tories for general chemistry, physical chemistry, radio and television servicing, advanced radio and applied acoustics, X-ray and high-vacuum work, general physics, heat, sound and optics, magnetism and electricity, advanced optics and photography. Provision has also been made for three engineering drawing offices and three engineering classrooms, and a physics workshop.

The new laboratories have been well equipped and it is only possible to mention a few items; for example, a high-frequency motor alternator set, Hilger standard polarimeter, 'Speedivac' high-vacuum pump, vacuum coating unit, X-ray diffraction equipment, measuring microscopes, single-crystal goniometer, Brown electronic potentiometer, Brunsviga calculating machines, various special cameras and photographic equipment, equipment for physics workshop, spectroscopic chemical analysis, radio and television servicing, audio-radio and high-frequency measurements, electronic measurements, etc.

The Science Departments provide both full-time and part-time courses for B.Sc. special chemistry and special physics, and for the general degree of the University of London, associateship of the Royal Institute of Chemistry, and graduateship of the Institute of Physics. Part-time day and evening courses are provided for Ordinary and Higher National Certificates in chemistry, applied physics and engineering, and City and Guilds of London Institute courses in telecommunications, radio engineering, radio and television servicing, photography, chemical plant operation and metallurgy. Courses have been offered at various times in nuclear physics, high-vacuum technique, electronic measurements, valve technology, advanced mathematics for physicists, chemists and engineers, statistics, theory and practice of X-ray diffraction, theory and practice of spectroscopic analysis, servo-mechanisms, glass-blowing and plant technology.

It is proposed to offer a number of 'sandwich' courses suitable to the area served by the College, and these include applied physics, chemistry, radio and electronics, mechanical and production engineering, and electrical engineering.

The new extensions were opened on November 19 by Mr. Geoffrey Marchand, who was until recently chairman of the London Regional Advisory Council for Higher Technological Education, in the presence of a representative gathering of the County of Essex and other professional and academic bodies interested in the work of the College.

ASSOCIATION OF SCHOOL NATURAL HISTORY SOCIETIES

ANNUAL EXHIBITION, 1955

THE seventh annual exhibition of the Association of School Natural History Societies was held in the British Museum (Natural History), London, on October 15. Once more, the main contribution was from member schools, which sent exhibits from widely separated areas. For example, Ackworth School sent a display illustrating work done in Alderney, Channel Islands, and in Ackworth, Yorks. From farther afield came the log-book of the Natural History Society of Breeks Memorial School, Ootacamund, India; this included some beautifully executed water-colour paintings of local avifauna. Living midwife toads and tadpoles (from Provence in France) were exhibited by Glyn Grammar School, Ewell, Surrey.

There were many collections on show, including an extensive comparative display by Bishop's Stortford College of aquatic larvæ from Bishop's Stortford and Flatford Mill, and an equally extensive collection of twenty-seven species of moss from the Lake District shown by University College School, Hampstead. Cranbrook School, the interests of which lay in the lower vascular plants, showed herbarium sheets of local ferns. A collection of dragonflies preserved by vacuum-desiccation to retain the natural colours was exhibited by Lord Wandsworth College, Long Sutton. This and several other entomological exhibits, such as those of Felsted School, Herts and Essex High School for Girls, Bishop's Stortford College and King's School, Canterbury, showed the painstaking care that is taken by these young naturalists to ensure that their specimens are preserved in optimum condition. The wild tropical silk moths exhibited by Tonbridge School were some of the most beautiful creatures on display that day. On the whole, there were more entomological exhibits this year—a fact noted with approval by several visitors.

It is a frequent criticism of the exhibitions that there are "too many graphs"; but nevertheless the compiling of detailed observations and the plotting of transects and quadrats are essential to serious ecological studies. Detailed charts showing the vegetation of East Coast localities were shown by Felsted School. In connexion with local angling interests, Oundle School had made a complete ecological survey of the Willow Brook, a tributary of the River Nene, which is to be stocked with trout. In another exhibit they traced the colonization of spoil heaps, from open-cast mining, from bare earth to complete cover, over a period of thirty years. Dauntsey's School showed results obtained in studying the relative frequency of orchids on a Downland site, together with preliminary investigations to account for the observed frequencies. Less detailed, yet also worth while, were the line transects made by Brighton and Hove High School for Girls, which also exhibited a fine collection of local Basidiomycetes. Kimbolton School showed the results of botanical surveys made in the grounds of Kimbolton Castle and at a site on the River Kym. A hundred-yard transect clearly demonstrated the effect of shade upon the composition of the field layer vegetation.

To many people, graphs and charts are dull, but in fairness it must be said that this year there was a noticeable improvement in the presentation of results: charts were clearly drawn and labelled; captions were short and to the point; and neatness abounded. Those who, in previous years, had produced results which were undoubtedly valuable but were tediously presented now attempted to enliven their charts with colour, bold lettering and other devices. Thus it has been demonstrated this year that members can not merely produce results and specimens, but they can also produce an exhibition. This point is well illustrated by the display put on by the William Grimshaw School, London. "Discovering Coldfall Wood" was a record of what had been found by pupils in an area of woodland. Where actual specimens could not be brought, their place was taken by photographs, models or paintings, so that a visual account of the wild-life of the wood was presented. Another project directed towards visual education was the film strip being produced

by Orange Hill Girls' Grammar School, Edgware. This showed stages in the preparation of diagrams for a film strip illustrating the life-history of the honey bee.

The exhibition was supported by three guest exhibitors: the Amateur Entomological Society, the School Nature Study Union and the Universities Federation for Animal Welfare. During the afternoon a colour film, "Coral Wonderland", was shown, describing life in and around the Great Barrier Reef of Australia. A catalogue of exhibits was available, and an enlarged edition of this catalogue, giving an account of the exhibition and a complete list of members, can be obtained from the honorary general secretary of the Association, O. N. Bishop, Kimbolton House, Kimbolton, Huntingdonshire, price 10*d*. post paid.

The general improvement in quality of presentation, together with the maintenance of good scientific standards, are pleasing to note. Many of the exhibits were again on view in the Department of Zoology, University College, Leicester, on November 5, when the Association held its first provincial meeting. It is hoped thereby to encourage more Midland schools to take an active part in the work of the Association.

O. N. Bishop

DISSEMINATION OF SCIENTIFIC INFORMATION

A CONFERENCE on the Dissemination of Science, organized by Unesco, was held in Madrid during October 19–22. Twenty-five delegates, representing national associations for the advancement of science and associations of science writers, took part. The United States and most European countries were represented, including Belgium, France, Denmark, Spain, Italy, Western Germany, Switzerland, Greece, Netherlands, Poland, Sweden, Turkey and Great Britain.

A wide range of problems was discussed on an agenda drawn up by the Unesco Secretariat, which agenda was severely criticized by many of the delegates because it failed to embrace the fundamental difficulties of scientific popularization. Nevertheless, many interesting issues were covered, and the widely different practices of the various countries soon became obvious.

Many of the delegates commented on the inaccuracy of scientific contributions appearing in the lay press and on the prevalent tendency of editorial staffs to make unauthorized changes in scientific articles. This particular problem does not exist to any great extent in Great Britain, where almost all papers of repute have a professional scientific correspondent. The position in France, however, appears to be so unsatisfactory that the French Association of Science Writers has devised a scheme which enables newspaper editors to check information rapidly on the telephone. The Association has prepared a chart giving the name and telephone number of scientists prepared to answer questions on given subjects at short notice. The usefulness of such a service is great; but the Conference was at pains to point out that it should be regarded only as a temporary measure, and that the true solution lies in the recruitment by newspapers of adequately qualified scientific writers.

One of the documents prepared by the Drafting Committee under the chairmanship of Sir Ben Lockspeiser, a British delegate, stressed the importance of popularizing science and improving general scientific knowledge among certain special sections of the community, embracing on one hand children and their parents, and legislators and business men on the other.

The future supply of scientists can undoubtedly be improved by awaking the children's interest in science at an early age. Even those who do not take up science will benefit from wider scientific knowledge than the present generation. It is important to interest parents also, for in many cases they will determine the career on which their children will embark. There was considerable discussion on the ways in which this group could be reached.

Mr. C. A. Reichen, of Lausanne, produced a number of copies of an excellent illustrated children's magazine, in which scientific matters were given considerable prominence. This magazine has the support of a number of industrial firms. It was considered desirable that similar publications should be started elsewhere. The need for more scientific programmes on radio and television for children was also discussed.

Prof. E. B. Schieldrop, of Norway, spoke on the value of laboratory visits, which had proved particularly successful in the University of Oslo. Sir Ben Lockspeiser strongly supported this point of view and said that the most valuable feature of such visits was that children and parents were able to see how scientists worked.

Mr. Watson Davis, director of 'Science Service', an American non-profit-making organization devoted to the popularization of science, told the Conference about the scientific clubs which have become popular among young people in the United States. From time to time these clubs organize science fairs—in effect conversaziones—in which all the exhibits are made and demonstrated by the members. These science fairs are well supported by local people.

It was considered that the best approach to the second group—those who control government or industrial policy—can be made through scientific articles written by scientists and science writers and published in the special journals read by the members of the group. A notable example of this technique is the regular publication of articles, on science and its application in industry, in the *Financial Times*. Such articles could help greatly in educating business executives in the possibilities presented by the application of science.

Considerable interest was also shown in the paper prepared by Mr. M. Philips Price, M.P., on the Parliamentary and Scientific Committee. This informal group, which was started in the 1930's, now has considerable influence both in the House of Commons and House of Lords. It acts as a focal point where legislators may meet and discuss scientific, technical and related economic problems with men interested in research. In this way the influential layman may be kept informed of the part which science can play in public affairs.

The Conference agreed that such bodies play a most important part in furthering knowledge of science and that they should be established in other countries for legislators and possibly business executives also.

A considerable amount of time was spent in somewhat futile discussion of science fiction and "the fight against false sciences". There was also much