

## NOTA / NOTE

# *Flatida rosea* (Melichar, 1901) and *Zanna madagascariensis* Signoret, 1860, two bizarre and fascinating species of planthoppers from Madagascar (Hemiptera: Flatidae, Fulgoridae).

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**Abstract:** Records of *Flatida rosea* (Melichar, 1901) and *Zanna madagascariensis* Signoret, 1860 from Madagascar are reported. Additional information is also given.

**Key words:** Hemiptera, Flatidae, Fulgoridae, *Flatida rosea*, *Zanna madagascariensis*, Madagascar.

**Resumen:** *Flatida rosea* (Melichar, 1901) y *Zanna madagascariensis* Signoret, 1860, dos curiosas y fascinantes especies de cigarrillas de Madagascar (Hemiptera: Flatidae, Fulgoridae). Se comunican citas de *Flatida rosea* (Melichar, 1901) y *Zanna madagascariensis* Signoret, 1860 de Madagascar. Se aporta también información adicional.

**Palabras clave:** Hemiptera, Flatidae, Fulgoridae, *Flatida rosea*, *Zanna madagascariensis*, Madagascar.

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## Introduction

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Madagascar, sometimes called by biogeographers the "eighth continent", is the fourth largest island of the world. Its flora and fauna is unique as more than 90 percent of its wildlife is endemic, as a result of nearly 90 million years of evolution more or less isolated from other land masses.

This publication deals with *Flatida rosea* (Melichar, 1901) (Flatidae) and *Zanna madagascariensis* Signoret, 1860 (Fulgoridae), two species of Hemiptera to be found only in this biodiversity hotspot, and is based on photographs taken by Pamela Donaldson from Tiruvannamalai, Tamil Nadu, India during a tour through several African countries.

## Results

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### *Flatida rosea* (Melichar, 1901)

*F. rosea* belongs to the family Flatidae, which is cosmopolitan, mainly with a tropical and subtropical distribution. The adults of *F. rosea* have brightly coloured pink wings (hence the Latin name of the species) covering the whole body. The bizarre nymphs (Fig. 1) have waxy filaments as a protection against predators. Adults and nymphs can be found in aggregations, sucking plant liquids.

On 24.5.2014, Pamela Donaldson was able to photograph nymphs of *F. rosea* in the Anja Community Reserve (Fig. 2), located in the dry south-eastern part of Madagascar. Pamela Donaldson

wrote: "Anja is huddled into the base of a cliff, and much of the reserve is dominated by enormous fallen rocks which have come to rest at the base of the escarpment." She saw many of these nymphs on the same bush, but did not see them anywhere else. Unfortunately, Pamela Donaldson was not able to observe adults of *F. rosea*.

### ***Zanna madagascariensis* Signoret, 1860**

*Z. madagascariensis* -as *F. rosea*- is also endemic to Madagascar. Systematically, it belongs to the Zanninae, which has been considered a subfamily of the Fulgoridae, a group of more than 125 species distributed worldwide, but more abundant in the tropics. Urban & Cryan (2009) suggested "that the genus *Zanna* is excluded from a monophyletic Fulgoridae." Further investigation is necessary to clear up this taxonomic question.

On 24.5.2014, Pamela Donaldson was able to photograph a group of nymphs of *Z. madagascariensis* (Fig. 3) of different development stages at the base of a tree at the same site as the observed nymphs of *F. rosea*. The younger nymphs are completely covered with wax, too. Two days later, on 26.5.2014, Pamela Donaldson photographed an adult specimen of *Zanna* sp. (Fig. 4) in the Isalo National Park (Fig. 5), a rocky site located in the dry south-western part of Madagascar. Most likely, this is a specimen of *Z. madagascariensis*, but it might also be a specimen of *Zanna tenebrosa* (Fabricius, 1775), which has been reported from Madagascar, Tanzania and the Democratic Republic of the Congo.

The head of these species, as of other fulgorid species, is forming a bizarre snout-like structure, sometimes as large as the body. Various species of the Fulgoridae are sometimes referred to as lanternflies because of the lantern-like "snout", although they do not emit light. It seems that the function of the "snout" had been misinterpreted by Maria Sibylla Merian and that this misinterpretation was adopted by Carl von Linné.

The adults of *Z. madagascariensis*, in Madagascar known as "sakandry", are a protein source for the (rural) people of the island. According to Gade (1985), "a third preferred comestible is the sakandry (*Pyrops madagascariensis*) a fulgorid planthopper that parasitizes Lima bean and related plants. Dried, this insect is much appreciated, especially in the Majunga region."

### **Acknowledgements**

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### **References**

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Fig. 1. - *Flatida rosea* (Melichar, 1901). Nymphs, Anja Community Reserve, Madagascar, 24.5.2014.

Fig. 2. - Terrain in the Anja Community Reserve, Madagascar.

Fig. 3. - *Zanna madagascariensis* Signoret, 1860. Nymphs, Anja Community Reserve, Madagascar, 24.5.2014.

Fig. 4. - *Zanna* cf. *madagascariensis* Signoret, 1860. Adult, Isalo National Park, Madagascar, 26.5.2014.

Fig. 5. - Terrain in the Isalo National Park, Madagascar. (All photographs: Pamela Donaldson).

