Ref

OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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OPINION 483

Determination of the specimen to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) and matters incidental thereto

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 483

DETERMINATION OF THE SPECIMEN TO BE ACCEPTED AS THE LECTOTYPE OF THE NOMINAL SPECIES "MEGATHYMUS ARYXNA" DYAR, 1905 (CLASS INSECTA, ORDER LEPIDOPTERA) AND MATTERS INCIDENTAL THERETO

RULING :—(1) It is hereby directed (a) that under *Declaration* 35 the specimens figured respectively as figure 3 and figure 4 on plate 69 of Volume 3 of the Lepidoptera-Heterocera Section of the work by Godman (F.D.) & Salvin (O.) entitled *Biologia centrali-americana* are to be accepted as having been the sole syntypes of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) at the time when the foregoing binomen was first published and (b) that the specimen labelled " Mex[ico] " now in the collection of the British Museum (Natural History), which was figured as figure 4 on the plate referred to above, is to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905, that specimen being the first of the syntypes specified in (a) above to have been selected as the lectotype of the foregoing species, the selection in question having been made by Skinner (H.) & Williams (R.C.) Jr. in 1924.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1222 :—

Megathymus Scudder, 1872 (gender : masculine) (type species, by original designation : *Eudamus* ? *yuccae* Boisduval & Leconte, [1837]).

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(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

(a) *aryxna* Dyar, 1905, as published in the combination *Megathymus aryxna*, as interpreted by the lectotype specified in (1)(b) above (Name No. 1385) ;

(b) *neumoegeni* Edwards (W.H.), 1882, as published in the combination *Megathymus neumoegeni* (Name No. 1386) ;

(c) *yuccae* Boisduval & Leconte, [1837], as published in the combination *Eudamus* ? *yuccae* (specific name of type species of *Megathymus* Scudder, 1872) (Name No. 1387).

(4) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name No. 192 :—

MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 (type genus : *Megathymus* Scudder, 1872).

I. THE STATEMENT OF THE CASE

On 23rd December 1954 Mr. Cyril F. dos Passos (*The American Museum of Natural History, New York*) submitted to the International Commission on Zoological Nomenclature on behalf jointly of Mr. Ernest L. Bell (of the same Museum) and himself a preliminary application for a Ruling that the specimen taken in Mexico selected as the lectotype by Skinner & Williams (1924) for the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) was the valid lectotype of that nominal species. In the early part of 1955 this application was

slightly revised by the applicants, the final text, which was submitted on 28th February 1955, being as follows :—

Request for a Ruling as to the specimen to be accepted as the lectotype of " Megathymus aryxna " Dyar, 1905 (Class Insecta, Order Lepidoptera)

By CYRIL F. DOS PASSOS, LL.B.

(*Research Associate, American Museum of Natural History, New York ; Research Associate, Carnegie Museum, Pittsburgh*)

and

ERNEST L. BELL

(*Research Associate, American Museum of Natural History, New York*)

The Facts

1. *Megathymus neumoegeni* was described by Edwards in 1882.

2. Page 320 of volume 2 (1896) and plate 69 of volume 3 ([1897]) of the Lepidoptera-Heterocera section of the *Biologia Centrali-Americana* described and figured (figs. 3 and 4) two specimens identified by Druce as " *neumoegeni* ".

3. *Megathymus aryxna* was described by Dyar in 1905, the description reading as follows :

" *M. aryxna*, new species.

" This is the form figured in the *Biologia Cent.—Am. Lep. Het.*, III, pl. 69, figs. 3 and 4. It differs from *neumoegeni* in having the fulvous markings considerably reduced, the outer band being broken into spots. I have ten specimens from Arizona from Dr. Barnes and Mr. Poling . . . ".

4. *Megathymus drucei* was described by Skinner in 1911, being a new name proposed by him for figure 3 of the above-mentioned (paragraph 2) specimens figured in the *Biologia* as " *neumoegeni* ".

5. Barnes and McDunnough in 1912 stated that Dyar had restricted the name *aryxna* to a single specimen, not being one of the specimens figured in the *Biologia*, but being one of the " ten specimens from Arizona " referred to above (paragraph 3). This Dyar did not do beyond writing a label at or about that time, and affixing it to one of those ten specimens. Just when Dyar did this is not known.

6. Skinner and Williams in 1924 restricted the type of *Megathymus aryxna* to figure 4 of the *Biologia*, saying " we select this figure as the type of *aryxna* Dyar ". This specimen which is labelled " Mex[ico] ", is now preserved in the British Museum Collection.

7. Omitting references to Catalogues and Check Lists, which are not considered usually taxonomic papers, it may be stated that so far as we have been able to find Skinner (1911), Skinner and Williams (1924), Freeman (1950), and Bell and dos Passos (1954) have used the name *Megathymus aryxna* in the manner in which the present authors wish it to be recognized by the International Commission, while Holland (1898), Barnes and McDunnough (1912), Draudt (1924), Holland (1931), and Stallings and Turner (1954) have used it in the other sense.

The Issue

8. The question at issue is whether the lectotype of *Megathymus aryxna* is the specimen in the British Museum (Natural History), figured in the *Biologia* (pl. 69, fig. 4), or one of the ten specimens in the United States National Museum, to which Dyar attached a label stating that the name *aryxna* was restricted to that specimen. This issue is raised by two recent papers, the first by Stallings and Turner (1954) and the second by Bell and dos Passos (1954).

The Argument

9. Upon the foregoing statement of facts and the assumption that the ten specimens from Arizona constituted part of the type series, it is contended by Stallings and Turner that Barnes and McDunnough in 1912 effectively published the unpublished restriction of Dyar, but they cite no reference for this conclusion beyond page 23 of volume 1, Number 3 of the *Contributions to the Natural History of the Lepidoptera of North America*, although in such an important matter the restriction should be quoted, or at least cited to the very line. We have read that page carefully, but can find no language approaching a restriction which should be always clear and unequivocal. The nearest approach to such a statement is on lines eight, nine and ten of Barnes and McDunnough's work where they state that " at our suggestion Dr. Dyar has restricted the name *aryxna* to the *unnamed form* [italics ours] of which fig. 1 represents a co-type ". This reference must to be Dyar's label, because admittedly there is no published restriction by him, but is that a valid restriction by Dyar ? Since when does writing a label and affixing it to a specimen constitute a restriction ? How can a name be restricted to an " unnamed form " by which Barnes and McDunnough referred to four of the ten specimens that did not agree with any part of the description ? For they said " Dyar's original diagnosis of this species cannot apply to it in its restricted form ". As

noted, when Barnes and McDunnough came to figure the " unnamed form " they did not call it a lectotype but a " co-type ". It was not even that, because those four specimens were never part of the type series.

10. Stallings and Turner say in reference to the second sentence of Dyar's description " Frankly, we are unable to determine which of the two species he was describing ". As far as we know, no one else has had any difficulty in determining which specimens Dyar was describing. *Megathymus aryxna* was, in fact, nothing but a substitute or new name for specimens which Dyar claimed were erroneously identified as " *neumoegeni* " by Druce in the *Biologia*. Stallings and Turner fail to quote the first sentence of the original description, but admit " The first sentence in his description does refer to Fig. [*sic.*] 3 & 4 in the *Biologia*." Obviously the description is in the first sentence. The second sentence that Stallings and Turner quote is more comparative than descriptive.

11. In concluding their argument on this subject, Stallings and Turner refer without page citation to " the action of the International Commission last August at the Copenhagen Congress with reference to the Principle of the First Reviser ", but fail to state how that principle is in any way relevant to the facts. That principle " is to be rigidly construed ", and relates " in the case of specific names, only when an author, after citing two or more such names published in the same book and on the same date, clearly indicates by whatever method, (*a*) that he is of the opinion that the nominal species so named represent the same taxon, and (*b*) that he is selecting one of the names concerned, to the exclusion of the other name or names, to be the name to be used for that taxon " (Hemming, 1953). There is no such situation here.

12. On the other hand, Bell and dos Passos conclude from the evidence :

(1) that the type series of *aryxna* consists only of the two specimens figured in the *Biologia*, and does not include any of the specimens to which Dyar may have intended, seven years later, to restrict that name, because being a substitute name the types were only those two specimens (see Decision 142 of the 1953 Copenhagen Congress) ;

(2) that the action of Skinner in giving the name *drucei* to the specimen illustrated as figure 3 of the *Biologia* automatically restricted the name *aryxna* to figure 4, that being the only remaining syntype ;

(3) that neither Dyar, as Stallings and Turner admit by stating " He never published this restriction ", nor Barnes and McDunnough ever published any restriction, publication being an essential part of such a selection (see Decision 137(4) of the 1953 Copenhagen Congress) ;

(4) that Skinner and Williams expressly restricted the type of *aryxna* to figure 4 of the *Biologia*, and after selecting figure 4 of the *Biologia* as " the type of *aryxna* Dyar ", said " The shifting of the concept by Dyar at the suggestion of Barnes and McDunnough is not valid ". Actually it was not a shifting at all, but at most a contemplated shifting that was never carried out in any manner.

Conclusion

13. As shown in paragraph 7 above, there is no uniform usage of the name *aryxna*, it having been used about half of the time in the manner advocated herein and the other half as used by Stallings and Turner, and it is impossible for there to be any stability in the nomenclature of some species of *Megathymus* until the International Commission has designated the lectotype of *aryxna*.

14. Under the theory of Stallings and Turner the pertinent synonymy would read :

Megathymus neumoegeni Edwards, 1882
aryxna Dyar, 1905 (*partim*)

Megathymus aryxna Dyar, 1905
evansi Freeman, 1950

Megathymus drucei Skinner, 1911

15. The present authors believe however that it should read :

Megathymus neumoegeni Edwards, 1882
aryxna Dyar, 1905

Megathymus evansi Freeman, 1950

Megathymus drucei Skinner, 1911.

16. It is to avoid any further confusion in the use of this name that the present application is made.

17. We have refrained from considering the validity on taxonomic grounds of some of the above-mentioned taxa, and the above synonymy is not to be considered as an expression of any opinion on our part

concerning that problem, because that is a subjective matter and does not concern the International Commission. Once the type of *aryxna* is fixed, other problems will solve themselves.

18. The International Commission on Zoological Nomenclature is accordingly requested :

(1) to give a Ruling :—

(a) that the sole syntypes of the nominal species *Megathymus aryxna* Dyar, 1905, were the specimens figured respectively under the name *Megathymus neumoegeni* as figures 3 and 4 on plate 69 of volume 3 of the Lepidoptera-Heterocera Section of Godman and Salvin's *Biologia centrali-americana* ;

(b) that the specimen labelled " Mex[ico] " now in the British Museum Collection, which was figured as figure 4 on the plate referred to above is the lecto-type of the nominal species *Megathymus aryxna* Dyar, having been duly selected as such by Skinner and Williams (1924 : 205) ;

(2) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

(a) *neumoegeni* Edwards, 1882, as published in the combination *Megathymus neumoegeni* ;

(b) *aryxna* Dyar, 1905, as published in the combination *Megathymus aryxna* and as defined by the Ruling given in (1)(b) above.

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2. Counter-proposals submitted by Don R. Stallings and J. R. Turner (Caldwell, Kansas, U.S.A.) : The application submitted by Mr. dos Passos and Mr. Bell disclosed the existence of a sharp

disagreement between themselves on the one hand and Mr. Don R. Stallings and Mr. J. R. Turner (*Caldwell, Kansas, U.S.A.*) on the other hand, the latter specialists taking the view that the valid lectotype of the nominal species *Megathymus aryxna* Dyar was the specimen taken in Arizona so specified by Barnes & McDunnough in 1912. This problem, which turned on the question whether the Arizona specimen could properly be regarded as having been one of the syntypes of the foregoing nominal species, was one of importance in the systematics of the group concerned, it being agreed by all concerned that the two specimens referred to above were not conspecific with one another. Upon the receipt of the application submitted by Mr. dos Passos and Mr. Bell, the Secretary decided that in the circumstances described above the first step which should be taken was to notify Mr. Stallings and Mr. Turner of the receipt of the foregoing application, in order thereby to provide those specialists with an opportunity of presenting their views on the question at issue. In response to the communication so made, Mr. Stallings and Mr. Turner on 22nd February 1956 addressed to the Office of the Commission the following communication in which they asked for the rejection of the proposal submitted by Mr. dos Passos and Mr. Bell and for the adoption in its place of a counter-proposal in favour of the acceptance as the lectotype of *Megathymus aryxna* Dyar of the specimen from Arizona mentioned by Dyar and later specified by Barnes and McDunnough :—

On the question of the lectotype of " Megathymus aryxna " Dyar, 1905

By DON B. STALLINGS

and

J. R. TURNER

(*Caldwell, Kansas, U.S.A.*)

The writers have given considerable thought to the proper application of the name *Megathymus aryxna* Dyar, 1905. Some of these thoughts have been expressed in our recent paper published in *The Lepidopterists' News*, 1954, page 77, entitled " Notes on *Megathymus neumoegeni*, with Description of a New Species (Megathymidae) ". For convenience we will refer in this paper to the various species involved in the same manner as we did in the above mentioned publication.

To commence with at the time Dyar (1905) described *Megathymus aryxna* (*J. N.Y. ent. Soc.* **13** : 141) he probably was one of the few men who knew what true *Megathymus neumoegeni* Edwards was. In his description of *M. aryxna* he refers first to two specimens pictured at figures 3 and 4, Plate 69, of Vol. 3 of the Lep.-Het. Section of Godman & Salvin's *Biologia centr.-amer.* and then to ten specimens before him. These ten specimens before him were all from the State of Arizona, U.S.A. the two specimens referred to in *Biol. Centr.-Amer.* were from Mexico. Unfortunately the ten specimens before Dyar consisted of two species, six specimens of what we call Species No. 1 and four specimens of what we call Species No. 2. The two specimens in *Biol. Centr.-Amer.* appear to be Species No. 1—they are certainly not Species No. 2.

The literature thereafter is not helpful. The name *M. neumoegeni* Edwards is consistently applied to the above mentioned Species No. 1. This fact is most important in order properly to understand what happened thereafter.

Sometime in 1910 or shortly before then Barnes and McDunnough suggested to Dyar that Species No. 1 was *M. neumoegeni* and that he should restrict his name of *aryxna* to Species No. 2. This he did as explained in the following passage in our paper in the *Lepidopterists' News* (: 78), namely :—

> to the extent of making a label as follows and attaching it to one specimen of Species No. 2 :—
>
> Megathymus
> aryxna
> Cotype Dyar
> (Sensu Restr.) (1910)

He never published his restriction but we believe that Barnes and McDunnough did in their paper of 1912 " Contrib. to the Natural History of the Lepidoptera of North America, Vol. 1, No. 3, Revision of the Megathymidae ". At page 23, lines 8, 9 and 10, Barnes and McDunnough say " . . . at our suggestion Dr. Dyar has restricted the name *aryxna* to the unnamed form of which fig. 1 represents a co-type ". Their Figure 1 of Plate 1 is a picture of the specimen that Dyar attached the restricting label to. It is our opinion that this was a sufficient publication of the restriction and at that time the name *aryxna* became fixed.

Barnes and McDunnough did not then particularly help the situation by proceeding to say that the description of *aryxna* (as described by Dyar) did not fit the Species No. 2 which he restricted it to. *With*

this we cannot agree. Turn to our paper, Plate 2, top and second row—this is true *neumoegeni*—note how the veins do not have any dark colouring along the area of light colouration so that the light areas do not appear to be divided (by the veins) into spots. Now look at Plates 1, 2 and 3 at all of the males of the various other species involved (Dyar had only males before him when he described *aryxna*) and note how the outer lines (of lighter colour) are divided into spots (by the veins having dark colouring). Dyar's description is " It differs from *neumoegeni* in having the fulvous markings considerably reduced, the outer band being broken into spots ". It is immediately evident that his description applies equally well to Species No. 1 as to Species No. 2. Hence we are not faced with the problem of the description not fitting the species.

As we see the situation there are two problems to be decided. 1. Does the description of *aryxna* fit the species as restricted by Dyar. 2. Is the restriction of Dyar valid. The answer to both questions in our opinion, is yes.

There is no great problem involved in the literature and the name *aryxna.* The name has only been used in about a dozen different publications. In about half of the publications the author was without information and it is impossible to determine what they were applying the name to. In our paper we have cited the literature in which the name is used in such a manner that you can determine whether the name was applied to Species No. 1 or Species No. 2.

We are unable to give the importance to the fact that Dyar mentioned the two specimens in *Biol. centr.-amer.* before he did the ten before him that Bell and Dos Passos do in their recent paper " The Lectotype of *Megathymus aryxna* Dyar (Lepidoptera, Megathymidae) " American Museum Novitates, No. 1700, Dec. 20, 1954, published shortly after our paper. If this priority is important, then by the same token, Fig. 3 becomes the key—not Fig. 4. To us it appears that Dyar was describing a new species from Arizona—not from Mexico, the specimens before him were what he was describing—he was merely referring to the specimens in the Biolo. as being the same thing. Even should it be determined that his restriction was not valid we feel it would be an error to designate either of the Mexican specimens as the lectotype.

While the writers feel that the foregoing is the correct situation in regard to the proper application of the name *aryxna* we would not at all be adverse to a waiver of the rules so that the name *aryxna* could be applied to Species No. 1, leaving the name *M. evansi* Freeman available to Species No. 2. This would probably mean, of course, that the lectotype of *aryxna* would then be designated as the Mexican specimen, following Skinner—which we do not feel was the intention of Dyar.

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt in December 1954 of the preliminary communication addressed to the Office of the Commission by Mr. dos Passos and Mr. Bell the question of the determination of the specimen to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905, was allotted the Registered Number Z.N.(S.) 889.

4. Support for the dos Passos/Bell application received from W. H. Evans prior to publication : At the same time that Mr. Hemming acquainted Mr. Stallings and Mr. Turner of the receipt of the application submitted by Mr. dos Passos and Mr. Bell (paragraph 2 above) he sought also the views of Brigadier W. H. Evans (*British Museum* (*Natural History*), *London*), the well-known specialist in the Hesperiidae of the world. On 19th January 1956 Brigadier Evans replied as follows intimating his support for the dos Passos/Bell proposal :—

Your Z.N.(S.) 889 of 18th January re lectotype of *Megathymus aryxna*, I am in entire agreement with the views expressed by Bell and dos Passos.

Up to the publication in 1950 by Freeman of *evansi* the practice was to regard *aryxna* as = *neumoegeni*, vide " Hesperioidea of N. America " by Lindsey Bell and Williams, 1931, the latest publication.

Early in the war I worked out *Megathymus* in the British Museum Collection and found that there were two species occurring together in Arizona over the label *neumoegeni*. I looked up the literature and found that the second species was the *aryxna* of Barnes & McDunnough but not of Dyar, whose type must be taken as fig. 4 in the *Biologia*. I sent my analysis to Bell, suggesting he should call the second species *drucei*.

During 1952 and 1953 discussion took place between the two schools of thought in America. I was called upon by both sides to furnish photographs and genitalia drawings of Druce's figs. 3 and 4, both of which are in the British Museum bearing a label " B.C.A.Lep Het *Megathymus neumoegeni* ".

Stallings & Turner published their solution of the problem in 1954. This reached me just before the paged proofs of vol. 4 of *Catalogue of American Hesperiidae in the British Museum* went to press and I added a postcript—" The decision that *aryxna* = *evansi* disregards the law

that a type must agree with the original description ". On the receipt of the Bell & dos Passos separate, Mr. Riley sent a note to the printers asking them to add that their paper confirmed my opinion.

5. Publication of the applications submitted in the present case and of Brigadier Evans' comment thereon : The application submitted jointly by Mr. dos Passos and Mr. Bell, the counter-proposal submitted jointly by Mr. Stallings and Mr. Turner and Brigadier Evans' comment on the issues raised in the present case were sent to the printer on 23rd August 1955. These documents were published on 30th December 1955 in Part 9 of Volume 11 of the *Bulletin of Zoological Nomenclature* (dos Passos & Bell, 1955, *Bull. zool. Nomencl.* **11** : 289—294 ; Stallings & Turner, 1955, *ibid.* **11** : 295—296 ; Evans, 1955, *ibid.* **11** : 294).

6. Comments received : Comments on the applications received in the present case were received from five zoologists, of whom two were lepidopterists, the others being specialists in other groups. The two lepidopterists (J. A. Comstock ; Alexander B. Klots) supported the dos Passos/Bell proposal and so did one of the other zoologists (E. Mayr). The two remaining non-lepidopterists (J. Chester Bradley ; C. W. Sabrosky) were opposed to that proposal. In addition, a sixth zoologist (C. L. Remington) notified the Office of the Commission that he was opposed to the dos Passos/Bell proposal but that pressure of university work at that time made it impossible for him to furnish a considered statement of his views. The communications received in the present case are reproduced in the immediately following paragraphs.

7. Support for the dos Passos/Bell proposal received from John Adams Comstock (Southern California Academy of Sciences, California, U.S.A.) : On 19th May 1956 Dr. John Adams Comstock (*Southern California Academy of Sciences, California, U.S.A.*) addressed the following letter to the Office of the

Commission in support of the dos Passos/Bell proposal (Comstock, 1956, *Bull. zool. Nomencl.* **12** : 48) :—

I wish to go on record as favoring the position taken by Messrs. dos Passos and Bell.

In a paper now in press, dealing with the life history of *Megathymus evansi* Freeman, I have expressed the same opinion as that voiced in the " Request for a Ruling . . . "

8. Support for the dos Passos/Bell proposal received from Alexander B. Klots (American Museum of Natural History, New York, U.S.A.) : On 23rd June 1956 Professor Alexander B. Klots (*American Museum of Natural History, New York, U.S.A.*) addressed the following letter to the Office of the Commission in support of the dos Passos/Bell proposal :—

May I comment upon the " Request for a ruling as to the specimen to be accepted as the lectotype of *Megathymus aryxna* Dyar, 1905 . . . " by Cyril dos Passos and Ernest L. Bell in the *Bulletin of Zoological Nomenclature.*

I am well acquainted with the details of this matter, having studied and photographed (for Mr. Stallings) the specimens at the British Museum, and having been more or less consulted about it a number of times.

I am heartily in accord with the opinions of dos Passos and Bell ; and endorse their request as stated in par. 18 of the above cited article.

9. Support for the dos Passos/Bell proposal received from Ernst Mayr (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) : On 28th January 1956 Professor Ernst Mayr (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) addressed the following letter to the Office of the Commission in support of the dos Passos/Bell proposal :—

I entirely agree with the proposal by dos Passos and Bell which is in line with the Copenhagen Decisions. The statements on page 295 [the Stallings/Turner proposal] are irrelevant and misleading.

10. Objection to the dos Passos/Bell proposal received from Curtis W. Sabrosky (Entomology Research Branch, U.S. Depart-

ment of Agriculture, Washington, U.S.A.) : Under cover of a letter dated 1st March 1956, Dr. Curtis W. Sabrosky (*Entomology Research Branch, U.S. Department of Agriculture, Washington, U.S.A.*) addressed the following comment to the Office of the Commission in which he expressed his objections to the dos Passos/Bell proposal :—

On the Lectotype Selection for " Megathymus aryxna " Dyar

The application on the above subject by dos Passos and Bell, 1955, *Bull. zool. Nomencl.* **11** : 289—294) concerns a problem of general interest, beyond the obvious need to straighten out the confusion in the lepidopterous genus *Megathymus*. Every taxonomist meets with problems of restriction, lectotype selection, and the composition of the original type series. In the absence of predominant usage which it is desired to preserve, a ruling can and should be made on the basis of general principles that will guide taxonomists faced with similar problems.

The original type series of " Megathymus aryxna " Dyar

2. From the original description [see dos Passos and Bell for the description and for full references, here and elsewhere], I consider that there are two possible alternatives on what constitutes the original type material :

(a) The original type series consists of the ten specimens from Arizona which Dyar had *before him*, but not the *Biologia* specimens which he knew only from the figures (presumably, as far as one can tell from his words) ; or

(b) The original type series consists of the ten Arizona specimens plus the two *Biologia* figures which Dyar identified as being of the same species as his Arizona material.

3. I cannot conceive that the original type series of *aryxna* can possibly be limited to the two figured specimens of the *Biologia*. Decision 142 of the 1953 Copenhagen Congress, to which dos Passos and Bell refer, applies only to those cases in which " a specific name, when first published, is *expressly stated to be a substitute* (e.g., by the use of such expressions as ' *nom. nov.*' or ' *nom. mut.*') for a previously published *name* . . . " [italics mine, except for the abbreviations]. Dyar's *aryxna*, however, was *not* expressly stated to be a substitute for *neumoegeni* ; on the contrary, it was clearly proposed as distinct from *neumoegeni*, both in description (" it differs from *neumoegeni* in . . . ") and in the key immediately preceding.

4. From a practical and commonsense viewpoint, we should have to consider Dyar quite unhuman to believe that he would have based the

new species entirely on two pictures, leaving the ten specimens actually before him without any standing ! It would have been far more logical, and indeed in accord with common practice, for him to have described *aryxna* from the ten specimens only, with the comment that it was the species figured in the *Biologia*, but with no intention or thought of including the figured specimens in his type series. As a matter of fact, the ten specimens from Arizona, in the collection of the U.S. National Museum, are all marked with the distinctive red label " Type No. 13033 USNM " [in this case " type " = syntype], and were so entered in the Museum's Type Catalogue on Feb. 28, 1910 by Dyar himself. Granted that labelling *per se* is not an effective nomenclatorial action, it still shows clearly what Dyar himself considered to be the type series upon which his species was based. He was followed in this by Barnes and McDunnough (1912).

5. In conclusion, the first alternative probably more accurately reflects the facts of the case, it seems to me to be the more logical choice, and it may even be the inevitable one because of the publication by Barnes and McDunnough (1912). The second is a possible alternative, if one considers that Dyar also had the two figures before him, even if not the actual specimens.

6. It is granted by all that Dyar himself published no restriction, and labelling by Dyar, without publication, is in itself not an effective restriction.

Restriction of " aryxna " under the First Alternative

7. Skinner's (1906, 1911) synonymy of *aryxna* with *neumoegeni* was a subjective zoological action which still did not pin down the actual type series of *aryxna*.

8. The first valid restriction is that of Barnes and McDunnough (1912), who unquestionably and clearly recognised that *aryxna* was based on a mixed series, and restricted the name to one of the component parts. At their request, Dyar " restricted the name *arxnya* " (by labelling) to that part of the type series which was not *neumoegeni*. Although Dyar himself did not publish the restriction, Barnes and McDunnough suggested the restrictive action and did publish it, and published a figure of *aryxna* Dyar *sensu stricto*, based on a " co-type " (=syntype) (plate 1, figs. 1, 2). They also clearly indicated the restriction by the citations under the various species in their paper, as follows : (*a*) p. 21, Druce's *Biologia* fig. 4 cited under *neumoegeni* ; (*b*) p. 22, *aryxna* Dyar, *partim*, cited under *neumoegeni* ; (*c*) p. 26, *aryxna* Dyar recognised as a valid species (*aryxna* Dyar, *partim*) ; and (*d*) p. 42, *drucei* Skinner (*Biologia* fig. 3) is said to be possibly the female of *smithi*, or else a distinct species.

We can scarcely hope for a clearer manner in which a restriction is accomplished in publication. See paragraphs 18 and 19 for a discussion of the nomenclature of restriction.

9. Barnes and McDunnough's use of the expression " unnamed form " (1912, p. 23 : " Dr. Dyar restricted the name *aryxna* to the unnamed form ") does not seem to me to be significant, contrary to the view expressed by dos Passos and Bell. Barnes and McDunnough in their studies of the group found " two forms, both included in the type series of *aryxna* ". One was the true *neumoegeni*, but for the second there was no other name available (=" the unnamed form ") and hence they suggested that Dyar restrict the name *aryxna* to this part of the series. That conservative and admirable taxonomic practice utilized the already published name *aryxna* and avoided the necessity of proposing a new name for that species which was not *neumoegeni*.

10. The lectotype selection by Skinner and Williams (1924) is invalid because the specimen from Mexico (basis of *Biologia* fig. 4) was not one of the ten specimens from Arizona, and hence was not part of the original type series.

11. Stallings and Turner (1954, plate 3) show two figures of " *M. aryxna* TYPE ♂, as restricted by Dyar ". This might be considered the first valid lectotype designation for *aryxna*. On the other hand, because they refer to the " holotype " of two other species and were careful to designate a " lectotype " for *neumoegeni*, it might be argued that their " Type " for *aryxna* was used only in the sense of " a type ", i.e. a syntype (cotype of Dyar). If the latter view is held, a lectotype is still not fixed for *aryxna* ; if the former view, a lectotype is established. Incidentally, Stallings and Turner state (p. 78) that *aryxna* in Barnes and McDunnough's restricted sense includes only four of the original ten specimens.

Restriction of " aryxna " under the Second Alternative

12. Under the second alternative, in which the original type series is construed to include both the two figures and the ten specimens, the first reviser of *aryxna* is apparently Skinner (1906, *Ent. News* **17** : 112) : " *M. aryxna* Dyar is a synonym of *neumoegeni* Edw. The fig. 3, pl. 69, *Biol. Centr.-Amer.*, Het. is not *neumoegeni*, as stated by Dyar ". This action eliminates fig. 3 and restricts *aryxna* to ten specimens and fig. 4.

13. Skinner (1911) continues his 1906 treatment by proposing for fig. 3 the new specific name *drucei*, and treating *aryxna* as a variety of *neumoegeni*.

14. The next revision of the species is that by Barnes and McDunnough (1912) (see paragraph 8 above for details). They clearly restricted *aryxna* to a species represented by certain specimens in the Arizona series, of which they figured a " co-type " (=syntype) as an example.

15. The lectotype selection by Skinner and Williams (1924) is not valid because the specimen from Mexico is not in the type series as restricted by Barnes and McDunnough (1912).

16. Again we come to Stallings and Turner (1954) (see paragraph 11 above for details).

The Lectotype of " M. aryxna "

17. For both alternatives, the conclusion is the same : The final restricted type series of *aryxna* consists of four specimens from the Arizona series originally studied by Dyar. Depending on interpretation (see paragraph 11), either a lectotype has been fixed by Stallings and Turner (1954), or no lectotype has yet been fixed definitely. If Stallings and Turner did not select a lectotype, rigidly construed, certainly the specimen labelled by Dyar as " Co-Type (Sensu Restr) " and subsequently figured by Barnes and McDunnough (1912) and again by Stallings and Turner (1954) is the logical choice.

Notes on the Nomenclature of Restriction

18. Recognition that Barnes and McDunnough (1912) did, by their published acceptance of Dyar's action, formally restrict *aryxna* is analogous to the principle accepted by the 1948 International Congress at Paris for the designation of type-species of genera (cf. 1950, *Bull. zool. Nomencl.* **4** : 181—182, Conclusion 72). That decision stated in effect that if an author accepted (in publication, of course) a certain species as the type species on the authority of a previous author or as a result of the supposed operation of some rule, his published acceptance was equivalent to the effective selection of a type species, even though he was in error as to what the previous author did or what the rule accomplished. In other words, what he accepted and published was effective as of that date, even if not before. By the same reasoning, Barnes and McDunnough's acceptance and publication of the restriction credited to Dyar effectively dates the restriction from their 1912 publication.

19. It seems to me to be essential to stability and universality that, in dealing with the literature prior to the days of holotypes and lectotypes, a clear restriction of a mixed species must be respected, and

that subsequent lectotype selection must be in accord with the previous restriction, and with legitimate successive restrictions, if more than one was necessary. This principle was recognized by the 1953 Copenhagen Congress in the Decision that dealt with neotypes [cf. *Copenhagen Decisions*, Decision 35, (5), (b)]. Although the principle is not stated in the Copenhagen Decision relating to lectotypes, I believe that it should be. It is fully as necessary and desirable as for neotype selection, and indeed has been, I believe, the prevailing practice among taxonomists.

Taxonomic Practice

20. It would be interesting to know how zoologists in general would treat a problem like the *aryxna* case. I sampled the reaction of a number of colleagues with considerable taxonomic experience and interest in nomenclatural problems. In order to avoid any possible prejudice or preconceived opinion, I approached zoologists working in groups other than Lepidoptera, and I used the following hypothetical case which parallels the *aryxna* description but uses meaningless names :

Smith, 1896, Fauna Beensis : *A. flava* L. recorded.

Jones, 1905 : " *A. notata*," new species

" This is the form figured in the *Fauna Beensis*, pl. 2, figs. 3 and 4. It differs from *flava* in having the black areas more extensive, the yellow of the pleura being reduced to rows of spots. I have ten specimens from Quebec from Dr. Jacques and M. Pierre ".

Question : What constitutes the original type series ? In other words, what specimens are eligible for lectotype selection ? (a) Only the two on which figs. 3 and 4 are based ? (b) Only the ten specimens from Quebec ? (c) All twelve specimens ?

21. Most of those approached asked at once if author Jones actually had before him the specimens on which figs. 3 and 4 were based. In the end, however, the basis of the original description of " notata ", they answered as follows on the composition of the original type series :

All twelve specimens : H. S. Deignan (Aves), D. H. Johnson (Mammalia), C. F. W. Muesebeck (Hymenoptera), R. I. Sailer (Heteroptera), Alan Stone (Diptera), W. W. Wirth (Diptera), D. A. Young (Homoptera).

The " ten specimens from Quebec " : W. H. Anderson (Coleoptera), F. M. Bayer (Marine Invertebrata), R. E. Blackwelder (Coleoptera),

F. A. Chace, Jr. (Marine Invertebrata), Remington Kellogg (Mammalia), K. V. Krombein (Hymenoptera), P. W. Oman (Homoptera), H. A. Rehder (Mollusca), L. P. Schultz (Pisces). [Some indicated that they would also include the two figured specimens if it could be shown that author Jones actually saw the specimens.]

Conditional, two or ten : H. W. Setzer (Mammalia). [If Jones had the two figured specimens before him, they are the original type series ; if he did not, or if it cannot be determined definitely whether he did, then the ten specimens are the original type series.].

Two specimens (basis of figures) : None.

22. Of the zoologists sampled, emphasis is clearly on the specimens actually before the author describing the new species. All but one would always include the " ten specimens from Quebec ". The group divided about equally on whether or not to include the two figured specimens in addition to the ten, although several who voted for " all twelve " indicated reluctance to go beyond the ten that were unquestionably before the author. The consensus of those voting for " all twelve " was that the lectotype should ordinarily be selected from the ten clearly before the author.

Conclusions

23. In consideration of the foregoing discussion, it is believed that the Commission should rule in the case of *Megathymus aryxna* Dyar that the lectotype is the male syntype from Arizona that is consistent with the valid restriction by Barnes and McDunnough (1912), that bears Dyar's label " Megathymus aryxna Dyar, Co-type (Sensu Restr) ", and that was figured as *aryxna* by Barnes and McDunnough (1912) and by Stallings and Turner (1954). The lectotype may be either by designation of the Commission, or if the Commission so recognizes, by the designation (as " TYPE ") of Stallings and Turner (1954). The specimen referred to is now in the collection of the U.S. National Museum.

11. Objection to the dos Passos/Bell proposal received from J. Chester Bradley (Cornell University, Ithaca, U.S.A.) : On 3rd March 1956 there was received in the Office of the Commission a communication from Professor J. Chester Bradley (*Cornell University, Ithaca, U.S.A.*) in which he commented on a number of cases recently published in the *Bulletin of Zoological*

Nomenclature. His remarks concerning the dos Passos/Bell proposal are as follows :—

. . . . . .

Megathymus aryxna, p. 291 : This was not proposed as a substitute name. Dos Passos and Bell say (par. 10) " a substitute name for specimens " but a name, if a substitute, is a substitute for a name, not for specimens. When a new name is proposed for specimens, a new species is established ; and that is what Dyar did.

Had Dyar placed the first sentence of his description last, it is doubtful that anyone would have questioned that the ten specimens were the entire type series, and that he considered his new species to be the form misidentified and figured in the *Biologia*. It would then have read " *M. aryxna*, new species. This differs from *neumoegeni* in having the fulvous markings considerably reduced, the outer band being broken into spots, I have ten specimens from Arizona from Dr.Barnes and Mr. Poling. It is the form figured in the *Biologia Centr.-Amer.*, Lep. Het., III, pl. 69, figs. 3 and 4 ". Certainly the syntypes are Dyar's series, not specimens that he had never seen and identified only from published illustrations.

In my view the lectotype remains to be selected from among Dyar's 10 syntypes, or may be ruled to have been selected by the publication of fig. 1 of Barnes and McDunnough.

Although this is not the sort of case that through its wide importance should ordinarily involve suspension of the rules, it might be best to do just that, confirming Skinner and Williams selection of *Biologia* fig. 4 as lectotype. This is the course suggested by Turner (*Bull.* **11** : 296) and would apparently satisfy all interested persons.

12. Separation of the question of principle relating to the interpretation of the expression " syntype " as used in the " Règles " involved in the present case from the individual problem presented by the interpretation of the nominal species " Megathymus aryxna " Dyar, 1905 : When at the close of the Prescribed Six-Month Period following the publication in the *Bulletin of Zoological Nomenclature* of the application in regard to the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905, submitted by Mr. dos Passos and Mr. Bell and the counter-proposal in regard thereto submitted by Mr. Stallings and Mr. Turner, consideration was given by the Secretary to the question of the procedure to be adopted in placing this case

before the Commission for decision. The question which called for special consideration in this connection was that in the application and counter-proposal submitted respectively by the specialists named above the difference of view expressed as to the specimen which should properly be regarded as the lectotype of the foregoing nominal species had its origin in different views as to the specimens which could properly be regarded as having been syntypes of that species when the name *Megathymus aryxna* was first published by Dyar. Thus, a question of the interpretation of the *Règles* was involved in this case and a decision on the issue of principle so raised was a pre-requisite to a decision being taken by the Commission in regard to the interpretation of the nominal species referred to above. Under a decision taken in Paris in 1948 by the Thirteenth International Congress of Zoology the Commission was debarred thenceforward from giving decisions on questions of principle of direct interest to all zoologists in *Opinions* relating to individual names and therefore of interest primarily only to specialists in the group immediately concerned, and was instructed, when giving decisions affecting the interpretation of the *Règles* to render those decisions in the *Declarations* Series then expressly re-organised for that purpose. In these circumstances Mr. Hemming took the view that the question of the interpretation of the expression " syntype " involved in the present case ought to be separated from the individual problem presented by the name *Megathymus aryxna* Dyar, in order thereby to provide the International Commission with an opportunity to vote separately on these two issues. At this stage Mr. Hemming accordingly issued directions that the foregoing question of principle should be detached from the remainder of the problems involved in the present case. The new Registered Number Z.N.(S.) 1163 was thereupon allotted to the question of the interpretation of the expression " syntype " as used in the *Règles*, the original Registered Number Z.N.(S.) 889 being retained for the question of the interpretation of the nominal species *Megathymus aryxna* Dyar.

13. Procedural arrangements made by the Secretary for obtaining decisions from the International Commission on the questions involved in the present case : Since, as explained in paragraph 12

above, the adoption of a *Declaration* clarifying the meaning of the expression " syntype " as used in the *Règles* was an indispensible preliminary to the taking by the Commission of a decision on the individual problem presented by the name *Megathymus aryxna* Dyar, Mr. Hemming decided that the question of principle involved and that of the application of that principle in the foregoing individual case, being connected although distinct questions, should be submitted to the Commission for decision simultaneously but that the Voting Paper relating to the former of these questions should be the first on which the Commission should be invited to vote. Under this procedure the question of principle relating to the interpretation of the expression " syntype " was submitted to the Commission for decision with Voting Paper V.P.(56)37, while that involving the question of what specimens should be accepted as having been the syntypes of the nominal species *Megathymus aryxna* Dyar was submitted with Voting Paper V.P.(56)38 (paragraph 15 below). Thus when voting on the latter question, the Commission would already have voted on the prior question of the issue of principle involved.

14. Decision taken by the International Commission on the question of principle relating to the interpretation of the expression " syntype " as used in the " Règles " : The Prescribed Voting Period in respect of Voting Paper V.P.(56)37, the Voting Paper relating to the question of the definition of the expression " syntype " as used in the *Règles*, closed on 1st January 1957 and the result of the vote taken was declared on the following day. The decision so taken was embodied in a *Declaration* numbered *Declaration* 35 (now in the press[1]) on 12th June 1957. Under the terms of that *Declaration* the meaning to be attached to the expression " syntype " was defined and the ground was thus cleared for a decision by the Commission in regard to the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905, the question with which the present *Opinion* is concerned.

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[1] *Declaration* 35 is being published simultaneously with the present *Opinion* as Part 4 of the present volume, i.e. as the Part immediately preceding that in which the present *Opinion* is appearing.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

15. Issue of Voting Paper V.P.(56)38 : On 1st October 1956 a Voting Paper (V.P.(56)38) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposal relating to the specimen to be accepted as the lectotype of *Megathymus aryxna* Dyar, 1905, as set out in Points (1) and (2) in paragraph 18 commencing on page 292 and concluding on page 293 of Volume 11 of the *Bulletin of Zoological Nomenclature* " [i.e. in the paragraph numbered as above in the application reproduced in the first paragraph of the present *Opinion*].

16. Submission in October 1956 of supplementary proposals relating to certain aspects of the present case not dealt with in the applications previously submitted : When returning his completed copy of Voting Paper V.P.(56)38, Commissioner Tadeusz Jaczewski (*Warsaw*) drew attention to the prominent part played by the generic name *Megathymus* Scudder in the application and counter-application submitted in the present case and expressed the opinion that, if the foregoing generic name had not as yet been placed on the *Official Lists of Generic Names in Zoology*, action in this sense should be taken as part of the settlement to be reached in the present case. This suggestion was taken into immediate consideration by the Secretary who on 16th October 1956 prepared the following paper containing proposals for remedying the omission to which Professor Jaczewski had drawn attention :—

Proposed addition to the " Official List of Generic Names in Zoology " of the generic name " Megathymus " Scudder, 1872 (Class Insecta, Order Lepidoptera) (proposal supplementary to that submitted with Voting Paper V.P.(56)38)

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

With Voting Paper V.P.(56)38 proposals were submitted for determining the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) by means of a Ruling to be given as to the specimen to be accepted as the lectotype

of that species. In returning his completed copy of the foregoing Voting Paper Commissioner Tadeusz Jaczewski has drawn attention to a minor omission in the proposals then submitted. It is the purpose of the present note to submit proposals for repairing the omission in question.

2. The species, the name of which forms the subject of the Voting Paper referred to above was described as belonging to, and is currently referred to, the genus *Megathymus* Scudder, 1872 (*4th Ann. Rep. Peabody Acad. Sci.* 1871 : 83), the type species of which by original designation is the nominal species *Eudamus* ? *yuccae* Boisduval & Leconte, [1837] (*Hist. gén. Icon. Lépid. Chen. Amér. sept.* **1** : pl. 70, 6 figs. [no text published]).* The species *Megathymus yuccae*, the first of this group to be discovered, is extremely well known and exhibits characters of exceptional interest. At different times it has been considered by some authors to belong to an aberrant group of the HESPERIIDAE of the Sub-Order Rhopalocera and by others to belong to an aberrant group of the Sub-Order Heterocera. It is currently treated as belonging to the Super-Family HESPERIOIDEA of the first of the foregoing Sub-Orders. It is placed by all workers in a separate family, the MEGATHYMIDAE. This nominal family was first established by Comstock (J.H.) & Comstock (A.B.), 1895 (*Man. Study Ins.* : 365).

3. It is recommended that, in conformity with the General Directive issued by the International Congress of Zoology for the purpose of ensuring that Rulings given in individual *Opinions* shall cover the whole field involved, the following action be now taken, that is, that the International Commission should :—

(1) place the under-mentioned generic name on the *Official List of Generic Names in Zoology* : *Megathymus* Scudder, 1872 (gender : masculine) (type species, by original designation : *Eudamus* ? *yuccae* Boisduval & Leconte, [1837]) ;

(2) place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *yuccae* Boisduval & Leconte,

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* Both the collation and the dating of this fragmentary work by Boisduval & Leconte offer considerable difficulties. A collation is given in the *Catalogue of the Library of the British Museum* (*Natural History*) (**1** : 189), while particulars of the Parts in which it was published and the dates attributable to those Parts was published by Charles Davies Sherborn in 1922 (*Index Anim.*, Pars secund. (1) : xxvi). As shown by the evidence collected by Sherborn, the plate (pl. 70) containing the figures of *Eudamus* ? *yuccae* was published in 1837. The date for this name is often incorrectly cited as " 1833 ", the date cited on the Title Page of Boisduval & Leconte's book.

[1837], as published in the combination *Eudamus* ? *yuccae* (specific name of type species of *Megathymus* Scudder, 1872) ;

(3) place the under-mentioned family-group name on the *Official List of Family-Group Names in Zoology* : MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 (type genus : *Megathymus* Scudder, 1872).

17. Issue of Voting Paper V.P.(56)40 (Voting Paper Supplementary to Voting Paper V.P.(56)38) : On 26th October 1956 the Supplementary Report reproduced in paragraph 16 above was issued to the Commission, together with a Voting Paper (V.P.(56)40) in which each Member of the Commission was invited to vote either for, or against " the proposal relating to the generic name *Megathymus* Scudder, 1872, and associated names, as set out in Points (1) to (3) in paragraph 3 of the paper bearing the Registered Number Z.N.(S.) 889 submitted by the Secretary concurrently with the present Voting Paper (proposal supplementary to the proposals submitted with Voting Paper V.P. (56)38) " [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 16 of the present *Opinion*].

18. The Prescribed Voting Period for Voting Papers V.P.(56)38 and V.P.(56)40 : Since both Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 were issued under the Three-Month Rule, the Prescribed Voting Period for the earlier of these Voting Papers (V.P.(56)38) was due to close on 1st January 1957, while that in respect of the later-issued Voting Paper (V.P.(56)40) was due to close only twenty-five days later, i.e. on 26th January 1957. In these circumstances the Secretary took the view that the most convenient course would be to extend the Prescribed Voting Period in respect of Voting Paper V.P.(56)38 to 26th January 1957, thereby securing that the close of the Prescribed Voting Period in respect of that Voting Paper should coincide with the close of the corresponding Period in respect of the Supplementary Voting Paper issued as Voting Paper V.P.(56)40. A formal direction in this sense was accordingly given by Mr. Hemming as Secretary in a Minute executed on 27th October 1956.

19. Particulars of the Voting on Voting Paper V.P.(56)38 : At the close of the Prescribed Voting Period, as extended in the manner specified in paragraph 18 above, the state of the voting on Voting Paper V.P.(56)38 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-one* (21) *Commissioners* (*arranged in the order in which Votes were received*) :

Hering ; Mayr ; Lemche ; do Amaral ; Jaczewski ; Esaki ; Prantl ; Dymond ; Key[2] ; Vokes ; Bonnet ; Hemming ; Riley ; Bodenheimer ; Bradley (J.C.) ; Stoll ; Miller ; Cabrera ; Tortonese ; Kühnelt ; Boschma ;

(b) *Negative Votes, three* (3) :

Holthuis ; Mertens ; Sylvester-Bradley ;

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one* (1) :

Hankó ;

(d) *Voting Papers not returned* :

None.

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[2] In returning an affirmative vote on Voting Paper V.P.(56)38, Commissioner K. H. L. Key indicated that this approval did not extend to the proposal set out in Point (1)(a) in the dos Passos/Bell application.

20. Particulars of the Voting on Voting Paper V.P.(56)40 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)40 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-four* (24) *Commissioners* (*arranged in the order in which Votes were received*) :

Hering ; Vokes ; Boschma ; Riley ; Prantl ; Mayr ; Key ; Tortonese ; Lemche ; Bonnet ; Esaki ; Jaczewski ; Dymond ; Bodenheimer ; Holthuis ; Mertens ; Miller ; Cabrera ; Hemming ; Bradley (J.C.) ; Kühnelt ; Sylvester-Bradley ; do Amaral ; Stoll ;

(b) *Negative Votes* :

None :

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one* (1) :

Hankó ;

(d) *Voting Papers not returned* :

None.

21. Declaration of the Result of the Votes taken on Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 respectively : On 27th January 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Votes taken on

Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 respectively, signed a Certificate that the Votes cast in respect of Voting Paper V.P.(56)38 were as set out in paragraph 19 above and that those cast in respect of Voting Paper V.P.(56)40 were as set out in paragraph 20 above and declaring that the proposals submitted with each of the foregoing Voting Papers had been duly adopted in the Votes specified above and that the decision so taken was the decision of the International Commission in the matter aforesaid.

22. Preparation of the Ruling given in the present " Opinion " : On 14th June 1957 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(56)38, as supplemented by the proposal approved by the said Commission in its Vote on Voting Paper V.P.(56)40.

23. Original References : The following are the original references for the generic and specific names placed on the *Official Lists* for names of taxa belonging to the above categories by the Ruling given in the present *Opinion* :—

aryxna, *Megathymus*, Dyar, 1905, *J.N.Y. ent. Soc.* **13** : 141

Megathymus Scudder, 1872, 4*th Ann. Rep. Peabody Acad. Sci.* 1871 : 83

neumoegeni, *Megathymus*, Edwards (W.H.), 1882, *Papilio* **2** : 27

yuccae, *Eudamus* ?, Boisduval & Leconte, [1837], *Hist. gén. Icon. Lépid. Chen. Amér. sept.* **1** : pl. 70, 6 figs. [no text]

24. The following is the reference for the selection of a lectotype for a nominal species specified in the Ruling given in the present *Opinion* :—

For *Megathymus aryxna* Dyar, 1905	Skinner (H.) & Williams (R.C.), Jr., 1924, *Trans. amer. ent. Soc.* **50** : 205

25. The following is the original reference for the family-group name placed on the *Official List* of names for taxa of that category by the Ruling given in the present *Opinion* :—

MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895, *Man. Study Ins.* : 365

26. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

27. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-Three (483) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of June, Nineteen Hundred and Fifty-Seven.

Secretary to the International Commission on Zoological Nomenclature

FRANCIS HEMMING

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International Commission on Zoological Nomenclature. 1957. "Opinion 483. Determination of the specimen to be accepted as the lectotype of the nominal species Megathymus aryxna Dyar, 1905 (Class Insecta, Order Lepidoptera) and matters incidental thereto." *Opinions and declarations rendered by the International Commission on Zoological Nomenclature* 17, 41–72.

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