

or old books"; but they must wonder what society is charged with the duty of "encouraging" publishers to keep other books up to date. Should we not have a society expressly devoted to the stimulation of lazy authors and especially publishers? Any readers of the weekly lists of new books and new editions will readily see that the easy-going New York publishers need to be reminded that they must keep their books "up to date in all scientific and pedagogical points." Those of us who are interested in physiology and hygiene for schools are so altruistic that we want somebody to "encourage" the authors and publishers to keep other kinds of books up to date.

3. The note of approval by "some well-known specialist in physiology and some well-known educator" is a vast improvement over the former "endorsement" by a committee among whose members there were no well-known specialists in physiology or education. At first the change looks hopeful, for many books published with the old endorsement would never be approved by any well-known specialist in physiology who was also an expert in public school education. But any hopes of a new order of things which may be raised by paragraph 3 in the letter above are dissipated by the next paragraph, in which publishers are definitely informed that "any scientists or educators acceptable to Mrs. Davis and her counsellors" may be considered "well-known specialists in physiology" competent to write an approving preface for new text-books. This *may* work satisfactorily in practise; but before becoming too optimistic we want to see the list of specialists who might be "acceptable" to Mrs. Davis. How many members of the American Society of Physiologists, the American Society of Zoologists, and the American Society of Naturalists will be on the "acceptable" list, unless they first pledge themselves to views also "acceptable"? Will members of these societies be able without special instructions to judge concerning the "high and satisfactory standard" so that publishers may be sure of avoiding the financial loss and prestige which will follow "public disapproval"? It seems

clear that publishers must make some careful diplomatic moves before they venture to print a manuscript under the advice of "well-known specialists in physiology." They may save themselves a lot of trouble by first getting a list of the "acceptable" men of science of the first rank. It can not be long enough to be cumbersome for office use.

The letter above is worth reading carefully. It indicates that the old order of things in "temperance physiology" still attempts to continue. Probably most readers of this journal believe in "presentation of the unbiased truth" concerning alcohol and narcotics and as teachers would insist upon having books which tell the essential truth so far as it has been demonstrated; but few indeed must be the readers who do not recognize the brazen effrontery of the letter above. Between the lines it reads that our well-known specialists in physiology and our educators are such incompetents that their books and even their written approval of books by others must not be published before they have been adjudged sane, satisfactory and acceptable. Truly this is an interesting footnote to the most astounding chapter in the history of American education.

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THE TYPES OF THE NORTH AMERICAN GENERA OF BIRDS¹

Much of the chaos in generic nomenclature which has become intolerable to the systematist of to-day has been brought about by the failure of many writers to explain by what process they have determined the types of old polytypic genera. Had they been more explicit upon this subject we should have been able long ago to see the weaknesses in our codes and should have abandoned methods which were neither definite nor final in their operations.

The recent paper by Dr. J. A. Allen on the "Types of the North American Genera of

¹ *Bulletin American Museum Natural History*, Vol. XXIII., Article XVI., pp. 279-384, April, 1907.

Birds" is therefore especially welcome, as it throws a flood of light upon a hitherto obscure subject and shows us the possibilities of the various methods of determining genotypes. The presentation in concise form of the original basis upon which each genus was erected will be exceedingly useful to the systematic ornithologist, but Dr. Allen's conclusions with regard to the types of many of the older polytypic genera will hardly be accepted since he has not followed any one method consistently in his determinations; and consistency is absolutely essential in work of this sort. He tells us that "from the standpoint of elimination" his results agree with those given in the A. O. U. check list in all but four instances.

A careful study of his text, however, shows that he uses "elimination" in a surprisingly broad sense and that his types are really variously determined by "elimination"; "subsequent designation"; "general consent," and "restriction." Any one of which used throughout would have materially increased the number of changes necessary in the check list. Frequently two methods are applied to the same case with different results and Dr. Allen accepts one method in one instance and another in the next.

For example,

Pelecanus, p. 301.

Type designated by Gray, 1840—*onocrotalus*.

Type by elimination—*aquila*.

Conurus, p. 335.

Type designated by Gray, 1841—*leucophthalmus*.

Type by elimination—*carolinensis*.

Gray's designation is accepted by Dr. Allen in the first instance and elimination in the second, and, in both, his types agree with the check list. Obviously such choice is unwarranted; one method or the other must be used throughout.

In other cases only one method is mentioned while another method would give a different result, viz.:

Passerina, p. 357.

Type by elimination—*nivalis*.

Alca, p. 293.

Type by elimination—*torda*.

In both these cases Gray designated other species as type in 1840, but his designations so frequently accepted by Dr. Allen in preference to elimination are here completely ignored.

Many of Dr. Allen's eliminations, moreover, would yield entirely different results, were all the involved genera considered. For example: *glacialis*, given as the type of *Fulmarus* by elimination, was removed from that genus as the type of *Rhantistes*, 1829, and *garrulus*, given as type of *Ampelis* by elimination, was removed as the type of *Bombicivora*, 1815.

And so in many other cases critical genera are omitted from consideration.

The recent action of the American Ornithologists' Union and the Nomenclature Commission of the International Zoological Congress in repudiating the elimination method has probably forever removed this "bone of contention" from consideration.

There are left, as stated recently by President Jordan, two methods of type fixing, either of which will yield definite and final results—the first species rule and type by subsequent designation. By either method some fourteen changes will have to be made in the genera and subgenera of the A. O. U. check list, and in determining just what they are Dr. Allen's paper will be a valuable aid.

In this connection and with the idea of increasing its usefulness it seems desirable to call attention to some errors in quotation, etc.—inevitable in a work of this scope. The type of *Daption* will be found to be designated in the original publication, while that of *Thalassens* designated by Gray in 1840 was *cantiaca*, not *caspia*. Gray, moreover, did not designate a type for *Herodias* in 1840, and in 1841 selected *garzetta*, not *egretta*. The type of *Anous* which he selected in 1840 was not *Sterna niger* Stephens (= *S. stolidus* L.) but *S. nigra* Linn. (= *Hydrochelidon nigra*). The genera *Dendragapus*, *Hydranassa* and *Cistothorus* are polytypic, not monotypic, as indicated.

Dr. Allen gives 415 instead of 435 as the

number of genera and subgenera in the check list, but this is evidently a pure *lapsus*, as only eleven are omitted in his paper, viz., *Endomychura*, *Cymochorea*, *Phæbastria*, *Palassicarbo*, *Rhyacophilus*, *Uranomitra*, *Burrica*, *Chelidonaria*, *Pachysylva*, *Myobius* and *Neocorys*.

WITMER STONE

SPECIAL ARTICLES

SOME OLD-WORLD TYPES OF INSECTS IN THE MIOCENE OF COLORADO

THE work of the past summer at Florissant has yielded us a large collection of fossils from the Miocene shales. Most of the material awaits examination; but a few things of unusual interest have been examined, and these have been found to include some forms allied rather to those of the Old World than to those now inhabiting this continent. A brief notice of these is now given. The specimens themselves were exhibited at the recent Zoological Congress in Boston.

DIPTERA

Glossina oligocena (Scudder)

A very good specimen, found at Station 14 by Mr. Geo. N. Rohwer. The mouth-parts are preserved, as also the body, wings and legs, all agreeing so well with the modern tsetse flies that generic separation is impracticable. The genus *Glossina* is to-day confined to Africa, and although placed by Austen in the Muscidae, is a very peculiar type, better regarded as belonging to a distinct family Glossinidae. The fossil species is not new, but was described by Scudder as *Palæstrus oligocenus* in 1892,—a supposed new genus of Cestridae. Scudder's type, which has been compared with the new specimen, lacked the head and other important parts, otherwise its true position would certainly have been recognized.

The former existence of a tsetse fly in America is of particular interest as having a possible connection with the disappearance of some of the Tertiary Mammalia, as Professor Osborn had suggested.

HYMENOPTERA

Perga coloradensis sp. nov.

A good specimen from Station 14 (W. P.

Cockerell). A large sawfly, about 27 mm. long and very robust; referable to the Australian genus *Perga*, and similar to *P. schiodtii* Westwood, from New South Wales, but larger, the antennæ longer and with a larger club (length of club, 3 mm.), stigma much more slender, virtually rudimentary, an interval of more than 1 mm. between the basal and cubital nervures at their place of approximation, and the scutellum and prothorax dark like the rest of the thorax. The anterior wing is 20 mm. long, and the basal nervure meets the transverso-medial. Konow makes the tribe Syzygoniides to include two Australian genera (with thirty-seven species between them) and two Brazilian genera (with three species between them). The fossil is clearly of the Australian, not the Brazilian, type, suggesting that the route of migration was a northern one, *via* Asia.

NEUROPTERA

Halter americana sp. nov.

A wonderfully preserved example with the wings spread, from Station 13 B (S. A. Rohwer). The anterior wings are clear hyaline, 31 mm. long, with the venation as usual in the genus; hind wings (as in all the Nemopteridæ, to which family it belongs) very long and narrow, length 46 mm., with an apical fiddle-shaped expansion, which is dark colored. The Nemopteridæ are to-day confined to the Old World, except a single species of *Stenorhachus* found in Chile. The Florissant insect is not of the Chilian genus, but belongs to that section of *Halter* which includes the Persian *H. extensa* (Oliv.). In *H. extensa* the black area of the hind wings is broken into two, whereas in the fossil it is solid and continuous. The persistence of such an extremely peculiar type through such a long time and such migrations indicates a remarkable degree of stability.

Panorpa arctiiformis sp. nov.

Station 14 (W. P. Cockerell). A spotted species, looking like an Arctiid moth; wings about 13 mm. long. Close to *P. rigida* Scudder, already described from Florissant, but larger, with the third band (the last before the dark apex) much broader. Among the living