

admitted that salmon return to the streams where they were born—and there is much evidence supporting that view—it cannot be admitted that either the temperature of a particular stream or the swiftness of its current remains constant. It is difficult to understand, therefore, just how these variable factors can guide migrating salmon, not to a specially cold or swift stream, but to a particular stream the one outstanding character of which is that they were born there.

U.S. Zoological Expedition to Far East

A PARTY of scientific workers from Harvard and Johns Hopkins Universities has set out with the intention of making a survey of the birds and mammals of Siam, Borneo and Sumatra (Science Service, Washington, D.C.). The results should be of special significance, for the programme includes study of the social life of some of the most interesting of the higher monkeys. In the jungles of Siam, the habits of the gibbons will be observed for three or four months by Dr. Carpenter; other members of the expedition will carry out parallel observations in British North Borneo on orang-utans, gibbons and proboscis monkeys; while, later, in the mountains of northern Sumatra, orang-utans will be studied in the national park recently set aside by the Netherlands Government to protect this rapidly disappearing animal. It is expected that the study of the social habits of these creatures may throw light upon the problems of man's social and physical evolution.

Radio-Therapeutic Treatment of Cancer

THE Ministry of Health has issued an important publication on cancer treatment entitled "Cancer: Memorandum on Provision of Radio-Therapeutic Departments in General Hospitals", by Lieut.-Colonel Smallman (Reps. on Pub. Health and Med. Subjects, No. 79. London: H.M. Stationery Office. 9d. net). A principal reason for the preparation of this memorandum is the growing use of radium and X-rays in the treatment of cancer, in substitution for, or in conjunction with, surgery. As a result, hospitals in which cancer patients are treated need to be specially equipped and staffed for this part of their work. The memorandum emphasizes the importance of team work, and that the radio-therapeutic department should be in close touch not only with the surgical department, but also with other departments (gynaecological, pathological, etc.) provided by the hospital of which it should form an integral part. It concludes that a general hospital should contain some three hundred beds if it is to make reasonably full use of radiation treatment facilities. Plans are given for the lay-out of a radio-therapeutic department, the various features of which are explained in the text. The memorandum discusses how those hospitals which cannot provide full cancer treatment facilities can be enabled to make use of other hospitals in which full facilities exist. Appendixes contain the recommendations of the British X-Ray and Radium Protection Committee and of the Radium Commission on the care and custody of radium.

Physics at Harvard

THE volume of "Contributions" from the Physical Laboratories of Harvard University for 1935 is again of quarto form and consists of reprints without change of pagination, of fifty-seven memoirs by members of the staff, fellows and students which have appeared in scientific periodicals such as the *Physical Review*, the *Proceedings of the American Academy*, the *Review of Scientific Instruments*, during 1935 and the first two months of 1936. The quarto form allows the inclusion of the large double column pages of *Industrial and Engineering Chemistry*, but gives very wide margins to the single column pages of the *Proceedings* of the Academy. Work on the physical properties of materials at high hydrostatic pressure accounts for seven or eight of the memoirs and special interest is attached to Prof. P. W. Bridgman's method of securing measurements at 50,000 atmospheres pressure in steel vessels which normally rupture at 20,000 atmospheres. Atomic physics accounts for about a dozen memoirs, of which that on the quantum theory of valence by Prof. Van Vleck and Dr. Sherman, a fellow of the National Research Council, reprinted from *Reviews of Modern Physics*, may be mentioned. The whole volume bears evidence to the active part Harvard is taking in the advance of knowledge.

Field Work of the Smithsonian Institution in 1936

THE preliminary survey of recent field work of the Smithsonian Institution ("Explorations and Field-Work of the Smithsonian Institution in 1936," Washington, D.C., 1937; pp. 100) covers nineteen investigations, beginning with Dr. G. C. Abbot's "Exploring Solar Power Possibilities" and including research in geology, palaeontology, zoology, botany and anthropology, the last-named predominating with seven investigations, mostly archaeological. Of these last, Dr. Hrdlička's explorations of sites on Kodiak Island, Alaska, and the Aleutian Islands have attracted no little attention, not only on account of the exceptionally large number of antiquities brought back by this year's expedition, but also by the collection of mummified human remains from Kagamil. Dr. Henry B. Collins, jun., by his excavations at Bering Strait, has succeeded in determining beyond question the place of the Thule culture in the cultural succession at this gate of entry of man into the American continent—an important contribution to the Eskimo problem—and also has arrived at the conclusion that there is little hope of discovering any trace here of the passage of early man prior to the Eskimo, owing to physiographic changes. Further investigations by Dr. Frank H. Roberts, jun., on sites of the Folsom culture in Colorado and on a new site in Iowa discovered in 1935, the easternmost occurrence noted of the true Folsom stone point, have yielded new data bearing on the occurrence of this early type of the American stone age. It is now established that Folsom man was contemporary with the extinct camel, and also that he lived before, as well as at the same time as, the thick growth of vegetation which preceded the present condition of

aridity in the south-western area. This points to an antiquity even higher than that indicated by previous evidence.

Liverpool Naturalists' Field Club

THE seventy-sixth Annual Proceedings of the Liverpool Naturalists' Field Club, recently issued, covers the year 1936. The botanical notes include a summary by Mr. J. D. Massey of ninety new plant stations in the area recorded in the past four years since the compilation of Dr. Green's last "Flora of Liverpool", while Mr. W. S. Laverock, the botanical referee, describes the finding of deadly nightshade (*Atropa belladonna*) at Eastham, adder's tongue fern (*Ophioglossum vulgatum*) near the Manchester Ship Canal at Mount Manisty, young sycamore trees with variegated foliage at Irby woods, and other incidents of the field meetings of the year. The year's ornithological records, compiled by Mr. Eric Hardy, the ornithological referee, include a water-pipit, ruffs, a part-albino pied wagtail, curlew-sandpiper, little stint, greenshanks, green-sandpipers and a very late (November 28) yellow wagtail at Liverpool Sewage Farm, the latter (after a fog spell) a day later than the previous latest record in Britain; crossbills in the Ainsdale-Freshfield pinewoods in winter, a scaup wintering at the Botanic Park, Liverpool, puffins, fork-tailed petrels and mergansers in the Dee Estuary, a redwing summering in Knowsley Park and the nesting of the Canada goose and little grebe at Kirkby Dam, lesser black-backed gull and curlew at Simonswood, oyster-catcher and rock-pipit by the Ship Canal below Eastham, shoveller at Burton, grasshopper-warbler at Ince and Gayton in Wirral, and blackcap in Knowsley Park. The long-tailed duck is reported in full summer plumage feeding on crabs in West Kirby marine lake in mid-May. There are also the results of surveys carried out in the area for the British Trust for Ornithology, etc. The Committee reports an increase in membership during the year, the formation of a junior section, and an appeal for the Ornithological Fund.

Review of Agriculture

THE Royal Agricultural Society of England (16 Bedford Square, London, W.C.1) has published its ninety-seventh volume, which includes, as last year, the "Farmers' Guide to Agricultural Research". The latter consists of a review of research work in various branches of agriculture, each section being contributed by a recognized authority on the subject. The journal also contains a number of special articles on important questions such as housing the agricultural worker, labour, power and equipment in arable farming, the improvement of hill grazings and the technique of modern field experiments. On the animal side are articles dealing with the control of sheep ticks and systems of housing for pigs. The series on notable farm enterprises is continued, the Cambridge University Farm and Mr. Clyde Higgs's dairy farms being described in this number. The economics of farming are represented in an article on changes in beef imports before and after the Ottawa Agreement. The price of the journal is 15s.

British Scientific and Technical Books

A SELECT list of standard British scientific and technical books has been issued by the Association of Special Libraries and Information Bureaux. The list has been compiled at the request of the British Council and is planned as a guide in selecting books for a library. It is limited to about 300 works and is not a complete bibliography of the subjects covered, books out of print being omitted. Agriculture and medicine have been deliberately omitted, and the main purpose of the list is to assist in the choice of a collection of British scientific and technical books. Under each main section the books, so far as possible, are placed in a logical sequence of subjects, and it is intended that the ASLIB book list should provide a convenient means of keeping the select list up to date. The list contains a foreword by Sir William Bragg and an introduction by Sir Richard Gregory. The price of the list is 2s. to subscribers of the ASLIB book list and 2s. 6d. to non-subscribers.

Preliminary General Catalogue of Comets

VOL. 1, No. 4 of *Publications of the Kuwasan Observatory* contains a catalogue of comets from the year 467 B.C. to the year A.D. 1936. The number of comets listed is 467, and in each case the best available orbit with its reference source is given. The present catalogue is the revision of a catalogue published in 1931 by Prof. Issei Yamamoto in the *Astronomical Yearbook of the Oriental Astronomical Association*, printed in Japanese. This revised edition of the catalogue by his son, Prof. A. S. Yamamoto, who contributes a preface in English, will be very useful to all students of cometary orbits. A more comprehensive general catalogue is in course of preparation by these authors.

Memorial to Sir Walter Morley Fletcher

AN account of the memorial to the late Sir Walter Morley Fletcher, secretary of the Medical Research Committee and Council in 1914-33, printed for the trustees of the memorial fund by the University Press, Oxford, has been issued to subscribers to the fund. It is illustrated with two plates, one of Miss Dora Clarke's posthumous portrait bust of Sir Walter Fletcher, photographed from the clay model, the other of a corner of the library of the National Institute for Medical Research with the finished bronze in position. After meeting the cost of this personal memorial, the balance of the fund is to be applied for a Walter Fletcher Memorial Laboratory at the Farm Laboratories of the National Institute at Mill Hill. The printed account contains appreciations of Sir Walter Fletcher by Prof. G. M. Trevelyan and Sir Gowland Hopkins.

Rehabilitation of Persons Injured by Accidents

THE Inter-Departmental Committee on the Rehabilitation of Persons injured by Accidents, set up jointly by the Home Office, Ministry of Health and Scottish Office, has issued an interim report (H.M. Stationery Office. 4d. net). This report deals particularly with the organization of "fracture clinics".