

and the divalent forms of the rare earths is indicated. KONRAD FUNKE and GREGOR PRINZ YPSILANTI: Position of the substituents in dinitroperylene. OTTO KOLLER: Fauna of southern Burgenland (Strembach Valley).

WASHINGTON, D.C.

National Academy of Sciences (*Proc.*, 20, 93-144, Feb. 15, 1934). JOEL STEBBINS and ALBERT E. WHITFORD: The diameter of the Andromeda nebula. A photoelectric photometer has been attached to the 100-in. reflector at Mount Wilson. The telescope is set on the nucleus of the nebula and measures of the sky, or of sky plus nebula, are taken at the same hour circle at intervals of 10' in declination. The data obtained indicate that the nebula is much larger than has hitherto been appreciated from photographs; the known diameter of the nebula north and south from the nucleus and the apparent minor axis or width should be more than doubled. DONALD A. JOHANSEN: Haploids in *Hordeum vulgare*. About 10 per cent of a commercial sample of barley gave plants with very few root tips; the seeds appeared to have more copious endosperm. They proved to be haploids with seven somatic chromosomes. W. E. CASTLE: Possible cytoplasmic as well as chromosomal control of sex in haploid males. Haploid males are only somatically male and this cytoplasmic influence is exerted to overbalance the female tendency of the chromosomes unless dissimilar sex chromosomes are present. J. L. CARTLEDGE and A. F. BLAKESLEE: Mutation rate increased by ageing seeds as shown by pollen abortion. The experimental seeds were *Datura* stored at room temperature for periods up to ten years. HARRIET B. CREIGHTON: Three cases of deficiency in chromosome 9 of *Zea mays*. K. G. EMELÉUS: Notes on intensities in the spectrum OII. M. H. JOHNSON, JR.: On the vector model for almost closed shells. G. PINCUS and E. V. ENZMANN: Can mammalian eggs undergo normal development *in vitro*? Ova from a doe rabbit of one breed were fertilised *in vitro* with sperm from a buck of another breed, and then transferred to a doe of a third breed made pseudo-pregnant by mating with a vasectomised buck of a fourth breed. Young were successfully born which bore none of the characters of the third and fourth breeds used. Another similar transference of ova was also successful. The experiments also show that the corpora lutea of pseudo-pregnancy are functional. NELSON A. WELLS and CLAUDE E. ZOBELL: *Achromobacter ichthyodermis*, n. sp., the etiological agent of an infectious dermatitis of certain marine fishes. This organism causes a highly fatal dermal infection of *Fundulus* in Nature, the effect of which becomes serious in aquaria for *Fundulus* and also for other fish. The organism has only been cultured successfully in sea water substrata. It survives 40° C. for 10 minutes but is killed at 45°; optimum for multiplication, 25°-30°; optimum virulence for *Fundulus*, 20°-25°. Fish in water above 30° resist inoculation, and diseased fish, if acclimatised to 32°-35°, completely recover. G. A. MILLER: Minimum number of squares in a group when not all of them are relatively commutative. EDWARD KASNER: General theorems on trajectories and lines of force. GUSTAV A. HEDLUND: On the metrical transitivity of the geodesics on a surface of constant negative curvature. EINAR HILLE and J. D. TAMARKIN: On the theory of Laplace integrals (2).

Forthcoming Events

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

Monday, June 25

ROYAL GEOGRAPHICAL SOCIETY, at 3.—Annual General Meeting.

INSTITUTE OF PHYSICS (MANCHESTER SECTION), at 5—(in the Physics Department, The University).—Dr. J. M. Nuttall: "Units of Matter".*

Tuesday, June 26

EUGENICS SOCIETY, at 5.15—(in the Rooms of the Linnean Society, Burlington House, W.1).—Prof. F. A. E. Crew: "The Inheritance of Educability in the Rat".*

Wednesday, June 27

INSTITUTE OF PHYSICS (MANCHESTER SECTION), at 5—(in the Physics Department, The University). Prof. W. L. Bragg, Dr. A. J. Bradley and Dr. C. Sykes: "Alloys".*

INSTITUTION OF PETROLEUM TECHNOLOGISTS, June 28-29. —Summer meeting to be held at the Royal Society of Arts, London. President: T. Dewhurst. Discussions: "Oil and Coal"; "Progress of Naphthology".

Official Publications Received

GREAT BRITAIN AND IRELAND

Memoirs of the Cotton Research Station, Trinidad. Series B, Physiology, No. 6: Studies on the Transport of Nitrogenous Substances in the Cotton Plant. Part 6: Concerning Storage in the Bark. By T. G. Mason and E. Phillis. Pp. 315-333. (London: Empire Cotton Growing Corporation.) 2s. 6d.

Royal Botanic Gardens, Kew. Bulletin of Miscellaneous Information, 1933. Pp. iv + 512 + 56 + 18 plates. (London: H.M. Stationery Office.) 15s. net.

The Lister Institute of Preventive Medicine. Report of the Governing Body, 1934. Pp. 32. (London.)

OTHER COUNTRIES

Suppléments au Bulletin biologique de France et de Belgique. Supplément 17: Recherches sur la spermatogénèse des phasmes; mâles d'origine bisexuée. Par Dr. Maurice Favrelle. Pp. ii + 155 + 3 plates. (Paris: Laboratoire d'Évolution des Êtres organisés; Les Presses universitaires de France.) 55 francs.

Zentralanstalt für Meteorologie und Geodynamik. Publikation Nr. 139: Jahrbücher der Zentralanstalt für Meteorologie und Geodynamik. Amtliche Veröffentlichung, Jahrgang 1928. Neue Folge, Band 65. Pp. xx + A42 + B58 + C48 + D8. Publikation Nr. 140: Jahrbücher der Zentralanstalt für Meteorologie und Geodynamik. Amtliche Veröffentlichung, Jahrgang 1929. Neue Folge, Band 66. Pp. xx + A42 + B61 + C52 + D6. (Wien: Gerold und Komp.)

Commonwealth Bureau of Census and Statistics, Canberra. Official Year Book of the Commonwealth of Australia. No. 26, 1933. Prepared by E. T. McPhee. Pp. xxxii + 942. (Canberra: Government Printer.) 5s.

Istanbul Forschungen. Herausgegeben von der Abteilung Istanbul des Archäologischen Institutes des Deutschen Reiches. Band 5: Die Felsbilder von Yazılıkaya. Neue Aufnahmen der Deutschen Boğazköy-Expedition 1931. Zusammengestellt und eingeleitet von Kurt Bittel. Pp. 12 + 31 plates. (Bamberg.) 10 gold marks.

Proceedings of the Academy of Natural Sciences of Philadelphia, Vol. 86. Zoological Results of the Third De Schauensee Siamese Expedition, Part 2: Birds from Siam and the Southern Shan States. By Rodolphe Meyer de Schauensee. Pp. 165-280. (Philadelphia.)

Ceylon. Part 4: Education, Science and Art (G). Administration Report of the Acting Marine Biologist for the Year 1933. By A. H. Malpas. Pp. 7. (Colombo: Government Record Office.) 10 cents.

Smithsonian Miscellaneous Collections. Vol. 89, No. 14: Millipeds of the West Indies and Guiana collected by the Allison V. Armour Expedition in 1932. By H. F. Loomis. (Publication 3244.) Pp. ii + 69 + 4 plates. (Washington, D.C.: Smithsonian Institution.)

Bulletin of the American Museum of Natural History. Vol. 67, Article 5: Revision of the Hyrachyidae. By Horace Elmer Wood, 2nd. Pp. 181-295 + plates 20-24. Vol. 67, Article 6: Petrology of Stone Artefacts from Mongolia. By L. Erskine Spock. Pp. 297-310 + plates 25-32. (New York City.)

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