

Africa and the west coast of South America.

6) As a result of the present monsoon pattern in southern Asia and the Indian Ocean, the doldrums are located over Australia during the northern winter. With glacial conditions existing over the northern continents, the present winter-type pattern would tend to become semi-permanent, bringing considerably more moisture and precipitation to Australia. It is a well-known fact, established from the fossil record [see Benson (17)], that, during the Pleistocene, large fauna with tropical affinities inhabited Australia. This and the pluvial conditions of central Australia can be explained by the theory of the change in circulation; the small high-altitude glacier of southern

Australia could have existed in much the same manner as do equatorial glaciers on the mountain areas of Africa and South America at present (18).

References and Notes

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K. P. Schmidt—Herpetologist, Ecologist, Zoogeographer

Karl Patterson Schmidt died on 26 September 1957, at the age of 68, as the result of a bite by a boomslang the previous day. The snake had been brought from the Lincoln Park Zoo to the Chicago Natural History Museum for identification. The boomslang is an African "back-fanged" snake, widely but erroneously considered to be less dangerous than the front-fanged cobras and vipers. Moreover, this one was a juvenile and was therefore not expected to carry much venom. Schmidt did not consider the bite serious and took no preventive measures to reduce the toxic effects. He kept an account of his reactions to the poison, including the nausea and hemorrhages, but showed no indication that he anticipated death up to the moment he lapsed into a coma from extensive brain hemorrhages. Exactly a month before his death, he said in his last sentence in a published note in *Copeia* (1957, page 233), "one scarcely needs to be warned that a pit-viper with inch-long fangs is dangerous, whether aggressive or not, quite as one needs to be cautioned against the apparent harmlessness of coral snakes." His friends fervently wish he could have

exercised this caution against the back-fanged boomslang as well. Dramatic as was his death, which was given wide publicity in the newspapers of the country, of far greater import was his continuous contribution to scientific knowledge and to education throughout his long professional life.

Karl Schmidt was born at Lake Forest, Illinois, in 1890, where his father was a professor of German in Lake Forest College. He began his focal interest in science at the Lake Forest Academy, and he completed his freshman year at the college with much distinction. Before he went to Cornell University for further undergraduate training in biology and paleontology, he spent six years on the family farm at Stanley, Wisconsin, where he helped clear its timber and establish a dairy farm. Particularly during this period he developed an intense interest in natural history, and his enthusiasm for the observation of nature was the central theme of his subsequent life. He had a remarkable ability to transmit this interest to younger men (I was one of those who felt his influence), and many scientists in various fields owe much of their

initial inspiration to Schmidt. He started on his long series of field explorations while still an undergraduate, first as a geologist and later as a biologist. His developing professional interest was greatly augmented by his teachers and friends, among whom were J. G. Needham, J. H. Comstock, Anna B. Comstock, G. D. Harris, and A. H. Wright.

He was married in 1919 to Margaret Wightman, and together they immediately sailed to Puerto Rico on an expedition for the New York Academy of Science. Throughout their married life, Margaret Schmidt added a balance and an integration to their lives which unquestionably were major factors in her husband's productivity. She and their two sons, John and Robert, survive him.

Schmidt became assistant curator of reptiles and amphibians at the American Museum of Natural History in 1918. He joined the staff of the Chicago Natural History Museum in 1922, where he rose from assistant curator of reptiles and amphibians to curator, and then to chief curator of zoology in 1941. At the time of his retirement from administrative duties, in 1955, a volume with contributions by many of his associates was published in his honor (*Fieldiana: Zoology*, vol. 37, 1955).

He was a steady contributor to scientific journals and wrote nearly 150 articles and books on his researches in herpetology. He was former herpetological editor of *Copeia*, section editor of *Biological Abstracts*, and editor of the zoological journals of the Chicago Natural History Museum. He was author or joint author of several books on zoological subjects, among them *Ecological Animal*

Geography, by Hesse, Allee, and Schmidt, and *Principles of Animal Ecology*, by Allee, Emerson, Park, Park, and Schmidt. He was an avid reader of the classics in natural history and was keenly interested in the personalities in this field. He was always able to bring historical perspective into his discussions of modern biological problems. He had been chosen to coordinate and edit the volume of essays by prominent students of evolution to be published in connection with the Darwin Centennial Celebration at the University of Chicago in the fall of 1959. He was skilled in speaking to both professional and nonprofessional audiences, and his humor and human sensitivity brought forth enthusiastic responses from his listeners. He could establish rapport with natives in the South Seas or in Central or South America and with oil-drillers, farmers, and university students alike. He was sincere and earnest in everything he undertook, his enthusiasm for life and for knowledge was contagious, and his feeling for the highest human values made him religious in the most fundamental meaning of the term. Although he was essentially a modest and rather self-effacing person, he was also strong in his opinions and forceful in his denunciations.

He was honored by many organizations. He held a Guggenheim fellowship in 1932, was president of the Society of Ichthyologists and Herpetologists from 1942 to 1946, was president of the Society for the Study of Evolution in 1954,

and was elected to the National Academy of Sciences in 1956. Earlham College granted him an honorary degree of Doctor of Science in 1952. He received the citation of "Eminent Ecologist" at the 1957 meeting of the Ecological Society of America at Stanford.

He had great influence in bringing about cooperative relations between individuals and organizations alike. The active participation of the Chicago Natural History Museum in joint programs with the University of Chicago and the Chicago Zoological Park at Brookfield stems in part from his understanding of personalities and projects. He had great faith in the present and future functions of museums as scientific and educational institutions and planned to write a book on this subject.

I have given a brief summary of his activities and a few indications of the regard in which he was held by his colleagues and associates in both national and local affairs, but I venture to say that even more lasting will be the personal and emotional influence he had on his family, on his friends, and particularly on his younger associates both in the United States and in foreign countries. Throughout my own long friendship with Karl Schmidt, I often sought his counsel on scientific matters, and I collaborated with him in the writing of one book. We were associated in the organization of both national and local societies. But I miss him even more for his human qualities, his honesty, and his

selflessness than for his objective scientific knowledge, judgment, and understanding, and I feel sure that countless others react to his tragic death as I do.

Those who wish to understand some of the qualities of the man and of the scientist may gain insight from his beautiful tribute to his friend and collaborator, W. C. Allee [in *Biographical Memoirs* (National Academy of Sciences, 1957), vol. 30]. Those who wish to express their affection and gratitude in a tangible way may contribute to a fund in his honor that will be used to facilitate study by visiting scientists at the Chicago Natural History Museum. Donations should be sent to the Karl P. Schmidt Fund at that institution. The money contributed by his friends and colleagues will assist young naturalists in a manner close to his known desires.

We may well use Schmidt's own words at the end of his biography of E. R. Dunn [*Copeia* 1957, No. 2, 77 (1957)]. "Let us therefore write not only farewell, to our friend, but hail to our colleague's enrichment of our science." And I would add, "and of our lives." In a poem entitled "Ecological Imperative" (1955), he concluded:

What then is wisdom's last conclusion?
What do freedom and salvation mean?
He alone is saved whose life is lost
In love of others, or of other, than
himself.

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News of Science

International Oceanographic Congress

The AAAS, in cooperation with UNESCO and the Special Committee on Oceanic Research of the International Council of Scientific Unions, is organizing an International Oceanographic Congress to be held from 30 August to 12 September 1959 at the United Nations Building, New York. The purpose

of the congress is to provide a common meeting ground for all sciences concerned with the oceans and the organisms contained in them. The congress will be devoted to the fundamentals of the marine sciences rather than to their applications.

It has been agreed by the organizing committee that the congress will be centered around the following five symposia on the oceans.

1) "The history": discussions of the shape and structure of the ocean basins, the acting forces and processes, the origin of sea water and marine organisms, the stratigraphy of the deep sea, and the climatic record.

2) "The boundaries": discussions of the coupling of sea and air, sea level, epicontinental sediments, estuarine and near-shore circulation (including the estuarine environment), influence of land masses on the behavior and distribution of marine organisms, and surface films and their importance in exchange processes.

3) "The deep sea": discussions of the geochemistry and physics of circulation, stirring and mixing in the ocean, nature and origin of bathypelagic life, distribution of pelagic sediment types (biological and physical interpretations), nuclear processes in pelagic sediments, and special characteristics of abyssal organisms.

4) "Dynamics of organic and inor-