

# What we know about the magnificent Mantodea of South Africa

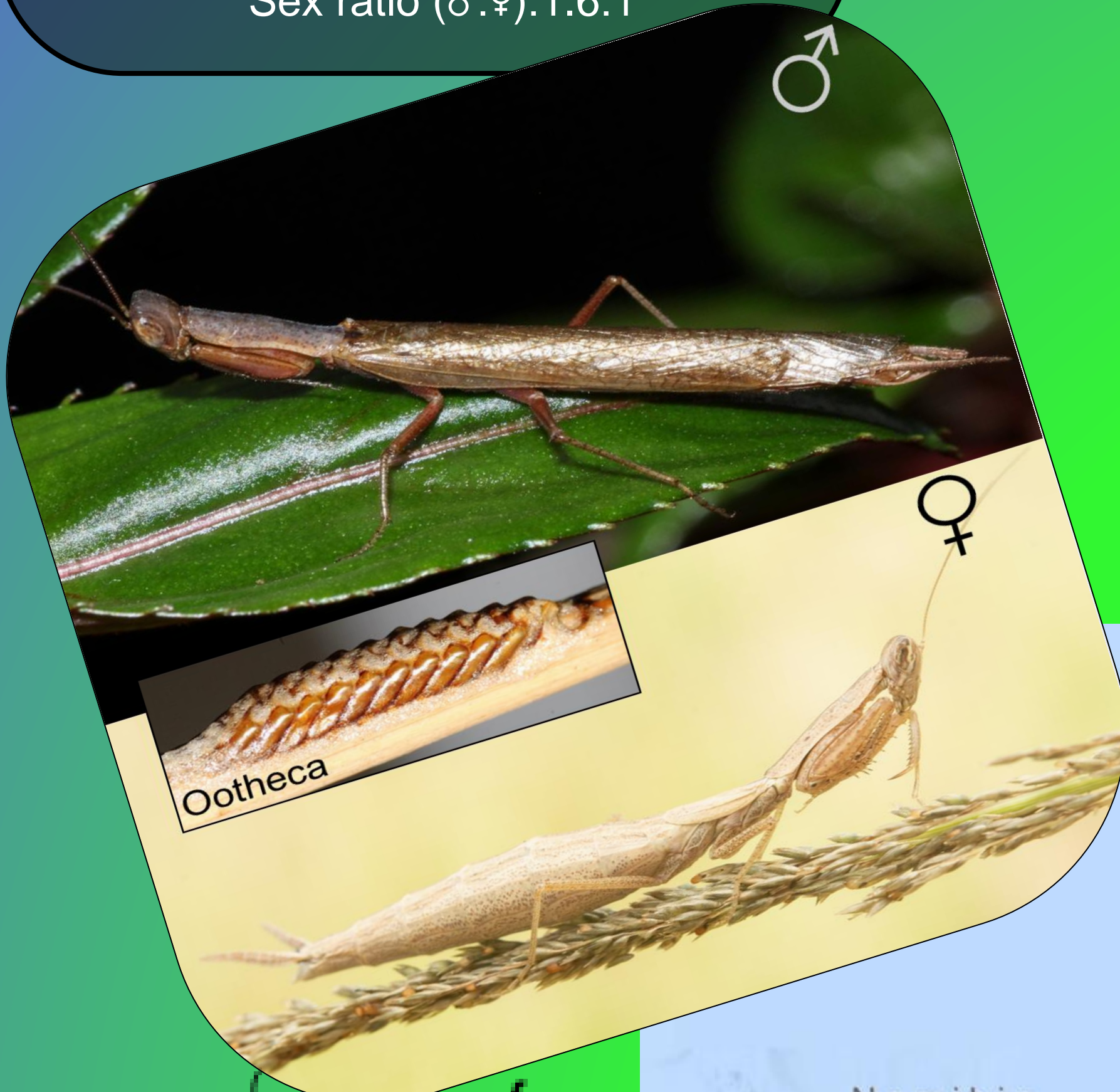
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Mantodea or praying/preying mantids are a group of insects with **cultural and mystical aspects** that are interesting but that can be used to **increase insect appreciation** and further **Mantodea research and conservation**, especially in South Africa. During our study we updated the checklist of Mantodea of South Africa, and established that at least 148 species, 64 genera and 14 families of Mantodea occur in South Africa. The biology of four mantid species i.e. *Galepsus lenticularis* (Tarachodidae), *Popa spurca* (Mantidae), *Sphodromantis gastrica* (Mantidae) and *Harpagomantis tricolor* (Galinthiadidae) were also described, along with the current state of knowledge regarding their individual distribution patterns based on historical museum records, field collections and citizen science platforms. This study sheds a light on a group of magnificent insects that has been not only underrepresented in South Africa's research endeavours but completely overlooked.

## Biology of *Galepsus* mantis:

Duration of lifecycle: 199 days  
Number of nymphal instars: 9  
Duration of nymphal stage: 148 days  
Oothecae incubation period: 20 days  
Eggs per oothecae: 50  
Sex ratio ( $\sigma:\rho$ ): 1.6:1



## *Galepsus lenticularis*

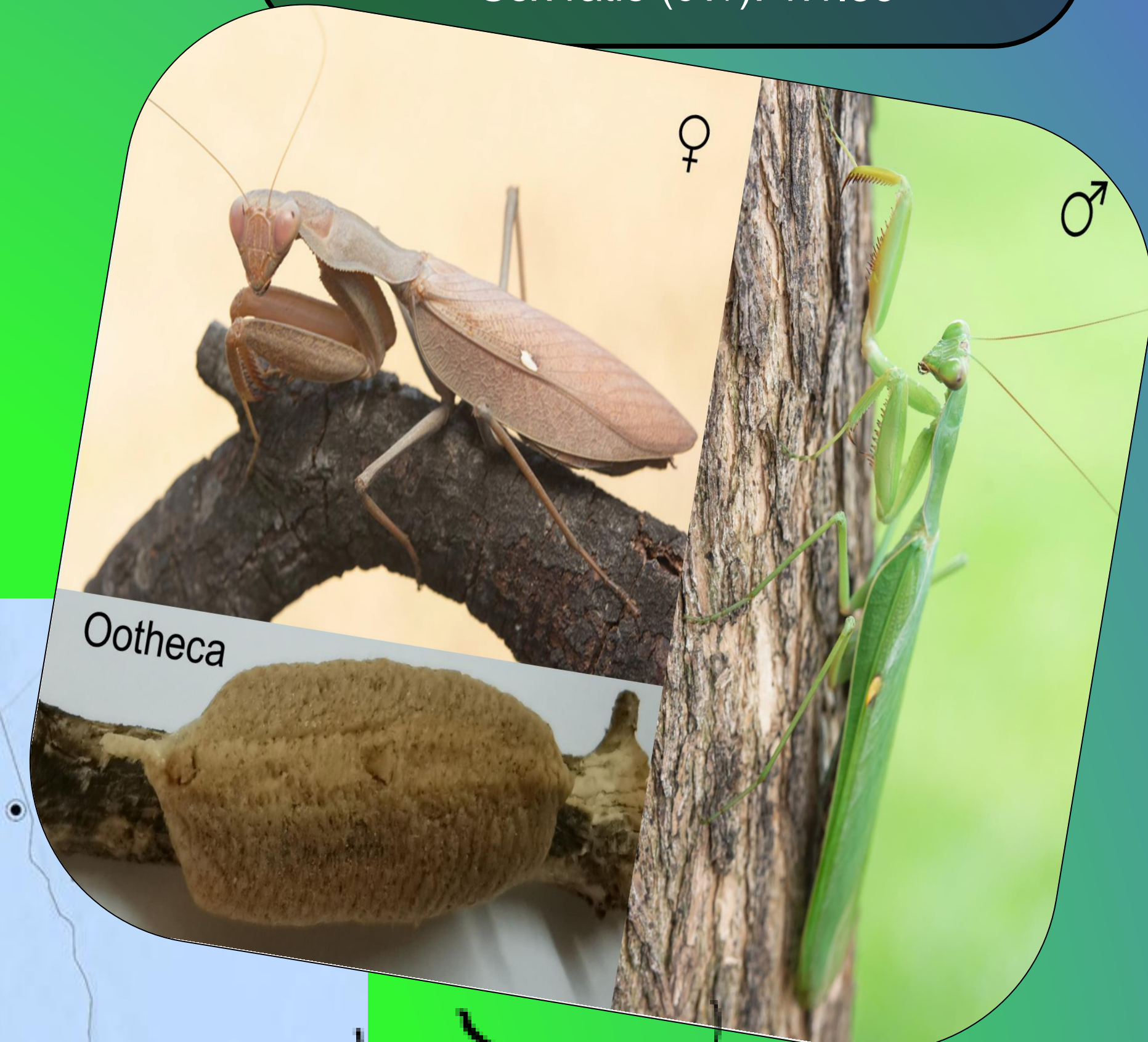


## *Sphodromantis gastrica*



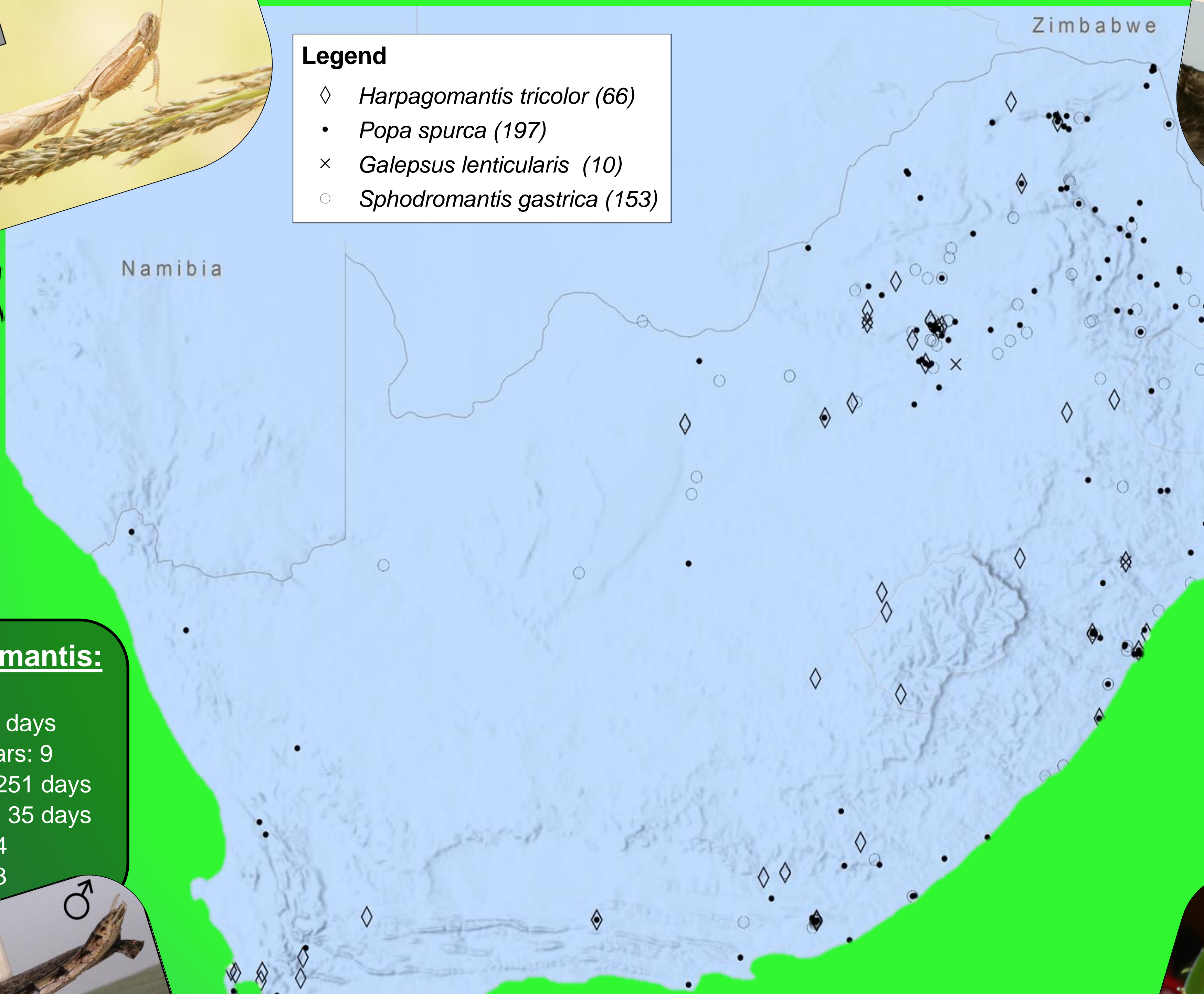
## Biology of African mantis:

Duration of lifecycle: 332 days  
Number of nymphal instars: 8  
Duration of nymphal stage: 251 days  
Oothecae incubation period: 75 days  
Eggs per oothecae: 84  
Sex ratio ( $\sigma:\rho$ ): 1:1.86



## Legend

- ◇ *Harpagomantis tricolor* (66)
- *Popa spurca* (197)
- × *Galepsus lenticularis* (10)
- *Sphodromantis gastrica* (153)



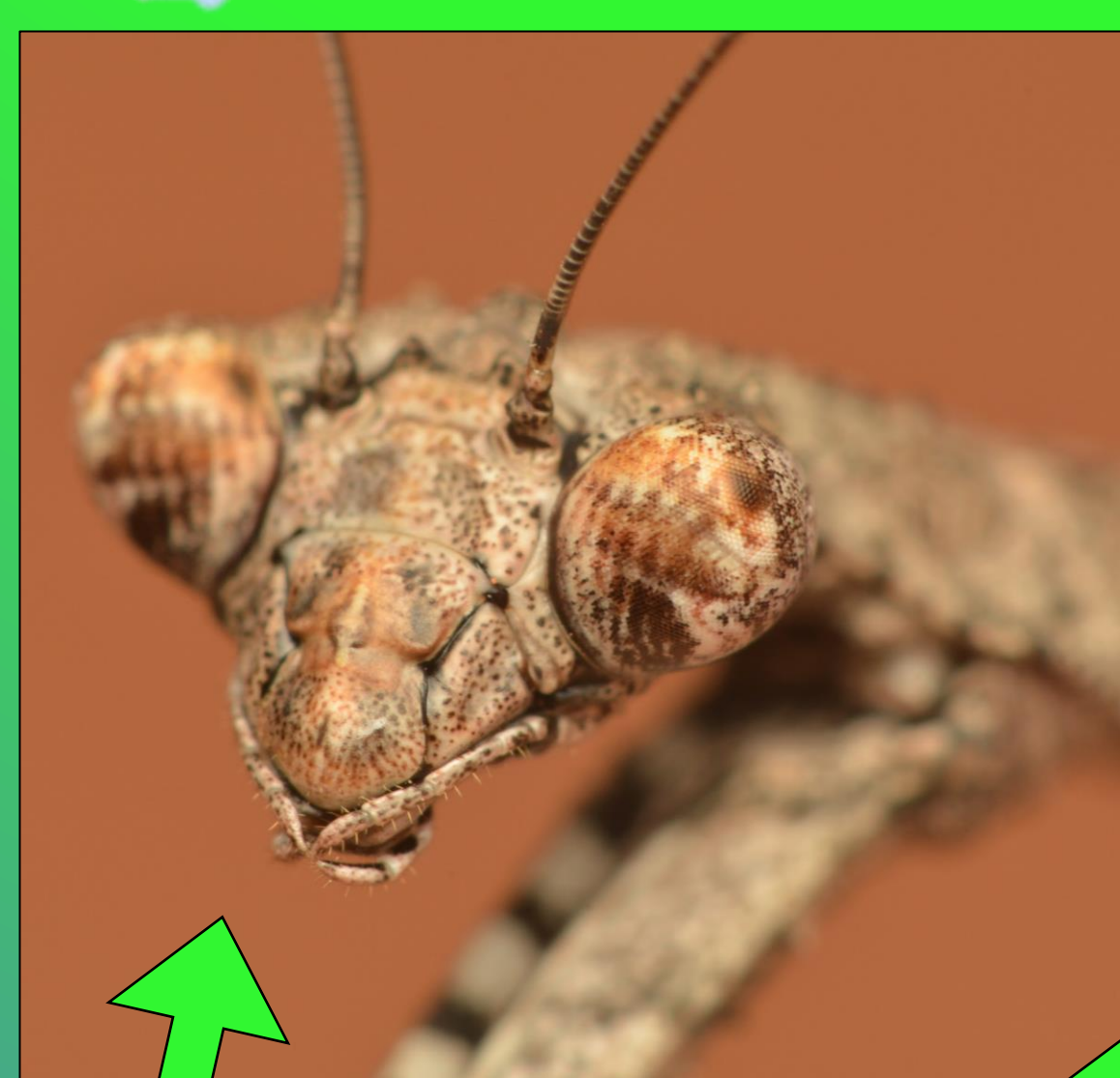
## Biology of African twig mantis:

Duration of lifecycle: 332 days  
Number of nymphal instars: 9  
Duration of nymphal stage: 251 days  
Oothecae incubation period: 35 days  
Eggs per oothecae: 84  
Sex ratio ( $\sigma:\rho$ ): 1:1.3



## Biology of False flower mantis:

Duration of lifecycle: 191 days  
Number of nymphal instars: 5  
Duration of nymphal stage: 140 days  
Oothecae incubation period: 144 days  
Eggs per oothecae: 17  
Sex ratio ( $\sigma:\rho$ ): 1:1.5



*Popa spurca*

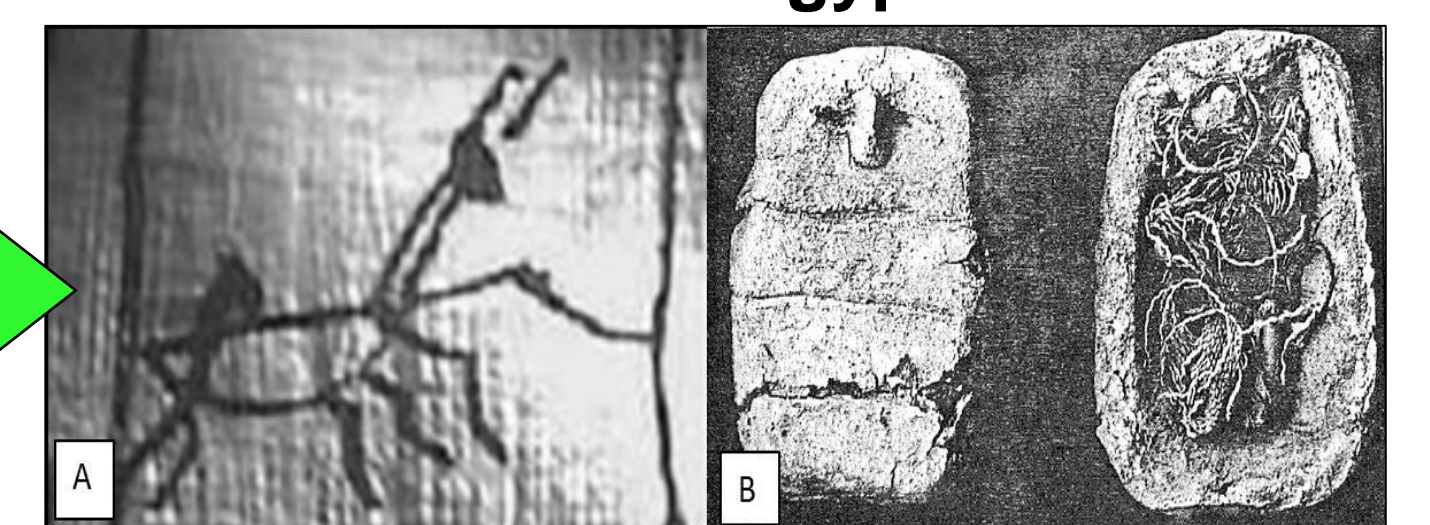


*Harpagomantis tricolor*

## The Magnificent Mantodea Case:

The prominent eyes and cultural values i.e. beliefs, myths and folklore of mantids makes humans find them more aesthetically appealing than other insects. This causes the feeling of connectedness to mantids, and so increases the willingness to try and conserve them. Mantids are considered a gateway insect, with the potential to establish greater appreciation for insect diversity and hopefully insect conservation.

## Ancient Egypt



According to the "Book of the Dead", mantids assist the dead through the underworld to the afterlife as well as aid the living in communicating with the dead. Mantids were so important that a small clay coffin with a mantis wrapped in linen was discovered during an excavation in 1938 and a mantis drawing was even detected on the tomb wall of Pharaoh (Seti I) who reigned during the 19<sup>th</sup> Dynasty (1279 -1290 B.C.).