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First Verifiable Maximum Size for the Two-striped Gartersnake, *Thamnophis hammondii*

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The Two-striped Gartersnake, *Thamnophis hammondii* (Kennicott 1860), was formally described as a distinct species over 160 years ago, but subsequent authors generally relegated it to subspecies status within other recognized species of *Thamnophis*. Rossman and Stewart (1987) re-elevated *T. hammondii*, and that taxonomic arrangement has subsequently been universally followed. Echoing the inconsistent taxonomic history of the species, published maximum lengths for *T. hammondii* have been both inconsistent and poorly supported for decades in the scientific literature.

Various snout-vent lengths (SVL) have been published for *T. hammondii*: 840 mm (Rossman et al. 1996), 830 mm (Grismer 2002), and 720 mm (Lemm 2006). The source of these discrepancies is unknown, because none of the authors included any form of supporting evidence (e.g., specimen number or reference to field data). The sole exception was Rossman et. al. (1996), who referenced a specimen in a private collection that is not publicly available.

Similar inconsistencies exist for reported total lengths (TL). The earliest reported maximum TL was "about 38 inches" (or approximately 965 mm) (Schmidt and Davis 1941), but no evidence was offered to support this size. Subsequently, Stebbins (2003) published a maximum TL of 1,020 mm, and this measurement was repeated by multiple other authors (e.g., Heimes 2016; Flaxington 2021). The only record exceeding this value is a TL of 1,068 mm (Ernst and Ernst 2003). However, none of the aforementioned sources provided the number of a museum specimen or any

Figure 1. Record-sized adult female Two-striped Gartersnake, *Thamnophis hammondii* (SDSNH 76542) with a snout-vent length of 865 mm and a total length of 1,050 mm. Photographs by Sierra M. Vasquez and Sabrina Liu.

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other form of supporting evidence, and the sources of these TL discrepancies are unknown. We herein present a vouchered specimen of *T. hammondii* that exceeds all reported maximum SVLs and all reported TLs except for that of Ernst and Ernst (2003). This specimen thus represents the largest verifiable record for the species.

On 10 December 2023, CC collected an adult female *T. hammondii* (Fig. 1) after the snake was accidentally injured in a ditch on his property in Ramona, San Diego County, California, USA (33.01222, -116.92309; elev. 435 m asl). Two days later, the live snake was delivered to Project Wildlife at the San Diego Humane Society for attempted rehabilitation. After a month of captive care during which the snake failed to recover from its injuries, it was humanely euthanized, frozen, and donated to the San Diego Natural History Museum. After being thawed but prior to formalin fixation, this snake (SDSNH 76542) weighed 363.3 g and measured 865 mm SVL, 185 mm tail length (tip missing due to old injury), and 1,050 mm TL. This SVL is about 3% longer than the previous maximum reported by Rossman et al. (1996), and the TL exceeds all but one previously reported maximum (1,068 mm) (Ernst and Ernst 2003). We attempted unsuccessfully to contact E.M. Ernst, the only surviving author, to request supporting data for the 1,068 mm TL. Hence, the Ramona specimen represents the only independently verifiable maximum size record for *T. hammondii*, and it provides a starting point for clarity regarding how large this species can grow.

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