

REPORT ON THE GENERIC NAME *DELPHAX* FABRICIUS, 1798
(CLASS INSECTA, ORDER HEMIPTERA) WITH PROPOSALS FOR
ITS VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 47.

By R. V. Melville

(Assistant Secretary, International Commission on Zoological Nomenclature)

The present case is put before the Commission in the form of a report by the Assistant Secretary rather than as an application from a particular hemipterist because of its long history in the Commission's office and because of the divergent views expressed upon it in correspondence with the Secretariat. The final sets of alternative proposals have been drafted in accordance with what appears to be the best supported view, but they are not necessarily those which would have been made by a zoologist concerned with the names involved. It is therefore hoped that hemipterists will study them carefully and advise the Commission of their wishes in the matter. It is a pleasure to acknowledge the contributions made by the late Professor Z. P. Metcalf, the late Dr. E. D. Ball, the late Dr. E. P. Van Duzee, Dr. W. E. China (British Museum (Natural History), London), Dr. R. G. Fennah (Commonwealth Institute of Entomology, London), Dr. Frej Ossiannilsson (Kungl. Lantbrukshögskola, Uppsala, Sweden) and Dr. Wilhelm Wagner (Hamburg, Germany).

2. The case first began with a letter from the late Professor Metcalf to the late Dr. Stiles (then Secretary to the Commission) dated 7 January 1932 in which the following question was put: "In 1792, Walbaum described the genus *Delphax* in mammalia. This genus is synonymous with *Delphinus* Linnaeus, and this name seems never to have been used. In 1798, Fabricius described the genus *Delphax* Insecta Homoptera and this genus has been used ever since. This genus is the type of a family. The question is whether under these circumstances *Delphax* Fabricius should be considered preoccupied." At Dr. Stiles's request, Professor Metcalf proceeded to collect opinions from his fellow hemipterists on the desirability or otherwise of validating *Delphax* Fabricius, 1798 in Hemiptera (Homoptera) and to seek the views of mammalogists on the effect on nomenclature in their group of the suppression of *Delphax* Walbaum, 1792. Among hemipterists, Dr. Herbert Osborn and Dr. E. P. Van Duzee were in favour of conserving the Fabrician name, but Dr. E. D. Ball opposed the suggestion because he did not think the name of sufficient importance in fields outside systematic entomology. No replies were received from any of the mammalogists approached.

3. On 8 April 1935, Professor Metcalf told Dr. Stiles that he had changed his mind on the case, and said "I have finally decided after careful reconsideration of the whole matter to abandon the use of *Delphax* entirely for insects, as it has been so loosely used that it is practically worthless and to substitute the more recent genus *Araeopus*, and the family name Araeopidae for Delphacidae". These changes were made in print in *Mem. Mus. comp. Zool. Harvard* 82: 297, 1938 and in *Gen. Cat. Hemipt.* fasc. 4(3), 1943, apparently on the

grounds that *Delphax* Fabricius, 1798 (Hemiptera) was an invalid homonym of *Delphax* Walbaum, 1792. In fact, however, there was no reason why, under the Law of Homonymy, *Delphax* Fabricius should have been rejected, since in Opinion 21 (*Smithson. Publ.* 1938 : 51-52, July 1910) the Commission had already ruled that the generic names of Klein, 1744 did not gain availability under the Code by reason of being quoted by Walbaum, 1792. *Delphax* Walbaum was such a name, and Dr. Stiles had already in his hands a direct negative answer to Professor Metcalf's inquiry of 7 January 1932 (see paragraph 2 above). The fact that *Delphax* Fabricius is not invalidated by *Delphax* Walbaum was clearly pointed out by Fennah in 1944 (*Proc. biol. Soc. Wash.* 57 : 44), but Metcalf persisted in his view (1947, *J. Tenn. Acad. Sci.* 22 : 232-239).

4. Between 1944 and 1951, Mr. Hemming was in correspondence with Dr. China, Dr. Fennah and Dr. Wagner in order to assemble all the facts surrounding the generic name *Delphax* Fabricius, 1798, since these had not hitherto been made available to the Commission. Thanks to the help given by these specialists, and by Dr. Ossiannilsson through Dr. Wagner, the full history of all the names involved is seen to be as explained below.

5. *Delphax* Fabricius, 1798, *Suppl. Ent. Syst.* : 511 was established with two included species (*ibid.* : 522), *Cicada crassicornis* Panzer, 1796, *Fauna Ins. Germ.* 35 : 19, and *Cicada clavicornis* Fabricius, 1794, *Ent. Syst.* 4 : 41. Various type-selections by Latreille, 1810, Curtis, 1837 and Westwood, 1840 are all invalid, since the species chosen were not one of the two originally included in the genus. Kirkaldy (1903, *Entomologist* 36 : 215) stated that Westwood (1840) had designated *Cicada clavicornis* as the type-species, and although this was an error, he made it clear that he accepted that species as the type-species, thus validating the selection as from his own work of 1903 (see *Bull. zool. Nomencl.* 4 : 181-182). In 1912 Van Duzee (*Bull. Buffalo Soc. nat. Sci.* 10(2) : 505) selected *Cicada crassicornis* Panzer as the type-species, but this was invalid owing to Kirkaldy's action.

6. In 1796, Latreille (*Précis Caract. gén. Ins.* : 91) described the genus *Cercopis*, but elsewhere in the same work (: xii, 202) he explains that he had misapplied the generic name *Cercopis* Fabricius and accordingly wished to re-establish that name with its original meaning and to replace his misuse of it by *Asiraca*. No species were then referred to *Asiraca*, but in 1802 (*Hist. nat. Ins.* 3 : 259-260) he referred *Cicada crassicornis* Panzer and *Cicada clavicornis* Fabricius to the genus (together with a third species). The same two species were included in *Asiraca* by Latreille in 1804 (*Hist. nat. Ins.* 12 : 316-318) and 1807 (*Gen. Crust. Ins.* 3 : 167-168). He designated *Cicada clavicornis* Fabricius as type-species of *Asiraca* in 1810 (*Consid. gén. Crust. Arachn. Ins.* : 434), and this is the first valid type-selection for the genus. *Asiraca* Latreille, 1796 is therefore a senior objective synonym of *Delphax* Fabricius, 1798.

7. *Araeopus* Spinola, 1839, *Ann. Soc. ent. France* 8 : 336 was established with a single included species, namely, *Cicada crassicornis* Panzer, 1796, which is therefore the type-species by monotypy. China (1957, *Ent. mon. Mag.* 93 : 30) has correctly pointed out that, under the Rules, *Araeopus* and ARAEO-

PIDAE cannot be adopted to replace *Delphax* and DELPHACIDAE, and that Metcalf was wrong to do so.

8. The situation as determined by the strict application of the Rules is thus quite clear. *Delphax* Fabricius, 1798, is, by virtue of Kirkaldy's designation of *Cicada clavicornis* Fabricius as type-species, a junior objective synonym of *Asiraca* Latreille, 1796. *Araeopus* Spinola, 1839, has no bearing on the question, but it would become a junior objective synonym of *Delphax* if the plenary powers were used to set aside Kirkaldy's action and to designate *Cicada crassicornis*. The adoption of *Asiraca* in place of *Delphax* would not invalidate the family-name DELPHACIDAE, since under a rule adopted by the Fourteenth Congress (*Copenhagen Decisions zool. Nomencl.* : 36, para. 54(1)(a), as modified by the Fifteenth Congress in London, 1958) a family-group name in general use is not invalidated by the fact that its type-genus is itself invalid by reason of being a junior synonym.

9. The next question to be considered is to ascertain whether stability and uniformity of nomenclature will be promoted and confusion avoided by the strict application of the Rules to this case, or whether that end can only be achieved by the use of the plenary powers either (a) to suppress *Asiraca* so as to validate *Delphax*, or (b) to vary the type-species of *Delphax* so as to bring about the rejection of *Araeopus*. The views so far expressed to the Commission on this point are set out below.

10. Dr. Wilhelm Wagner, in letters dated 29 September 1950 and 4 October 1951, held that the Rules should be allowed to apply, because *Asiraca* has been almost exclusively used for the *clavicornis* group; and because *Araeopus* had been used about as often as *Delphax* for the *crassicornis* group prior to the publication of Metcalf's *Gen. Cat. Hemipt.* and more frequently after that date. He also stressed the fact that *Araeopus* is the valid name for *Cicada crassicornis* under the Rules and that it has only one interpretation, whereas *Delphax* has been applied in more than one sense.

11. The opposite point of view, that *Delphax* should be conserved, was expressed by Dr. China in a letter dated 31 January 1945; but this argument was based on the assumption (which was in accordance with the Rules then in force) that a family-group name had to be based on a valid generic name. Dr. China's main purpose was to safeguard the family-name DELPHACIDAE, but the fact that this name is in general use as such, and the question of its conservation, is not now to be considered at all in the light of the validity or invalidity of the generic name *Delphax*. The family-name can continue in use whatever is the valid name of its type-genus (see paragraph 8 above).

12. A more recent expression of this view of the question is put forward by Dr. Fennah, in a letter dated 4 May 1959. He points out that "The actions suggested to give the best solution must be judged in relation to their effect on stability and universality of usage. On the basis of Metcalf's Catalogue *Asiraca* had been used, up to 1943, as the basis of a family name, 18 times by six authors (one in co-authorship only, and three of them non-specialists) and of a subfamily name 17 times. *Delphax* has been correspondingly used over 300 times and 15 times respectively, and a further 17 times as the name of a tribe. It is to be noted that as the family includes species of economic

importance, there exists also a substantial literature in which the family name DELPHACIDAE is used and which is not listed by Metcalf, as it is not concerned with systematics. The name ASIRACIDAE has never been in common use among economic entomologists, if indeed it has ever been used. As the subfamilies "ASIRACINAE" and "DELPHACINAE" currently represent the two major groups of the family, it is natural that they should have been used to an approximately equal extent since the time when this division was first proposed. If the Rules are allowed to operate without interference, the interests of stability and universality would obviously not be served. If *Asiraca* is suppressed for priority, confusion will result, as the name "DELPHACINAE" would assume exactly the contrary meaning to that it has now. By contrast, the suppression of Kirkaldy's type-selection so as to validate the selection of *Cicada crassicornis* would stabilize the nomenclature in current use both in word and significance".

13. The situation disclosed by Mr. Fennah's remarks provides an interesting sidelight on the rules governing family-group names at present in force. According to these rules, it is quite immaterial whether *Delphax* Fabricius, 1798, is a valid generic name or not, although it is essential that the family-name DELPHACIDAE should be preserved, and that so long as that family is divided into subfamilies, one of them must be name DELPHACINAE. The question as to which of those subfamilies is to bear that name is, however, entirely dependent on the question of the type-species of *Delphax*, a name which is an invalid junior objective synonym of *Asiraca*. The maximum number of species eligible for designation as the type-species of *Delphax* is two; under the Rules, *Cicada clavicornis* is the type-species, and the valid name for the genus is *Asiraca*. Therefore, under the Rules, the subfamily name ASIRACINAE must be replaced by DELPHACINAE. Alternatively, the Plenary Powers could be invoked to designate *Cicada crassicornis* as the type-species of *Delphax*; but this would bring about the rejection of *Araeopus*, which is at present the valid name for the genus of which *Cicada crassicornis* is the type-species, and of the type-genus of the subfamily currently called DELPHACINAE. The use of the Plenary Powers to designate *Cicada crassicornis* as the type-species of *Delphax* would make that genus the type-genus of the subfamily currently called DELPHACINAE (and of the family DELPHACIDAE). The problem at the family-group level may be expressed as follows: are the nominal subfamilies ASIRACINAE and DELPHACINAE (both within the family DELPHACIDAE) to be identical; or are the subfamilies DELPHACINAE and ARAEOPINAE (both within the family DELPHACIDAE) to be identical? At the generic level, the same problem can be expressed in the following terms: is *Delphax* Fabricius, 1798, to be rejected as identical with its senior objective synonym *Asiraca*: or is it to be suppressed as a senior objective synonym of *Araeopus*: or is it to be validated as the name of the genus of which *Cicada crassicornis* is the type-species?

14. Of the three family-group names involved in this case, that based on *Delphax* Fabricius, 1798, was first published by [Leach], [1815], *Brewster's Edinb. Ency.* 9: 125, as DELPHACIDA; the spelling was corrected to DELPHACIDAE by Dohrn, 1859, *Cat. Hemipt.*: 61. That based on *Asiraca* Latreille, 1796, was first published by Motschulsky, 1863, *Bull. Soc. Nat. Moscou* 36: 108,

as ASIRACIDES, corrected to ASIRACINAE by Kirkaldy, 1902, *J. Bombay nat. Hist. Soc.* 14 : 52. That based on *Araeopus* was first published as ARAEOPIDAE by Metcalf, 1938, *Bull. Mus. comp. Zool. Harvard* 82 : 279-281.

15. It is no part of the purpose of this paper to prejudice the decision of the Commission. It is intended rather to elicit from hemipterists a clear statement of their wishes in the case. The Commission now has before it enough evidence to show that the alternatives are clearly marked. Its choice must be guided, at least in part, by the wishes of hemipterists expressed to it on which of the following alternative courses is preferred : (A) that *Asiraca* (*clavicornis*) and *Araeopus* (*crassicornis*) be accepted as the names of the type-genera of the subfamilies ASIRACINAE and DELPHACINAE respectively ; (B) that the plenary powers be used to make *Delphax* (*clavicornis*) and *Araeopus* (*crassicornis*) the type-genera of those subfamilies ; (C) that those powers be used to make *Asiraca* (*clavicornis*) and *Delphax* (*crassicornis*) the type-genera of those subfamilies. These alternatives may be presented in formally precise terms as follows :—

ALTERNATIVE A

- (1) to place the following generic names on the Official List of Generic Names in Zoology :
 - (a) *Asiraca* Latreille, 1796 (gender : feminine), type-species, by selection by Latreille, 1810, *Cicada clavicornis* Fabricius, 1794 ;
 - (b) *Araeopus* Spinola, 1839 (gender : feminine), type-species, by monotypy, *Cicada crassicornis* Panzer, 1796 ;
- (2) to place the generic name *Delphax* Fabricius, 1798, a junior objective synonym of *Asiraca* Latreille, 1796, on the Official Index of Rejected and Invalid Generic Names in Zoology ;
- (3) to place the following specific names on the Official List of Specific Names in Zoology :
 - (a) *clavicornis* Fabricius, 1794, as published in the binomen *Cicada clavicornis* (type-species of *Asiraca* Latreille, 1796) ;
 - (b) *crassicornis* Panzer, 1796, as published in the binomen *Cicada crassicornis* (type-species of *Araeopus* Spinola, 1839) ;
- (4) to place the following family-group names on the Official List of Family-Group Names in Zoology :
 - (a) DELPHACIDAE (correction by Dohrn, 1859, of DELPHACIDA) [Leach], [1815] (type-genus *Asiraca* Latreille, 1796) ;
 - (b) ARAEOPIDAE Metcalf, 1938 (type-genus *Araeopus* Spinola, 1839) ;
- (5) to place the following family-group name on the Official Index of Rejected and Invalid Family-group Names in Zoology :
 - (a) DELPHACIDA [Leach], [1815] (type-genus *Delphax* Fabricius, 1798), an incorrect original spelling of DELPHACIDAE.

ALTERNATIVE B

- (1) to use the plenary powers to suppress the generic name *Asiraca* Latreille, 1796, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

- (2) to place the following generic names on the Official List of Generic Names in Zoology :
- (a) *Delphax* Fabricius, 1798 (gender : masculine), type-species, by selection by Kirkaldy, 1903, *Cicada clavicornis* Fabricius, 1794 (validated through the action taken under the plenary powers in (1)) ;
 - (b) as (1)(b) of Alternative A ;
- (3) to place the following specific names on the Official List of Specific Names in Zoology :
- (a) *clavicornis* Fabricius, 1794, as published in the binomen *Cicada clavicornis* (type-species of *Delphax* Fabricius, 1798) ;
 - (b) as (3)(b) of Alternative A ;
- (4) to place the generic name *Asiraca* Latreille, 1796, as suppressed under the plenary powers in (1) on the Official Index of Rejected and Invalid Generic Names in Zoology ;
- (5) to place the following family-group names on the Official List of Family-Group Names in Zoology :
- (a) DELPHACIDAE (correction by Dohrn, 1859, of DELPHACIDA) [Leach], [1815] (type-genus *Delphax* Fabricius, 1798) ;
 - (b) as (4)(b) of Alternative A ;
- (6) as (5) of Alternative A.

ALTERNATIVE C

- (1) to use the plenary powers to set aside all designations of type-species for *Delphax* Fabricius, 1798, prior to the designation of *Cicada crassicornis* Panzer, 1796, by Van Duzee, 1912 ;
- (2) to place the following generic names on the Official List of Generic Names in Zoology :
- (a) as (1)(a) of Alternative A ;
 - (b) *Delphax* Fabricius, 1798 (gender : masculine), type-species, by designation under the plenary powers in (1), *Cicada crassicornis* Panzer, 1796 ;
- (3) to place the following specific names on the Official List of Specific Names in Zoology :
- (a) as (3)(a) of Alternative A ;
 - (b) *crassicornis* Panzer, 1796, as published in the binomen *Cicada crassicornis* (type-species of *Delphax* Fabricius, 1798) ;
- (4) to place the generic name *Araeopus* Spinola, 1839, a junior objective synonym of *Delphax* Fabricius, 1798, on the Official Index of Rejected and Invalid Generic Names in Zoology ;
- (5) to place the following family-group names on the Official List of Family-Group Names in Zoology :
- (a) as (5)(a) of Alternative B ;
 - (b) ASIRACINAE (correction by Kirkaldy, 1902, of ASIRACIDES) Motschulsky, 1863 (type-genus *Asiraca* Latreille, 1796) ;

- (6) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
- (a) as (5) of Alternative A ;
 - (b) *ASTRACIDES* Motschulsky, 1863 (type-genus *Asiraca* Latreille, 1796), an incorrect original spelling of *ASIRACINAE*.

COMMENT ON PROPOSALS RELATING TO *BERAEA* STEPHENS, 1833 (Z.N.(S.) 395); *CHAETOPTERYX* STEPHENS, 1829 (Z.N.(S.) 426); AND *APATANIA KOLENATI*, 1847 (Z.N.(S.) 427).

(See this volume, pages 32-38)

By H. H. Ross (*State Natural History Division, Urbana, Illinois, U.S.A.*)

I would like to take the opportunity of expressing complete support for proposals Z.N.(S.) 395, 426, and 427. Mr. Kimmins has presented the case for these three proposals in admirable fashion. Cases 395 and 427 have already led to much confusion and disagreement in the literature, confusion of a sort that can be limited only by the action which he has recommended. I hope very much that the Commission will adopt the recommendations which Mr. Kimmins has expressed in these three proposals.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *ORTHO CERATITES* LAMARCK, 1799. Z.N.(S.) 1395.

(See this volume, pages 25-26.)

By L. J. Chubb (*Geological Survey Department, Kingston, Jamaica, W.I.*)

I should like to support the application by Dr. L. R. Cox that the International Commission on Zoological Nomenclature use its plenary powers to suppress the generic name *Orthoceratites* Lamarck, 1799, and to place the generic name *Hippurites* Lamarck, 1801 on the Official List of Generic Names in Zoology.

I have always doubted whether the figures published by Lapeirouse (1781, pl. X, Figs. 5-6, reproduced by H. Douvillé and C. Dechaseaux) under the name of *Orthoceratites a gouttière en tuyaux d'orgue* really represented a Rudist. They have more resemblance to the Carboniferous Rugose Coral, *Amplexus coralloides* Sowerby, and I suspect that a few specimens of this, or a related species found their way into Lapeirouse's collection.