

as it has been observed that they prefer nests already prepared to a mere nesting platform.

The use of pesticides and their effect on wild life was dealt with at length by speakers from The Netherlands and Germany and supported by statements from Belgium, France, Great Britain, Sweden and Switzerland. The great difficulties of this problem were fully realized and it was agreed that in view of the time required fully to assess the effects of pesticides on wild life and the constantly changing situation with regard to the production of these substances, this subject should be kept permanently on the agenda of the Committee. In the meantime, a resolution was passed urging all Governments to take the necessary steps to prohibit the further use or sale of any pesticide which had been proved to be excessively destructive to birds and other forms of wild life.

Among other subjects discussed at the meeting were the control of the export and import of wild birds' eggs, birds which are a menace to other species, the protection of the skylark and the effect of shooting during severe frost. National representatives also reported on the establishment of new bird reserves, particularly on migration routes, and the state of bird preservation in their respective countries.

Throughout the meeting it was evident how difficult it is for one country to pass and maintain protective measures unless her neighbours do likewise, and that, to ensure the effective preservation of birds, international collaboration is imperative. But the cordial atmosphere which prevailed, and the obvious desire of all national representatives, without exception, to co-operate to the fullest extent, were striking features of the discussions.

Immediately before the Conference, a meeting of the Executive Board of the International Wildfowl Research Bureau (a branch of the International Committee for Bird Preservation) was held under the chairmanship of the honorary director, Dr. Edward Hindle, at which the problems of the conservation of wildfowl, the Anatidae in particular, were dealt with.

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INTERNATIONAL SCIENTIFIC RADIO UNION

AN account of the eleventh general assembly of the International Scientific Radio Union, held in The Hague during August 23–September 2, 1954, has already appeared in *Nature* (September 3, 1955, p. 451); and this, together with a later account (*Nature*, April 7, p. 652), dealt with three (Parts 1, 4 and 8) of the eight parts of Vol. 10, which forms the published proceedings of the assembly. The remaining five parts have now been published*.

Part 2 deals with the work of Commission II on "Radio and Troposphere". As the chairman's sum-

mary of the proceedings shows, this Commission is very active in research on the influence of meteorological conditions on the propagation of radio waves by normal refraction processes to distances well beyond the horizon, and by the phenomena of scattering to distances of several hundred kilometres.

"Ionospheric Radio", the title of Commission III, is covered in Part 3. During the general assembly, this Commission held six technical sessions which dealt with the behaviour of the ionosphere at high latitudes, the morphology of the *D*-layer, rocket investigations of the ionosphere, absorption and forward scattering by the ionosphere, and with geomagnetic distortion and storms in the *F2*-layer. Many of the resolutions of the Commission are concerned with the important and very active part to be played by the International Union in the programme for the forthcoming International Geophysical Year.

The proceedings of the deliberations by Commission V, "Radio-Astronomy", are described in Part 5. The work of this Commission has already resulted in the publication of three special reports (see *Nature*, December 10, 1955, p. 1110), and the whole subject is being actively pursued on a basis of international co-operation. Sub-commissions have been established to study continuous measurements of solar radio emission, and to explore the possibilities of standardizing equipment and measuring techniques. The importance of making adequate frequency allocations for radio astronomy is emphasized; and in the case of such frequency bands as those in which the neutral hydrogen line is located, there is a need for international agreement on such allocations.

Part 6 describes the work carried out at the general assembly by Commission VI on "Radio Waves and Circuits". The resolutions of this Commission show that its work ranges over a wide field, including information and its measurement, the spectra of random signals, band-widths and time-constants, and the applications of abstract algebra to new circuit arrangements for equipment and antenna systems.

The title of Commission VII is "Radioelectronics", and the report of the chairman given at the end of Part 7 shows that there has been much discussion as to the manner in which the Commission will fit into the general pattern of the International Union. During the meetings, discussions were held on the subjects of solid-state and gaseous electronics, valves for microwave optics and electronics, and on the generation of radiation by gaseous processes; the last being dealt with jointly with Commission V as a subject of mutual interest. A recommendation was made to form a joint commission between the International Scientific Radio Union and the International Union of Pure and Applied Physics to provide means for the discussion of topics in electronics which do not properly belong in the field of radio.

All the publications referred to above contain full details of the scientific sessions, all the national reports in full, together with, in most cases, carefully selected lists of references; the summarizing reports of the respective chairmen with the resolutions of the Commissions adopted at the general assembly are also included. The publication of these remaining parts completes the official record of The Hague meeting of the International Scientific Radio Union, 1954.

* International Scientific Radio Union. Proceedings of the 11th General Assembly held in The Hague from August 23rd to September 2nd, 1954. Vol. 10, Part 2. Commission II: Radio and Troposphere. Pp. 90. 1956. 100 Belg. fr.; 14s. 6d.; 2 dollars. Vol. 10, Part 3. Commission III: Ionospheric Radio. Pp. 194. 1955. 200 Belg. fr.; 29s.; 4 dollars. Vol. 10, Part 5. Commission V: Radio-Astronomy. Pp. 114. 1955. 125 Belg. fr.; 18s.; 2.50 dollars. Vol. 10, Part 6. Commission VI: Radio Waves and Circuits. Pp. 140. 1955. 150 Belg. fr.; 21s. 6d.; 3 dollars. Vol. 10, Part 7. Commission VII: Radioelectronics. Pp. 140. 1956. 150 Belg. fr.; 21s. 6d.; 3 dollars. (International Scientific Radio Union, 42 rue des Minimes, Brussels.)