

## Biographical Note on Dr. Ferdinand Rugel, American Botanist

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Ferdinand Rugel was one of the most interesting, but least known, of the botanists who worked in the southern United States before the Civil War. A German pharmacist deeply interested in botany, he came to Virginia from Switzerland in 1840. His plan was to collect plants, insects, and mollusks for R. J. Shuttleworth, a British botanist long a resident of Bern.<sup>1</sup> At first Rugel intended to spend only a few years in the botanical exploration of the Southern Appalachians. In 1845, however, he married in eastern Tennessee (where he had fixed his residence), and here he remained the rest of his life. He raised a large family, most of whom later migrated to Dallas County, Texas. It was here that his widow, Laura Bell Rugel, lived with her children for the last ten years of her life.

Rugel collected plants from Virginia to Florida, and even made collections on the Florida keys and in northern Cuba. Gattinger<sup>2</sup>, working in Tennessee, has spoken of Rugel's valuable collections in that state; and deplored the fact that he had written nothing on the botany of Tennessee, and that so little was known of his life. Guthnick<sup>3</sup> in an obituary notice of Shuttleworth, noted the great activity shown by Rugel in his botanical explorations; while Hugo von Mohl in the *Botanische Zeitung* of 1844, also noted his great industry and effectiveness as a collector, and the excellent condition of his plants<sup>4</sup>. The man hence seems to deserve some notice. Moreover, since periodically I am called upon to furnish information on Rugel to other men of science, it seems desirable to put on paper what information I have been able, since 1939, to glean on Ferdinand Rugel.

This gleaning has not been an easy task. The familial information has been singularly scanty on Dr. Rugel, and of such a character as to require close checking. Nor has the scanty newspaper information involving Rugel and his family been more fortunate<sup>5</sup>. Nevertheless, in spite of the

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<sup>1</sup>For brief biographical note on Robert James Shuttleworth see Britten & Boulger's *A Biographical Index of British and Irish Botanists*, 1893, p. 153.

<sup>2</sup>Guthnick's biography of Shuttleworth prefaces his *Notitiae Malacologicae*, published by the museum of natural history at Bern.

<sup>3</sup>*Botanische Zeitung*, v. 2, 1844, pp. 110-11.

<sup>5</sup>One classic example of such difficulties. in the *Dallas Morning News*, Jan. 21, 1903, concerns Mrs. Ferdinand Ruge's death: "Mrs. J. C. Ruggles died yesterday morning at Mesquite. The body was shipped to White Pines, Tenn., for burial."



Dr. Ferdinand Rugel (1806-79.)

inadequacy of my data, the present publication seems justified.

FERDINAND RUGEL was born near the village of Altdorf ("Weingarten" *post* 1834), two miles northeast of Ravensburg, in the Donaukreis of Württemberg (not Baden), on January 24, 1806<sup>6</sup>. Of his parentage and early education I know little that is trustworthy. About 1827, Rugel went to Switzerland (to Bern on the Aar), and entered upon an apprenticeship to a pharmaceutical house<sup>7</sup>. Rugel became interested in botany, and his interest was increased by association with Robert James Shuttleworth (1810-74), who for many years resided in Bern.

<sup>6</sup>Sargent and Urban (*v. infra*) mistakenly state that Rugel was a *Badenser*, not a *Württemberg*er.

<sup>7</sup>Ignatius Urban, in *Symbolae Antillanae*, v. 3, 1902, p. 115.

In 1838, Rugel collected the flora of the Rhone valley in the canton of Valais, and that of the Pennine Alps (between Mont Blanc in Haute Savoie and Monte Rosa.) He thus collected an abundance of the plants of southern Switzerland and the Piedmont.<sup>8</sup> In 1839, he went down the Rhone valley into France, past Nîmes and Montpellier, and so into southern France, where he collected from April to August. From June to August he collected around Narbonne (in Aude), at Perpignan (Pyrénées Orientales), and at various other localities in the Pyrenees region<sup>9</sup>. He is also reported as having made some collections in Sicily at about this time, but my data are inconclusive, and I am inclined to believe the report erroneous.

On March 25, 1840, in an advertisement in *Flora*<sup>10</sup>, Rugel announced that he was about to go to the United States to collect plants and insects in Georgia and the Carolinas. Arrangements were made with Shuttleworth to act as his agent in the disposition of his plants to other botanists. Rugel's letter was dated from Bern.

How Rugel arrived in the United States, I do not know. I surmise that he came to Baltimore; and went from Baltimore to Portsmouth, near Norfolk, Virginia. Here he collected until the spring of 1841, at the same time that he worked as an apothecary. On November 25, 1840<sup>11</sup>, Rugel wrote to Asa Gray from Portsmouth, and tried to enter upon a correspondence with Gray, and to make an engagement to collect for him. Nothing came of this effort. Gray at the time was fully occupied in completing and seeing through the press the first part of the *Compositae* for his great flora with Torrey [v. 2, pp. 1-184.]<sup>12</sup> Rugel confined his Virginia collecting in 1840-41, apparently, to the vicinity of Portsmouth, and says as much in a letter to Gray.<sup>13</sup>

About this time, Shuttleworth informed Rugel that he wanted *all*, or *none*, of his collections; that he wanted no sales, on the side, of specimens to American botanists. He also required Rugel to prepay carriage on all packages

<sup>8</sup>*Flora*, v. 21, 1838, Intell.-bl., pp. 29-30; Urban, *ut supra*, 1902, p. 115.

<sup>9</sup>Urban, 1902, l.c.

<sup>10</sup>*Flora*, v. 23, 1840, Intell.-bl., pp. 1-2.

<sup>11</sup>*Ferdinand Rugel to Asa Gray, 25 Nov., 1840.* [Gray Herbarium archives.]

<sup>12</sup>Jane Loring Gray, ed. *Letters of Asa Gray*, vol. 1, 1893, pp. 273ff.

<sup>13</sup>*Ferdinand Rugel to Asa Gray, 25 Nov., 1840.*

[five were sent that year] to Bern, which irked Rugel intensely.<sup>14</sup>

In the spring of 1841, Rugel set out for the mountains of North Carolina from Portsmouth *via*, probably, Petersburg, Maryville, and Martinsville to the Virginia line, and thence *via* Rockford, Wilkesboro, and Morganton, to Rutherfordton, in Rutherford County. In July and August,<sup>15</sup> he was collecting on Black Mountain, N.C.; and was collecting in Rutherford County in October and November. He missed meeting Gray (who with John Carey and James Constable had come up the Valley of Virginia during the summer of 1841, and had got as far as Grandfather Mountain, N.C., and Roan Mountain, in Carter County, Tenn.) In November or December of 1841, Rugel was at Knoxville, Tenn., exploring extensively in that region, as well as in the mountainous parts of eastern Tennessee. He hoped to collect in Tennessee and Alabama in the season of 1842.<sup>16</sup>

His botanical itinerary of 1842 I do not know. I do know that he collected some plants at Dandridge, Jefferson County, in that year.<sup>17</sup> In 1843, Rugel journeyed to Florida and collected plants in the northern and western part of that state, and also in some parts of contiguous Alabama. He collected an aggregate of about a thousand species, which were distributed in sets by Shuttleworth. Plants were sold at 34.50 French francs, or 24 Swiss francs, per century.<sup>18</sup> They were admirably collected.<sup>19</sup>

In 1844, Rugel still looked upon his American sojourn as purely temporary.<sup>20</sup> In 1845, Rugel (who seems to have entered upon medical practice at Dandridge, Jefferson County, Tenn.) married Laura Bell, a native of Tennessee, "at Talbot's, near Dandridge." Their children, so far as I can learn, were twelve in number, of whom six later came to Dallas County, Texas. The family has preserved little or no information of Dr. Rugel, besides a transcription of the tombstone-inscription.<sup>21</sup>

<sup>14</sup>Ferdinand Rugel to Asa Gray, 16 Oct., 1841. [Gray Herbarium.]

<sup>15</sup>*Ibid.*

<sup>16</sup>*Ibid.*

<sup>17</sup>H. K. Svenson, "Notes on the Tennessee Flora" (*Jour. Tenn. Acad. Sci.*, v. 16, 1941, p. 136). Cf. *Amorpha tennesseensis* Shuttlew.

<sup>18</sup>*Botanische Zeitung*, v. 3, 1845, pp. 218-24.

<sup>19</sup>*Ibid.*, v. 2, 1844, p. 110.

<sup>20</sup>*Flora*, v. 27, 1844, p. 175.

<sup>21</sup>Family communications; in Geiser Papers, file "Rugel."

In 1846 (February and March), Rugel visited Key West and the southern portion of Florida,<sup>22</sup> but was back in eastern Tennessee in October of that year.<sup>23</sup> Rugel became eager to make a botanical collecting trip to Oregon and California, *via* Independence, Mo., and the northern Overland Trail;<sup>24</sup> and in 1847 Shuttleworth consented to support such a trip, to begin at Independence early in the spring of 1848. Rugel wanted to attach himself to Captain John Frémont's independent (fourth) journey of exploration, but was unsuccessful. The proposed trip, under any auspices, did not materialize. On October 10, 1847, Rugel (writing from Snoddyville, Jefferson County, Tenn.) opened a correspondence with Dr. John Torrey, stated his desire to be attached to Frémont's 1848 trip, and asked that Gray be informed of his plans.<sup>25</sup>

In 1849, Rugel collected plants in Cuba; his localities show that his explorations were largely confined to the province of Matanzas on the northern coast of Cuba. I do not have record of the months of his collecting there.<sup>26</sup> Nor do I have information of any subsequent collecting trips made under the patronage of Shuttleworth.

I believe that in the interval between 1849, and the years shortly after the Civil War, Rugel had employment with the Knoxville wholesale drug firm of Sanford, Chamberlain, Albers & Ford. His work was the wholesale compounding of prescriptions vended by the house. That, at least, is the none-too-reliable family report. Sometime after the Civil War, Rugel moved back into eastern Tennessee, and secured a farm in Jefferson County. Here he died, and here (in the "Old Westminster graveyard of the Old Westminster Presbyterian Church") was buried. The tombstone-inscriptions for Rugel and his wife read (*litteratim*) as follows: "Dr. F. Rugel Born in Wurtemberg Gr. Dec. 24, 1806 Died Jan. 31, 1879 A Kind Father"; and "Laura B. Rugel Born Aug. 4, 1824 Died Jan. 20, 1903 A Loving Mother."<sup>27</sup>

Many of Rugel's children had come to Mesquite, Dallas County, Texas, in the 'seventies, and the parents came

<sup>22</sup>Urban, 1902, pp. 115-16.

<sup>23</sup>On July 5, 1847, a second child was born to Ferdinand Rugel.

<sup>24</sup>*Ferdinand Rugel to Dr. John Torrey, Nov. 10, 1847.* [New York Botanical Garden.]

<sup>25</sup>*Ibid.*

<sup>26</sup>Urban, 1902, pp. 115-16.

<sup>27</sup>Family communication, Geiser Papers, file "Rugel."

West for a visit in 1878. They came *via* the Texas Pacific railroad, which had been built through Mesquite in the mid-'seventies. After Rugel's visit was completed, he went to Austin, Texas, *via* the Houston & Texas Central (and connecting roads) to collect mollusks and plants in the valley of the Colorado. His collecting trip seems not to have been much of a success, for he suffered from an attack of "boils" (*furunculosis*) which largely incapacitated him.<sup>28</sup> Nevertheless, he did take some specimens in Travis County, for herbaria have at least two species of *Verbena* which he collected on this trip, in Travis County: *V. bipinnatifida* Nutt. and *V. pumila* Rydb. in Small.<sup>29</sup> It is possible that he collected in other places in Texas: on this point I lack information, and should be glad for data from herbaria that possess sheets of Rugel's Texas specimens.<sup>30</sup>

Jacob Boll (1828-80) and Julien Reverchon (1837-1905) were botanists living at Dallas at the time of Rugel's visit here, but I doubt if Rugel ever met them, although Mesquite is only twelve miles from Dallas by rail.<sup>31</sup>

In 1874, R. J. Shuttleworth died at Hyères, France, and his herbarium was purchased in 1877 by the British Museum. It contained "a large collection of Florida plants containing numerous types."<sup>32</sup> From this collection the U.S. National Museum received in exchange for its own collections, about 1100 specimens of Rugel's collecting, and evidently also received duplicates which were shared with the other herbaria of the country.<sup>33</sup>

Rugel's death, on January 31, 1879, was caused by a terminal pneumonia. Urban<sup>34</sup> gives the date of Rugel's death as "December 31, 1879"—a date which Urban probably got from Sargent's *Silva*.<sup>35</sup> Both state that Rugel was born in Baden, evidently confusing the Weingarten of the Mittelrheinkreis of Baden (seven miles e.n.e. of Karlsruhe) with the Weingarten of Württemberg, *supra*. The latter Weingarten was formed in 1864 by union of the village of Altdorf

<sup>28</sup>Family communication, Geiser Papers, file "Rugel."

<sup>29</sup>H. N. Moldenke, *Flora of Texas*, vol. 3, 1942, pp. 40, 46.

<sup>30</sup>Paul C. Standley to S. W. Geiser, April 29, 1948. [Geiser Papers.]

<sup>31</sup>S. W. Geiser, *Naturalists of the Frontier*, 1937, s.v. Boll, Reverchon.

<sup>32</sup>Quoted from the history of the British Museum Collections, published in 1904.

<sup>33</sup>E. P. Killip to S. W. Geiser, April 28, 1948. [Geiser Papers.]

<sup>34</sup>Urban, *Symbolae Antillanae*, v. 3, 1902, pp. 115-16.

<sup>35</sup>Sargent, *Silva of North America* . . . , v. 9, 1896, p. 110.

with the castle Weingarten, which was adjacent. If Sargent and Urban had consulted *Botanische Zeitung*, v. 2, 1844, p. 110, they would have found Rugel mentioned as 'ein württembergischer Pharmaceut'; and in *Flora*, v. 27, 1844, p. 145, as "Herr F. Rugel aus Württemberg." These notes, with the gravestone inscription, clearly dispose of the matter of Rugel's nationality.

In the contemporary obituary of Dr. Rugel,<sup>36</sup> the collection of shells made by him (including some of Shuttleworth's new species), as well as Rugel's personal herbarium were offered for sale. The herbarium was sold in 1881 to the Quaker botanist, Isaac Martindale, of Philadelphia. Later, on Martindale's death, the whole Martindale herbarium was purchased by Messrs. Smith, Kline, French & Co. of Philadelphia, and presented to the Philadelphia College of Pharmacy and Science.<sup>37</sup>

There it remains to the present day, in excellent condition. It and the collections of Rugel in the United States National Museum and the British Museum would well repay study for dated collections and possible itineraries. I hope that this brief and imperfect note will encourage favorably-placed scholars to do this. In the meantime, I shall be grateful for any scrap of information, no matter how apparently insignificant, on Dr. Ferdinand Rugel.

<sup>36</sup>*Bulletin Torrey Botanical Club*, v. 6, 1879, pp. 311-12.

<sup>37</sup>J. W. Harshberger, *Botanists of Philadelphia*, 1899, p. 326. Theodor Philipp Haas (*Amer. Jour. Pharmacy*, v. 116, 1944, pp. 420-32) [seen only in abstract], gives the date of sale of the Rugel herbarium as 1861, but this is a typographical error.

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