

Swiss Butterfly Conservation



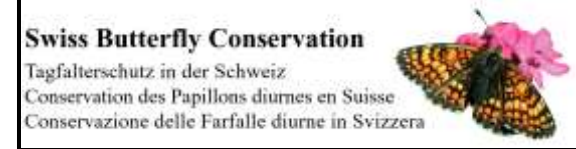
BCE Laufen, Dec. 2, 2014

Martin Albrecht

Tagfalterschutz in der Schweiz
Conservation des Papillons diurnes en Suisse
Conservazione delle Farfalle diurne in Svizzera



Short history of «Swiss Butterfly Conservation»



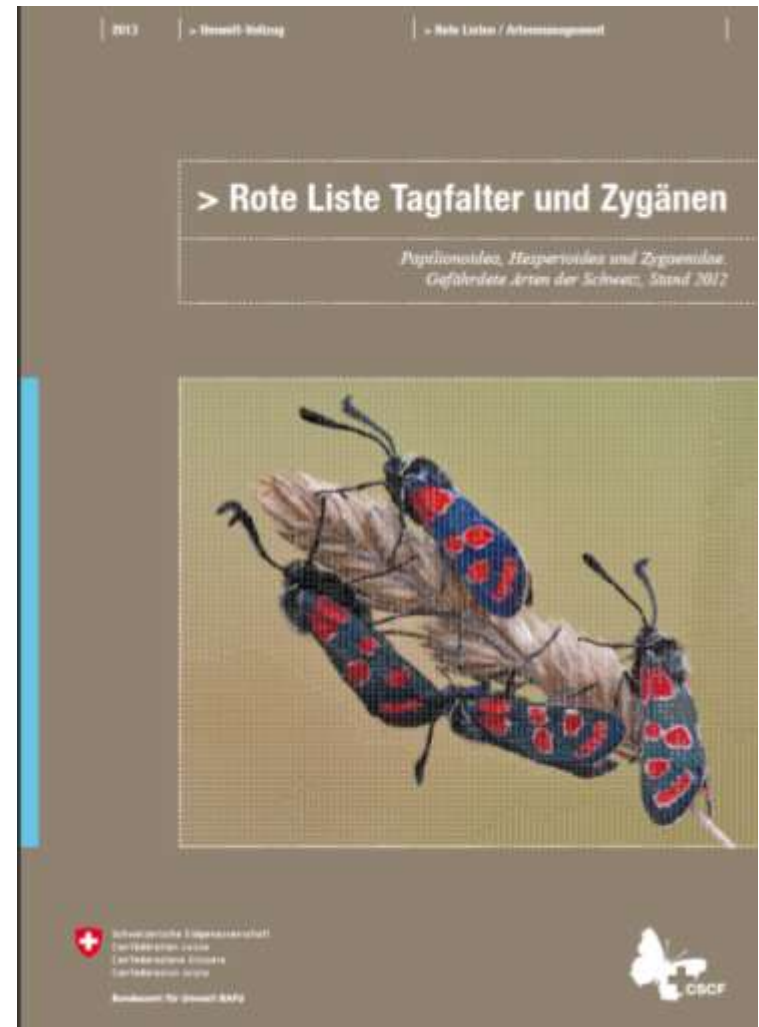
- 1999: Foundation of the group by
G. Carron, E. Wermeille, H. Schiess, N. Patocchi
- 2000: Document on «Butterflies of high priority» on behalf of the
Federal Office for the Environment (FOEN)
- 2001 – 2007: Elaboration of action plans for butterflies of high priority
- Since 2007: Implementation of action plans
- Current coordinators: German speaking part: A. Rotach, G. Dušej;
French speaking part: E. Wermeille,
Italian speaking part: N. Patocchi

Red list of butterflies and burnets: Methods and results

Authors:

Emmanuel Wermeille, Yannick
Chittaro & Yves Gonseth

Edited by [BAFU](#) & [CSCF](#)

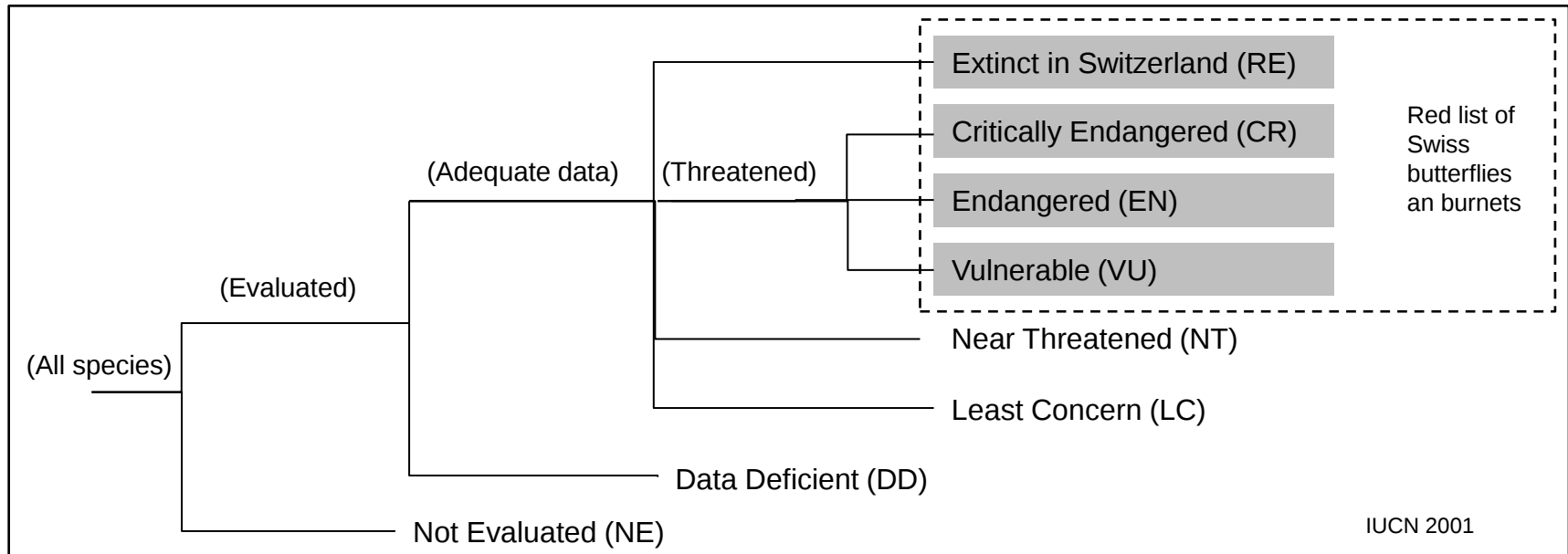


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Intention of the project

- Update of red list of butterflies published in 1994 (Gonseth)
 - First red list for Burnet moths
- according to new IUCN criteria



→ Evaluation of degree of acuteness in order to set priorities for protective actions!

Methods

- Fieldwork (2006-2011)
- Examination of km² with known populations of target species between 1970 and 1999 and without observations since then
→ development of populations

Target species (139 species)

- Mentioned in the red list of 1994 and/or
- Species showing a frequency of <25% in BDM-Z7 investigations and/or
- Species with a very limited distribution area

- Minimum 30 km² per target species (investigation of all km² for very local species*)
- No redundancy with other known projects (Biodiversity Monitoring Switzerland**, Swiss Butterfly Conservation)

* Species occurring in less than 30 km² ** Indicators Z7 & Z12 of BDM are part of data base

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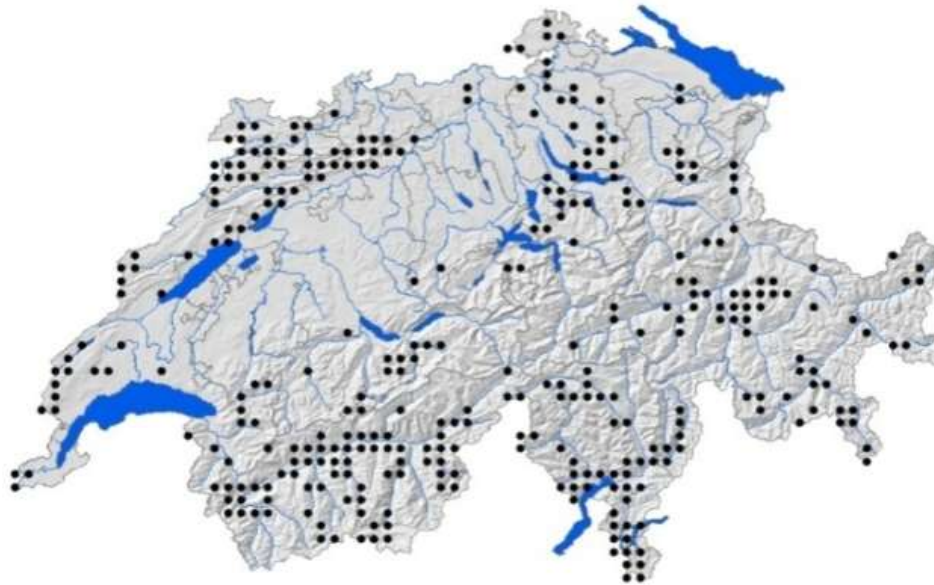


Methods

934 km² investigated in search of target species (2006-2011)

→ 48'000 data sets

→ Understanding of tendencies (species in increase/decline, ...)



Overall 772'000 data sets

Analysis

Criteria for assignment of red list category:

- 1) Limits of distribution area of each species (according to potential distribution area that was calculated based on the currently occupied area)

IUCN : 0 km²: RE, < 10 km²: CR, < 500 km²: EN, < 2000 km²: VU

Analysis

Criteria for assignment of red list category:

- 1) Limits of distribution area of each species (according to potential distribution area that was calculated based on the currently occupied area)

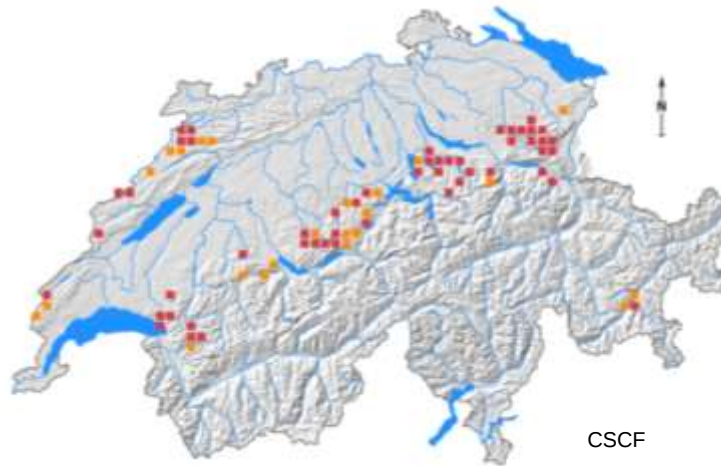
IUCN : 0 km ² : RE, < 10 km ² : CR, < 500 km ² : EN, < 2000 km ² : VU

- 2) Re-evaluation of the category depending on additional criteria
 - Degree of isolation
 - Rarity or sensitivity of species' habitat
 - Tendency
 - Degree of population fragmentation

Example 1

Boloria aquilonaris

Potential calculated distribution: 65 km²



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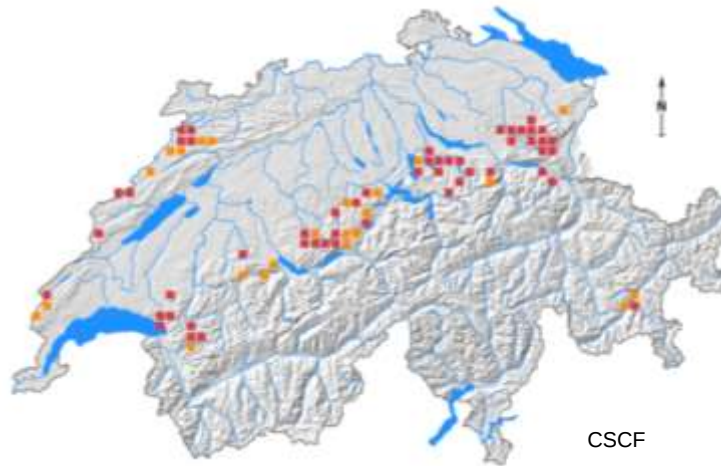


Example 1

Boloria aquilonaris

Potential calculated distribution: 65 km² (→EN)

IUCN : 0 km²: RE, < 10 km²: CR, < 500 km²: EN, < 2000 km²: VU



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Example 1

Boloria aquilonaris

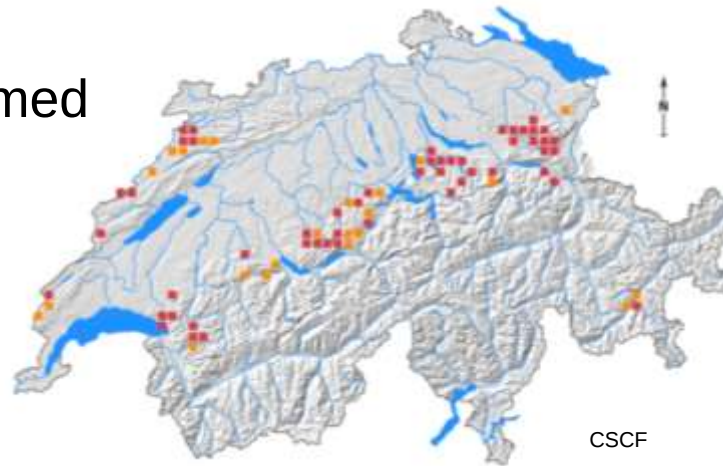
Potential calculated distribution: 65 km² (→EN)

IUCN : 0 km²: RE, < 10 km²: CR, < 500 km²: EN, < 2000 km²: VU

Endangered species: some populations vanished, isolated populations, habitat declining (surface & quality)

→ Status confirmed

→ EN



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Example 2

Colias phicomone

Potential calculated distribution: 1900 km² (→VU)

IUCN : 0 km²: RE, < 10 km²: CR, < 500 km²: EN, < 2000 km²: VU

Non-threatened species: stable tendency, habitats not threatened by human activity, populations are linked,...

& potential area is being underestimated for species with core distribution in higher altitudes (as these areas are less good investigated)

→Downgraded
(removed from RL)

→ LC



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Example 3

Euphydryas aurinia aurinia

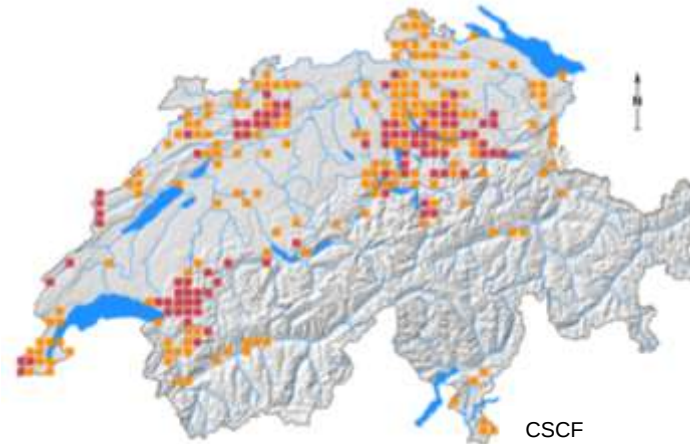
Potential calculated distribution: 711 km² (→VU)

IUCN : 0 km²: RE, < 10 km²: CR, < 500 km²: EN, < 2000 km²: VU

Endangered species: Many populations have vanished, populations are isolated, habitat declining (surface & quality), tendency strongly negative (-33%)

→ upgraded

→ EN



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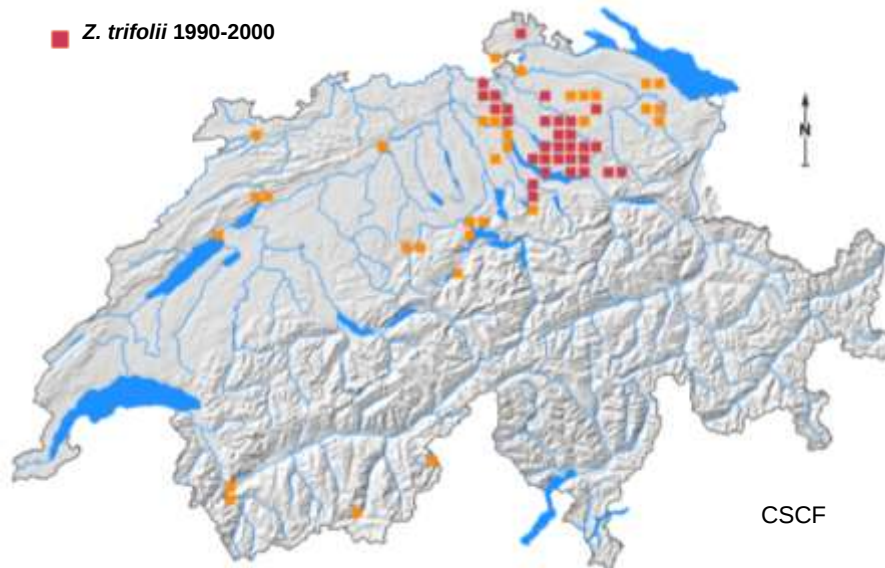


Results

Category		No. of species	%
RE	Extinct in Switzerland	3	1.3%
CR	Critically Endangered	10	4.4%
EN	Endangered	27	11.9%
VU	Vulnerable	38	16.8%
Total red list species		78	34.5%
NT	Near Threatened	44	19.5%
LC	Least Concern	104	46.0%
DD	Data Deficient	0	0.0%
Total evaluated species		226	100.0%
NE	Not Evaluated	13	

Results

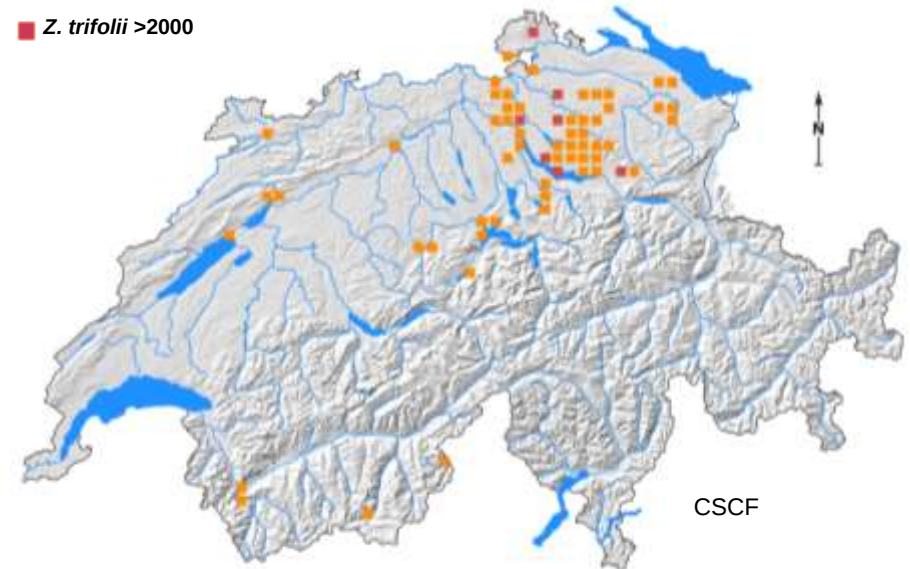
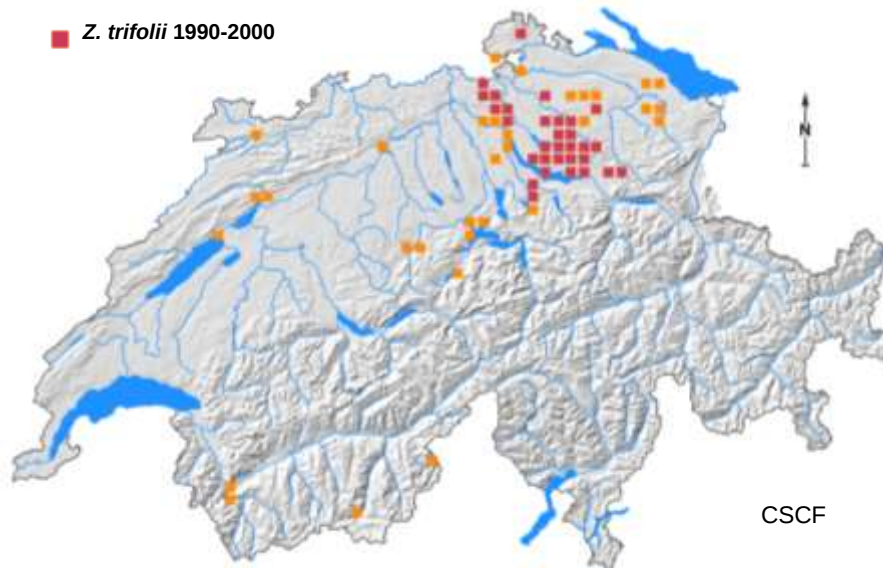
Example: *Zygaena trifolii*



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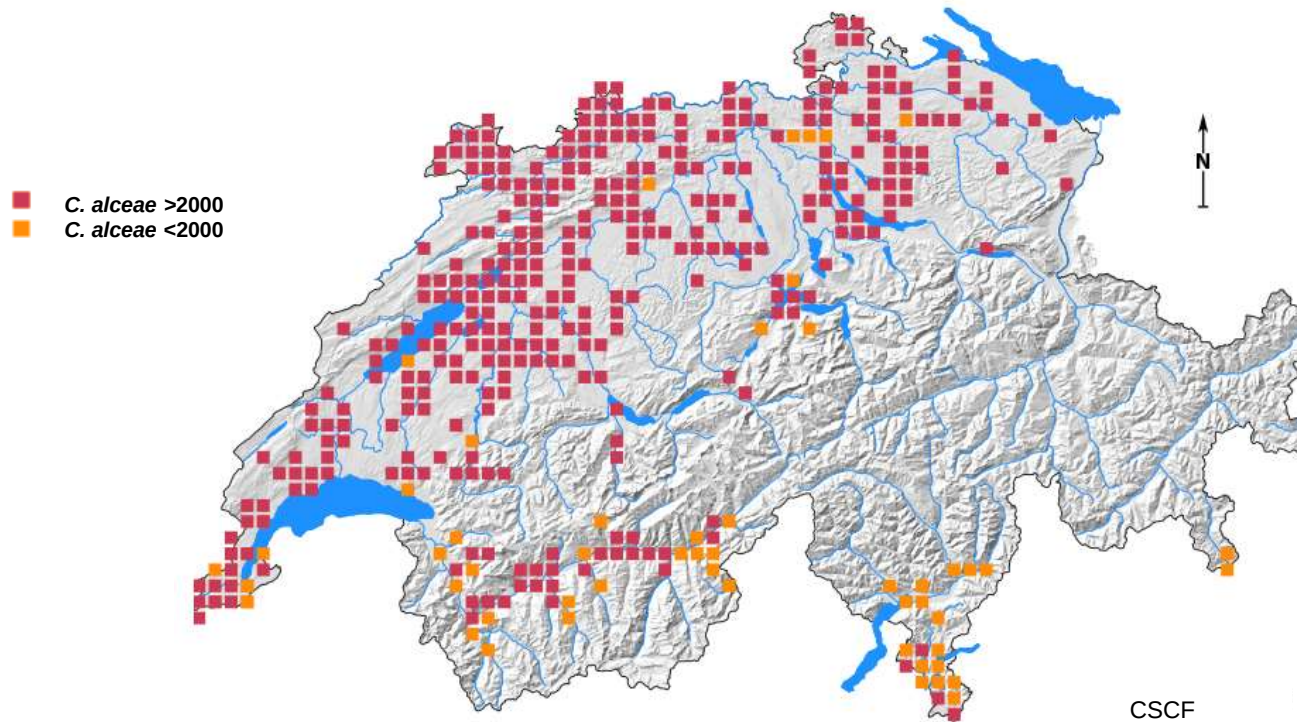
Results

Example: *Zygaena trifolii* -88%



Results

Example: *Carcharodus alceae* +330%



Red list of Swiss butterflies and burnets

Publication: Spring 2014

Authors: Emmanuel Wermeille, Yannick Chittaro & Yves Gonseth

Edited by [BAFU](#) & [CSCF](#)

With contributions by Stefan Birrer, Goran Dušej, Raymond Guenin, Bernhard Jost, Nicola Patocchi, Jérôme Pellet, Jürg Schmid, Peter Sonderegger, Peter Weidmann, Hans-Peter Wymann & Heiner Ziegler.

Download:

<http://www.bafu.admin.ch/publikationen/00008/index.html?lang=de> (German, French, Italian)

Additional information on Swiss red lists:

<http://www.bafu.admin.ch/publikationen/publikation/01631/index.html?lang=en> (in English)



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Red list of Swiss butterflies and burnets

Red list is used on administrative/political level,
e.g.

Summary of Switzerland's Fifth National Report
under the Convention on Biological Diversity

<http://www.bafu.admin.ch/publikationen/publikation/01779/index.html?lang=en>

Action plans to protect biodiversity:

<http://www.bafu.admin.ch/biodiversitaet/10372/index.html?lang=de>



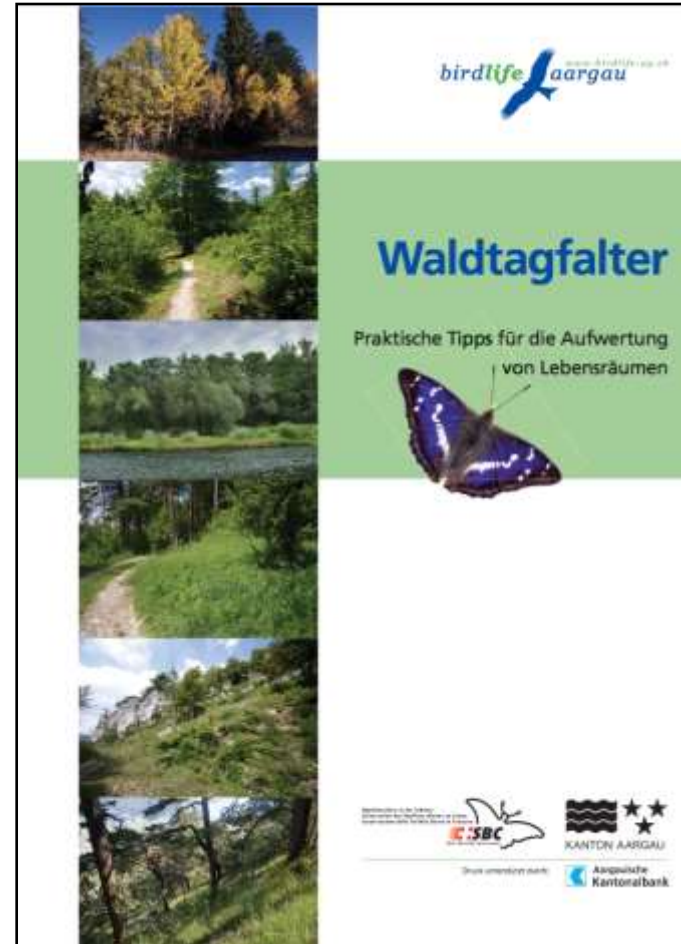
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Other activities of SBC

- Woodland butterfly campaign

<http://birdlife-ag.ch/uploads/projekte/Waldtagfalter%20Druckversion.pdf>

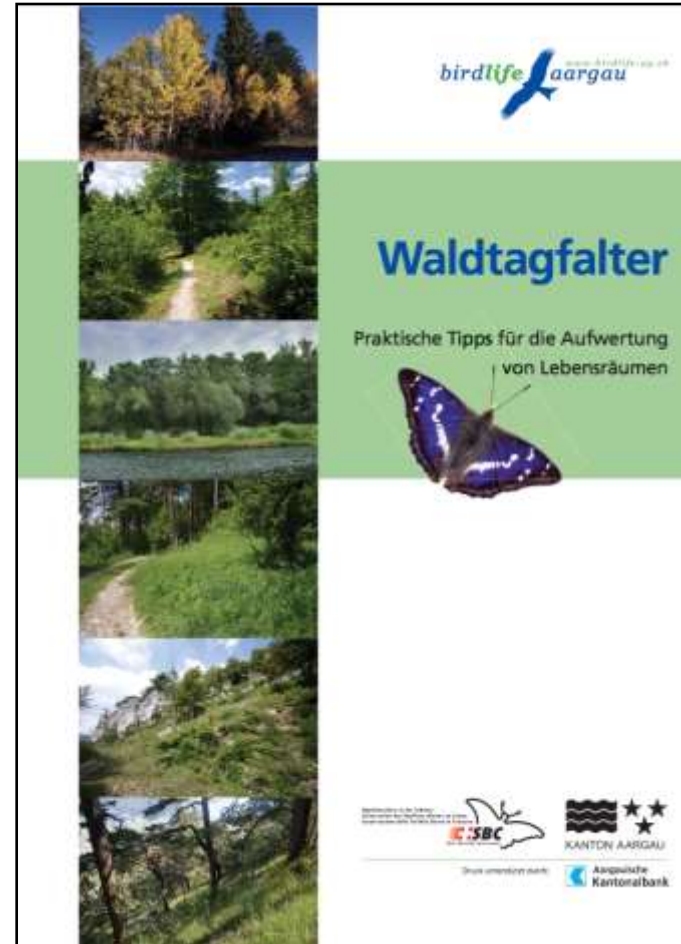


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Other activities of SBC

- Woodland butterfly campaign
<http://birdlife-ag.ch/uploads/projekte/Waldtagfalter%20Druckversion.pdf>
- Action plans for species of national priority



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Acknowledgements



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