

Increasing Lizard Capture Success Using Baited Glue Traps

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Bauer and Sadlier (1992) recently drew attention to the effectiveness of household glue traps for the sampling of herpetofauna, particularly lizards. Here I report on an experiment to test the effectiveness of baiting glue traps to capture the cordylid lizard *Platysaurus capensis*, as well as additional observations on sampling lizards with glue traps.

I used nontoxic Catchmaster® 9 x 12 cm Baited Mouse Glue Traps and to a lesser extent Catchmaster® 13 x 21 cm Baited Mouse, Insect & Snake Glue Boards (Atlantic Paste & Glue Co., Inc, 4-53rd Street, Brooklyn, New York 11232, USA) to sample *P. capensis* at Augrabies Falls National Park, South Africa (28°35' S, 20°20'E). The former trap is raised on a 9 mm plastic platform, the latter trap consists of flat, laminated cardboard. My field assistants and I have captured over 1000 *P. capensis* using glue traps. Since *P. capensis* inhabits rocky areas, glue traps were attached to rock using putty (Bostik®) to prevent lizards escaping with the trap. Traps were placed along crevices and across known activity corridors. In an attempt to increase capture success, I began baiting traps with brown unripened Namaqua figs (*Ficus cordata*) painted red to resemble ripe figs which were unavailable at the time of study, and which form part of *P. capensis*' diet (Whiting and Greeff 1997). To measure the effectiveness of this method, I baited 37 traps with a single red-painted fig (mean diameter of 40 figs: 6.17 ± 0.09 mm, Whiting and Greeff 1997) placed in the center of the trap. Thirty-seven unbaited traps served as controls. Baited and unbaited traps were placed in alternate sequence, during 28–29 August 1996 and continuously monitored. No lizard was caught more than once. Assuming an equal probability of capture as the null hypothesis, significantly ($\chi^2_1 = 23.14$, $P < 0.0001$) more lizards were caught on fig-baited (46 lizards) than control (10 lizards) traps. Also, significantly ($\chi^2_1 = 4.55$, $P < 0.05$) more lizards sampled (tongue-flicked) traps containing red-painted figs (16 lizards) compared to controls (6 lizards).

Platysaurus capensis were also attracted to traps baited with live, moving insects. In some cases lizards were caught after being chased onto a trap line they might otherwise have avoided. During the breeding season, males were often caught when they inspected trapped females.

In addition to *P. capensis*, geckos (*Pachydactylus* spp.) and the gerrhosaurid *Cordylus subcaudatus* also were inadvertently caught. Also, during field work in Namibia, the subterranean gecko *Ptenopus garrulus* was captured by placing glue traps at the entrance to their burrows.

Bauer and Sadlier (*op. cit.*) suggested removing lizards from glue traps using corn oil. Lizards with relatively hardy integuments (such as *P. capensis*) may first be removed from a trap prior to the application of oil to remove excess glue. This greatly increases the longevity of the trap. Trap longevity can also be increased by avoiding windy situations or removing traps with the onset of wind.

This work supports Bauer and Sadlier's assertion that glue traps should be added to the arsenal of zoologists involved in herpetological sampling. In the case of autecological studies, especially for visually oriented species, capture success may be increased through trap baiting.

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LITERATURE CITED

- BAUER, A. M., AND R. A. SADLIER. 1992. The use of mouse glue traps to capture lizards. *Herpetol. Rev.* 23:112–113.
WHITING, M. J., AND J. M. GREEFF. 1997. Facultative frugivory in the Cape flat lizard, *Platysaurus capensis* (Sauria: Cordylidae). *Copeia* 1997:811–818.