



CONSTANTINE S. RAFINESQUE

# CASSINIA

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### Constantine S. Rafinesque as an Ornithologist

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Who was Rafinesque, and what had he to do with ornithology? These would have been very reasonable queries for a birdman to ask forty years ago of a person presuming to make Rafinesque the subject of a leading article in a Philadelphia bird magazine.

As to who Rafinesque was, that is a long and curious story of an unique and many-sided naturalist, who spent the greater half of his wandering life in the middle United States. Born near Constantinople in 1783 of Franco-German parents, the subject of our sketch, like many another Old World genius of the period, drifted to Philadelphia about the time he reached early manhood. Landing in the Quaker City, April 18, 1802, and having influential letters to Dr. Rush and other prominent men, he soon became acquainted with the more noted naturalists of the vicinity, as well as those of New York. Superabundant enthusiasm, combined with a very decided mixture of egotism and vanity, which he never attempted to disguise, together with the most radical and remarkably advanced views as to the classification and nomenclature of biology, eventually

brought him into prominence as one of the most daring and erratic of the new lights in American science of that day. This, however, did not come to pass until several years after his first visit to the United States, for, after traveling on foot extensively in Pennsylvania, New Jersey, Delaware, Maryland and New York, chiefly with an eye to the natural beauties and curiosities of the country, he returned to Sicily in the year 1805. He took back with him a large collection of plants, seeds, shells, minerals, etc., which he had picked up in an amateur way, in his American wanderings. He states that his herbarium alone contained ten thousand specimens. In his autobiography<sup>1</sup> he makes no mention of having collected birds previous to this time, but says, "My brother [who accompanied him to America] had become a Sportsman and procured me many Birds. I wanted to undertake the Ornithology of the United States, finding many of them new or unknown, or badly described." It is interesting to know that this was almost precisely the time when Alexander Wilson had resolved to gather materials for the publication of his American Ornithology, and from what we know of Rafinesque's later attempts in this branch of science, it was a fortunate thing that this scheme of his, like many others, was given up.

A perusal of his autobiography shows that he began the study of birds near Marseilles in 1797, when he started writing letters to F. M. Daudin, the French ornithologist, who was his first learned correspondent. Rafinesque states that in 1800, while living near Leghorn with a Mr. Lanthois, "I began to hunt, but the first Bird I shot was a poor *Parus* (titmouse) whose death appeared a cruelty to me, and I have never been able to become an unfeeling hunter. I sent accounts of rare Birds to Daudin. We often visited in Parties, the woods near the city, when Botany was not forgotten." We have here no doubt the chief reason why Rafinesque did so little systematic work in the realm of higher vertebrate animals and eventually devoted the greater part of his biological studies to botany. Indeed, if it were not for the prominent figure which his work

<sup>1</sup>A Life of Travels and Researches in North America and South Europe (etc.). Phila., 1836, 148 pp.

is gradually assuming in the history of other departments of natural science, we would be almost pardoned in keeping silence as to his ornithological work. However, Philadelphia ornithologists, more than any others, should feel an interest in him, for the three earliest titles in his bibliography, strangely enough, not only relate to birds, but were written in Philadelphia, and the first two of these described four new species of birds from Java, which he found in Peale's Philadelphia Museum. These were communicated to his friend Daudin and published by the latter in the Bulletin of the Philomathic Society of Paris in 1802. The first article describes a new woodpecker and a partridge, omitting, however, to give them scientific names.<sup>1</sup> The second article relates to a new swallow and a new warbler, naming them respectively "*Hirudo longipennis*" and "*Sylvia cuneata*."<sup>2</sup> Rafinesque's descriptions of these, his maiden efforts in this line, were quite full and painstaking. If he had followed these as his models in after life, there would have been another story to tell, but he soon after lapsed into the pernicious brevity and looseness of description, which were not only in large measure the chief causes of his own scientific troubles, but also of those of his successors who have endeavored to identify his discoveries and credit him with the real results.

Returning from this digression, we find him living in Sicily for ten years, actively engaged in commercial and natural history pursuits. Having meanwhile married and been deserted by his wife and two children, and having also published several works relating to the Natural History of Sicily, also a "Nature System" after the plan of the new French School of Science, whose leaders, Lamarck, Lacépède and others, he says, he took for guides, Rafinesque sailed again for America. On the 2d of November, 1815, after a most tempestuous voyage, he was wrecked on the Race Rocks, off Long Island, escaping to land only with his life and "a few scattered funds," his entire bag-

<sup>1</sup>These were supplied later by Rafinesque in his "Précis des découvertes Somiol." Palerme, 1814, p. 2 of the printed covers, viz., *Turnix javanica* and *Dinopium (Picoides) erythronotus*.

<sup>2</sup>Bulletin des Sci. par la Soc. Philomathique, III, Nos. 67, 68, 1802, pp. 146, 153.

by the Ohio River and its tributaries, traveling many thousands of miles entirely on foot.

During this period of over six years he published an article relating to birds in the American Monthly Magazine and Critical Review of New York, for 1818, volume 4, describing a new genus and species of bird, "*Rimamphus crinitus*," or Citron Open Bill, "A beautiful little Bird five inches long, shot in Indiana in July, living on insects, darting on them from the Trees," etc. To us moderns this new creation is absolutely not identifiable, and we are rather suspicious that Rafinesque never saw it, but probably drew his inspiration from some fellow naturalist, although he does give, in addition, the length of its tail! The following year (1819) was published in the Journal De Physique of Paris, his prodrome<sup>1</sup> of seventy new genera of animals from the United States; among these are three of birds, in which he redescribes the Citron Open Bill and adds "*Helmitheros*," the generic name by which our Worm-eating Warbler is known; also "*Symphemia*," a name long used by the A. O. U. for the Willet by a mistaken identification of the type species named by Rafinesque in this description. In 1820 Rafinesque showed great activity, and in the numbers of the Western Review and Miscellaneous Magazine<sup>2</sup> of Lexington he published many contributions, chiefly on botany, ichthyology and geology, supplementing these with an occasional "Faunal Note." I have been unable to consult a copy of this journal, but hope to get word from the Library of Congress as to whether any of these relate to birds.

The same year we find Rafinesque's first published reference to his celebrated contemporary, J. J. Audubon, the ornithologist. This is given in his "Annals of Nature," a pamphlet of sixteen pages published in Lexington, Kentucky, March, 1820. On page 4 of this brochure our author describes four Kentucky and Missouri birds which evidently were based on hearsay accounts, either casually or designedly, given him by Audubon

<sup>1</sup> Jour. de Phys., de Chemie, et d' Hist. Naturelle, etc. Paris, 1819, vol. 88, pp. 417, 429.

<sup>2</sup> Vols. 2 and 3, 1820.

during his stay at Henderson. The first is a hawk—" *Milvus leucomelas*," which he characterizes as—" White, unspotted, top of head, part of back, wings, tail and bill black, feet yellow. It is found in West Kentucky and Illinois, it feeds on fishes and is therefore called fishing hawk ; size small, tail quite forked." This is, of course, a conglomeration of the colors of the Swallow-tailed Kite, the habits of the Osprey and the size of the Kingfisher, described from memory of some fairy tale of an Ohio boatman, or by Audubon himself, though that naturalist is not made responsible for it. The next species is a brown heron of the Ohio Valley, eighteen inches long, "*Ardea phaioma*." For the next one, "*Charadrius viridis*," Audubon has to stand godfather. I quote the description in full : " Entirely of a light green, unspotted, wings and tail tinged with brown, bill and feet black. It has been seen by Mr. Audubon in Missouri near St. Genievie. It is a solitary and very wild Bird, size of the small common Plover [Killdeer]. Is it a Fulica?" [Coot]. This description exhibits a most surprising credulity as well as ignorance of ornithology in the author, but his mode of introducing to us the last one of his new Kentucky birds, the Scarlet-headed Swallow, caps the climax. It reads : "*Hirundo phenicephala*. Head scarlet, back gray, belly white, bill and feet black. A fine and rare swallow seen only once by Mr. Audubon near Henderson, Kentucky, it must have been a wanderer and is probably a native of Louisiana or Mexico." <sup>1</sup>

This brings us to a consideration of Rafinesque's relations with Audubon, which have been so often discussed by later naturalists as being greatly to the discredit of the famous author of the "Birds of America." I have carefully gone over the matter and in the light of facts, not considered or known to these critics, conclude they have been entirely too hard on Audubon. It is evident that these two men greatly enjoyed a joke, the only difference being that Audubon's jokes were of the more practical kind and Rafinesque always gave way to his inordinate desire to describe anything which struck him as a novelty. Witness how complacently he accepts the joke put

<sup>1</sup>See Cassin *re* this species in the Appx. to his Birds of Calif., Texas, etc. Phila., 1856.

upon him by the letter of introduction which he handed to Audubon when the two first met near Audubon's home at Henderson. This is the letter: "Dear Audubon, I send you an odd fish which may prove to be undescribed (etc.). Believe me to be your friend B."<sup>1</sup> In answer to Audubon's inquiry, after reading this note, as to where the fish was, Rafinesque said delightedly, "I am that odd fish, I presume, Mr. Audubon." Audubon's racy description of his guest, published in his Ornithological Biography, is no doubt the best character-sketch of the pedestrian herbalist and fishing enthusiast that ever was penned and no doubt gives us a true picture of the queer side of a many-sided character, and explains in large measure the reason why so few of Rafinesque's contemporaries ever took him seriously. In all his allusions to Audubon in after life, Rafinesque evidently continued to be his sincere admirer. That they continued to meet and exchange courtesies is evinced by several stray allusions in Rafinesque's publications, also by an unpublished letter, written by Rafinesque not many years before his decease, to Dr. Torrey, which is now preserved at the Academy of Natural Sciences of Philadelphia. Here is part of it: "Phila. 2nd Jan. 1832—Mr. Audubon when here informed me that Plants, Animals and Minerals from N. Amer. sell at regular prices in England (etc), where there are 500 merchants of them and ten thousand buyers for private cabinets &c. Some of our Ohio shells which I was first to make known when brought to England sold for 100 dollars a piece! Some rare ones sell yet for a guinea. Plants sell regularly from \$5 to 10. the 100 &c. He advised me to go to Europe with my collections and manuscripts, hoping I would do as well as he, who has made a fortune by his work on Birds. But I believe I am bound to this continent and will not run again the risk of a third shipwreck. \* \* \* My friend Audubon wanted me next to go with him to Florida where he is gone to spend the winter with 2 assistant collectors (but no Botanist). Mr. Carr Jr. could not go with him neither \* \* \* you did not encourage me sufficiently last

<sup>1</sup> This person "B" was probably David G. Burnett of Cincinnati, O., who in 1824 ridiculed Rafinesque's papers on the Indians, etc., in the Cincinnati Literary Gazette.

summer to send him. I could not leave my business in Philada. to go with Audubon notwith'sg my great desire to explore Florida and the Southern States." Another most conclusive proof that Rafinesque did not resent Audubon's joking treatment of him at Henderson is his unqualified praise of the Ornithological Biography in his review of that work on page 35 of the "Atlantic Journal." It may be remembered that Audubon's account of "A Strange Visitor,"<sup>1</sup> to whom he gave the name of "M. Thouville," first appeared in that work, and it is impossible that Rafinesque could not have instantly recognized himself in the portraiture. Taken all in all we owe to Audubon not merely the transparent imposition upon science of the Scarlet-headed Swallow and those impossible new genera and species of Ohio fishes which were confided to and figured for his enthusiastic and insatiable brother Frenchman, but we can thank him also for having kindly entertained a rival naturalist for many days in his own home, despite the loss of his favorite violin, not to speak of the terror of his family during Rafinesque's "First-night" scrimmage after a new species of bat, as well as for the pen-picture which gives us such a realistic view of Rafinesque's personality in the field. To this we may add that Audubon was one of the very few who did not treat his unfortunate brother-naturalist with disdain, neglect or open enmity. Rafinesque thus refers to his visit to Audubon in his Autobiography. He had descended the Ohio to Louisville and thence "took passage in a keel boat \* \* \* but at Hendersonville in Kentucky I left this boat (too slow) and spent some days with Mr. Audubon, Ornithologist, who showed me his fine collection of colored drawings which he has since published in England."

Returning again to his published writings we find a long period of ornithological inactivity separating Rafinesque's bird-notes, already referred to, published in the "Annals of Nature" in 1820, as well as those on bird hybrids published in the "General Annals of the Physical Sciences of Brussels" (page

<sup>1</sup>"The Eccentric Naturalist." Ornithological Biography, Vol. I, pp. 455-460, Edinburgh, 1831.

88) of the same year, from his next contributions on that topic. We find, however, under items 437 and 438 in Fitzpatrick's Bibliography of Rafinesque that he published in the Kentucky "Gazette," Vol. I, Lexington, 1822, an article "On the Birds of Kentucky—a new Swallow," "*Hirundo albifrons*," the Blue Bank-Swallow. Also he published in the succeeding number of that paper an article "On the Wandering Sea-Birds of the Western States." So far I have been unable to consult these references.<sup>1</sup>

Not until 1832 can we discover that Rafinesque again ventured into the field then so actively occupied by Audubon, Bonaparte, Townsend and Nuttall. In that year he put forth his Philadelphia "Atlantic Journal and Friend of Knowledge," no doubt in the vain hope that it would outshine or at least rival the straight-laced and ultra-Linnaean journals of Silliman and the Philadelphia Academy, to whose well-censored pages his later productions were anathema.

In part 2 of the Atlantic Journal, on pages 57 to 59, he makes a double-column comparison of the number of native birds of America which have been domesticated by the aborigines, as compared with those of the Old World. Among the former he lists the "American hen" (Guan?), four ducks, several pigeons, an ostrich (Rhea), the Flamingo (quoting ancient Spanish records) fourteen species of parrots, etc. His evident intent was to disprove the English prejudice that aboriginal America had no domestic birds worth mentioning except the Turkey. On page 63 of the same magazine is a full description of an eagle brought from Buenos Ayres, S. A., then captive in the garden of a Mr. Macarran of Phila. It probably was a Bald Eagle with peculiarly colored toes and a band of brown stain across the ends of its tail feathers due to its five years confinement in a cage. Rafinesque named it *Aquila dicronyx* from the

<sup>1</sup>Through the kindness of Mr. Putnam, Librarian of Congress, a copy of these articles has been forwarded. They prove of much interest and value and considerably increase our estimation of the author as an ornithologist. Being too lengthy for this paper, they will be published in the second issue of the *Auk* for 1912. In these he describes a new gull and new tern, as well as a new genus of terns.

color of its toes, adding the English name, "Macarran Eagle." This novelty further interests us because of its discoverer's statement that "Mr. Audubon admired this Eagle and wanted to purchase him, but Mr. Macarran would not take less than \$100 for him." Between 1832 and 1836, the date of the publication of his "Life of Travels," Rafinesque does not seem to have given any bird-notes to the world. In that work he makes some allusions to them, as already quoted. Another reference to Audubon is there made on page 90. It relates to the period of Rafinesque's life in Philadelphia in 1831. He says—"I was inclined \* \* \* to carry (to France) my discoveries and collections, hoping to publish my works there. Audubon would never have been able to publish his Birds, if he had not gone to England." In another of these, referring to one of his many tramps in the pine-barrens of New Jersey, he says that in July 1833,— "I passed through the Grouse Plains, without trees, the soil is gravelly, covered with bushes and has no value. I stopped at Cedar Bridge to Botanize and found many plants." What a familiar sound this has to D. V. O. C. men! An earlier entry in this book refers to Alexander Wilson in an interesting way. Rafinesque in 1804 was preparing to return to Sicily, when, he says, he was almost side-tracked by some one suggesting that he "might be admitted as Botanist in the expedition which Lewis and Clark were then preparing," and continues,— "it appears that Wilson, who wished to join the party as Ornithologist or Hunter, could not obtain the permission." Rafinesque naively adds,— "The same might have happened with me but I did not apply"! Another reference to his only English confidante and companion, W. Swainson, who collected with him in Sicily and regularly corresponded with him, relates that in 1824 (page 73), "Swainson wanted all the Birds of Kentucky. I could not satisfy all my friends abroad [in sending such collections], not having funds to spend."

Birds appear to have been quite ignored in Rafinesque's later publications, he being entirely absorbed in botany, philology, ethnology, the manufacture and sale of "Pulmel," his sovereign remedy for consumption, and in the establishment of a new system of savings banks.

With the increase of his publications on all sorts of subjects, many of them relating to hobbies undreamed of by his most versatile fore-bears in biological science, the enemies and pecuniary troubles of Rafinesque increased. He had some friends in Philadelphia, who were willing to overlook his faults and stand by him in his worst extremities, but perhaps no man of his talents suffered more keenly in his closing days the ingratitude and neglect of the world which he had so actively endeavored to benefit and enlighten by his researches. Anyone reading his autobiography and willing to overlook the many egoisms and exaggerations of it, will be impressed with the thought that here was a man striving after truth, a real lover of nature, sincerely endeavoring to impart his interpretation of the cosmos to his fellowmen. At the same time he was sadly handicapped by the necessity of making a living out of his discoveries, his peculiarities depriving him of that patronage and encouragement of wealthy friends which is so essential to the best success in the career of a scientific man addicted to poverty.

In 1842 Rafinesque died in our City of Brotherly Love, uncared for, unloved, alone, and only through the exertions of Dr. James Mease, his executor, was his body rescued from dissection by medical students, and was interred in Ronaldson's Cemetery, 9th and Catherine streets. The exact spot of burial is unmarked and unknown, though it is possible that it may be located. There have been two or three attempts to locate it and erect a monument there to his memory. It yet remains for Philadelphia naturalists to help fulfil in this instance the maxim which Rafinesque applied to himself at the conclusion of his *Life of Travels*: "Time renders justice to all at last."

*Haddonfield, N. J., January 15, 1912.*