

reads: "Toute faute grammaticale doit être rectifiée." This report was to have been presented to the Cambridge Congress in 1898, but it was not received, and a new report was later prepared by a commission enlarged to 15 members. When the Rules were published in the proceedings of the Berlin Congress of 1901 the article about orthography had been changed for one worded in much the same form as Article 19 of the present code. In its French wording the article of the Berlin Congress reads: "L'orthographe originelle d'un nom doit être conservée telle que son auteur l'a donnée, à moins qu'il ne soit évident que ce nom renferme une faute de transcription, d'orthographe ou d'impression."

The Code of Nomenclature adopted by the American Ornithologists' Union¹¹ deals with the subject of orthography in a very definite way. It is stated that the words used as names of genera and subgenera are of no definite construction, and are not to be rejected for faulty construction; and it is remarked that all that relates to grammatical and philological proprieties is not necessarily pertinent to zoological nomenclature. Variants of names resulting from emendation by "purists" are considered untenable, and a canon of the A. O. U. Code directs that the original orthography of a name is to be rigidly preserved unless a typographical error is evident, and with the exception that certain changes may be made in the termination of specific names. This rigid position is that taken by those who have expressed the first point of view considered in this article. But whereas this position has firm support, if not a source, in the A. O. U. Code, and in other sets of regulations adopted by limited groups of zoologists, its proponents often state or imply that the International Rules of Zoological Nomenclature constitute their authority. Whether or not that is now so is a question for the International Commission to decide; careful study of the record does not, it seems to me, sustain the interpretation.

Strict application of priority in orthography, good or bad, without regard to any philological or other consideration, could result in changes in the customary spelling of such names as *Ancylostoma* (originally *Agchylostoma*, but now placed in emended form in the Official List of Generic Names); *Trichomonas* (originally *Tricomonas*, but favored by the Commission in emended form); *Amoeba* (originally *Amiba*); *Chlamydomonas* (originally *Chlamidomonas*); *Condyllostoma* (originally *Kondyliostoma*); *Haplosporidium* (originally *Aplosporidium*); *Strombidium* (*Strombidion* having page priority in the original publication); *Liponyssus* (originally *Liponissus*);

and, one may add, *Phlebotomus* (originally *Flebotomus*).

Would it be unreasonable to consider that, in following the recommendations under Article 8, a and b of the International Rules of Zoological Nomenclature, the Greek substantives or compound Greek words that we are authorized to take as generic names *are* those names? Then the necessary transliteration from the Greek alphabet to the Latin alphabet may be regarded as a second step, which follows selection of the original. If in that step an error of transcription (*seu* transliteration) is made, resulting in something that does not correspond to the original word, restoration of the original is appropriate to the most rigid insistence on priority. It must be plainly evident in the original publication what the original word is; that may be stated, but if not, in such cases as *φλεβοτόμος* it is also sufficiently clear. If a Latin word, a patronymic or a geographical name is selected, and an error is made in copying that word, it seems obvious that it is an error of transcription.

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INCREASED CONTACT OF YOUNGER AND OLDER INVESTIGATORS IN RESEARCH LABORATORIES

DR. SEASHORE'S¹ timely proposal that more extensive facilities be made available to retired scientists is to be applauded. One aspect or rather one possible outgrowth of such a program deserves emphasis. Even if the older investigators continue their work, much is lost if they are no longer in contact with students. In many research institutions where increasing numbers of scientists might gather to continue their work, there is no student body. When there are no young investigators to pick up and carry on the numerous possibilities that develop from each established researcher's work, many ideas and techniques are lost.

From the point of view of the beginning investigator, the loss of contact with specialists is real and personal. More than ever, with the increasing complexity of special lines of investigation, students will want to amass a repertory of techniques before launching upon their own independent researches. Others, at some point in their work, will find a need for a new approach, whether it be via different methods or different ideas. There is an enormous loss of efficiency if each must seek out for himself what fragments he can by a laborious search of the literature or an occasional inquiry by letter. This is time-consuming

¹¹ New York, Amer. Ornith. Union, 1908.

¹ SCIENCE, 100: 218, 1944.

and often fruitless. Negative results are rarely to be found, and the literature could not hold the myriad details of procedure and the rich flow of ideas that pass continuously between investigators working together.

The advantage is not one-sided. The younger investigators can carry on with dispatch those lines of research too numerous, too tedious or too strenuous for the senior scholars. We hope, too, that the students would bring with them a vitality and interest that would stimulate their teachers.

This program is definitely not conceived as a make-work or a post-war employment project, but it could at present serve effectively in reestablishing young scientists released from the armed forces. In a research-saturated environment they can more quickly catch up with new trends and suffer less from the incubus of forgotten techniques and unread literature. With particular regard to scholarships for returning service men, such a program is already under consideration for the Marine Biological Laboratory at Woods Hole. Here is an ideal situation for the biologist returning to take up individual research. Among the many investigators he could find an inexhaustible fund of information without being hampered by direct supervision. Others will prefer to work in some unified research project or along with some established investigator.

For the future, however, a plan to increase special research training must include the more normal trend, with funds and facilities continuously available, particularly to post-doctorate students and young instructors. Obviously this will require not only cooperation of research foundations and scientific institutions, but also a willingness of college administrations to allot adequate leave to the younger members of the faculty. They would all profit, not only from the heightened scientific stature of those trained, but more immediately from the energy and originality of youth.

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TRANSMISSION OF *TRYPANOSOMA EQUIPERDUM* TO THE DUCK

A HIGH degree of specificity for certain hosts is recognized for many parasites. To test the possible transmission of a mammalian parasite to an avian host, mouse blood heavily parasitized with *Trypanosoma equiperdum* was injected intravenously into week-old ducklings. The parasite dose in each case was approximately 500 million organisms per kilo. Four groups of ducks followed for 8 to 12 days showed no microscopic evidence of parasites surviving in the peripheral blood. Two ducks followed for a longer time died on the 14th and 15th day, respectively. The latter showed a high parasitemia of very

active organisms. These parasites appeared morphologically the same as those in the mouse. Five mice inoculated with blood from the duck developed fatal parasitemias on the 4th post-inoculation day.

Ten one-week-old ducks were inoculated intravenously and followed for a period of 18 days. Parasites could not be found in the peripheral blood by the 3rd day but reappeared in two birds by the 10th day. Fatal parasitemias developed in these on the 12th and 14th days. Blood from the 8 surviving ducks, showing no parasites after a careful search, was injected intraperitoneally into mice. All mice developed fatal parasitemias by the 8th day, showing all ducks to be harboring the parasite.

The implications of these findings as to possible avian reservoirs for similar mammalian parasites is obvious.

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CRASPEDACUSTA IN MISSISSIPPI

ON August 14 numerous fresh-water medusae were observed in a concrete pool on the campus of Belhaven College in the city of Jackson. In early morning and late afternoon they were so abundant that the water at the west end of the pool was white. Specimens were collected at regular intervals and placed in large and small aquaria in both the Millsaps and the Belhaven laboratories. Some were preserved for further study. They disappeared from the pool on August 31 and from the aquaria five days later. Many of them did not mature.

The pool is 30 × 50 feet and is about 3 feet deep. It is supplied with water from the city main, and its water is lost only by evaporation. The flora of the pool consists of water lilies, Elodea and an abundance of algae on the sides and on the surface of the "ooze" at the bottom. Among the algae were numerous ciliates, rotifers, oligochaetes, nematodes, Bryozoa and flatworms.

The size of the medusae varied from 0.4 mm (youngest) to 10 mm in diameter. Numerous examinations revealed that all were males. The gonads of sexually mature forms varied in size, but all were very small after the spermatozoa were discharged.

The hydroid stage was found in scrapings of algae from submerged flower pots and from stems and leaves of water lilies, dead or alive. Hydroids were most abundant on small dead stems, but none grew on pine needles. When expanded they were 1.5 mm long and 0.2 mm in diameter. In the laboratory they produced medusoid buds until September 2.