In addition, Linnaeus authored several works specifically on amphibians and reptiles. In 1745, he published "Amphibia Gyllenborgiana," a review of 24 species of South American, African, and European turtles, frogs, lizards, and snakes in Count Gyllenborg's collection, in which scutellation was used for the first time to define species of snakes. This work was, in fact, the doctoral dissertation of one of his students, but it was the tradition of the day for the professor to write their theses, although the student, or "respondent," had to defend it and pay for its publication! Another such thesis was on the peculiar American salamander *Siren* (1766). Linnaeus's major herpetological work was entitled "Museum S:æ R:æ M:tis Adolphi Friderici Regis Suecorum" (1754), a large folio with 33 plates, 23 of them on snakes and other "Amphibia," based on his king's private cabinet of specimens.

Some of Linnaeus's descriptions of new species were based on descriptions and illustrations in books by Seba, Gessner, Aldrovandi, Catesby, Jonston, and other authors, but most were taken from specimens examined by him. Fortunately, most of these specimens are still intact and have been reviewed in detail in three papers by the Swedish herpetologists Einar Lönnberg and Lars Gabriel Andersson (1896-1900; indexed by P. E. Vanzolini, 1969) and also by Åke Holm (1957).

• *References*: "Linnaeus," by B. D. Jackson, H. F. & G. Witherby, London, xv, 416 pages, 1923; "The Amphibia and Pisces in the First Edition of *Systema Naturae*," by K. P. Schmidt, Copeia, 1951: 2-7, 1951; Papavero, 1971 (pp. 1-3); "Carl Linnaeus," by S. Lindroth, Dict. Sci. Biogr., 8: 374-381, 1973. • *Portrait* (1774) *and signatures* (two versions, dated 1728 on left, 1765 on right): From Jackson, 1923.

LAURENTI, Josephus Nicolaus (1735-1805).

Josephus Nicolaus Laurenti (see *Note 1*) wrote the first major review of amphibians and reptiles after that of Carl Linnaeus. He was born in Vienna on 4 December 1735 and earned his medical degree from the Medical Faculty of the University of Vienna (M.D. 1768), with a thesis entitled "Specimen Medicum, Exhibens Synopsin [*sic*] Reptilium Emendatam cum Experimentis circa Venena." This unimposing little book of 217 pages and five plates, published in Vienna in 1768 (reprinted 1966), is of the greatest importance to herpetology. The first half is a review of the reptiles and amphibians of the world (except turtles), and the rest describes the result of careful experiments to distinguish the venomous Austrian species.

Only ten genera of amphibians and reptiles were named in the "Systema Naturæ" (1758), but Laurenti defined 30, a distinct advance over the classification of Linnaeus. Laurenti proposed some of the most familiar generic names: *Bufo*, *Hyla*, and *Salamandra* among amphibians; the lizards *Gekko*, *Chamaeleo*, *Iguana*, and *Cordylus*; *Crocodylus*; and the snakes *Natrix*, *Vipera*, *Naja*, and *Constrictor*. In addition, he first named and characterized the class Reptilia.

Historically, a few authors have attributed this book to the Hungarian scientist J. J. Winterl who, according to tradition, was a destitute student who sold the manuscript to Laurenti (see *Note 2*). It seems more likely that Winterl, being a chemist, merely collaborated in Laurenti's experiments on venoms and antidotes; Laurenti acknowledged his help on page 213 of his book. These experiments did succeed, incidentally, in deciding which Austrian species were poisonous, but made no advance in understanding the mode of action of venom, as Laurenti accepted the divergent conclusions of both Francesco Redi and Moyse Charas.

Little more is known about Laurenti's life. He attended a secondary school affiliated with the University of Vienna, graduating in 1754. There was then a long gap before his formal medical studies began, but it was normal practice at that time in Vienna for a person to perform medical duties, as a so-called field surgeon, without any higher education, and then to take a medical degree later at a somewhat advanced age (in Laurenti's case, at the age of 32). From 1769 to 1805 Laurenti was a member of the Medical Faculty of the University of Vienna, and in 1772 he passed an examination of that faculty to permit him to perform obstetrical services, implying that he also had a medical practice. Other than his thesis, he apparently published nothing else. He died in Vienna on 17 February 1805.

• *References*: "Joseph Nikolaus Laurent," p. 88. *In* J. G. Meusel, Lexikon der . . . Teutschen Schriftsteller, G. Fleischer, Jr., Leipzig, 1808; "Laurenti, medicinae Doctor," col. 1393. *In* C. G. Jöcher and J. C. Adelung, Allgemeines Gelehrten-Lexikon, vol. 3, G. Jöntzen, Delmenhorst, 1810; "Ueber die im Erzherzogthume Oesterreich verkommenden Reptilien," by L. J. Fitzinger, Arch. Gesch., Statist., Lit., Kunst, 1823: 631-634, 1823; "Joseph Nicolas Laurenti," by J.-E. Dezeimeris, Dict. Hist. Médec. Anc. Mod., 3: 409, 1836; "Joseph-Nicolas Laurenti," by A. J. L. Jourdan, Biogr. Univ. Michaud, 23: 570, 1858; "Types of the Amphibian and Reptilian Genera Proposed by Laurenti in 1768," by L. Stejneger, Copeia, 1936: 133-141, 1936. • *Signature* (1769): Archives, University of Vienna, courtesy Kurt Mühlberger. • *Note 1*: The correct spelling of Laurenti's surname has been in some dispute. The International Commission on Zoological Nomenclature ruled for "Laurenti" (direction 65, 1957), but occasional references have used "Laurent" (e.g., Meusel, 1808). The matter is further confused by the existence of two versions of Laurenti's book—and a reprint of one of them in which Laurenti's name has been critically altered—which differ only in the preliminary pages: a thesis version, issued in March 1768 on the occasion of Laurenti's doctoral defense ("Viennæ, Typis Joan. Thomæ nob. de Trattnern . . . Bibliop.," the version reprinted in 1966) and a public version, presumably issued later in 1768 ("Viennæ, Typ. Joan. Thom. Nob. de Trattnern . . . Bibliop.—1768"). The name "Laurenti" appears on the title pages of both, but it has been disputed whether this form is both genitive and nominative. At the end of the preface in the thesis version