DISCUSSION AND CORRESPONDENCE

THE ALBATROSS II

THE United States Bureau of Fisheries is directing its scientific investigations more and more to the life histories of the North Atlantic food fishes, and to the fundamental oceanographic factors which govern the abundance and migrations of cod, mackerel, haddock, herring and other species.

This is work which must be done on the high seas, far from land, regardless of stress of weather: often in winter, when the ship "logs up" with freezing spray, when icy instruments numb the hands, when storm, wet and cold severely tax the crews and the enthusiasm of the scientist on board. But it is work of fundamental importance in the biological field. Since the sale of the *Albatross* in 1924, this part of the program of the bureau has been seriously hampered by the lack of a sea-going ship, neither the veteran *Fish Hawk* nor the younger *Halcyon* being safe enough for work on the offshore fishing grounds, or even near shore except in good weather; much less in winter.

All friends of the bureau who were saddened to learn of the passing of the *Albatross,* after her nearly forty years of service, will therefore rejoice to hear that she is to have a worthy successor, in the naval tug *Patuxent,* recently transferred by the Navy Department to the Department of Commerce, for the service of the Bureau, with permission to rename her *Albatross II.*

Albatross II is a first-class iron, sea-going vessel, bringing an excellent war record from the North Sea: 148 feet long; twin screw; with a speed of about thirteen tons, with low coal consumption; a very wide steaming radius; ample deck room for handling winches, nets and trawls; economical in operation. Needing only a small personnel for her operation, she could hardly be bettered for the bureau's work at sea. And her comfortable cabins and roomy laboratory will lighten scientific work on board.

Through the friendly cooperation of the Navy Department, *Albatross II* is now being reconditioned at the Navy Yard at Portsmouth, New Hampshire, the officers and men of the *Halcyon* busily cleaning and painting, while the naval machinists perform such structural repairs and alterations as are needful. At this writing (March 25) she is lurid with red lead, in anticipation of the coat of white, which all the ships of the bureau have worn for so many years.

As soon as practicable she will proceed to Woods Hole, where winches will be installed, and all the other varied fittings and apparatus needed to give her a thoroughly modern equipment, both for fishing experiments of all sorts and for oceanographic work precise enough to meet the most exacting standard.

It is hoped to commission *Albatross II* shortly after July 1, next, under the command of Captain G. W. Carlson, successively master of the fisheries schooner *Grampus* and of the *Halcyon.* For her first summer's work, the bureau plans to extend to Georges Bank and to other offshore grounds the cod-tagging campaign, which has yielded such fertile results in the coastwise waters of Nantucket Shoals and of the Gulf of Maine during the past three years; and to supplement the earlier surveys with a consistent series of oceanographic observations, much needed, for summer and autumn, in just those regions.

In anticipation of the commissioning of *Albatross II, Fish Hawk,* having outlived her usefulness, has been laid up at Woods Hole, and the same fate awaits the *Halcyon.*

Marine biologists, European and American, will join in congratulating the bureau on the acquisition of *Albatross II;* and in expecting from her scientific cruises a broadening of our knowledge of things marine which would not shame her famous namesake.

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SPERMATOGENESIS IN ICERYA PURCHASI—A CORRECTION

IN a recent study of the cytology of hermaphroditism in Icerya purchasi (S. Hughes-Schrader '25)[1] a short account of the spermatogenesis of the rare males of this species was included. The true males were described as diploid in chromosome constitution and as undergoing a perfectly normal spermatogenesis involving two maturation divisions with the reduction of the chromosomes to the haploid number. Breeding experiments under way at the time of publication have since yielded a line in which males preponderate heavily in numbers, and a cytological study of this and other new material with a restudy of the old has demonstrated clearly that I was in error in my first account. I can now state that the true males are in reality constantly haploid in constitution. A detailed investigation of the haploid spermatogenesis based on this material is now in process of publication. The diploid individuals on which my former study of spermatogenesis was based are in reality young hermaphrodites in an unusually male-like phase; a complete study has shown in each case the presence of some oogonial tissue in addition to the testes proper. The spermatogenesis in the testes of the hermaphrodite is only rarely of the type described in my 1925 paper. Normally there seems to be a transformation of a part of the germ cells of the hermaphroditic

[1] Hughes-Schrader, Sally, 1925, "Cytology of Hermaphroditism in Icerya purchasi (Coccidae)," *Zeitschf. f. Zellf. u. mik. Anat.,* B. 2.

gonad to the haploid condition and the further course of spermatogenesis then parallels that of the true males quite closely. A detailed investigation of the conditions here involved is under way.

Breeding experiments have shown further that males may arise from isolated hermaphrodites as well as from those which have been fertilized by true males. From twenty-five broods produced by hermaphrodites which had mated with true males, thirty-nine males and 2,548 hermaphrodites resulted. From sixteen broods produced by hermaphrodites which were self-fertilized only, five males and 1,839 hermaphrodites resulted. These data are exclusive of the aberrant male-producing line mentioned above—an isolated hermaphrodite which gave rise to 117 males and sixteen hermaphrodites. The males are exactly alike in general morphology and cytology whether their origin be from cross or self-fertilized hermaphrodites. Since all the eggs of the hermaphroditic ovary seem to undergo reduction it seems probable that the haploid males result from the occasional development of unfertilized eggs. Accordingly it would appear that the male is not necessary for the production of either male or hermaphrodite, although it may occasionally function in the latter case.

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THE NOMENCLATURE OF ORGANIC COMPOUNDS

ALTHOUGH most of us are opposed to the introduction of foreign words and phrases into the language of science we frequently find ourselves resorting to such where no exact English equivalent exists. The writer has often wondered why American and English chemists have not availed themselves of the convenient French terms "function" and "functional grouping." Mr. W. T. Braunholtz, in his translation of Professor Moureu's excellent book, "The Fundamental Principles of Organic Chemistry," has done this and used the word "function" in place of "group," "radical," "linkage," etc. It would seem to be much simpler to say "ethene function," "carbonyl function," "carboxyl function" and "chlorine function," instead of "ethylene linkage," "carbonyl group," "carboxyl radical," etc., especially since we do not ordinarily speak of the "chlorine radical."

Since the word function itself suggests the chemical behavior of an element or group, it is recommended. It is convenient to speak of "functions containing nitrogen," of "functions containing sulphur," etc. On the whole, the proposed term seems to offer some advantages over the three or four words now used in our text-books.

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DOMESTIC CATS FOR DISSECTION

THOSE who teach comparative anatomy in colleges located in small towns, and sometimes in colleges located in larger cities, will appreciate the difficulties of securing enough cats for large classes. The difficulty became so great in Morgantown, a few years ago, that it became necessary to use rats in place of cats. Any one who has been forced to use the rat for dissection in place of the cat will appreciate the great inferiority of the smaller animal, even with the excellent outline by H. R. Hunt that has recently been published by Macmillan.

We have for the last few years secured all the cats we needed by the following means: Besides taking all cats sent to the laboratory at any time, advertisements to the effect that the department will pay fifty cents each and express charges for live, adult cats are inserted in various papers and bulletins sent to the farmers of the state. Names and addresses of those (boys on the farms, chiefly) sending in cats are kept and at the beginning of the "open season" on cats a circular letter is sent to each of those on the list.

This method not only brings in the cats, whereby the destruction of birds is incidentally reduced, but it saves the trouble that is often caused by local advertising for cats which stimulates the small boy and often the college student to the theft of the pet cats of one's neighbors.

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THE PROPOSED RANSOM MEMORIAL

A PROGRESS report on the B. H. Ransom memorial fund shows the interest that is being expressed in the proposition not only by Dr. Ransom's fellow countrymen but by parasitologists in numerous foreign countries where he was held in high regard. The fund has now reached the sum of $622; of this amount $121 has come from foreign countries. The latest contributions to be received from abroad are from the small country of Roumania, a prominent parasitologist of Bucharest sending his personal contribution and those of the Minister of Agriculture and the members of the laboratory of parasitology of the Faculty of Veterinary Medicine, these making a total of $20.48. A Japanese parasitologist has pledged $25 to the fund while others in Germany, France, Denmark, China, India and Canada have sent $10 or more in each case. Other countries represented are England, Switzerland, Belgium, Sweden and Italy, making a total of thirteen foreign countries.

A large majority of both foreign and American subscribers have voted that the memorial take the form of a money prize or a scholarship in parasitology. Since the fund is still inadequate for either