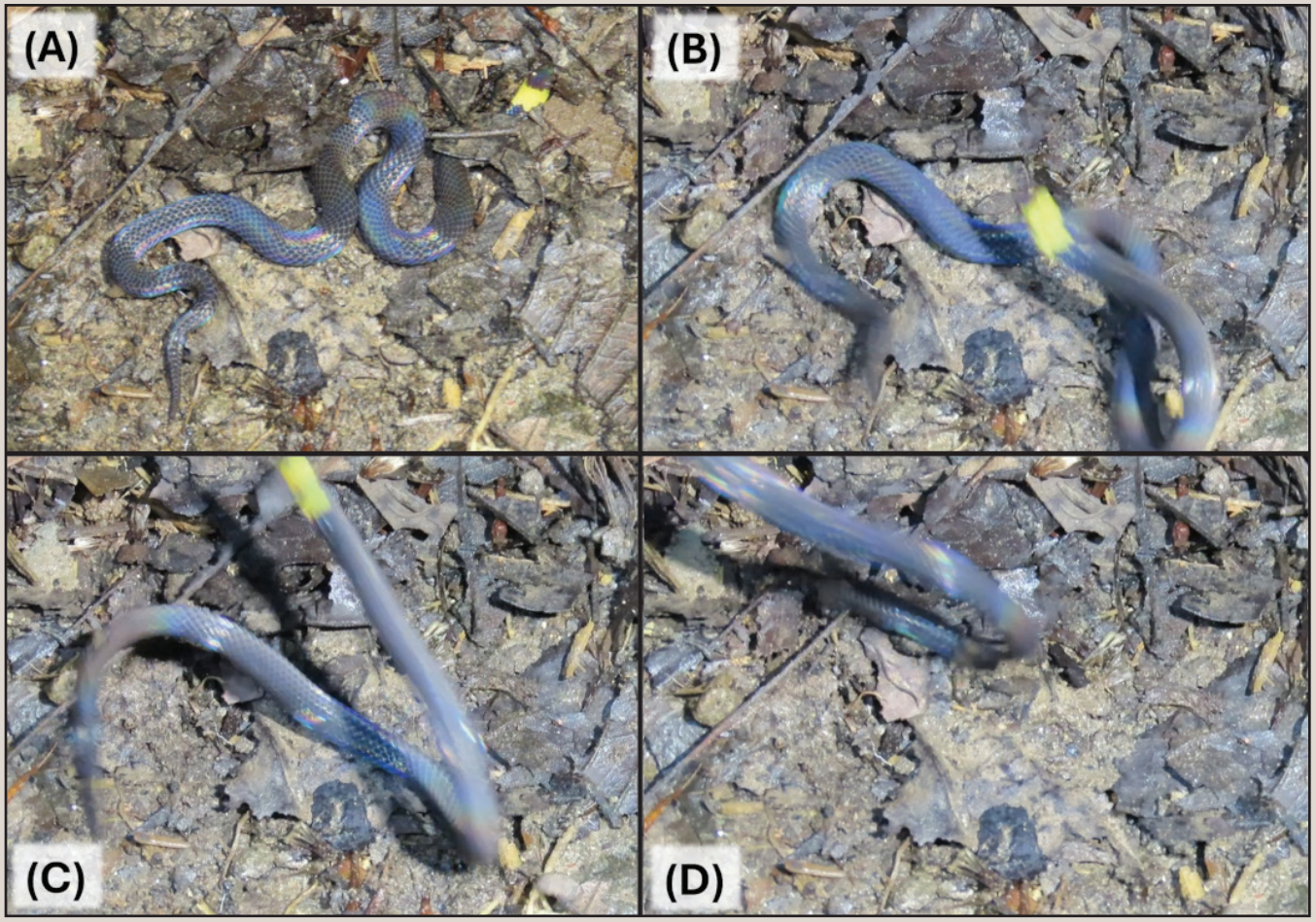

FIG 1. A) Photograph of the featured *P. albonuchalis*; B–D) ordered still frames from video that shows the *P. albonuchalis* leaping into the air as it starts a "cartwheeling" escape behavior.

knowledge, this note represents the first video documentation of cartwheeling in this species (video available at: https://doi.org/10.26153/tsw/62232). Our finding supports the idea that cartwheeling escape behavior may be relatively widespread among the reed snakes (Colubridae; Calamariinae). Further research is needed to determine how common the behavior is and why it has evolved in this group. One possible explanation mentioned by Quah et al. (2023, *op. cit.*) is that cartwheeling has evolved as a defense against ophiophagous snakes. This is plausible since elapids specialized in consuming other snakes are common in southeast Asia; indeed, during the same trip, we witnessed a *Calliophis bivirgatus* (Blue Coral Snake) envenomating and then consuming a different reed snake species, *Calamaria schlegeli,* on 9 August 2024 in another area of Kubah National Park. There is still a lot to learn about snake behavior, ecology, and natural history in southeast Asia, and we hope our observations contribute to herpetological knowledge in the region.

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***THAMNOPHIS PROXIMUS* (Western Ribbonsnake). DIET.** *Thamnophis proximus* (Colubridae) is a slender, semi-aquatic snake ranging from the central United States as far north as Wisconsin and Iowa and ranging southward to central Costa Rica along the Gulf Coast of Central America (Rossman 1996. The Garter Snakes: Evolution and Ecology. University of Oklahoma Press, Norman, Oklahoma. xx + 332 pp.). These snakes are active-foraging predators that primarily hunt amphibians and fish during the day (Clark 1974. Herpetologica 38:372–379; Rossman 1996, *op. cit.*; Hampton 2008. Southwest. Nat. 53:115–118). Though amphibians appear to make up a large portion of *T. proximus* diet, fishes are an important component as well, with at least five species known to be consumed by this snake: *Cichlasoma cyanoguttatum* (Cichlidae), *Esox* spp. (surmised to be *E. americanus* or *E. niger* based on geography; Esocidae), *Gambusia affinis* (Poeciliidae), *Lepomis megalotis* (Centrarchidae), and *Oncorhynchus mykiss* (Salmonidae) (Fouquette 1954. Texas J. Sci. 6:172–188; Hampton 2008, *op. cit.*; Ford and Hampton 2009. Can. J. Zool. 87:254–261). Herein, we report three new fish species as diet items of *T. proximus* in New Mexico, USA.

On 5 May 2024, at 1537 h, we captured a sub-adult female *T. proximus* (DRD Field Series [DRD] 11895: 36.5 cm SVL, 15.2 cm tail length, 25.7 g) basking along the vegetated edge of Lea Lake at Bottomless Lakes State Park, Eddy County, New Mexico

(33.31728°N, 104.33019°W; WGS 84; 1055.1 m elev.). The snake was placed in a container for data processing, where it regurgitated an adult Pecos Pupfish (*Cyprinodon pecosensis*: Cyprinodontidae; 50.2 mm, 2.4 g [posterior end partially digested]). The fish was collected, preserved in 10% buffered formalin, and deposited at the Biodiversity Collections, The University of Texas at Austin (TNHCi 80738). *Cyprinodon pecosensis* is a small fish found in New Mexico and Texas, USA, in portions of the Pecos River and its drainage and appears to be sympatric with *T. proximus* where it occurs (Echelle and Connor 1989. Evolution 43:717–727; Rossman 1996, *op. cit.*); currently, *C. pecosensis* is proposed to be federally listed under the U.S. Endangered Species Act (USFWS 2024. Fed. Reg. 89:226).

On 27 June 2024, at 1422 h, a sub-adult male *T. proximus* (TNHC 117501 [DRD 12042]: 36.4 cm SVL, 15.1 cm tail length, 17.6 g) was captured moving through a rocky area along the Canadian River at Mills Canyon, Harding County, New Mexico (36.03730°N, 104.36127°W; WGS 84; 1383.8 m elev.). Shortly after being placed in a plastic container, the snake regurgitated an adult Fathead Minnow (*Pimephales promelas*: Leuciscidae; 72.2 mm, 1.8 g [anterior end partially digested]), which was collected, preserved in 10% buffered formalin, and deposited at the Biodiversity Collections, The University of Texas at Austin (TNHCi 80739). Within the United States, *T. proximus* is sympatric with *P. promelas* across most of the snake's range, except for parts of Arkansas and Louisiana, USA (https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=621, 2 Feb 2025).

On 22 May 2025, at 1410 h, eight sub-adult and juvenile *T. proximus* (DRD 13318–13325) were captured in an unbaited minnow trap in a small outflow at the Southwestern Native Aquatic Resources and Recovery Center (SNARRC) in Dexter, Chaves County, New Mexico (33.18858°N, 104.34905°W; WGS 84; 1045.4 m elev.). These individuals were removed from the trap and placed into a separate container for processing after all the traps were checked. Approximately 20 min later we began processing these snakes (e.g., swabbing individuals, collecting basic morphological and demographic data, and PIT tagging), and noticed that several individuals (precise number unknown) had regurgitated eight fish. This included the Western Mosquitofish (*G. affinis*; N = 3), which has previously been identified as a diet item of *T. proximus* (Fouquette 1954, *op. cit.*), and the federally endangered Rio Grande Silvery Minnow (*Hybognathus amarus*; N = 5), which represents a new diet item for *T. proximus*. These fish were collected, preserved in 10% buffered formalin, and deposited at the Biodiversity Collections, The University of Texas at Austin (*G. affinis*: TNHCi 81613; *H. amarus*: TNHCi 81614). Prey mass was not recorded for this event as the regurgitants could not be attributed to an individual predator. *Hybognathus amarus* was historically found throughout the Rio Grande and Pecos River drainages in New Mexico and Texas but is now only found in a limited stretch of the Rio Grande in central New Mexico (Platania and Dudley 2003. Summary of the biology of Rio Grande silvery minnow, an endangered species in the Middle Rio Grande, New Mexico. Prepared for the October 3, 2003 symposium: The Rio Grande Silvery Minnow: Science and Policy in the Bosque. 30 pp.). Currently, these species of fish and snake are not sympatric in New Mexico, though historically, they likely co-occurred along stretches of the Pecos River until the 1960s when *H. amarus* was believed to have been extirpated (Platania and Dudley 2003, *op. cit.*). The fish from this predation event were likely individuals from the *H. amarus* captive breeding program at SNARRC that found their way into the nearby outflow and were subsequently consumed (Archdeacon 2022. Final Rio Grande silvery minnow annual augmentation plan 2023–2028. 44 pp.).

It is theorized that active-foraging snakes typically consume multiple smaller prey items per meal, and these meals are likely more frequent than ambush-foraging snakes (Secor and Nagy 1994. Ecology 75:1600–1614). As *T. proximus* is an active forager, it follows this trend in that it typically consumes multiple prey items in a single meal; however, Ford and Hampton (2009, *op. cit.*) found surprisingly high meal mass to predator mass ratios in the species, with multiple meals exceeding a ratio of 0.60 and one exceeding 1.00, which is similar to the maximum prey to predator ratios of ambush foragers (Cundall and Greene 2000. *In* Schwenk [ed.], Feeding: Form, Function, and Evolution in Tetrapod Vertebrates, pp. 293–333. Academic Press, San Diego, California). The prey-predator mass ratios were 0.09 and 0.10 for the aforementioned predation events on *C. pecosensis* and *P. pimelas*, respectively, and both fish were partially digested when weighed. This ratio could not be calculated for the predation events on *H. amarus* or *G. affinis*.

Though it is reasonable to believe that *T. proximus* may consume these three species in areas where their ranges overlap, the frequency of such events remains unknown. These three observations increase the number of fishes *T. proximus* is known to consume to eight species, and future studies should investigate the diet of *T. proximus* in New Mexico to better understand the species' natural history along the western edge of its range.

All work was conducted under a New Mexico Department of Game and Fish Scientific Collecting Permit (#3872), a New Mexico State Parks Division Research Permit (#002), and an approved ENMU IACUC protocol (2023-DAV-005). Permission to sample at SNARCC was provided by W. Wilson and N. Franssen. Funding was provided by a New Mexico Department of Game and Fish State Wildlife Grant (#T-58), a Howard McCarley Student Research Award (Southwestern Association of Naturalists), and a Barney Tomberlin Herpetological Field Research Grant (Chiricahua Desert Museum). We thank R. Rash and A. Cohen (TNHCi) for their assistance in identifying and cataloging fish specimens, J. Kuschel and C. Myers for their contributions in collecting these specimens, T. LaDuc for helpful discussions, L. Pierce and E. Goldstein for their support of our herpetological research program, and members of the Davis Herpetology Lab for helpful comments on this note.

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***ZAMENIS PERSICUS* (Persian Rat Snake). DEFENSIVE BEHAVIOR.** Tail display behavior in snakes represents adaptive strategies that have evolved to address various ecological challenges. Given their limbless anatomy, snakes must utilize their head, neck, trunk, and tail for all environmental interactions, making tail-mediated behaviors particularly crucial for survival. Research has identified four distinct functional categories of tail use in ophidians: prey attraction through caudal luring, prey distraction during hunting sequences, defensive signaling