

while, Colonial Governments could proceed on the assumption that the period in which the £140 million provided under the Colonial Development and Welfare Acts of 1945 and 1950 may be spent would be extended beyond March 31, 1956. Colonial Governments were also being informed that, where necessary for essential development, they may enter into commitments extending beyond 1956 and exceeding the £140 million already provided, up to a limit of £7 million, and subject to Treasury concurrence, on the understanding that in due course Parliament would be asked to vote the necessary moneys. Mr. Lyttelton also said that because of the serious world rice shortage, funds had been made available to a maximum of £3 million for promoting the production of rice in the Colonies. The special schemes for growing rice might ultimately involve expenditure exceeding the statutory limit, and such expenditure would be covered by the legislation already indicated.

Commonwealth Bureau of Pastures and Field Crops

THE Commonwealth Bureau of Pastures and Field Crops, which has been attached to the Welsh Plant Breeding Station, Aberystwyth, for the past twenty-four years, will be transferred to Hurley, Berkshire, in August, where it will be attached to the new Grassland Research Station, of which Dr. Wm. Davies is director. This Bureau, one of the ten Commonwealth Agricultural Bureaux, was founded at Aberystwyth in 1929, its first consultant director being Prof. (now Sir) George Stapledon. For the first twenty years of its existence the Bureau was in charge of Dr. R. O. Whyte, who was succeeded as director in 1949 by Mr. A. G. G. Hill, formerly director of the East African Agricultural Research Institute, Amani. The Bureau issues the quarterly abstract journals *Herbage Abstracts* and *Field Crop Abstracts*, in addition to its other activities.

Conditions in the Rajputana Desert

A NUMBER of Indian authorities took part at New Delhi in a symposium on the Rajputana Desert, called formerly the Great Indian Desert. The lengthy papers have now been published in full (*Bull. Nat. Inst. Sci. of India*, No. 1, Sept. 1952). These are prefaced by a general review by the president, Dr. S. Lal Hora. The economic problem that gives this region great interest is the report that the desert is rapidly spreading and, furthermore, that the desert conditions are becoming intensified. These conditions may be due, if they do occur, to at least three causes: first, change of climate; second, drifting of sand to adjoining districts; and third, overgrazing on the confines, deforestation and wasteful methods of cultivation. The extent of the creep of desert conditions north and north-east has been estimated at more than half a mile a year, but this occurrence is not universally accepted, for it must be remembered that the Rajputana Desert is not a true hot and arid desert, since part of it gets enough rain to afford pasture at certain times. The atmospheric conditions are discussed in full in this monograph. Former better watered conditions are undeniable, as old water-courses and archæological remains show. One means of checking deterioration is to limit grazing on the edge and reforestation so far as possible. A limited amount of grazing and cultivation is certainly possible in some parts and might be increased in good years, but decreased in dry conditions.

Marine Biology in the Irish Sea

Most zoologists will welcome the fifty-eighth volume of the *Proceedings and Transactions of the Liverpool Biological Society* (vol. 58; pp. vi+109; 25s.). Over a long period of time under a changing editorship (the latest editors are Mr. J. S. Colman and Dr. J. W. Jones) this well-known series has published many notable contributions to marine biology. The present volume contains three papers which together add appreciably to our knowledge of the natural history of the Irish Sea. The first paper, by Dr. D. I. Williamson, describes the distribution in the Irish Sea of some important plankton species in relation to water movements. A point that emerges in comparison with earlier work is the stability, during the present century, of the composition of the plankton in the central Irish Sea. This contrasts markedly with the changes which have taken place in the plankton of the western English Channel during the same period. Dr. Williamson concludes that the Irish Sea plankton is less dependent on influxes of oceanic water than is that of other areas, and suggests that local regeneration in a relatively deep and stable water-mass overlying a muddy bottom helps to support the rich zooplankton characteristic of the area. The second paper, by Mr. A. B. Bowers, is concerned with the spawning grounds and the larval stages of herring in the same region. Manx herring spawn, in autumn, on rough ground a few miles east of the Isle of Man where two water-masses mix. One of these water-masses contains a *Sagitta elegans* community, the other a plankton characterized by *S. setosa*. The growth-rate of the Manx autumn-spawned herring is considerably less than that of spring-spawned herring in the Clyde. The final paper, by Dr. Sheila S. Meredith, is a study of the common shrimp, *Crangon vulgaris*, in the Dee estuary and in Morecambe Bay. Large quantities of this crustacean are caught annually for human consumption, but until recent years its biology has not been intensively examined. It is useful to have this account for comparison with similar recent work in the Severn estuary.

Variation in the Lesser Celandine

IN Great Britain, diploid and tetraploid races of *Ranunculus ficaria* often occur in the same population, the former being fertile, the latter highly sterile and multiplying largely by bulbils in the leaf axils. In Sweden it is the tetraploid—probably an autotetraploid—form of the species that is widely distributed, according to A. M. Perje (*Arkiv. för Botanik*, Stockholm, 2, Pt. 1-3, 251, 1952). This investigator has found that abnormalities occur in the formation of the pollen grains, though some fertile pollen is always produced. The embryo-sacs are normal up to the eight-nuclear stage, after which they usually begin to degenerate—a phenomenon which may be due either to heredity or to environment, or to a combination of both. Different clones show marked differences in the numbers of the several floral organs, an increase in stamen number being usually accompanied by an increase in the number of carpels. The observed variability is considered in terms of contemporary genetical theory.

Information Theory

INFORMATION theory has a pretentious name, and has received a publicity almost comparable with that of relativity theory in the early twenties. Many scientists who have no time to read the original