



Kangaroo Rat

► THE NORWAY rat has done a disservice to the rodents of the world by making himself an impudent nuisance and even sometimes a menace to health and human life. For he has brought into disrepute a host of respectable and even attractive rodents who share the name "rat."

There are, for example, the kangaroo rats. The method of locomotion distinguished by leaping great distances on the hind feet is ordinarily thought to be the

province of frogs, grasshoppers and certain Australian marsupials who carry sidecars in front for their young. But as a matter of fact, there are many animals of other families elsewhere in the world who have discovered for themselves that jumping is the best defense. When danger threatens the one good way to escape is simply to leave—preferably by air, as far and as fast as muscles will allow.

That is what the kangaroo rat does. Unlike his larger namesake, who goes leaping across the countryside as an every-day sport, this little animal normally sticks close to terra firma and does not jump about in hops many times his own body length. But when he doesn't like the sound or smell of his environs, he can take off like a startled grasshopper, and no dog or snake can predict in which direction or how far he will jump.

The kangaroo rat is like the larger kangaroo in that he uses his tail as a support, the third member of a three-cornered tri-

pod on which he sits and surveys the world. His muscular tail has a bit of window-dressing, in addition. It ends in a bushy tuft of hair which flies out behind its owner whenever he jumps, like a foxtail on a hopped-up hot rod.

There are several species of kangaroo rats in America, all of them outdoor dwellers. You have no need to fear that some day a household mouse will begin leaping about your furniture. Although there are a number of smaller jumping rodents as well as the rats, these too stick to wide-open fields and woodland. Their common name is "Kangaroo mice," obviously.

To balance this borrowing of another animal's title, there are in Australia certain kangaroo-like creatures which are so small that they are usually called "mouse-kangaroos." Where one family stops and the other starts is a nice question. It can best be left to the jumping frog of Calaveras County to decide.

Science News Letter, November 11, 1950

Books of the Week

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THE ADVANCEMENT OF SCIENCE—*British Association for the Advancement of Science*, 170 p., illus., paper, 6 shillings. Mostly addresses presented at the Birmingham meeting, 1950.

THE ANATOMY OF THE GORILLA: The Studies of Henry Cushier Raven and contributions by others—William King Gregory, Ed.—*Columbia University Press*, 259 p., illus., \$15.00. A detailed anatomical description of the great anthropoid ape. Excellent illustrations.

ANNUAL REPORT OF THE SECRETARY OF THE INTERIOR—*Gov't. Printing Office*, 407 p., illus., paper, 75 cents. Achievements of the department for the past year ending June 1949.

AN ANTHROPOLOGICAL BIBLIOGRAPHY OF THE EASTERN SEABOARD—Irving Rouse and John M. Goggin, Eds.—*Eastern States Archeological Federation*, 174 p., paper, \$2.50.

ARTHRITIS AND THE MIRACLE DRUGS—Alton L. Blakeslee—*Public Affairs Committee*, Pamphlet No. 166, 32 p., illus., paper, 20 cents. A pamphlet telling the effects of cortisone and ACTH on arthritis.

CHEMISTRY AND BIOLOGY OF PROTEINS—Felix Haurowitz—*Academic Press*, 374 p., illus., \$5.50. A textbook for graduate students.

THE CLIMATE NEAR THE GROUND—Rudolf Geiger—*Harvard University Press*, 2nd ed., 482 p., illus., \$5.00. An earlier work brought up-to-date. Translated from the German by Milroy N. Stewart and others.

DE RE METALLICA—Georgius Agricola—*Dover*, 638 p., illus., \$10.00. A new edition of a scientific classic which was translated in a limited edition in 1912. Translated from the first Latin edition of 1556 with biographical introductions, annotations and appendices upon the development of mining methods, metallurgical processes, geology, mineralogy and mining law from the earliest times to

the 16th century. Translated by Herbert Clark Hoover and Lou Henry Hoover.

EMOTIONS AND CLINICAL MEDICINE—Stanley Cobb—*Norton*, 243 p., illus., \$3.00. A review of the field. Material is drawn chiefly from the author's three Salmon Lectures in November, 1949.

EQUILIBRIUM DATA FOR TIN ALLOYS—*Tin Research Institute*, 60 p., illus., paper, 50 cents. Intended as a reference book for metallurgists and scientific workers.

FEELINGS AND EMOTIONS: The Moosheart Symposium in Cooperation With The University of Chicago—Martin L. Reymert, Ed.—*McGraw-Hill*, 603 p., illus., \$6.50. Theoretical and experimental contributions to the psychology of feelings and emotions as presented at the symposium in 1948. Among the contributors are Gardner Murphy, Margaret Mead, Arnold Gesell and Curt P. Richter.

THE FLIGHT OF THUNDERBOLTS—B. F. J. Schonland—*Oxford University Press*, 152 p., illus., \$3.00. A book on lightning for both the general reader and the specialist.

THE FIRST BOOK OF INDIANS—Benjamin Brewster—*Watts*, 69 p., illus., \$1.50. A child's book telling how the Indians lived before the white man came and how they live now. Well illustrated by Ursula Koering.

FOREST PLANTATIONS IN THE LAKE STATES—Paul O. Rudolf—*Gov't. Printing Office*, 171 p., illus., paper, 45 cents. Reviews the many forest projects taking place in the lake states.

GEOGRAPHICAL VARIATION AND SUBSPECIATION IN *HELICONIUS CHARITONIUS* LINNAEUS (LEPIDOPTERA, NYMPHALIDAE)—William P. Comstock and F. Martin Brown—*American Museum of Natural History*, 21 p., illus., paper, 25 cents.

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HEALTH INSTRUCTION YEARBOOK 1950—Oliver E. Byrd, Compiler—Stanford University Press, 270 p., illus., \$3.50. Presents findings of the latest research during the past year.

HOW TO DEVELOP YOUR THINKING ABILITY—Kenneth S. Keyes, Jr.—McGraw-Hill, 246 p., illus., \$3.50. Some practical ideas on how to develop clear thinking. 81 cartoons illustrate these ideas.

MATHEMATICS TO USE—Mary A. Potter and others—Ginn, 501 p., illus., \$2.40. A junior-high school text.

THE MINERAL INDUSTRIES OF NEW YORK STATE Department of Commerce—Division of Commerce and Industry, State of New York, 108 p., illus., paper, free upon request to publisher, 112 State St., Albany 7, N. Y.

REPTILES AND AMPHIBIANS OF THE NORTHEASTERN STATES—Roger Conant—Zoological Society of Philadelphia, 40 p., illus., paper, \$1.00 (Plus 10 cents for postage). A non-technical resume of the snakes, lizards, turtles, frogs, toads and salamanders of the area.

A REVISION OF THE GEOMETRID GENUS *SERICOSEMA* (LEPIDOPTERA)—Frederick H. Rindge—American Museum of Natural History, 30 p., illus., paper, 25 cents.

A REVISION OF THE NORTH AMERICAN SPECIES OF THE GENUS *SYRRHODIA* (LEPIDOPTERA, GEOMETRIDAE)—Frederick H. Rindge—American Museum of Natural History, 26 p., illus., paper, 25 cents.

THE SOLUBILITY OF NONELECTROLYTES—Joel H. Hildebrand and Robert L. Scott—Reinhold, 3rd ed., 488 p., illus., \$10.00. An advanced college text brought up-to-date.

THE SOUTH AMERICAN HANDBOOK 1950: A Year Book and Guide to the Countries and Resources of South and Central America, Mexico and Cuba—Howell Davies, Ed.—Trade and Travel Publications (U. S. Distributor; H. W. Wilson), 27th annual edition, 766 p., illus., \$1.50.

SURVIVAL UNDER ATOMIC ATTACK—National Security Resources Board—Gov't. Printing Office, 31 p., paper, 10 cents. Practical suggestions for protection against an atomic attack.

THEORY OF MENTAL TESTS—Harold Gulliksen—

Wiley, 486 p., illus., \$6.00. Material included is based on the author's experience at the University of Chicago and Princeton. Written primarily for those working in test development.

TAXONOMIC KEYS: To the Common Animals of the North Central States Exclusive of the Parasitic Worms, Insects and Birds—Samuel Eddy and A. C. Hodson—Burgess, 123 p., illus., paper, \$2.00.

UNDERPINNING: Its Practice and Applications—Edmund Astley Prentiss and Lazarus White—Columbia University Press, 2nd ed., 374 p., illus., \$10.00. A technical description of methods and applications for foundation construction.

WOOD PRESERVATION STATISTICS 1949—Henry B. Steer—Forest Service, U. S. Dept. of Ag., 31 p., illus., paper, free upon request to publisher, Washington 25, D. C.

Science News Letter, November 11, 1950

GENERAL SCIENCE

Work of Gibbs, Long Acclaimed in Europe

► THE GENIUS of Josiah Willard Gibbs, American scientist named with two U. S. presidents as one of six new names in New York University's Hall of Fame, has long been acclaimed in Europe.

But Gibbs' name is almost unknown to his countrymen, and even scientists did not recognize his greatness until years after his death.

Henry Adams called this mathematical physicist "the greatest of Americans, judged by his rank in science." Modern chemistry and metallurgy is based upon his discoveries in the laws of heat. He was a professor at Yale University from 1871 until his death in 1903. Yet it was Maxwell, a great Scottish physicist, and later the most learned scientific societies of Europe, who first realized his stature.

Today, nearly 50 years after his death Gibbs is recognized as having revolutionized chemistry. His principles opened the way for the iron and steel of this century, porcelain, cement, synthetic nitrate fertilizers and hundreds of other vital applications of science to modern industry.

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