On the Type Locality and Type Specimen of *Testudo geographica* LeSueur 1817

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ABSTRACT. – Charles Alexandre LeSueur discovered the common map turtle *Graptemys geographica* in 1816. He named the species *Testudo geographica* in 1817 and described it with a drawing of a specimen he collected from a Lake Erie marsh, but further details on the collecting locality were not given. I designate the drawn specimen as the lectotype of the species and review historical documents and specimen records that allow restriction of the type locality to the peninsula of Presque Isle and adjacent Presque Isle Bay in Erie County, Pennsylvania.

Charles Alexandre LeSueur (1817a) (sometimes written Le Sueur) described *Testudo geographica*, the species known today as the common map turtle (*Graptemys geographica*), based on a specimen collected in 1816. No type specimens are mentioned in the article nor are any known to have ever been deposited into a natural history collection, but LeSueur’s publication includes a drawing showing excellent detail of a typical adult female...
G. geographic a, notwithstanding the peculiar bull’s-eye striping depicted on the tail (Fig. 1). LeConte (1830) first noted the absence of such striping in specimens, raising the possibility that LeSueur, an outstanding artist, may have worked from a damaged specimen (R. Bour, pers. comm.). Additional drawings of G. geographic a in the LeSueur collections of the Muséum d’Histoire Naturelle in Le Havre, France, are believed to be based on specimens LeSueur took from the Wabash River, after he resettled in New Harmony, Indiana, in 1825, as 4 of LeSueur’s 5 stuffed specimens of G. geographic a in the Museum National d’Histoire Naturelle collections are labeled “Wabash River” (Bonnemains and Bour 1996; R. Bour, pers. comm.). To facilitate discussion of the type locality of the species below, the specimen drawn by LeSueur for his publication is herein designated the lectotype, following International Commission on Zoological Nomenclature (ICZN) Article 74.4 and Recommendation 73F; the specimen either was not preserved or has been lost. Following ICZN Article 75.2, no neotype is designated because there is no doubt as to which taxon the name applies and thus no reason to designate a neotype.

LeSueur (1817a:86) did not state the type locality for his new species, other than mentioning that the species was collected “in a marsh, on the borders of Lake Erie.” Here I review the travels of LeSueur during the summer of 1816 and argue that the locality where the pictured specimen was captured was likely the peninsula known as Presque Isle or the body of water it forms, Presque Isle Bay, in Erie County, Pennsylvania.

LeSueur was born in Le Havre in 1778. He came to Philadelphia in 1816 after serving as naturalist on geologist William Maclure’s expedition to the Lesser Antilles (Vail 1938). In June of 1816, he and Maclure traveled on a collecting expedition in the northeastern United States. LeSueur’s handwritten itinerary, archived in the Muséum d’Histoire Naturelle in Le Havre (Fig. 2), indicates that their travels took them through Pittsburgh, Pennsylvania, to Lake Erie, and on to the Niagara River, Lake Ontario, Saratoga Lake, Lake George, Lake Champlain, and the east coast before they returned to Philadelphia. Apparently on the basis of the itinerary, Bonnemains and Bour (1996) concluded that LeSueur’s specimen of G. geographic a was collected between the towns of Erie, Pennsylvania, and Buffalo, New York. Erie was clearly an important stopover point in the travels of

**Figure 1.** The illustration of Testudo geographic a that accompanied its description by LeSueur (1817a).

**Figure 2.** LeSueur’s 1816 itinerary (LeSueur Collection, Muséum d’Histoire Naturelle, Le Havre, France, item 39 023 P).
LeSueur and Maclure, as there are several drawings in the Le Havre collection that were done by LeSueur in Erie (e.g., items 39 043 P recto and 39 042 P) and he mentions being in Erie and collecting on Presque Isle in his publications on fish species (LeSueur 1822, 1824).

Along the Lake Erie shoreline in Erie County, Pennsylvania, the only collection localities noted by Hulse et al. (2001) for *G. geographica* are the lagoons and embayments of Presque Isle and Presque Isle Bay. Presque Isle has long supported an abundant population of the species (e.g., Atkinson 1901; Lindeman 2006; Ryan and Lindeman 2007). Specimens from Presque Isle in natural history collections date back to 1894 (USNM 51192) and 18 specimens were collected in 1900 (CM R3006-R3008, R3040.1–3040.4, R3199.1–3199.11). Either the peninsula or the bay might qualify as the "marsh" where LeSueur caught his specimen. Although the species has been observed in recent years at 2 locations in Erie County, Pennsylvania just east of Presque Isle (East Avenue Boat Launch and North East Marina; M. Lethaby, pers. comm.), the Pennsylvania lake shoreline east and west of Presque Isle is wave-tossed, rocky, and adjacent to steep bluffs (Herendorf 1992) and seems therefore unlikely to have supported a marsh in the early 1800s. Shoreline marshes inhabited by *G. geographica* do occur farther west in Ohio (e.g., Tran et al. 2007). None of the artifacts in the Le Havre collection indicate that LeSueur and Maclure visited sites in Ohio between their stops in Pittsburgh and Erie, however, and Erie’s location due north of Pittsburgh puts it on the most direct line of travel toward Lake Erie.

LeSueur (1817b, 1818a, 1818b) collected fish from Lake Erie near Buffalo and may also have stopped at other localities along the lakeshore between Erie and Buffalo. As in most of Pennsylvania, much of the New York shoreline of the lake is lined with high bluffs where marshes would not likely have occurred historically (Herendorf 1992); although, there were estuarine marshes historically at the mouths of Cattaraugus Creek and the Buffalo River in New York (K. Roblee and M. Lethaby, pers. comm.). However, although range maps for *G. geographica* commonly shade the entire southern shoreline of Lake Erie (e.g., McCoy and Vogt 1990; Collins and Conant 1991; Ernst et al. 1994), no specimens of *G. geographica* are known to have ever been collected or observed along the New York shoreline of the lake (Gibbs et al. 2007). Records for the species in New York sections of the Laurentian Great Lakes and rivers begin in the Niagara River (Gibbs et al. 2007), which has wetlands associated with Grand Island (Herendorf 1992). The Ontario shoreline of Lake Erie has populations of *G. geographica* associated with marshy habitats on its peninsulas at Point Pelee (Browne and Hecnar 2005), Rondeau Provincial Park (Logier and Toner 1961), and Long Point (Adams and Clark 1958), but these areas were not visited by LeSueur and Maclure. It is therefore highly probable that LeSueur’s specimen came from a disjunct population of *G. geographica* that inhabits the peninsula of Presque Isle and adjacent Presque Isle Bay in Erie County, Pennsylvania, to which I restrict the type locality.

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Notes and Field Reports


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