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**A PROPOSED EMENDATION OF THE
GRAY FLYCATCHER’S TYPE LOCALITY AND
FORMAL DESIGNATION OF ITS LECTOTYPE**

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ABSTRACT: The Gray Flycatcher (*Empidonax wrightii*) now bears the specific epithet that Spencer Fullerton Baird “provisionally designated” for a potential new species of this genus—which he described from two seemingly undated Smithsonian Institution museum skins (i.e., USNM 7234 and 7237), and which the United States and Mexican Boundary Survey botanist Charles Wright had purportedly collected at El Paso, El Paso County, Texas presumably in the early 1850s. However, our research indicates that: (a) the latter locality did not exist as such when Wright collected these specimens, which respective dates we have determined were almost certainly 4 May and 3 April 1852; and (b) he had instead obtained them at the U.S. Boundary Commission’s operational headquarters located upstream along the Rio Grande at nearby Frontera, Texas. That facility was soon destroyed by a massive flood that swept down this river on the night of 25 June 1852—since which date a series of international and interstate agreements resulted in its former site having been variously shifted between Chihuahua, Texas, and New Mexico until 1930, when it was officially placed in present Sunland Park, Doña Ana County in the latter state. Consequently, it is this latest location that we are here proposing as the emended type locality of *E. wrightii* Baird, while at the same time also formally designating the taxon’s sole remaining Smithsonian syntype (USNM 7234) as its lectotype.

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The Gray Flycatcher (*Empidonax wrightii*) now bears the specific epithet that Spencer Fullerton Baird (*in* Baird et al., 1858:200) “provisionally designated” for a potential new species of this genus—which he described from two seemingly undated Smithsonian Institution museum skins (i.e., USNM 7234 and 7237), and which “C. Wright” had purportedly collected at “El Paso, Texas.” Baird (*in* Baird et al., 1858:xiv) earlier identified this individual as Charles Wright of the “survey of the United States and Mexican boundary line”—who participated in that endeavor from May 1851 into July 1852, primarily as a collector of scientific specimens of wild plants and whose itinerary for that work has been thoroughly reconstructed by Elizabeth A. Shaw (1987). According to Dr. Shaw (1987:8; microfiche 2), all of Wright’s botanical and other references to “El Paso” over that 14-mo period represented his contraction of the name of the city of El Paso del Norte (or Ciudad Juárez since 1888), which has long been located along the south side of the Rio Grande (or Bravo) del Norte in northwestern Chihuahua. Meanwhile, the settled area to the north of this river (and which gradually became El Paso, Texas) was still known in the early 1850s as the James Magoffin Ranch, Magoffinsville, or Franklin. Based on this and an array of other historical information from several additional sources, we began to suspect some time ago that Baird (*in* Baird et al., 1858:200) had incorrectly attributed the two syntypes of *E. wrightii* to El Paso, Texas—and that Wright had actually obtained them elsewhere in that region, and most likely at one or more of his plant-collecting sites.

Under ordinary circumstances, we might have been able to resolve the type locality of *E. wrightii* Baird simply by determining what Wright himself had written about where and presumably when he collected its two syntypes—such as on the tags or data slips that originally accompanied them and/or in his field catalogues or notes. However, all such items appear to have either disappeared or are yet to materialize, at least in the case of USNM 7234. For example, this specimen presently has attached to it only two preprinted Smithsonian labels (one white and presumably from the 19th Century, the other red and from the 20th), each of which bears the same (but handwritten) collecting locality and collector that Baird (*in* Baird et al., 1858:200) published in first describing this taxon—i.e., “El Paso, Texas” and “C. Wright,” respectively. As for USNM 7237, we have no idea what its labeling entailed at the time it was sent to a “Buenos Ayres[, Argentina] mus[eu]m in] April 1872,” as is indicated in an annotation of its initial entry in the Smithsonian Institution’s unpublished ornithological catalog (Vol. 2:305–306, line 12, with this specimen’s original collection data having been entered in 1857). That transfer presumably occurred when the Smithsonian exchanged 650 specimens of North American birds to the National Museum of Natural History (which is now called the Museo de Ciencias Naturales) in Buenos Aires (Dabbene 1926:37–38, 43), where neither this skin nor any record of its disposition could be found in a 2002 search that was very kindly conducted there in our behalf by Dr. Pablo Luis Tubaro (*in litt.*) and his staff.

After our having been unsuccessful in locating any original source(s) of collection data for the two syntypes of *E. wrightii* (i.e., USNM 7234 and 7237), we again turned our attention to their initial entries in the Smithsonian Institution ornithological catalog (Vol. 2:305–306, lines 9 and 12, 1857). That documentation revealed that each of the skins had been identified as that of a “*Tyrannula* miscellanea [or a miscellaneous flycatcher in this genus],” and then listed as having been obtained by “W [= Charles Wright]” at “Fronterea [= Frontera]”—but with no attendant country, state, territory, county, or other geopolitical division(s) being specified there. In addition, USNM 7234 was entered without any sex being

indicated; as having been collected on “May, 4 [but with no year shown];” and measuring “5 3/4–8 5/8–2 3/4.” According to Baird (*in* Baird et al., 1858:193, 200), the latter three measurements are the “fresh” values for the “[total body] length,” “stretch [or span] of wings,” and “wing [length]” in inches, respectively. The entries in these same categories for USNM 7237 are: sex “♂;” date “Apl. 3./50[= 52];” and with these respective measurements of “5 3/8–8 1/2–2 7/8.”

According to the late Tom (or Thomas K.) Todsén (1990:[1]), this particular locality of Frontera (Spanish for “border” or “frontier”) began as a U.S. custom house and port-of-entry on the ranch of Thomas Frank White in 1848. The place was located on the north and east sides of the Rio Grande at a point approximately 8 mi north of the cathedral in El Paso del Norte, Chihuahua. On 21 January 1851, the U.S. Boundary Commission acquired the property (i.e., then consisting of 2 acres of land plus White’s few buildings) as the local headquarters for its survey operations. By then or soon thereafter, the north-south boundary between New Mexico and Texas east of the Rio Grande had been adjudicated as the 32nd north parallel. Consequently, Frontera then officially became a part of the latter state, namely within the confines of the newly established El Paso County—of which the seat was established at the centuries-old town of San Elizario which we plot as having been located on the north side of the Rio Grande about 21 mi (or 33 km) southeast of this U.S. boundary-survey facility. According to Shaw (1987:microfiche 2), Wright collected plants at or near Frontera on a total of 31 days in July 1851 and March–May 1852—versus 5 days around El Paso [del Norte, Chihuahua] in July 1851 and March–May 1852; 5 days in the San Elizario vicinity in March and May 1852; and none specifically at any of the settlements that became the original nucleus of El Paso, Texas (e.g., Magoffin Ranch, Magoffinsville, or Franklin) in June–July 1851 and February–May 1852. Furthermore, if one logically assumes that Wright obtained USNM 7234 on 4 May 1852 and USNM 7237 on 3 April 1852, then we find it is reassuring to learn that he had also definitely collected botanical specimens at Frontera on those very same two dates as well.

In addition to the two syntypes of *E. wrightii*, Baird (*in* Baird et al., 1858:214, 250, 284, 294, 405, 418, 475, 685; Baird, 1859:9–10, 14, 16, 24) also listed 10 other bird skins of eight additional species that Charles Wright had collected as a member of the U.S. Boundary Commission and primarily during May 1852. Baird indicated that Wright had obtained all but one of those specimens at Frontera (as do their initial Smithsonian catalog entries), with the sole exception having been a Brewer’s Sparrow (*Spizella breweri*; USNM 6356) that was allegedly taken by him at “El Paso, Texas” on “May 4, 1852.” This is obviously the very same date on which we presume Wright collected one of the syntypes of *E. wrightii* (i.e., USNM 7234) at Frontera—which led us to strongly suspect that he had more-likely collected this sparrow there and then as well, and thus not at El Paso, Texas as claimed by Baird (*in* Baird et al., 1858:475). This discovery then prompted our search of the Smithsonian ornithological collection for USNM 6356—which effort produced not only the skin but also what appears to be Wright’s original label still attached to it after the passage of what is now almost 162 yr. Clearly inscribed on that long-overlooked piece of paper is the information that this bird had been collected by “W” at “Frontera” (but with no attendant country, state, territory, or county indicated) on “May 4th/52.”

Here on the above-described and original label of this Brewer’s Sparrow skin (i.e., USNM 6356), we now have direct and irrefutable evidence that Baird, his Smithsonian staff, or both had indeed substituted El Paso, Texas for Frontera as the collection locality for one of Charles Wright’s U.S. boundary-survey bird skins from

1852. Beyond proving that such a substitution did in fact occur with that particular specimen, we also believe that this instance lends further support for our earlier and more circumstantial argument that Baird had done the very same thing with USNM 7234 and 7237. After all, if Baird did this once, then he certainly could have done it again and again. On a more practical level, we have also attempted to use the label information of USNM 6356 to gauge how accurately the original collection data of the syntypes of *E. wrightii* might have been captured in the Smithsonian ornithological catalog (Vol. 2:305–306, lines 9 and 12, 1857). For example, we find that both of these entries agree with that label in utilizing the letter “W” to indicate the collector of the two flycatchers; in solely listing “Frontera [= Frontera]” as their collecting locality; in the manner of abbreviating one and probably both of the collection dates (i.e., as “Apl. 3./50 [= Apl. 3rd/52]” and “May 4[th/52]”); and in the style used in writing the specimens’ measurements (see above). This close resemblance in the content and style of these two data sets suggests to us that whoever had catalogued those two specimens, he or she then appears to have closely copied Wright’s collection data as they were written on his original labels. By contrast, we find notably less agreement in the style, content, and even certain details between the label of USNM 6356 and its entry in the Smithsonian catalog (Vol. 2: 235–236, line 6, 1856), including in the latter’s attribution of “Frontera” to “Mex[ico],” listing of the date as “May 4’56 [= May 4th/52],” and omission of both the collector and measurements. In this case the cataloguer was clearly less conscientious in adhering to the information exactly as and how Wright had written it down on the label of the specimen. Based on this information, it appears to us that the catalog entries for USNM 7234 and 7237 may have been written by someone who was less prone to tamper with their original collection data than the person that catalogued USNM 6356.

We have also pondered the matter of what might have led Baird (*in* Baird et al., 1858:193, 200, 475; Baird, 1859:9, 16) to have substituted El Paso, Texas as the collecting locality of three of Charles Wright’s bird skins from Frontera (i.e., USNM 6356, 7234, and 7237), even as the latter location was left unchanged for his other nine specimens from there. After due consideration, our best guess is that Baird’s rationale for this substitution might have been rooted in two separate considerations that at first sight may not appear to be related. One is that he had previously learned that Frontera (at least as Wright knew it) disappeared on the night of 25 June 1852 when a cloudburst somewhere upstream produced a flood that swept down the Rio Grande and completely washed away the U.S. Boundary Commission’s headquarters there (Emory, 1857:90–91). The other involved Baird’s (*in* Baird et al., 1858:200) “provisional designation” of *E. wrightii* as a new species, which he may have decided would be better described from specimens collected at the developing town of El Paso, Texas—rather than from the site of a temporary facility that had vanished without a trace five or so years previously. And just for good measure, Baird might have made the same change in the Frontera collecting locality of Wright’s Brewer’s Sparrow. This is based on our premise that he probably knew that John Cassin (1856:40) had likely examined that skin in describing the taxon as a new species from “Western North America, California, New Mexico.” In fact, our examination of the specimen’s original label and initial entry in the Smithsonian catalog (Vol. 2:235–236, line 6, 1857) leaves us with little, if any, doubt that USNM 6366 is an actual syntype (or paralectotype) of *S. breweri*—given the date and place of collection plus the various taxonomic annotations on its tags. On this issue we thus disagree with Herbert G. Deignan (1961:654), who listed only two Smithsonian syntypes of the form (i.e., USNM 1905 and 2890, both collected in the

“Rocky Mts.” on “June 15, 1834”), whereas he opined that most of the others “doubtless[ly] were or are in the Academy of Natural Sciences in Philadelphia.” As for Wright’s other nine bird skins from Frontera, Baird may well have considered them as having so much lesser ornithological significance that he saw no point in altering their original collecting locality.

In addition to destroying the U.S. Boundary Commission’s headquarters at Frontera, Texas, the flood of 25 June 1852 also shifted the Rio Grande’s course to the east—thus leaving that facility’s former site on the river’s west bank and in what is now Chihuahua (Todsens, 1990:[2]). This plot of ground remained within that state until the property again became part of the United States, which occurred with the ratification of the so-called Gadsden Purchase of 1853. After that, the site was first located in New Mexico, then in Texas following another shift in the river’s channel before 1917, and most recently it reverted to New Mexico pursuant to a resurvey and mutual agreement with Texas in 1930 (Todsens, 1990:[4]). Although Major Emory (1857:191, 193, 244, 254, 256) published an array of pre-flood coordinates for Frontera, we are not qualified to judge which, if any, among them represents the best approximation of its location at that time. Therefore, we have chosen to plot the site’s former location from Todsens’s (1990:[2]) figure 1, which places it about 31°48.45’N, 106°33.80’W and at an approximate elevation of 3,730 feet (or 1,137 m) above sea level. It is here at this spot that we are hereby proposing the designation of the emended type locality of *E. wrightii* Baird (*in* Baird et al., 1858:200) as follows: “El Paso [= Frontera, El Paso County,] Texas [= Sunland Park, Doña Ana County, New Mexico].”

Incidentally, Deignan (1961:285) became the first to formally supplement Baird’s (*in* Baird et al., 1858:193, 200) stated collection data and related information for the two syntypes of *E. wrightii* (USNM 7234 and 7237) from at least their initial entries in the Smithsonian Institution ornithological catalog (Vol. 2:305–306, lines 9 and 12, 1857), even though in neither case was the latter source or their original labels referenced as such. For example, Deignan (1961:285) indicated that the specimens had been respectively collected on “May 4, 1850” and “April 3, 1850” and that the “cotype, No. 7237... was sent in April 1872 to the museum in Buenos Aires.” In addition, this same collection date of “4 May 1850” for USNM 7234 also currently appears in its online listing from the Smithsonian’s avian-specimen database (e.g., from our search for “USNM 7234” on ORNIS at ornis2.ornisnet.org/search.aspx), even though we now know that this year should actually have been catalogued as 1852. On the other hand, Deignan (1961:285) left Baird’s (*in* Baird et al., 1858:200) type locality of “El Paso, Texas” unchanged, except that he did insert an unbracketed “El Paso County” between this city and state. We suspect that it was Deignan who also added “Texas” in pencil following the two syntypes’ collecting locality of “Fronterea” in their Smithsonian catalog entries, plus “[Elpaso, Texas]” above that location for USNM 7234. Perhaps needless to say, it is our view that Deignan (1961:285) should have at least mentioned that these skins had been initially catalogued there as collected at “Fronterea,” even if he regarded this location as synonymous with El Paso, Texas. Furthermore, we also believe that any and all of his modifications of Baird’s (*in* Baird et al., 1858:200) originally published type locality for this taxon, and the collection data for its syntypes, should have been bracketed or otherwise clearly indicated as follows: “El Paso[, El Paso County], Texas” and “7234[, collected on May 4, 1850, and] 7237 [on April 3, 1850].”

So far in this paper we have not dealt with, nor is it our intention to address, the complicated taxonomic history per se of *E. wrightii*—which in our view was first definitively sorted out by the late Allan R. Phillips (1939) some 81 yr after Baird (*in*

Baird et al., 1858:200) had “provisionally designated” the taxon as a new species. However, there is one such matter that we wish to raise here now—which has to do with the fact that even though Baird named this form on the basis of two museum skins, only USNM 7234 is known to still be extant. Furthermore, this is the only one of the syntypes that has ever been closely studied by such 20th-Century authorities on this taxonomically very difficult avian complex as Phillips (1939) and the late Ned K. Johnson (1963:88). By contrast and as noted above, USNM 7237 was sent to a museum in Argentina in April 1872 (e.g., Deignan, 1961:285), which was well before even the most competent 19th-Century ornithologists had learned how to reliably distinguish museum skins of this species from those of similar taxa, including especially what is now called the Dusky Flycatcher (*Empidonax oberholseri*). For example, Baird (*in* Baird et al., 1858:920, 922, 926) reported examining additional skins of *Empidonax obscurus* (or what he had provisionally designated as *E. wrightii*) from two other areas of the western United States. One of those places was “Camp Scott, Fort Bridger” in Utah [= Uinta County, Wyoming] in April–June 1858—where and when Baird (*in* Baird et al., 1858:926) indicated that Mr. C. Drexler had found what were apparently “two types” of these flycatchers, and which were said to be “abundant” and with “many specimens... collected.” However, our recent ORNIS searches have so far yielded only two of those skins in any North American ornithological collection: one of these has been identified as a Dusky Flycatcher (USNM 10868), which was taken at this locality on 22 June 1858; the other is of a Least Flycatcher (*Empidonax minimus*; USNM 10878) that was obtained there on 22 May 1858. Based on this admittedly limited amount of information, we have found no proof that there were indeed any specimen(s) of the Gray Flycatcher in Drexler’s series of *Empidonax*—despite Baird’s intimation that such may have been present among them. In other words, what the latter gentleman might have thought were examples of that species have, to date, proven to be assignable to other such taxa.

Based on the above and other information, it is our conclusion that only USNM 7234 of Baird’s (*in* Baird et al., 1858:200) two syntypes of *E. wrightii* can now be confidently accepted as a bona fide example of the Gray Flycatcher. This means that until and unless the specific identity of USNM 7237 can ever be authoritatively determined, we recommend that it be identified simply as an example of an *Empidonax* sp. Of course, we are hopeful that some day this specimen will resurface and that its identification and even original collection data can then be ascertained. In fact, we are encouraging ornithologists throughout Argentina, South America, and indeed elsewhere in the world to be on the lookout for this skin in ornithological collections regardless of their size, affiliation, location, or other features. If it should ever be found, we recommend the details concerning its location and other relevant information be passed on as soon as possible to the Division of Birds, Smithsonian Institution, Washington, DC 20560. Meanwhile, we are also taking this opportunity to now formally designate USNM 7234 as the lectotype of *Empidonax wrightii* Baird, even though such a de facto designation may have already been extended to this specimen by earlier workers, beginning with Allan R. Phillips (1939:311).

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