the larval development of the latter. On the Copepoda he wrote many papers dealing not only with the British species but also with collections sent to him from many other parts of the world. His most important publication on the group was his "British Fresh-water Copepoda", issued by the Ray Society in three volumes (1931-33). In this monograph, abundantly illustrated by his own drawings, he not only described in detail all the British species, with their larval stages where these were known, but also discussed their morphology, classification, distribution and ecology. This work will not soon be superseded as the chief authority on the British species, and may be recommended to young systematists as a model of what such a monograph should be.

Gurney's researches on the larval development of decapod Crustacea began at the Plymouth laboratory of the Marine Biological Association, of which he was a founder member, but were later extended to other and distant seas, partly as a result of his own travels. He took part in the Cambridge Expedition to the Suez Canal in 1924. He worked in 1936 at the Egyptian marine station established by the late Dr. Crossland at Ghardaqa on the Red Sea. In 1935 and again in 1938, in company with his brother-in-law, the late Prof. Walter Garstang, he visited the marine station at Bermuda, where he had a unique opportunity of observing living specimens of the deep-sea fauna. In addition, he reported for the British Museum (Natural History) on the larvæ collected by the *Terra Nova* and the Great Barrier Reef Expeditions and, for the "Discovery" Committee, on the extensive collections from the *Discovery II* voyages. The results of all this work are recorded in a long series of memoirs and are summed up in two volumes published by the Ray Society, a classified "Bibliography" (1939) and "Larvæ of Decapod Crustacea" (1942). Although the general course of the larval development of decapods has been well known for a very long time, there are still remarkably few cases in which the whole sequence of stages is known for a single species. Gurney's work, however, now enables the main features of the series to be defined for a large number of genera in the chief families of the group, and only his diffidence in putting forward any views that might be regarded as 'speculative' prevented him from anticipating conclusions that will doubtless be drawn by others from his data.

Among writings of a less rigidly scientific scope, testifying to the breadth of his interests, mention must be made of his charming little book on "Our Trees and Woodlands" (1947) illustrated by himself. Nor is it irrelevant to remember the large number of young people (not only his Boy Scouts) in Norfolk and elsewhere who owe to him the first stirring of their interest in Nature.

W. T. CALMAN

Prof. Johan Harald Kylin

JOHAN HARALD KYLIN, emeritus professor of botany in the University of Lund, who died on December 16, 1949, in his seventieth year, had done much to earn a lasting name among botanists. He graduated at Uppsala in 1901, took his doctor's degree there in 1907, and was appointed professor of botany in the University of Lund in 1920, a position which he held until his retirement in 1944. Many prominent algologists (Bliding, Levring, Papenfuss, etc.) received part of their training in his department. He spent a considerable part of his vacations at the Zoological Station in Kristineberg, where many of

his researches were carried out. He was for many years editor of *Botaniska Notiser* and of other Swedish publications.

The bulk of Kylin's published work refers to seaweeds, of which he possessed an unrivalled knowledge. His earliest papers, dealing with the marine algæ of the west coast of Scandinavia, had an ecological outlook; but he soon turned his attention to various aspects of the biochemistry of seaweeds, topics which continued to rouse his interest up to the time of his death. The biochemical researches that appeared in the *Zeitschrift für physiologische Chemie* in 1913, 1915 and 1918 laid the foundations for our present-day knowledge and did much to stimulate inquiry into the chemical nature of the cell-walls and of the cell-contents of seaweeds. Other investigations of an analogous kind dealt with the resistance of these plants to low temperatures and to variations in the osmotic pressure of the environment, while a whole series of papers were concerned with the iodine economy of seaweeds.

It is, however, in the domain of algal morphology and taxonomy that Kylin made his greatest contribution. His first major paper in this direction, "Studien über die Entwicklungsgeschichte der Phaeophyceen", which contained, *inter alia*, a detailed account of the development and life-history of *Chorda*, was published in 1918. This was followed in 1923 by the still more comprehensive "Studien über die Entwicklungsgeschichte der Florideen", in which he brought to bear the experience gained during previously published researches on the life-history of species of *Batrachospermum*, *Nemalion*, *Rhodomela*, *Griffithsia*, etc. The 1923 memoir was succeeded by others of equal scope which enabled Kylin to rectify many earlier mistakes and to contribute materially to a better grouping of red seaweeds. They include monographic treatments of Gigartinales and Rhodomeniales and a detailed taxonomic survey of the Delesseriaceae. The volume on the anatomy of the Rhodophyceae contributed to Linsbauer's "Handbuch der Pflanzenanatomie" in 1937 is largely an epitome of Kylin's own observations. Kylin also edited the Rhodophyceae for the new edition of the "Natürliche Pflanzenfamilien", a final contribution of his which is about to be published in Sweden.

In the thirties Kylin returned to the investigation of the Phaeophyceae and particularly of the forms grouped by Oltmanns and the writer as Ectocarpales. These researches, in conjunction with those previously published by Sauvageau, threw much light on the nature of the reproductive processes in this order and clarified many taxonomic difficulties. They led Kylin to lay special stress on the life-cycle in the classification of the Phaeophyceae, the bulk of which he grouped into the series Isogeneratae and Heterogeneratae, according as the life-cycle is isomorphic or heteromorphic. His investigations on brown algæ also led to a very valuable monographic treatment of the Chordariales and to diverse papers dealing with the Fucales, in particular the structure of the spermatozoids.

F. E. FRITSCH

WE regret to announce the following deaths:

Sir James Henderson, formerly professor of applied mechanics, Royal Naval College, Greenwich, on April 7, aged seventy-nine.

Dr. Hugh Robert Mill, known as geographer and meteorologist, on April 5, aged eighty-eight.