

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

USDA National Wildlife Research Center - Staff  
Publications

U.S. Department of Agriculture: Animal and  
Plant Health Inspection Service

---

July 2002

## ***THAMNOPHIS RADIX* (Plains Garter Snake) BROOD SIZE**

Richard M. Engeman

USDA-APHIS-Wildlife Services, s\_r100@yahoo.com

Isabel M. Engeman

USDA-APHIS-Wildlife Services

Alexander N. Engeman

USDA-APHIS-Wildlife Services

Follow this and additional works at: [https://digitalcommons.unl.edu/icwdm\\_usdanwrc](https://digitalcommons.unl.edu/icwdm_usdanwrc)



Part of the [Environmental Sciences Commons](#)

---

Engeman, Richard M.; Engeman, Isabel M.; and Engeman, Alexander N., "*THAMNOPHIS RADIX* (Plains Garter Snake) BROOD SIZE" (2002). *USDA National Wildlife Research Center - Staff Publications*. 485.  
[https://digitalcommons.unl.edu/icwdm\\_usdanwrc/485](https://digitalcommons.unl.edu/icwdm_usdanwrc/485)

This Article is brought to you for free and open access by the U.S. Department of Agriculture: Animal and Plant Health Inspection Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in USDA National Wildlife Research Center - Staff Publications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

**THAMNOPHIS RADIX** (Plains Garter Snake). **BROOD SIZE.** Brood sizes for *Thamnophis radix* show much geographical variation (Fitch 1985. Misc. Publ. Univ. Kansas Mus. Nat. Hist. 76:1–76). While brood sizes can range up to 60 (Fitch, *op. cit.*; Collins 1993. Amphibians and Reptiles in Kansas. Univ. Kansas Mus. Nat. Hist., Lawrence, Kansas, 397 pp.), the brood sizes reported for Colorado have fallen far short of this. Hammerson (1999. Amphibians and Reptiles in Colorado, Second Edition. University Press of Colorado, Niwot, Colorado, 480 pp.) observed brood sizes in Colorado of 16–21 (N = 9), with a mean of 16. Rossman et al. (1996. The Garter Snakes: Evolution and Ecology. University of Oklahoma Press, Norman) reported a range of 5–20 (N = 8) for Colorado, and a brood of 20 was recorded by Ellis and Henderson (1913. Univ. Colorado Studies 10:39–129). Other records include brood sizes of 7, 9, 14, 20, and 21 (Hammerson, *op. cit.*).

On 23 July 2000 we captured a gravid 58 cm SVL female *T. radix* near Spring Ck in Fort Collins, Colorado, USA. By the morning of 24 July she had given birth to 32 young. The time of year for appearance of young appeared typical (Hammerson, *op. cit.*), but the brood size was substantially (50%) in excess of the maximal brood size previously reported for Colorado.

Submitted by **RICHARD M. ENGEMAN**, National Wildlife Research Center, 4101 LaPorte Avenue, Fort Collins, Colorado 80521-2154, USA, **ISABEL M. ENGEMAN** and **ALEXANDER N. ENGEMAN**, 3902 Carrick Road, Fort Collins, Colorado 80525, USA.