Heinrich Carl Beyrich in Arkansas Territory, 1834

S. W. Geiser

I

Among the botanical collectors in America in the early part of the last century, perhaps none was more attractive or unfortunate than the German collector, Heinrich Carl Beyrich. In 1834 he accompanied the ill-fated southwestern Dragoon Expedition of General Henry Leavenworth. Leavenworth, it may be recalled, was ordered by the War Department (under Secretary Lewis Cass) to make an expedition in force to the country of the Comanches, Kiowas, and other "wild Indians" of the "Arkansas Territory" (now western Oklahoma). These Indians roamed the prairies west of the Cross Timbers, and had their principal villages in the present Comanche and Kiowa counties, Oklahoma. From this general territory they made forays into Mexican Texas, stealing horses, murdering the white inhabitants, and bringing off white children for ransom. They also made forays into the new Indian Territory, especially against the Osages, toward whom they felt an implacable enmity. The Osages occupied, generally, a considerable portion of the Indian Territory that lay north of the Arkansas River and east of the Cross Timbers.

Much unrest was felt among the recent Indian immigrants into the territory—Cherokees, Choctaws, Chickasaws, and Osages; and it was believed at Washington that an expedition in force into the western country was necessary, ostensibly to invite the Western Tribes to an Indian Council to be held at Fort Gibson in the autumn of 1834. Through this Council, it was hoped, a treaty of peace between the western Indians and the immigrant tribes might be entered into. It was planned to send on this expedition the First Dragoons (brought to Fort Gibson in the fall of

1833 and the spring of 1834, for the purpose), with detachments of the 7th Infantry (at Fort Gibson) and the 3rd Infantry (at Fort Towson) as auxiliaries. The place of setting-out of the combined expedition was set at the mouth of the Washita River, in Bryan County of present Oklahoma; from this point the troops would take up their line of march through present Marshall, Carter, and Stephens counties into the Comanche and Kiowa territory.

As usual, the preparations for the Dragoon Expedition were retarded beyond all reason, and a considerable part of the Dragoon regiment (composed, largely, of raw, unseasoned troops from the north-central and northeastern states) got to Fort Gibson very late in the spring of 1834—indeed, so late that it was the twentieth of June before they set out from “Camp Rendezvous” (some 20 miles south of Fort Gibson) for the mouth of the Washita. The expedition (which included 9 of the 10 companies of the First Dragoons) set out from Camp Rendezvous (near present Oktaha, in Muskogee County) in a south-southwest direction until they reached the falls of the North Fork of the Canadian (which they crossed) near present Eufaula in McIntosh County. From this point the “road” (which had been blazed and somewhat smoothed a month before by troops of the 7th Infantry, out of Fort Gibson) turned sharply to the west-southwest, through southern McIntosh County and Hughes County, in the elevated prairie and wooded country that lies between the main Canadian (then often called the “Red Fork”) and the North Fork of the Canadian and its numerous branches in those counties, until the mouth of the Little River was reached, in southwestern Hughes County. Here was being built “Camp Canadian,” by Captain T. H. Holmes of the 7th Infantry; the name “Camp Holmes” was often applied to it. The expedition crossed the Canadian River a little below the mouth of Little River, and then turned for a distance south-by-west

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2For accounts of the route followed by the Dragoons in the spring of 1834, see the following: Chron. Okla., 3, 180f, 1925; ibid., 28, 2-61, 1950; ibid., 31, 22-56, 1953; Philip St. George Cooke, Scenes and Adventures in the Army..., 1857, and Louis Pelzer, Marches of the Dragoons in the Mississippi Valley, 1911. My own studies of the route indicate the following points: St. Louis, Manchester, X of Little and Big Piney creeks, X of the Osage branch of the Gasconade, Springfield (all in Missouri), Fayetteville, Ark., over to and down the Illinois River, and over to the Neosho or Grand River. There was some variation in the routes taken by different companies, and confusion in the ascribed dates of departure and arrival, among the “authorities.”

3Camp Canadian was garrisoned by Co. B of the 7th Infantry in June, 1834. Work was begun on the fort by two companies of that regiment (21Je), and from 50 to 70 men were employed through June to August, in building the fort and making hay. (Foreman, Advancing the Frontier, 1963, 45, 129.)
into western Coal County, dipped into Pontotoc County near the Coal County line, and after crossing the headwaters of Clear Boggy Creek, and later the Blue River, came into the valley of the Washita, down which it continued in a southerly direction until it reached the mouth of the Washita on the Red River, opposite the site of later Preston, Grayson County, Texas. In this portion of the journey (from Camp Holmes on the Canadian to the mouth of the Washita) the course had lain, principally, through western Coal County, eastern Johnston County, and western Bryan County.

At the mouth of the Washita the Dragoons found Camp Washita, newly laid out by a detachment of two companies of the 3rd Infantry from Fort Towson, under Captain James Dean. The Dragoon regiment arrived at the mouth of the Washita on 1 July; and by 5 July, the Dragoons—or a part of them—had crossed the Washita and were now in Marshall County, ready for the trip to the Comanche country.

The expedition had set out at least a month—and probably two months—too late. In normal years the weather would have been oppressive enough in May and June; but the summer of 1834 was one of the hottest and driest on record. The burning sun, unobscured by clouds day after day; the marches made during the hot parts of the day; the weakness of the horses, and the almost insurmountable encumbrance of baggage trains, impeded and retarded the advance of the expedition—particularly west of the Cross Timbers. The slow progression, the unvarying, intensely hot weather, the lack of good water and forage, produced a sickness in both men and horses almost unparalleled in our military annals. About 500 men participated in the Dragoon expedition; and it has been repeatedly asserted (from the records) that some 150 officers and men perished from sickness (a peculiarly malignant form of malaria, it would appear), on the journey, in camp, or after the return to Fort Gibson in mid-September of 1834. General Leavenworth was one of the casualties.

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4Wheelock's report (abstracted in Appendix) was dated “August 27, 1834,” and published in U.S. 23d Congress, 2d Session, Senate Docs., v. 1, no. 1, pp. 73-95, 1834, and reprinted in American State Papers, Class V, Military Affairs, v. 5, pp. 373-82, 1866. Another original account is Sergt. Hugh Evans' journal, published in Chron. Okla., 3, 175-215, 1925. There is also a very informative letter on the Dragoon expedition by S. C. Stambaugh, dated 26 Aug. 1834 (the day before date of Wheelock's report) published in the Arkansas Gazette of Sept. 9, 1834, and reprinted in Niles' Register of October 4. Stambaugh and Gov. Montford Stokes, former Indian Commissioner, were still in Fort Gibson at the time of the Indian Council there (Sept. 2-4, 1834), and took an unofficial part in the Council.
Accompanying the expedition were four civilians, among them George Catlin\(^5\) noted for his Indian portraits; his *fidus Achates*, Joseph M. Chadwick of St. Louis (who was murdered, two years later, in the massacre at Goliad), and Carl Beyrich, with his German teamster. All of them rated as "scientific men to accompany the expedition at their own expense." Catlin and Chadwick, being more or less free, with saddle- and pack-horses, rode with the staff officers, and saw but little in an intimate way of the rest of the train. With Beyrich it was different; on his arrival from Baltimore, Beyrich had bought in St. Louis a light wagon and a span of ponies, to carry his supplies of provisions and botanical drying paper, and on his return his collected specimens. He, of course, could not ride in the van of the procession—over a mile long, Catlin says, with commissary and ordnance wagons, and some 70 beeves. His presence would, therefore, not be observed by the historian at the head of the expedition, Lieut. T. B. Wheelock; and indeed, Wheelock did not note him in his journal until (on 5 July), Beyrich was brought to his attention after the detachment had crossed the Washita, and was proposing to leave for the western country.\(^6\) On the seventh of July, after he had noted the roughness of the terrain, and the denseness of the thickets of the Cross Timbers (through which a mounted man could with difficulty force his way), Beyrich turned back to Camp Washita, and reversing his route, at some unrecorded time reached Fort Gibson again with his equipage and driver. The next we hear from him is in Catlin’s account of his death at Fort Gibson, after the return of the remnant of the Dragoons and the 7th Infantry, the holding of the Indian Council, and after Beyrich had made an “immense collection” of plants, and for several weeks had been busily engaged in preparing them to send back to Germany.\(^7\)

Mrs. Susan Delano McKelvey, in her admirable *Botanical Exploration of the Trans-Mississippi West, 1790-1850* (pp. 569-85) has devoted an entire chapter to Beyrich’s work, and has given as fully as the literature readily available to her afforded, an excellent account of the Dragoon expedi-

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\(^5\)George Catlin, *Letters and Notes on... the North American Indians*, ed. 3, London, 1842, v. 2, Letters 37-45. The letters as printed are undated; but internal evidence gives dates as follows: 37 (16Je), 38 (18Je), 39 (1JI), 40 (5JJI), 41 (16JI), 42 (17JI), 43 (19JI), 44 (begun 2Ag, finished 5Ag), 45 (3OS), 2Ag, 5J.

\(^6\)Wheelock, of course, was acquainted with Beyrich, whom he had met at St. Louis, before the Dragoons had left Jefferson Barracks for Fort Gibson.

\(^7\)Catlin, Letter No. 45, v. infra.
tion. Dr. Rogers McVaugh, in his paper on Dr. M. C. Leav-
enworth (who accompanied two companies of the 3rd
Infantry from Fort Towson in May, 1834, and who was one
of the surgeons at Camp Washita, when the Dragoon regi-
ment reached there at the beginning of July) has also made
some acute suggestions regarding the possibility of Beyrich
and Leavenworth's having met each other and exchanged
interesting specimens, or perhaps having even collected
together. Some of Beyrich's specimens, collected "in West-
ern Arkansas" reached Torrey & Gray, through Leaven-
worth's forwarding, and have been noted in the Flora of
North America of those authors.

Mrs. McKelvey also gives (pp. 571-79) in her account of
Beyrich, extensive quotations from Lieut. Wheelock's jour-
nal of the expedition, not only of that part of it which
extended from Fort Gibson to Camp Leavenworth near the
mouth of the Washita [the only part which Beyrich accom-
panied, as a botanical collector], but also of that part of the
journey undertaken by Colonel Henry Dodge's command—
from Camp Leavenworth to the Towash village in the
Comanche country, and its return to Fort Gibson. Beyrich
left the expedition, as I have said before, on the seventh of
July, when the formidable difficulties facing a vehicle going
through the Cross Timbers appeared to him. Mrs. McKel-
vey's carefully chosen excerpts obviate any need on my part
to reprint Wheelock's journal in extenso; I have, however,
chosen to give in an Appendix, a very much abbreviated
account, based on his journal, with identifications of topo-
graphic points (where possible—many of these are identifi-
cations of Grant Foreman), and collations with the pub-
lished diary of Sergt. Hugh Evans of Company G of the
Dragoon regiment. By use of an atlas (or better, still, a
series of U.S. Geological Survey Sheets) one is able to
approximate the route taken, both on the way out, and the
return. Unfortunately, the few available plant-specimens
collected by Beyrich from western Oklahoma bear nothing
on their labels helpful in reconstructing his route or deter-
mining his localities; and one can only surmise what he

8Rogers McVaugh, "The travels and botanical collections of Dr. Melines Conkling
Leavenworth" (Field & Laboratory, 15, 57-70, 1947).
10U.S.G.S. Topographic Sheets (30' quadrangles) used in the study of Beyrich's
route were, in order: Muskogee, Okmulgee, Canadian, Wewoka, Coalgale, Stonewall,
Tishomingo, and Denison. (These cover the route—200 miles—from Fort Gibson to
Camp Washita.)
might have seen, botanically, in this summer that was so phenomenally dry and very hot. The summer was a period of wide-spread drought, with temperatures far above the average, over an area that included (as the records show) such widely distant points as Gonzales, Texas; Texarkana, Arkansas (and all of present Oklahoma and Arkansas, for that matter); St. Louis and Missouri generally; Ohio; Kentucky; and even a part of New York State. Under the circumstances, the vegetation would be very unrepresentative of that to be encountered in a year of normal temperature and rainfall.

II

In George Catlin's *Letters...* (No. 45, dated at Fort Gibson [30 September, 1834]), occurs the following account of the conditions at Fort Gibson, after the conclusion of the Dragoon Expedition and the Indian Council of 2-4 September. The last of the Dragoons had come in about 25 August, but the aftermath was still to extend over many months. Assistant-surgeon Charles B. Welsh had died at Fort Gibson on 2 August, 1834. Dr. S. W. Hales, who is mentioned in Wheelock's journal as having been in service at Camp Canadian and Camp Washita, and as having come in very ill, lingered until 30 January, 1835. Catlin gives us a glimpse of the last days of Beyrich. I quote freely from his letter:

...Since the very day of our start [on the Dragoon Expedition]... the men have been constantly falling sick, and on their return, of those who are alive, there are not well ones enough to take care of the sick. Many are yet left out upon the prairies, and of those that have been brought in, and quartered in the hospital, with the soldiers of the infantry regiment stationed here, four or five [of the Dragoons] are buried daily; and as an equal number from the 9th regiment [correctly, the 7th] are falling by the same disease, I have the mournful sound of "Roslin Castle" with muffled drums, passing six or eight times a-day under my window, to the burying-ground; which is but a little distance in front of my room, where I can lay in my bed and see every poor fellow lowered down into his silent and peaceful habitation. During the day before yesterday [28th September, 1834], no less than eight solemn processions visited that insatiable ground, and amongst them was carried the corpse of my intimate and much-loved

11 Among numerous references to the widespread drought and heat of the summer of 1834, the following may be cited: Geiser, *Naturalists of the Frontier*, ed. 2, 1948, p. 64 (Gonzales, Texas); Featherstonhaugh, his 1835 report and later *Excursions through the Slave States*, 1844, p. 71 (Arkansas); Collins, *History of Kentucky*, v. 1, p. 39; the weather was notably hot from 21 July to 11 August, and was accompanied by a severe drought from 15 July to 8 September; Engelmann in Lorin Blodgett, *Climatology of the United States*, 1857, p. 79 (St. Louis); S. P. Hildreth, *Amer. Jour. Sci.*, 28, 160-64, 1835 (Marietta, Ohio); H. P. Sartwell, *ibid.*, 28, 187-88, 1835 (Penn Yan, N.Y.)

12 This has been well illustrated in the past summer in Texas (Dallas), where we have had much drought and elevated temperatures.
friend, Lieutenant [James] West, who was aid-de-camp to General Leavenworth, on this disastrous campaign....On the same day was buried also the Prussian Botanist, a most excellent and scientific gentleman, who had obtained an order from the Secretary of War to accompany the expedition for scientific purposes. He had at St. Louis, purchased a very comfortable dearborn waggon, and a snug span of little horses to convey himself and his servant with his collection of plants, over the prairies. In this he travelled in company with the regiment from St. Louis to Fort Gibson, some five or six hundred miles, and from that to the False Washita, and the Cross Timbers and back again. In this Tour he made an immense, and no doubt, very valuable collection of plants, and at this place had been for some weeks indefatigably engaged in changing and drying them, and at last, fell a victim to the disease of the country, which seemed to have made an easy conquest of him, from the very feeble and enervated state he was evidently in, that of pulmonary consumption. This fine, gentlemanly and urbane, excellent man, to whom I became very much attached, was lodged in a room adjoining mine, where he died, as he had lived, peaceably and smiling; and that when nobody knew that his life was in immediate danger. The surgeon who was attending me, (Dr. Wright,) 13 was sitting on my bed-side in his morning call at my room, when a negro boy, who alone had been left in the room with him, came into my apartment and said Mr. Beyrich was dying—we instantly stopped into his room and found him, not in the agonies of death, but quietly breathing his last, without a word or a struggle, as he had laid himself upon his bed with his clothes and his boots on. In this way perished this worthy man;...and on the day previous to his misfortune, died also, and much in the same way, his devoted and faithful servant, a young man, a native of Germany. Their bodies were buried by the side of each other, and a general feeling of deep grief was manifested by the officers and citizens of the post, in the respect that was paid to their remains in the appropriate and decent committal of them to the grave.

I have quoted the above at length in order later to clarify by discussion the date of Beyrich’s death, and the cause of it. Ignatius Urban, in two of his publications (1881, p. 32; 1906, col. 19) gives conflicting dates for Beyrich’s death, and its immediate cause: thus, 19 October, 1834 (cholera); and 15 September, 1834 (congestive bilious fever, “febris biliosa,” which I take to have been a malignant remittent malaria that in the history of America has had a wide distribution, especially in the South, as an autumnal affection). Lasègue (1845, p. 466) places Beyrich’s death “in September,” and cholera the cause of death (as does also Dr. C. W. Short, in Jour. Bot. 3:118, 1841). Emil Jacobs (Allgemeine Deutsche Biographie, 1875, s.v. “Heinrich Carl Beyrich”) places his death at Fort Gibson, on 15 September, 1834.

If we can trust Catlin’s particularity in placing the deaths of Lieut. James West and Carl Beyrich on the same day

13 Dr. Joseph Jefferson Burr Wright (1801-78) was a boyhood friend of Catlin at Wilkesbarre, Pa. After taking his M.D. degree at the University of Pennsylvania, he entered the medical corps of the U.S. Army, and served for 43 years on the active list, retiring in 1876 with the rank of colonel-surgeon. In 1834 he held rank as Assistant-surgeon, under Major-surgeon C. A. Finley, of the Dragoon regiment.
(and I cannot believe that the straining for dramatic effect that characterized our American Chateaubriand would profit in utter abandonment of the truth), we can have no reasonable uncertainty as to the date of Beyrich's death—28 September, 1834. Moreover, there is no question that his illness terminated in a coma, which often was a characteristic of malignant remittent malaria. The symptoms and conditions described by Catlin rule out cholera or any enteric fever.

Cholera, it is true, had been present at Fort Gibson in 1833, and eleven privates had died of it. As we shall see later, it had also been reported early in 1834—but there may be a question of faulty diagnosis. I cannot find any cases of cholera reported from Fort Gibson in the third and fourth quarters of the year 1834 (1 July–31 December). In the table below I give the morbidities (not mortalities) of the chief diseases at Fort Gibson, as they appear in the post-surgeon's quarterly reports to the Surgeon-general of the Army:

<table>
<thead>
<tr>
<th>Third Quarter</th>
<th>Fourth Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean strength of post</td>
<td>491</td>
</tr>
<tr>
<td>Intermittent fever</td>
<td>110</td>
</tr>
<tr>
<td>Remittent fever</td>
<td>151</td>
</tr>
<tr>
<td>Diseases, digestive organs</td>
<td>84</td>
</tr>
</tbody>
</table>

From a published table (Forey, 1840, p. 228), I find that 21.2% of the mean strength of the post at Fort Gibson died in 1834, although in the cholera years (1832, 1833) the percentage of mortality was only 3.9% and 6.2%, respectively. [As to the relative morbidities for the ten years 1829-38, for the four quarters of the year—10 years of each quarter—the following indexes are given, also from Forey: I (0.792), II (0.894), III (1.440), and IV (0.927). In each case the mean-strength of the post is calculated as 1.000. It will be seen that the third quarter (July–September), the one with the highest morbidity, was the one in which Beyrich died.]

"Cholera" was reported in the Indian country, however, in the year 1834; and although one can not be certain of the

14Catlin loved the Indians (DAB, s.v. "Catlin"), and saw in the aborigines "noble savages" whom he would portray as heroes, philosophers, and poets. Secretary Lewis Cass had no illusions. He knew profoundly the Indian mind, and was most effective in his 18-year term as governor of Michigan Territory. As Secretary of War he showed humane ideas for organizing the Indian Territory.

diagnosis in all cases, Foreman\(^{16}\) states that it was very virulent in the upper Creek country (300 to 400 Indians dying of it); and that in mid-August it had reached the New Hopefield Mission at present Pensacola, Mayes County, on the Grand River, about 44 air-miles north of Fort Gibson. It brought death to about a quarter of the settlers at the Mission. Because of the cholera epidemic, the Osages were able to send only one representative (Chief Clermont) to the Indian Council held at Fort Gibson in September. On 20 October the missionaries Cyrus Byington and Cyrus Kingsbury found cholera prevalent at Union Mission, some ten air-miles southeast of present Chouteau in Mayes County, and about 25 air-miles north of Fort Gibson. There was at the time also an epidemic of remittent fever, like the devastating fever that in 1833 had swept through the Choctaw country around Fort Towson. (At that time, hardly one Choctaw in twenty escaped, and the mortality among children was especially high.\(^{17}\)) Among the Osages in the fall of 1834 the morbidity and mortality from the fever was high; one of the missionaries, Rev. Abraham Redfield of Union Mission lost four of his children of the disease between 12 October and 9 December.\(^{18}\) Remittent malaria was generally recognized as a summer or autumnal fever.

It was reported in April (Arkansas Gazette, 2 April, 1834; reprinted in Niles' Register, 24 May, 1834) that in the spring of that year cholera still prevailed among the Cherokee immigrants; that 60 out of 550 immigrants had died; and that in a party of 140 recruits for the 7th Infantry, just arrived, there were “40 new cases, and 8 deaths.” One must accept these statements with reservations, however, remembering the possibility of faulty diagnosis.

However that may be, of one thing we may be fairly certain: Catlin is correct when he ascribed Beyrich’s death to the prevailing disease of the country, which certainly was a particularly malignant form of malaria.

\(^{16}\)bid., pp. 133, 143-45.
\(^{17}\)Foreman, The Five Civilized Tribes, 1934, pp. 39-41.
\(^{18}\)Foreman, Advancing the Frontier, 1933, 143-45.
There remains some question as to the fate of Beyrich's collections from the Arkansas Territory. Mrs. McKelvey has touched on this matter (p. 584), and has come to the only conclusion that seems to be tenable. I have seen only one authentic Beyrich specimen (a duplicate in the SMU herbarium obtained from the Missouri Botanical Garden), but it appears to be a species from the eastern United States. Beyrich collected there (particularly in South Carolina, Georgia, western North Carolina, eastern Tennessee, Virginia, and Maryland) from about April, 1833 to late April, 1834²⁰ (when he left Baltimore to join at St. Louis the Dragoon March through central and southwestern Missouri and northwestern Arkansas to Fort Gibson). A few specimens of Oklahoma plants were sent to Torrey by Dr. M. C. Leavenworth. In Torrey & Gray's *Flora of North America* I find cited the following Beyrich specimens from "Arkansas," usually communicated by Dr. Leavenworth, but without "spot localities." From volume I: *Polygala Beyrichii* T.&G. (p. 130), *Psoralea linearifolia* T.&G. and *P. digitata* T.&G. (p. 300), and *Gaura villosa* Torr., (p. 518) ("Arkansas? Mr. Beyrich?"). From volume II: *Helenium microcephalum* DC. (p. 385). Collection of *Sophora affinis* T.&G. is not credited to Beyrich in the *Flora* (v. 1, p. 390); but Leavenworth (Silliman's Journal, v. 49, p. 130, 1845) says, "found by myself and Mr. Beyrich in the Red River Prairies." Mrs. McKelvey raises the question as to "how many of the plants collected by Beyrich on his journey west of the Mississippi were, and are now preserved...perhaps none, perhaps all. The army may have shipped his effects to Germany after his death." On this last point I am very doubtful. There were too many other things to be done, after the catastrophic Dragoon expedition, than what Captain S. G. French once classically described as "the transportation of botanists' tricks." My own surmise is that after the death of Beyrich and his unnamed helper, the collections were neglected and perhaps destroyed. Certainly (as I believe) none of them reached the Berlin Botanical Garden.

²⁰On 22 April, 1834, to the Ducal Garden-director Schoch at Wörlitz, in Anhalt-Dessau, Beyrich writes that "soon I will travel from here [Baltimore] to Missouri, in order to spend the summer in that western region, and as far south as Arkansas" ("Nachricht von Herrn Beyrich aus Nord Amerika...", in *Allgem. Garten-Zeitung*, v. 2, 295, 1834); and in the *Verhandlungen des Vereins zur Beförderung des Gartenbaues Preussen* v. 11, p. 200, 1835, he says that at the beginning of May, 1834, he is leaving for St. Louis, in order to accompany the Dragoon expedition to the Southwest.
and Museum for which they were designated. I doubt whether even a minute portion of them reached Engelmann in St. Louis, or Leavenworth. Landjouw & Stafleu's *Index Herbariorum*, Part II, Collectors (1954) indicates no places of repository for Beyrich's "Arkansas" plants, but only those of the eastern United States. However, that is a question that cannot be resolved, for the great herbaria in which most of his plants presumably were preserved (Berlin, Leipzig) were destroyed in the Second World War.

Dr. Rogers McVaugh, in his well-worked and highly interesting biography of Dr. M. C. Leavenworth, has raised some interesting questions regarding the possible association of Leavenworth and Beyrich in botanical collecting in the Red River prairies at the mouth of the Washita. I quote:

...In his paper of 1845...Dr. Leavenworth mentions *Sophora affinis* as having been "found by myself and Mr. Beyrich in the Red River prairies." This suggests some hitherto unpublicized meeting and perhaps collaboration between Leavenworth and the Prussian collector, who spent some months in the United States in 1833 and 1834. More convincing evidence is found in the *Flora of North America* where under *Psoralea linearifolia* (v. 1, p. 300) appears the following citation: "Arkansas, Beyrich. Communicated by Dr. Leavenworth." Evidently the two men did meet; presumably they exchanged interesting specimens, and some of those given to Leavenworth found their way eventually to Torrey....It seems highly probable that Leavenworth and Beyrich met and collected together somewhere along the Red River, at or west of the Washita, at this time.

McVaugh is, I believe, quite right in his belief that the two met; whether they collected together is harder to say with any degree of certainty. I doubt it. There are several things that must be kept in mind. Leavenworth left Fort Towson with the companies of the 3d Infantry about 7 May for the mouth of the Washita, and (while they did not have to blaze the route or explore stream-crossings on the 85-mile road) they could hardly have reached the mouth of the Washita before 15 May. The Dragoon regiment, very much delayed, reached Captain Dean's Camp Washita on 1 July; by that time the regiment had 45 men and 3 officers sick (besides some 27 men who had been left sick at Camp Canadian.) This necessitated establishment of a sick-camp at the mouth of the Washita. Assistant-surgeon Hales arrived on the third of July, with Lieutenant Edwards and 23 of the men who had been left sick at Camp Canadian. The medical service was very short-handed; it is doubtful whether Leavenworth could do more than care for the sick-detail,

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20Rogers McVaugh, op. cit., 1947, pp. 63-64.
with such aid as could be got from other medical officers. Later, Dr. Leavenworth moved with some of the troops to Camp Leavenworth (in central Marshall County—Captain John H. K. Burgwin’s 1845 map\textsuperscript{21} indicates the place as possibly near present Kingston—about 11 miles west of the Washita). Here he apparently remained until the troops returned to Camp Washita, with the departure of Lieutenant-colonel Kearny’s men for Fort Gibson, and the troops of the 3d Infantry for Fort Towson. It was a very busy, disheartening, tragic summer.

McVaugh surmises that Beyrich had gone on to the Cross Timbers (which the Dragoons reached on 10 July, about 22 miles beyond Camp Leavenworth in southeastern Carter County, some miles south-by-east of present Ardmore). I believe, from what has been said before in Section I, that Beyrich left the expedition on 7 July. The prevailing sickness (there were 88 sick, including two officers, and 109 for duty, at Camp Leavenworth on that date), and the apparent difficulties of the route, would have certainly discouraged his progress. I am not convinced that Dr. Leavenworth and Beyrich saw much, in a botanical way, together, under all the circumstances. Had conditions been otherwise, the two botanists, long separated from men with similar interests, would have become warm friends, and Leavenworth could hardly, in his correspondence, have dealt so casually with Beyrich’s collecting.

\textsuperscript{21}This map (a rough sketch) was prepared by Captain John H. K. Burgwin to illustrate the route taken by Gov. Pierce M. Butler, Cherokee Agent at Fort Gibson, and his party, from Fort Gibson to attend Indian Councils held in the Republic of Texas, as a representative of the U.S. Government, in 1843 and 1846. The map is reproduced in Foreman’s \textit{Advancing the Frontier}, at p. 174. While rough, the map is very useful. It shows marked “Leavenworth’s Road,” and a cut-off road (used by Butler’s party) that crossed both the Deep Fork and North Fork of the Canadian; it also shows marked the “Old Military Road” crossing the Canadian at the mouth of Little River (site of Camp Canadian), heading the Clear Boggy, crossing the Blue River, and then following down the east side of the Washita at no great distance from it. The map locates Fort Washita, and “Old Camp Washita,” which is located on the map not directly on the Red River but at some appreciable distance from it. Halfway between the Washita and Walnut Bayou is a place marked on the map, “Grave of Genl. Leavenworth.” As Burgwin was an officer on the Dragoon Expedition, the map, with its imperfections, has a real value.
Appendix

Data from Wheelock's Journal of the Dragoon Expedition (1834) from Fort Gibson to the Council with the "Wild Indians" in Western Oklahoma*

Company A (Capt. Clifton Wharton) left Fort Gibson in May, 1834, to accompany Santa Fe traders through the Comanche country; returned in July, after departure of the Dragoon regiment for the southwest. That left 9 companies (B, C, D, E, F, G, H, I, and K). Eight companies (B–I, incl.) on 15Je34 began to move from Camp Jackson (a point near Fort Gibson), to a camp 3 mi. S of the Arkansas R. On 19Je they moved 18 mi. W [Sb W] to Camp Rendezvous [nr. *Oktaha, *Muskogee Co.] Company K (Capt. Izard) stayed at Camp Jackson to complete preparations; on 20Je (evening) the eight companies were all assembled at Camp Rendezvous. Now begins the dated itinerary, here abstracted and much abbreviated from Wheelock's report (U.S. 23d Congress, 2d Session, Senate Docs., v. 1, no. 1, pp. 73-93, 1834;repr. in American State Papers, Class V, Military Affairs, vol. 5, pp. 373-82, 1860).

21Je Surgeon [Finley] sent back to Ft. Gibson 23 men as unfit for campaign. SW 20 mi; × North Fork of Canadian R., camped 1 mi. S of river ("falls of the North Fork"), nr. *Eufaula, *McIntosh Co. (8 a.m.–? p.m.) Several wagons & 70 beeves w. expedition. Good water on route today. Added today 11 Osages, 8 Cherokees, 6 Delawares, 7 Senecas, as guides, hunters, and interpreters.

22Je 15 mi. W to "Camp Cass." (9 a.m.–? p.m.) Wagon-trouble w. Co. I (Capt. Brown). Water & grazing good. [SW *McIntosh Co.]

23Je 17 mi. WbS from Camp Cass (9 a.m.–? p.m.) Water scarcer, in pools, milky. [E-centr. *Hughes Co.]

24Je 21 mi. WbS (9 a.m.–4 p.m.) Co. I caught up w. command in morning. Camped by good water & grazing. [*Hughes Co.]

25Je Col. Dodge & staff, in advance of command, reached (at noon) Camp Canadian (being built by some of the 7th Infantry), on W bank of the Canadian R., 13

mi. from last camp; found Genl. Leavenworth there, & reported to him. [6 or 8 mi. SE of *Holdenville, and almost at *Bilby, in SW *Hughes Co.] Command came up at 2 p.m.; × Canadian R. ½ mi. below mouth of Little R. Excellent spring & good grazing & water for horses.

26Je 32 mi. from Camp Canadian to "Camp Osage" (8:30 a.m.–5:30 p.m.) Left 27 sick at Camp Canadian under Asst.-surg. Hales & Lt. Edwards. Col. Dodge & part of staff preceded command, and found Genl. Leavenworth at Camp Osage, 5 mi. S of Cave Creek [nr. *Allen, NE *Pontotoc Co., or W line of *Hughes Co.?] Good water today. [Passed today site of *Stone-wall, NW *Coal Co.]

27Je 23 mi. W (6:30 a.m.–? p.m.) Genl. Leavenworth now w. command. Camped on a creek at end of 13-mi. prairie; excellent water. × Blue R. at 10 mi. from Camp Osage. [From now until 30Je passed through W *Coal, E *Johnston, & W *Bryan counties.]

28Je 25 mi. W (7 a.m.–? p.m.); at 8 mi. on day's route entered the Washita bottom; camped on Bois d'Arc Creek.

29Je 15 mi. SbW, & reached Capt. Dean's camp (at mouth of the Washita R., w. 2 companies of the 3d Infantry from Ft. Towson, nr. a fine spring.) [SW *Bryan Co.]

30Je Genl. Leavenworth plans to command in person march to the Comanche country; some companies of 7th & 3d Infantry to accompany the Dragoons. Remained in camp.

1Jl Remained in camp at mouth of Washita R. Regiment under Lt.-col. Kearny ["the command"] arrived at 10 a.m., & camped nr. the Washita; 45 men & 3 officers sick, 75 horses & mules disabled.

2Jl Remained in camp, preparing for western journey.

3Jl Prepared to × the Washita; the left wing spent all day in doing this; 23 of the 27 men left sick at Camp Canadian (26Je), now mostly recovered, arrived at Camp Washita. Lt. Cooke, ill at Fort Canadian, had been sent back to Ft. Gibson.

4Jl Right wing of expedition × the Washita; command encamped 4 mi. W of river [*Marshall Co.] Beyrich joined today, w. intention to proceed to Comanche
country w. expedition; George Catlin also w. detachment. Genl. Leavenworth decided to send Col. Dodge on, w. 250 picked men, to the Comanche country. Six companies (B, C, D, E, H, & I) were retained as companies; Cos. G and K were broken up and divided among the 6 listed above. Sick were left at Dean's camp on the Washita.


7Jl 5 mi. Left Camp Leavenworth at 4 p.m., in 3 columns, w. 10-days' provisions & 80 rounds of cartridges per man; baggage at a minimum. Beyrich [finding terrain too rough, and undergrowth too dense for his wagon] left the command to return to Camp Washita. The command left Genl. Leavenworth sick at Camp Leavenworth, w. 109 men for duty [Hildreth says “149”] and 86 sick; Capt. Trenor in charge; Lt. Ury sick, and Lts. Schaumbergh, Bowman, Kingsbury, and Van-Derveer officers under Trenor.

8Jl Remained in camp, catching horses that had stampeded during the night.

9Jl 14 mi. NW (8:30 a.m.—? p.m.) Genl. Leavenworth called back from expedition a field officer (Lt.-col. Kearny) to command at Camp Leavenworth; 10 men whose horses were lost in the stampede of the night of 7/8 July also returned to Camp Leavenworth. Slight rain that night & next day [*Carter Co.*]

10Jl 16 mi. through Cross Timbers; ["it rained considerable today"—Evans]; little water in camp. [*Carter Co.*]

11Jl 20 mi. W, in 3 columns: R (Major Mason), C (Capt. Hunter), L (Capt. Sumner.) Camp had bad water; little water on route. Still in Cross Timbers.

12Jl 12 mi. W (8 a.m.—? p.m.) Still in Cross Timbers; "Camp Choctaw."

13Jl 23 mi. WbN; left Cross Timbers & entered on Grand Prairie; beautiful camp on creek; several oil springs. (8 a.m.—6 p.m.; rear-guard did not come until 10 p.m.—sick falling in rear.) [*Stephens Co.*]
14JL 17 mi. W; met Comanches in friendly way; number of sick decreased; beautiful open prairie. A heavy rain that night [?a cold norther?]

15JL 24 mi. NW (7:30–7 p.m.) ["We resumed our march, wet and cold"—Evans]; a Comanche acted as guide to the Indian village [N part of *Comanche Co., not far from present Fort Sill.]

16JL 12 mi. NbW (9 a.m.–2:30 p.m.) Reached Comanche village of over 200 lodges.


18JL 7 mi. W, having mainly waited until 11 a.m., to see chief. Sick today, 33 men, incl. 3 officers. Water abundant, grazing excellent. A sick camp is planned, as command had to wait 2 hrs. for the 6 litters (incl. Mr. Catlin’s) to come up. Although season is very dry, they suffered very little today from lack of good water.

19JL 23 mi. SW (8 a.m.–3 p.m.) Left 75 men in sick camp ("Camp Finley"—39 sick), Lt. Izard in charge, Maj.-surg. Finley on duty, Lt. Moore sick. Left jaded horses here. Command (183 men) marched in 3 columns. [*Comanche Co.]

20JL 37 mi. W (7 a.m.–4:40 p.m.) In the Wichita Mts. of *Comanche & *Kiowa counties, and very rough going. Camped abt. 5 mi. from Towash village on a tributary of the Red R.

21JL At the Towash village (started at 8 a.m.) [*Kiowa Co.]

22JL In Council w. the Indians.

23JL In Council w. the Indians.

24JL Still in Council.

25JL 6 mi. E (3–6 p.m.)

26JL 21 mi. E (7 a.m.–? p.m.) Water scarce & grass burned out, but camped by a stream of good water, w. excellent grazing. A heavy shower [first since 14/15JL] a blessing. [*Kiowa-*Comanche County line.]

27JL 23 mi. (7 a.m.–4 p.m.) Reached sick camp nr. present Lawton. Lts. Izard & Moore sick w. fever; Mr. Catlin very sick; 29 men sick in both camps.

28JL 12 mi. EbN (9:30 a.m.–? p.m.) Broke up sick camp & departed w. all the command; took w. them the
Seneca hunters who had been left at sick camp [unofficially, "Camp Finley"] to obtain food for the men. "Excessively hot weather"; heat overpowering both to men and horses; 43 sick, 7 in litters; water tolerable. Col. Dodge sent express to Genl. Leavenworth; Dodge's command will wait in buffalo range for reply. Deer abundant, 1 or 2 killed for food. [E *Comanche Co.]

29Jl 15 mi. EbN (8 a.m.–4 p.m.) Killed 3 buffalo for the famished men. Route ran betw. 2 forks of the Washita (?Washita & Little Washita, in *Grady Co.?) ["Very heavy rain during day and night"—Evans.]

30Jl 14 mi. NE (8 a.m.–? p.m.) × Washita at 5 mi. on route [nr. *Chickasha, *Grady Co.]; good water today, but day excessively hot.

31Jl 10 mi. NE (8:30 a.m.–? p.m.) Abundance of buffalo meat; men in fine spirits; rolling prairie w. frequent deep gullies. [*Grady Co.]

1Ag 15 mi. NbE (8:30 a.m.–1:30 p.m.) × Canadian R. at 5 mi., abt. "100 mi. above ford–× on way out" [not far from *Norman, *Cleveland Co.]; abundance of buffalo ("immense herds"); men "jerked" buffalo beef at night.

2Ag Rested in camp; jerked buffalo beef all day; nights cool.

3Ag Moved camp 1 mi.; horses in bad order; return to Ft. Gibson desirable (if not, indeed, necessary). [Middle part of *Cleveland Co.]

4Ag 8 mi. S along Canadian R., in search of more buffalo; Kiowas w. Col. Dodge's command killed many; more jerking of beef; return to Ft. Gibson decided upon. [S part of *Cleveland Co.]

5Ag Rested in camp, jerking buffalo beef; express from Capt. Dean: Gen. Leavenworth & Lt. McClure died 21Jl of bilious fevers; 150 men sick at Camp Washita. [From 5Ag to 10Ag, passing through S *Potawatomie & *Seminole counties, and SW *Hughes Co.]

6Ag 23 mi. SE through Cross Timbers (8 a.m.–? p.m.), toward mouth of Little R. [Camp Canadian or Camp Holmes]; 5 litters of extremely ill men in train. Col. Dodge sent express to Lt.-col. Kearny at Camp Smith [Leavenworth], to move his command to Ft. Gibson.
Heavy thickets; excellent forage for horses in the abundant pea-vines; litters came up several hours after the command.

7Ag 18 mi. SbE, through Cross Timbers, on dividing ridge betw. Canadian & Little rivers (8 a.m.–4 p.m.); water scarce on way; good water & grazing at camp.

8Ag 18 mi. EbS (8 a.m.–3 p.m.); exceedingly warm; heavy thickets; × Little R.; no water on route, & creek beds dry; woods full of plums & delicious grapes; camped on water; 30 men & officers sick.

9Ag 20 mi. NE (8 a.m.–4 p.m.); water tolerable; camped in open woods 3 mi. from Ft. Gibson road, 3 mi. from Camp Holmes [Camp Canadian] at mouth of Little R. [SW *Hughes Co.]

10Ag To Camp Holmes on the Canadian; buildings well advanced; "vast many sick" at Camp Holmes; Col. Dodge's sick-list 30. Remained in camp. Drew rations for 4 days from Lt. Holmes in charge of post. Left litter-sick at Camp Holmes.

11Ag 22 mi. on road to Ft. Gibson (8 a.m.–? p.m.) [E *Hughes Co.]

12Ag Mileage? [?22] (8 a.m.–? p.m.) Water tolerable, in pools. Express from Camp Smith, Col. Kearny: 41 sick, 71 for duty at Camp Smith; 70 sick, 8 for duty at Camp Washita. Many horses disabled, led by men in rear of columns, hardly 10 horses in good order. Command w. Col. Dodge ordered to lead horses, and ride them, at alternate hours. [*McIntosh Co.]

13Ag 17 mi. to Creek settlements on North Fork of Cana­dian R.; purchased corn for horses. [*McIntosh Co.]

14Ag 20 mi. to Camp Rendezvous [*Muskogee Co., from which they had set out on 21Je]. Grass poor—burnt and dry; water scarce & in pools; extraordinarily hot; sick list reduced to 19.

15Ag 14 mi. to near W bank of Arkansas R. [3 mi.] (7:30 a.m.–? p.m.) Col. Dodge & accompanying western Indian chiefs [to attend Indian Council] crossed Arkansas R. late in evening, & reached Ft. Gibson.

16Ag Major Mason & 3 companies ordered into Ft. Gibson; Capt. Sumner & 3 companies directed to remain in camp on W side of the Arkansas.
Col. Kearny's command arrived, with a great number of sick men & worn-down horses; officers sick: Lts. Swords, VanDerveer, Eastman; Asst.-surg. Hales very sick. Also Capt. Trevor, and Lts. Bowman, Ury, & Kingsbury. [Evans says that Kearny's command arrived on the 25th—a misprint?] Runners sent to chiefs of Osages, Cherokees, Creeks, Choctaws, etc., to invite them to Council with the Plains Indians present at the Fort.


Notes on Mammals of Dallas County, Texas

William B. Stallcup

Little is known of the distribution of mammals in north-central Texas. Russell's study of the mammals of Cooke County (1953) is, I believe, the only work of this sort which has been carried out in this area.

During the last two years (summer of 1954 through the summer of 1956) my students and I have made regular collections of mammals from various stations in Dallas County, in an attempt to ascertain the species occurring and their relative abundance. This paper summarizes our results. It should not be considered a complete list for the county; doubtless species are present which we have neither collected nor observed. Furthermore, we did not try to make ecological or taxonomic studies of these animals. Such studies would be useful since our preliminary work leads me to believe that in this area there is intergradation between the subspecies of several different species. These studies would require, however, more specimens than are now available.

My sole purpose in publishing now this list is to set a starting point for future work in ecological and taxonomic fields. All specimens are in the permanent collections of the Department of Biology of Southern Methodist University.

I am grateful to all the students who have participated in this program; and am particularly indebted to Mr. Dilford Carter and Mr. Warry Williams for their many hours spent in the collection and preparation of specimens.

Dallas County lies near the intersection of 33° N. Latitude and 97° W. Longitude. It has an area of 893 square miles.