

out. This extraordinary example of the difficulties attending this kind of research may fittingly be used as an extra argument in favour of giving the strongest encouragement to those engaged in pure entomological research. Until we know for certain the factors governing the production of single sex broods in Hymenoptera, and also far more about parthenogenesis in this order than we do at present, we may not be able to succeed with the introduction of many valuable parasitic insects into Australia and New Zealand.

7. *Control of Sheep-Maggot Flies.*—This immense problem, of the utmost importance to Australia and other sheep-raising countries, need not be dealt with at all fully here, because up to the present no satisfactory method of biological control has been discovered. Much work has been done with several well-known chalcidoid parasites of the blow-fly larvae and pupæ, but in no case has the percentage of parasitism produced been high enough to warrant the continuance of the work. At the present time, the interesting parasitic hymenopteron *Alysia manducator* is being collected in England by Dr. J. G. Meyers for shipment to Australia, and it will be interesting to watch the progress of the attempt to acclimatise and spread this very active insect in a warmer climate and new conditions of life.

8. *Control of Coco-Nut Moth (*Levuana iridescens*).*—This very serious pest, the original home of which is still unknown, is a small zygænid moth the larva of which feeds along the midrib of the leaflets of the coco-nut palm. In the island of Viti Levu, Fiji, it increased enormously during the past ten or twenty years, until its depredations had so weakened the trees and reduced the yield

of copra that the very foundations of the industry were tottering. During the past few years scientific workers have been engaged on the problem of discovering and introducing the natural enemies of species closely allied to *Levuana iridescens* from Malaya. A parasitic tachinid, *Ptychomyia remota*, has been introduced and successfully established with very promising results, and it would appear that this formidable problem is now in process of solution.

(To be continued.)

Whither?—a Footnote.

"What, then, is Life? Is it . . . a . . . possibly quite unimportant by-product of natural processes, which have some other and more stupendous end in view? . . . Or, throwing humility aside, is it the only reality, . . .?"—J. H. Jeans, NATURE, Dec. 4, 1926.

RIBBED, breathing flesh thrice often crucified!
Veined vase of Life! lo, whether for bliss or curse

A wondrous thing the wheeling universe,
Engendering thee, lifts shapen from scarred Earth's side!

Reared in primeval war of rock and tide,
Thence hither—by what wayfaring perverse!
Thy fashioning? runs it ended more than theirs,
The stars in flow that sphere from vapours wide?

How camest thou by that strange gift ungiven
To aught else earthly, the old fruit forbidden,
To know thyself, as part to glimpse a whole,
And, that within thee, clasping earth and heaven
For comrades of like faring, to—storm-ridden—
Confront, brow raised, the incognisable goal?

C. S. S.

Obituary.

PROF. A. DE QUERVAIN.

THE death of Prof. A. de Quervain at the comparatively early age of forty-seven years, which occurred at Zurich on Jan. 13, is a serious loss to European meteorology. His fellow-members on the different international commissions to which he belonged will miss a colleague who had endeared himself to them by his earnest enthusiasm and by his lovable disposition.

de Quervain was born on June 15, 1879, in the Canton of Berne. After studying at Neuchâtel and Berne he went to Paris as assistant, from 1898–1902, in the Observatory at Trappes, where the late Teisserenc de Bort was developing the exploration of the upper atmosphere by means of *ballons-sondes*. This led, in 1899, to the discovery of the stratosphere. In 1901, Teisserenc de Bort made arrangements for observations with *ballons-sondes* in Russia. Prof. de Quervain was placed in charge of the work and obtained observations of temperature in the upper air both at St. Petersburg and Moscow up to heights of 10 kilometres. After leaving Trappes, de Quervain went to Strasbourg, where the results of the international investigation of the upper air were collected and published under the direction of Prof. Hergesell. de Quervain

acted as secretary to the international commission, and became impressed with the advantages which would accrue if the balloons which were used for carrying the recording instruments could also be observed during their ascent, so as to give information about the upper wind. Physical difficulties in the way of making these observations for an hour or more with an ordinary theodolite had formed a practically insuperable obstacle. de Quervain overcame this difficulty by inventing, in 1905, the theodolite with the reflecting prism, which is now practically universally adopted for observations with pilot balloons: no invention has contributed more than this to our knowledge of upper wind. It was exceptionally fortunate for meteorology that de Quervain came, during these eight years, under the influence of two such pioneers in the investigation of the upper air as Teisserenc de Bort and Hergesell. They were both inspired with the conviction that the exploration must be world-wide, and themselves carried out investigations in different parts of the oceans.

Prof. de Quervain returned from Strasbourg to Zurich, where he continued his investigations of the upper air, publishing in 1908 a thoughtful contribution on cloud studies and some notes on

the connexion between clouds and the actual conditions of temperature in the upper air. In 1909 he was the leader of a joint German-Swiss expedition to Greenland, and the experience which he then gained enabled him, three years later, to lead a Swiss expedition successfully across Greenland from west to east. This was the first time the interior of the country had been traversed. (A short crossing nearer the southern extremity had been made in 1888 by Nansen.) The highest point reached was 2510 metres (about 8200 feet), 260 miles from the west coast and 150 from the east coast. The scientific results of the expedition, prepared jointly by de Quervain and his companion Mercanton, were published in 1920, and constitute the observational basis of our knowledge of the meteorology of the interior of Greenland.

When the international meteorological organisation resumed its work after the War, de Quervain became a member of the Commission for Weather Telegraphy. He had a profound knowledge of the observational side of meteorology, which proved most valuable in the difficult work of extending the international exchange of observations to meet post-War conditions. He spoke frankly when he saw the risk of a wrong decision being taken, but in a way which not only convinced his colleagues, but also endeared the speaker to them.

One project dear to de Quervain's heart was the establishment of an observatory on the Jungfraujoch at a height of 3500 metres, and for this he gained the warm support of the Commission. After the recent meeting last September at Zurich, many members of the Commission went to see the observatory, but to his great regret de Quervain was too ill to lead them. Owing to his unique knowledge of clouds he was chosen to be chairman of the sub-commission appointed in 1923 at the conference at Utrecht to consider the revision of the method of reporting observations of cloud and weather in the international code. Before this task could be completed he was unfortunately seized, in 1924, by an illness from which he never completely recovered. He was, however, able to be present for a short time at one of the meetings at Zurich in September 1926, when the Commission gave its approval to a new trial code based on his work and showed its warm appreciation of his services and its sympathy with him in his illness.

de Quervain's death, when it came, was quite unexpected. He is survived by his wife and four children. It is fitting to record that Mme. de Quervain, imbued with a like enthusiasm for exploration, and resolute in face of the danger and hardship, went to Angmagsalik on the east coast of Greenland in 1912 to meet her husband after his perilous journey and to accompany him on his return to Europe.

E. G.

M. M. DELAFOSSE.

WE regret to record the death, on Nov. 13, in his fifty-sixth year, of M. Maurice Delafosse, the distinguished ethnologist and authority on African languages. Maurice Delafosse was born at San-

cerques (Cher) on Dec. 20, 1870. On completing the usual educational course, he became a student at the Ecole des Langues Orientales Vivantes, where he obtained his diploma in 1894. In the following year he was appointed to the French Government service in West Africa. This was the beginning of a distinguished official career, during which he held a number of important appointments: Consul in Liberia, 1897; member of the Anglo-French Boundary Commission on the Ivory Coast-Sudan-Gold Coast Frontiers, 1903; administrative officer of the Ivory Coast; political officer of the Government at Dakur, 1915; Governor of Oubangui-Chari, 1918.

In 1918, Delafosse retired and thenceforth devoted himself to the linguistic and ethnographical studies to which he had given considerable attention throughout his official career. He became professor of native customs and languages at the Ecole Coloniale, and of Soudanese languages at the Ecole des Langues Orientales Vivantes. He was also appointed Membre du Conseil Supérieur des Colonies and Membre Effectif of the International Colonial Institute at Brussels, Member of the Commission de l'Esclavage at Geneva, and Director of the Institut International pour l'Étude des Langues et Civilisations Africaines. He was one of the founders of the Institut d'Ethnologie.

Delafosse was a frequent contributor to *L'Anthropologie*, *La Revue d'Ethnographie*, and other specialist periodicals, and was the author of a number of books dealing with African languages and peoples. Among these were manuals of Dahomian, Agni, Haussa, Mende, and a comparative vocabulary of more than sixty languages or dialects spoken on the Ivory Coast. His ethnographical work included studies of the Sara (Chad) and the peoples of Liberia and the frontiers of the Ivory Coast, Sudan, and Gold Coast, the Senouf, and the peoples of the Upper Niger. Of a more general character were his "Les Noirs de l'Afrique" and "Les Civilisations Négro-Africaines." He was greatly interested in the recently formed International Institute of African Cultures and Languages, of which he became joint director. His death at a comparatively early age, which was largely due to ill-health contracted during his residence in Africa, is a great loss to ethnographic and linguistic studies, not in France alone, but wherever primitive, and especially African, races are a subject of serious study.

WE regret to announce the following deaths:

Sir Digby Pigott, Controller of H.M. Stationery Office from 1877 until 1905, an authority on the birds of London, aged eighty-six years.

Prof. E. H. Rennie, professor of chemistry in the University of Adelaide, known for his work on the chemistry of Australian plant products, aged seventy-four years.

Dr. Walter Seton, secretary of University College, London, and also secretary to the Ramsay Memorial Fellowship Fund established in memory of the late Sir William Ramsay, on Jan. 26, aged forty-four years.