

dark matter of our galaxy may be greater in total mass than that which is luminous. FRANK H. SMITH: Preliminary studies of chromosome rings in *Brodiaea lactea*. 21-24 pairs of chromosomes are present and ring or chain associations of four small, four large or six chromosomes have been observed. CLYDE E. KEELER: Absence of the corpus callosum as a Mendelising character in the house mouse. The investigation is laborious because diagnosis of the condition necessitates sacrificing the animal, but none of the matings gives results which suggest other than that the character is a single Mendelian recessive, apparently not detrimental to the individual. P. A. SMITH: The topology of involutions. EDWIN H. HALL: On supraconductivity and the Hall effect. Experimental work at low temperature suggests that, in supraconducting lead, there is very little or no tendency for an electric current to move sideways through the metal (Hall effect). The validity of the work is questioned on the grounds that it assumes full penetration of a supraconducting metal by a magnetic flux—which is regarded as unlikely—and that the current observed in a supraconducting metal may be an aggregate of microscopic electric whirls within the metal and not a circumferential persistent current. GEORGE W. PUCHER and HUBERT BRADFORD VICKERY: The katabolism of the non-volatile organic acids of tobacco leaves during curing. Large losses (up to 100 per cent) of oxalic acid occur during dehydration with alcohol and usual modes of esterification; it should be extracted with ether. Oxalic, malic and monobasic acid content of leaves are little changed by curing; citric acid increases enormously and polybasic acids decrease very rapidly. HENRY BORSOOK and GEOFFREY KEIGHLEY: The energy of urea synthesis. Using a modification of the Warburg technique, increased oxygen consumption accompanied synthesis of urea from ammonium bicarbonate in Ringer's solution. GREGORY PINCUS and PRISCILLA WHITE: On the inheritance of diabetes mellitus. Treating the limited data available statistically and making certain assumptions, they give results in fair agreement with the supposition that the capacity for developing diabetes is inherited as a Mendelian recessive. A. E. NAVEZ: Growth-promoting substance and illumination. Apical parts of *Lupinus albus* seedlings grown in the light appears to give twice as much growth-promoting substance (auxin) as seedlings grown in the dark. T. CUNLIFFE BARNES and T. L. JAHN: The effect of ice and steam water on *Euglena*. The average increase in this organism in 10-16 days was 32 per cent in condensed steam water and 105 per cent in ice water.

Forthcoming Events

[Meetings marked with an asterisk are open to the public.]

Monday, Oct. 9

UNIVERSITY OF LONDON, at 5.30—(at King's College).
—Prof. Henri Baulig: "The Changing Sea Level"
(succeeding lectures on Oct. 11, 12 and 16).*

Tuesday, Oct. 10

ILLUMINATING ENGINEERING SOCIETY, at 6.30—(at E.L.M.A., Lighting Service Bureau, 2 Savoy Hill, W.C.2).—C. W. Sulley: Presidential address.

ROYAL SOCIETY OF MEDICINE (Section of Therapeutics and Pharmacology), at 5.—Dr. J. H. Burn: "A Pharmacological Approach to the Cause of Asthma" (Presidential address).

Official Publications Received

GREAT BRITAIN AND IRELAND

The Royal Technical College, Glasgow. Calendar for the One Hundred and Thirty-eighth Session, 1933-1934. Pp. 460+xxiv. (Glasgow.)

Transactions of the Royal Society of Edinburgh. Vol. 57, Part 3. No. 27: Stratigraphical Observations in the Sfor Fjord Region of Spitsbergen. By Dr. G. W. Tyrrell; with an Appendix on the Mesozoic Fossils from Spitsbergen collected by Dr. G. W. Tyrrell, by Dr. J. Weir. Pp. 675-697+1 plate. 3s. 6d. Vol. 57, Part 3, No. 28: The Structure of the Foot in certain Mosses and in *Anthoceros levis*. By Nellie M. Blaikley. Pp. 699-709. 1s. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.)

Annual Report of the Director of the Meteorological Office presented by the Meteorological Committee to the Air Council for the Year ended March 31, 1933. (M.O. 353.) Pp. 55. (London: H.M. Stationery Office.) 1s. net.

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1486 (I.C.E. 841 and 841a): Oil Cooling for Aircraft. By B. C. Carter. Pp. 58+33 plates. 3s. 6d. net. No. 1523 (T. 3304a): Determination of the Stresses in Braced Frameworks. By L. Chitty. Pp. 36. 1s. 9d. net. No. 1538 (Strut. 129): Effect of Ribs on Stresses in Spars. By D. Williams and Dr. H. Roxbee Cox. Pp. 12+3 plates. 1s. net. No. 1542 (N. 81): Silencing Aircraft. By Dr. A. H. Davis. Pp. 10+2 plates. 9d. net. (London: H.M. Stationery Office.)

The Journal of the Institution of Electrical Engineers. Edited by P. F. Rowell. Vol. 73, No. 441, September. Pp. 213-320+xvi. (London: E. and F. N. Spon, Ltd.) 10s. 6d.

The Detection and Determination of Small Amounts of Inorganic Substances by Colorimetric Methods. By N. Strafford. Pp. 36. (London: Institute of Chemistry.)

Proceedings of the Linnean Society of London, Session 1932-33. Part 3, including Presidential Address by Prof. F. E. Weiss: Variegated Foliage. Pp. 105-150. (London: Linnean Society.) 1s. 6d.

The North Staffordshire Field Club. Transactions and Annual Report, 1932-33. Edited by the Rev. E. Deacon. (Vol. 67.) Pp. 155+A75-A106. (Stafford.) 7s. 6d.

OTHER COUNTRIES

Journal of the Federated Malay States Museums. Vol. 17, Part 2, July. Pp. 223-417. (Kuala Lumpur.)

Proceedings of the American Philosophical Society. Vol. 72, No. 4. Pp. 215-283. (Philadelphia.)

Field Museum of Natural History. Anthropology Leaflet 31: Prehistoric Man; Hall of the Stone Age of the Old World. By Henry Field. Pp. 44+8 plates. (Chicago.) 25 cents.

University of Washington Publications in Anthropology. Vol. 5: The Sanpoil and Nespelom; Salishan Peoples of Northeastern Washington. By Verne F. Ray. Pp. 237. (Seattle, Wash.: University of Washington Press.) 2 dollars.

Zoologica: Scientific Contributions of the New York Zoological Society. Vol. 16, Nos. 1, 2 and 3: Deep-Sea Fishes of the Bermuda Oceanographic Expeditions. No. 1: Introduction; No. 2: Family Alepocephalidae; No. 3: Family Argentinidae. By William Beebe. Pp. 147. (New York City.)

Annals of the Royal Botanic Garden, Calcutta. Vol. 13: Asiatic Palms—Corypheae. Posthumous Work by Dr. Odoardo Beccari. Revised and edited by Prof. Ugo Martelli. Pp. vii+356. 50 rupees; 75s. Plates. Pp. v+102 plates. 26.8 rupees; 40s. 6d. (Calcutta: Bengal Secretariat Book Depot.)

Memoirs of the Geological Survey of India. Vol. 63, Part 1: The Geology of Sirohi State, Rajputana. By A. L. Coulson. Pp. vii+166+xxii+12 plates. (Calcutta: Central Book Depot.) 7.5 rupees; 12s.

Sudan Government. Annual Report of the Gezira Agricultural Research Service for the Year ended 31st December, 1932, relating to Experimental Results obtained in the Season 1931-32. Pp. ii+172. (Wad Medani.)

Scientific Reports of the Imperial Institute of Agricultural Research including the Reports of the Imperial Dairy Expert, Physiological Chemist and Sugarcane Expert. Pp. vi+165+3 plates. (Delhi: Manager of Publications.) 2.12 rupees; 5s.

Reports of the Great Barrier Reef Committee. Vol. 4, Part 1. Pp. v+36+7 plates. (Brisbane: Government Printer.)

Ceylon Journal of Science. Section D: Medical Science. Vol. 3, Part 2: Lorain's Infantism, due to Arrested Development of the Pituitary Gland. By Prof. W. C. Osman Hill. Pp. 115-156+plates 17-25. (Colombo: Bacteriological Institute; London: Dulau and Co.) 3 rupees.

Ceylon Journal of Science. Section B: Zoology and Geology. Spolia Zeylanica. Edited by P. E. P. Deraniyagala and G. M. Henry. Vol. 17, Part 3, May 19. Pp. 149-250+plates 28-39. (Colombo: Colombo Museum; London: Dulau and Co.) 3 rupees.

The Hokkaido Imperial University. Calendar 1933-1934. Pp. 213. (Sapporo.)

Technical Books of 1932: a Selection. Compiled by Donald Hendry. (Twenty-fifth Issue.) Pp. 28. (Brooklyn, N.Y.: Pratt Institute Free Library.)

Fifty Years of Museum Work: Autobiography, Unpublished Papers and Bibliography of Dr. Frederic A. Lucas. Pp. x+81+5 plates. (New York City: American Museum of Natural History.)

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