and the epicentral distance has been calculated to be provisionally 2,690 km. On September 18 an earthquake was reported as having had its epicentre approximately 50 miles from Vienna. This shock damaged nearly all the buildings in the small village near the epicentre, and two people are reported killed. On September 20 several earth tremors were experienced in Greece. Early in the day severe shocks rocked the town of Patras, and much apprehension was caused, though there appears to have been no resultant damage or loss of life. Shocks were felt also in several parts of the Peloponnesus, including Pyrgos, though here also no damage is reported. Minor tremors are relatively common in Greece, though shocks such as the one of April 22, 1928, which partly destroyed Corinth, are not so frequent. The last severe earthquake in Greece was probably that of July 20, 1938, which did damage at Scala Oropos and adjacent villages.

Protection of Wild Birds

WE understand that the Royal Society for the Protection of Birds has under consideration the drafting of a Bill to amend and consolidate the existing Acts for the protection of wild birds. Such a measure is highly desirable in view of the complexity of the present laws dealing with wild birds. The general lines upon which new legislation should proceed is indicated by certain resolutions drawn up by representatives of the County Councils Association and of municipal corporations, and referred to in the report for 1938 of the Royal Society for the Protection of Birds: (1) that as the complexity of the existing law had led to difficulties in administration, there was, in the opinion of the Conference, a strong case for consolidation and simplification; (2) that protection should be afforded to all wild birds, their nests and eggs, throughout the whole year, with specific exemptions which should be the subject of further discussion; (3) that meantime the Home Office be asked for its views on the matter.

As earlier attempts have shown, it is no easy matter to draft a Bird Protection Bill which is simple, affords all the protection required, and at the same time avoids the danger of opposition from interested persons who may block its passage through Parliament. But with good will and a willingness to compromise on points not vital to the essential interests of wild birds, it should be possible to draft a Bill which would commend itself to reasonable opinion and obtain the assent of Parliament. On the other hand, possible competition between Bills drafted by different bodies, such as for example the Royal Society for the Protection of Birds, the Scottish Society for the Protection of Birds, and perhaps the Home Office, should not be allowed to obscure the need and demand for new and simplified legislation, or, when conditions are more favourable, to delay its speedy passage to the Statute Book.

Value of Fruit Juices

THE possibility of cessation or restriction of supplies of citrus fruits or other fresh fruit juices from abroad makes some recent work carried out at the Long Ashton Research Station, Bristol, of particular value at the present time (Long Ashton, Ann. Rept. 1938). Canned black currant juice would appear to be of special importance. It has a high content of both vitamin C and iron, and has proved extremely useful in cases of ulceration of the stomach and duodenum or hyperacidity. Similarly, apple juice has been successfully used in the treatment of pink disease (erythrocœdema). Information obtained from Switzerland and Germany supports the view of the medical significance of fruit juices, claims being made that they are of benefit in other diseases such as diabetes, inflammation of the lungs or kidneys. The writer suggests that closer co-operation with the medical profession in England is desirable, in order that the true facts and significance regarding the use of fruit juices should be discovered and the danger of any false claims be avoided.

Ordnance Survey Plans

IN a paper prepared for the British Association meeting at Dundee, but not delivered, Brigadier A. B. Clough outlined the recommendations of the report of the Committee appointed in May 1935 to consider the revision, scales, styles, etc., of Ordnance Survey maps. The recommendations may be noted even if delay must now ensue in the fulfilment of some. The principal points are these: (1) that no changes be made in the scales of existing maps; (2) that the large-scale maps be rearranged so as to form a single national series instead of thirty-nine separate county series; (3) that the revision of the large-scale plans be a continuous rather than a periodic process; (4) that a new series of maps be introduced on a scale of 1 to 25,000; (5) that a grid be superimposed on all Ordnance maps. Several subsidiary and consequential recommendations follow, namely, that all large-scale plans should be square, that each 1 to 2,500 plan should cover 1 square kilometre of country, and that the metre should be the unit of measurement for the grid. It is also suggested that additional contours should be added to the six-inch map, and that the practice of publishing archæological maps should be continued.

Research in Freshwater Biology

THE seventh annual report for the year ending March 31, 1939, shows that the Freshwater Biological Association of the British Empire is flourishing. The director, Dr. E. B. Worthington, in his review and forecast, states that in last year's report it was forecast that the year now under review would see the launching of new ventures by the Association, building on the foundation laid down during the previous seven years of the Association's history. Of these new developments, three are of primary importance. First, the investigation of the bacteria of fresh water, financed by the Department of Scientific and Industrial Research, has started and the changes in the bacterial flora of Windermere and other waters have now been followed through nearly a whole annual cycle. Secondly, the investigation of

coarse fish, financed by the fishery interests themselves, has commenced, and after a preliminary period of exploring possibilities, a sub-station for this special study has been set up in Cambridgeshire. Thirdly, a scheme for close co-operation between Wray Castle and the former Avon Biological Research, situated in the southern chalk stream area, came into effect from April 1, 1939. Under this scheme the Avon Research henceforth becomes a part of the Association as the "University College, Southampton, Branch for Southern Rivers". It will work under the scientific guidance of the Association while retaining its own individuality of control, and the advantage of being still closely associated with the University College. Thus the position of the Association is improved in every way, and, judging from the report on the work done, one may expect much valuable work in the future.

The Warsaw *Akwarium*

THE *Akwarium*, a new magazine published for the information of aquarium keepers in Poland, had run only half the course of its first volume when more serious affairs brought it to an end. The last number (6-7) is a well-balanced guide to aquarium interests, dealing with methods of constructing aquaria, circulating and heating the water; with natural aeration by plants and artificial aeration; and with several of the creatures which have become standard inhabitants of the aquarium. Descriptive articles discuss among other things the alligator, some bizarre varieties of gold-fish, and the Egyptian mouthbreeder, *Haplochromis multicolor*, the curious habit of which is to hatch the eggs and protect the young within the cavern of their parent's mouth. We hope that before long the *Akwarium* may resume publication from Warsaw under happier and more settled conditions.

Social Distribution of University Education

IN a paper on the social distribution of university education which was given before the Royal Statistical Society on March 21 (*J. Roy. Statist. Soc.*, 102, Part 3), Prof. Major Greenwood discusses the data of whole-time higher education, with particular reference to social class and such foreign experience as is available. Even with a stringent allowance for the difference of mean intellectual levels, it appears that under present conditions a large number of children of ability fit to profit from higher education do not receive it. Prof. Greenwood, however, concludes that the primary importance of university education, so far at least as concerns whole-time university education, is vocational, and as a matter of parental and governmental philosophy this fact is complacently accepted. On this philosophy no large increase of the whole-time university population should be expected. Data, however, about part-time higher education are incomplete, and the matter is of great importance, because increased leisure, which renders higher education possible for numbers greatly exceeding those before, is distributed through life, not concentrated in a few years of complete leisure. In commenting on the paper, Prof. A. M. Carr-Saunders pointed out that the number of those intellectually fit to profit from university education was very much larger than the number required to recruit the professions. He believed it should be the aim of the universities to bring under their care all who could profit fully from university education.

The Lingard Festival

THE festival recently held at Stockholm in commemoration of the centenary of the death of Per Henrik Ling, the founder of scientific gymnastics, was attended by nearly eight hundred athletes from thirty-four countries, who took part in the many displays of various methods of training and education for fitness. The general opinion of experts was that the standard of efficiency was remarkably high and proved that the principles on which Ling founded his system still offered a firm basis for popular physical education, though the details had undergone considerable modification in recent years. The British delegates at the Lingard and the subsequent gymnastic congress included Mr. Kenneth Lindsay, Parliamentary Secretary to the Board of Education, Lord Aberdare and Lord Dawson of Penn as representatives of the National Fitness Council of England and Wales, Lord Burghley, president of the Amateur Athletic Association, and others.

A Big Sunspot

FOR the third time during September, a large naked-eye sunspot group has occurred. The last of these is a giant single spot crossing the disk between September 22 and October 4 with central meridian passage on September 28·0. Near the east limb the spot had an area corrected for foreshortening of more than 1,500 millionths of the sun's visible hemisphere. This spot is the return of an even larger spot (NATURE, Sept. 16, p. 508) which crossed the disk between August 26 and September 7.

The Night Sky in October

ON October 1 in the latitude of London, night (sunset to sunrise) lasts for 12·3 hours and on October 31 for 14·3 hours; civil twilight (the sun 6° below the horizon) shortens the night by more than one hour. The moon is new on October 12 at 20·5h. and full (the Hunter's Moon) on October 28 at 6·7h. U.T. There is an occultation of the third magnitude star, β Capricorni, on October 20, the disappearance as seen from Greenwich taking place at 17h. 52·0m. at position angle 42° and the reappearance at 19h. 4·7m. at position angle 282°. On October 28 there is a partial eclipse (magnitude 0·992) of the moon that is partly visible from London. The moon enters the earth's umbral shadow at 4h. 54m., reaches mid-eclipse at 6h. 36m. (13 minutes before moonset at London) and leaves the umbral shadow at 8h. 18m. This lunar eclipse is preceded by a total eclipse of the sun on October 12 visible in the Antarctic Ocean south of Australia, the limits of latitude for the central line of totality lying between 60° 0′ and 81° 28′ south. Lunar conjunctions