

THE NATURE CONSERVANCY

ANNUAL REPORT

THE Nature Conservancy has virtually completed the building up of its organization and the initial surveys of areas of scientific interest, and in the year ended September 30, 1955, covered by its sixth annual report*, it has been concerned mainly to secure the most effective use of the resources now at its disposal. During the year, the Conservancy declared sixteen new nature reserves in Britain and added to four previously declared, bringing the total acreage to 79,035 acres in thirty-five reserves. The whole programme for national nature reserves was reviewed during the year and, except for a handful of sites presenting special difficulties, it is hoped to complete the programme of declarations within the next four years. Unfortunately, some of the areas of special scientific interest which cannot be included in this programme are suffering considerable damage and losses, and the Conservancy hopes that more local authorities will use their powers to create local nature reserves under the National Parks and Access to the Countryside Act, and also that more voluntary action will be taken by both national and county trusts and societies. Of the three such local reserves noted in this report, that at Ravenglass had another successful season, at Aberlady Bay the legal validity of by-laws applicable to the foreshore made by the Nature Conservancy and appropriate local authorities was established, and by-laws for the protection of the scientific interest in the Castle Eden Denes Local Nature Reserve have been submitted to the Secretary of State for approval.

Financial stringency, as anticipated, greatly embarrassed the Conservancy, compelling postponement of fencing of reserves and long overdue woodland operations. The grant-in-aid received during the year for the general expenses account was £154,500, and expenditure was £157,992, while the grant-in-aid on capital expenditure account was £47,500, including £30,000 for purchase and equipment of the new London headquarters at Belgrave Square, and expenditure was £47,256. Fourteen new research grants, totalling £10,934, were awarded, and twenty-seven grants were continued or renewed; but the funds available for this purpose and the programme of scientific work were quite inadequate. The implications of this financial position and the comments of the Conservancy on co-operation and co-ordination and the like are discussed elsewhere in this issue (p. 245); references to the new nature reserves have already been made in these columns. The following notes are accordingly limited to the scientific work of the Conservancy, whose total staff is now 130, forty-two of whom are scientifically qualified.

The two research stations at Merlewood, Morecambe Bay, and at Furzebrook, Poole Harbour, and the Field Station at Anancaun, Kinlochewe, have now completed two seasons of field-work, and the Moor House Field Station on the Westmorland Pennines three. Much of the summer of 1955 was particularly favourable for field-work. The primary work of survey continued, particularly for existing

and projected nature reserves; but the emphasis is shifting to intensive specialist investigations of sites of major importance, particularly in connexion with programmes of research. A more intensive survey of distributions is also being carried out with the assistance of such bodies as the Botanical Society of the British Isles. In this work amateur botanists are providing many of the observations. Other examples are the duck counts and the comprehensive survey of inland waters being undertaken by the Wildfowl Trust. Two tentative forest maps have been prepared for Scotland, the first showing the present distribution of native birch, oak, pine, alder and ash wood, and the second attempting to reconstruct the distribution of Scottish forests in the first four centuries of the Christian era, or as it could have been to-day in the absence of man's activities.

Such surveys can be of great value in decisions on land use, and during the year at the Forestry Commission's Gisburn Forest, hardwoods and coniferous trees have been planted on a series of plots statistically designed to yield precise comparisons of productivity and changes in soil status for the different types of timber, and also for sheep-rearing. By this means it is hoped to secure fundamental data of effects of grazing and tree-growth together with practical data on the economic use of hill lands of a type very common in northern and western Britain. Nature Conservancy scientists have collaborated with the Natural Resources (Technical) Committee in a review of the relative advantages and disadvantages of forestry and agriculture on marginal land. An extensive survey of floods and soil erosion resulting from modern changes in land use was begun in Scotland.

The ecological management programme for the Yarner Wood Nature Reserve on the edge of Dartmoor was initiated, with the principal long-term aim of re-constituting a naturally regenerating wood of the type believed once to have covered much of south-western England, and a favourable start was made in the experiments on reconstruction of high-altitude woodlands at Moor House. Investigations of soil invertebrates at Merlewood Research Station indicate that certain amino-acids essential for the maintenance of animal life are more abundant in the fallen leaves of some plants than of others, and free-living nematode worms are also being investigated with the view of determining what are the nematode faunas of soils and litters beneath natural and planted woodlands of different species of trees. A survey of wood ants showed that *F. rufa* is more abundant in the limestone woodlands near Grange-over-Sands but has declined over the past half-century in the Windermere area, apparently as a result of invasion by bracken. On the Hartland Moor Nature Reserve, the distribution of all ant species has been mapped by transect over 10 hectares, and a more detailed permanent quadrat has been established over about 600 square metres.

Intensive studies of peat nutrients have been started at Merlewood Research Station, and work on moorland animals at Moor House has revealed interesting relationships between the moth *Coleophora caespitiella* and its food plant *Juncus squarrosus*

* Report of the Nature Conservancy for the year ended 30th September, 1955. Pp. iv + 56 + 12 plates. (London: H.M. Stationery Office, 1955.) 4s. net.

(heath rush). With the co-operation of the Ministry of Transport and Civil Aviation radar station at Great Dun Fell (2,780 ft.) of the Meteorological Office, it is hoped to initiate a range of automatic recordings of meteorological data at that point, which will in future be compared with those being taken at Moor House and at Alston. Establishment of the Cairngorms Nature Reserve has made possible a partial filling of a serious gap in the snow survey of Britain, and autographic temperature-recording has now started at Loch Etchacan (3,058 ft.), where weekly readings are taken during April–October.

The present status in Britain of the hare has also been investigated, as well as the population density and feeding habits of the buzzard in sample areas throughout the country. No evidence of an extensive switch of diet by predators in directions harmful to human interests has so far been traced to the disappearance of rabbits. The measurement of long-term changes in the vegetation on grasslands, particularly where rabbit-grazing has been suddenly reduced by myxomatosis, continued, and at Bridgewater Bay measurements were made of the rate of shingle movement along the beach and its relation to the growth of the cord grass, *Spartina townsendii*. At Braunton Burrows the closing of blow-outs by brushwood and hessian fencing, together with the planting of *Ammophila arenaria*, increased the height of the coastal dune ridge by five to six feet, while the untreated central ridge was lowered by a similar amount and the inner ridge encroached landward by about 25 ft. a year. As a result of the Conservancy's continued experiments on spraying of roadside verges and hedgerows, the Ministry of Transport and Civil Aviation issued a circular on the use of selective weedkillers containing substituted phenoxyacetic acids for control of roadside vegetation to all appropriate local authorities. The Nature Conservancy also investigated during April–June 1955 complaints of killing of lambs by golden eagles in Lewis, as a result of which no amendment of the law forbidding the killing of this bird was considered necessary.

A list of scientific publications of the Conservancy is included in the report.

THE NATIONAL PARKS COMMISSION, GREAT BRITAIN ANNUAL REPORT

WITHIN the limits set by its financial resources and the neglect to implement fully the administrative provisions of the National Parks and Access to the Countryside Act, the sixth annual report of the National Parks Commission, covering the year ended September 30, 1955*, gives a reasonably encouraging record of progress. The education of the public and of government departments, public corporations and local authorities has been patiently, tactfully and persistently pursued. Firm opposition has been maintained, so far as the Commission's powers permit, to proposals which threaten the purposes for which the parks were created, and although there is no immediate prospect of extending the list of areas designated as national parks the Commission is giving increasing attention to the designation of

areas of outstanding natural beauty. Administrative arrangements for the Exmoor and Yorkshire Dales National Parks have not yet been settled, nor for the Brecon Beacons Park or the Northumberland National Park designated on September 20, 1955. At the same time, the Border National Forest Park, including Kielder Forest and the adjoining forests of Kershope in Cumberland and Newcastleton and Wauchope in Roxburghshire, was established in a joint notice issued by the Forestry Commission and the National Parks Commission.

Generally, the administration of the parks proceeded smoothly, and the Commission advocates the introduction of a system of retirement by rotation for each park planning authority, so as to secure some flexibility and continuity of membership. The Commission commends particularly the activity of the Peak Park Planning Board in securing public access to the Kinder and Bleaklow plateaux: the seven access agreements already approved by the Minister cover some 9,345 acres. Much positive action has been taken in providing car parks, the improvement of caravan sites and the removal of undesirable advertisements; and the Board's warden service has earned the gratitude of landowners and farmers for their work, especially for their help in freeing sheep during winter snowstorms. The Lake District Planning Board has likewise given much attention to camping and caravan sites, car parks, the planting of trees and removal of offensive advertisements, and its lease of a large house at Hassness, Buttermere, to the Ramblers' Association Services, Ltd., for use as a hotel is characterized as a milestone in the history of national parks in Britain. At the opening ceremony the Commission's chairman, Lord Strang, congratulated the Board also on being the first park planning authority to provide a new public right-of-way, and on opening the first camping and caravanning site to be available under the powers of the Act. The activities of the other park planning authorities have been on similar lines. The Snowdonia Joint Advisory Committee, for example, is giving increasing attention to publicity, and, like the Pembrokeshire National Park Committee, to the clearance of disfiguring structures from sites used during the War by the Services. The Dartmoor National Park Committee has been asked to deal informally with the denial of access, and the Committee has diligently pursued various methods of dealing with the litter problem. The programme of the North York Moors Park Planning Committee includes a scheme for the protection of the wild daffodils in the valley of the proposed Farndale Local Nature Reserve and publication of a guide book to the Reserve.

In referring to the question of a National Park in Cornwall which has recently been examined once more, the Commission expresses some doubt whether the long, narrow and discontinuous coastal stretches of Cornwall are in all respects suitable for designation as a national park, and whether their administration as such would be practicable. It proposes, therefore, to consider designating coastal areas in Cornwall, and also in Devon and Dorset, with as much of their hinterland as merits inclusion, as areas of outstanding beauty. The experience gained in this way should show whether the provisions of the Act in regard to such areas are adequate, or whether some further legislative measure of protection is required. The Commission has in the meantime already made proposals for designating the Gower Peninsula and the

* National Parks and Access to the Countryside Act, 1949. Sixth Report of the National Parks Commission for the year ending 30th September, 1955. Pp. iv + 60 + 8 plates. (London: H.M. Stationery Office, 1955.) 4s. net.