Review plan of indexing and abstracting to include (1) the species that now have only bionomic value and (2) the entire literature published before 1913, the year in which the *Review* began its appearance.

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SELECTION OF FOOD BY THE CILIATE CHILODON

THE work of Schaeffer[1] indicates that amoeboid protozoa are capable of selecting their food. The same investigator[2] also found that such was the case with the flagellate, *Jenningsia diatomophaga*. However, as stated by Bragg[3] (p. 433), "the ability of a ciliated protozoon to select its food is still open to question." From his own observations, Bragg concludes (p. 441) "that *Paramecium trichium* has a limited ability to select its food, (but) that the individuals vary in the amount of selective action which they show. . . ." Calkins,[4] on the other hand, doubts that the continuously feeding *Paramecium* is capable of exercising any selection.

A pertinent observation in this regard was made by the writer upon the feeding habits of an unidentified species of *Chilodon* (continuous feeder). In water which had been fertilized with 0.45 gram of fish meal per liter, and which contained, in numbers per cubic centimeter, 5,152,000 cells of *Scenedesmus,* 124,000 cells of *Chlamydomonas* and 1,900 *Chilodon,* it was found that the ciliates had gorged themselves upon *Chlamydomonas.* Very few individuals, however, were found to have ingested *Scenedesmus,* and then only sparingly, although these algae were present in much greater numbers. Thus, it would appear that, under these conditions at least, *Chilodon* is definitely capable of selecting its food. The degree of selection was greater than that observed by Bragg for *Paramecium,* although, as indicated by that author, individuals varied in the selective action exhibited.

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THE CHEMICAL ATOMIC WEIGHT OF CARBON

IN the 1937 report[1] of the International Committee on Atomic Weights, the chemical atomic weight of carbon was raised from 12.00 to 12.01. This change was made on the basis of the precision combustions of hydrocarbons by Baxter and Hale,[2] whose result confirmed the higher value indicated by gas density and mass spectrographic evidence. In view of the present interest in the atomic weight of carbon it has seemed advisable to make a preliminary report on a determination of atomic weight of this element by the analysis of benzoyl chloride according to the classical method of titration with silver. So far as we can determine, this is the first time acyl halides have been used for this purpose.

Benzoyl chloride was prepared from purified benzoic acid and phosphorus trichloride. The first of these substances was obtained by the oxidation of toluene with alkaline permanganate and was purified by crystallization from water, and finally by sublimation. Phosphorus trichloride was twice distilled in vacuum in an all glass apparatus and the middle fraction was taken for the preparation. The benzoyl chloride was purified by repeated fractionation in evacuated apparatus constructed entirely of pyrex glass. Samples for analysis, weighing approximately 14 g, were collected in small glass bulbs.

For analysis the carefully weighed sample bulb was broken under a 50 per cent. aqueous solution of pyridine under which conditions rapid hydrolysis of the benzoyl chloride occurred. After the collection of the glass fragments in the usual way, the solution was acidified with nitric acid, and the chloride balanced with pure silver. The endpoint was determined nephelometrically.

The analyses of five samples, covering eight distillations, have yielded a value for the atomic weight of carbon very close to 12.010. Since these samples represent the extreme fractions, it seems unlikely that the final value will deviate greatly from this figure.

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THE PUBLICATION OF TROLAND'S PSYCHOPHYSIOLOGY

THE fourth volume of the series of the late Professor Leonard Troland (Harvard University) covering psychophysiology remains unpublished because the publishers of the earlier volumes feel that they should have a guarantee of about $2,500, to be repaid from sales. One of Professor Troland's colleagues has expressed willingness to put the manuscript into shape for publication, and said: "Troland considered this final volume the final and best statement of his views. None of Troland's other books have been subsidized, and most of them have made money, but I can appreciate the (publisher's) attitude towards the fourth volume in a period like the last three or four years—a

1 Asa A. Schaeffer, *Trans. Tenn. Acad. Sci.,* 1912–13, p. 59; *idem., Jour. Exp. Zool.,* 20: 529, 1916; *idem., Jour. Animal Behavior,* 7: 220, 1917.
2 *Idem., Trans. Amer. Micros. Soc.,* 37: 177, 1915.
3 Arthur N. Bragg, *Physiol. Zool.,* 9: 433, 1936.
4 G. N. Calkins, "The Biology of the Protozoa," p. 607. Philadelphia, 1933.

1 *Jour. Am. Chem. Soc.,* 59: 219, 1937.

2 *Jour. Am. Chem. Soc.,* 58: 510, 1936; 59: 506, 1937.