



G. A. Boulenger

he would dress in tweed suit, homburg, and cloth cape. Yet apropos to the age in which he began his work, Boulenger refused to use the binocular microscope, employing a small hand lens instead to count scales, and he counted teeth by inserting a needle into the mouth, drawing it along inside the jaw and counting the clicks. He rarely dissected specimens and even then he usually made just a small slit through which only gross features could be seen, quite in keeping with the longstanding British Museum policy at that time that specimens were not to be cut up. Understandably, he did not make fundamental anatomical discoveries such as those made by Edward D. Cope, his great contemporary, which led to new arrangements of families, but Boulenger was quick to capitalize on these innovations and improve on them. His arrangement of reptiles is still essentially current, although that of amphibians has been very largely revised.

Boulenger's habit of not fixing types and of failing to indicate the specific specimens from which descriptions were drawn was custom at the time in Europe. He also did not observe the rules of the "International Code of Zoological Nomenclature" which, in fairness, only came into prominence late in his lifetime. To him scientific names were meant to define and describe, regardless of the legalities involved. Despite Boulenger's mastery of the world's herpetofauna, he had little understanding of geographic distribution or of subspecific variation. Nevertheless,

Boulenger's methods and conclusions dominated European herpetology long after his retirement, although his influence in North America, where a quite independent school of herpetology developed, was never as great, and coverage of its fauna was the weakest part of Boulenger's catalogues.

Boulenger published numerous books, beginning with the British Museum catalogues: amphibians (two volumes, 1882), lizards (three volumes, 1885-1887), turtles, crocodylians, and the tuatara (1889), and snakes (three volumes, 1893-1896), were all published within a 15-year span by the age of 38, an incredible feat for an individual; these volumes were reprinted 1961-1966. Boulenger also published the herpetological volume in the "Fauna of British India" series (1890), a two-volume "Tailless Batrachians of Europe" (1896-1897; reprinted 1978) with its exquisite illustrations, "Les Batraciens . . . d'Europe" (1910), the herpetological section of the series "Vertebrate Fauna of the Malay Peninsula" (1912), "Snakes of Europe" (1913), and finally his two-volume "Monograph of the Lacertidae" (1920-1921, reprinted 1966), which summarized a vast body of meristic data. Besides these books, he published nearly 900 scientific papers, most of which were on herpetology, and served as section editor of *Zoological Record* from 1880 to 1914.

• *References:* "Dr. G. A. Boulenger, F.R.S.," by J. R. Norman, *Nature*, 141: 16-17, 1938; "George Albert Boulenger, 1858-1937," by M. Smith, *Copeia*, 1938: 1-3, 1938; "George Albert Boulenger. 1858-1937," by D. M. S. Watson, *Obit. Notices Fellows Royal Soc.*, 3: 13-17, 1940; "Notice sur George-Albert Boulenger Associé de l'Académie," by M. Poll, *Ann. Acad. Roy. Belg.*, 133(Not. Biogr.): 191-228, 1967; "G. A. Boulenger: His Life and Herpetological Work," by J. C. Battersby, p. vii-xii. *In* Boulenger's Contributions to American Herpetology, vol. 1, repr. ed., Soc. Study Amphib. Rept., Athens (Ohio), 1971. • *Portrait* (1919): Courtesy Gaston F. de Witte. • *Signature* (1916): Adler collection.

BOETTGER, Oskar (1844-1910).

Boettger (sometimes spelled Böttger), Germany's leading herpetologist and malacologist at the turn of the century, was responsible for establishing the Senckenberg Museum as a world center for herpetology. He was born in Frankfurt on 31 March 1844 and developed an interest in paleontology as a boy. He entered the University of Frankfurt in 1863 and later attended the school of mines in Freiberg (Saxony), intending to become a mining engineer, but on graduation in 1866 he could find no job due to political disturbances. Instead, he took a Ph.D. at the University of Würzburg in 1869, with a paleontological thesis, and became a teacher, first in Offenbach and finally in Frankfurt, where he died on 25 September 1910.

Boettger's posts at the Senckenberg Museum—as paleontologist (beginning 1870) and later as herpetologist (1875)—were unsalaried. Indeed, his curating was all the more remarkable in that for the period 1876-1894 he could not even enter the museum! He remained at home due to a nervous disorder (agoraphobia) and the spell was broken only