

stage, so that the cycle has not been quite completed, and the length of time passed in the larval state is still unknown.—Dr. R. J. Tillyard: Revision of the family Eustheniidae (order Perlaria), with descriptions of new genera and species. The Eustheniidae are described as a distinct family possessing only archaic family characters. To the three genera and four species which have been described the author adds two genera and seven species, all of which are described for the first time. The known distribution of the family is Tasmania, Victoria, New Zealand, mountains of East Australia, and southern Chile, and is regarded as an argument in favour of an Antarctic origin of the Perlaria.—Margaret H. O'Dwyer: Preliminary report on the nutritive value of certain Australian grasses. A number of grasses grown at the Botanic Gardens and at various State experiment farms have been analysed with the view of determining their value as foodstuffs. In order that the results might be of value for comparative purposes the material was obtained so far as possible at the following well-defined stages of growth:—(1) About half-way between the time when it begins to shoot and the flowering period, (2) early flowering period, and (3) when the seed is quite set. The paper comprises a preliminary discussion of the methods used and the results of the analyses.

CAPE TOWN

Royal Society of South Africa, June 15.—Dr. A. Young in the chair.—V. H. Brink: A preliminary genetic study on the osteology of the Griquas.—E. Newbery: Note on the life-period of the over-voltage compounds. A series of experiments has been carried out to determine the effect of changes in the speed of the commutator upon the measured over-voltage of various cathodes in dilute sulphuric acid. The commutator was rotated at speeds varying between 300 and 1500 revs. per minute, and an interesting set of curves was obtained by plotting the observed over-voltages against these speeds. The relative rates of decomposition or decay of the over-voltage compounds are shown by these curves. Those of zinc and chromium are so stable that no perceptible change of potential occurs within the time-limits of the experiments. The hydrides of silver, platinum, and graphite show signs of decay after one-twentieth of a second, those of copper and cadmium after one-thirtieth of a second, whilst those of lead and nickel appear to be decomposed with very great rapidity.

July 20.—Dr. J. D. F. Gilchrist, president, in the chair.—E. J. Hamlin: The effect of sunlight on secondary batteries.—Dr. J. D. F. Gilchrist: Note on the pectoral fin of *Achirus* (a species of sole).

Books Received.

Memoirs of the Geological Survey: England and Wales. The Geology of the South Wales Coalfield. Part xiii.: The Country around Pembroke and Tenby. By E. E. L. Dixon. Pp. vi+220+5 plates. (Southampton: Ordnance Survey Office; London: E. Stanford, Ltd.) 8s. net.

Greek Atrocities in Turkey. First Book, Publication No. 4. Pp. 153+5. (Constantinople: Ministry of Interior, Dept. of Refugees.)

Ministry of Finance, Egypt: Survey of Egypt. The Soils and Water Supply of the Maryut District, West of Alexandria. By Dr. W. F. Hume and F. Hughes. (S.D.P. No. 37.) Pp. v+52+xiii plates. (Cairo: Government Press.) P.T.10

Loughborough College, Leicestershire. Calendar: Session 1921-22. Pp. xviii+190. (Loughborough: The Echo Press.) 2s. 6d. net.

NO. 2703, VOL. 107]

A Text-book of Physics. Edited by A. W. Duff. Fifth edition, revised. Pp. xiv+700. (London: J. and A. Churchill.) 16s. net.

Department of Mines and Explosives, Mysore State. Report of the Chief Inspector of Mines in Mysore for the Year 1919-20; with Statistics for the Calendar Year 1919. Pp. 34+45. (Oorgaum.) 2 rupees.

The Law of Births and Deaths: Being a Study of the Variation in the Degree of Animal Fertility under the Influence of the Environment. By Charles Edward Pell. Pp. 192. (London: T. Fisher Unwin, Ltd.) 12s. 6d. net.

Magnetizzazione della Eletticità: Rotazione Elettro-Magnetica del Sistema Planetario e Specialmente del Terreno e dei Vegetali Terrestri. By Niccolò Mancini. Pp. iv+91. (Firenze: B. Seeber.)

Die Ursachen der diluvialen Aufschotterung und Erosion. By W. Soergel. Pp. v+74. (Berlin: Gebrüder Borntraeger.) 18 marks.

Department of Scientific and Industrial Research: Report of the Fuel Research Board for the Years 1920, 1921. First Section: Steaming in Vertical Gas Retorts. Pp. viii+54. (London: H.M.S.O.) 1s. 6d. net.

An Introduction to the Flora of Natal and Zululand. By Prof. J. W. Bews. Pp. vi+248. (Pietermaritzburg: City Printing Works; London: Wheldon and Wesley, Ltd.) 15s.

CONTENTS.

	PAGE
A Suggested Institute of Human Sciences . . .	769
Astrology. By Dr. Charles Singer . . .	771
Physical Chemistry, Pure and Applied. By T. M. L. . . .	772
The Realm of Man. By Geo. G. Chisholm . . .	774
Calculus for Students. By G. B. M. . . .	775
Our Bookshelf	775
Letters to the Editor:—	
Biological Terminology.—Dr. F. A. Bather, F.R.S. . . .	778
The Fauna of Scottish Lochs.—Dr. N. Annandale . . .	778
Magnetic Double Refraction in Smokes.—L. Trieri . . .	778
The Exploitation of Irish Peat.—Dr. Alexander Fleck . . .	779
Scarcity of Swallows.—Andrew Pride	779
Earthworms Drowned in Puddles.—R. B. Marston . . .	779
The Neglect of Science.—Prof. Sydney J. Hickson, F.R.S. . . .	779
The Determination of Sex. (With Diagram.) By Prof. R. Goldschmidt	780
Further Remarks on Relativity. III. By Sir Oliver Lodge, F.R.S.	784
Cohesion. By Dr. Herbert Chatley	786
International Conference of Chemistry	787
Obituary:—	
Prof. G. Lippmann, For. Mem. R.S.	788
Capt. W. E. Rolston	789
Samuel Alfred Varley. By C. B.	789
Notes	790
Our Astronomical Column:—	
The August Meteoric Display	793
The Bright Object near the Sun	793
Continuation of the Ephemeris of Eros	793
University Education in the United States	794
Recent Work on Minerals and Rocks. By G. A. J. C.	794
Plant Pests and their Control. By Dr. William B. Brierley	795
Studies of Shore Fishes. By W. C. M.	796
The Lac and Shellac Industry in India. By Dr. A. D. Imms	797
Flight of Flying-fishes	797
University and Educational Intelligence	798
Calendar of Scientific-Pioneers	798
Societies and Academies	799
Books Received	800