

ized, although not too critical, compilation of reactions with extensive references (over 5,200) to the literature. There is a good index, referring to paragraphs, which makes the material in the book readily accessible.

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*Mammals of Nevada.* E. Raymond Hall. Berkeley-Los Angeles: Univ. California Press, 1946. Pp. xi+710. (Illustrated.) \$7.50.

This product of 35 years of field and museum work began with Miss Annie M. Alexander's trip of 1909. For a third of a century Nevada was one of the training grounds of some 60 or 70 students and staff from Berkeley. This contemporary remembers Miss Alexander's wise choice of Jordan's student, Joseph Grinnell, and does not think of the Museum without the triumvirate of Grinnell, Dixon, and Hall coming to mind.

Seventeen thousand eight hundred sixty-one Nevada (15,000+ in M.V.Z.) specimens were examined, and "232 kinds (species and subspecies) of 111 full species which belong to 57 genera of 23 families of 6 orders" are treated. The treatment of each subspecies is under six headings: scientific name, common name, synonymy, distribution, remarks (measurements, weight, related forms), and records of occurrence. Under species the author gives notes on color, trapping, pelages, reproduction, size, habitat, habits, and other ecological items. Some species have extended accounts, such as the badger (10 pp.), coyotes (22 pp., including trapping, control, control methods, why control, alleged gains and losses, facts, personal views, suggested plan), townsend ground squirrel (10 pp., including Alcorn's work), black-tailed deer (9 pp.), and striped skunk (10 pp.). Occasionally this account appears under the genus, as in the case of the pocket gopher, *Thomomys* (13 pp.).

The book contains 81 large distributional Nevada maps (with N.A. insets), 11 full-page fine representative habitats, 470 skull and tooth figures and 15 other figures (8 of which are maps of relief, precipitation, life zones, faunal areas and center of differentiation, Lake Lahontan, type localities, counties), and the customary appreciated colored life-zone chart of former Museum publications. Factors responsible for geographic distribution as given by the author, are: edaphic factors, plants, moisture, number of mammals (20 per acre), fluctuations in Lake Lahontan (pre- and post-populations), cline gradients of size, etc., speciation (e.g. 4 species or 29 subspecies of *Thomomys*, pocket gopher, or 9 species and 13 subspecies of *Eutamias*, chipmunk), and desert character of mammalian fauna. Usually the subspecies are ecologically in distinct habitats, but in Nevada, as elsewhere, there are puzzling overlaps. There is a convenient check list and classification schema of Nevadan mammals and a well-planned key to genera and species. The illustrations (copies) should have the customary "after —." The book closes with a hypothetical list, appropriate map and list of type localities, gazetteer, glossary, literature, and index. The gazetteer (23 pp.), like those of Linsdale, is very helpful.

This volume's author, sponsors, and press are to be

congratulated on this handsome book and its excellent format. Not even the most populous state can claim such a thoroughgoing, extensive account of its mammal fauna. It is a standard, set by one of the best living authorities on North American mammalogy, which future students of western mammals will use constantly.

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## Scientific Book Register

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ALLEN, H. B. *Rural education and welfare in the Middle East.* (A report to the Director General, Middle East Supply Centre, September 1944.) London: His Majesty's Stationery Office; New York: British Information Services, 1946. Pp. v+24. \$0.45.

BAXTER, JAMES PHINNEY, 3RD. *Scientists against time.* Boston: Little, Brown, 1946. Pp. xv+473. (Illustrated.) \$5.00.

CLARK, AUSTIN H. *Echinoderms from the Pearl Islands, with a revision of the Pacific species of the genus Encope.* (Smithsonian Miscellaneous Collections, Vol. 106, No. 5.) Washington, D. C.: Smithsonian Institution, 1946. Pp. 11. (Illustrated.)

CORWIN, E. H. L. *The American hospital.* New York: Commonwealth Fund, 1946. Pp. xii+226. (Illustrated.) \$1.50.

ERLANSO, C. O. *The vegetation of San Jose Island, Republic of Panama.* (Smithsonian Miscellaneous Collections, Vol. 106, No. 2.) Washington, D. C.: Smithsonian Institution, 1946. Pp. 12. (Illustrated.)

FEIBLEMAN, JAMES. *The theory of human culture.* New York: Duell, Sloan and Pearce, 1946. Pp. xiv+361. \$5.00.

FULTON, JOHN F. *Harvey Cushing: a biography.* Springfield, Ill.: Charles C. Thomas, 1946. Pp. xii+754. (Illustrated.) \$5.00.

MCKAY, HERBERT. *The world of numbers.* Cambridge, Engl.: At the Univ. Press; New York: Macmillan, 1946. Pp. 198. (Illustrated.) \$2.50.

MCKEEN, B. A. *The agricultural development of the Middle East.* (A Report to the Director General, Middle East Supply Centre, May 1945.) London: His Majesty's Stationery Office; New York: British Information Services, 1946. Pp. xii+126. (Illustrated.) \$1.50.

PANTIN, C. F. S. *Notes on microscopical technique for zoologists.* Cambridge, Engl.: At the Univ. Press; New York: Macmillan, 1946. Pp. viii+75. (Illustrated.)

SHANNON, JAMES I. *The amazing electron.* Milwaukee, Wisc.: Bruce Publishing Co., 1946. Pp. xii+248. (Illustrated.) \$4.00.

WORTHINGTON, E. C. *Middle East science: a survey of subjects other than agriculture.* (A Report to the Director General, Middle East Supply Centre, August 1945.) London: His Majesty's Stationery Office; New York: British Information Services, 1946. Pp. xiii+239. (Illustrated.) \$2.15.