

of Microlepidoptera new to the U.S.S.R., *Evetria fessulata* Stgr. and *Laspeyresia mariana* Zerny. The first of the two species develops in cones of *Cupressus*, the second in berries of *Juniperus*.—B. Stegmann: Origin of the bird fauna of the taiga. Pre-glacial fauna of the southern Siberian taiga was composed mainly of Sino-Himalayan elements, while that of the eastern Siberian taiga showed a very close relation with the fauna of North America.—A. P. Semenov-Tjan-Shanskii and St. Breuning: Three new species of the genus *Carabus* from Central Asia. Descriptions of *C. shokalskii* sp. n. and *C. znojkoii* sp. n. from Tjan-Shan, and of *C. redikortzevi* sp. n. from the Alexander range in Turkestan.—V. V. Barovskii: Notes on two species of beetles new to the fauna of the U.S.S.R., and description of a little-known species of the genus *Xylobanus* Ch. Waterh.—S. Bernstein: An example of a continuous function for which the Lagrange formula of trigonometric interpolation diverges.

(C.R., No. 14, 1931.)—A. Fersman: The geochemical arcs of the Chibin Mountains.—N. Filipjev: Lepidopterological notes (12). A new *Hypochalcia* from the Ukraine. A description and figures of *Hypochalcia ukrainæ* sp. n.—A. M. Popov: *Anarrhichas orientalis* Pall., its systematic position and distribution, with notes on the species of *Anarrhichas* in the U.S.S.R.

SYDNEY

Royal Society of New South Wales, May 4.—Edwin Cheel: A review of systematology in botany (Presidential Address). In modern genetical literature, species and their subordinate units are regarded as populations. The units are not easy to define, and, because of this, certain biologists are of the opinion that the main criterion of an individual should be its physiological anatomy. Contrasts were given between the Jordanian methods of splitting the Linnean species into numerous elementary species or micro-species which appeared to be the same as what Lotsy termed 'group hybrids'. It has been found by extensive cultures that certain so-called 'pure lines' give a much higher percentage of mutation than others. From this result Nilsson draws the conclusion that the original 'pure line' did not contain only homozygotes, but also some sort of 'segregants' caused by the heterozygosity, thus upsetting the current theory of the production of pure, namely, homozygotic, lines by autogamous reproduction.

VIENNA

Academy of Sciences, April 28.—Fritz Rieder and Elisabeth Rona: Investigations on the ranges of the α -rays of actinium products. With RdAc the two prominent groups of lines with ranges of 4.7 and 4.35 cm., already seen by other workers, are observed. In addition, three other groups with lower intensities and with the ranges 4.6, 4.3, and 4.2 are found. These groups correspond with those recently detected by Curie and Rosenblum in the magnetic spectrum, but the α_1 , α_2 , and α_3 groups of these authors are not revealed by the author's procedure. The groups with ranges 4.3 and 4.2 were attributed by Curie and Rosenblum to AcX, but the results now obtained indicate with certainty that they belong to RdAc. Experiments with AcX preparations free from RdAc give the known group of range 4.3 cm., and also a second of range 4.1 cm. For AcC the groups with ranges 5.0 and 5.4 cm., observed by Rutherford, Wynn-Williams, and Lewis, are confirmed. With AcA, indications of a fine structure are obtained, since, in addition to the group of 6.47 cm. range, two weak groups with ranges of 6.35 and 6.60 cm. appear to be present. Moreover, with An a group with the range 5.6 cm. occurs, besides that with range 5.70 cm.

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Forthcoming Events

Congress

AUG. 31—SEPT. 7

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (YORK MEETING)—continued.

Monday, Sept. 5.

At 10 A.M.—Prof. P. G. H. Boswell: "The Contacts of Geology: the Ice Age and Early Man in Britain" (Presidential Address to Section C).

Prof. Beatrice Edgell: "Current Constructive Theories in Psychology" (Presidential Address to Section J).

Prof. J. H. Priestley: "The Growing Tree" (Presidential Address to Section K).

At 5.30 P.M.—Mr. H. E. Wimperis: "Speed in Flight" (Public Lecture in the Co-operative Hall).

At 8 P.M.—Sir Richard Gregory, Sir Harold B. Hartley, Mr. Donald Gray, Dr. W. W. Vaughan, Prof. W. W. Watts, Mr. W. M. Heller: Discussion on "The Place of Science in the Education of Boys and Girls up to Sixteen Years of Age".

Tuesday, Sept. 6.

At 8 P.M.—Mr. C. C. Paterson: "Uses of the Photo-electric Cell" (Evening Discourse in the Co-operative Hall).

Official Publications Received

BRITISH

How Electricity helps the Farmer: with Special Reference to Power and Lighting in and around Farm Buildings; Dairy Farming; Poultry House Lighting. A paper presented by F. E. Rowland at the E.D.A. Farmers' Electrical Conference held at the Royal Agricultural Show, Southampton, July 7th, 1932. Pp. 19. Electricity and the Farm. Pp. 12. (London: British Electrical Development Association, Inc.)

City of Leicester Museum and Art Gallery. Twenty-eighth Report to the City Council, 1st April 1931 to 31st March 1932. Pp. 27. (Leicester: Technical College, Bradford. Diploma and Special Day Courses, Session 1932-33. Pp. 240+19 plates. (Bradford.)

Journal of the Royal Microscopical Society. Series 3, Vol. 52, Part 2, June. Pp. xvi+113-252. (London.) 10s. net.

Transactions of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne. New Series, Vol. 8. Pp. viii+165. (Newcastle-upon-Tyne.) 3s.

Navy: Hydrographer's Report. Report on Admiralty Surveys for the Year 1931, by the Hydrographer of the Navy. Pp. v-x. (London: Admiralty.)

(University of London): County Councils of Kent and Surrey. The Journal of the South-Eastern Agricultural College, Wye, Kent. No. 30. Edited for the College by Dr. S. Graham Brade-Birks. Pp. 274. (Wye.) 7s.; to Residents in Kent and Surrey, 4s.

Scientific Proceedings of the Royal Dublin Society. Vol. 20 (N.S.), No. 22: The Inhibition of Chemical Reactions. Part 5: The Influence of Pyridine and other Substances on the Absorption of Ethylene by Sulphuric Acid, and on the Surface Tension of Sulphuric Acid. By William Sydney Eagar Hickson and Dr. Kenneth Claude Bailey. Pp. 267-279. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 1s.

FOREIGN

Japanese Journal of Astronomy and Geophysics. Transactions and Abstracts, Vol. 9, No. 3. Pp. iii+127-243+13-32. (Tokyo: National Research Council of Japan.)

Memoirs of the College of Science, Kyoto Imperial University. Series A, Vol. 15, No. 3, May. Pp. 123-201. (Tokyo and Kyoto: Maruzen Co., Ltd.) 1.70 yen.

Annotations Zoologicae Japonenses. Vol. 13, No. 4, May 5. Pp. 273-439. (Tokyo: Zoological Society of Japan.) 4.00 yen.

Handelingen van het Zesde Nederlandsch-Indisch Natuurwetenschappelijk Congres gehouden te Bandoeng 22, 23, 24, 25, 26 September 1931. Pp. 717. (Bandoeng: A. C. Nix and Co.)

Smithsonian Miscellaneous Collections. Vol. 87, No. 7: Preliminary Classification of Prehistoric Southwestern Basketry. By Gene Weltfish. (Publication 3169.) Pp. 47. (Washington, D.C.: Government Printing Office.)

Proceedings of the United States National Museum. Vol. 81, Art. 6: A Newly Discovered West Indian Mollusk Fauna. By Paul Bartsch. (No. 2929.) Pp. 12+3 plates. Vol. 81, Art. 9: New Diptera, or Two-winged Flies from America, Asia and Java, with Additional Notes. By J. M. Aldrich. (No. 2932.) Pp. 28+1 plate. Vol. 81, Art. 11: The Forms of the Common Old World Swallowtail Butterfly (*Papilio machaon*) in North America, with Descriptions of Two new Subspecies. By Austin H. Clark. (No. 2934.) Pp. 15+8 plates. (Washington, D.C.: Government Printing Office.)

Egyptian University: Faculty of Medicine. Publication No. 3: The Third Pandemic of Plague in Egypt; Historical, Statistical and Epidemiological Remarks on the first Thirty-two Years of its Prevalence. By Prof. A. W. Wakil. Pp. vi+169. (Cairo.)

Transactions of the Academy of Science of St. Louis. Vol. 27: The Prairie Horned Lark. By Gayle B. Pickwell. Pp. iv+160+34 plates. (St. Louis.) 2 dollars.