

Scottish Field Studies Association: Report for 1955

THE annual report of the Scottish Field Studies Association for 1955 records the progress the Association has made under difficult conditions and indicates what could be achieved if the Association had a centre of its own. During the year the number of students who attended the Field Studies Centre at Garth showed a considerable increase over the previous year, while groups under their own staff attended from a number of schools and university departments. During this year six courses at Garth are planned as follows: May 18–21, outdoor art; August 11–18, introduction to plant ecology; August 18–25, grasses, sedges and rushes; September 7–14, mosses and liverworts; September 14–17, autumn birds; and September 21–24, higher woodlands. The difficulties at Garth, which is primarily organized as a Youth Hostel Association Centre, prevent the development of the Association's activities; and it has now been decided that, when money becomes available, the Glencoe area has considerable advantages of hill and sea, moor and crags, for botanists, geologists, zoologists and others and that a centre should be established there. Particulars about the courses may be obtained from the honorary secretary and treasurer, B. W. Ribbons, Department of Botany, The University, Glasgow.

Populations of House-Mice

SOME observations with house-mice have been carried out at the University of Wisconsin by R. L. Strecker under the guidance of John T. Emlen, jun. (*Scient. Amer.*, December 1955). The investigators first wished to find out whether the mice lived in compact communities or drifted about at random among the college buildings. Trappings showed that the mice were content to live within a narrow range so long as they had plenty of food and shelter. Limiting the population's food supply revealed that, as a food shortage approached, migration from the colony increased sufficiently to 'tap off' mice as quickly as new ones were born. Reproduction apparently continued normally and the remaining population showed no unusual features with regard to sex or age composition. In a further series of experiments the food supply was drastically limited, but the mice were prevented from escaping. As starvation approached, reproduction stopped completely. These investigations on house-mice show that the determining factors in population studies can be examined individually. They should lead eventually to a clearer picture of the parts played by various influences on the abundance and scarcity of animals.

A Flowering Inhibitor in *Kalanchoe*

RECENT experiments with *Kalanchoe blossfeldiana*, by W. W. Schwabe (*Ann. Bot.*, 20, 77, 1; 1956), indicate that a flowering inhibitor may be produced by long-day exposures. He has shown that single long days intercalated between numbers of short days have a positive inhibitory effect on flower initiation and are not merely ineffective. The inhibitory effect expressed as the number of inductive cycles annulled is approximately additive, provided the long days are interspersed with short days, but not if several long days are given consecutively. On the average, one long day is capable of annulling the flower-promoting effect of about $1\frac{1}{2}$ –2 short days.

To a first approximation, flower numbers in *Kalanchoe* increase exponentially with the number of inductive cycles given—up to at least twelve short days. The inhibitory effect of long days interspersed with short days also fits an exponential curve; that is, the inhibition is roughly proportional to the amount of previous photo-periodic induction. A light break of as little as thirty seconds duration given in the middle of a long dark period is as inhibitory as a long day. If followed by a long dark period the inhibition of an intercalated long day is almost completely neutralized; a long dark period preceding it has no such effect. These results have been interpreted as due to the interaction of a flowering inhibitor with a reaction leading to flowering. A mechanism involving competitive inhibition of an adaptively formed enzyme has been described as a possible example of the kind of reaction which could account for the results presented.

The National Museum of Wales

THE forty-eighth annual report (1954–55) of the National Museum of Wales is a record of steady non-spectacular but important work. Although plans for the much-needed building extensions are still in abeyance, valuable discussions have taken place regarding the proposed new department to illustrate the special industries in Wales. The Welsh Folk Museum deals with rural industries; but the Council considers it urgent that the history of industries and their present practices should be included in the Museum. Especially is this the case in a technological age and when material and information are being lost almost week by week. As usual, the staff have taken their full share of extra-mural activities within the Principality as, for example, the keeper of geology as president of the South Wales Caving Club taking part in negotiations with the view of preserving a cave threatened by quarrying, and the keeper of botany continuing his researches on atmospheric pollens and spores.

Iron and Steel Institute: Forthcoming Meetings

THE eighty-seventh annual general meeting of the Iron and Steel Institute will be held at the Royal Institution (Albemarle Street, London, W.1) and at the offices of the Institute (4 Grosvenor Gardens, London, S.W.1) during May 16–17. On the evening of May 15 a Bessemer Centenary Lecture will be given at the Royal Institution by Mr. James Mitchell, past president of the Institute, and on the morning of the next day the new president, Dr. H. H. Burton, will take office and deliver his presidential address. Following this, Prof. N. F. Mott, Cavendish professor of experimental physics in the University of Cambridge, will give the ninth Hatfield Memorial Lecture, his subject being "The Fracture of Metals".

During June 5–14 the Institute will hold a special meeting in France in association with the Chambre Syndicale de la Sidérurgie Française and the Société Française de Métallurgie. During June 5–11 the meeting will be in Paris, and the remainder of the time will be spent on three excursions to iron and steelmaking areas in eastern, central or northern France. Further information on the meetings can be obtained from the Secretary of the Institute at 4 Grosvenor Gardens, London, S.W.1.

Fifth World Power Conference, Vienna

THE Fifth World Power Conference will be held in Vienna during June 17–23, the headquarters of the