

"Books and Farmers", gave a delightful exposition of the possibilities of educational work in the agricultural community by the county library and others, and stressed the importance of good literature on English rural life as well as of popular expositions of the more technical or scientific side of agriculture.

At the final session, over which the Master of Sempill presided, Major H. Hemming delighted a large audience with his lantern lecture on "Air Survey Work: Its Various Aspects and Uses", in which he not only gave illustrations of results already achieved but also indicated the value of this new method of survey in development work generally, particularly when used in conjunction with other surveying methods. Major Hemming's lucid but restrained exposition prompted a discussion as to the means by which the results of such survey work could be made available on a national scale, and led to the suggestion that the Association of Special Libraries and Information Bureaux should itself investigate the possibility of establishing a clearing-house for this class of information.

### University and Educational Intelligence

THE Hokkaido Imperial University of Japan announces in its calendar for 1933-34 that to the existing faculties of agriculture, medicine, technology and science will almost certainly be added in the near future a faculty of liberal arts. The calendar reproduces the imperial ordinances relating to the appointment of foreigners to professorial and other posts, but at present the only foreigners on the staff are five language instructors in the College preparatory school. There are 2,400 students on the roll of the University.

THE National Federation of Class Teachers held its thirty-ninth annual conference this year at Bristol. The delegates, to the number of two hundred, were accorded a civic welcome on September 29 by the Lord Mayor, the Vice-Chancellor of the University, and other representatives of phases of the life of the city. The subject of the presidential address, delivered by Miss A. M. Edwards, of Liverpool, was the advisability of raising the age limit of compulsory school attendance. In recapitulating the now familiar arguments in favour of this change, Miss Edwards touched on two crucial points: whether an additional year or more of compulsory schooling would result in (1) the schools turning out better recruits for industry and commerce, (2) promoting a taste and capacity for the right use of leisure. On the first point she protested against the "rash statements made at present by employers about the ineffectiveness of our present school system and what seems to them the failure of the schools to provide an education which will fit the child for industry," and directed attention to the lead given by governments in many other countries (the United States of America, Canada, South Africa, New Zealand, Norway, Switzerland and Hungary) where the school-leaving age has already been raised to fifteen years or higher, with the result, it is assumed, that England will be at a hopeless disadvantage in international competition unless she soon does likewise. Mention was made, with qualified approval, of a suggestion by Lord Eustace Percy that the raising of the age should be in stages, one term per year during 1935, 1936 and 1937.

### Calendar of Nature Topics

#### Levanter

A characteristic type of pressure distribution in winter and spring shows an anticyclone over central Europe and a barometric depression over the south-western Mediterranean, while a strong squally north-east wind, known as the 'levanter', blows along the east coast of Spain. The levanter occurs most frequently in October-December and again in February-May, and often persists for two or three days. In the funnel-like western extremity of the Mediterranean the force of the wind is concentrated, and it blows through the Straits of Gibraltar as a very powerful east wind. The Rock of Gibraltar, standing in the path of this wind, causes remarkable eddies on its lee side. In summer the levanter is less frequent and is rarely strong.

#### English Pheasants

A hundred years ago, the English sportsman following pheasant shooting heralded the coming of October as a great event, though 'walking-up' was practically the only method followed, for his single-barrelled muzzle-loader limited his shots to too lengthy periods for much covert shooting. The first authentic records of the pheasant (*Phasianus colchicus*) in Britain seem to be in the eleventh century, though it was said to have been brought over by the Romans. As a result of game-keeping, the bird has increased to large numbers, and it has been estimated that since the Game Act of 1831, pheasants have been increased more than one thousand per cent in Great Britain. More than 3,000 pheasants have been shot in a day on certain estates, with the record for Great Britain believed to be 3,937 at Beaconsfield, Buckinghamshire (Hugh Gladstone). During recent years, the appearance of the melanistic-mutant sport, a very dark form, of the pheasant (*Phasianus tenebrosus*) created much interest. J. C. Hunting (*Field*, September 10, 1932) describes two strains of the mutant, in one of which the chicks are black, black and white or dark brown with white patches, the adult cocks having very dark green plumage and the hens mottled dark brown and russet with an irregular barring of light buff; and the second with the chicks unevenly marked black and white with black predominating, and the adult cock mostly very dark metallic green and black, the hen being a mixture of brown and black, and many feathers of her head and breast edged with dark metallic green.

Asia Minor is the home of the common English pheasant, but it has long been encouraged and transported from its original habitat, possibly the Athenians being the first to do so. The first protection laws in England were in the reign of Henry VII, when it was made an offence to take a pheasant, and in the time of Henry VIII the privilege of buying and selling the birds was confined to the royal household, with a year's imprisonment as the penalty for stealing the eggs. An Act of James I provided, for the first time, a close season for the birds.

#### Breeding of Great Grey Seals

An Act of Parliament of 1914 protected all grey seals (*Halichoerus grypus*) in Great Britain between October 1 and November 15, because at that time the species brings forth its helpless young on bare islands and rocks, or in the caves of the roughest coasts, chiefly on the west coast of Scotland, Ireland

and parts of the west of England, as Grassholme and Anglesey. A private Bill was passed in 1932 to protect the species from September 1 to December 31, excepting under an order of the Ministry of Agriculture and Fisheries, and this should be a great advantage, for though preying on salmon, the grey seal is probably beneficial in destroying vast numbers of dog-fish (*Naturalist*, June 1932). The grey seal probably also feeds largely on cuttlefish, and as its marine food is largely cod, the voracity of which among the fry of marketable fish is notorious, it does no damage to salmon fisheries (*Field*, April 2, 1932).

As a breeding species, the grey seal seems confined to the North Atlantic, chiefly the British Isles, Iceland, Scandinavia and occasionally Greenland and off Nova Scotia and Labrador. In the Shetland Islands and the Orkneys, the young are produced from September to November, but in Norway often not until February. Seal-hunting in Scotland used to take heavy toll of the species at breeding time, and Selby (*Ann. and Mag. Nat. Hist.*, Feb. 1841) records one killed on the Farn Islands weighing upwards of 47 stone. The grey seal is probably the commonest seal on the west coast of the British Isles, and has frequently been confused with the common seal (T. J. Moore, "Report on Pinnipedia and Cetacea of Liverpool District", *Proc. Liverpool Biol. Soc.*, 3, 263; 1889). A great deal has still to be noted on the feeding habits of the species, for though it was stated in the House of Lords during discussion of the Bill of 1932 that the grey seal eats 20 lb. of fish a day, there is little evidence. The cheek-teeth take the form of pointed spikes without cusps, as in Weddell's seal (*Leptonychotes weddelli*) which feeds largely on cuttlefish and Crustacea as well as fish. In old age the seals would probably subsist largely on seaweed.

#### Ospreys in Autumn

Although ospreys (*Pandion haliaëtus*) have not bred in the British Isles for nearly twenty years—the last pair are believed to have nested on Cameron's Island, Loch Arkaly, Inverness-shire—many immature specimens visit the east and south-east of England on their autumn passage from Scandinavia with a degree of regularity that is not always realised. Quite a large passage occurred in September and October 1930 (*British Birds*, 24, 5–11) when specimens occurred at Loch Lumart, Argyll; Grantown; Yarmouth; Hickling Broad, Harleston; Hornsea Mere and Roekland, Norfolk; Lowestoft; Surrey; Lewes, Sussex; Hertfordshire and Rutland. A number of the birds were needlessly shot. On July 1–19 of the past summer, a specimen frequented Gunton Greatwater, Norfolk (*British Birds*, September 1933), where also a specimen was watched in the 1930 passage. In 1927, 1928 and 1932, specimens were fishing for herling on the Lune, North Lancashire.

Sufficient protection in suitable Scottish localities should induce the osprey to nest again, but the release of two specimens at Lochiel by C. W. Knight, in 1930, was unsuccessful owing to the late period of the year, probably due to the small trout being at the bottom of the lake; they moved away and possibly were shot. In former times, ospreys nested on the Lake of Menteith, Loch Assynt, Loch Lomond, Loch Tay and Loch-an-Eilan. The last ospreys in Perthshire nested on Loch Ordie in the spring of 1887 (Knight, *Discovery*, 11, 122, Feb. 1930).

In parts of the north Baltic countries of Europe, and North America, the osprey is still abundant, and

at Gardiner's Island, off Montauk Point, Long Island, New York, which is an osprey sanctuary, the species also nests on rocks, in fields, and even on the seaweed on the beach as well as the typical site in trees. Records of nesting in Ireland seem obscure and the species is more accidental in its visits than to England.

## Societies and Academies

### GENEVA

Society of Physics and Natural History, July 6. E. FRIEDHEIM, B. SUSZ and J. BAER: The energy of activation and the temperature coefficient of a biological reaction. The respiration of the larvæ of *Diphyllotothrium latum*. The considerable range of temperature over which these larvæ live has led the authors to make a kinetic study with this parasite. The trend of the oxygen absorption curves is identical with that obtained in the case of a heterogeneous catalysis. E. JOUKOWSKY: On the frequent presence of pyrites crystals in the diatoms of a lake chalk: their probable bacterial origin. The author has found in a lake chalk diatoms containing pyrites in several forms. The iron arises from material dissolved or in suspension in the water. This hypothesis is one which it is possible to control by experiment. G. TIERCY: Two theorems on ionisation in the Cepheids. The two theorems are based on the formula of the degree of ionisation. They show that the phase of maximum ionisation (the youngest spectrum) occurs after that of the maximum temperature and before that of the light maximum. M. GYSIN: Petrographical researches in the Haut-Katanga. (5). The formations of the system of Muva. This system includes the whole of the formations previous to the base conglomerate of Roan. The author distinguishes twelve principal types of rocks. G. GUTZEIT, M. GYSIN and R. GALOPIN: An attempt at the indirect chemical determination of the minerals in a polished surface by the drop test. A. WEINSTEIN: The theory of liquid jets taking capillarity into account. F. CHODAT and M. JUNQUERA: The endocellular hydrogen donors of yeast and their variation as a function of the age of the cultures. The authors give a report of their researches on the variation of the endocellular hydrogen donors of yeast with increasing age of the cultures. They add certain observations on the specific rôle of various buffer systems. L. REVERDIN: The presence of a wedge in an undescribed specimen from the older lacustral Neolithic. The author exhibits a specimen arising from the lower level of the neolithic remains of Port-Conty (Neuchâtel). It is composed of a fragment of hollow stag's horn, fitted with a wooden handle. Microscopic examination shows that this handle has been perforated by a wedge of a different kind of wood. The complete instrument might be either a club or the end of a hatchet handle, the fragment of horn acting as a sort of grip. G. GUTZEIT, R. MONNIER and R. BACHOUKOWA-BRUN: A new azo reagent for the magnesium cation, *p*-acetylamino-phenyl-5-azoxy-quinoline.

### ROME

Royal National Academy of the Lincei, May 21. F. SEVERI: The theory of the correspondences to valency on an algebraic surface (2): in the invariant sense. U. CISOTTI: Quotients of vectors and monogenic vectors. G. LORIA: Considerations and notes concerning the history of mathematics. E. ALMANSI: