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Predation on *Trachylepis socotrana* by *Lanius meridionalis*

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Resumen: El alcaudón sureño (*Lanius meridionalis*) es un depredador común de reptiles, conocido por empalar sus capturas en arbustos espinosos como reserva. El 3 de Marzo de 2014, después de detectar un ejemplar de *L. meridionalis* alrededor de nuestro campamento en la reserva forestal de Firmhin (Socotra), encontramos unos restos de *Trachylepis socotrana* empalados en una rama seca. Durante los diversos muestreos que tuvieron lugar ese año en Firmhin, ese escincido no se detectó, lo que indica la posible importancia del examen de este tipo de restos para detectar poblaciones de reptiles con poca densidad en ambientes insulares.

The Southern grey shrike (*Lanius meridionalis*) is known to commonly predate upon reptiles (Padilla *et al.*, 2005; Hódar, 2006). Even though it is not the most common prey type, reptiles may represent the most important one in terms of biomass (Padilla *et al.*, 2009). The diet of this bird is not very selective, depending mainly on the local availability of the several possible preys (Cade, 1995; Requena-Aznar *et al.*, 2012). However, although not specialized, this bird is an effective predator, exerting an important predation pressure, enough to induce behavioral changes (less mobility and changes in diet) in lizards (Hawlena & Pérez-Mellado, 2009; Padilla *et al.*, 2009). Its role as a prominent predator of reptiles is also true for insular systems. In the Canary Islands, for example, this species is a common predator of juveniles of the endemic lizards of the genus *Gallotia*, among other endemic reptiles (Padilla *et al.*, 2005, 2009; Pérez-Padilla, 2009; Márquez& Acosta, 2013). Interestingly, the

Figure 1. The individual of *L. m. uncinatus* inhabiting the area around the authors' camping site in Firmhin Forest Reserve as hunting territory.
Figura 1. El individuo de *L. meridionalis* que habitaba el área alrededor de la zona de acampada de los autores en la reserva forestal de Firmhin.

fact that this predator typically impales its prey on thorns of bushes as a cache (Cade, 1995), added to its effective and generalist habits (Lefranc & Worfolk, 1997), has been pointed out as an useful way to detect species with low abundances or difficult to detect in these insular environments (Márquez & Acosta, 2013).

In the Socotra Archipelago (Yemen), this bird has one of its remotest and southern most populations, classified under the subspecies *Lanius meridionalis uncinatus* (Olsson *et al.*, 2010). This archipelago has very high reptile endemicity (Razzetti *et al.*, 2011) but in contrast, there are none endemic and very few introduced small mammals (Damme & Banfield, 2011). This fact, added to a gradient favoring a diet of this predator more based in cold-blooded prey in warmer climates (Padilla *et al.*, 2005), predicts a great predation pressure on reptiles. On the 3rd of March 2014, at 17:23 (local time), at Firmhin Forest Reserve (12º28' 32.24'' N / 54º01'01.16'' E; 472 masl), alerted by the presence of an adult *L. meridionalis* flying nervously around our camping site (Figure 1), we found after a short search its cache in a sharp dry branch of a bush of the species *Croton socotranus*. In this case, the cache only consisted of the remains of an adult (determined by its size) *Trachylepis socotrana* (Figures 2-3). After some time while

Figure 2. Remains of *T. socotrana*, found impaled in a dry branch as cache.
Figura 2. Restos de *T. socotrana*, encontrados empalados en una rama seca como reserva alimenticia.

Figure 3. Adult specimen of *T. socotrana*.
Figura 3. Ejemplar adulto de *T. socotrana*.

the authors had left the camping site, the remains disappeared.

During several reptile samplings in Firmhin in that year, although the researchers listed up to eight reptile species, *T. socotrana* was not found, possibly indicating low population densities or different activity patterns than the authors' sampling hours in that area. This fact, added to the wide presence of this predatory bird in most open habitats of Socotra (authors, unpublished data), points to the examination of caches or pellets of *L. meridionalis* as another indirect valid method to detect the presence of diurnal reptiles. This additional detection method could be even more important in this archipelago, where some sites and areas are still under optimal exploration. Similar indirect methods have successfully been used to detect the presence of other vertebrates in island systems, such as shrews in Ireland (Tosh *et al.*, 2008), and endangered skinks in the Canary Islands (Márquez & Acosta, 2013).

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