

of physics in the academic department. Dr. Nichols will at the close of the present academic year have served as president of Dartmouth College for seven years, having previously been professor of physics at Colgate, Dartmouth and Columbia. In accepting the resignation the trustees of Dartmouth College write:

It had been our hope that Dartmouth College might long continue to enjoy your leadership. Yet we can but recognize that the sacrifices which you have already made deserve worthier recognition than the demand that you continue them at serious cost to your own well-being. In the chosen field of science to which you are about to return you will carry our sure expectation of great accomplishment and added honors; but more especially you will carry our warm personal affection, the outgrowth of seven years of intimate fellowship in a common cause.

PROFESSOR T. W. GALLOWAY, Ph.D., who has occupied the chair of biology at James Millikin University at Decatur, Ill., since the establishment of that institution in 1903, has been appointed professor of zoology at Beloit College, Beloit, Wisconsin. A. A. Tyler, Ph.D. (Columbia, '97), for some years professor of biology in Bellevue College, Omaha, Nebraska, has been appointed to the chair of biology at James Millikin University, to succeed Dr. Galloway.

At Harvard University James Sturgis Pray, of Cambridge, has been elected as Charles Eliot professor of landscape architecture, succeeding Frederick L. Olmsted, resigned and Robert W. Lovett, of Boston, as Brown professor of orthopedic surgery.

DISCUSSION AND CORRESPONDENCE

GENUS AND SUBGENUS

TO THE EDITOR OF SCIENCE: I have read with interest the discussion of the genus in taxonomy which has been running in recent numbers of SCIENCE. I am especially interested in Dr. Allen's condemnation as "intolerable" of "the use of both the generic name in the broader sense, and the subgeneric name (in parenthesis) in incidental references." Emphasizing the last three words of the quotation,

one may endorse Dr. Allen's condemnation. But I believe the practise of retaining old genera, except in cases in which they express false concepts of relationship, is often a good one, and that newly discerned natural groups of species within the old genus may better be treated as subgenera.

I have recently reviewed the well-known genus *Salpa* and have had to recognize ten subdivisions in order to express the major groups before coming to species distinctions. It seemed a pity to discard the old genus name *Salpa*. I therefore retained this and classed the ten subdivisions as subgenera, though, if one wished to do so, he could thoroughly justify them as genera. The special student of the *Salpidae* will bear in mind the subgeneric names and very likely will use them in highly special papers, *e. g.*, *Thalia democratica*, *Ritteria retracta*, *Apsteinia punctata*, etc. But in general reference all or any of these would be *Salpa*.

We must recognize numerous supra-specific subdivisions of many old genera and these must be named, but let the broader old generic name be the one in use except when one desires to call attention to the diversities emphasized by the subgeneric names. In the latter case, at the risk of Dr. Allen's condemnation, I would use parenthetically the subgeneric name also. This is a bit awkward, but such minutely distinctive terminology is not so frequently needed. Using the broader generic name merely refuses to introduce unnecessary reference to subgeneric classification. When this is germane to the discussion, of course introduce it. But let us not insist on always dragging in the whole subject in all its intricacies when by so doing we merely distract attention from what we are saying.

In ordinary reference to squirrels it is sufficient to call them *Sciurus*, and the fact that this name so used includes "a score or more of natural groups sharply defined geographically and by minor but not unimportant morphological characters" does not present any argument against such terminology, provided we have at our disposal a subsidiary terminology which can be introduced when the distinctive

tions between the lesser natural groups are relevant to the subject under discussion.

It is difficult to see, in the case of *Sciurus*, or any other group, that we are any better off when we have divided all our species into numerous geographical (and other) species, and have called the old species genera, of course changing the names in the process, than we are when we retain the old species, calling their now recognized subdivisions subspecies, races and forms, and treat as subgenera rather than genera newly discerned natural groups of species within the old genus. Of course, an old genus, if shown to be unsound and to express a false concept of relationship, will be abandoned.

There is almost no limit to the niceties of taxonomic analysis that might be introduced by breeding of all animal species. Any classification short of one founded on such complete data is conventional. The practical question is, what convention shall we adopt? The one here advocated retains, in so far as they are valid, old genus and species names, using a subsidiary nomenclature of subgenera, subspecies, etc., for the more intimate distinctions.

There are several advantages in this course. It does not change general conceptions of genus and species to something of a different grade of taxonomic value. It keeps us in touch with the zoology of the past (*i. e.*, that of year before last). It saves immense labor in ascertaining what forms are meant by the unfamiliar names when one is reading outside his special field. It ensures more general understanding by one's readers. It does not limit completeness of taxonomic analysis, which is recorded in the subsidiary nomenclature. It confines to the field of the specialist, who uses the subsidiary nomenclature only when writing for his fellow specialist, most of the confusion which comes from the acceptance and later the rejection of unjustified terminology. It thus saves the general literature of zoology from the introduction of an immense deal of confusion.

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NOTES ON THE PERMO-CARBONIFEROUS GENUS
CRICOTUS COPE

IN Publication No. 207 of the Carnegie Institution of Washington I described and figured an ilium from the Brier Creek Bone Bed of the Wichita Formation in Archer Co., Texas (page 161, pl. 22, figs. 2 and 3). This bone was assigned to the genus *Cricotus* because of the relative abundance of the specimens associated with large numbers of the vertebral and intervertebral centra of that genus. The peculiar form of the ilium, unique and previously unknown from the North American beds, makes it of peculiar value in correlating faunas of widely separated localities. In looking over Fritsch's "Fauna der Gaskohle" I find an almost identical form of this bone described and figured for two genera, *Diplovertebron*¹ and *Macromerion*.² Fritsch recognized these elements as ilia but in some figures confuses parts of the bones with the ischia and pubes. It is at once obvious from a comparison of his figures with those published by me that the bones from the two widely separated localities are nearly identical, even to the smallest details. Unfortunately the ischia and pubes of the Bohemian forms were only partly known to Fritsch and he publishes figures of fragments only.

The two Bohemian genera, from the upper Carboniferous, are embolomerous forms and many of the bones figured by Fritsch as associated with the ilia are strikingly like those assigned to *Cricotus* from the Brier Creek Bone Bed, notably the femur and the smaller bones of the limbs. The inter-centra of *Macromerion schwarzenbergii*³ are indistinguishable from those of *Cricotus*. The teeth also show many resemblances in the two types, especially in the manner of fixation to the jaw and the slightly infolded dentine of the base.

There can remain no doubt that the family Cricotidae was present in Bohemia and North America at nearly the same time and was represented by closely related genera. This adds

¹ Bd. 11, Taf. 52, Fig. 2 and Taf. 53, Fig. 14.

² Bd. 11, Taf. 6, Figs. 1, 2; Taf. 67, Figs. 1, 2; Taf. 69, Fig. 1.

³ Taf. 66, Figs. 5a, b, c.