Much still remains to be done in at least three directions: (*a*) provision for field-work other than marine (or freshwater) biology and ornithology; (*b*) ensuring effective linkages between the various branches; and (*c*) provision for the guidance and reception of the individual inexpert but potentially serious student.

Flatford Mill, where Dr. Ennion took his first students in May 1946, and the three other centres of the Council for the Promotion of Field Studies—Dale Fort, Juniper Hall and Malham Tarn—go part of the way towards filling these deficiencies. Each accepts between forty and fifty students a week from March to October (and a few in the winter) from universities, training colleges and schools all over Britain, together with a "fair leavening of independent naturalists and artists". Each is staffed by a warden and his assistant, who cover all branches between them, the warden also being responsible for the entire organisation of his centre—an exacting post but a very much alive and worthwhile one.

A thousand university students and five hundred older independent visitors come to these field centres in the course of the year, which leaves about four thousand vacancies, distributed between the four centres, for teachers, training-college students and sixth-form boys and girls, whose previous experience of field-work is very limited. Almost all of them need the full-time co-operation of the warden and his assistant. So there is very little chance of adequate help for the occasional student—"the one in every twenty-five or so who takes to field-work like a duck to water"—who would obviously respond keenly to individual attention.

But these occasional individuals are of prime importance: they are the amateur naturalists of the future. Dr. Ennion is leaving his post at Flatford Mill to establish a new station, the Farne Naturalists Trust, where it will be possible to welcome these students individually. Monks' House, south of Bamburgh and opposite the Farne Islands on the Northumberland coast, has been secured for this purpose. It is designed expressly for the amateur naturalist, more particularly perhaps for the ornithologist, although workers in many other branches will find ample opportunity and a ready welcome. Monks' House opens next Easter, and details will be available shortly for those who are interested in this new development.

NEW ZEALAND EARTHQUAKES DURING 1947–48 AND JULY–DECEMBER 1949

R. C. HAYES has examined and catalogued all earthquakes in New Zealand during 1947[1] and also 1948[2]. In 1947 the earthquakes of June 16, from lat. 38·4° S., long. 178·4° E., and of October 13, lat. 44·2° S., long. 169·0° E., attained intensity 7 on the Modified Mercalli scale, and six earthquakes attained intensity 6. The sea area between the two islands and its environs, and North Island east and north-east of the River Wanganui, had the majority of the epicentres. There were concentrations of epicentres to seaward off Gisborne, and in the Southern Alps west of Christchurch and north-east of Mount Aspiring; also a small group to seaward in the extreme south off Puysegur Point. Otherwise, throughout the year, there were very few earthquakes elsewhere.

In 1948, 127 earthquakes were reported as felt during the year. The largest disturbance occurred on May 23 in the Hanmer–Waiau region, when intensity 8 on the Modified Mercalli scale was reached. Some buildings in the epicentral region suffered structural damage, and minor activity continued at intervals for some months. Other strong shocks occurred on January 15 off the Manawatu coast, on June 19 off the west coast of the South Island, and in July in the Monowai region; the first two of these were widely felt.

Provisional seismological bulletins for July–December 1949 have been received from the Dominion Observatory, Wellington. They include readings from nine observatories, including Suva, Fiji, and a new station, Cobb, established on July 20, 1949, in lat. 41° 5′ S., long. 172° 44′ E., and equipped with a Wood–Anderson short-period seismograph east–west component. During the period 114 strong distant earthquakes were recorded, and 129 local shocks felt. Of shocks with instrumental magnitude 5 or greater which were felt, three were experienced in Opotiki, three in Tolaga Bay, one each in Wairoa and New Plymouth and several in Wellington.

[1] New Zealand Seismological Observatory Bulletin *S*-90 (1949).
[2] *ibid.*, *R*-34 (1949).

STANDARDS FOR TELEVISION SYSTEMS

ONE of the study groups of the International Consultative Committee on Radiocommunication (C.C.I.R.) has recently been exploring the possibility of obtaining international agreement on the standardization of some of the various technical factors which define the characteristics of a television system. A preliminary meeting was held at Zurich in July 1949, at which it was decided that, before meeting again in London in 1950, the study group should inspect the practice and present state of development of the existing television services in America and Europe (see *Nature*, **164**, 477; 1949).

This inspection was carried out by representatives of some sixteen national administrations and operating organisations, and started with a visit to the United States in March and April of this year. The programme comprised a series of visits in New York, Philadelphia and Washington, D.C., for the purpose of witnessing the present-day operation of the television services available in the eastern portion of the United States, the development and production of various types of television equipment, and particularly of observing demonstrations specially arranged to assist the study group in its work on standards for television. This was followed by visits to Paris and Eindhoven, where the arrangements and demonstrations were organised by the Radiodiffusion et Télévision Françaises and the N. V. Philips Gloeilampenfabrieken, respectively. Finally, in Great Britain the delegates visited various stations and establishments of the British Broadcasting Corporation and the General Post Office, and industrial laboratories and factories. In all cases, the visits and demonstrations were designed to show the present state of television development and the different aspects of the varied and detailed work which is necessary for the establishment and maintenance of a public television service.