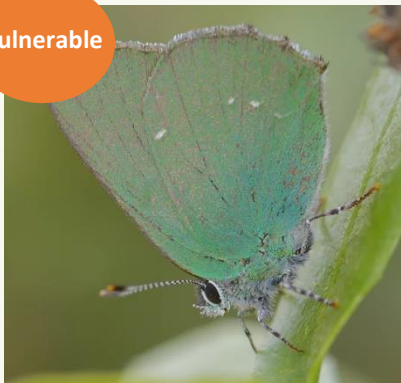
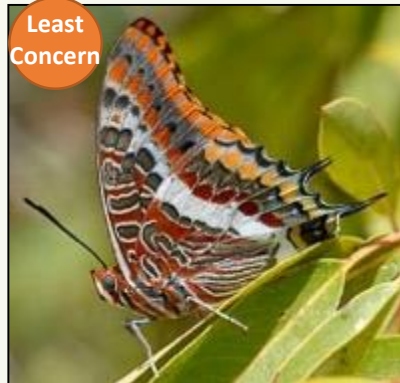




Vulnerable



Least Concern



Endangered



Critically Endangered



Preliminary results from the Israeli Red List of butterflies

המארג

התכנית הלאומית
להערכת מצב הטבע



**HaMaarag and The Entomology
Laboratory for Applied Ecology**

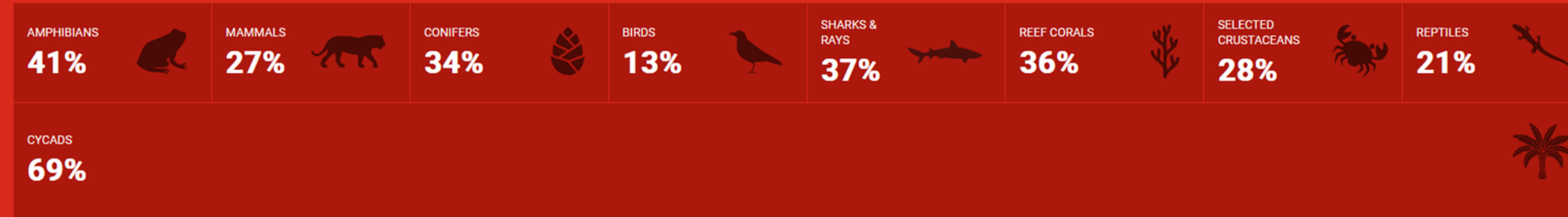
Presented by Orr Comay



Biodiversity Crisis

More than 42,100 species
are threatened with extinction

That is still 28% of all assessed species.



www.iucnredlist.org

Insects?

Figure 6. Species richness of European Orthoptera species in Europe.

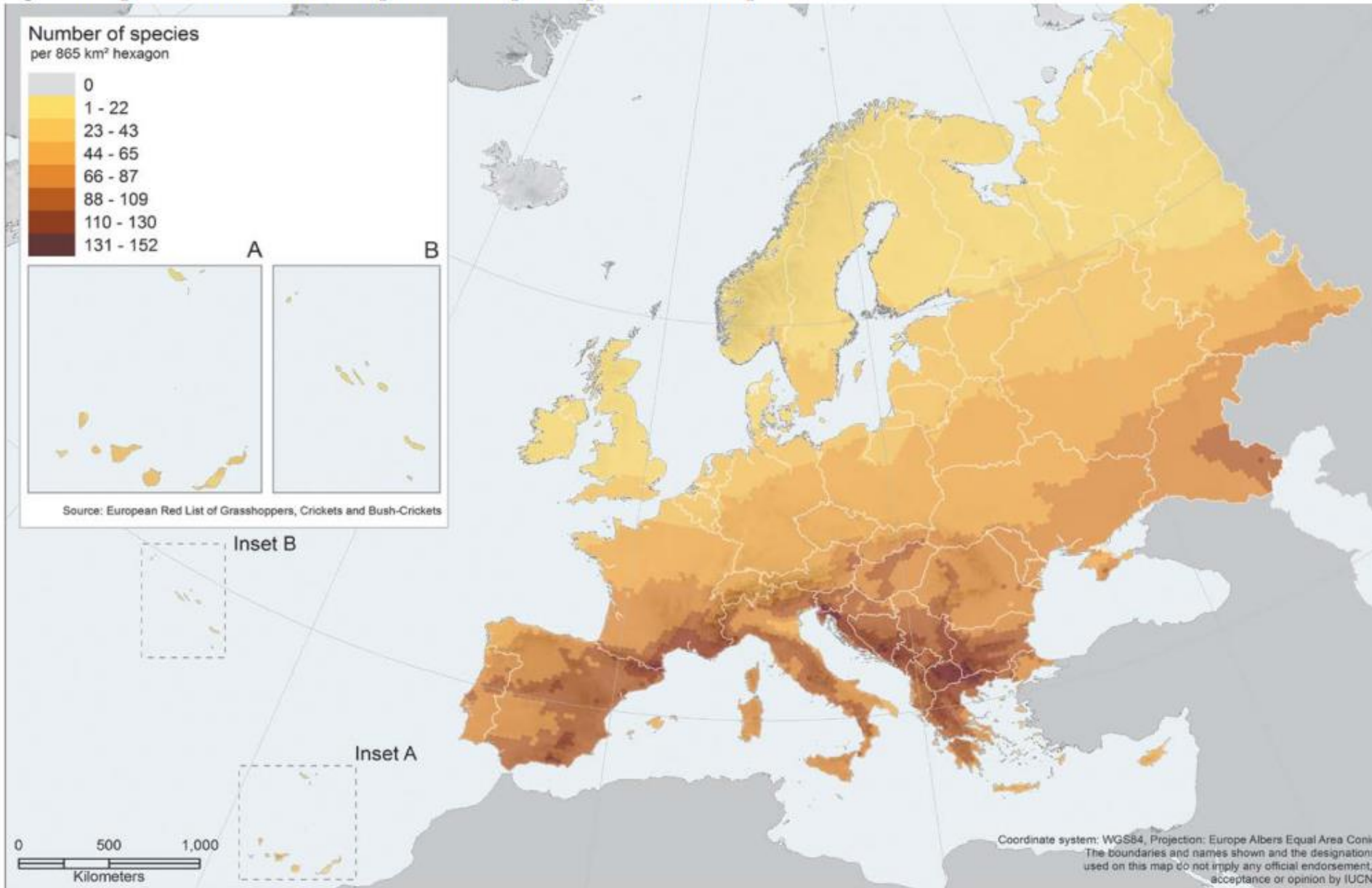
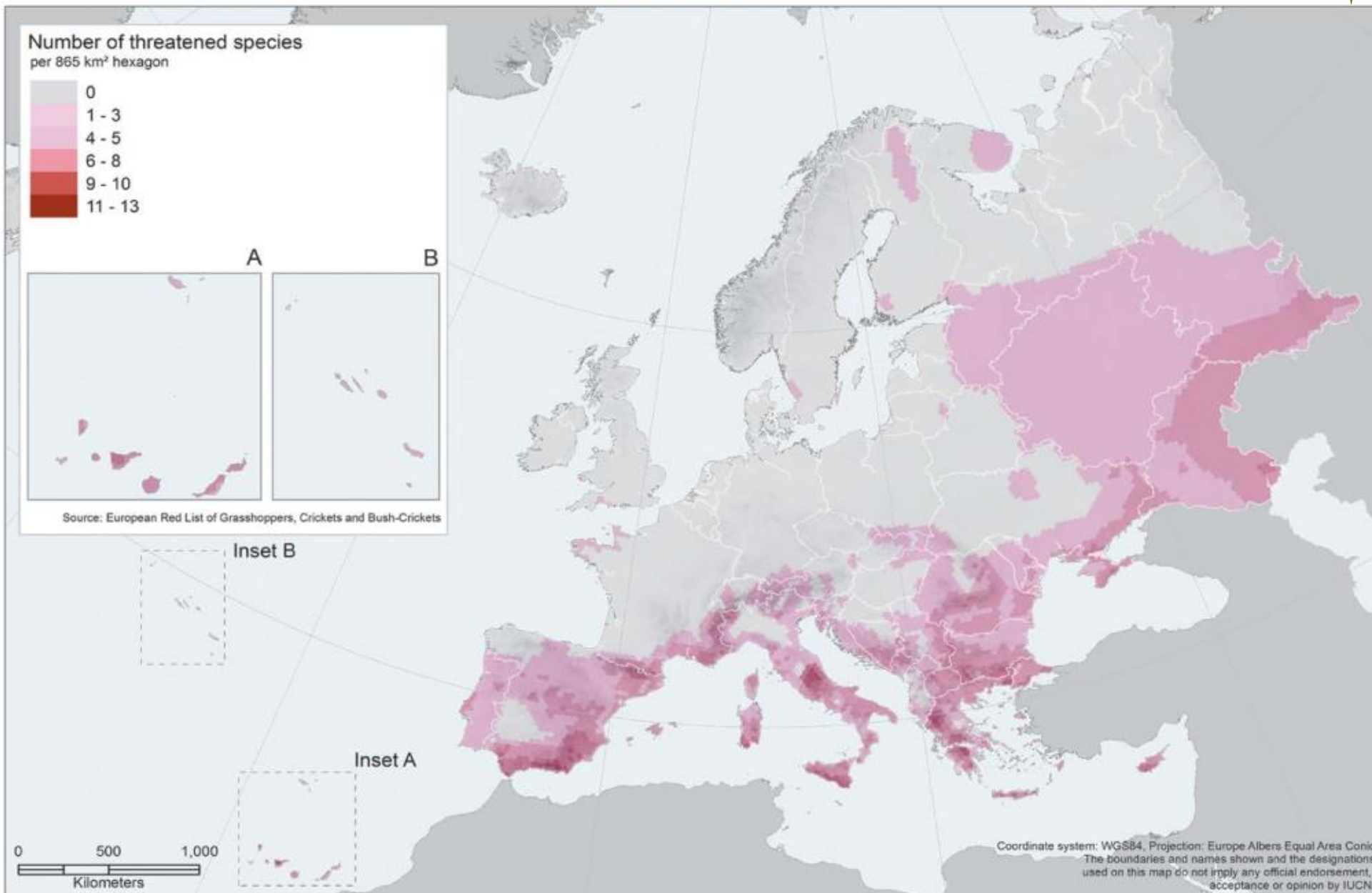


Figure 8. Distribution of threatened Orthoptera species in Europe.





Assessing risk of extinction

IUCN criteria:

A – Rapid decline

B – Small and threatened distribution

C – Small and declining population

D – Very small population

E – Quantitative extinction risk assessment
(e.g. modelling)

Data and observations from the
best butterfly experts in Israel

Apharitis cilissa.
Vulnerable



Assessing risk of extinction

IUCN categories:

LC – Least Concern. Far from meeting any criterion.

NT – Near Threatened. Close to meeting the criteria.

VU – Vulnerable. High extinction risk.

EN – Endangered. Very high extinction risk.

CR – Critically Endangered. Extremely high extinction risk.

CR (PE) – Critically Endangered (Possibly Extinct)

EW – Extinct in the Wild

EX – Extinct

DD – Data Deficient



Red list content

Distribution – where does it occur, range size

Biology – host plants, seasonality etc.

Threats – development, grazing, climate change, pesticides etc.

Conservation in place – protected species status, relevant nature reserves etc.

Required research – distribution surveys, physiological studies, pollution sensitivity etc.

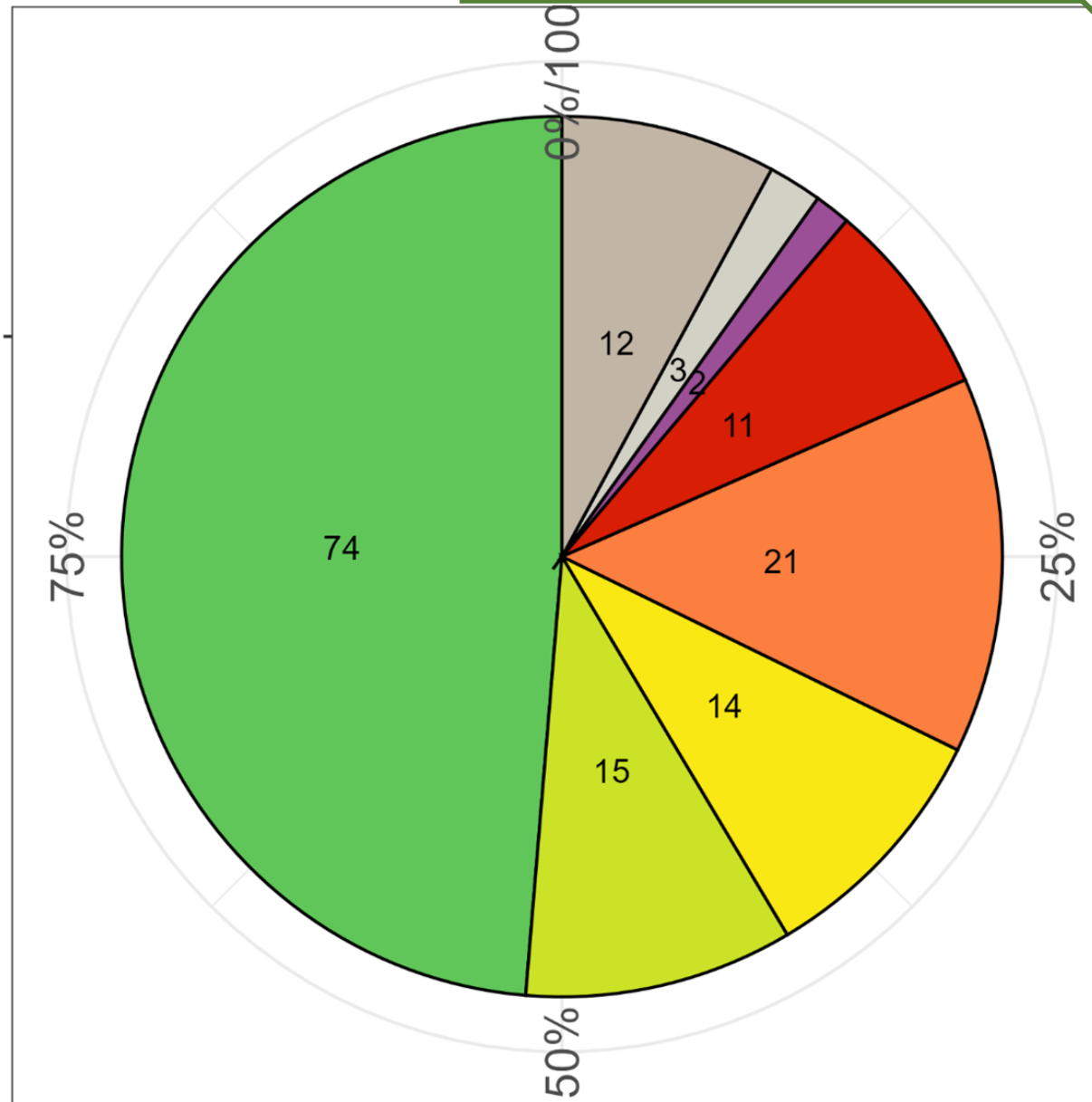
Conservation recommendation – as a consequence of the threats

Total 140 species
(+12 not applicable species)

46 threatened species (32.8%)

2 species are regionally extinct

Risk Category



Extinct species:
Colotis chrysonome



[Diogo Luiz](#)

Last observed in 1950's in Dead Sea area

Host plant went locally extinct

Re-planting it did not cause the butterfly to repopulate Israel

Extinct species:
Pseudophilotes bavius



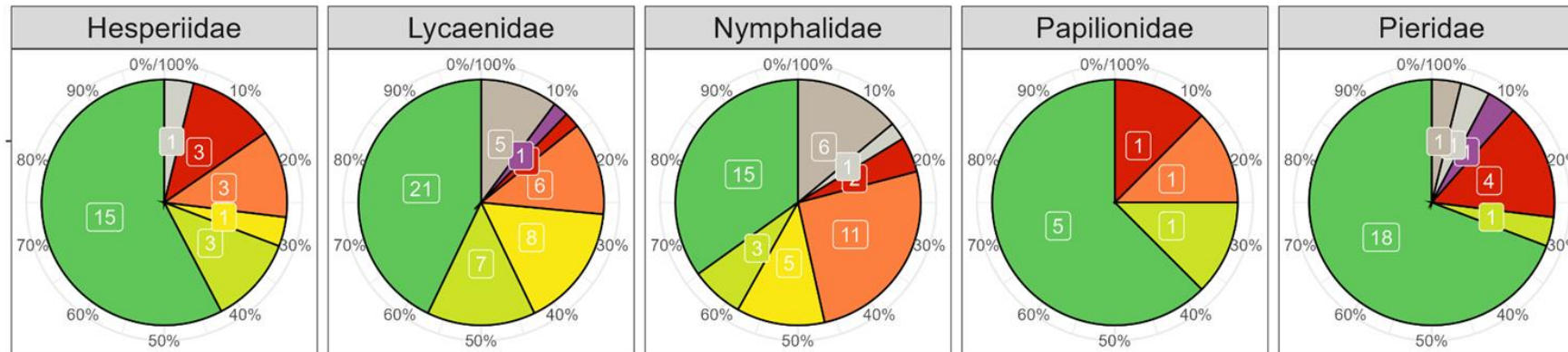
[Albert Vliegenthart](#)

Singleton representing a 19th century population

Obscure past distribution ("Haifa")

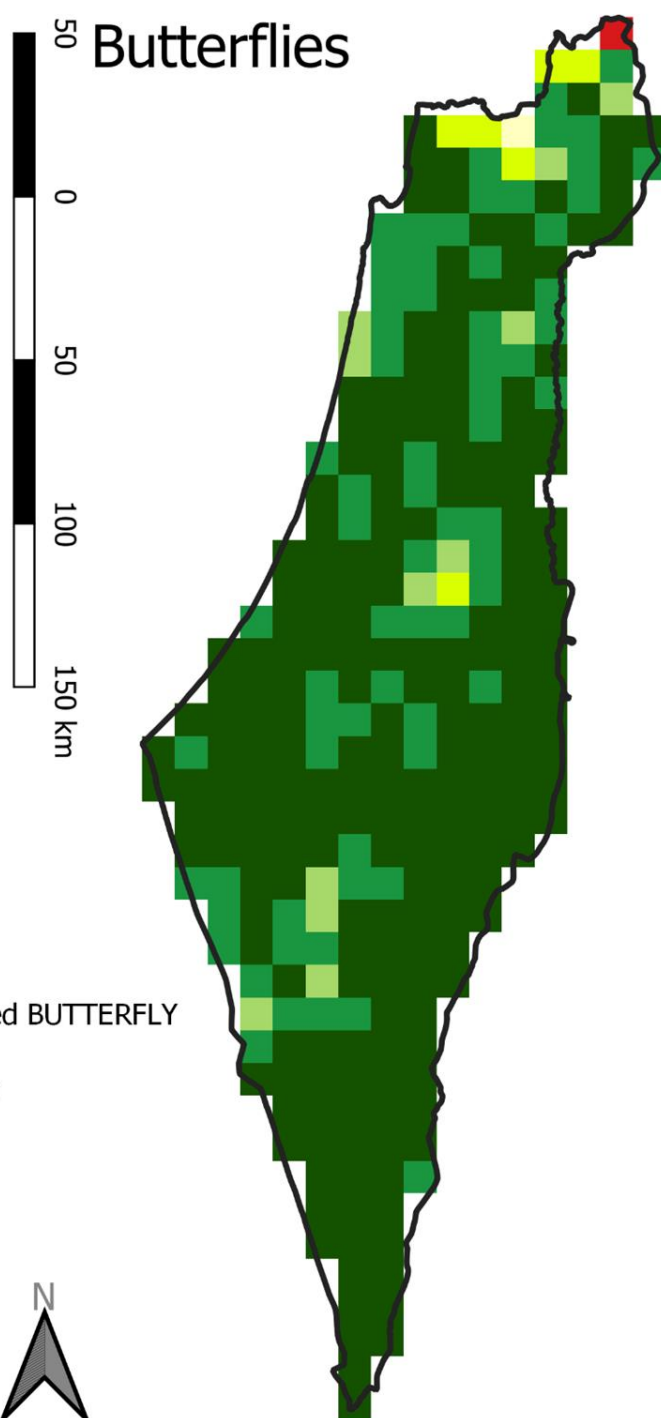
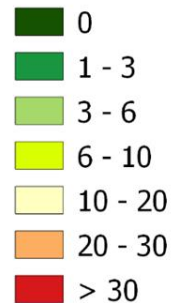
High percentage of threatened Nymphalids

Low percentage of threatened Pierids (whites)



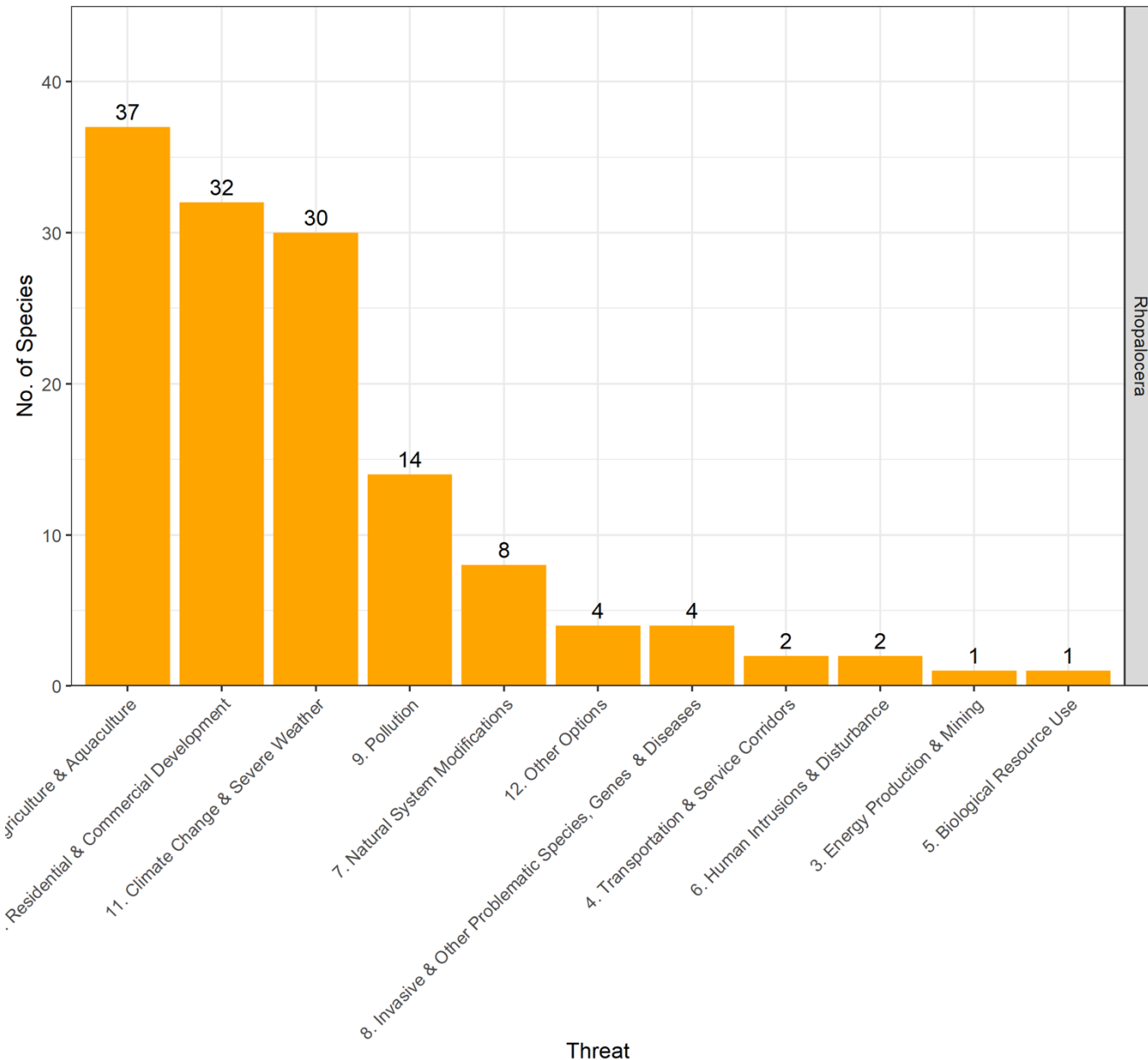
Legend

No. of threatened BUTTERFLY
species
10km resolution



- Hotspots of threatened species
- 10 km resolution
- Mt. Hermon and the Galilee
- Judean Hills

No. of threaened species by threat
Threatened species only, without extinct species

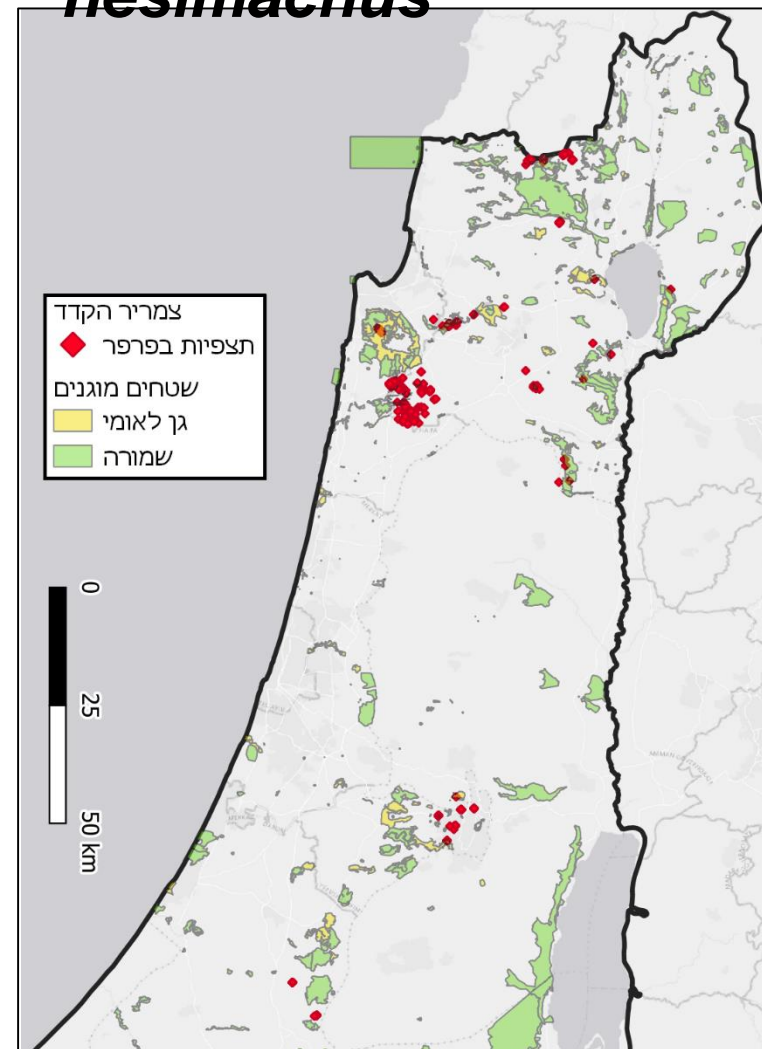


- Each species is often threatened by multiple threats
- Agriculture – including over-grazing
- Pollution – including pesticides

Products – the Red List as a working tool



**Tomares
nesimachus**



Muschampia proteides



Acknowledgements

Past Project
Coordinator



Dr. Tania
Bird

Assessors – butterfly experts



Dr. Oz Ben
Yehuda



Ofir Tomer



Dubi
Benyamini



Dr. Guy
Pe'er



Israel Pe'er

BMS-IL citizen scientists

BMS-IL team

Leah Benyamini

Tal Melochna

Racheli Schwartz Tzachor