

Peninsula, Java, and Queensland.—G. H. Cunningham: The Gasteromycetes of Australasia (11). The Phallales (pt. 2). Under the Clathraceae are placed eleven genera. The family is rearranged, and divided into three tribes upon the nature of the receptacle of the fructification. A new family is represented by the solitary genus *Claustula* containing *C. Fischeri*. All genera and species are redescribed, their relationships shown and known collections in existence in herbaria of the world are listed.—Mary E. Fuller: The life-history of *Calliphora ochracea* Schiner (Diptera, Calliphoridae). This paper describes the morphology of the earlier stages of the blowfly *Calliphora ochracea* Schiner, and includes some observations on the biology of the fly. The natural breeding habits of the species are not known, but in captivity it has been induced to oviposit on fur covering meat. The hitherto unknown larvæ have been obtained in quantity, and numbers of adults bred through, giving the complete life cycle.—H. L. Jensen: A note on the systematic position of *Mycobacterium coeliacum* Gray and Thornton. This organism agrees morphologically with the genera *Mycobacterium* and *Corynebacterium*. The suggested transfer of it to the genus *Flavobacterium* is therefore not justified.

WASHINGTON, D.C.

National Academy of Sciences (*Proc.*, Vol. 17, No. 4, April 15).—Harvey Cushing: (1) The reaction to posterior pituitary extract (pituitrin) when introduced into the cerebral ventricles. A patient recovering from an operation for a tumour on the brain offered himself for the investigation. Injection of surgical pituitrin into the lateral ventricle of the brain caused pronounced flushing (vaso-dilatation) and excessive sweating (except of the skin over the bone flap) with drop of body temperature and metabolic rate. The effect is almost the reverse of that produced by intramuscular or intravenous injections, which cause blanching of skin and mucous membranes (vaso-constriction) and prompt evacuation.—(2) The similarity in the response to posterior lobe extract (pituitrin) and to pilocarpine when injected into the cerebral ventricles. These substances have very similar effects, suggesting a central autonomic stimulation chiefly of the parasympathetic division.—(3) The action of atropine in counteracting the effects of pituitrin and of pilocarpine injected into the cerebral ventricles. Whether given subcutaneously or previously injected into the cerebral ventricles, atropine appears completely to counteract the effects of pituitrin and pilocarpine injected into the ventricles.—Wilder D. Bancroft and S. F. Whearty, jr.: (1) Activation by charcoal. Chlorine and benzene in the presence of purified activated charcoal form ring-substitution products.—(2) Aromatic substitution products with fluorine. Gaseous fluorine gives substitution products with hexachlorobenzene.—Wilder D. Bancroft and J. E. Rutzler, jr.: Reversible coagulation in living tissue (2). Following up previous work on the coagulation of nerve protein by drugs and its peptisation by sodium thiocyanate, it is suggested that, in the absence of organic ailments, morphine addicts might be cured by the use of this salt.—R. E. Bowen: Movement of the so-called hairs in the ampullar organs of fish ears. Ecker recorded movements of the hair cells of *Petromyzon* in 1844; similar movements, at very varying rates, occur in the teleost *Ameiurus nebulosus*.—Charles W. Metz and Helen Berenice Smith: Further observations on the nature of the X-prime (X') chromosome in *Sciara*.—Tracy Yerkes Thomas: On the unified field theory (5).—Jesse Douglas: The least area property of the minimal surface determined by an arbitrary Jordan contour.—A. D. Michal:

Function space-time manifolds.—A. A. Bless: The composition of the interior of the earth. It is assumed that the temperature gradient in the crust extends to great depths; this leads to the view that dissociation of molecules takes place at great depths, and that the earth consists of the present crust with permanent gases, while the other elements form a core. It is also assumed that the composition of the earth as a whole is similar to that of the upper layers of the sun. The suggested ionisation of the core elements leads to a liquid core of high density, as required by seismic observations. The theory is put forward tentatively as a means of avoiding the hypothesis of a core of heavy metals, chiefly iron.—W. V. Houston and C. M. Lewis: Rotational Raman spectrum of CO₂. The microphotometer curves show a rotation band of equidistant lines. Even rotational states alone are present, and the moment of inertia is 70.2×10^{-40} gm. cm.².

Official Publications Received.

BRITISH.

- Journal of the Royal Statistical Society. New Series, Vol. 94, Part 3. Pp. 359-486+xiii. (London.) 7s. 6d.
Trinidad and Tobago. Minutes and Proceedings of the Sugar Cane Investigation Committee. Part 21. Pp. 269-331. (Trinidad: Government Printing Office.)
Transactions of the Institute of Marine Engineers, Incorporated. Session 1931, Vol. 43, No. 6, July. Pp. 261-304+xliii. (London.)
Experimental Researches and Reports published by the Department of Glass Technology, The University, Sheffield. Vol. 13, 1930. Pp. 288. (Sheffield.) 7s. 6d.
Department of Scientific and Industrial Research. Building Science Abstracts. Vol. 4 (New Series), No. 6, June. Abstracts Nos. 960-1140. Pp. 187-222. (London: H.M. Stationery Office.) 9d. net.
South Australia: Department of Mines. Mining Review for the Half-year ended December 31st, 1930. (No. 53.) Pp. 147+3 plates. (Adelaide: Harrison Weir.)
Royal Commission on the Civil Service, 1929-31. Report. (Cmd. 3909.) Pp. viii+252. (London: H.M. Stationery Office.) 3s. 6d. net.
The Annual Report of the Gresham's School Natural History Society. Pp. 39. (Holt.)
Annals of the (Mededelingen van het) Transvaal Museum. Vol. 14, Part 3, July 28. Pp. 221-250+plates 3-8. (Pretoria.)
Imperial Bureau of Animal Genetics. Bibliography on the Biology of the Fleece, 1931. Pp. 32. 2s. 6d. Bibliography on Fur Breeding, 1931. Pp. 37. 1s. Quarterly Journal, Vol. 2, No. 1. Pp. 24. Quarterly Journal, Vol. 2, No. 2. Pp. 25-48. Quarterly Journal, Vol. 2, No. 3. Pp. 49-72. (Edinburgh and London: Oliver and Boyd, Ltd.)

FOREIGN.

- Journal of the Faculty of Science, Imperial University of Tokyo. Section 2 (Geology, Mineralogy, Geography, Seismology), Vol. 3, Part 4. Pp. 185-204+plates 11-13. (Tokyo: Maruzen Co., Ltd.) 0.60 yen.
Journal de la Société des Americanistes. Nouvelle Série, Tome 22, Fasc. 2. Pp. xiv+249-543+planches 31-40. (Paris.)
U.S. Department of Agriculture. Leaflet No. 78: Hints on Bobcat Trapping. By Stanley P. Young. Pp. ii+6. (Washington, D.C.: Government Printing Office.) 5 cents.
Smithsonian Miscellaneous Collections. Vol. 82, No. 17: The Types of Lamarck's Genera of Shells as selected by J. G. Children in 1823. By A. S. Kennard, A. E. Salisbury and B. B. Woodward. (Publication 3112.) Pp. 40. (Washington, D.C.: Smithsonian Institution.)
Report of the Aeronautical Research Institute, Tôkyô Imperial University. No. 72: On the Yield Point of Mild Steel. By Fujio Nakaniishi. Pp. 83-140. (Tôkyô: Iwanami Shoten.)
U.S. Department of the Interior: Geological Survey. Bulletin 819: The Wasatch Plateau Coal Field, Utah. By Edmund M. Spieker. Pp. vi+210+33 plates. 1.30 dollars. Bulletin 825: Microscopic Determination of the Ore Minerals. By M. N. Short. Pp. vii+204+11 plates. 60 cents. Professional Paper 165-E: The Kaolin Minerals. By Clarence S. Ross and Paul F. Kerr. (Shorter Contributions to General Geology, 1930.) Pp. 151-180+plates 39-43. 15 cents. (Washington, D.C.: Government Printing Office.)
Proceedings of the American Academy of Arts and Sciences. Vol. 65, Nos. 1, 2 and 3: Southern Paiute, a Shoshonean Language, by Edward Sapir; Texts of the Kaibab Paiutes and Uintah Utes, by Edward Sapir; Southern Paiute Dictionary, by Edward Sapir. Pp. 730. (Boston, Mass.) 7.50 dollars.
Journal of the Faculty of Science, Hokkaido Imperial University. Series 1: Mathematics. Vol. 1, No. 1, September 1930. Pp. 45. Series 2: Physics. Vol. 1, No. 1, September 1930. Pp. 75. Series 4: Geology and Mineralogy. Vol. 1, No. 1, September 1930. Pp. 111. (Sapporo.)

CATALOGUES.

- Livogen. Pp. 2. (London: The British Drug Houses, Ltd.)
Hanovia Ultra-violet Light Equipment for Scientific and Commercial Use. Pp. 16. (Slough and London: The British Hanovia Quartz Lamp Co., Ltd.)