species of *SIMULIIDAE* were described from Austria — a fact giving rise to the obvious likelihood that the types of these species could be preserved in Vienna. However, for the *SIMULIIDAE*, there is no actual or presumptive evidence for the existence of original specimens in a collection other than Meigen's own (since 1840 in Paris Museum) or possibly in that of the Naturhistorisches Museum in Vienna. Paris and Vienna are the only two locations in which Meigen types of *SIMULIIDAE* can reasonably be expected to be found and recognised. In criticism of the Zwick-Crosskey acceptance of the Paris specimen as *latipes* holotype, Kerzhner attempts to imply that because some Meigen *Diptera* found depositories other than Paris the *latipes* type did also. This is a tendentious argument that he attempts to support by a statement that Zwick and Crosskey apparently made 'no effort' to study Meigen specimens that might or might not be in collections other than Paris.

In fact, Zwick and Crosskey could not have written their account of Meigen's *simuliids* without considering the nominal species for which Vienna was the likely depository (on the basis of the descriptions). No Meigen *simuliids* are present today in Vienna, as was made clear throughout the Zwick & Crosskey 1981 work. With the aid of the dipterist at the Naturhistorisches Museum, Vienna, this collection was searched for any specimens that might, by any possibility, be Meigen types of *simuliids* recorded by him from Austria; none was found (nor, it should be noted, in German collections examined by Zwick, including Berlin). Kerzhner's implication of negligence by Zwick and Crosskey is unfounded.

Kerzhner has not commented on Rubtsov's own acceptance of certain specimens in Paris as Meigen *simuliid* types, for example (Rubtsov, 1963, p. 546) that of *Simulium argyreatum* Meigen, 1838 on which Rubtsov comments 'Die uns im Jahre 1958 gebotene Gelegenheit, die Typen von Meigen im Muséum d'Histoire naturelle in Paris (1 Männchen) . . .'. It is not evident from Rubtsov's application or Kerzhner's support of it why they consider the Crosskey-Davies-Zwick acceptance of type status for the *latipes* specimen in Paris is suspect when the Rubtsov interpretation for other types is apparently not.

The information given by Kerzhner that there is Meigen material in Leningrad, if correct, is unfamiliar to most dipterists but is in any case irrelevant: Rubtsov has worked with the Leningrad collection for some 50 years and would long since have found any Meigen specimens of *SIMULIIDAE*.

In summary, Rubtsov and Kerzhner appear to have made no case justifying an assumption that the male specimen of *latipes* so named in Meigen's hand is *not* a type specimen. I therefore continue to request that the Commission rule that this specimen is to be accepted as the holotype of *Atractocera latipes* Meigen, 1804.

(2) *Maintenance of latipes in the sense of pre-1972 usage.* My comments here allude to Kerzhner's comments Nos. 1 and 4 together, as if there is an argument favouring the maintenance of pre-1972 usage of the name *latipes* it can only be hung on the putative medico-veterinary importance of the species concerned — the one renamed as *vernum* Macquart after reinterpretation of *latipes* from its holotype.

I do not differ from Kerzhner in the view that usage of a name should in some circumstances be maintained, and it is important that the Commission should use its plenary powers from time to time (in the interests of stability) to preserve a well-known name when it is threatened by a technical provision of the Code. But such action should be used sparingly, and only when a very important animal is concerned — e.g. a severe pest, pathogen, or disease vector for which the name has significance to more than a small group of specialists.

The blackfly species to which the name *latipes* Meigen was for a long time misapplied cannot by any reasonable yardstick be regarded as an important pest of man or livestock, despite the attempts of Rubtsov and Kerzhner to depict it in this light. It is unknown to all but workers on SIMULIIDAE, although familiar to a range of specialists of various kinds working in the context of this family. It takes bloodmeals mainly from birds, but in parts of its range also from mammals. Most simuliid species are bloodsuckers, and several hundred have been reported to bite man and domestic animals, but we do not on that account regard every one as a pest—with a sacrosanct name that must never be changed in the light of better taxonomic knowledge.

In the *latipes* case it is essential to distinguish between reports of bloodsucking by this species *per se*, and reports that provide evidence that this bloodsucking is a serious menace to man or livestock. Kerzhner's comments seem to equate one with the other. A specific example is his reference to Davies *et al.* (1962), who showed that wild-caught flies in Britain had fed on birds. What has this to do with pest status for *latipes* *sensu* authors in Britain? Kerzhner does not note that, later, in his definitive monograph of British Simuliidae, Davies (1966, p. 442) could only say this of its habits — 'Adult females appear to bite birds, although there is no precise knowledge of the species of birds attacked'. Also, Dr Kerzhner will not be aware that in the last 16 years I have collected *latipes* *sensu* authors from 203 breeding sites in England and not once either seen, or been bitten by, the adult fly. The species has no pest status in Britain, but the paper of Davies *et al.* (1962) was, as Kerzhner notes, abstracted in the *Review of Applied Entomology*. The importance of the point here is that citations of *latipes* *sensu* authors in the secondary recording periodicals, upon which both Rubtsov and Kerzhner have laid stress, are not *evidence* for an assertion of major pest status; if the primary literature is traced it will be found that almost all the secondary citations (in the RAE, WHO works, etc) relate to no more than casual findings on bloodsucking. This is so even for the work specifically selected for reference by Kerzhner: the bloodfed flies reported by Davies *et al.* were not found as part of a special investigation prompted by the bloodsucking habit but were precipitin-tested to determine the blood-source (mammalian or avian) after being incidentally trapped.

Kerzhner mentions Crosskey in Laird, 1981, a work in which I published a list of the major simuliid pests. A serious pest cannot be precisely defined. A 'short list' of major pests on a world scale must be selective, disregarding occasional or localised less severe pests in areas where really important ones also occur. My list excluded *latipes* (*sensu* authors, not Meigen) because — although a nuisance in parts of the steppe/forest-steppe — it does not on any reasonable assessment have

the same socio-economic significance as the major simuliid pests of the U.S.S.R. (which *are* included in the table). Kerzhner says that *latipes* is mentioned on 15 pages in Laird, 1981. So it is, but in no case as a pest.

To urge a case for the maintenance of usage requires an exaggerated argument by which a minor pest status for *latipes* (sensu authors, not Meigen) in the U.S.S.R. is allowed to hold sway as if it were representative of the importance of the species throughout its enormous Holarctic range. Despite the importance that Rubtsov and Kerzhner claim for the species in the U.S.S.R. they cannot point to any work specifically on the control of this putatively important pest. The reason for this is that it has never been the target of any insecticidal or biological control programme: it is not so important a pest. Notably, the other specialists commenting on the case (from Canada, Germany, Norway, where the species occurs) have not mentioned that it is a pest in these areas. Raastad (pp. 113–114) specifically says that it has little or no medico-veterinary importance, and Cupp & Gordon, 1983, for the U.S.A., summarise (as *vernum*) its 'Medical-veterinary importance' thus: 'occasional [biting] nuisance in New York and Michigan'. It is probable, as Kerzhner says, that the species transmits (in common with many other ornithophilic simuliids) the protozoan parasite *Leucocytozoon*, but it is not among the few simuliid species that are the carriers of *economically important* leucocytozoonosis amongst poultry in North America.

Kerzhner points out, as part of Rubtsov's case, that the name *latipes* has gone on being used in its old usage sense in the literature of several countries, despite Crosskey & Davies (1972) having adopted (because of misidentification revealed by the type) the name *vernum* Macquart for it. This is true, but it would be surprising if it was otherwise — because it takes a while for corrections to nomenclature to become generally known, and because Rubtsov's taxonomic papers are influential source-works. Workers in the U.S.S.R. and a few elsewhere (relying on Rubtsov's works) have naturally continued to use *latipes* in the traditional sense, not being aware of the misidentification. Rubtsov in fact ignored the Crosskey & Davies 1972 work from the time of its publication up to his application to ICZN (1983), though he has in his work just published (Rubtsov & Yankovsky, 1984), whilst continuing the use of *latipes* in its misidentified sense, now cited it in a footnote (p. 103).

In defence of usage Kerzhner argues that in his opinion 'usage is usage', unconnected with whether an author 'is dead or did not show awareness of the proposed nomenclatural changes': in other words, ignorant use of a name is just as important in deciding the merits of a case involving *misidentification* as informed use, and the usage of names by authors who never knew of the nomenclatural problem at all (because dead or scientifically inactive) just as relevant as that of aware and actively involved specialists.

If the *latipes* case concerned a nomenclatural change brought about by *synonymy*, i.e. because an even older (pre-1804) name applying to the *same* species had been 'lost' for a century or two and then been used to supplant *latipes* Meigen as its senior synonym, I would be in full agreement with Rubtsov and Kerzhner. In such a circumstance it would obviously have been very detrimental to stability of nomenclature to have supplanted the use of *latipes*, and preservation of the junior synonym would have been extremely desirable. In such a situation mere counting of literature 'usages' could be meaningful and relevant to a Commission decision. It is *not* relevant where — as in the actual case under consideration — the question is not one of straightforward synonymy (involving the same species) but one of *misidentification* (involving different species). In the latter circumstance what matters most is

the literature and usage *after* the misidentification has been discovered and made known — for this alone determines whether the action taken by the discoverer(s) of the misidentification has been deemed correct and desirable by authors *au fait* with the new situation.

The prime point for the Commission to consider is, therefore, not how many times the word *latipes* happens to have appeared in the literature, but whether the nomenclatural change first introduced by Crosskey & Davies, 1972, in the light of new evidence has or has not been accepted by the generality of those working on SIMULIIDAE — in particular by the specialists in taxonomy (who in turn influence the use of names in the non-taxonomic sphere). Supporting comments (this issue of BZN) for the nomenclatural readjustments introduced by Crosskey & Davies, 1972, and restated by Zwick & Crosskey, 1981, as they emanate from taxonomists in several countries, indicate that predominating specialist opinion favours the use of the name *vernum* Macquart for *latipes* *sensu* authors, not Meigen.

In summary, the blackfly species *latipes* *sensu* Edwards, etc. (*vernum* Macquart) is not a familiar pest of such over-riding importance that the Commission should give it exceptional nomenclatural treatment and rule in favour of pre-1972 usage, and Kerzhner fails to make a case that it is. He similarly does not establish that perpetuation of the name in its misidentified application is wanted by taxonomists aware of the nomenclatural situation. In fact, comments submitted on the case strongly suggest otherwise.

3. *The type-species of Cnetha Enderlein.* The genus *Cnetha* Enderlein was first described in an identical key published almost simultaneously in two periodicals (Enderlein, 1921a p. 199 and 1921b p. 44). Eight nominal species were included, and '*latipes* (Meig. 1804)' was designated as the type species (original designation) in both works.

Enderlein continued subsequently to recognise his genus as valid in SIMULIIDAE, mentioning *Cnetha* in 13 additional works published between 1921 and 1936. Limits of the genus fluctuated, some species being added and others removed, but the nomenclatural pivot was consistently *latipes* (Meigen, 1804) and was cited as such in two of the 13 post-original works in which the genus was mentioned (Enderlein, 1925, 1930).

It is not in doubt that Enderlein misidentified the species he designated as type species of *Cnetha*. He used the specific name *latipes* Meigen, both when he founded *Cnetha* upon it and subsequently, in exactly the same sense as his predecessor Edwards (1915, 1920): neither specialist saw Meigen's material or ever became aware that their sense of *latipes* was different from Meigen's. This is clear from the characters consistently cited by Enderlein as defining or categorising *Cnetha* and *latipes*, and Dr Raastad deals with this point in his comments.

To confirm Enderlein's misidentification beyond any possible doubt, however, I have examined (whilst preparing these comments) specimens identified by him and still in the Berlin Museum (loaned to me by courtesy of Dr H. Schumann). There are three pinned adult male specimens bearing Enderlein's determination labels dated 1920 or 1921, i.e. at or about the time of *Cnetha* description (1921); each is accompanied by an excellent preparation (Canada Balsam on celluloid) of one hind leg and dissected genitalia. One specimen from Silesia has his 1921-date identification label as '*Cnetha latipes* (Meig.)', and the other two from Lødingen, Norway, have his 1920 and 1921 determination labels as '*Simulium latipes* Meig.' and '*Cnetha latipes* (Meig.)' respectively. The dilated hind basitarsus, genital parts,

and all other characters, are those diagnostic for the morphospecies *latipes* sensu Edwards, and not for *latipes* Meigen as interpreted from its holotype, i.e. they are the characters of the morphospecies *vernum* Macquart following the Crosskey & Davies (1972) use of this name for the misidentified *latipes* of earlier authors. Enderlein's misidentification is unequivocally confirmed from the Berlin Museum specimens named by him as *latipes* Meigen.

According to Kerzhner's comment No. 2 the problem of the misidentified type species of *Cnetha* was 'not commented' upon by Crosskey & Davies, 1972, when they published on the true identity of *latipes*. Contrary to what Kerzhner says, these authors dealt with this aspect in a special comment (p. 254 of their paper) as follows: 'Lastly with regard to *latipes* Meigen we call attention to the fact that this nominal species is the type species of *Cnetha* Enderlein, 1921, and of *Pseudonevermannia* Baranov, 1926, both of which are based on a misidentified type species in view of the true identity of *latipes*. No practical problem of nomenclature arises as *Cnetha* and *Pseudonevermannia* remain in synonymy with *Eusimulium* Roubaud regardless of the misidentification; the case does not therefore require submission to the International Commission on Zoological Nomenclature at this time'. What more should these authors have said on the matter?

Enderlein's highly split generic system found little favour, and *Cnetha* was hardly at all used as the valid name for a genus-group taxon until Rubtsov, 1974, restored it to generic use for the '*latipes*' (authors) species group previously in *Eusimulium* Roubaud. Baranov, 1936, adopted *Cnetha* as valid for a genus, and Vargas *et al.*, 1946, for a subgenus, both citing *latipes* Meigen as its type; these are the only authors who gave validity to *Cnetha* until Rubtsov, 1974. Neither of them knew of the misidentification, and each used the then universally accepted meaning of *latipes*. In the period 1936–1974 such few other authors as mentioned *Cnetha* listed the name as a synonym, either of *Simulium* Latreille (e.g. Smart, 1945) or of *Eusimulium* (e.g. Edwards, 1931; Rubtsov, 1962; Stone, 1963); synonymy with *Eusimulium* was the status quo for *Cnetha* at the time the misidentification of its type species was discovered.

The finding that *latipes* Meigen had been misidentified had at the time (1972) no nomenclatural bearing on genus-group names because both the actual and the misidentified species were still placed in the same genus-group taxon (*Eusimulium* as genus or subgenus) and the generic names based on *latipes* (*Cnetha* and *Pseudonevermannia*) were long-buried synonyms. The situation is changed now that Rubtsov (1974 *et seq.*) uses *Cnetha* as the name for a genus considered by him to be valid, and (as Kerzhner says) it is desirable for the Commission to determine what the type species of *Cnetha* (also *Pseudonevermannia*, see later) should be. This is particularly necessary because, to complicate the issue, the species named by Enderlein as type of *Cnetha* no longer belongs to the same genus-group taxon as the one intended to be the type. Rivosecchi & Cardinali, 1975, erected the genus *Hellichiella* for the assembly of species known to their predecessor authors either as the *annulum* or the *subexcisum* group within *Eusimulium*, designating *H. saccai* (Rivosecchi, 1967) as type species. Rubtsov & Yankovsky, 1982, erected the genus *Boreosimulium* also for the *annulum* group, designating *B. annulum* (Lundström, 1911) as type species, and indicating that it included the 10 species of that group (one of which is *subexcisum*, i.e. *latipes* Meigen). In their latest work Rubtsov & Yankovsky, 1984, have restricted *Hellichiella* to its type species, and have placed all other *annulum*-*subexcisum* group species in *Boreosimulium*.

From the situation as described it follows that, because the correctly interpreted name *latipes* Meigen is a senior synonym of *subexcisum*, the effect of

designating the species *named* as type species of *Cnetha* Enderlein would be to make this name a senior synonym of *Boreosimulium* (and of *Hellichiella* also, for other taxonomists who prefer not to adopt the refined taxonomic splitting favoured by the Russian workers mentioned). *Hellichiella* is becoming well accepted as a valid name for the taxon containing *latipes* Meigen, recently used for example (as also *latipes* in its correct sense with *subexcisum* as its synonym) in the cytological work of Rothfels & Golini, 1983. There would be no virtue in switching the name *Cnetha* to a concept that has never borne it before and at the same time forcing into synonymy at least one and probably two recently proposed and currently used generic names; the Commission is asked therefore, in determining the type species of *Cnetha*, not to fix the species *named* by Enderlein, but instead to fix the one actually before Enderlein that he intended to be the type.

If the actual species on which Enderlein based *Cnetha*, not the one he named, is fixed as type species, stability is maintained and Rubtsov's (1974 et seq.) concept for this taxon is upheld; the name can continue in use for the *same* taxon as that to which it is and has in the past been applied (i.e. to an assemblage of species centring on *latipes* sensu Edwards, not Meigen). This preserves Rubtsov's application of the name *Cnetha*.

The last question for the Commission concerning *Cnetha* is by what name this species, the one actually used by Enderlein to found the genus, should be known. I have already put the case (*Bull. zool. Nom.*, vol 41, pp. 86–93) that this species should be known as *vernum* Macquart, following the taxonomic clarification of Crosskey & Davies 1972 and acceptance of their action by a majority of workers since. As a corollary I now ask the Commission to designate *Simulium vernum* Macquart, 1828, as type species of *Cnetha*.

As a 'tidying-up' operation, the type species of *Pseudonevermannia* Baranov should be fixed by the Commission whilst dealing with that of *Cnetha*. The situation is comparable. This name was proposed (Baranov, 1926, p. 164) for a new subgenus in a key to subgenera of *Simulium*, with '*latipes* Meig. 1804' cited as type species. It was never mentioned again by Baranov in his substantial oeuvre on SIMULIIDAE, although he subsequently (Baranov, 1935, p. 100; 1936, p. 191) assigned the type species to *Cnetha*, implicitly but not explicitly recognising the objective synonymy of his *Pseudonevermannia* with *Cnetha*. No author since its description has used *Pseudonevermannia* as a valid name, and it has been listed only a few times as a synonym, e.g. of *Nevermannia* Enderlein by Rubtsov, 1940, of *Simulium* by Smart, 1945, of *Cnetha* by Vargas *et al.*, 1946, and of *Eusimulium* by Stone, 1963 and Crosskey, 1969. It is certain from Baranov, 1927, where he figured the branching of the four-filamented pupal gill (under the name *Nevermannia latipes*) and from his mention of such a gill in the original characterisation for *Pseudonevermannia*, that Baranov based this taxon on the same actual species as that used by Enderlein to found *Cnetha*, the species now known to be misidentified, and to which *vernum* is now applied. As *Pseudonevermannia* is isogenotypic with *Cnetha* both nominal genera should be similarly treated in determining their type species.

Conclusion and request for action

Rubtsov and Kerzhner have not satisfactorily shown: (a) that the specimen accepted as holotype of *latipes* Meigen by Crosskey & Davies, 1972, does not have such status; or (b) that *latipes* sensu Edwards is a pest of such severity that it warrants the intervention of the Commission to ensure continued application of the

name *latipes* Meigen to it; or (c) that the name *vernum* Macquart now in use for the misidentified *latipes* sensu Edwards has not found general acceptance.

I agree with them that the type species of *Cnetha* Enderlein, nominally based on *latipes* Meigen, needs to be decided by the Commission now that the name is in use again by some authors as the valid name for a genus-group taxon.

There has not as yet been a need for specialists to redescribe *Simulium vernum* Macquart under this name. In practice the morphospecies concerned is identified by reference to descriptions and figures of it under the former name *latipes*. As Dr Davies (now retired) coauthored the original paper establishing the existence of the misidentification, I suggest (in agreement with the last paragraph of Dr Kerzhner's comment) that the Commission should rule that the name *S. vernum* Macquart is to be interpreted by reference to the specimens described and figured by Davies, 1966, 1968, under the misapplied name *Simulium latipes* Meigen.

I therefore wish to replace my original requests by the following. I now ask the Commission:

(1) under the plenary powers to set aside all designations of type species hitherto made for the nominal genera *Cnetha* Enderlein, 1921 and *Pseudonevermannia* Baranov, 1926 and to designate *Simulium vernum* Macquart, 1826 as the type species of both nominal genera;

(2) (as *Bull. zool. Nom.* vol. 41, p. 92, para 12(1));

(3) to rule that the specific name *vernum* Macquart, 1826, as published in the binomen *Simulium vernum*, be interpreted by reference to the specimens described and figured by Davies in 1966 and 1968;

(4) to place *Cnetha* Enderlein, 1921 (gender: feminine), type species by designation under the plenary powers in (1) above, *Simulium vernum* Macquart, 1826, on the Official List of Generic Names in Zoology;

(5) to place on the Official List of Specific Names in Zoology:

(a) *latipes* Meigen, 1804, as published in the binomen *Atractocera latipes*, as interpreted by reference to the holotype identified by Crosskey & Davies, 1972;

(b) *vernum* Macquart, 1826, as published in the binomen *Simulium vernum*, as interpreted by reference to the specimens described and figured by Davies in 1966 and 1968 (specific name of type species of *Cnetha* Enderlein, 1921 and *Pseudonevermannia* Baranov, 1926).

(6) to place *Pseudonevermannia* Baranov, 1926 (a junior objective synonym of *Caetha* Enderlein 1921 through the action taken under the plenary powers in (1) above) on the Official List of Generic Names in Zoology.

REFERENCES

- BARANOV, N. 1926. Eine neue Simuliiden-Art und einige Bemerkungen über das System der Simuliiden. *Neue Beitr. syst. Insektenk.* vol. 3, pp. 161–164.
- 1927. Guide for the identification of simuliid pupae [In Serbian]. *Glasn. cent. hig. Zav., Beogr.* vol. 2(4), pp. 91–93.
- 1935. K poznavanju golubačke mušice II [Croatian = Contribution to knowledge of the Golubatz fly II]. *Vet. Arh.* vol. 5 (2–3), pp. 58–140.
- 1936. K poznavanju golubačke mušice III [Croatian = Contribution to knowledge of the Golubatz fly III]. *Vet. Arh.* vol. 6 (3–4), pp. 137–220.
- CROSSKEY, R. W. 1969. A re-classification of the Simuliidae (Diptera) of Africa

- and its islands. *Bull. Br. Mus. (nat. Hist.)* (Entomol.), Suppl. vol. 14, pp. 1–195.
- 1981. Geographical distribution of Simuliidae. Pp. 57–68 in Laird, M. (Ed.), *Blackflies: the future for biological methods in integrated control*. xii + 399 pp. Academic Press, London etc.
- & DAVIES, L. 1972. The identities of *Simulium lineatum* (Meigen), *S. latipes* (Meigen) and *S. vernum* Macquart (Diptera: Simuliidae). *Entomologist's Gaz.* vol. 23, pp. 249–258.
- CUPP, E. W. & GORDON, A. E. (eds.). 1983. Notes on the systematics, distribution, and bionomics of black flies (Diptera: Simuliidae) in the northeastern United States. *Search: Agriculture*, No. 25, 75 pp.
- DAVIES, L. 1966. The taxonomy of British black-flies (Diptera: Simuliidae). *Trans. r. entomol. Soc. Lond.* vol. 118, pp. 413–511.
- 1968. A key to the British species of Simuliidae (Diptera) in the larval, pupal and adult stages. *Freshwat. biol. Assoc. scient. Publ.* No. 24, 126 pp.
- EDWARDS, F. W. 1915. On the British species of *Simulium*—I. The adults. *Bull. entomol. Res.* vol. 6, pp. 23–42.
- 1920. On the British species of *Simulium*—II. The early stages; with corrections and additions to Part I. *Bull. entomol. Res.* vol. 11, pp. 211–246.
- 1931. *Diptera of Patagonia and South Chile. Part II. Nematocera (excluding crane-flies and Mycetophilidae)*. 331 pp. British Museum (Natural History), London.
- ENDERLEIN, G. 1921a. Das System der Kriebelmücken (Simuliidae). *Dt. tierärztl. Wochenschrift* vol. 29, pp. 197–200.
- 1921b. Die systematische Gliederung der Simuliiden. *Zool. Anz.* vol. 53, pp. 43–46.
- 1925. Weitere Beiträge zur Kenntnis der Simuliiden und ihrer Verbreitung. *Zool. Anz.* vol. 62, pp. 201–211.
- 1930. Der heutige Stand der Klassifikation der Simuliiden. *Arch. klassif. phylogen. Entomol.* vol. 1, pp. 77–97.
- ERPELDING, G. (in press). First record of *Simulium* (*Helichiella*) *latipes* (Meigen, 1804) in South-West Germany (Diptera: Simuliidae). *Entomol. Generalis*, vol. 10.
- RIVOSECCHI, L. & CARDINALI, R. 1975. Contributo alla conoscenza dei simulidi italiani. XXIII. Nuovi dati tassonomici. *Riv. Parassitol.* vol. 36, pp. 55–78.
- ROTHFELS, K. & GOLINI, V. I. 1983. The polytene chromosomes of species of *Eusimulium* (*Helichiella*) (Diptera: Simuliidae). *Can. J. Zool.* vol. 61, pp. 1220–1231.
- RUBTSOV, I. A. 1940. Blackflies (fam. Simuliidae). *Fauna SSSR* vol. 6(6), 533 pp. (In Russian).
- 1962. Simuliidae (Melusinidae) [part]. *Fliegen palaearkt. Reg.* 14, pp. 257–304. (In German).
- 1963. Simuliidae (Melusinidae) [part]. *Fliegen palaearkt. Reg.* 14, pp. 529–560. (in German).
- 1974. On the evolution, phylogeny and classification of blackflies (Simuliidae: Diptera). *Trudy zool. Inst. Leningr.* vol. 53, pp. 230–282. (In Russian).
- & YANKOVSKY, A. V. 1982. New genera and subgenera of blackflies (Diptera, Simuliidae). *Entomol. Obozr.* vol. 61, pp. 183–187. (In Russian: English transl. in *Entomol. Rev., Washington*. vol. 61, pp. 176–181).

- & ——— 1984. Key to the genera of Palaearctic blackflies. *Opredeliteli po Faune SSSR*, vol. 142; pp. 1–175 (In Russian).
- SMART, J. 1945. The classification of the Simuliidae (Diptera). *Trans. r. entomol. Soc. Lond.* vol. 95, pp. 463–532.
- STONE, A. 1963. An annotated list of the genus-group names in the family Simuliidae (Diptera). *U.S. Dept. Agric. Tech. Bull.* No. 1284, 28 pp.
- VARGAS, L., MARTÍNEZ PALACIOS, A. & DÍAZ NÁJERA, A. Simúlidos de México. Datos sobre sistemática y morfología. Descripción de nuevos subgéneros y especies. *Revta Inst. Salubr. Enferm. trop., Méx.* vol. 7, pp. 101–192.

COMMENTS ON THE PROPOSAL TO AMEND ARTICLE 70 OF THE
CODE Z.N.(S.)2477
(see vol. 41, p. 156)

(1) By J. R. Vockeroth (*Biosystematics Research Institute, Ottawa, Canada*)

I wish to support the amendment concerning misidentified type species proposed by Sabrosky. The Secretary has pointed out (p. 158) that the proposal conflicts with Articles 67e and 69a(i) of the third edition of the Code. I would suggest, therefore, that these articles be amended to remove this conflict. The wording could perhaps be as follows:

Article 67e. Add at end 'except in the case of misidentified type species, when the provisions of Article 70b will allow a species other than an originally included nominal species to be fixed as the type species.'

Article 69a(i). Add after '[Art. 70c]' 'except in the case of misidentified type species, when the provisions of Article 70b will allow a species other than an originally included nominal species to be fixed as the type species.'

(2) By K. G. A. Hamilton (*Biosystematics Research Institute, Agriculture Canada, Ottawa, Ontario K1A 0C6, Canada*)

This amendment is long overdue; it seeks to provide stability by adhering to the original author's intent in describing a genus-group name. The Secretary's comments at the end of the article do not invalidate Sabrosky's provisions, because (a) the misidentified species *is* originally included, even though the nominal species may not be, and (b) subsequent naming of the type species should no more invalidate a genus-group name than the subsequent naming of a genus-group name would invalidate a species-group name (Article 17(3)).

Kerzhner, Izyaslav M. 1985. "Comments On The Application Concerning *Atractocera latipes*." *The Bulletin of zoological nomenclature* 42, 109–123.
<https://doi.org/10.5962/bhl.part.875>.

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