

PROCEEDINGS OF THE
BIOLOGICAL SOCIETY
OF WASHINGTON

The type localities of the mule deer, *Odocoileus hemionus* (Rafinesque, 1817), and the Kansas white-tailed deer, *Odocoileus virginianus macrourus* (Rafinesque, 1817), are not where we thought they were

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Abstract.—Among the iconic mammals of the North American West is the mule deer (*Odocoileus hemionus*). This species and a western subspecies of the white-tailed deer (*Odocoileus virginianus macrourus*) were two of seven mammals originally named and described as new species in 1817 by Constantine S. Rafinesque. Rafinesque never saw the animals that he named. Instead, he followed the then-acceptable practice of basing his new species on animals characterized in another published work, in this case the putative journal of Charles Le Raye, a French Canadian fur trader who was said to have traversed the upper Missouri River region before the Lewis and Clark Expedition and whose journal described some of the wildlife in detail. Unlike the mule deer, whose existence has been established by generations of biologists, wildlife management professionals, and sportsmen, Le Raye and his journal have since been proven to be fraudulent. Because Rafinesque’s names were published in accordance with the taxonomic conventions of his time, they remain available, but, based on the questionable source of his descriptions, the identities and type localities of the species must be viewed as unreliable. Fortunately, much of the Le Raye journal was derived from other, verifiable contemporary sources. In particular, the descriptions of the two deer were based on the published journal of Patrick Gass, a member of the Lewis and Clark Expedition. Using the Gass journal as the original source of Rafinesque’s descriptions, the type localities for the two deer can be reliably placed in Lyman County, South Dakota.

Keywords: Cervidae, *Odocoileus virginianus dacotensis*, *Odocoileus virginianus texanus*, taxonomy, type specimen

The naturalist Constantine S. Rafinesque (1817) named and described seven new species of North American mammals based on the purported journal of the French Canadian fur trader Charles Le Raye (Table 1). A long excerpt from Le Raye’s journal had been published as a supplementary chapter to the book *A Topographical Description of the State of Ohio, Indiana Territory, and Louisiana* (Cutler 1812; hereafter, *A Topographical Description*), authored anonymously by “a

late officer in the U.S. Army.” That “late officer” has since been identified as Jervis Cutler, a former captain in the 7th U.S. Infantry Regiment who was once stationed in New Orleans under the command of Major Zebulon M. Pike (Hildreth & Meigs 1852, Cutler & Cutler 1888, Cutler 1890). According to the journal account (Cutler 1812), Le Raye and six unnamed companions were on a trading expedition to the Osage nation in Missouri in September 1801, when they were taken prisoner along

Table 1.—List of mammals named and described by Rafinesque (1817) based on the Le Raye journal (Cutler 1812).

Rafinesque's taxon	Current identification
<i>Corvus</i> ¹ <i>macrourus</i> — “long-tailed deer”	<i>Odocoileus virginianus macrourus</i>
<i>Canis chlorops</i> — “green-eyed fox, or meadow fox”	<i>Canis latrans</i> Say (1822)
<i>Cervus hemionus</i> — “mule deer”	<i>Odocoileus hemionus</i>
<i>Melesium pratense</i> — “meadow badger”	<i>Taxidea taxus</i> Schreber (1778)
<i>Strepsiceros</i> ² <i>eriphos</i> — “Cabree”	a fanciful beast based partly on references to the pronghorn, <i>Antilocapra americana</i> (Ord, 1815)
<i>Felis misax</i> ³ — “cat”	unidentifiable (possibly a wolverine)
<i>Lynx aureus</i> — “wild cat”	unidentifiable

¹Rafinesque's misspelling of *Cervus*. ²*Strepsiceros* is a misspelling (or correction) of *Strepsiceros* Rafinesque (1815). ³Rafinesque (1832) subsequently renamed *Felis misax* as *Felis macrura*.

the Osage River by a Sioux war party. Separated from his men soon after their capture, Le Raye was taken north along the Missouri River to the mouth of the Big Sioux River. During his captivity, he traveled extensively with his captors, trekking as far north as the Upper Missouri River in present day North Dakota and as far west as the Bighorn Basin of Wyoming. Le Raye ultimately remained a prisoner of the Sioux for three years and five months, until he managed to escape by canoe down the Missouri River to the safety of the French settlements (Cutler 1812). Le Raye's supposed odyssey began three years before the Lewis and Clark Expedition (1804–1806) embarked to explore much of the same region (Lewis et al. 1814), which made him “the first white man to penetrate into the Upper Yellowstone region and return with a written account” (Dollar 1974:4–5). The tale of Le Raye's captivity included descriptions of animals that inhabited the region and were hunted by the local tribes for food and skins (Cutler 1812). Many of the animals discussed were then presumably new to the known fauna of North America. Following accepted practice (International Code of Zoological Nomenclature, Article 12.2 [ICZN 1999]), Rafinesque (1817) named and described seven new species of mammals, indicating the Le Raye journal (Cutler 1812) as the basis for his descriptions. Because Rafinesque based his new species on this

published work, type specimens do not exist, and, therefore, our modern understanding of these taxa relies upon Rafinesque's (1817) descriptions and, more practically, on the populations of these animals that inhabit their presumed type localities.

Compounding the uncertainty, the historian Clyde Dollar (1974, 1982) determined that the early nineteenth-century trader Charles Le Raye and his original journal never existed, both perpetrated as a well-crafted hoax (for earlier skeptics, see also Hyde 1937, Schell 1968). Based on an exhaustive paragraph-by-paragraph review of its historical, cultural, linguistic, and geographical contents, Dollar (1974, 1982) showed that much of the Le Raye journal (Cutler 1812) was derived from other published sources. Notable among these works is the journal of Patrick Gass (1807), a sergeant who served with the Lewis and Clark Expedition. Other sources include either Meriwether Lewis's (1806) report to President Thomas Jefferson, or one of William Fisher's (1812a, 1812b) two counterfeit Lewis and Clark Expedition narratives, the latter of which themselves were drawn from other works. The Le Raye journal was almost certainly authored by Jervis Cutler, who is documented to have had access to at least some of the original source materials, as well as having contact with participants in Pike's

western exploring expeditions (Cutler 1888, 1890; Cutler & Cutler 1888).

Hence, apparently unbeknownst to Rafinesque, the species described by him (Rafinesque 1817) were based on a fraudulent account, written by a man, Jervis Cutler, who had never seen the animals firsthand and who had never visited the region they were reported to inhabit. Yet, Rafinesque's work remains relevant because among the names he proposed are two that are still recognized and used today: *Cervus hemionus* for the mule deer (*Odocoileus hemionus*) and *Cervus macrourus* for the Central Plains subspecies of the white-tailed deer (*Odocoileus virginianus macrourus*), sometimes called the Kansas white-tailed deer (Rue 1989). These names remain available under the regulations of *The International Code of Zoological Nomenclature* (ICZN 1999; hereafter, *The Code*) because they conform in all respects to the provisions of Articles 10 through 20. Rafinesque—like countless professional anthropologists, geographers, historians, and zoologists since—was deceived by the Le Raye journal, and no provision in *The Code* (ICZN 1999) renders invalid a species unwittingly named on the basis of a widely accepted, published account that later proves to be a fraud. Moreover, changing the established scientific names of well-known wildlife species is a long and contentious process that is at odds with the ICZN's explicit goal of stabilizing scientific names (ICZN 1999). As explained below, changing the names of these North American deer is also unnecessary.

Just as many of the geographical and ethnographical details in the Le Raye journal were based on identifiable and reliable written sources, the descriptions of many of the mammals are traceable to contemporary published works. Among the many potential sources (see Dollar 1974, 1982), the most relevant record for details about the animals in the Le Raye journal, and therefore, for Rafinesque's descriptions of these mammals, is Gass's

(1807) journal. Significantly, much of the information from Gass can be compared to the journals of other members of that expedition. Support for Gass's account of the two deer, for example, comes from the journal of Sergeant John Ordway (Moulton 1995). Because the original specimens on which Rafinesque based his descriptions of *Cervus hemionus* and *C. macrourus*—as derived from the Gass (1807) journal via the Le Raye journal (Cutler 1812)—were animals taken by the Lewis and Clark Expedition, the characteristics and type localities recorded by members of that expedition are crucial to our contemporary understanding of the identities of the two taxa. In the absence of type specimens, and given the fraudulent nature of the Le Raye journal, we must rely on the primary literature sources for this information.

The original publications of Rafinesque (1817) and Cutler (1812) are not generally available, even in specialized libraries. For this reason, I provide the original descriptions for *Cervus hemionus* and *C. macrourus* in the following section. Rafinesque (1817) began each of his formal species descriptions by quoting the relevant passage from the Le Raye journal (i.e., the quotation marks are as in Rafinesque's paper), followed by his own interpretation of the important characteristics (i.e., the paragraph beginning with "Note"). Being careless in his copying, the passages Rafinesque "quoted" are not exactly as they appeared in *A Topographical Description*. For the descriptions of the two deer, the differences between the original and his copy are primarily in punctuation, with the notable exception of the "long tailed deer" (*C. macrourus*), which is described as "larger" than the red deer in the putative Le Raye journal (Cutler 1812:165), rather than "longer," as stated by Rafinesque (1817) (see Table 2). "Red deer" and "common deer" are contemporary vernacular names applied by members of the Lewis and Clark Expedition to the familiar

Table 2.—Comparison of characteristics of long-tailed deer (*Cervus macrourus* = *Odocoileus virginianus macrourus*) and mule deer (*C. hemionus* = *O. hemionus*) among the Le Raye journal (i.e., Cutler 1812), Rafinesque (1817), Brackenridge (1814), Gass (1807), and Ordway (Moulton 1995).

	Le Raye	Rafinesque	Brackenridge	Gass	Ordway
Long-tailed deer:					
	"larger than the red deer"	—	—	—	—
	"darker" than red deer	"body brownish above"	—	—	—
	"with a white belly"	body "white below"	—	—	—
	"horns are short, small, and somewhat flat"	"horns somewhat depressed, shorter than head"	"very small horns"	"small horns"	"Small horns"
	tail nearly 18" long	"tail elongated"	18 or 20"	18"	18"
Mule deer:					
	"smaller" than red deer	—	—	—	—
	"darker colour" than red deer	"body of a reddish brown"	—	—	—
	"large, branched horns"	"horns very branched, longer than the head"	—	—	—
	"very large" ears	"ears elongated"	"very long ears"	"much larger ears than the common deer"	"very large ears"
	"tail about five inches long with short dark hair, and at the end a tuft composed of long black hair"	"tail brown with a black tuft at the end"	"tails almost without hair, except at the end where there is a small tuft of a black color"	"tails almost without hair except at the end, where there is a bunch of black hair"	"scarcely any hair on their tail only the bunch of black hair on end of a grayish color"

eastern subspecies of white-tailed deer, *Odocoileus virginianus virginianus* (Zimmermann, 1780) and *O. v. borealis* Miller (1900) (Burroughs 1995, Moulton 1983–1999). Presumably, Cutler (1812) appropriated this vernacular use of "red deer" in the Le Raye journal.

After Rafinesque's (1817) comments, I quote the corresponding description from Gass (1807) to demonstrate how the animals described by Rafinesque, derived from the fraudulent Le Raye journal, ultimately are based on real animals observed by members of the Lewis and Clark Expedition. From Gass's (1807) journal, we can determine the characteristics that were considered distinctive at the time Rafinesque (1817) described the two taxa. Finally, the animals on which the descriptions were based can be traced to a specific Lewis and Clark encampment, which should be considered as the true type locality for each taxon.

Rafinesque's Descriptions of Two Deer

1. *Cervus macrourus* Rafinesque (1817:436)

"During our stay, the Indians killed a deer, which is called the long tailed deer. It was longer than the red deer, of a darker colour, and with a white belly. Its horns are short, small, and somewhat flat; its tail nearly eighteen inches long. They are said to be plenty in those plains." The plains of the Kansas river.

Note. This concise description is sufficiently accurate to enable us to ascertain that it belongs to a new species of deer, unknown east of the Mississippi, to which I shall give the name of *Corvus* [sic] *macrourus*, which means long tailed deer; it may be characterized as follows—horns somewhat depressed, shorter than the head, body brownish above, white below, tail elongated.

The original description (Cutler 1812:165) appears in the section of the putative Le Raye journal dated 4 November 1801, when the French Canadian fur trader was supposedly encamped with his captors on a small branch of the Kansas River. This stream is generally considered

to be the Wakarusa River (Miller & Kellogg 1955, Hall 1981, Dollar 1982), and Miller & Kellogg (1955:804) determined the type locality of *Cervus macrourus* to be the “plains near Wakarusa Creek, Douglas County, Kans[as]” (Fig. 1).

2. *Cervus hemionus* Rafinesque (1817:436)

“A kind of deer is frequently killed here, (on the Sioux river) called mule deer. It is smaller and of a darker colour than the red deer, having large branched horns. The ears are very large, the tail about five inches long with short dark hair, and at the end a tuft composed of long black hair.”

Note. This short account is, however, characteristic; it belongs to my *Cervus hemionus* (mule deer) a new species, akin to the *Cervus melanurus*, or black tail deer. Its description will be—horns very branched, longer than the head, ears elongated, body of a reddish brown, tail brown with a black tuft at the end.

This description is in the section of the putative Le Raye journal (Cutler 1812:168) after 8 December 1801, when Le Raye and his captors were reported to have arrived at their winter encampment along the Big Sioux River (Dollar 1982), now part of the border between Iowa and South Dakota. Bailey (1926:41) defined the type locality of the mule deer as the “Mouth of Big Sioux River, [Union Co.,] S[outh]. Dak[ota]” (Fig. 1).

Confusing the issue further, Rafinesque (1817) here coined a third new deer name, “*Cervus melanurus*” for the “black tail[ed] deer.” This vernacular name does not appear in the Le Raye journal. It was used initially by members of the Lewis and Clark Expedition to refer to the Great Plains cervids that they subsequently determined to call the mule deer (*Odocoileus hemionus hemionus*). Later in the expedition, they changed their usage of “black tailed deer” and “black tailed fallow deer” to refer to the distinctive Columbian black-tailed deer, *O. h. columbianus* (Richardson, 1829). Ord (1815:292) listed this latter animal in his “Zoology of

North America” as the “Black-tailed Fallow Deer.” He included the description from Lewis et al. (1814), but he did not provide a scientific name. Rafinesque (1817), with a too-often-characteristic laziness, gave the deer a scientific name, but provided no description or indication, rendering *Cervus melanurus* a nomen nudum. He was correct, however, in noting the close relationship of this taxon (i.e., *O. h. columbianus*) with the mule deer.

Descriptions of Deer from Sergeants Gass and Ordway, Members of the Lewis and Clark Expedition

The vernacular names employed in the putative Le Raye journal for the two species appeared in no published source prior to the Lewis and Clark Expedition. Members of the expedition often referred to what is now called *Odocoileus virginianus macrourus* as the “longtailed deer” or “longtailed fallow deer.” Similarly, the name “mule deer” was probably first seen in print in Clark’s (1805; Jackson 1978) letter of 2 April 1805, to Governor William Henry Harrison, which was reprinted in many contemporary newspapers. Among the “great variety of animals” seen by the expedition, Clark (1805:3; Jackson 1978:229) mentioned “the long ear’d mule or black tail deer (black at the end of the tail only).” Lewis noted in his journal for 10 May 1805 that members of the expedition “have by way of distinction adapted the appellation of the mule deer” for the species in preference to the name “black-tailed deer,” which was favored by the French *voyageurs* employed by the expedition (Moulton 1987:138). Given Le Raye’s own alleged French Canadian background, it would have been surprising for him to refer to these animals as mule deer rather than black-tailed deer, had he truly existed.

Among the possible sources for the Le Raye journal’s animals, only the published



Fig. 1. Map of the northern Great Plains of the United States: 1, Traditional type locality of *Cervus macrourus* on the "plains near Wakarusa Creek," Douglas County, Kansas; 2, Traditional type locality of the mule deer, *Cervus hemionus*, at the "mouth of Big Sioux River," Union Co., South Dakota; 3, "Plomb Creek" encampment of the Lewis and Clark Expedition on 16–17 September 1804, above the mouth of Corvus Creek, Lyman Co., South Dakota, herein amended as the type locality for both *C. hemionus* and *C. macrourus*.

journal of Gass (1807) and the then unpublished journal of John Ordway (Moulton 1995) provide descriptions of both species of Rafinesque's (1817) deer at the time they were first encountered. Gass's (1807:40) description of these animals appears in his journal for 17 September 1804:

The black-tailed, or mule deer have much larger ears than the common deer and tails almost without hair, except at the end, where there is a bunch of black hair. There is another species of deer in this country with small horns and long tails. The tail of one which we killed was 18 inches long.

Ordway's journal (Moulton 1995:61) for the same date reads:

towards evening Capt Lewis & party returned they had killed 13 common Deer. Some of them were handsome fauns— 2 Black tailed Deer which differ from the other Deer. verry large ears Scarce any hair on their tail only the bunch of black hair on the end of a grayish colour they are plenty in this Country but not discribed in any other parts— they killed another kind of Deer with Small horns & long tail. Gibson killed 1 its tail is 18 Inches long & differ also from any yet seen by the party.

The only other published source that comes close to the description in the Le Raye journal is Brackenridge's (1814) "Views of Louisiana," originally published serially in the *Louisiana Gazette* in 1812. The wording of his description of the two deer suggests, however, that, like Cutler (1812), he also relied heavily on the earlier-published Gass (1807) journal for its characterization of the deer (Brackenridge 1814:57):

Two varieties of deer are discovered high up on the Missouri. The black tailed, or mule deer; remarkable for very long ears, and tails almost without hair, except at the end where there is a small tuft of a black color. The other kind is distinguished by very small horns, and a tail of unusual length—eighteen or twenty inches.

In general, the descriptions of the two deer in the Le Raye journal (Cutler 1812) compare well with those from Gass (1807) and Ordway (Moulton 1983–1999) (see Table 2). The length of the tail is particularly telling. As stated by Audubon & Bachman (1854:78) for the eastern white-tailed deer, there can be considerable variation in this measurement: "At one time we examined the tails of some common deer in Fulton market, New York, and found that the longest exceeded nineteen inches, while the average length does not go beyond nine." That the putative Le Raye journal reported exactly the same length as Gass and Ordway, the latter of whom reported the measurement from the same individual, strongly suggests that Cutler (1812) appropriated the measurement from Gass (1807).

The sources for other characteristics given in the Le Raye journal (per Cutler 1812), such as the comparison of size and pelage coloration of the two western deer relative to the "common deer" (Table 2), are unknown. In their journals and other documents (Moulton 1983–1999), Meriwether Lewis and William Clark sometimes referred to *Odocoileus virginianus macrourus* as the "longtailed fallow deer," but the descriptor "fallow" (i.e., pale brown or reddish yellow in color) does not appear in Gass (1807) or other sources likely available to Cutler (1812). These other characteristics might be based on another Lewis and Clark Expedition journal, now lost (Dollar 1982, Moulton 1983–1999); on information Cutler obtained in New Orleans from Missouri River traders and trappers or from some member of Pike's western expeditions (Pike 1810); on his own observations of animal skins brought downriver as part of the fur trade; or simply on literary invention. Lewis wrote a detailed description of the mule deer in his unpublished journal for 10 May 1805 that was copied by Clark in his journal for 11 March 1806 (Moulton 1983–1999). These accounts included measurements, the form of the antlers, differences between the sexes, and measurements of the tail. That the description in the Le Raye journal (Cutler 1812) included none of these more detailed characteristics and, in fact, contradicts Lewis by indicating the mule deer to be the smaller animal, indicates that Cutler (1812) did not have access to those journals.

Amended Type Localities of the Deer Named by Rafinesque

The deer described in the Le Raye journal (Cutler 1812), and later by Rafinesque (1817), as being obtained along the Wakarusa River in Kansas (long-tailed deer, *Cervus macrourus*) or the Big Sioux

River in Iowa or South Dakota (mule deer, *Cervus hemionus*), are actually both based on descriptions of deer taken near the Missouri River in south-central South Dakota. Both Gass (1807) and Ordway (Moulton 1995) described animals that were taken 17 September 1804, while members of the Lewis and Clark Expedition were encamped at "Plomb Camp," on the west side of the Missouri River, a little above Corvus Creek (= American Creek), north of the mouth of the White River and near the modern town of Oacoma (43°48'N, 99°22'W), Lyman County, South Dakota (Moulton 1987, 1995). Because Gass's journal (1807) was probably the primary source for the descriptions of the two deer in the Le Raye journal, the type locality for both taxa should be corrected to the west side of the Missouri River above the mouth of Corvus Creek, Lyman Co., South Dakota (Fig. 1).

The correction of the type locality is not of great taxonomic significance for the mule deer. The locations of both the putative Le Raye camp on the Big Sioux River and the Lewis and Clark camp along the Missouri River are well within the broad distribution of *Odocoileus hemionus hemionus* (Hall, 1981), although the Lewis and Clark camp is closer to the core of the modern geographic range of the species (Anderson & Wallmo 1984). The change of the type locality for *O. virginianus macrourus* from Kansas to South Dakota, however, has potential implications for the taxonomy and distribution of several of the western North American subspecies of white-tailed deer. The corrected type locality for *O. v. macrourus* in South Dakota has been mapped variably as within the distribution of *O. v. dacotensis* Goldman & Kellogg (1940); near the boundary between *O. v. dacotensis* and *O. v. macrourus*; or along the boundary between *O. v. texanus* (Mearns, 1898) and *O. v. dacotensis* (Hall 1981, Baker 1984, Rue 1989, Heffelfinger 2011). Yet, in their journals and other records (Moulton 1983–1999),

Lewis and Clark indicated the presence of the "longtailed fallow deer" along the length of the Missouri River north of the type locality of *O. v. macrourus*. This passes through a region that is currently mapped as being inhabited by *O. v. dacotensis* (e.g., Hall 1981, Baker 1984, Heffelfinger 2011). Correct morphological and genetic characterization of *O. v. macrourus* is made more challenging by the extirpation of white-tailed deer and mule deer from all but the Black Hills region of South Dakota by 1900 (Richardson & Petersen 1974). Although both species had repopulated portions of the state west of the Missouri River by 1965, the genetic relationship of the modern population to the original population is unknown.

Subsequent Taxonomic History of Rafinesque's Deer

For a variety of reasons (Merrill 1949, Boewe 2003, Woodman 2012), a relatively small percentage of Rafinesque's scientific names have gained currency. Five of the names Rafinesque (1817) coined based on descriptions in the Le Raye journal (Cutler 1812) disappeared entirely from the literature (Table 1), so it is significant that his names for the mule deer and the long-tailed deer remain in use. For many decades, the mule deer was recognized as *Cervus macrotis* Say (1822), based on Thomas Say's description of specimens obtained in Harding Co., New Mexico (see Goodman & Lawson 1995), during Stephen Long's Expedition to the Rocky Mountains (James 1822). Merriam (1898) was the first to recognize the priority of *Cervus hemionus* Rafinesque.

Hamilton-Smith (1827a:134, 1827b) used the name *Cervus macrourus* for the long-tailed deer "described in Le Raye's MS. Journal," but did not credit the name to Rafinesque (1817), or to anyone else. Hamilton-Smith's (1827a, 1827b) contri-

bution was in a multivolume synopsis of the animal kingdom organized by Griffith (1827–1834), and Richardson (1829:257) subsequently placed the name “*C. macrourus* Griffith” in synonymy with his own *Cervus macrotis columbiana* (= *Odocoileus hemionus columbianus*). Baird (1857:649) recognized Rafinesque as the authority for *C. macrourus* when he placed the name in possible synonymy with *C. leucurus* Douglas (1829). Coues (1893:843) first recognized the validity of *Cervus virginianus macrurus* Rafinesque as a “variety,” but misspelled or corrected the name. Allen (1902) subsequently recognized *Dama* v[*irginiana*]. *macroura* Rafinesque, which became *Odocoileus virginianus macrurus* with the acceptance of the masculine *Odocoileus* as the genus name.

Despite the historical and modern economic importance of the genus *Odocoileus*, a comprehensive, specimen-based systematic and taxonomic review of the North American taxa has never been published. Such a study will be a massive undertaking, but it is also a necessary step for understanding the evolution and history of deer in North America.

Summary of the Essential Points

- Rafinesque (1817) named the mule deer, *Cervus hemionus* (= *Odocoileus hemionus*), and the long-tailed deer (= Kansas white-tailed deer), *Cervus macrourus* (= *O. virginianus macrurus*), based on descriptions of deer in the putative Le Raye journal, which was published in Cutler (1812).
- The Le Raye journal has been determined to be a fabrication by Cutler (1812), based on information from various sources, including the published journal of Patrick Gass (1807).
- Despite the fact that Rafinesque unwittingly based his characterizations of the two deer on a fictional account, his names and descriptions follow stipulations of *The International Code of Zoological Nomenclature* (ICZN 1999) and are taxonomically available.
- The closest contemporary source for the descriptions in the fraudulent Le Raye journal (Cutler 1812) is Gass’s (1807) journal, which describes deer taken on 17 September 1804, near a Lewis and Clark Expedition encampment in Lyman Co., South Dakota.
- The type locality of *Odocoileus hemionus* should be corrected from the plains near Wakarusa Creek, Douglas Co., Kansas, to the west side of the Missouri River above the mouth of Corvus Creek, Lyman Co., South Dakota.
- The type locality of *Odocoileus virginianus macrurus* should be corrected from the mouth of Big Sioux River, Union Co., South Dakota, to the west side of the Missouri River above the mouth of Corvus Creek, Lyman Co., South Dakota.

Acknowledgments

Thanks to Daria Wingreen-Mason and Leslie Overstreet (Joseph F. Culman 3rd Library of Natural History, Smithsonian Institution). Michael D. Carleton, Sandy Feinstein, Alfred L. Gardner, Eliécer E. Gutiérrez, and an anonymous reviewer provided substantive comments that greatly improved this manuscript. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. government.

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