

Two significant, though not exclusive, lines of development are worthy of comment. First, degree courses in biology *per se* are being established in contrast to the traditional study of botany and zoology as separate disciplines. Such an approach places emphasis on the integration of plant and animal studies, on unitary concepts in biology and on a fuller appreciation of plant-animal interactions. Secondly, microbiology is coming to be recognized as a degree subject in its own right, no longer to be equated with medical bacteriology or other narrow specialist treatments. These two approaches have much in common, among the most important being their attempts to integrate and rationalize biology and to require its firm basis in the physical sciences.

Although the output of microbiology graduates from British universities and colleges is small, the present demands from industry and research laboratories are considerable and ever expanding. On his appointment to the newly created chair of microbiology in University College, Cardiff, Prof. D. E. Hughes has directed timely attention to this widening scope and importance of microbiology (*Microbes in Action*. An Inaugural Lecture delivered at University College, Cardiff, April 30, 1965. By Prof. D. E. Hughes. Pp. 21. Cardiff: University of Wales Press, 1965. 3s. 6d.). Apart from the more academic aims and achievements of contemporary microbiology, reference is made to the extension of industrial processes, based on the activities of micro-organisms, and to the technological exigencies imposed by such operations. Prof. Hughes's inaugural address presents a broad survey of microbiology and gives heed to its further advance, exploitation and some possible consequences of its neglect. It is to be hoped that the training of graduates in this field will keep pace with the requirements of industry and elsewhere and that disparity in present supply and demand will be redressed. The time is opportune for a careful assessment of the types of biologist Britain needs and will continue to need in the approaching decade; the recent misjudgment of the number of medically qualified graduates required is a cogent argument for such an enquiry.

#### Royal Society/Royal Geographical Society Expedition to Mid-West Brazil

THE Royal Society and the Royal Geographical Society are considering jointly sponsoring scientific investigations in the little-known interior of Mato Grosso in mid-west Brazil. A reconnaissance party of three is now on its way for a two-month visit to discuss with Brazilian scientists and officials plans for a larger expedition from Britain, possibly next year.

The leader of the reconnaissance party is Mr. A. F. MacKenzie, a tropical plant ecologist, and he will be accompanied by Mr. I. R. Bishop, a zoologist from the University of Leicester, and Mr. D. R. Hunt, a botanist from the Royal Botanic Gardens, Kew. Mr. MacKenzie sailed for Rio de Janeiro in mid-April, with the reconnaissance party's supplies, and will be followed shortly by Messrs. Bishop and Hunt.

#### Lasers for Teaching

THE laser is now an accepted new light source for use both in teaching laboratories and in scientific and technological research. Though specifically related to the demountable continuous gas laser produced by Scientifica and Cook Electronics, Ltd., the manual entitled *The Gas Laser and its Experimental Applications*, by R. J. Horton and P. D. Cook, is a valuable and easily understood guide to various experiments which can be used for teaching and demonstration purposes using a helium-neon gas laser (Pp. 31. London: Scientifica and Cook Electronics, Ltd., 1965. 12s. 6d.). Detailed instructions are given for alignment and operation of the laser, in addition to the precautions necessary while handling the source. A

clear introductory statement describes the theory of the laser, and the various cavity arrangements and the dependence of action of the laser on them. The experiments chosen as examples consist of the demonstration of lens aberrations, Fraunhofer diffraction and interference patterns, Fourier transforms, the Michelson interferometer, and the Abbé theory of image formation.

#### Root Rot of Teak

DR. B. K. BAKSHI, of the Forest Research Institute, Dehra Dun, India, has written to the Editor reporting an outbreak of root rot diseases of teak (*Tectona grandis* Linn. f.). The outbreak occurred in a plantation at the demonstration forest attached to the Institute (the plantation was established in 1928 and coppiced during 1945): "Two pathogens were encountered, namely, *Polyporus zonalis* Berk., and a species of *Peniophora*. The decay in the roots has resulted in wind throw of trees. So far as I can ascertain, *Peniophora* has not previously been recorded in teak. It colonizes old coppiced stumps and spreads freely through the soil by means of yellow rhizomorphs which infect healthy roots, in which a yellow spongy or yellow laminated decay develops. Sporophores are common. The fungus has not been encountered before".

#### Geological Society of London

AT the annual general meeting of the Geological Society of London on April 27 the officers and Council for the ensuing year were elected as follows: *President*, Prof. K. C. Dunham, University of Durham; *Secretaries*, W. B. Harland, University of Cambridge; Prof. J. Sutton, Imperial College of Science and Technology; *Foreign Secretary*, Prof. O. M. B. Bulman, University of Cambridge; *Treasurer*, Dr. W. Bullerwell, Geological Survey and Museum.

#### U.S. National Academy of Sciences

DR. H. BROWN, professor of geochemistry at the California Institute of Technology, has been elected to a second four-year term as foreign secretary of the U.S. National Academy of Sciences. The following were also elected members of the Council of the Academy for a three-year period: PROF. H. E. CARTER, head of the Department of Chemistry, University of Illinois; PROF. J. L. GREENSTEIN, head of the Department of Astrophysics and chairman of Faculty, Mount Wilson and Palomar Observatories, California Institute of Technology; PROF. W. O. FENN, professor of physiology, School of Medicine and Dentistry, University of Rochester; PROF. ESAU, emeritus professor of botany, University of California.

#### Zoological Society of London

THE Zoological Society of London has made the following awards: *Silver Medal*, Mr. D. Attenborough of Richmond, Surrey; *Scientific Medal*, Dr. F. H. Ashton, the Medical School, University of Birmingham; Mr. B. B. Boycott, University College, London; Dr. R. M. Laws, Nuffield Unit of Tropical Animal Ecology, Queen Elizabeth National Park, Uganda; *Stamford Raffles Award*, Dr. E. G. Neal, Taunton School, Somerset; *Thomas Henry Huxley Award*, Dr. J. S. Gray, University of Leeds; *Prince Philip Prize*, M. E. Greenhalgh, formerly of Kirkham Grammar School.

#### The Australian Academy of Science: New Officers

AT the annual election of officers of the Australian Academy of Science on April 28, the following were elected: *President*, Sir Macfarlane Burnet; *Secretary* (physical sciences), Dr. A. L. C. Rees; *Secretary* (biological sciences), Prof. R. J. Walsh; *Treasurer*, Sir Hugh Finlay.