

the greatest number of earthquakes felt in New Zealand occurred during February of that year; and one of the strongest shocks of the year happened on February 10 off the coast of South Taranaki. The highest intensities in this shock affected the Taihape-Wanganui area, and it was perceptible from Tolaga Bay to South Canterbury. A shock of intensity 6 on the Modified Mercalli scale occurred in the southern part of South Island on May 27; and one of intensity 5-6 occurred between Murchison and Hanmer on September 28. On June 27 a shock in the White Island region occurred at a depth of 330 km. Shocks located in unusual regions occurred on April 14 and May 27, some 100-200 miles east of Christchurch, and on September 16 west of Cape Egmont. In all, ninety-seven earthquakes were reported felt during the year: seventy-one in North Island, thirty-four in South Island, and eight in both Islands. By arrangement with the Director of Meteorological Services, records from the Milne-Shaw seismograph at Suva, Fiji, were sent to Wellington for interpretation and publication of readings. Work has also been begun at the Observatory on a series of measurements of wave periods in local earthquakes, recorded at various seismograph stations in New Zealand, to provide some provisional data for the design of earthquake-resistant structures.

#### Territorial Behaviour in Birds

In some experimental work which involved the movement of nests within and across the boundaries of male territories in a small nesting colony of red-winged blackbirds (*Agelaius phoeniceus*), R. W. Nero and J. T. Emlen, jun., demonstrated certain characteristics of territorial behaviour which had not previously been described (*Condor*, 53, No. 3; May-June 1951). They show that the males recognized sharp and stable territorial boundaries which could be defined within a few feet and that they vigorously defended their territories against the intrusion of alien males, females or fledglings except when the latter were quiet; they also tolerated the introduction of alien nests. The males did not extend their aggressiveness beyond their territory boundaries even in the defence of their mates or nests in neighbouring territories. The females freely followed their nests as they were moved experimentally through the territory of the mate, but assumed a subordinate attitude and followed with difficulty when their nests were transported across territory boundaries; they took no part in the defence of the male territory, but opposed the encroachment of alien females on their nest vicinities. Males eventually accepted alien females which persistently invaded their territories to reach transported nests, while female residents of the same male territory tolerated each other at close quarters after nesting was under way but repulsed actual visits to the nest.

#### Council for the Promotion of Field Studies: Annual Report for 1950-51

In his annual report for 1950-51 to the Council for the Promotion of Field Studies, the director, Mr. F. H. C. Butler, states that the hope that local authorities would provide grant-aid to students to meet the increased charges recommended by the Ministry of Education has not been realized. This, coupled with the fact that a large number of students are not eligible for grants of any kind, has resulted in a serious decline in the number of students attend-

ing three of the Council's centres. At the fourth, Malham Tarn, the support of authorities in the North of England, and of the West Riding of Yorkshire in particular, has led to little decline in bookings. Hitherto, the salaries of scientific staff have been met by a direct grant from the Ministry of Education, and it would appear that the negative practice of providing grant-aid through local authorities is bound to lead to insecurity and lack of confidence among the scientific staff at the centres. The methods of providing grants for the Council should be re-examined, and its needs both as regards capital and maintenance re-assessed with due regard to those problems of conservation and pressure of student population which are particular to the Council's case (see *Nature*, June 30, p. 1041).

#### The Biology of Hot and Cold Deserts

THE Institute of Biology is arranging a three-day conference on "The Biology and Productivity of Hot and Cold Deserts" during September 25-27 at the Royal Institution, London. Speakers from some eight countries have accepted invitations to give papers which will deal with problems of physiology and plant and animal ecology resulting from particular geographical conditions. Further particulars will be available in due course from the Institute of Biology, Tavistock House South, Tavistock Square, London, W.C.1.

#### University of Glasgow

THE following lecturers have been appointed in the University of Glasgow: A. W. Babister (aeronautical engineering), S. A. Barrett (zoology), E. H. Bellamy, W. K. Burton, A. L. Cockcroft and J. G. Rutherglen (natural philosophy), W. A. Donaldson, J. Hunter and A. P. Robertson (mathematics), A. B. Garven and J. E. Gibson (civil engineering), J. S. S. Inglis (animal husbandry), S. Jennings (veterinary surgery), J. Loudon (engineering production), I. M. McIntyre (veterinary medicine and surgery), H. A. Molesley (geography), W. Mulligan (veterinary biochemistry), and R. S. Patrick (pathology). R. Ogilvie MacKenna has been made librarian and keeper of the Hunterian Books and MSS. Group-Captain W. K. Stewart has been appointed honorary lecturer in aviation physiology. John B. Birks has resigned from a lectureship in natural philosophy to become professor of physics in Rhodes University, Grahamstown. For the present session, new admissions to the Science Faculty of the University amount to 232, compared with 250 a year ago; and there are about two hundred research students. Over all departments of the University, the total number of matriculated students is now about 6,500 (5,150 men and 1,350 women).

#### Announcements

THE annual meeting of the Science Masters' Association will be held in the University of Liverpool during January 2-5, under the presidency of Dr. J. F. Mountford, vice-chancellor of the University. Particulars can be obtained from W. G. Rhodes (Annual Meeting Secretary), 318 Granville Road, Sheffield 2.

THE Mathematical Association is holding its annual meeting during January 3-4 at the Polytechnic, Regent Street, London, W.1. Particulars can be obtained from F. W. Kellaway, 87 Pixmore Way, Letchworth, Herts, or Miss W. A. Cooke, High School, Slough, Bucks.