

Along with the shell abnormality, R2-L8 exhibited a high level of basking site fidelity over 2.5 years (932 days). Because this animal was not being tracked in the intervening periods, it is unknown how much movement the animal made beyond this small area. However, Jones (*op. cit.*) detailed a telemetered male that moved ~10 km but was later recaptured on the same basking structure 9 months later. The observations reported herein and by Jones (*op. cit.*) indicate that *Graptemys* individuals may have high affinities to certain basking structures, and their affinity may occur over a long period of time if that structure remains available in the environment. Thus, this observation further underscores the importance of maintaining deadwood basking structures in rivers for *G. flavimaculata* and other southeastern *Graptemys* species.

The observations reported herein were completed in association with the dissertation work of WS at The University of Southern Mississippi and was approved by the USFWS, MDWFP, and the USM Institutional Animal Care and Use Committee (IACUC #07032201).

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MACROCHELYS TEMMINCKII (Alligator Snapping Turtle). HOOK, MONOFILAMENT LINE, AND SINKER. Alligator Snapping Turtles are known to consume a variety of digestible and indigestible objects; some of the more unusual non-food items include cardboard, fishhooks, rocks, rubber, and wood (Ernst and Lovich 2009. *Turtles of the United States and Canada*. Johns Hopkins University Press, Baltimore, Maryland. 827 pp.) in addition to monofilament line wrapped around fish-head baits (Sloan et al. 1996. *Chelon. Conserv. Biol.* 2:96–99). Herein, we report on another incident involving monofilament line.

While trapping for *Macrochelys temminckii* on 27 June 2013 in Salado Creek, Independence County, Arkansas, USA (35.685197°N, 91.567394°W, WGS 84; 69 m elev.) as part of a long-term, mark-release investigation on this species (Trauth et al. 2016. *J. Arkansas Acad. Sci.* 70:235–247), we captured a male turtle (standard carapace length = 31.3 cm; plastron length = 24.2 cm; 7.7 kg) that possessed a monofilament line of around 20 cm in length trailing from its vent. A gentle tugging of the line did not dislodge its internal attachment, which, presumably, was secured by a hook. Among the plausible scenarios to explain the aforementioned condition, we speculate that the turtle consumed a fish that had already swallowed a fisherman's baited hook. Prior to consumption, the fish could have entangled itself in a submerged rootwad (a very common submergent feature in this creek), leading to the breakage of the monofilament line. The turtle could have then eaten the fish without the hook becoming embedded in its alimentary tract until partial or complete digestion of the fish had occurred. Additional foodstuffs traveling through the alimentary tract of the turtle could have then forced the monofilament line out the vent.

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PSEUDEMYX GORZUGI (Rio Grande Cooter). MAXIMUM CLUTCH SIZE. *Pseudemys gorzugi* is a relatively large riverine

turtle native to New Mexico and Texas within the United States of America (USA), with its range extending to Tamaulipas, Nuevo León, and Coahuila in Mexico. This is one of the least studied freshwater turtle species in North America, and very little is known about their reproductive ecology. On 13 June 2017, we captured a female *P. gorzugi* (265 mm straight line carapace length) via snorkeling at Camp Washington Ranch pond in Eddy County, New Mexico, USA (32.114469°N, 104.457804°W; WGS 84). The female was transferred to Albuquerque Biological Park for inclusion in a newly established captive breeding program. A radiograph revealed that the female was gravid, carrying 12 eggs (Fig. 1). On 9 July 2017, she deposited all twelve eggs. This is the third confirmed account of *P. gorzugi* clutch size and also the largest reported clutch size for the species. Mean egg length was 40.3 mm (SD = 0.26), mean egg width was 31.1 mm (SD = 0.13), and mean egg mass was 16.2 g (SD = 0.16). Previous accounts all come from New Mexico and include a female with a carapace length of 240 mm which deposited nine eggs in May with mean egg length of 42 mm and mean egg width of 31 mm (Degenhardt et al. 1996. *Amphibians and reptiles of New Mexico*. University of New Mexico Press, Albuquerque, New Mexico. 431 pp.), and a female with a carapace length of 242 mm that deposited ten eggs in

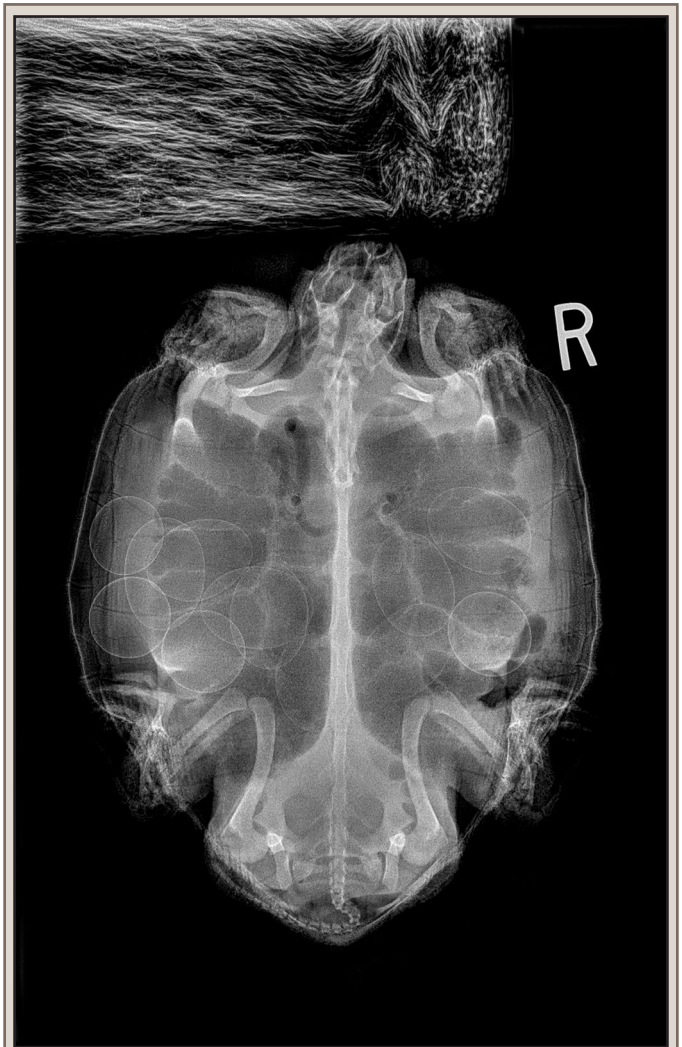


FIG. 1. A radiograph of a gravid adult female *Pseudemys gorzugi* bearing 12 eggs. Individual was caught on 13 June 2017 in Eddy County, New Mexico.

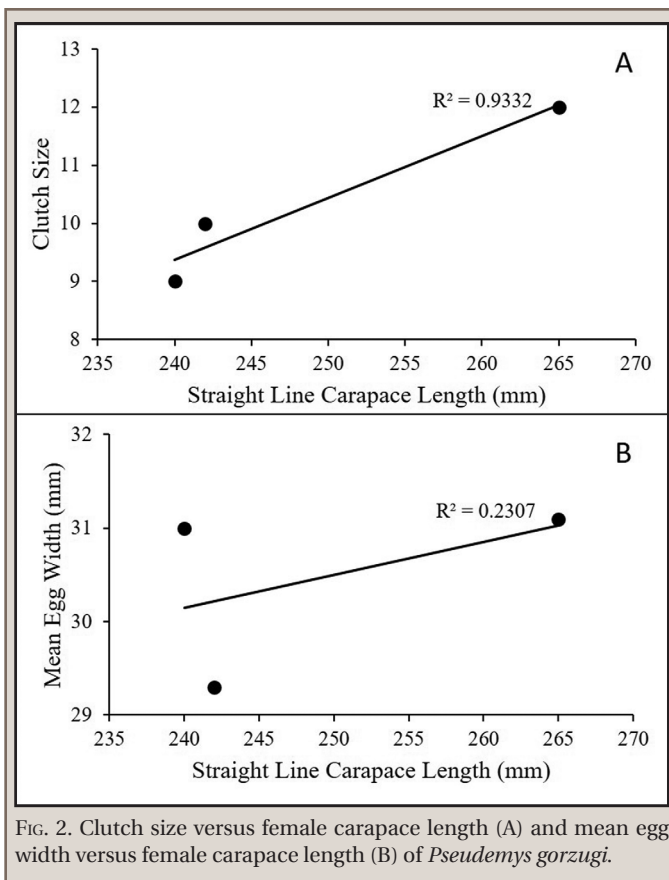


FIG. 2. Clutch size versus female carapace length (A) and mean egg width versus female carapace length (B) of *Pseudemys gorzugi*.

June with mean egg width of 29.3 mm (SD 1.1; Lovich et al. 2016. West. N. Am. Nat. 76:291–297). We additionally note the possible increase in clutch size (Fig. 2A) but not necessarily egg size (Fig. 2B) with increase in female size. From these accounts, we can assume that the nesting season of *P. gorzugi* in New Mexico is between May and July.

This research was approved by the landowner, New Mexico Department of Game and Fish issued to Eastern New Mexico University (Permit Authorization No. 3621) and Albuquerque Biological Park (Permit Authorization No. 3533), and Eastern New Mexico University IACUC (Approval #03-02/2016). This work was supported in part by the Share with Wildlife Program at New Mexico Department of Game and Fish and State Wildlife Grant T-32-4, #18.

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PSEUDEMYS GORZUGI (Rio Grande Cooter). INGESTED FISH HOOK. Recent studies have shown that the prevalence of fish hook ingestion by freshwater turtles can range from 0 to 33% depending on the species and location (Steen et al. 2014. PLoS ONE 9: e91368). Freshwater turtles are vulnerable to recreational fishing and there is an increased risk of mortality in freshwater turtles that have ingested hooks (Steen and Robinson 2017. Conserv. Biol. doi:10.1111/cobi.12926). On 12 July 2017, we captured a female *Pseudemys gorzugi* (carapace length = 151 mm) via snorkeling at the Cottonwood Day Use Area (34.09547°N, 104.46755°W; WGS 84)

along the Black River in Eddy County, New Mexico, USA. The site is managed by the Bureau of Land Management (BLM) and is often used by the public for recreational activities. The captured turtle had a fishing line protruding from its mouth and upon further investigation, a hook could be seen in the back of the throat. Given that many anglers use the site for recreational fishing, the turtle was likely an accidental by-catch. We took the turtle to the Desert Willow Wildlife Rehabilitation Center in Carlsbad, New Mexico, where a radiograph revealed the position of the hook. The hook was surgically removed and turtle released at the site of capture. Our observation is the first evidence of fish hook ingestion by *P. gorzugi*, believed to be a predominantly herbivorous species, and suggests potential negative effects of recreational fishing on this conservation sensitive species. The species is currently listed as threatened in New Mexico and is awaiting the decision for federal listing by the US Fish and Wildlife Service. Further observations on the prevalence of fish hook ingestion by *P. gorzugi* along the Black River, and evaluating the mortality rates caused by hook ingestion, will help clarify this additional threat to the species' sustainability.

This research was approved by BLM, New Mexico Department of Game and Fish (Permit Authorization No. 3621), and Eastern New Mexico University IACUC (Approval #03-02/2016). This work was supported in part by the Share with Wildlife Program at New Mexico Department of Game and Fish and State Wildlife Grant T-32-4, #18.

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TRACHEMYS SCRIPTA ELEGANS (Red-Eared Slider). ABNORMAL SHELL MORPHOLOGY WITH KYPHOSCOLIOSIS. Kyphosis is a spinal deformity (Rhodin et al. 1984. Brit. J. Herpetol. 6:369–373) that typically presents as an exaggerated doming of the carapace (Taylor and Mendyk 2017. Herpetol. Rev. 48:418–419) and has been described in numerous chelonian species, as reviewed by Plymale et al. 1978 (Southwest. Nat. 23:457–462). Several observations note this condition in *Podocnemis erythrocephala* (Red-Headed Amazon River Turtle; Bernhard et al. 2012. Herpetol. Rev. 43:639), *Graptemys sabinensis* (Sabine Map Turtle; Louque et al. 2015. Herpetol. Rev. 46:81), *Podocnemis sextuberculata* (Six-tubercled Amazon River Turtle; Perrone et al. 2016. Herpetol. Rev. 47:287, and *Apalone ferox* (Florida Softshell Turtle; Taylor and Mendyk 2017, *op. cit.*). A recent study documented growth in one juvenile kyphotic *Graptemys oculifera* (Ringed Sawback; Selman and Jones 2012. Chelon. Conserv. Biol. 11:259–261); two recaptured adults had negligible growth in a long term mark-recapture study.

Kyphoscoliosis is a condition that includes both dorso-ventral and lateral undulations of the spine, and is less common than kyphosis, but has been described in *Deirochelys reticularia* (Florida Chicken Turtle; Mitchell and Johnston 2014. Herpetol. Rev. 45:312), and *Pseudemys suwanniensis* (Suwanee Cooter; Mitchell and Johnston 2016. Herpetol. Rev. 47:127–128). Herein we describe an extremely deformed *Trachemys scripta elegans* with severe spinal deformity suggestive of kyphoscoliosis.

Trachemys s. elegans is a locally abundant turtle species occurring throughout most of Louisiana (Boundy and Carr 2017. Amphibians & Reptiles of Louisiana. An Identification and Reference Guide. Louisiana State University Press, Baton Rouge. 386 pp.). Kyphosis has been reported in *T. s. elegans*, in which it appears to be rare (identified in 0.06% of 21,786 specimens;