ZOOLOGICAL NOMENCLATURE : ARTICLE 25

SIR,—The object of the present note is to elicit the views of zoologists on the question whether it is desirable to maintain or to modify the provision in the *Règles* that a trivial name published in a specific synonymy thereby acquires rights under the Law of Priority as an objective synonym of the name of the nominal species in the synonymy of which it was so published and accordingly (*a*) is available to become the valid name of the species in question if later it is found that the earlier name in the synonymy of which it was published is invalid as a junior homonym of some other name consisting of the same word, and (*b*) renders invalid as a junior homonym any later different use of the same specific trivial name in combination with the same generic name.

The reason why this question is brought forward at the present time. As Secretary to the International Commission on Zoological Nomenclature, I have received a letter from a distinguished specialist in vertebrate zoology, urging that the Commission should recommend the Congress to reverse the present rule, on the ground that in his particular speciality the application of that rule leads in certain cases to the result (1) that a trivial name bestowed in manuscript upon a particular specimen but later published by the author concerned for the species represented by that specimen is not available for that species, because in the meantime the manuscript name in question has been erroneously published in the synonymy of some other species, and (2) that, as such publication in a synonymy has been ignored by later authors, confusion would result from the application of the present rule, which he accordingly recommends should be repealed. In the absence of information as to what is the general practice of specialists in relation to the ruling given in *Opinion 4*, it is not possible to form any considered opinion on the question whether particular cases of the kind described above could best be dealt with, and confusion prevented, by the Commission's use of its plenary powers, or whether, on the other hand, the better course would be to secure the approval of the Congress for the repeal of this provision in Article 25. If that course were followed, some use of the plenary powers would, no doubt, also be required to provide a valid standing for trivial names published in specific synonymies and since brought into general use (through the name with which the unpublished name was synonymized, having been found to be an invalid homonym), since, if that were not done, unnecessary confusion and name-changing would result from the proposed amendment of Article 25 although that amendment had, as its express object, the prevention of confusion and unnecessary name-changing as the result of the strict application of the *Règles*.

The origin and present status of the existing rule. The rule that a trivial name published in a specific synonymy acquires availability under both the Law of Priority and the Law of Homonymy in virtue of being so published was first promulgated in 1907 when the Seventh International Congress of Zoology at its meeting held in Boston, Massachussetts, approved *Opinion 4* rendered shortly before (but not until then published) by the International Commission on Zoological Nomenclature. This provision has therefore been part of the international system of zoological nomenclature for over forty years. When in 1948 the Thirteenth International Congress of Zoology incorporated into the *Règles* the rulings in regard to the *Règles* given in *Opinions* previously rendered by the International Commission, it so incorporated the provision now under consideration (1950, *Bull. zool. Nomencl.*, 4, 145–6). This provision will accordingly appear in the text of the *Règles* as amended by the Paris Congress, when that text is published.

The validity of the ruling given in " Opinion " 4 not a relevant issue. The ruling in *Opinion 4* that a trivial name published in a specific synonymy thereby acquired rights under the Law of Priority has occasionally been criticized on the ground that it was inconsistent with the general provisions of Article 25 and was therefore *ultra vires* and invalid. But once *Opinion 4*

had been approved by the Congress (as it was in 1907), the possibility of its being *ultra vires* was no more open to question than that of any Article in the *Règles*. This position was reaffirmed by the express decision of the Paris Congress to include it in the revised text of the *Règles*.

The only issue which remains to be considered is therefore whether the provision in question is in harmony with the general needs of zoologists and palaeozoologists, and, if not, in what direction it is desirable that the International Commission on Zoological Nomenclature should recommend the Fourteenth International Congress of Zoology to amend this provision at its meeting to be held in Copenhagen in 1953.

The present issue in relation to stability in zoological nomenclature. As already noted, the provision with which we are here concerned has formed part of the international system of zoological nomenclature for over forty years. What the Commission needs first to ascertain is what is the general practice of specialists working in each of the various groups of the Animal Kingdom, for clearly the question whether the ruling given in 1907 that a trivial name published in a specific synonymy is to be accepted as possessing rights under the Law of Priority has since been generally accepted or alternatively has been widely overlooked or disregarded is of cardinal importance in any consideration of this question, having regard to the overriding need of avoiding any action which might give rise to instability in zoological nomenclature.

Scope of the present inquiry. In the actual case brought to the attention of the Commission which has given rise to the present inquiry, the problem raised was in relation only to the status of a trivial name bestowed on a specimen in manuscript when the first occasion on which that name is published is in a specific synonymy. It would clearly not be possible to limit any change of the *Règles* to this restricted class of name, for manuscript names have in the past often been published in this way without any indication on the part of the author by whom they were published, whether he was aware that the name in question was still an unpublished manuscript name or whether he believed that that name had already been validly published either by the author by whom the name had been originally proposed in manuscript or by some other author. Any new provision (like the existing provision) would therefore need to apply to all trivial names, when first published in specific synonymies, for it would be wrong in principle and unworkable in practice to devise a provision, the application of which called for a subjective decision on the part of the reviser as to whether an author who published a manuscript name in a specific synonymy was or was not aware that the name which he so published was or was not an unpublished manuscript name previously proposed by some other author. Moreover, a change limited in the foregoing manner, even if that were practicable, would not meet the point which has been raised, for it has often happened that the first time that a manuscript name has appeared in print it has done so as a *nomen nudum* and that it was only when it was next published that it appeared in a specific synonymy. It seems evident therefore that, if any change were to be made in the present rule, it would need to apply to all trivial names first published in specific synonymies ; it would therefore have to cover (*a*) any name originally proposed in manuscript which, when first published, was published in a specific synonymy by the author by whom it had originally been proposed in manuscript ; (*b*) any name published conditionally as a possibly needed *nomen novum* (substitute name) or as an emendation of the trivial name with which it is synonymized.

Need for avoidence of name-changing while the present question is under consideration. In this, as in other cases of a similar kind, it is important that there should be no disturbance in existing nomenclatorial practice while the question of principle involved is under consideration, for premature name-changing of this kind would run counter to the expressed desire of the Congress that all unnecessary name-changing should be avoided.

Questions on which it is desired that specialists should furnish information.

In the light of the foregoing considerations specialists are urged to furnish the Commission with answers to the following questions :—

(1) Do you in your work accept as an available name (that is, as a name possessing rights under the Law of Priority and the Law of Homonymy) a trivial name originally published in a specific synonymy ?

(2) Do other specialists in your field treat such a trivial name in the same way that you do ?

(3) In what branch of the Animal Kingdom are you a specialist ?
Note.—Please answer this question as precisely as possible and indicate also whether you work on living forms or on fossils.

(4) (*To be answered only by those specialists whose answer to Question No. (1) is "yes"*). Do you consider that confusion and name-changing would result in your special field if the *Règles* were altered in such a way as to render unavailable a trivial name published in a specific synonymy ?

(5) (*To be answered only by those specialists whose answer to Question No. (1) is "no"*). Do you consider that confusion and name-changing would result if the present rule that a trivial name published in a specific synonymy thereby acquires availability were to be strictly applied to specific names in your special field ?

Return of replies to the foregoing questions. It is particularly hoped that as many zoologists and palaeozoologists as possible will furnish replies to the foregoing questions ; further, it is hoped that specialists will be good enough, when answering Question No. (4) or, as the case may be, Question No. (5), to cite definite examples of cases where they apprehend that confusion would arise in the circumstances there stated. All replies to the foregoing questions should be addressed to me clearly marked "Z.N. (S.) 372".

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DEPTH OF BURIAL OF SOUTH WALES COALS

SIR,—Mr. Wellman's interesting contribution on the depth of burial of South Wales coals falls into two parts. First he deals with the formula for calculating coal seam volatiles at depth, and this is independent of the second and more speculative part in which he propounds a new variation of the depth of burial hypothesis to explain the devolatilization of these seams.

Workers on devolatilization formulae would be well advised to heed Wellman's statement that "for practical purposes in order to calculate the rank of coal at depth, it is convenient to use a single gradient for the whole of the coalfield". Wellman considers that Trotter's original square-root equation fits the analyses reasonably well, but advances his own logarithmic formula as giving slightly more accurate results. At the time his paper went to press he was apparently unaware of the exponential equation for South Wales coals (Trotter, *Geol. Mag.*, 1950, p. 196) which is a blood relation of his formula.

In the speculative part of his paper, Wellman has postulated two devolatilizations for South Wales coals, (*a*) a devolatilization on the South Crop of the coalfield which is considered to be due to burial by the admittedly thick Coal Measures sediments of that area and (*b*) a second and later devolatilization thought to be due to burial by post-Carboniferous sediments which are considered to thicken northwards so as to reach a thickness of about 15,000 feet, giving an overall thickness of about 18,000 feet over the northern fringe of the anthracite field. The combined effect of both devolatilizations