



Soebatsfontein Observatory

A spider project in Soebatsfontein initiated by a para-ecologist (Namaqualand, South Africa)



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The ambiguous perception of spiders

Spiders are typically perceived by the young and the young at heart as merely ugly and (potentially) very dangerous. Thus, we either run away when we see them or we even kill them. The main reason for this (mis-)perception is our lack of knowledge about the ecological importance of spiders in the ecosystem in general as well as the venomousness of the local spider species in particular.



Jumping spider (Salticidae) feeding on insect

The role of spiders in the ecosystem

Spiders play an important role in the food chain of the ecosystem:

- They are one of the most common predator groups found in the ecosystems in South Africa.
- They are hunters of insects and other small invertebrates and reduce pest animals inside and outside our houses.
- They are prey for many hunting animals like insectivorous birds and reptiles.

Most spiders spend their entire life in one particular habitat because of

- their ability to produce silk.
- their ability to produce venom.
- their use of defence mechanisms.



Hammock-web (Linyphiidae)

About the project

The distribution and diversity of spiders in southern Africa is little understood. Therefore, the BIOTA para-ecologist at Soebatsfontein, Reginald Christiaan, initiated an assessment of spiders at the BIOTA Biodiversity Observatory in Soebatsfontein (see map).



Garden orb-web spider (Araneidae)

Horned baboon spider (Theraphosidae)

Golden baboon spider (Theraphosidae)

Baboon spider, aggressive display

Ladybird spider (Araneidae)

Giant jumping spider (Salticidae)

Research questions

With this study we would like to find out which spiders can be found in the study area? How many of them are diurnal or nocturnal, and how many are plant-dwellers, web-dwellers or ground hunters?

Methods

At the BIOTA Biodiversity Observatory in Soebatsfontein, 5 pitfall traps were set up in four major habitat types respectively (i.e., the east-exposed foot slope, midslope and upslope as well as the west-exposed midslope). The selected habitats differ in soil type as well as in species composition, structure, vegetation and plant diversity.



Major objectives

Beyond the research questions, one major aim of the project is to show people in the Soebatsfontein community the beauty of spiders and that they are helpful and (in most cases) harmless „monsters“ which play an important role in the ecosystem.

The project contributes to the South African National Survey of Arachnida (SANSa).



Crab spider (Thomisidae)

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