

arrangement that also included descriptions of many new genera; it was partly based on the ideas and notes of his late friends Friedrich Hemprich and Heinrich Boie, both of whom died while quite young. Among other work, Fitzinger discovered the gill openings and male copulatory organs in caecilians (1833-1834), published a classification of turtles (1836 [1835]), and made many other important contributions to herpetology, some of them in the publications of his contemporaries such as J. G. Wagler, Charles L. Bonaparte, Johann Natterer, and A.-M.-C. Duméril and Gabriel Bibron.

In 1843, Fitzinger published his most important work, entitled "Systema Reptilium" (reprinted 1973). In fact, this was only part one—covering his taxon "Amblyglossae" (the geckos, chameleons, iguanids, and agamids) with a 21-page overview of all reptiles—but the series was never continued, perhaps fortunately so, as some have written. In this book Fitzinger incorporated many ideas of the natural philosophers (including, of herpetological interest, Lorenz Oken, J. B. von Spix, and J. J. Kaup) who believed that organisms should be divided and subdivided into some predetermined and repeating number of categories. For Fitzinger, the magic numbers were five and three, and categories thus were constructed and names given simply to complete the desired arithmetical pattern. Yet, in so doing, Fitzinger named many genera, some 70 of which are in use today for amphibians and reptiles, including such well-known genera as *Pseudacris*, *Eretmochelys*, *Gonatodes*, *Lampropeltis*, and *Thamnophis*. In 1864, he published a popular atlas of the world's amphibians and reptiles, illustrated with 108 beautiful plates, but he never abandoned the absurd ideas of "Naturphilosophie" and became an opponent of Darwinism.

• *References*: "Autobiographische Skizze," by L. Fitzinger, *Almanach Akad. Wissensch. Wien*, 35: 182-190, 1885; Siebenrock, 1901 (p. 445); "Leopold Fitzinger: His Life and Herpetological Work," by R. Mertens, p. iii-vi. *In* Fitzinger's *Systema Reptilium*, repr. ed., Soc. Study Amphib. Rept., Athens (Ohio), 1973. • *Portrait and signature*: From Mertens, 1973.

### RAFINESQUE, Constantine S. (1783-1840).

Constantine Samuel Rafinesque (see *Note*), eccentric American naturalist and archeologist, was born in Galata, a suburb of Constantinople (now Istanbul), Turkey, on 22 October 1783, of European parentage. Rafinesque lived his early life in Marseilles, where he developed an interest in botany, but during the French Revolution his family was forced to take refuge in Italy. He was taught by private tutors there and also after returning to Marseilles in 1797, but it was the Parisian naturalist F.-M. Daudin who, through correspondence, most encouraged him. His father dead and the family's fortune lost in the Revolution, Rafinesque visited briefly in America (1802-1805) where, among other activities, he collected reptiles for Daudin. He then settled in Sicily before returning to America permanently in 1815.



*C. S. Rafinesque*

He had been unsuccessful in securing professorships in Palermo and Philadelphia, but in 1819 he accepted a post as Professor of Botany and Natural History at Transylvania College, founded in 1780 in Lexington, Kentucky, as the oldest college west of the Allegheny Mountains frontier. Here, Rafinesque enjoyed his only formal academic success, but it was short lived. On returning from a trip in 1825, he found that the college president, who was opposed to things scientific, had deprived him of his rooms and board. Rafinesque stayed the full term at the college, where he had been a popular teacher, but resigned in 1826. He considered joining the community of scholars at New Harmony, Indiana, but decided to return instead to Philadelphia where he spent the rest of his life. He held some teaching positions, initiated various publishing ventures, and in 1835 co-founded a savings bank. He published numerous books on natural history, especially botany, and on medical flora, American Indians, banking, and numerous other topics. He died on 18 September 1840, overworked, disease-ridden, and unappreciated in his adopted country.

Rafinesque was perhaps the most gifted American naturalist of his era, yet he missed greatness by a combination of factors, including an idiosyncratic temperament. It is said that he lived a century too soon, for he had advanced views about evolution, even acknowledged by Charles Darwin himself, and Rafinesque advocated natural classifications of organisms rather than the prevailing artificial systems of the Linnaeans. Neither endeared him to his erstwhile colleagues. But it was his mania for describing new species (he named more than 6700