

# obituary

**Vladimir Nikonovich Starovskii**, a leading Soviet statistician and until recently Head of the Central Statistical Board of the Council of Ministers of the USSR, died on October 20 at the age of 70.

Starovskii, was born at Pomozdino, in what is now the Komi ASSR. At the age of 18, he enrolled at the University of Moscow, and, while still a student, began working for the Central Statistical Board. After graduating in 1926, and taking a postgraduate course at the Institute of Economics, he combined his duties at the Central Statistical Board with an academic career, holding a number of teaching and professorial posts, and publishing several major works on statistics, including *Parameters Characterising Correlation Connections*, *The Sampling Method*, *Theory of Mathematical Statistics*, and *Basic Problems of Population Statistics*. In 1940 he received the degree of Doctor of Economic Sciences, and in 1957 he was elected a Corresponding Member of the Academy of Sciences of the USSR. During his long career, Starovskii became known as one of the main organisers of governmental statistics in the Soviet Union. For his services in this field, he received numerous medals and prizes, including the Order of Lenin (three times), the Order of the Red Banner of Labour (twice) and the title of Hero of Socialist Labour.

**Aleksandr Pavlovich Vinogradov**, a vice-president of the Soviet Academy of Sciences, died on November 16, 1975.

Vinogradov was born on August 9 (Old Style), 1895 in St Petersburg. In 1920, he enrolled in the Military Medical Academy, and the Faculty of Chemistry of Petrograd University, graduating in 1925, to become an Instructor at the Military Medical Academy, and, simultaneously, an assistant at the Biogeochemical Laboratory of the Soviet Academy of Sciences. From

this time on, his career was closely associated with the Academy; he became a Corresponding Member in 1943, and a full member in 1963. From its foundation, in 1947, he was director of the "V. I. Vernadskii" Institute of Geochemistry and Analytical Chemistry of the Academy, and in 1967, he became one of the Academy's vice-presidents.

Vinogradov's numerous published works range from biology to geochemistry. He is particularly noted for his work on the distribution of elements in soils and bedrock, on the origin of ores, and for his hypothesis on the formation and evolution of the terrestrial crust and oceans. He also did important work on the geochemistry of the Moon and planets, and showed considerable interest in applications of atomic energy (in 1957 he read two papers to the Geneva Conference on the Peaceful Uses of Atomic Energy).

For twenty years, Vinogradov was head of the department of Geochemistry at Moscow State University, and is considered to be the founder of Soviet geochemistry. He was a winner of the Lenin and Stalin (now State) Prizes, and was awarded a number of high Soviet honours, including the Order of Lenin (three times), the Order of the Red Banner of Labour (twice) and various medals. **Vera Rich**

**Torkel Weis-Fogh**, Professor of Zoology at Cambridge, died on November 13 at the age of 53. He was a citizen of Denmark and a Fellow of the Royal Danish Academy, and before his election to the Cambridge chair he had been Professor of Zoophysiology at Copenhagen.

His first academic appointment was as assistant in research to August Krogh who had begun, after his retirement, a study of the metabolism of the desert locust. Weis-Fogh took up the flight mechanism and with the collaboration of Martin Jensen, an

engineer, he published several papers on the aerodynamics of locust flight. From aerodynamics he turned to the physiology of the locust flight muscle, and out of this interest in contractile systems was later to come the work, still in progress, on the vorticellid spasmoneme. Following up a difference between the apparent and the expected efficiencies of locust flight muscle he was led to a small pad of protein in the wing articulation, which he showed to have the properties of an almost perfect rubber. After coming to Cambridge in 1966 he went back to aerodynamics to investigate the flight of very small insects, whose ability to fly at all was unexplained, and out of this came the discovery of a hitherto unknown means of generating lift. These last two examples admirably illustrate his characteristic approach to a problem—analyse it and quantify it on the basis of current theory and then seek out the reasons for any anomalies.

Arising from his discovery of resilin, he became interested in the fine structure of the insect cuticle and the manner in which it is laid down, and also in the basis of the long-range elasticity of the vertebrate protein elastin. Yet he found time to spare from his own research to initiate important new inter-disciplinary enterprises. One of these was the use of electron microprobe X-ray spectrophotometry for the analysis of micron-sized areas in deep-frozen hydrated sections, a technique which will undoubtedly advance the work of many biological departments in Cambridge. And at the time of his death he was preparing, in collaboration with Sir James Lighthill, to launch a major project in biological fluid dynamics.

Weis-Fogh was held in the highest regard by zoologists and physiologists the world over, but nowhere more than in his own department where regard was compounded of affection as well as admiration. **J. A. Ramsay**

## International meeting

January 8–9, **Food supplies: outlook for Britain**, UMIST Manchester (Royal Society of Health, Conference Department, 13 Grosvenor Place, London SW1X 7EN, UK).

## Reports and Publications

### Other countries

United States Department of the Interior: Geological Survey, Bulletin 1309: The Geologic Story of the Isle Royale National Park. By N. King Huber. Pp. v + 66. Water Supply Paper 2032: Ground Water in the Corvallis-Albany Area, Central Willamette Valley, Oregon. By F. J. Frank. Pp. ix + 48. (Washington, DC: Government Printing Office, 1974 and 1975.) [1310

World Health Organization, Technical Report Series, No. 573: The Veterinary Contribution to Public Health Practice. Report of a Joint FAO/WHO Expert Committee on Veterinary Public Health. Pp. 79. Sw. fr. 8. No. 574: Pesticide Residues in Food. Report of the 1974 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. Pp. 37. Sw. fr. 6. (WHO: Geneva, 1975.) [1310

United States Department of the Interior: Geological Survey, Bulletin 1387: Checklist of North American Late Paleozoic Coral Species (Coelenterata, Anthozoa). By William J. Sando. Pp. iii + 36. 70 cents. Water-