

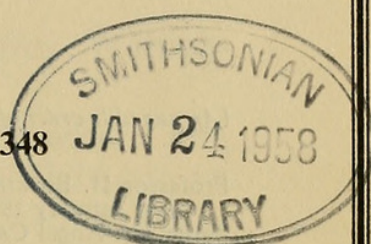
OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

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

Secretary to the Commission

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OPINION 496

Use of the Plenary Powers to secure the continued use in their accustomed sense of the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822 (Class Trilobita)

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 496

USE OF THE PLENARY POWERS TO SECURE THE CONTINUED USE IN THEIR ACCUSTOMED SENSE OF THE GENERIC NAMES "OLENUS" DALMAN, [1827], AND "PARADOXIDES" BRONGNIART, 1822 (CLASS TRILOBITA)

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

(a) The under-mentioned names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

- (i) the generic name *Entomolithus* Linnaeus, 1759 ;
- (ii) the generic name *Entomostracites* Wahlenberg, [1821] ;
- (iii) the specific name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*.

(b) All designations, indications or selections of type species for the genus *Olenus* Dalman, [1827], made prior to the present Ruling are hereby set aside and the nominal species *Entomostracites gibbosus* Wahlenberg, [1821], is hereby designated to be the type species of the above genus.

(2) It is hereby ruled under the provisions of *Declaration 28* that the nominal family-group taxon PARADOXIDES Emmrich (H.[F.]) was based upon a misidentification of *Paradoxides* Brongniart, 1822, the nominal genus selected as its type genus, and therefore that the foregoing family-group name possesses no status in zoological nomenclature.

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

- (a) *Paradoxides* Brongniart, 1822 (gender : masculine)
(type species, by selection by Barrande (1852) :

Entomostracites paradoxissimus Wahlenberg, [1821], as defined by the lectotype selected by Poulsen (C.) (1956)) (Name No. 1238) ;

(b) *Olenus* Dalman, [1827] (gender : masculine) (type species, by designation under the Plenary Powers in (1) (b) above : *Entomostracites gibbosus* Wahlenberg, [1821]) (Name No. 1239) ;

(c) *Parabolina* Salter, 1849 (gender : feminine) (type species, by monotypy : *Entomostracites spinulosus* Wahlenberg, [1821]) (Name No. 1240).

(4) 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) *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*, defined as specified in (3)(a) above (specific name of type species of *Paradoxides* Brongniart, 1822) (Name No. 1458) ;

(b) *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus* (specific name of type species of *Olenus* Dalman, [1827]) (Name No. 1459) ;

(c) *spinulosus* Wahlenberg, [1821], as published in the combination *Entomostracites spinulosus* (specific name of type species of *Parabolina* Salter, 1849) (Name No. 1460).

(5) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

(a) *Entomolithus* Gesner, 1758 (a name published in a work rejected for nomenclatorial purposes under the Plenary Powers by the Ruling given in *Opinion* 230) (Name No. 1084) ;

- (b) *Entomolithus* Linnaeus, 1759, as suppressed under the Plenary Powers in (1)(a)(i) above (Name No. 1085) ;
- (c) *Entomostracites* Wahlenberg (G.), [1821], as suppressed under the Plenary Powers in (1)(a)(ii) above (Name No. 1086) ;
- (d) *Olenus* Dejean, 1835 (a junior homonym of *Olenus* Dalman, [1827]) (Name No. 1087) ;
- (e) *Olenus* Thomson, 1857 (a junior homonym of *Olenus* Dalman, [1827]) (Name No. 1088) ;
- (f) *Paradoxides* Motschulsky, 1851 (a junior homonym of *Paradoxides* Brongniart, 1822) (Name No. 1089) ;
- (g) *Paradoxites* Goldfuss, 1843 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) (Name No. 1090).

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

- (a) *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, as suppressed under the Plenary Powers in (1)(a)(iii) (Name No. 482) ;
- (b) *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (a junior objective synonym of *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*) (Name No. 483).

(7) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) OLENIDAE Burmeister, 1843 (type genus : *Olenus* Dalman, [1827]) (Name No. 203) ;

- (b) PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) (Name No. 204).

(8) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) PARADOXIDEN Emmrich (H.[F.]), 1844 (ruled under (2) above to be invalid under *Declaration* 28 as being a nominal family-group taxon based on a misidentified type genus) (Name No. 234) ;
- (b) PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) (an Invalid Original Spelling for PARADOXIDIDAE) (Name No. 235).

I. THE STATEMENT OF THE CASE

On 27th September 1951, Professor Christian Poulsen (*Universitetets Mineralogisk-Geologiske Institut, Mineralogisk Museum, Copenhagen, Denmark*) submitted a preliminary communication to the Office of the Commission with the object of securing from the International Commission a Ruling which would provide a firm basis for the continued use in its accustomed sense of the generic name *Olenus* Dalman, [1827] (Class Trilobita). Owing first, to the pressure of current work, and, later, to the preparations for the meeting of the International Congress of Zoology to be held at Copenhagen in 1953 it was not immediately possible for any progress to be made in connection with the present case. In the autumn of 1953, immediately following the close of the Copenhagen Congress, correspondence on the problems raised by the present case was opened by the Secretary with Professor Poulsen and later at Professor Poulsen's request these discussions were joined by Dr. C. J. Stubblefield (*Geological Survey and Museum, London*). Some of the issues involved were found to be of a somewhat intractable character and in consequence it was

not until 24th November 1955 that the following definitive application was laid before the International Commission by Professor Poulsen :—

Proposed use of the Plenary Powers to secure the availability of the generic names “*Olenus*” Dalman, [1827], and “*Paradoxides*” Brongniart, 1822 (Class Trilobita) for use in the sense in which these names are customarily employed

By CHRISTIAN POULSEN

(Universitetets Mineralogisk-Geologiske Institut,
Mineralogisk Museum, Copenhagen, Denmark)

The principal object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to provide a valid basis for the continued use of the generic name *Olenus* Dalman, [1827] (Class Trilobita). A second but important part of the object of the present application is to provide a secure basis for the current usage of the generic name *Paradoxides* Brongniart, 1822, for the problems involved in connection with this name are inextricably intermingled with those which arise in connection with the name *Olenus* Dalman. This latter name is very well known, having been used for about one hundred years as the name for a guide fossil of the Upper Cambrian. This long sustained and universal usage has led to the use of such stratigraphical terms as “*Regio Olenorum*”, “*Olenian*”, “*Olenus* beds”, “*Olenus* Series”, “*Olenus*-Stufe”, “*Olenus*-Étage”, etc. From the systematic point of view also the name *Olenus* Dalman is of importance, for it has given its name to the family OLENIDAE. There can be no doubt whatever that the disappearance of the name *Olenus* in synonymy—as would be inevitable if the normal provisions of the *Règles* were to be applied in this case—would lead to immense confusion. Probably of equal importance to that of *Olenus*, the name *Paradoxides* is also one which it is highly desirable should be conserved, for it also has been in use for over a hundred years, for a well-known group of species from the Middle Cambrian. It has also been applied for stratigraphical terms such as “*Paradoxidian*”, “*Paradoxides* beds”, “*Paradoxides*-lagren”, “*Paradoxides* Series”, “*Paradoxides*-Stufe”, etc. It is also the name of the type genus of the family PARADOXIDIDAE and is widely used in faunistic work to denote particular areas of distribution. The nomenclatorial issues involved in the present case are rather complicated and in addition there are bibliographical problems which call for consideration. Particulars are given below of those matters which are strictly relevant to the present application.

I. The Historical Background

2. Before examining the action taken by Brongniart when establishing the nominal genus *Paradoxides*, it is necessary clearly to note the distinction between two nominal species established by Linnaeus under the same name, both of which enter into this problem. The first of these species was established by Linnaeus in 1753 (*Mus. tessin.* : 98, pl. iii, figs. 1, 2) under the name *Entomolithus paradoxus* in the form "*paradoxus*. 3. *Entomolithus Monoculi*". It should be noted that in the Tab. Explic. of this 1753 publication the words *Entomolithus Monoculi* appeared alone. As the name *paradoxus*, as used in the above publication, was published before the starting point of zoological nomenclature it possesses no status under the *Règles*. The species so named by Linnaeus was some sixty years later renamed by Wahlenberg ([1821], *Nova Acta Soc. Sci. upsal.* 8 : 34) who called it *Entomostracites paradoxissimus*. (There is a problem as to the date to be assigned to Wahlenberg's paper, for a discussion of which see paragraph 3 below.) The second of the Linnean names concerned is *Entomolithus paradoxus* Linnaeus, 1759 (*K. Vetensk.-Akad. Handl.*, Stockholm 20 : 19, fig. 1). This name has never subsequently been used for this species, presumably because the early workers considered that it was invalid as a junior homonym of *Entomolithus paradoxus* Linnaeus, 1753. In the paper referred to above (8 : 38) this species was identified by Wahlenberg with reserve with a new nominal species to which he gave the name *Entomostracites spinulosus*. Elsewhere however in the same paper (8 : 29) the same 1759 figure was with much less justification referred to *Entomostracites caudatus* (Brünnich, 1781). The name *paradoxus* Linnaeus, 1753, being a pre-1758 name does invalidate the name *paradoxus* Linnaeus, 1759, which is accordingly the oldest available name for the species concerned. In consequence the name *spinulosus* Wahlenberg habitually used for this species is an actual or possible junior subjective synonym of *paradoxus* Linnaeus, 1759. This question is further discussed in paragraph 12 below.

3. The next author who has to be considered is Wahlenberg. Before examining his treatment of this group it will be helpful if we dispose of the bibliographical problem which arises in connection with his paper entitled "*Petrificata Telluris Svecanae examinata a Georgio Wahlenberg*". This was the first paper to be published in volume 8 of the *Nova Acta Regiae Societatis Scientiarum upsaliensis* and is usually treated as having been published in 1821. There is evidence, however, to show that this paper was available earlier in pre-print form, for Dalman definitely states that it appeared in 1818, while Brongniart without stating when publication took place remarked that he himself did not have his attention drawn to this paper until 1819. Nevertheless, in view of the Ruling rejecting pre-prints given by the International Commission on Zoological Nomenclature in its *Opinion* 59 and the subsequent incorporation of that Ruling in the *Règles* by the Thirteenth

International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 146) the date of publication of Wahlenberg's paper must be taken as 1821, the year in which it was first validly "published".

4. In the foregoing paper Wahlenberg realised that the nominal species established under the name *Entomolithus paradoxus* by Linnaeus in 1753 in his *Museum tessinianum* was a composite species and he gave a new name to the original of fig. 1 of the above publication and he referred either to new or to previously described nominal species the specifically unassigned species placed in *Entomolithus* in 1753 which later were illustrated by Linnaeus in his 1759 publication (*K. Vetensk.-Akad. Handl.*, Stockholm **20** : pl. 1, figs. 2—4). At the same time he established for these species the nominal genus *Entomostracites* ([1821], *Nova Acta Soc. Sci. upsal.* **8** : 25) for the species so named. Wahlenberg's *Entomostracites* was not looked upon by him as a new genus, being published as a substitute name (*nom. nov.*) for the name *Entomolithus* Linnaeus, 1759 (*K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19). He also rejected the specific name *paradoxus* Linnaeus, 1753, as published in the combination *Entomolithus paradoxus*, giving to the species concerned the new name *Entomostracites paradoxissimus* (*loc. cit.* **8** : 34, pl. 1, fig. 1), and he illustrated a more perfect specimen. In the same paper he gave the name *Entomostracites gibbosus* (*loc. cit.* **8** : 39) to one of the components of the genus *Entomolithus* of Linnaeus of 1759, again illustrating better material. Finally, as already noted (paragraph 2 above) he gave the name *Entomostracites spinulosus* (*loc. cit.* **8** : 38) to a species which he identified with reserve with that to which in 1759 Linnaeus had applied the name *Entomolithus paradoxus*.

5. We must now consider the generic name *Paradoxides* published by Brongniart in 1822 (*Paradoxides* Brongniart (A.), in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31, 30). Owing to the confused and confusing manner in which this name was introduced and the differences of opinion regarding the species to be accepted as the type species of this genus which have in consequence arisen it is necessary to examine closely the action taken by Brongniart. We have first to note that, when erecting the nominal genus *Paradoxides*, Brongniart divided it into two sections. In the first of these sections he placed (i) a new nominal species *Paradoxides tessini* (*loc. cit.* : 31) (to which it will be necessary to revert a little later), (ii) *Entomostracites spinulosus* Wahlenberg (**8** : 38) and (iii) *Entomostracites scarab[ae]oides* Wahlenberg (**8** : 41). In the second of these sections he placed (i) *Entomostracites gibbosus* Wahlenberg and (ii) *Entomostracites laciniatus* Wahlenberg (**8** : 34). On the general scope of his genus *Paradoxides* Brongniart wrote as follows (: 30) :—

... renferme les espèces de la famille des Trilobites, qui ont été décrites par Linné, sous le nom d'*Entomolithus paradoxus* [i.e. the species so named by Linnaeus, in 1753 in the *Mus. tess.*], nom qu'on a étendu, comme je l'ai dit, à des animaux que le naturaliste suédois

n'avait pas eu en vue, et qu'il n'avait pas même connus. C'est pour respect pour lui et pour rappeler que c'est ici le véritable *Entomolithus paradoxus* que j'ai donné à ce genre le nom de *Paradoxide* [this French version of the name being Latinised by Brongniart as *Paradoxides* on page 31], nom peut-être un peu singulier, mais que rappelle, comme l'avait voulu Linné, les formes singulières de ces animaux.

6. It is necessary now to consider the nominal species *Paradoxides tessini* which, as already noted, was established by Brongniart in the foregoing paper. On page 31 of his paper Brongniart described Wahlenberg's species *Entomostracites paradoxissimus* and reproduced, as fig. 1 on plate iv, the figure given by Wahlenberg for this species. Both in this description and on the legend of his pl. iv Brongniart applied to this species the new name *Paradoxides tessini*. This entry was accompanied by the following footnote: "*Entomostracites paradoxissimus*, Wahl. no. 9, tab. I, fig. 1. *Entomolithus paradoxus*, Linn., Mus. tess., tab. III, fig. 1 (pessima)". On the following page (: 32) in a further discussion of his species *Paradoxides tessini*, Brongniart observed: "Malgré l'imperfection de la figure de l'Entomolithe décrit par Linné dans le muséum de Tessin, nous ne pouvons douter, en la comparant à celle de M. Wahlenberg, que Linné n'ait décrit le même animal. M. Wahlenberg n'en doute pas non plus, puisqu'il donne cet Entomolithe du *Museum Tessinianum*, comme synonyme du sien". It is thus evident that the name *tessini* Brongniart, like *paradoxissimus* Wahlenberg, is a substitute name for *paradoxus* Linnaeus, 1753 (*Mus. tess.*), as published in the combination *Entomolithus paradoxus*. The name *tessini* Brongniart is therefore invalid as being a junior objective synonym of *paradoxissimus* Wahlenberg.

7. The next name which has to be considered is the generic name *Olenus* Dalman (*K. Vetensk.-Akad. Handl.*, Stockholm 1826(1) : 150). The paper in which this name was published formed part of the volume for the year 1826 but was not actually published until 1827, to which year therefore the name *Olenus* Dalman should be attributed. In this paper Dalman discussed a number of names published by previous authors and took exception to them on various grounds. In the present case he proposed the name *Olenus* expressly as a substitute name for the name *Paradoxides* Brongniart. The name *Olenus* is therefore a junior objective synonym of the name *Paradoxides* Brongniart.

8. There is one other generic name which has to be considered in this connection. This is *Parabolina* Salter, 1849 (*Mem. geol. Surv. United Kingd.*, Figures, Decade 2 : pl. ix, page 2 of expl.). The type species of this genus (by monotypy) is *Entomostracites spinulosus* Wahlenberg, [1821], which, as we have seen (paragraph 4 above), is a nominal species, which was identified by its author with reserve with that to which in 1759 (*nec* 1753) Linnaeus gave the name *Entomolithus paradoxus*.

II. Discussion of the nomenclatorial issues involved

9. The generic name "Entomostracites" Wahlenberg, [1821] : The nominal genus *Entomostracites* was established by Wahlenberg as a substitute for the name *Entomolithus* Linnaeus, 1759, and comprised fourteen species, including those involved in the present case. Since no type species was designated for either of these genera by Wahlenberg and none has been selected by any subsequent author, any of the species originally included by Linnaeus could be selected as type species. So long as the name *Entomolithus* Linnaeus, 1759, retains its status of availability, it constitutes a serious potential threat under the Law of Priority both to the name *Paradoxides* Brongniart and to the name *Olenus* Dalman. The name *Entomolithus* Linnaeus has not been used for over a century, and its re-introduction at the present time would be bound to give rise to serious confusion and would be open to the strongest objection. Accordingly, as a first step in the stabilisation of the nomenclature of this group, the name *Entomolithus* Linnaeus should be suppressed by the International Commission under its Plenary Powers, being then placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. The substitute name *Entomostracites* Wahlenberg, [1821], should at the same time be suppressed by the International Commission under its Plenary Powers for it also has not been used for over one hundred years and its re-introduction would cause fully as great confusion as would the resurrection of the older name *Entomolithus* Linnaeus, 1759. Another name which has been considered, namely *Entomolithus* Gesner, 1758 (*Tract. Petrif.* : 57), is fortunately already invalid, the Commission having suppressed for nomenclatorial purposes in *Opinion* 230 (1954, *loc. cit.* 4 : 231—238) the work in which it was published. No action now requires therefore to be taken by the Commission in regard to this name beyond placing it also on the *Official Index*.

10. Type species of the genus "Paradoxides" Brongniart, 1822 : Under a decision recently taken by the International Commission and since embodied (as I am informed by Mr. Hemming, Secretary to the Commission) in *Declaration* 22 (now in the press)¹ Rule (a) in Article 30 of the *Règles* (Rule relating to the designation of a type species for a genus by the original author of the generic name) is, like Rule (g) (selection of a type species by a later author) to be "rigidly construed". In these circumstances it is evident that Brongniart cannot be regarded as having designated a type species for his genus *Paradoxides*, for, although he clearly erected this genus for "le véritable *Entomolithus paradoxus*" of Linnaeus, 1753, he placed other nominal species in this genus and did not explicitly designate any of the included species as the type species. It is necessary therefore to examine the literature to determine which of Brongniart's included nominal species was

¹ This *Declaration* has since been published (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 12 : ix—xviii),

first selected as the type species of *Paradoxides* by a later author. The first author expressly to deal with this subject was Barrande who in 1852 (*Syst. silur. Centre Bohême* 1 : 362) wrote as follows : "Alex. Brongniart fonde le genre *Paradoxides* pour renfermer les espèces décrites par Linné sous le nom d'*Entomolithus paradoxus* [Barrande's italics]. Il prend pour type, avec le nom de *Parad. tessini*, la forme nommée *Ent. paradoxissimus* par Wahlenberg, dont il reproduit la figure . . .". Barrande's statement in this passage that Brongniart designated a type species for his genus *Paradoxides* was, as we have seen, incorrect. At this point, however, it is necessary to recall the decision by the Thirteenth International Congress of Zoology, Paris, 1948 that "an author is to be treated as having selected a given nominal species to be the type species of a given nominal genus . . . when he does no more than state that a specified such species is the type species of the nominal genus concerned, irrespective . . . of whether he states or implies, either correctly or otherwise, that that nominal species had been selected by some previous author to be the type species of that nominal genus . . . , provided in such a case that the author concerned makes it clear that he himself accepts, for whatever reason, the species in question as the type species of the genus concerned" (1950, *Bull. zool. Nomencl.* 4 : 181—182). Applying the foregoing provision to the present case, we find that, although Barrande was in error when he stated that Brongniart had himself designated *Paradoxides tessini* Brongniart as the type species of *Paradoxides*, his own action in accepting that species as the type species of that genus constitutes under the *Règles* a valid selection by himself of that species as the type species of *Paradoxides*. Since *Paradoxides tessini* Brongniart, 1822, is a junior objective synonym of *Entomostracites paradoxissimus* Wahlenberg, [1821], both of which names were cited by Barrande when making the type selection described above, and also by Brongniart when establishing the genus *Paradoxides*, Barrande is, under *Declaration* 21 (now in the press)² to be treated as having selected the type species of this genus under the name *paradoxissimus* rather than under that of its junior objective synonym *tessini*. The foregoing type selection is in complete harmony with the current usage of the name *Paradoxides*. The original specimen of Wahlenberg's restored illustration of *Entomostracites paradoxissimus* ([1821] : pl. 1, fig. 1) is preserved in the Palaeozoological Department of the Naturhistoriska Riksmuseet, Stockholm, where it bears the Registered Number Ar. 46147. It was re-figured in 1953 by A. H. Westergård (*Sver. Geol. Unders. (Ser. C) No. 520* : pl. viii, fig. 2). This specimen is hereby selected as the lectotype of the nominal species *Entomostracites paradoxissimus* Wahlenberg, [1821]. The Commission is now asked to place the generic name *Paradoxides* Brongniart, 1822, on the *Official List of Generic Names in Zoology* with *Entomostracites paradoxissimus* Wahlenberg, [1821], as type species by selection by Barrande (1852).

² This *Declaration* has since been published (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 12 : i—viii).

11. Type species of the genus "Olenus" Dalman, [1827] : As has already been explained (paragraph 7 above) the name *Olenus* Dalman, [1827], is no more than a substitute name for the name *Paradoxides* Brongniart, 1822. As such, it takes automatically as its type species the same species as that which is the type species of the genus *Paradoxides*. Accordingly, under the *Règles* the type species of *Olenus* Dalman is *Entomostracites paradoxissimus* Wahlenberg and the name *Olenus* Dalman falls as a junior objective synonym of *Paradoxides* Brongniart. For the reasons explained in the opening paragraph of the present application such a disposal of the name *Olenus* Dalman would give rise to the greatest possible confusion and some means must be found for preventing this situation from arising. This end can only be achieved by the use by the International Commission of its Plenary Powers to designate as the type species of this genus a species in harmony with current usage, and this is accordingly the action which the Commission is now asked to take. The species most suitable for designation as the type species of this genus is *Entomostracites gibbosus* Wahlenberg, [1821] (discussed in paragraph 4 above). The generic name *Olenus*, Dalman, [1827], so stabilised should be placed on the *Official List of Generic Names in Zoology* and the name *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus*, should be placed on the *Official List of Specific Names in Zoology*.

12. Name for the type species of the genus "Parabolina" Salter, 1849 : As has already been explained (paragraph 8 above) the type species of this genus is the nominal species *Entomostracites spinulosus* Wahlenberg, [1821]. This species has always been known by this name, but as explained in paragraph 4, it may be only a junior subjective synonym of the much older name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, a name, however, which has never been used by any author since the time of Linnaeus. On the ground of the need for maintaining continuity in nomenclature it would be most objectionable if a long-neglected name such as *paradoxus* Linnaeus, 1759, were to be substituted for the name *spinulosus* Wahlenberg which has been in use for over a hundred years. In the present case there is a further, and even more potent reason why such a substitution should be avoided. For the name *paradoxus* Linnaeus, 1759, was rejected by the zoologists of the day because it was a homonym of the name *paradoxus* Linnaeus, 1753, published in the same combination (i.e. the name applied by Linnaeus to the species, of which now the oldest available name is *paradoxissimus* Wahlenberg, [1821] and, while it is true that under the *Règles* this objection no longer holds good—in view of the fact that the name *Entomolithus paradoxus* Linnaeus, 1753, possesses no status of availability because of having been published before the starting point of zoological nomenclature (as defined by Article 26 of the *Règles*)—the re-introduction in this group of a specific name consisting of the word "*paradoxus*" could not fail to give rise to the most serious confusion. These

objections are greatly heightened by the fact that it is not clearly established that the nominal species *Entomolithus paradoxus* Linnaeus, 1759, and *Entomostracites spinulosus* Wahlenberg, [1821], represent the same taxonomic unit, with the result that, so long as the name *paradoxus* Linnaeus, 1759, retains the status of availability, there will be a risk that the species concerned will be called by the name *spinulosus* Wahlenberg by some specialists and by the name *paradoxus* Linnaeus by other workers. The International Commission is accordingly asked to prevent this confusion from arising by using its Plenary Powers to suppress the name *paradoxus* Linnaeus, 1759, thus making the familiar name *spinulosus* Wahlenberg, [1821], unquestionably the oldest available name for the species concerned. As part of this arrangement the Commission is asked to place the foregoing name so protected on the *Official List of Specific Names in Zoology* and at the same time to place the generic name *Parabolina* Salter, 1849, with the above species as type species, on the *Official List of Generic Names in Zoology*.

13. Other action in regard to generic and specific names required : In addition to the action recommended in paragraphs 10, 11 and 12 above, the following action in relation to generic and specific names is required in order to dispose of all matters in regard to such names involved in the present case : (1) The following invalid generic names should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* : (a) *Olenus* Dejean, 1835, *Cat. Coléopt. Coll. Dejean* (1835 Ed.) : 439 (a *nomen nudum*) ; (b) *Olenus* Thomson, 1857, *Arch. ent. Paris* 1 : 157 (a name for a genus of the Order Coleoptera (Class Insecta) which is a junior homonym of *Olenus* Dalman, [1827], one of the generic names dealt with in the present application, and which has as such been replaced by the name *Balius* Guérin, 1857, in Thomson, *Arch. ent. Paris* 1 : 261) ; (c) *Paradoxides* Motschulsky, 1851, *Bull. Soc. imp. Nat. Moscou* 24(2) : 510 (a name for a genus of the Order Psocoptera (Class Insecta) which is a junior homonym of *Paradoxides* Brongniart, 1822 (one of the generic names dealt with in the present application) and which, as such, has been replaced by the generic name *Paradoxenus* Motschulsky, 1853, *Etudes ent.* 1 : 19) ; (d) *Paradoxites* Goldfuss, 1843, *Neues Jahrb. Min.* 1843 : 347 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) ; (2) the following invalid specific name should be placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* : *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (see paragraph 5 above).

14. Family-group-name problems : As explained in the opening paragraph of the present application, the generic names *Paradoxides* Brongniart and *Olenus* Dalman are both type genera of families. The family names concerned should be placed on the *Official List of Family-Group Names in Zoology* at the same time that the foregoing generic

names are placed on the *Official List of Generic Names in Zoology*. The generic name *Olenus* Dalman was taken by Burmeister (H.), in 1843 (*Die Organisation der Trilobiten*, Berlin : 47) as the base for the family-group name OLENIDAE. In erecting this nominal unit, Burmeister recognised *Paradoxides* as a genus distinct from *Olenus*. The generic name *Paradoxides* was first taken as the base for a family-group name by Emmrich (H.[F.]) in 1844 (*Zur Naturgeschichte der Trilobiten, Program zur öffentlicher Prüfung . . . Meiningen* : 17), who introduced the name PARADOXIDEN as the name for a subfamily. Emmrich, however, gave as examples of the genus *Paradoxides* only *P. gibbosus* and *P. latus*, both species which nowadays are referred to the family OLENIDAE ; further, he took (: 18) *O. tessini* to represent the genus *Olenus* in his family OLENEN. It would thus be misleading and historically incorrect to treat Emmrich as having established the family PARADOXIDIDAE as correctly typified by *Entomostracites paradoxissimus* Wahlenberg, the type species of its type genus. I accordingly ask the International Commission to use its Plenary Powers to suppress the family-group name PARADOXIDEN Emmrich, 1844, for the purposes both of the Law of Priority and of the Law of Homonymy. This action will clear the ground for the acceptance of the family-group name PARADOXIDES introduced for use in the correct sense by Corda (A.J.C.) in 1847 (*in* Hawle (I.) & Corda (A.J.C.) *Prodrom einer Monographie der böhmischen Trilobiten* : 11). In this work Corda established a number of new families, the names of which he formed by adding the termination “-ides” to what he regarded as the root (or the stem) of the generic name concerned. In the case of the family-group name based upon the generic name *Paradoxides* the resulting family-group name, as formed by Corda, was PARADOXIDES. In the family so established Corda placed nineteen genera, including the genus *Paradoxides* in which he placed seven species. So far as is known, the generic name *Parabolina* Salter, 1847, has not been taken as the base for a family-group name.

Recommendations

15. For the reasons set forth in the present application the International Commission is now asked :—

(1) to use its Plenary Powers :—

(a) to suppress the under-mentioned names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

- (i) the generic name *Entomolithus* Linnaeus, 1759 ;
- (ii) the generic name *Entomostracites* Wahlenberg, [1821] ;
- (iii) the specific name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus* ;

- (b) to suppress the family-group name PARADOXIDEN Emmerich (H.[F.]), 1844 (type genus : *Paradoxides* Brongniart, 1822, as based upon an erroneously determined type species) for the purposes both of the Law of Priority and of the Law of Homonymy ;
 - (c) to set aside all designations or indications of type species for the genus *Olenus* Dalman, [1827], made prior to the Ruling now asked for and, having done so, to designate the nominal species *Entomostracites gibbosus* Wahlenberg, [1821], to be the type species of the above genus ;
- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
- (a) *Paradoxides* Brongniart, 1822 (gender : masculine) (type species, by selection by Barrande (1852) : *Entomostracites paradoxissimus* Wahlenberg, [1821], as defined by the lectotype selection made in paragraph 10 of the present application) ;
 - (b) *Olenus* Dalman, [1827] (gender : masculine) (type species, by designation under the Plenary Powers under (1)(c) above : *Entomostracites gibbosus* Wahlenberg, [1821]) ;
 - (c) *Parabolina* Salter, 1849 (gender : feminine) (type species, by monotypy : *Entomostracites spinulosus* Wahlenberg, [1821]) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
- (a) *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus* (specific name of type species of *Olenus* Dalman, [1827]) ;
 - (b) *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*, defined as specified in (2)(a) above (specific name of type species of *Paradoxides* Brongniart, 1822) ;
 - (c) *spinulosus* Wahlenberg, [1821], as published in the combination *Entomostracites spinulosus* (specific name of type species of *Parabolina* Salter, 1849) ;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Entomolithus* Gesner, 1758 (a name published in a work suppressed for nomenclatorial purposes under the Plenary Powers) ;

- (b) *Entomolithus* Linnaeus, 1759, as suppressed under the Plenary Powers under (1)(a)(i) above ;
 - (c) *Entomostracites* Wahlenberg (G.), [1821], as suppressed under the Plenary Powers under (1)(a)(ii) above ;
 - (d) *Olenus* Dejean, 1835 (a junior homonym of *Olenus* Dalman, [1827]) ;
 - (e) *Olenus* Thomson, 1857 (a junior homonym of *Olenus* Dalman, [1827]) ;
 - (f) *Paradoxides* Motschulsky, 1851 (a junior homonym of *Paradoxides* Brongniart, 1822) ;
 - (g) *Paradoxites* Goldfuss, 1843 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) ;
- (5) to place the under-mentioned specific (names on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—
- (a) *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, as suppressed under the Plenary Powers under (1)(a)(ii) above ;
 - (b) *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (a junior objective synonym of *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*) ;
- (6) to place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) OLENIDAE Burmeister, 1843 (type genus : *Olenus* Dalman, [1827]) ;
 - (b) PARADOXIDIDAE (correction of PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) ;
- (7) to place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—
- (a) PARADOXIDEN Emmrich (H.[F.]), 1844 (type genus : *Paradoxides* Brongniart, 1822), as suppressed under the Plenary Powers under (1)(b) above ;
 - (b) PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822 (an Invalid Original Spelling for PARADOXIDIDAE).

16. I should like to take this opportunity to thank my friend Dr. C. J. Stubblefield, F.R.S., of the Geological Survey of Great Britain for the assistance which he has kindly given in clearing up, on my behalf, a number of bibliographical and other matters on which information was asked for by the Secretary to the Commission in the course of the preparation of the present application.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt in September 1951 of Professor Poulsen's preliminary communication the question of the continued use in its accustomed sense of the generic name *Olenus* Dalman, [1827] (Class Trilobita), was allotted the Registered Number Z.N.(S.) 623.

3. Publication of the present application : The present application was sent to the printer on 30th November 1955 and was published on 12th June 1956 in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Poulsen, 1956, *Bull. zool. Nomencl.* **12** : 3—13).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 12th June 1956 (a) in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Poulsen's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general serial publications and to three palaeontological serials in Europe and America.

5. Support Received : Five communications in support of the present application were received, of which one was communicated by two specialists, four as the result of the publication of the application in the *Bulletin of Zoological Nomenclature* and the subsequent issue of Public Notices in regard thereto and one from a specialist who prior to the publication of this case had been in communication in regard to it with Professor Poulsen. Of the six specialists concerned two were resident in Germany ; one in Norway ; one in the United Kingdom and two in U.S.A. The communications so received are reproduced in the immediately following paragraphs.

6. Support received from G. Henningsmoen (Paleontologisk Museum, Universitetet i Oslo, Norway) : On 13th October 1955 Dr. G. Henningsmoen (*Paleontologisk Museum, Universitetet i*

Oslo, Norway) addressed the following note to the Office of the Commission in support of the present case (Henningsmoen, 1956, *Bull. zool. Nomencl.* **12** : 26) :—

I would like to inform you that I fully support Dr. Poulsen's proposal for preserving the name *Olenus*.

7. Support received from H. B. Whittington (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) : On 30th July 1956 Dr. H. B. Whittington (*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 a number of cases recently published in the *Bulletin of Zoological Nomenclature* (Whittington, 1956, *Bull. zool. Nomencl.* **12** : 253) :—

I write to express my support for the following proposals :— *Protopeltura*, *Olenus* and *Paradoxides*, and *Cryptonymus*. I believe the actions suggested in each case will be welcome and will promote stability in nomenclature.

8. Support received from Rudolph Richter and Emma Richter (Forschungs-Institutes und Natur-Museum Senckenberg, Frankfurt a. M., Germany) : On 30th July 1956 Dr. Rudolph Richter and Frau Emma Richter (*Forschungs-Institutes und Natur-Museum, Frankfurt a. M., Germany*) addressed the following letter to the Office of the Commission in support of several cases recently published in the *Bulletin*, among which was the present case (Richter (R.) & Richter (E.), 1956, *Bull. zool. Nomencl.* **12** : 255):—

Für den Fall, dass es den betressenden Anträgen helsen kann, möchten wir Ihnen mutteilen, dass wir sie im Interesse der Stabilität der Nomenklatur nachdrücklich unterstützen.

Es handelt sich um folgende Anträge : *Paradoxides*, *Asaphus*, *Trinucleus* and *Cryptonymus*.

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9. Support received from B. F. Howell (Princeton University, New Jersey, U.S.A.) : On 7th August Dr. B. F. Howell (*Princeton University, New Jersey, U.S.A.*) intimated his support for the present case as follows (Howell, 1956, *Bull. zool. Nomencl.* **12** : 256) :—

I am heartily in favor of the action which Dr. Poulsen recommends. I hope that the Commission will act favorably on his proposal.

10. Support received from C. J. Stubblefield (Geological Survey & Museum, London) : On 17th August 1956 Dr. C. J. Stubblefield (*Geological Survey & Museum, London*) sent the following note of support for the present case to the Office of the Commission (Stubblefield, 1956, *Bull. zool. Nomencl.* **12** : 256) :—

I support the proposal that the two well-known generic names *Olenus* Dalman [1827] and *Paradoxides* Brongniart, 1822, should be validated so that they may continue to be used in the sense that they are customarily employed. To discard one or the other would cause immense confusion.

11. No objection received : No objection to the action proposed in the present case was received from any source.

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

12. Issue of Voting Paper V.P.(57)1 : On 22nd January 1957 a Voting Paper (V.P.(57)1) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822, as set out in Point (1) to (7) in paragraph 15 on pages 11 to 13 of Volume 12 of the *Bulletin of Zoological Nomenclature*" [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Opinion*].

13. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 22nd April 1957.

14. Particulars of the Voting on Voting Paper V.P.(57)1 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)1 was as follows :—

- (a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

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

- (b) *Negative Votes :*

None ;

- (c) *On leave of Absence, one (1) :*

Bradley (J.C.) ;

- (d) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

- (e) *Voting Papers not returned :*

None.

15. Declaration of Result of Vote : On 24th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)1, signed a Certificate that the Votes cast were as set out in paragraph 14 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

16. Adjustment of the form of the decision to be recorded in regard to the family-group name "Paradoxiden" Emmrich, 1844 : When the stage was reached for the preparation of the Ruling to be given in the *Opinion* embodying the decision taken by the Commission by its vote on Voting Paper V.P.(57)1, consideration was given by the Secretary to the question of the form to be adopted for recording that part of the decision which related to the rejection of the family-group name PARADOXIDEN Emmrich, 1844, as being a name given to a nominal family-group taxon based on a misidentified type genus. As a result, Mr. Hemming on 7th September 1957 executed the following Minute giving directions as to the action to be taken in this matter :—

Form to be adopted for recording the decision taken by the International Commission in regard to the family-group name "Paradoxiden" Emmrich, 1844 by its vote on Voting Paper V.P.(57)1

By FRANCIS HEMMING, C.M.G., C.B.E.
(Secretary to the International Commission on Zoological Nomenclature)

In Application Z.N.(S.)623, Professor Christian Poulsen (*Copenhagen*) asked the International Commission to take certain action under its Plenary Powers for the purpose of maintaining existing practice in the use of the generic names *Olenus* Dalman and *Paradoxides* Brongniart (Class Trilobita). Among the objects of that application was that action should be taken to secure that the family-group name for the second of the above genera should be PARADOXIDIDAE (correction of

PARADOXIDES) Corda, 1847. For this purpose it would be necessary for the Commission to give a Ruling rejecting as unavailable the earlier family-group name PARADOXIDEN Emmrich, 1844, as being based on a misidentified type genus.

2. There being no other means available at that time, Professor Poulsen asked that a Ruling in the above sense should be given by the Commission under its Plenary Powers. Since the submission of Professor Poulsen's application the general question raised above has however been the subject of a decision which has been promulgated by the Commission as *Declaration 28* (1956, *Ops. Decls. int. Comm. zool. Nomencl.* **14** : xi—xxiv), under which it has become the duty of the Commission, in a case such as that presented by the name PARADOXIDEN Emmrich being presented to it, to give a Ruling on the question whether the family-group name in question was in fact a name based upon a misidentified type genus. The above *Declaration* provided further that, where the Commission gave a Ruling that a given family-group name had been so published, that name was to be rejected as possessing no status under either the Law of Priority or the Law of Homonymy.

3. Accordingly in the case of the name PARADOXIDEN Emmrich, the object sought by the applicant is obtainable under the provisions of *Declaration 28* without recourse by the Commission to its Plenary Powers. In these circumstances I now as Secretary hereby direct that, when the Ruling giving effect to the decision taken by the Commission on Voting Paper V.P.(57)1 is prepared, the portion of that decision relating to the rejection of the family-group name PARADOXIDEN Emmrich, 1844, be drawn as a decision taken under *Declaration 28* and not under the Plenary Powers, the use of those Powers not being necessary in view of the adoption of the above *Declaration*.

17. Preparation of the Ruling given in the present "Opinion" :
On 9th September 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 Commission in its vote on Voting Paper V.P.(57)1, subject, in the case of the portion of that proposal bearing the number (1)(b) (proposal relating to the rejection of the family-group name PARADOXIDEN Emmrich, 1844), to the decision so taken being recorded as having been taken under the provisions of *Declaration 28* and not, as originally proposed, under the

Plenary Powers, this adjustment having been made in compliance with the directions given in the Minute executed by the Secretary on 7th September 1957. The text of the Minute here referred to has been reproduced in paragraph 16 of the present *Opinion*.

18. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Entomolithus Gesner, 1758, *Tract. Petrif.* : 57

Entomolithus Linnaeus, 1759, *K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19

Entomostracites Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 25

gibbosus, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 39

Olenus Dalman, [1827], *K. Vetensk.-Akad. Handl.*, Stockholm **1826(1)** : 150

Olenus Dejean, 1835, *Cat. Coléopt. Coll. Dejean* (1835 Ed.) : 439

Olenus Thomson, 1857, *Arch. ent. Paris* **1** : 157

Parabolina Salter, 1849, *Mem. geol. Surv. U.K.*, Figures, Decade **2** : 2, pl. ix

Paradoxides Brongniart (A.), 1822, in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31, 30

Paradoxides Motschulsky, 1851, *Bull. Soc. imp. Nat. Moscou* **24(2)** : 510

paradoxissimus, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 34

Paradoxites Goldfuss, 1843, *Neues Jahrb. Min.* 1843 : 347

paradoxus, *Entomolithus*, Linnaeus, 1759, *K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19, fig. 1

spinulosus, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 38

tessini, *Paradoxides*, Brongniart (A.), 1822, in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31

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

For <i>Paradoxides</i>	Barrande, 1852, <i>Syst. silur. Centr.</i>
Brongniart, 1822 :	<i>Bohême</i> 1 : 362

20. 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 <i>Entomostracites</i>	Poulsen, 1956, <i>Bull. zool. Nomencl.</i> 12 : 8
<i>paradoxissimus</i>	
Wahlenberg, [1821]	

21. The following are the original references for the family-group names placed on the *Official List* of valid family-group names and on the *Official Index* of invalid names of that category by the Ruling given in the present *Opinion* :—

OLENIDAE Burmeister, 1843, *Die Organisation der Trilobiten*, Berlin : 47

PARADOXIDEN Emmrich (H.[F.]), 1844, *Zur Naturgesch. Trilobiten* : 17

PARADOXIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PARADOXIDIDAE)

PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847, in Hawle (I.) & Corda (A.J.C.), *Prodrom Monogr. böhm. Trilobiten* : 11

22. 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.

23. The present *Opinion* shall be known as *Opinion* Four Hundred and Ninety-Six (496) of the International Commission on Zoological Nomenclature.

DONE in London, this Ninth day of September, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING



International Commission on Zoological Nomenclature. 1957. "Opinion 496 Use of the Plenary Powers to secure the continued use in their accustomed sense of the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822 (class Trilobita)." *Opinions and declarations rendered by the International Commission on Zoological Nomenclature* 17, 323–348.

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