

S. Africa owing to substantial expansion in the trawling and inshore fishing fleet. According to the report, the pilchard industry (now estimated to be dealing with about 102,500 tons of pilchard per annum) and the soupfin shark industry, which have both rapidly expanded in recent years, have begun to indicate needs for suitable measures of conservation. The laboratory investigations carried out by the Department include hydrological, biochemical and biological studies and some of the results have been published in the Investigational Reports.

Vitamin A content of the liver oils of the stockfish (*Merluccius capensis*), the Cape spiny dogfish (*Squalus acutipinnis*) and the vaalhaai or soupfin shark (*Galeorhinus zyopterus*) are dealt with by J. A. M. Archer in Investigational Reports, Nos. 9 & 10. Report No. 11 is a study of the food of South African fishes by D. H. Davies with notes on the general fauna of the area giving much valuable information on the food habits of the stockfish which is by far the most important commercial species in South Africa.

N. K. P.

OBITUARY

PROF. AUGUST KROGH

THE death of Prof. A. Krogh which occurred in Denmark in September 1949 has removed from the scientific world one of the most outstanding personalities in the field of comparative physiology. Krogh was born in 1874; he graduated in 1899 and soon made his mark as an original investigator by his Doctorate thesis on the skin and lung respiration in the frog, a work which was the forerunner of a series of brilliant studies in animal physiology. In 1916, he became Professor of Zoophysiology at Copenhagen, when funds were placed at his disposal for the establishment of a laboratory for animal physiology. This institution which he founded and is now world famous had Krogh as its chief till last year when he retired from official life, but not from scientific work to which he was devoted till the last days of his life. After retirement, he set up a small laboratory at his home to study problems concerning insect flight.

Among his numerous scientific achievements may be mentioned the elucidation of the role of capillaries in circulation, more especially the relation of muscular work to the filling of the capillary vessels. This piece of research formed the basis for the award of the Nobel Prize for Physiology and Medicine in 1920. Problems of marine biology, and of respiration and osmoregulation

in animals received his active attention wherein his demonstration that active uptake of ions from the surroundings plays a most important part in the salt regulation of the body fluids of animals deserves special mention. Apart from a large series of original papers, Krogh published important reviews from time to time; his books "Respiratory Exchange of Animals and Man" (1916), "Anatomy and Physiology of Capillaries" (1921&1929), "Osmotic Regulation in Aquatic Animals" (1939) and "Comparative Physiology of Respiratory Mechanisms" (1941) will continue to inspire and influence physiological work for several years to come. Krogh was honoured by many countries and was connected with various scientific bodies including the Indian Academy of Sciences of which he was an Honorary Fellow.

All those who have had the pleasure of knowing Krogh will remember his kindness and thoroughly international outlook which made his leadership of zoophysiological work at Copenhagen so very successful and they will realize in his death the loss of a most valued and active figure in scientific work and understanding, transcending all national barriers.

N. K. PANIKKAR,