gone on evolving in parallel or divergent series. H. A. PILSBRY.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for January contains the fourth of the series of papers on 'Adaptations to Aquatic, Arboreal, Fossorial and Cursorial Habits in Mammals,' the present being devoted to 'Cursorial Adaptations,' by Richard S. Lull. R. W. Shufeldt has a lengthy paper 'On the Osteology and Systematic Position of the Pygopodes,' giving at the end a comparison of the differential characters of the loons and grebes which are considered as forming two superfamilies. The affinities of these groups to the extinct *Hesperornis* are said to be practically certain, but this conclusion should be received with caution. T. A. Jaggar, Jr., renders a translation of the account of 'The Eruption of Mount Pelée, 1851,' from the French of Le Prieur, Peyraud and Rufz which is of considerable interest. The balance of the number is devoted to reviews and notes.

The Popular Science Monthly for April begins with an account of 'Recent Discoveries in Radiation and their Significance,' by R. A. Millikan, briefly summarizing our present knowledge of the subject and suggesting that certain elements, at least, are transmutable into others. 'The Evolution of the Human Form' is discussed by Charles Morris, who reaches the conclusion (somewhat open to question) that if there are beings on the other planets that answer to man they must follow his physical configuration. Solon I. Bailey describes 'The Arequipa Station of the Harvard Observatory' and Edward F. Williams presents his second paper on 'The Royal Prussian Academy of Science and the Fine Arts, Berlin.' Carl Duisberg considers 'The Influence of Liebig on the Development of Chemical Industries,' believing that while this is now great his indirect influence will be still greater in the future. J. Madison Taylor has the third article on 'The Conservation of Energy in Those of Advancing Years,' a general plea being for rational exercise and diet and not dependence on drugs. 'The Caucasian in Brazil' is considered by Thomas C. Dawson, who believes that he can hold his own in the tropics and adduces figures to show the greater fertility of the white race. Finally, Guy L. Hunner treats of 'The Air of the Luray Caverns.' The number contains the index to Vol. LXIV.

THE April number of the *Transactions of the American Mathematical Society* contains the following papers:

G. A. BLISS: 'An Existence Theorem for a Differential Equation of the Second Order, with an Application to the Calculus of Variations.'

L. E. DICKSON: 'Determination of all the Subgroups of the Known Simple Group of order 25920.'

C. N. HASKINS: 'On the Invariants of Quadratic Differential Forms, II.'

E. D. ROE, JR.: 'On the Coefficients in the Product of an Alternant and a Symmetric Function.'

F. N. COLE: 'The Groups of Order $p^3q\beta$.'

MAX MASON: 'Green's Theorem and Green's Functions for Certain Systems of Differential Equations.'

E. J. WILCZYNSKI: 'Studies in the General Theory of Ruled Surfaces.'

SOCIETIES AND ACADEMIES.

THE BIOLOGICAL SOCIETY OF WASHINGTON.

THE 384th regular meeting of the society was held Saturday evening, March 19, 1904. Dr. C. E. Waters exhibited numerous specimens of common ferns in which the fronds were only partially fertile. The entire series demonstrated a complete gradation from the sterile to the fertile fronds. Dr. B. W. Evermann exhibited a series of seventy-three engravers' proofs of colored plates of Hawaiian fishes. All were drawn and colored from living fish, chiefly by A. H. Baldwin and C. B. Hudson. The live specimens were placed in an aquarium as soon as caught and the artist began work on them immediately or within a very short time. The result is an accurate reproduction of the actual life colors of the animals. The plates will be published in the near future by the U. S. Fish Commission.

Mr. W. P. Hay read a paper on the 'Life History and Economic Importance of the Blue Crab, *Callinectes sapidus*,' illustrating his remarks with lantern slide views. The more important life functions and habits of