

enhanced by frequent and exact citation of authorities.

Concerning the specific treatment of the large number of topics discussed by Professor Ellwood little can be said in a brief review. Concerning the adequacy of the book as a whole, however, a few words of comment may not be out of place. In the preface Professor Ellwood himself modestly refers to the volume as an introduction to the psychological theory of society. That this correctly characterizes it, however, is true only in the sense that every work that attempts to deal with so large a field must leave the major part of the task undone.

The chief thing, however, which Professor Ellwood leaves undone is to bring abstraction to the test of inductive verification and to make concrete application of theory to history and to current events. To require him to have thus tested and applied all the theories he discusses, however, would be to demand of him the completed results of the task which sociology is just beginning. The fault perhaps lies more with the present status of sociology than with Professor Ellwood. Nevertheless, in the present reviewer's opinion the author could have improved his book very greatly by condensation of abstract discussion, by more frequent appeal to fact and more frequent illustration of the practical value of theory in meeting the broad problems of public policy.

To have systematically reviewed in a single volume, however, the various positions taken by the most important writers on the long list of topics mentioned above is a service; to have done so with the insight and care shown by Professor Ellwood is an achievement.

A. A. TENNEY

COLUMBIA UNIVERSITY

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*A VOTE ON THE PRIORITY RULE BY THE  
AMERICAN SOCIETY OF ZOOLOGISTS,  
CENTRAL BRANCH*

At the April meeting of the Central Branch of the American Society of Zoologists at Urbana, the Committee on Nomenclature in its report to that body requested authority to ask from the membership of the Central

Branch an expression of opinion on the following question: "Do you favor the strict (inflexible) application of the 'priority rule' as the latter is now interpreted by the International Commission on Nomenclature?"

This request was granted by the adoption of the report by the Central Branch on April 5, 1912.

The chairman of the committee then entered into correspondence with the other four members in order to reach an agreement as to the manner of taking such a ballot, and this correspondence was terminated just before the commencement season of 1912, too late for a satisfactory ballot to be taken during that collegiate year.

On September 20, 1912, a letter was addressed to each member of the Central Branch showing the authority under which the vote was taken, quoting the "priority rule" without comment and asking a prompt return of the enclosed ballot in an addressed and stamped envelope furnished with the vote.

Practically a month was given for the return of the ballots, and then the chairman of the committee requested the two nearest members to meet with him at Chicago on October 19 to open the ballots and decide on the form and medium of publication of the result of the vote.

The following members voted in favor of the strict (inflexible) application of the priority rule as now interpreted by the International Commission on Nomenclature:

J. F. Abbott, professor of zoology, Washington University.

C. H. Eigenmann, professor of zoology, Indiana University.

Harrison Garman, professor of entomology and zoology, Kentucky State University; and state entomologist.

Harold Heath, professor of invertebrate zoology, Stanford University.

S. J. Holmes, associate professor of zoology, University of California.

W. J. Moenkhaus, professor of physiology, Indiana University.

S. E. Meek, assistant curator of zoology, Field Museum of Natural History.

Wm. E. Ritter, director, Scripps Institution for Biological Research of the University of California; professor of zoology, University of California.

Alexander G. Ruthven, head curator, Museum of Natural History, University of Michigan.

Frank Smith, associate professor of zoology, University of Illinois.

Harry Beal Torrey, professor of biology, Reed College.

S. R. Williams, professor of zoology, Miami University.

Robert H. Wolcott, professor of zoology, University of Nebraska.

The following members voted against the strict (inflexible) application of the priority rule as now interpreted by the International Commission on Nomenclature:

C. R. Bardeen, professor of anatomy, University of Wisconsin.

E. A. Birge, dean, University of Wisconsin.

H. L. Bruner, professor of biology, Butler College.

C. M. Child, associate professor of zoology, University of Chicago.

W. C. Curtis, professor of zoology, University of Missouri.

S. A. Forbes, state entomologist of Illinois.

T. W. Galloway, professor of biology, Millikin University.

John G. Graham, professor of biology, University of Alabama.

M. F. Guyer, professor of zoology, University of Wisconsin.

C. Judson Herriek, professor of neurology, University of Chicago.

Gilbert L. Houser, professor of animal biology, State University of Iowa.

S. J. Hunter, professor of entomology, University of Kansas.

Lynds Jones, associate professor of animal ecology, Oberlin College.

Charles A. Kofoed, professor of zoology, University of California.

F. L. Landacre, professor of zoology and entomology, Ohio State University.

George Lefevre, professor of zoology, University of Missouri.

E. L. Mark, Hersey professor of anatomy and director of zoological laboratory, Harvard University.

Wm. S. Marshall, associate professor of entomology, University of Wisconsin.

C. E. McClung, professor of zoology, University of Pennsylvania.

Maynard M. Metcalf, professor of zoology, Oberlin College.

Henry F. Nachtrieb, professor of animal biology and head of department, University of Minnesota.

H. V. Neal, professor of biology, Knox College.

James A. Nelson, expert in agriculture, Bureau of Entomology.

C. C. Nutting, professor of zoology, State University of Iowa.

J. T. Patterson, adjunct professor of zoology, University of Texas.

Jacob Reighard, professor of zoology, University of Michigan.

Edward L. Rice, professor of zoology, Ohio Wesleyan University.

Oscar Riddle, research associate, Carnegie Institution.

John W. Scott, assistant professor of zoology, Kansas State Agricultural College.

V. E. Shelford, instructor in zoology, University of Chicago.

A. Franklin Shull, assistant professor of zoology, University of Michigan.

George Wagner, assistant professor of zoology, University of Wisconsin.

L. B. Walton, professor of biology, Kenyon College.

Henry B. Ward, professor of zoology, University of Illinois.

S. W. Williston, professor of paleontology, University of Chicago.

The following members returned their ballots unmarked; one of them without comment, and the other two with comments indicating that they declined to vote on the question:

W. J. Baumgartner, assistant professor and chairman of department of zoology, University of Kansas.

J. B. Johnston, professor of comparative neurology, University of Minnesota.

Frank A. Stromsten, assistant professor of animal biology, State University of Iowa.

#### SUMMARY

In favor of the strict (inflexible) interpretation of the "priority rule".....	13
Against the strict (inflexible) interpretation of the "priority rule".....	35
Total vote .....	48

It thus appears that slightly more than 73 per cent. of the members of the Central Branch of the American Society of Zoologists who voted on the priority rule are opposed to the strict (inflexible) application of the rule as now interpreted by the International Commission on Nomenclature.

#### ANALYSIS OF THE VOTE

The three members of the committee who opened the ballots think it of interest to present the following brief analysis of the vote, based on a division of the voters into classes of voters. The classification of voters is made on the concurrent judgment of the canvassers, and would probably vary somewhat had the selection been made by another committee. It is not likely, however, that the result of the analysis would be materially changed by any one having a somewhat wide acquaintance among the voters.

1st class.—Zoologists that may properly be called non-systematists.

Total number of voters in class .....	25
Number in favor of priority rule .....	3
Number opposed to priority rule .....	22
Majority against rule .....	88 per cent.

2d class.—Systematists in a broad sense. Including those who have had considerable experience in identifying species and some experience in naming and describing new species.

Total number of voters in class .....	23
Number in favor of priority rule .....	10
Number opposed to priority rule .....	13
Majority against rule .....	56½ per cent.

3d class.—Systematists in a strict sense. Including those who have done monographic work in systematic zoology; work that can be regarded as authoritative in its own field. This class is a selected group from the 2d class.

Total number of voters in class .....	7
Number in favor of priority rule .....	3
Number opposed to priority rule .....	4
Majority against rule .....	66⅔ per cent.

The number in this class is so small that it would probably be fair to conclude that the systematists in a strict sense are about equally divided in opinion regarding the priority rule.

#### REMARKS

A space on the ballot headed "Remarks" was utilized by twenty-one of those who voted. An attempt is made below to summarize these remarks:

#### *"Remarks" on Ballots in Favor of Priority Rule*

Three voters believed that the adherence to the rule would be best for future generations of zoologists.

One believes "in the establishment of authority by legislation and not in individual judgment."

One considers adherence to the rule "the only way out of the present confusion of tongues."

One, who votes for the rule, says:

I am strongly in sympathy with what I understand to be the spirit of the "law of priority," but am certain that as it is being applied in the group of organisms with which I am particularly familiar it is producing results exactly the reverse of what, in the spirit of it, it is expected to produce; that is, it is adding to, not diminishing, confusion.

This is one of the voters of the 3d class, as defined above.

#### *"Remarks" on Ballots Opposed to the Priority Rule*

There were four who believed that it should be possible for a committee of experts to modify or make exceptions to the rule.

Four believed that names of long standing and general acceptance should be exempted from the application of the priority rule.

Two believed that a more flexible application of the rule would make for greater convenience. One says:

Nomenclature is a tool, and serves its best purpose when it operates with the greatest convenience. It is certainly not convenient when a name known to everybody as applying definitely to a definite object is changed on the discovery that some long forgotten name has priority.

Another voter voices practically the same opinion.

One is opposed to the strict application of

the rule, but is also opposed to individual action in the matter.

One opposes the rule because "it [opposition to the rule] is the position occupied by practically all of the zoologists of the German Empire."

One votes in the negative because systematists in whom he has confidence complain of the working of the rule.

One, although opposed to the rule, is in favor of "some sound, workable set of rules."

There were two voters who declined to vote because they were not systematists and believed that they should have no voice in the matter.

In summing up it seems evident that an overwhelming majority of the zoologists of the Central Branch are opposed to the strict application of the priority rule; that a clear majority of systematists in a broad sense are opposed to it; and that at least half of the systematists in a strict sense are opposed to it.

The undersigned give it as their personal opinion that the wishes of the non-systematists, users of zoological names, should have some weight in the formulation of rules of nomenclature, as they will certainly have *much* weight in the acceptance of names and their incorporation into the general literature of the science of zoology.

C. C. NUTTING  
S. W. WILLISTON  
HENRY B. WARD

#### SPECIAL ARTICLES

##### FAT DEPOSITION IN THE TESTIS OF THE DOMESTIC FOWL<sup>1</sup>

VARIOUS investigators have concluded that the presence of fat in the interstitial tissues of the primary sexual organs (ovary and testis) was evidence of a functional (secretory) activity of the interstitial cells. This view regarding an internal secretion of the testis was advocated by Ganfini.<sup>2</sup> Whitehead,<sup>3</sup>

<sup>1</sup> Papers from the Biological Laboratory of the Maine Agricultural Experiment Station.

<sup>2</sup> Ganfini, C., "La struttura e lo sviluppo delle cellule interstiziale del testicolo," *Arch. ital. Anat. ed Embriol.*, Vol. I., 1902.

while not committing himself definitely on the point, nevertheless shows that his earlier criticism of Ganfini's theory, on the ground that the fatty substance in the testis had not been shown to be anything other than ordinary neutral fat, was not altogether well taken. Schaeffer<sup>4</sup> makes the presence of fat, as revealed by staining, the chief test of functional interstitial glands in the ovary. One of the present writers in a recent paper from this laboratory<sup>5</sup> has shown that a histological study of the chicken testis gives "no evidence that the fat in the active testis is formed by the interstitial cells." It is further suggested in the same paper that "this fat is being brought to the testis by the general metabolic processes, possibly in connection with sexual activity, just as fat is deposited in the yolk of eggs in the hen."

It seemed desirable to test further, and by direct physiological experiment, this conclusion and suggestion. Particularly information was needed on the following points: (a) Is circulating fat deposited in the testis, as it is known to be in the yolk of developing oocytes? (b) If so, does such deposition depend in any way upon the functional sexual activity of the organ? (c) Is circulating fat deposited in the ovary prior to the time of rapid growth of the oocytes by yolk formation?

To obtain answers to these questions a series of experiments was planned by the writers and carried out last spring. The results are reported in this paper. It is known from the work of Riddle<sup>6</sup> and others that the

<sup>3</sup> Whitehead, R. H., "A Microchemical Study of the Fatty Bodies in the Interstitial Cells of the Testis," *Anat. Rec.*, Vol. 6, pp. 65-73, 1912.

<sup>4</sup> Schaeffer, Anna, "Vergleichend histologische Untersuchungen über die interstitielle Eierstockdrüse," *Arch. f. Gynäk.*, Bd. 94, pp. (of reprint) 1-51, Taf. XVII.

<sup>5</sup> Boring, A. M., "The Interstitial Cells and the Supposed Internal Secretion of the Chicken Testis," *Biol. Bul.*, Vol. XXIII., pp. 141-153, 1912.

<sup>6</sup> Riddle, O., "On the Formation, Significance and Chemistry of the White and Yellow Yolk of Ova," *Jour. Morph.*, Vol. 22, pp. 455-491, 1911.