

Habitat selection and oviposition of the endangered butterfly *Scolitantides orion* in Sweden

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Background

Scolitantides orion is classified as endangered on the Red list of Swedish species due to rapid population declines in the last three decades. Today, there are no detailed studies on the habitat requirements of *S. orion*, and such information may be vital for conservation efforts.



Aim

- Examine the habitat requirements of adult and ovipositing *S. orion* butterflies.

Methods

- Surveys of adults and eggs were carried out in Bråviken, southern Sweden.
- Several habitat variables were recorded for points with and without adults and for host plants with and without eggs.
- Data was analysed with zero-inflated regression models.



Site inhabited by *S. orion* in Bråviken.

Photo: Camilla Jansson.

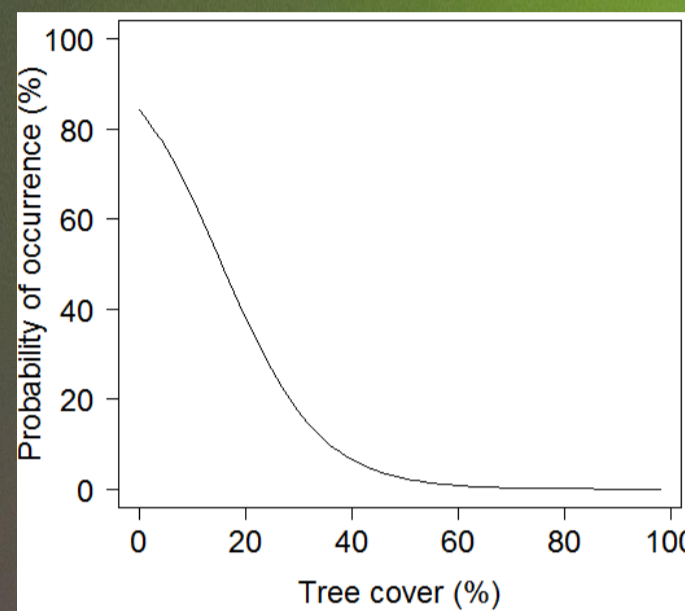


Female ovipositing on the host plant *Sedum maximum*.

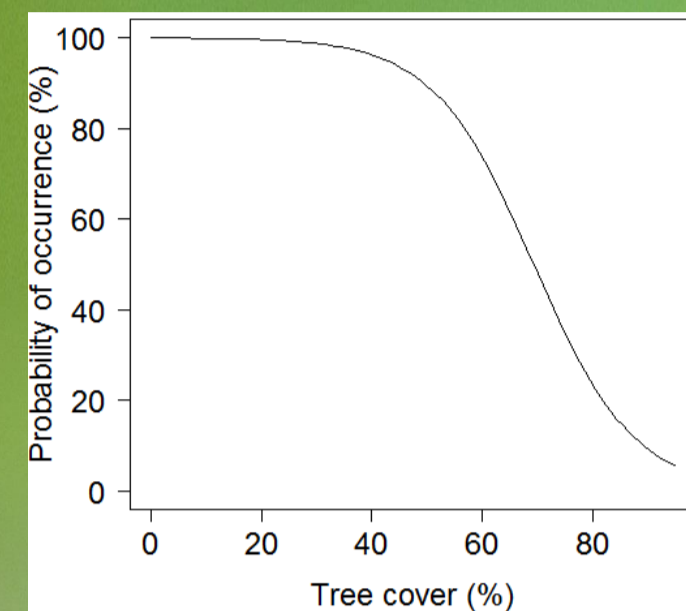
Photo: Karl-Olof Bergman.

Results

- The probability of finding adults and eggs increased with decreasing tree cover.



Probability of occurrence of *S. orion* adults in relation to tree cover, N=472.

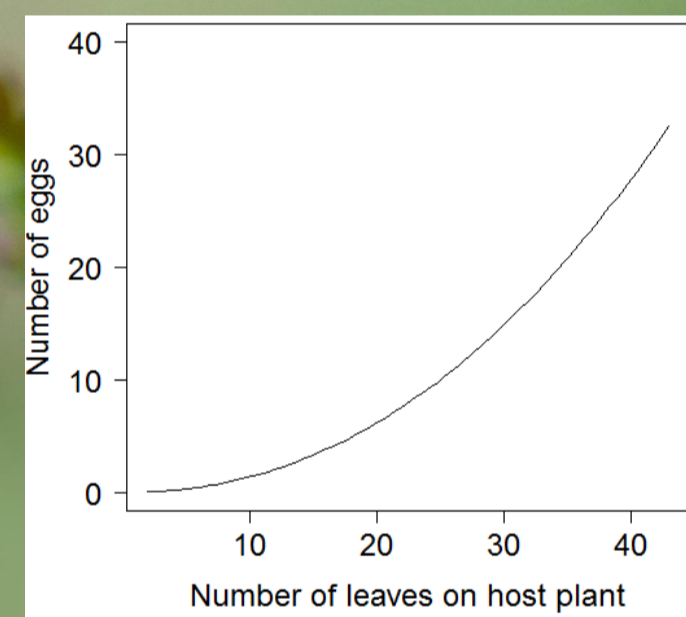


Probability of occurrence of *S. orion* eggs in relation to tree cover, N=879.

- The number of eggs on host plants increased with the number of leaves on the stem.



Egg on *S. maximum* leaf.
Photo: Karl-Olof Bergman.



The number of *S. orion* eggs on *S. maximum* plants in relation to the number of leaves, N=879.

- The number of eggs on host plants increased with the amount of bare rock and bare ground.



Photo: Camilla Jansson.



Photo: Karl-Olof Bergman.

Conservation implications

- Priority should be on managing sites to uphold canopy heterogeneity.
- The sites should hold host plants with a large number of leaves, surrounded by a large amount of bare rock or bare ground.

Photo: Karl-Olof Bergman

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