Weddell Sea, Ross Sea, Elephant Island, and South Georgia. The scientific results especially described included the mapping of two hundred miles of new coast-line, soundings in the Weddell Sea, and the study of the natural history of pack-ice.

DUBLIN.

Royal Dublin Society, December 16, 1919.—Prof. H. J. Seymour in the chair.—Prof. H. H. **Dixon** and T. G. **Mason**: A cryoscopic method for the estimation of sucrose. The depression of freezing point of a solution of sucrose is approximately doubled by inversion. It is evident then that the sucrose content may be estimated by determining the freezing point of a solution before and after inversion. This may be conveniently done by the thermo-electric method of cryoscopy. It is convenient to add the invertase to the fluid to be examined in the cold. Without allowing the temperature to rise above 0°, the freezing point is determined. The mixture is then incubated for forty-eight hours at 30°, and the freezing point again observed. The difference between the two observations is a measure of the amount of sucrose originally present. The method has the advantages that only small quantities of the fluid are required (2·5 c.c.), and treatment to remove proteins and other colloids is unnecessary. Using thermo-couples of easily attained sensibility, amounts of about 1 mgr. of sucrose may be detected.—Prof. S. **Young**: Brown's formula for distillation. Evidence, based on the theoretical work of Rosanoff, Bacon, and Schulze, is brought forward in support of the conclusion that Brown's formula is applicable to mixtures of chemically closely related liquids, and that the constant in the formula is equal to the ratio of the vapour pressures of the two pure substances at the boiling point of the mixture.—Miss Anne L. **Massy**: The Holothurioidea of the coasts of Ireland. Twenty-five species are enumerated, belonging to thirteen genera. No new species are described, but the following are added to the British-and-Irish area:—*Stichopus regalis*, Cuvier, *Mesothuria Verrilli*, Théel, and *Benthogone rosea*, Koehler, and the belief is expressed that the previous records of *Bathyplotes natans*, Sars, and *Holothuria aspera*, Bell, are referable to *Bathyplotes Tizardi*, Théel, and *Mesothuria lactea*, Théel. Ten of the species dealt with are restricted in the area to the Irish Atlantic slope.

MELBOURNE.

Royal Society of Victoria, November 6, 1919.—Mr. J. A. Kershaw, president, in the chair.—F. **Taylor**: Australian phlebotomic Diptera, new Culicidæ and Tabanidæ, and synonymy. Descriptions are given of a new mosquito, *Uranotaenia albofasciata*, and two new species of Tabanidæ, *Sylvius distinctus* and *Tabanus Geraldi*; whilst a new genus, Phibalomyia, is suggested for Elaphromyia, previously occupied.—A. J. **Ewart**: The synthesis of sugar from formaldehyde and its polymers, its quantitative relations, and its exothermic character. The author's experiments, conducted over a long period, point to the conclusion that sugar in plants is formed directly, and not by the intervention of formaldehyde.—H. B. **Williamson**: A revision of the genus Pultenæa. The members of this genus present some difficulties as to specific limitations, and the work, of which this is a first instalment, dealing with about thirty species, has been undertaken to place it on a more practical basis. It is expected that few species will be erected, and that there may be a reduction of one or two that have been recently described. The conclusions have been based on an exhaustive examination of specimens from all the Australian States.

SYDNEY.

Linnean Society of New South Wales, October 29, 1919.—Mr. J. J. Fletcher, president, in the chair.—Prof. C. **Chilton**: A new Isopodan genus (fam. Oniscidæ) from Lake Corangamite, Victoria. *Haloniscus Searli*, n.g. et sp., described from a number of specimens obtained from the waters of Lake Corangamite, is assigned to the family Oniscidæ, one of the most strictly terrestrial families of Isopoda. The author suggests that Haloniscus is the descendant of a form that was terrestrial in habits, and that, owing to special circumstances arising from its habitat, it has become re-adapted to aquatic life.—J. H. **Maiden**: Notes on the coloration of the young foliage of Eucalyptus. A series of observations is recorded of the colour of the young foliage in a number of species of Eucalyptus growing wild or cultivated in the Sydney district. The interesting suggestion is put forward that the observations justify the belief that a number of species and some groups can be diagnosed by this means.—E. F. **Hallmann**: New genera of Monaxonid sponges related to the genus Clathria. Ten genera are proposed as new.—A. M. **Lea**: Description of new species of Australian Coleoptera. Part xv. Thirty-one species, belonging to fourteen genera in the groups Scarabæidæ, Melandryidæ, and Cerambycidæ, are described as new.

Royal Society of New South Wales, November 5, 1919.—Dr. R. Greig-Smith, vice-president, in the chair.—R. H. **Cambage**: Acacia seedlings. Part v. The author describes ten species of Acacia seedlings. He records various species having flowered in 5-in. and 6-in. pots. One seedling of *A. montana*, three years old and 4 ft. high, bore about 3000 flowers. A seedling of *A. diffusa* and another of *A. cardiophylla* had flowered when only seventeen and nineteen months old respectively. Seeds of *A. melanoxylon* and *A. penninervis* had readily germinated after having been immersed in sea-water for 889 days.—Prof. C. E. **Fawsitt** and C. H. **Fischer**: The miscibility of liquids. The authors have examined a considerable number of liquids in regard to their mutual solubility or miscibility. The mutual solubility of two liquids depends greatly on the molecular volume of these liquids, and the molecular volume again depends on the chemical composition. The knowledge of the chemical composition of a liquid gives some indication of its behaviour in regard to solubility in other liquids.—J. G. **Stephens**: A new method of measuring molecular weights. The author employs the fact that isotonic solutions have equal vapour pressures as a means of determining molecular weights. Two tubes each containing a solution of different substances in the same solvent are placed in communication. Distillation occurs from one tube to the other until the solutions become isotonic, when the molecular weight of one of the substances may be calculated in terms of that of the other.

BOOKS RECEIVED.

The Romantic Roussillon: In the French Pyrenees. By I. Savory. Pp. xii+214+plates. (London: T. Fisher Unwin, Ltd.) 25*s.* net.

The Foundations of Music. By Dr. H. J. Watt. Pp. xvi+239. (London: At the Cambridge University Press.) 18*s.* net.

The Adventive Flora of Tweedside. By I. M. Hayward and Dr. G. C. Druce. Pp. xxxii+296. (Arbroath: T. Buncle and Co.)

The New Hazell Annual and Almanack for the Year 1920. Pp. liv+941. (London: H. Frowde and Hodder and Stoughton.) 6*s.* net.