

LESUEUR'S LAMPREYS OF 1826: THE QUEST TO FIND WILKINSON CAVE AND EVIDENCE OF AMERICAN BROOK LAMPREY IN THE ST. FRANCIS RIVER, MISSOURI



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Charles Alexander Lesueur (1778–1846; the image of Lesueur is from an 1818 painting by Charles Wilson Peale) was a French explorer, naturalist, and artist. He traveled worldwide collecting and illustrating nature, especially in Australia, Southeast Asia, and North America. In doing so, he described numerous species and secured type specimens (the first or designated specimen or group of specimens of a species from which original descriptions are articulated). Fifteen species of fish presently known to exist in Missouri were described by Lesueur (Appendix).

Between 1816 and 1837, Lesueur lived and traveled widely in the United States, particularly in the southeast, including Missouri. From 1826 to 1837, he operated from a cottage in New Harmony, Indiana. This cottage served as his laboratory and was packed with enormous collections. It was from his Indiana abode where this story begins: his travel to southeastern Missouri and description of seven lampreys he collected at a place he called “Wilkinson Cave.”

Lesueur, while in New Harmony, decided to begin writing a manuscript on American ichthyology given the short title of *Fishes of North America*. However, he found it difficult to work without interruption in New Harmony because his cottage laboratory was occupied by frequent visitors, many of whom Lesueur invited (Hamy 1968).



While his staff was arranging affairs and some philanthropists were on their way to New Harmony, Lesueur and his associate, Dr. Gerald Troost, undertook a trip between February 26 and April 20, 1826, that eventually landed them in Missouri, their planned destination to visit the mining country in Madison County (incorporated in 1818).

It was a rather arduous journey down the Wabash River to the Ohio and then up the Mississippi River to Commerce Town, which was also named Tawagapati Bottom (which is spelled “Tywappity” today). This is where Lesueur and Troost, on or about March 2, saw the Mississippi River for the first time, and they were quite impressed with the stark and oddly shaped rock bluffs that lined the Missouri bank of the river.

Soon, Lesueur and Troost began their journey to the mining country, particularly, a place called Mine la Motte. On their way, they passed through Jackson, the county seat of Cape Girardeau County, which Lesueur described as “a rather wretched little county seat.” From there, the duo had to traverse the “Jackson Road,” which linked Jackson to what would become Fredericktown, which now encompasses the early towns of St. Michael and Mine la Motte. The roads to these places were rough and often strewn with obstructions such as downed trees and fallen rocks from cliffs.

Lesueur and Troost spent considerable time in and around Mine la Motte visiting various mines and gathering many fossils, which were carefully drawn by Lesueur on plates that would never appear in print. But it was the encounter with a Mr. Wilkinson that eventually led Lesueur to a stream where he observed and subsequently captured seven specimens of a lamprey that he described in his abbreviated work titled: *American Ichthyology or Natural History of the Fishes of North America: with Coloured Figures from Drawings Executed from Nature* (1827). Lesueur named this species *Petromyzon lamottenii*, named after the “Mine of Lamotte.” Lamotte was an anglicized spelling of the name of the French

Photos by the author unless otherwise indicated.

Bob Hrabik’s infatuation with native fishes began while seining for bait with his father on cool fall days in Nebraska. The bait they caught was kept alive overwinter and used for many ice fishing escapades. Curiosity about what kinds of stream fish they were catching led to streambank and garage “fish ID” sessions using the very old “Fishes of Nebraska” pamphlet (1974) and the first edition of *Fishes of Missouri* (1975). Years later, Bob found himself lead author on *The Fishes of Nebraska* (2015) and will soon complete the 3rd edition of *Fishes of Missouri*.

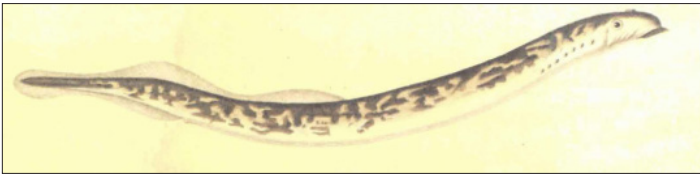


Figure 1. Reproduction of C. A. Lesueur's illustration of *Petromyzon lamottenii* (1827).



Figure 2. Artist's rendition of *Petromyzon lamottenii* incorporating pigmentation patterns more consistent with modern-day *Lampetra* or *Lethenteron* in Missouri. (Illustration by Sue Corvick)



Figure 3. *Lampetra aepyptera*: MISSOURI: Bollinger County: Whitewater River at County Road 930, March 2013. (Photo by Lance Merry)



Figure 4. *Lethenteron appendix* (male): MISSOURI: Cape Girardeau County: Whitewater River at Old Plantation Access, March 2013. (Photo by Lance Merry)

Governor of Louisiana, Antoine de la Mothe Cadillac. While lead was discovered here earlier, the mine(s) were developed beginning in 1717 under the authority of Philip Francois Renault, a French politician, businessman, explorer, and metallurgist. Unfortunately, those seven lamprey specimens have been lost, but Lesueur did leave us with fine illustrations of one individual.

This is where the mystery of Lesueur's lampreys deepens. The only clue to the location of the capture site was provided by Lesueur in 1827: "Of seven individuals which we obtained, but one was a male; the others contained numerous eggs. The water over the rocks on which we observed them, was from 2 inches to 7 feet deep; in a cave by the name of the proprietor, Mr. Wilkinson, it consists of a superposition of sand stones, on scienite (sic) and diabase, and will receive a more particular description in an account of an excursion made in April 1826 by Dr. Troost and myself to the Lamotte Mine in Missouri."

So, which species of lamprey may they have been and where was this "Wilkinson Cave?"

WHICH SPECIES DID LESUEUR CAPTURE?

Because the specimens are lost to time and we are left only with a description and an illustration from 1827 (Figure 1); can we be

sure of an identification based on such little information? It seems that Hubbs and Trautman (1937) believed they could. They listed six reasons why Lesueur's lampreys were American Brook Lamprey, *Lethenteron appendix* (at that time given the scientific name of *Entosphenus appendix*, or sometimes referred to as *Lampetra wilderi* (Figures 1–4).

1. In 1937, the genus *Lampetra* was known only from the upper Ohio Valley, while *Entosphenus* occurred through the west. Note: this is no longer true as both genera occur in Missouri.
2. The April spawning date better fits *Entosphenus* than *Lampetra*, which would likely spawn in March if it occurred in Missouri. Note: it does occur in Missouri and typically spawns in March but has been observed spawning in mid-April at Missouri's latitude.
3. The teeth as described and drawn by Lesueur do seem to better fit *L. appendix* (Figure 5). Noting, especially, that "the specimen figured by Lesueur's male specimen appears to have lost its corneous teeth before it was pictured. In Lesueur's male specimen the "lateral teeth are bi- or tri-tuberculate"—as Lesueur would hardly have been expected to observe in *Lampetra*."
4. The mottled color, as figured and described by Lesueur; we have now found in the *Entosphenus* as commonly as in the *Lampetra*. However, this does not seem to be the situation in Missouri. Note: *Lampetra aepyptera* (Figure 3) is much more heavily mottled and extensively so compared to *Lethenteron appendix* (Figure 4).
5. Lesueur's statement on habits applies "much better" to the *Entosphenus* than to the little *Lampetra*. Note: this is a bit of a stretch since Lesueur only dedicated two sentences to "habits."
6. Finally, in their only statement that fits both Least and American Brook Lampreys, they note that "the fins as described fit breeding specimens of *Entosphenus* as well as those of the *Lampetra*."

Apparently, Hubbs and Trautman (1937) were so convinced that Lesueur's lampreys were American Brook Lamprey that they resurrected Lesueur's specific epithet, consequently, *Entosphenus appendix* (De Kay) became *E. lamottenii* (Lesueur) and *Lampetra lamottenii* (Lesueur) became *L. aepyptera* (Abbott). Later tax-

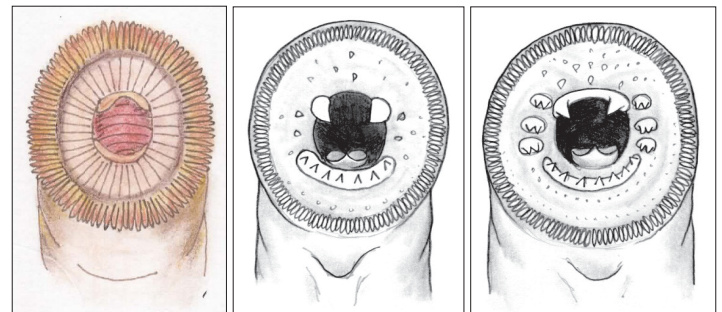


Figure 5. Oral disks of Lesueur's lamprey and Least Brook and American Brook Lampreys. Left: Oral disk of a male lamprey captured by Lesueur at Wilkinson Cave. From Lesueur (1827), redrawn by Sue Corvick. Center: Oral disk of Least Brook Lamprey, illustration by Dave Neely. Right: Oral disk of American Brook Lamprey, illustration by Dave Neely

onomists disagreed with Hubbs and Trautman (1937) as the specific epithet *lamottenii* was suppressed as “unidentifiable” (Rohde 1980); thus, the next available name was elevated: *L. appendix*. The reference to “Bailey and Rohde, *in prep*” (given in several papers) to justify the name change was never published (Fritz Rohde, pers. comm.), yet the name change persisted despite disagreement from Vladykov and Kott (1982).

Despite the volley from Vladykov and Kott (1982), the physical evidence that Lesueur’s lampreys were *Entosphenus (Lethenteron) appendix* is hardly conclusive. Probably the most compelling evidence in favor of *L. appendix* (American Brook Lamprey) is the illustration and description of the teeth. That aside, Vladykov and Kott (1982) believe that Lesueur described the Least Brook Lamprey instead of the American Brook Lamprey. If this is true, then knowing the actual type locality is not a critical issue because the Least Brook Lamprey was described prior to Lesueur’s visit to Missouri...if this is true.

WHERE WAS “WILKINSON’S CAVE?”

The Jackson Road provided the main route to several potential river and creek crossings near the Mine la Motte. (Figure 6). Among those crossings are the Castor River, Little Saint Francis River, Saline Creek, Cedar Bottom Creek, and St. Francis River.

Early ichthyologists assumed the lamprey collection site to be in the St. Francis River basin because of its proximity to Mine la Motte (Hubbs and Trautman 1937). Mine la Motte is situated within the Little St. Francis River drainage. However, in the 1980s, William L. Pflieger and his associate Dr. Eugene F. McDonald (a Cape Girardeau optometrist and the discoverer of Spring Cavefish *Forbesichthys agassizii* in Missouri), purportedly obtained a land deed that suggested that “Wilkinson Cave” could have existed on the Castor River. Pflieger had found directions to a possible cave written on one of his maps suggesting it may have been off an old

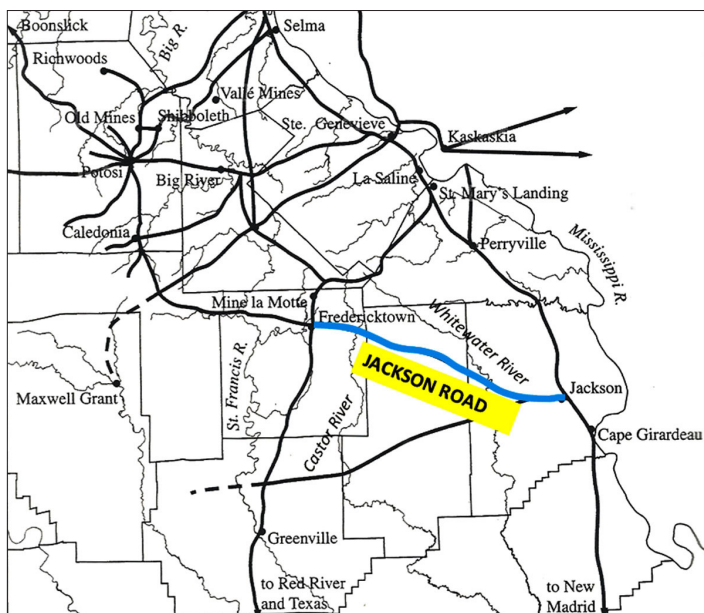


Figure 6. Land routes in Missouri during the American Period, 1804-1820s; adapted from Schroeder, W. A. *Opening the Ozarks: A Historical Geography of Missouri's Ste. Genevieve District, 1760-1830*.

channel of the Castor River south of old State Highway 72 (the old Jackson Road near the defunct town of Castor Station). More recently, Pflieger could not recall if these directions came from McDonald or from a cave database or local cave expert, for example (Pflieger, pers. comm.).

I investigated this supposition in April 2021. In notes supplied by Pflieger, an overhanging bank or cave may have existed off a south-approaching gravel road east of the Castor River bridge off Highway 72 at that time (that bridge was constructed in 1923 but was replaced by a new bridge and approach southwest of the old bridge circa 2009). The gravel road no longer exists.

I scoured both banks of the Castor River above and below the old Highway 72 bridge and photo-documented the exercise (made into a PowerPoint presentation available upon request). While a secondary channel does exist as predicted by Pflieger, I recorded no significant overhanging banks or caves in the area. To be certain no such habitat existed, I walked and photo-documented the bluff lines well downstream of the new Highway 72 bridge and, again, no such habitat was discovered.

Given that I was unable to find cave-like habitat and that land deeds I secured did not reveal that Wilkinson owned land near Castor Station, assuredly Lesueur did not observe and capture his lampreys at this location.

There is another reference to a “Wilkinson Cave” reported to me by Mr. Vic Fullmer, who grew up near the Castor River. This cave, also known as “Kelly’s Cave,” exists “several miles downstream” of Castor Station but sits high above the existing channel of Castor River. Thus, this cave seems far off the beaten path of Jackson Road and Mine la Motte, is situated well above the river, and no land deed under the name “Wilkinson” has surfaced in that area. However, in my research of the name “Wilkinson” there were hits for that name elsewhere in southern Madison County. It is possible that descendants of “Mr. Wilkinson” settled downriver of Castor Station, thus deeds that McDonald recovered may have corresponded to Wilkinson’s descendants but not to Mr. Wilkinson. Various landowners in that region may have led to the naming of Kelly’s Cave as Wilkinson’s Cave or vice-versa.

Because the mystery of the location of Wilkinson Cave surrounded Mr. Wilkinson in 1826, the only logical way of proceeding was to find out who was Mr. Wilkinson and since he was the proprietor, where were the lands he owned at the time.

This required a visit to the Missouri State Archives and a search for a “Mr. Wilkinson” and Madison County land deeds that could be secured. Mr. Wilkinson (found to be Mr. Walter [or Watter] Wilkinson) came to Madison County in ~1816 or 1817. His business endeavors were unclear, but he was obviously somehow involved in the mining interests there or perhaps operated accommodations for miners. In any case he was introduced to Lesueur and Troost in 1826 upon their arrival to St. Michael and Mine la Motte.

Wilkinson owned several properties in St. Michael (originally spelled St. Michel): along Saline Creek and one property east of town that may have been in the hill country that borders the Castor River. He also owned 640 acres centered around Cedar Creek (now known as Cedar Bottom Creek and henceforth will be identified as such), southwest of St. Michael. However, I could find no evidence that Wilkinson owned any land along the Castor River either north or south of Jackson Road (this alone ruled out the Castor River where McDonald thought the cave may have



Figure 7. The Little St. Francis River at the edge of Fredericktown, Madison County, Missouri. Not a likely prospect for American Brook Lamprey nor a Lesueur visit since Wilkinson did not own this land.

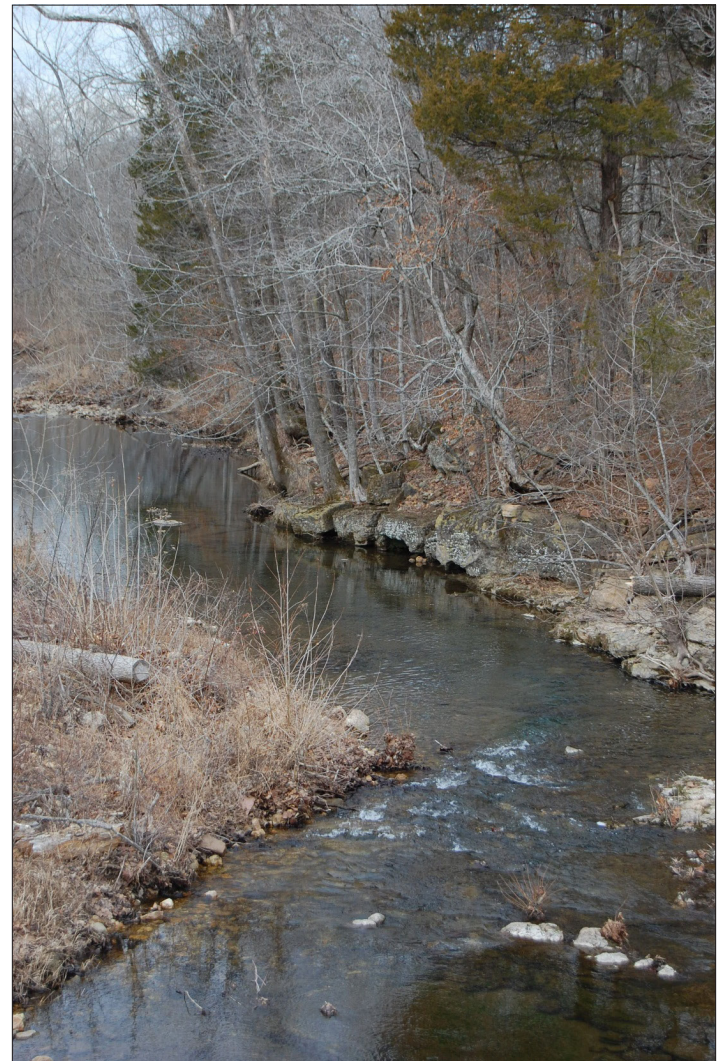


Figure 8. Cedar Bottom Creek, Madison County, Missouri, off County Highway E west of Fredericktown. Note the undercut or overhanging, cave-like bank. This spurred my interest to further investigate this creek and Cedar Bottom Farm.

existed). Wilkinson eventually sold his interests and property in Madison County and moved with his wife to Perry County where he lived out his days.

With land deeds in hand, I figured that Wilkinson took Lesueur to one of the following rivers or streams where he captured the lampreys: Saline Creek, probably near its confluence with the Little St. Francis River; the Castor River near present-day Amidon Conservation Area (CA), because Wilkinson owned land toward the hill country that bordered the Castor River in that area; the Little St. Francis River, which flowed near to the Mine la Motte and of which Saline Creek is tributary; and Cedar Bottom Creek, a direct tributary to the St. Francis River.

Thus, I began the reconnaissance process to visit each of these watersheds to determine if any such “cave(s)” existed that match or are reminiscent of Lesueur’s description. I eliminated Saline Creek quickly as the stream is quite small and flows through no geology or landforms that Lesueur described. I also quickly ruled out the Castor River near Amidon CA because of the distance and arduous journey through rugged hills to get to the river. In addition, Lesueur’s description of the geology at

Wilkinson Cave did not match the red granite shut-ins at Amidon. The Little St. Francis River seemed a possibility (some of which is now under a lake). The unimpounded Little St. Francis River is somewhat shut-in-like with jagged rocks and boulders strewn along each bank (Figure 7). However, there seemed to be little evidence of caves or overhanging banks, thus it seemed unlikely this is where Lesueur encountered the lampreys; also Wilkinson did not own any of the riparian lands along this river.

This left Cedar Bottom Creek as a possible stream where Wilkinson took Lesueur. It was the habitat in this stream that caught my attention (Figure 8). The stream seemed to be a good candidate for Least Brook Lamprey. Cedar Bottom Creek meanders through rugged, hilly, and forested country; thus, much of the stream could not be observed without a canoe or kayak. However, when Cedar Bottom Creek dropped into the St. Francis River bottoms, it was visible again and accessible by county road.

The stream meanders its way along what is known as Cedar Bottom Farm. I attempted to locate a landowner to learn if any

such caves may have existed along Cedar Bottom Creek. No one appeared to be at home, but I noticed that the farm had some unusual outbuildings, which seemed to be for a designated purpose. Thinking that this complex may be important enough to find via the Internet, I “Googled” it. Much to my surprise, I got a hit and a phone number. When I dialed the number, I got the landowner, Ms. Patricia Rucker, who lives in Delaware!

After explaining who I was and the purpose of the intrusion, I asked about caves in the area and her response floored me “Yes, there are caves on my property along the St. Francis River upstream of the confluence with Cedar Bottom Creek.” Ms. Rucker went on to explain that while she lived in Fredericktown, she often spent evenings and weekends at the farm where her father raised cattle. As a little girl, she used to climb the bluffs along Cedar Bottom Creek and the St. Francis River and play near the caves (she wouldn’t go in the caves, too spooky, she said). Since these caves are situated high above the St. Francis River on her property, thus it seemed very unlikely that the river would have ever flowed into the caves during Lesueur’s time. Today, the federally endangered Gray Bat *Myotis grisescens* was detected near these caves (but they do not use caves) as told to Ms. Rucker by the Madison County Highway Department, who was forced to move the Highway E bridge over the St. Francis River to the south of the proposed route (to its present location).

At this point I was quite intrigued with the area. I asked Ms. Rucker if she was aware of caves along Cedar Bottom Creek elsewhere in the county or along the St. Francis River. She was unaware of any caves along Cedar Bottom Creek but suggested I talk to neighbor Mr. Jeff Royer, who owned frontage along the St. Francis River that included the same bluff line that encompasses the caves and the confluence of Cedar Bottom Creek to the St. Francis River.

I asked how many acres on her farm and she replied 640 acres. She went on to say that when her father purchased the farm in 1949, it had 640 acres and they bought an additional 40 acres along the St. Francis River so they could have access to the stream. Much later, the family purchased 10 acres at the confluence of Cedar Bottom Creek and the St. Francis River. These 10 acres may be quite important with respect to the land that Walter Wilkinson once owned as described below. In 2017, the family sold 20 acres in the northwest corner of the farm (part of the 40 acres purchased in 1949), to Mr. Royer, which included St. Francis River frontage (this is also quite important with respect to caves on the St. Francis River as described below). Interestingly, Ms. Rucker has abstracts of her property that date to 1833 and the farm had been 640 acres as detailed in her abstracts during the entire time. At this point I was convinced that these 640 acres was the same property that Wilkinson owned as described in the land deed of 1823.

However, further investigation into Ms. Rucker’s abstracts did not reveal the name “Walter Wilkinson.” Although the Rucker abstracts begin in 1833, details make it clear that a fellow by the name of John St. Claire owned the land when the area belonged to France and he continued to own the land after the Louisiana Purchase beginning in 1803. The United States confirmed that St. Claire owned the land in July 1836 through *An Act Confirming Claims to Land in the State of Missouri and for other Purposes*.

It became clear that Wilkinson did not own these 640 acres now owned by Ms. Rucker. So, where was this Wilkinson property? The land deed of 1823 did not clearly define the boundaries of the 640 acres “centered on Cedar Bottom Creek.” The key phrase is “centered on Cedar Bottom Creek”, suggesting that the Wilkinson land extended both north and south of the creek. Recall from above that Ms. Rucker’s father purchased an additional 40 acres of St. Francis River frontage in 1949 and sometime later 10 acres that included Cedar Bottom Creek at the confluence of the creek and the St. Francis River. I am under the impression that these 50 acres were part of the Wilkinson property that is now owned by Jeff Royer to the north of Cedar Bottom Farm (the 20 acres sold to Mr. Royer in 2017) and at the confluence of the creek and the St. Francis River. Thus, it seems likely that Wilkinson owned frontage land to the St. Francis River both above and below the existing County Highway E bridge, which today would bisect the Wilkinson property. When Ms. Rucker’s father purchased Cedar Bottom Farm in 1949, there was no County Highway E and no bridge crossing the St. Francis River. Instead, the properties in that area were connected by Madison County Road 508, which provided a transportation route to Fredericktown, which seems like a convenient transportation route that could have been taken by Lesueur and Wilkinson. This county road that followed the St. Francis River no longer exists south of County Highway E (Patricia Rucker, pers. comm.).

The next landowner to contact was Mr. Jeff Royer. Royer now owned the 20 acres in the northwest corner of the 40 acres that Ms. Rucker’s father purchased in 1949. Thus, Cedar Bottom Farm

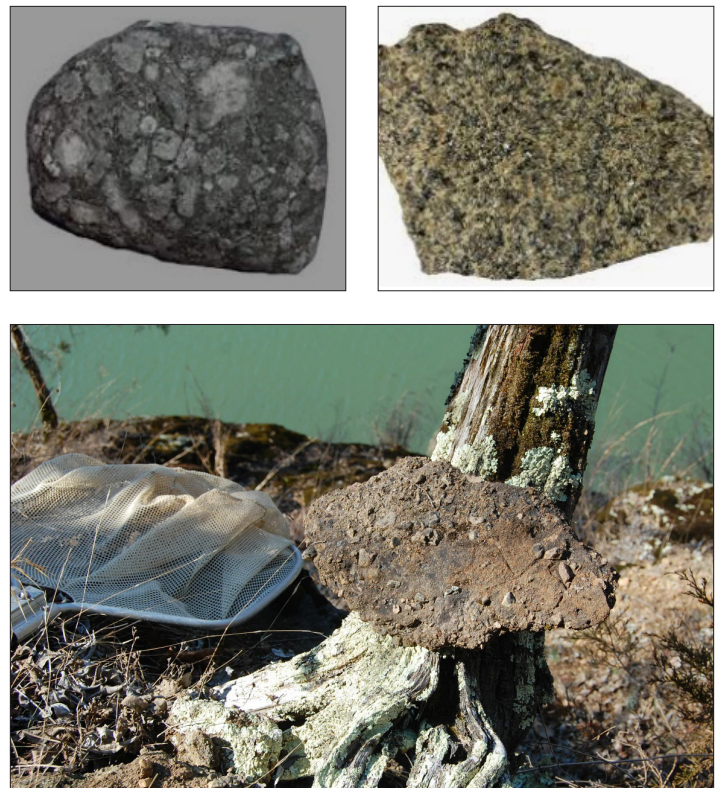


Figure 9. Geology of Wilkinson Cave as described by Lesueur contained syenite (top left) and diabase (dolerite; top right). Photo at bottom shows sandstone superpositioned over syenite at the site.



Figure 10. This view from inside a cave shows some of the geology and the St. Francis River in the background. It appears that embedded sandstone is superpositioned over syenite on the ceiling of the shelf. The “caves” are not so much cavernous as people think when they hear the word “cave” but instead are overhanging shelves carved out by past millennia of water flowing by them.



Figure 11. I believe this to be the actual site where Wilkinson took Lesueur where he observed the lampreys and captured seven specimens in 1826. Lesueur wrote: “*The water over the rocks on which we observed them, was from 2 inches to 7 feet deep; in a cave by the name of the proprietor, Mr. Wilkinson, it consists of a superposition of sand stones, on scienite (sic) and diabase.*” At the river stage in which I took this photograph (very near to median flow) the water in the cave was about 2 inches deep and off the edge of the ledge into the St. Francis River I had a 5-foot-long canoe paddle that when I submerged it into the river, it did not strike bottom.

currently includes the 10 acres at the Cedar Bottom Creek confluence and approximately 2/3 of the St. Francis River frontage that partially composed the 40 acres that is owned by Royer. The remaining 1/3 of the river frontage (the most upstream segment) owned by Royer is where more caves exist, including the only cave situated such that the St. Francis River could enter the opening. Therefore, all the caves in this reach of the St. Francis River were part of Cedar Bottom Farm until 2017.

When I asked Mr. Royer about caves along the St. Francis River bluff line (east bank of the river), he informed me that there are caves on his property, which he had visited several times and fished directly under them!

At this time, I was given permission to examine the caves along the St. Francis River by Ms. Rucker and Mr. Royer. Thus, I arranged for two reconnaissance missions to examine the geology and layout of the St. Francis River caves to determine if it matched Lesueur’s descriptions.

Lesueur stated that the geology of the formations and caves within were a “superposition of sandstones on scienite (sic) and diabase.” Syenite is coarse-grained gray igneous rock composed mainly of feldspar and ferromagnesian minerals. Diabase, also called dolerite, is fine- to medium-grained, dark gray to black igneous rock (Figures 9 and 10).

Examination of the bluff formation and caves revealed sandstones and igneous conglomerates consistent with Lesueur’s description. While floating the St. Francis River to obtain a wider view of the bluff, a cave-like shelf became apparent that upon closer examination fit Lesueur’s description almost perfectly and provided the best evidence possible that this was the cave where Lesueur observed and collected his lampreys (Figure 11, with further elaboration that identifies this cave as the collection site).

DO LAMPREYS EXIST AT THIS LOCATION IN THE ST. FRANCIS RIVER?

On 14 April 2021, Jacob Westhoff, Mark Chowning, Colton Hampton, and I proceeded to sample the presumptive Wilkinson Cave and the immediate area to detect lampreys. We used a backpack electrofishing unit, dip-nets, and various seines (Figure 12). We sampled the cave and as much of the bluff as we could before the water became too deep to work. We also extensively sampled a large riffle and run upstream of the site, including undercut, root-filled banks and silty flats that could have held ammocoetes. Overall, we surveyed approximately 1,890 linear feet (more if one were to include each side of the river’s banks).

We captured 32 species of fishes (including the state endangered St. Francis River Longnose Darter, *Percina sp. cf. nasuta*, Figure 13), which were composed of minnows, suckers, catfishes (madtoms) sunfishes, and eight species of darters, but we captured no lampreys!

Of course, a single sample in the middle of April to search for lampreys means virtually nothing if one does not capture the species in question. But there is a little bit more to this observation: 1) other than Lesueur’s capture of what some ichthyologists once believed were American Brook Lampreys, there are no other captures of this species from the St. Francis River or its tributaries. Ironically, American Brook Lampreys have been captured from adjoining watersheds: Black River to the west and Castor River to the east, and 2) interestingly, Least Brook Lamprey have been collected from the mainstem St. Francis River, all of them (three records) below Madison County (in Wayne County) and all are old records (prior to 1990).

Prospectus: considerable time had been devoted to simply finding Wilkinson Cave and forging good relationships with respective landowners to conduct several reconnaissance missions to verify the location. Time simply got away from the



Figure 12. Electrofishing at base of bluff just downstream of Wilkinson Cave. Westhoff is operating the shocker. Dippers are Hrabik (left) and Chowning. (Photo by C. Hampton)

- Black Redhorse *Moxostoma duquesnei* (1817)
- Shorthead Redhorse *Moxostoma macrolepidotum* (1817)
- Yellow Bullhead *Ameiurus natalis* (1819)
- Brown Bullhead *Ameiurus nebulosus* (1819)
- Blue Catfish *Ictalurus furcatus* (1840)
- Grass Pickerel *Esox americanus vermiculatus* (1846)
- Chain Pickerel *Esox niger* (1818)
- Banded Killifish *Fundulus diaphanus* (1817)
- Black Crappie *Pomoxis nigromaculatus* (1829)

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Figure 13. Male *Percina* sp. cf. *nasuta* captured from near downstream tip of gravel bar (becomes an island at high river stages). Photo by C. Hampton.

author to adequately survey Cedar Bottom Creek and the St. Francis River for lampreys. To conclude this investigation, the author will begin surveying Cedar Bottom Creek and the St. Francis River in February 2022 to determine which, if any, lampreys frequent this reach of the St. Francis River watershed. Possibly, then, the mystery of Lesueur’s lampreys at Wilkinson Cave will be solved.

APPENDIX: LIST OF FISH SPECIES DESCRIBED BY LESUEUR AND PRESENT IN MISSOURI

- | | |
|---------------------|-------------------------------------|
| Mooneye | <i>Hiodon tergisus</i> (1818) |
| American Eel | <i>Anguilla rostrata</i> (1817) |
| Gizzard Shad | <i>Dorosoma cepedianum</i> (1818) |
| Quillback | <i>Carpionodes cyprinus</i> (1817) |
| Blue Sucker | <i>Cycleptus elongatus</i> (1817) |
| Northern Hog Sucker | <i>Hypentelium nigricans</i> (1817) |

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