

Two new types of noose for capturing herps

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Abstract. We present two new types of noose for capturing herps, which allow adapting the size of the loop to the size of prey rapidly. We use a plastic ring to make the loop: the thread moves perfectly without any impediment or friction, and remains in good conditions for a longer time. The plastic ring can be made during fieldwork. Both new types of noose increase capture effectiveness, as it is possible to noose different types of preys with a simple and rapid adaptation of the loop. We have tested this methodology in different species of lacertids, some snakes under rocks, and also some amphibians.

Keywords. Capture herps, loop, lizard, pastic ring.

Multiple factors affect capture success, including animal body size, trap avoidance behaviour, and weather. Many techniques exist for sampling a vast array of lizard species, including noosing poles, grab sticks, scoop buckets, sticky sticks, rubber bands, sticky traps, and habitat traps (Bertram and Cogger, 1971; Bauer and Sadlier, 1992; Witz, 1996; Durtsche, 1996; Downes and Porges, 1998; Whiting, 1998; Hamilton et al., 2007). One of the methods employed to catch small lizards is the noose (see among others: Vanhooydonck and Damme, 2003; Li et al., 2009; Marsili et al., 2009). However, the size of the noose involves the size of prey capture, so the noose must be constantly adapted to the size of the dam at the time of capture (author's pers. obs.), which may mean the flight of animals.

We present here two different variants of noose (Figs. 1 and 2). Both methodologies could tailor the size of the loop to the size of prey rapidly. The innovation of these methodologies is the use of a plastic ring (from an ink cartridge pen, such as a BIC pen) to make the loop. This plastic ring allows a perfect movement of the thread without any impediment or friction. Furthermore, the thread remains in good conditions for a longer time. Finally, the plastic ring can be made, *in situ*, at the moment during fieldwork: the

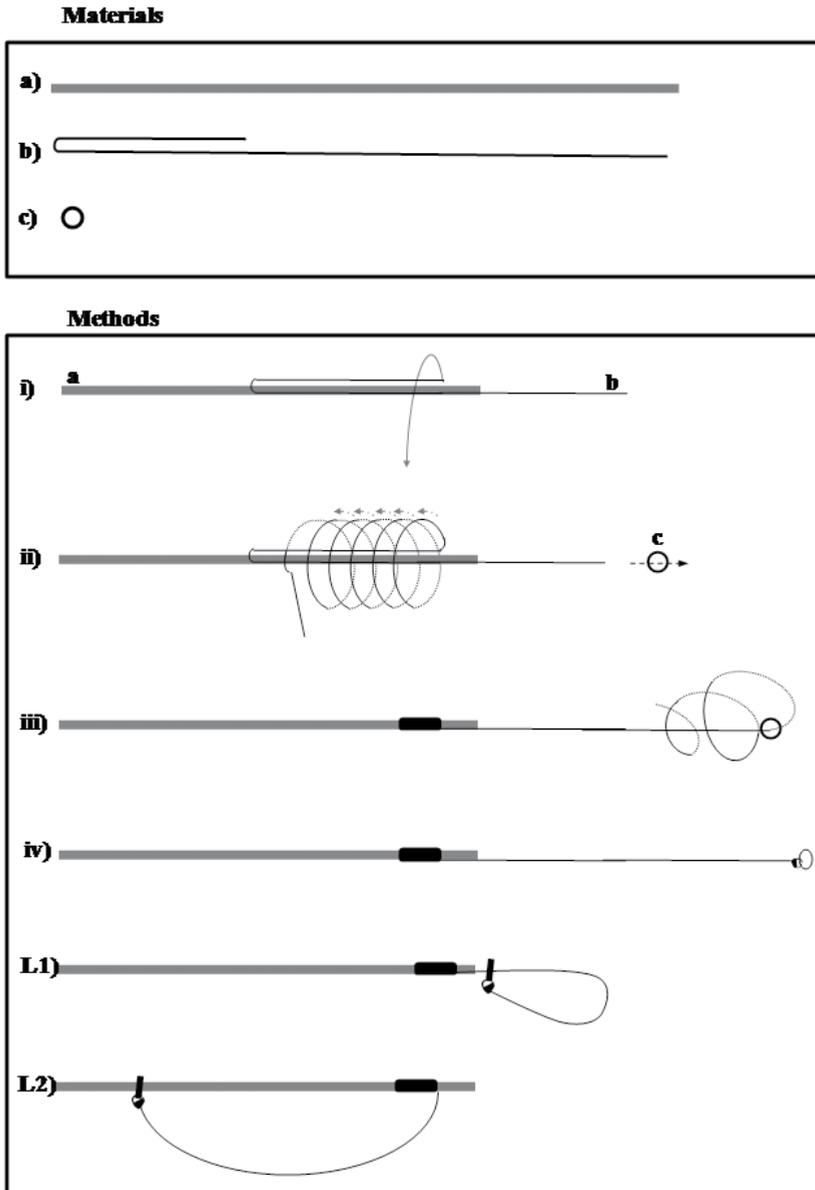


Fig. 1. Description of the way to make the noose type 1. Materials: wire (≈ 0.5 mm \emptyset), thread, and a plastic ring (≈ 1 mm \emptyset). Methods: form a loop of thread over the end of the rod (a; i), roll backward (ii) and pass the end of the thread inside loop and pull (b; i). Pass this end of the thread (b; i) through the ring (c; ii) (diameter of the ring is greater than the end of the rod) and make a knot (iii). To form this noose, tie two knots. The first knot is shaded. The second knot is pulled firmly against the first knot. Cut the excess thread (iv). Pass the end of the rod through the ring, and pull the ring to get the position L1 (e.g. for capturing *Podarcis* sp), or pass the ring until position L2 (e.g., for capturing *Tarentola* sp).

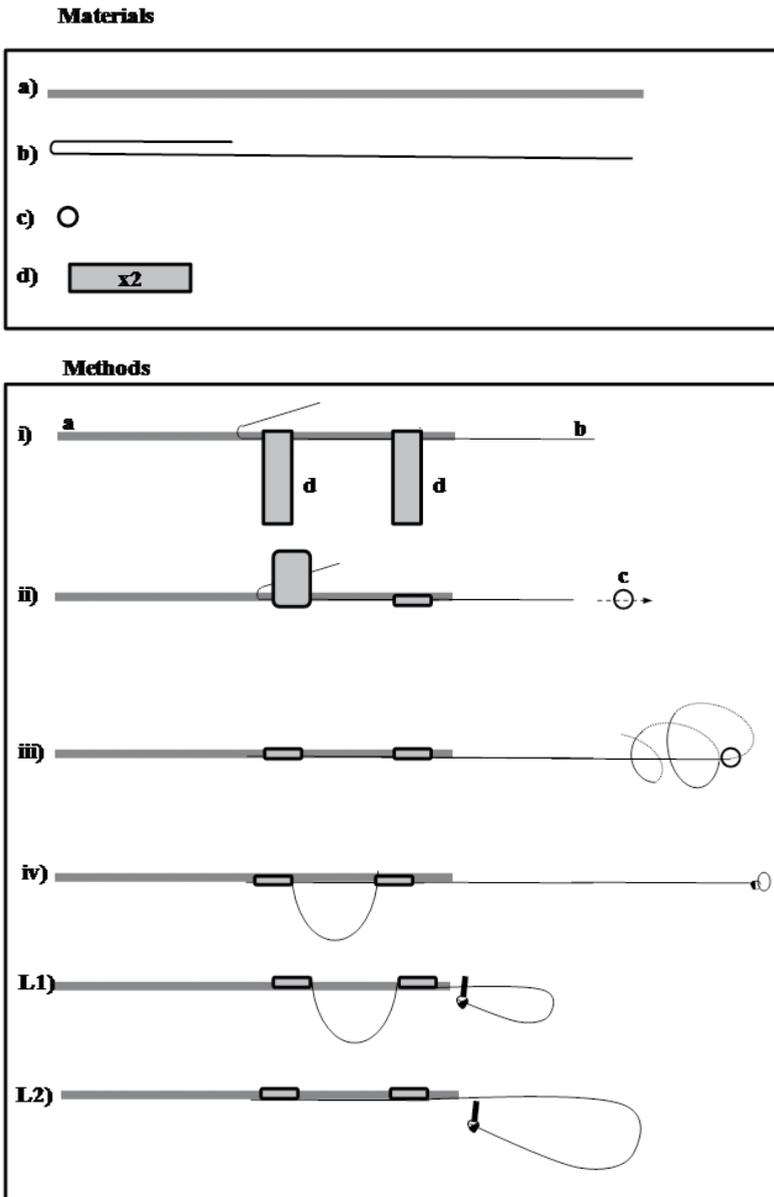


Fig. 2. Description of the way to make the noose type 2. Materials: wire ($\approx 0.5 \text{ mm } \varnothing$), dental thread, a plastic ring ($\approx 1 \text{ mm } \varnothing$), and adhesive tape. Methods: do a loop with the dental thread on the plastic ring (i; a), and pass the free extreme through the interior of the ring (see Fig.1; iii). Put two pieces of adhesive tape around the stick (i; b) and the dental thread (this should be parallel to the stick), one piece on the stick extreme, and the other one a little lower ($\approx 5 \text{ cm}$ between adhesive tape). Tie the dental thread to the stick in order to leave the extreme of the thread opposite to the adhesive tape. In this way, it is not possible to untie the thread if this is pulled off the stick. The dental thread can move freely through the adhesive tapes, allowing to use a small loop (e.g., for capturing *Podarcis* sp.; L1) or a big loop (e.g., for capturing *Agama* sp.; L2).

plastic ring can be replaced very quickly and easily. The first type of noose (Fig. 1) allows modifying the size and type of the loop. This methodology allows for a typical loop (Fig.1 L1) with a small opening, to catch species like *Podarcis* sp., and a second position (Fig.1 L2) with a wider loop, and one of their rigid parts, making it easier to capture species like *Tarentola* sp., snakes under the rock or amphibians under water. The second type of noose (Fig. 2) allows modifying the size of the loop moving the thread along the stick. These new methodologies increase capture effectiveness, as we can noose, with a simple and rapid adaptation of loop, different types of preys. Both types of noose are more resistant to loose the thread, when the animal is big. However, if the diameter of the plastic ring is larger than one millimeter, the prey can escape very easily. In any case, during fieldwork tests, we did not have a higher proportion of animal releasing from noose in comparison with other ways of making the loop. We have tested this methodology in different species of lacertids (*Acanthodactylus aureus*, *A. boskianus*, *A. busacki*, *A. erythrurus*, *Agama bibronii*, *Algyroides marchi*, *Darevskia armeniaca*, *D. dahli*, *D. nairensis*, *D. portschinskii*, *D. raddei*, *D. rostombekovi*, *D. unisexualis*, *D. valentini*, *Lacerta agilis*, *L. media*, *L. strigata*, *L. schreiberi*, *Laudakia caucasia*, *Podarcis carbonelli*, *P. hispanicus*, *P. vaucheri*, *P. bocagei*, *Psammodromus algirus*, *Ps. hispanicus*, *Quedenfeldtia moerens*, *Q. trachyblepharus*, *Tarentola mauritanica*, *T. boehmei*, *Timon lepidus*, *T. pater*, *Trachylepis septemtaeniata*), some snakes under rocks (*Hemorrhhois hippocrepis*, *Malpolon monspessulanus*) and also some amphibians (*Hyla meridionalis* and *Pelophylax saharica*).

This paper aims to share a change into a technique used in herpetological studies, and consequently to facilitate the subsequent field sampling.

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