

The diet of African house snakes (*Boaedon* spp) revealed by citizen science

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African house snakes (*Boaedon* spp) are nocturnal constricting predators, and as their name suggests, are commonly found around human habitation (Briscoe, 1949). It is generally remarked that house snakes will feed on the rodents and other pests which are known to gather and feed around urban settlements (Gratz & Arata, 1975). Occurring throughout sub-Saharan Africa, there has been a recent increase in researchers aiming to decipher phenotypic cryptic species using molecular techniques, so that there are now 13 recognised species (Kelly et al., 2011; Greenbaum et al., 2015; Trape & Mediannikov, 2016). Very little is known of their ecology. With the availability of publicly shared information on social media sites and online recording platforms, data which are of research interest and relevance in the study of wild fauna can be utilised to generate insights into the ecology of species via citizen science (Newman et al., 2012).

METHOD

Interested members of the general public in Southern Africa are encouraged to submit images of reptiles and amphibians to the Facebook group “Predation Records – Reptiles and Frogs” (Predation Records, 2017): all records submitted are freely available for use by interested individuals and researchers. A review of all images posted within the group which clearly depicted a *Boaedon* house snake as a predator was conducted on 25 November 2017 encompassing all publicly accessible records submitted. A scan of the images tab was undertaken, each record was opened and the prey item was noted. As house snakes present a number of cryptic species (see above), no attempt was made to distinguish exact species. Prey items were grouped as bats, rodents, birds, frogs, lizards or snakes.

RESULTS & DISCUSSION

There were 23 images submitted between 15 September 2015 and 23 November 2017 which clearly depicted a *Boaedon* sp as a predator. Ten showed a lizard as prey, 5 showed a bird, 4 a rodent, 2 a bat and 1 each a frog or a snake. These data suggest that *Boaedon* are opportunistic predators which might take a wide range of prey, but that lizards might form an important part of the diet, at least for some species. In the past, *B. geometricus* has been recorded to feed on the invasive oriental garden lizard *Calotes*

versicolor (Matyot, 2004), and *B. lineatus* is said to feed primarily on lizards and frogs, although this observation is not supported by hard data (Akani et al., 2008). Whether any, or all, of the species of *Boaedon* are specialist predators must at present remain an open question.

The work reported here also demonstrates that data derived predominantly from amateur observations, which are not part of a structured research project but obtained from publicly shared information on social media sites or online recording platforms (citizen science), can have value and contribute to an understanding of the ecology of snakes, and possibly of other predatory animals as well.

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