CC NOTAE #3

Note on a Historical Specimen of '*Kinosternon integrum*' Field Collected from Jalapa, Veracruz, Mexico.

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ABSTRACT. – Following the neotype designation and morphological revision by Joseph-Ouni *et al.* (2025), the Guanajuato Mud Turtle *Kinosternon integrum* LeConte, 1854 has now been restricted in its distribution to the central Mexican states. Until relatively recently, even under its sensu lato concept, *K. integrum* was not known to definitively occur in the Mexican state of Veracruz; de la Torre-Loranca *et al.* (2020) made note of the first known field discovered specimens referable to that taxon/complex from oak forest ponds in Ocotepec and the Sierra de Agua. Here we report on a yearling specimen of a kinosternid morphologically attributable to the sensu lato concept of *K. integrum* but that is not identifiable to species level, collected by E.R. Dunn in 1921 from the vicinity of Jalapa, Veracruz. Growing evidence indicates that the Atlantic versant of Mexico harbors a unique but latent undescribed species in the *K. integrum* species complex (*pers. obs.*).

Keywords: *Kinosternon integrum;* new record, E.R. Dunn, Veracruz, Jalapa.

The Guanajuato Mud Turtle *Kinosternon integrum* LeConte, 1854 has recently been conceptually restricted in its geographic distribution and morphological definition following the neotype designation by Joseph-Ouni *et al.* (2025). While formerly considered to have had a pan-Mexican range, even then the species had not been definitively verified to occur in the Gulf Mexican state of Veracruz until the discovery of specimens in the field which were reported by de la Torre-Loranca *et al.* (2020). Those authors documented the first verifiable living specimens referrable to *Kinosternon integrum* (sensu lato) occurring in ponds in oak forest from two sites in the Sierra de Zongolica region of Veracruz as follows: Ocotepec (18.6748°N, -97.0261°W), 1622 m elev., July 6, 2017, by M. A. de la Torre-Loranca, Municipality of Los Reyes, registration ITSZ-R 250; Sierra de Agua (18.75583°N, -97.23861°W), 1389 m elev., February 6, 2019 by P. Cid-Diáz, Municipality of Acultzingo, registration MZFZ-IMG 194. They also noted that Cázares-Hernández (2015) initially reported this species from the state but without specific locality.

We have examined a courtesy high-quality image of a specimen from the site of a fog forest at Bosque de Niebla, in the Sierra de Zongolica at 1,600 meters elevation, Veracruz (*pers. comm.* Iverson) and agree that it represents a taxon distinct from *K. integrum* sensu stricto.

During our survey of kinosternid specimens housed in United States museums, we came across a fluid-preserved yearling *Kinosternon* that is referrable to the *K. integrum* species complex (sensu Joseph-Ouni *et al.* 2025) but that is not identifiable to species due to the near homogeniety of characters in *K. integrum* specimens at that life stage. The specimen was field collected by Emmett Reid Dunn in 1921 from Jalapa (Xalapa), Veracruz (19.5456°N, -96.9285°W), and received by Thomas Barbour at MCZ, Harvard, with assigned registration MCZ R15488.

The specimen (Figure 1) has been darkened nearly uniformly black by age/ preservation but is completely intact, preserving the epidermal nasal scale. All carapace and plastron sulci and scutes are present and clearly discernible with the exception of some sparse areas on which freshwater epizoophytic algal debris still clings. It is identifiable to *K. integrum* (sensu lato) by characters (Iverson, 1981) to the exclusion of other Mexican congeners. The axillary and inguinal scutes are in miniscule contact on the right bridge but the axillary and inguinal scutes on the left bridge are separated by, but in contact with, an aberrant medial scute, a common inframarginal deformity in *Kinosternon* (see Joseph-Ouni *et al* (2025b) for illustration of such a scute in an adult paratype of *Kinosternon iversoni*).

Joseph-Ouni, M. & P. Vander Schouw. 2025. Note on a historical specimen of '*Kinosternon integrum*' field collected from Jalapa, Veracruz, Mexico. *Chelonological Contributions* 9, CC Notae #3: 3 pp. http://doi.org/ChelContribdpwv9362284013

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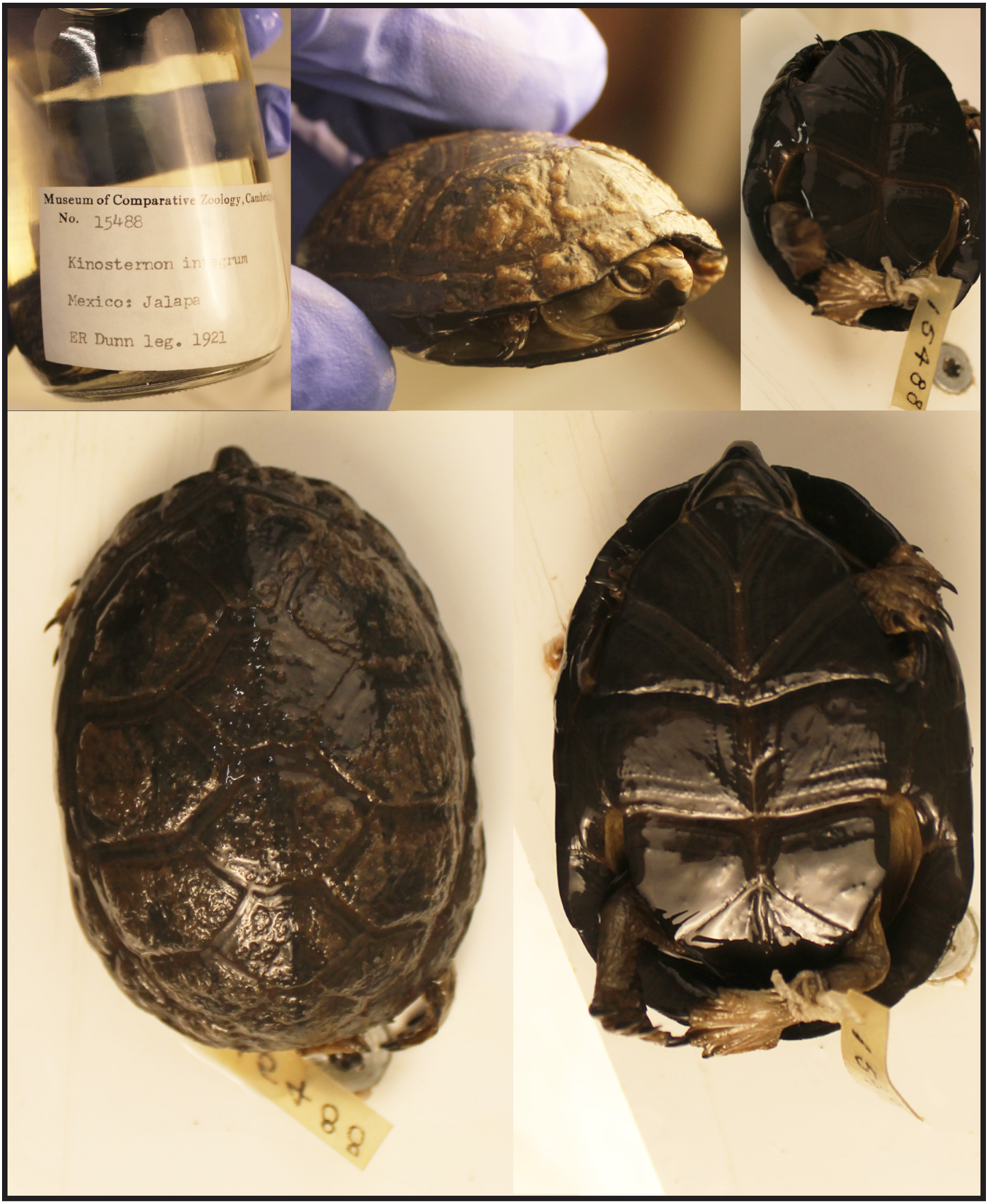

Figure 1. *Kinosternon integrum* yearling specimen (sensu lato) field collected by E.R. Dunn in 1921 from Jalapa (Xalapa), Veracruz (19.5456°N, -96.9285°W), registration MCZ R15488.

With these records, the clues continue to accumulate for the occurence of a latent undescribed population or taxon in the *Kinosternon integrum* complex (sensu lato) on the Atlantic versant of Mexico in the state of Veracruz. Field evidence for the presence of the same taxon or a closely associated one, or a satellite population of *Kinosternon integrum* sensu stricto on the Atlantic versant of the Mexican state of Tamaulipas also is accruing (Figure 2).

Figure 2. Adult mud turtle potentially attributable to the *Kinosternon integrum* complex from the vicinity of Joya Verde, Tamaulipas, Mexico. Photo 158531414, © Benigno Gómez Garza, some rights reserved (CC BY-NC);), image cropped from original to fit space, no other changes made. https://www.inaturalist.org/observations/95488779 License link: https://creativecommons.org/licenses/by-nc/4.0/

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