

Appendix 3: Figures from Crews and Fitzgerald 1980

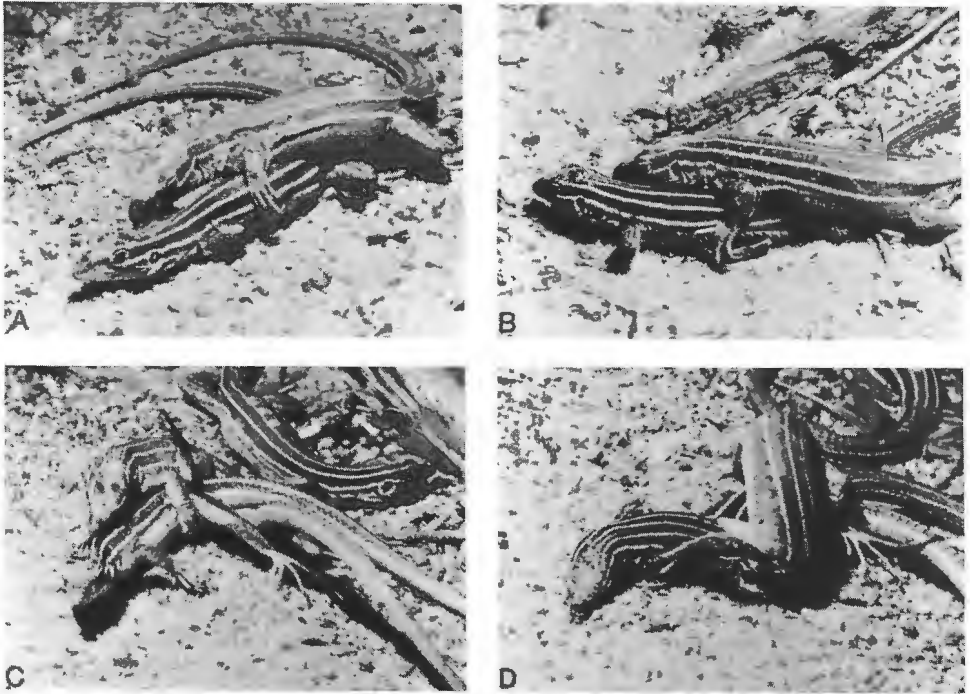


FIG. 1. "Sexual" behavior in captive parthenogenetic *Cnemidophorus uniparens*. After lunging attacks directed at the smaller female, the larger female approaches the now passive small female, first gripping in her jaws the foreleg (A). This is accompanied by mounting and riding behavior (A, B), during which the active female scratches the side of the mounted female with her fore- and hind-legs and strokes the back of her neck with her jaw. Shortly afterwards, the active female twists her tail beneath the other's tail (C), apposing the cloacae and assuming the copulatory posture characteristic of sexual cnemidophorine lizards (D). Females were housed in pairs or groups in aquaria measuring 76.2 × 30.5 cm. Heat was provided by a 75-W, 120-V lamp suspended 10 cm from the sand substrate. A water bowl was provided at the opposite end of the cage. Each cage was illuminated by two Durotest Vita lights 30 cm above the cage bottom. A 14-hr dark: 10-hr light cycle was employed, with a daily temperature gradient of 25°C near the water dish and 47°C directly under the heat lamp. The temperature dropped to 21°C at night. Lizards were fed both mealworms and crickets ad lib. Further details of care and maintenance procedures of parthenogenetic *Cnemidophorus* are provided in ref. 6.

Figure A3.1. The narrative of *Cnemidophorus* behavior in illustrations. From "Sexual Behavior in Parthenogenetic Lizards (*Cnemidophorus*)" by David Crews and Kevin T. Fitzgerald, *Proceedings of the National Academy of Sciences*, Vol. 77, No. 1, January 1980, p. 500. Reproduced by permission of David Crews.

Table 1. Reproductive condition of three species of parthenogenetic lizards (*Cnemidophorus uniparens*, *C. velox*, and *C. tessellatus*) at time of observations

| Pair | Animal | Behavior | Snout-vent length, mm | Ovarian condition and size of largest follicles, mm | Number of follicles |
|----------------------------------|--------|--------------------------------------|-----------------------|---|---------------------|
| <i>Cnemidophorus uniparens</i> | | | | | |
| A | 1 | Femalelike | 68 | Preovulatory (4.8-5.4) | 7* |
| | 2 | Malelike | 59 | Previtellogenic (1.2-2.2) | 7* |
| B | 3 | Femalelike | 57 | Preovulatory (6.0-6.2) | 7* |
| | 4 | Malelike | 67 | Previtellogenic | 5† |
| C | 5 | Femalelike | 60 | Preovulatory | 3† |
| | 6 | Malelike | 56 | Postovulatory | 0† |
| D | 7 | Femalelike | 67 | Preovulatory | 4† |
| | 8 | Malelike | 56 | Postovulatory | 0† |
| E | 9 | Femalelike individual not identified | | | |
| | 10 | Malelike | 65 | Postovulatory | 2† |
| F | 11 | Femalelike | 66 | Preovulatory | 3† |
| | 12 | Malelike | 57 | Postovulatory | 2† |
| G | 13 | Femalelike | 63 | Preovulatory | 2† |
| | 14 | Malelike | 57 | Postovulatory | 2† |
| H | 15 | Femalelike | 66 | Preovulatory (≥ 6.0) | 3‡ |
| | 16 | Malelike | 68 | Postovulatory (≤ 3.0) | 3‡ |
| I | 17 | Femalelike | 69 | Preovulatory (≥ 6.0) | 3‡ |
| | 18 | Malelike | 71 | Postovulatory (≤ 3.0) | 2‡ |
| J | 19 | Femalelike | 65 | Preovulatory (≥ 6.0) | 3‡ |
| | 20 | Malelike | 71 | Postovulatory (≤ 3.0) | 2‡ |
| K | 21 | Femalelike | 66 | Preovulatory (≥ 6.0) | 3‡ |
| | 22 | Malelike | 71 | Postovulatory (≤ 3.0) | 2‡ |
| L | 23 | Femalelike | 66 | Preovulatory (≥ 6.0) | 3‡ |
| | 24 | Malelike | 72 | Postovulatory (≤ 3.0) | 2‡ |
| M | 25 | Femalelike | 66 | Preovulatory (≥ 6.0) | 3‡ |
| | 26 | Malelike | 71 | Postovulatory (≤ 3.0) | 3‡ |
| <i>Cnemidophorus velox</i> | | | | | |
| A | 1 | Femalelike | 58 | Preovulatory (6.5-7.0) | 4* |
| | 2 | Malelike | 67 | Previtellogenic (1.2-2.0) | 7* |
| B | 3 | Femalelike | 69 | Preovulatory (6.5-7.5) | 6* |
| | 4 | Malelike | 55 | Previtellogenic (1.2-1.4) | 6* |
| C | 5 | Femalelike | 66 | Preovulatory (6.4-7.0) | 5* |
| | 6 | Malelike | 63 | Previtellogenic (0.8-1.0) | 5* |
| <i>Cnemidophorus tessellatus</i> | | | | | |
| A | 1 | Femalelike | 75 | Preovulatory (7.5-8.0) | 5* |
| | 2 | Malelike | 69 | Previtellogenic (1.2-2.0) | 8* |

Female reproductive state was determined by dissection at the time of the observations, egg-laying records, or palpation as noted.

* Determined by immediate dissection.

† Estimate of reproductive condition based on egg-laying record or, in the instance of females 6 and 8, on change in body weight.

‡ Estimate of ovarian condition based on palpation; estimate of number of follicles based on number of eggs subsequently laid.

Figure A3.2. The narrative of *Cnemidophorus* behavior in a table. From " 'Sexual' Behavior in Parthenogenetic Lizards (*Cnemidophorus*)" by David Crews and Kevin T. Fitzgerald, *Proceedings of the National Academy of Sciences*, Vol. 77, No. 1, January 1980, p. 501. Reproduced by permission of David Crews.