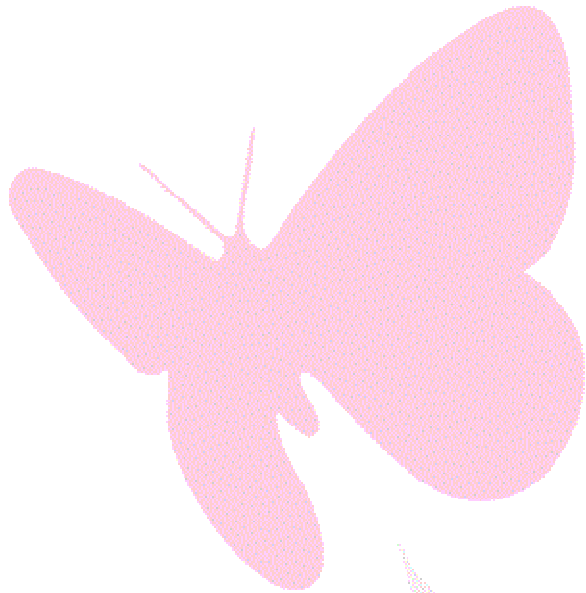




Butterflies as indicators of healthy wetlands

Dirk Maes

Butterfly Conservation Europe &
Research Institute for Nature and
Forest (INBO)



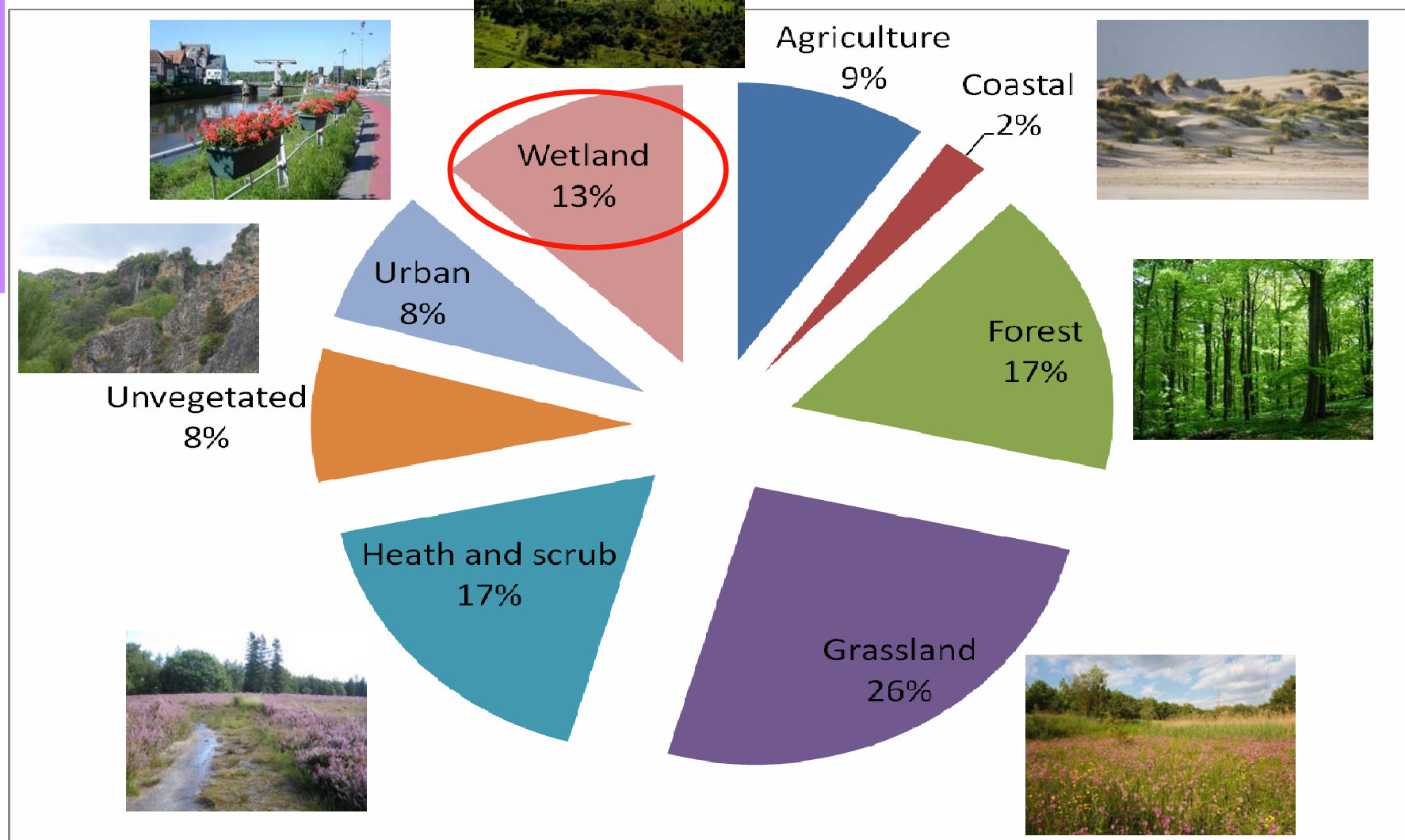
Why butterflies?

- Specific ecological needs
- Short life cycle
- Declining rapidly
- Appealing

- Good indicators/ambassadors



Biotores



Threatened wetland species

- False Ringlet
 - *Coenonympha oedippus*
 - *Endangered*
- Scarce Large Blue
 - *Maculinea teleius*
 - *Vulnerable*
- Frejya's Fritillary
 - *Boloria freija*
 - *Species of European Conservation Concern*



Most threatened biotopes

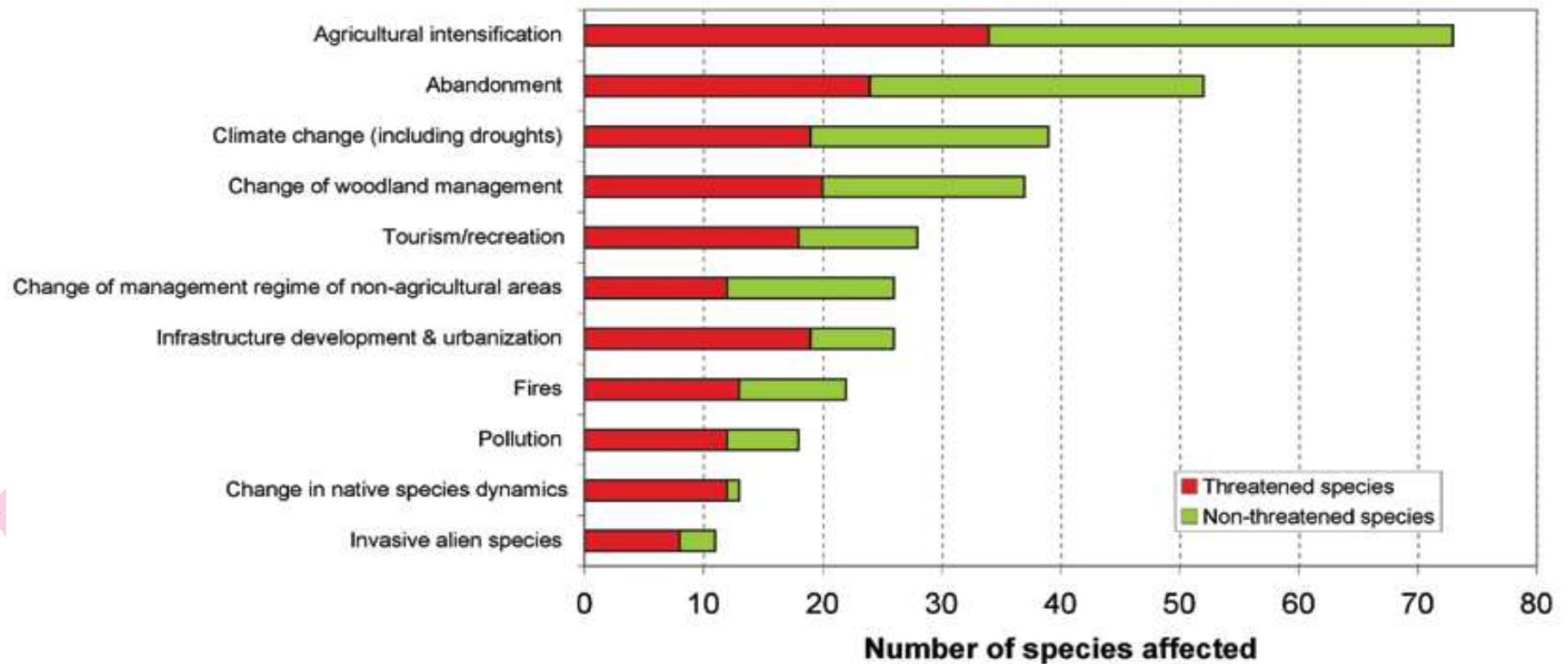
	N species	Threatened species	%
Mesophile grasslands	223	39	17.5
Dry calcareous grasslands and steppes	274	37	13.5
Alpine and subalpine grasslands	261	34	13.0
Mixed woodland	187	29	15.5
Humid grasslands and tall herb communities	171	27	15.8
Dry siliceous grasslands	220	27	12.3
Broadleaved deciduous forests	186	25	13.4
Heath and scrub	189	25	13.2
Coniferous woodland	156	23	14.7
Fens, transition mires and springs	59	15	25.4
Water-fringe vegetation	75	15	20.0
Alluvia and very wet forests and brush	100	15	15.0
Blanket bogs	45	14	31.1
Raised bogs	48	13	27.1
Sclerophyllous scrub	202	12	5.9
Tree lines, hedges, small woods, bocage, parkland dehesa	128	11	8.6
Phrygana	137	11	8.0
Fallow land, waste places	104	8	7.7
Screes	88	7	8.0
Broadleaved evergreen woodland	67	6	9.0
Inland cliffs and exposed rocks	70	6	8.6
Orchards, groves and tree plantations	95	6	6.3
Inland sand dunes	43	5	11.6
Urban parks and large gardens	96	5	5.2
Coastal sand dunes and sand beaches	40	2	5.0
Towns, villages and industrial sites	66	2	3.0
Cliffs and rocky shores	17	1	5.9
Scrub and grassland	28	1	3.6
Improved grasslands	74	1	1.4

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Main threats



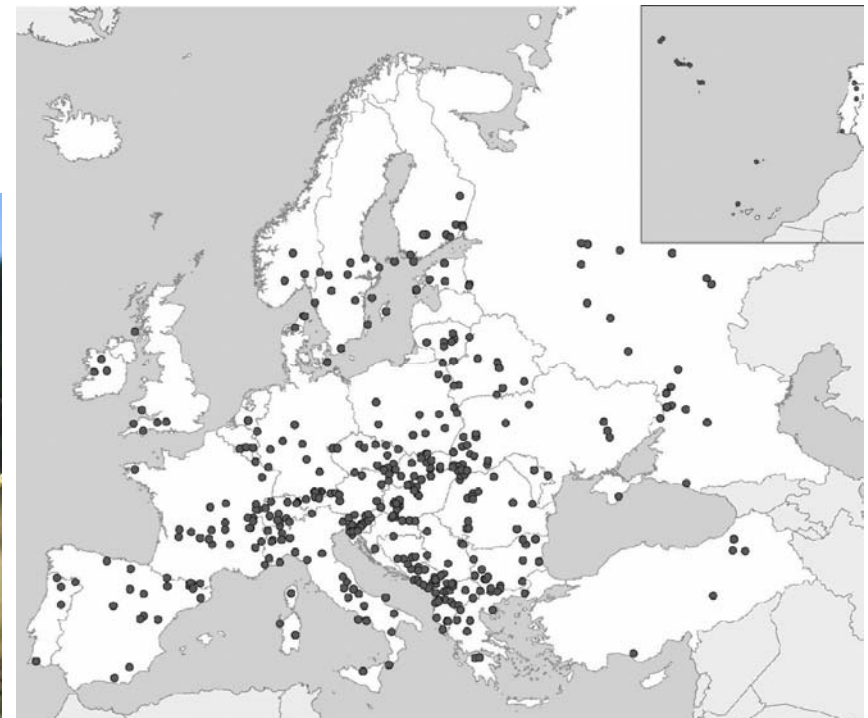
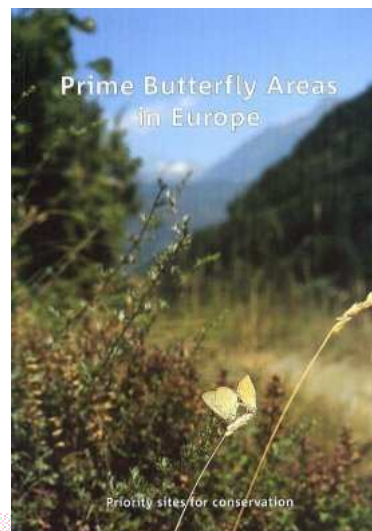
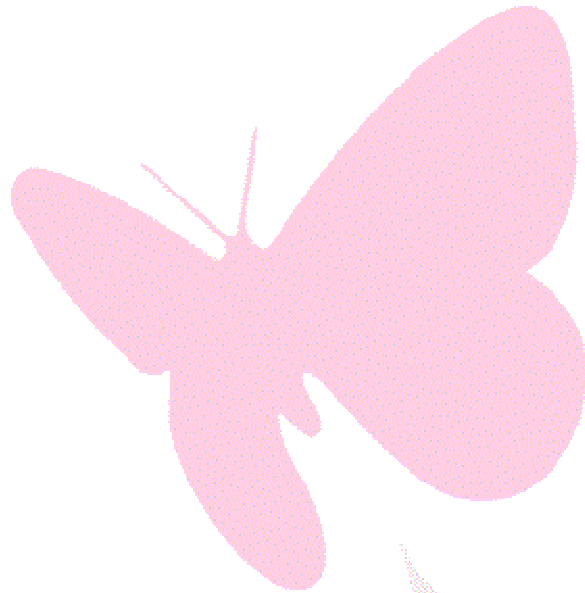
BC Europe

- An umbrella organisation aimed at conserving butterflies, moths and their habitats across Europe
- A network of partners
- Projects
 - Prime Butterfly Areas
 - Climatic Risk Atlas
 - European Red List



Conservation

- Prime butterfly areas
 - Focal species
 - A 'network' of important butterfly sites



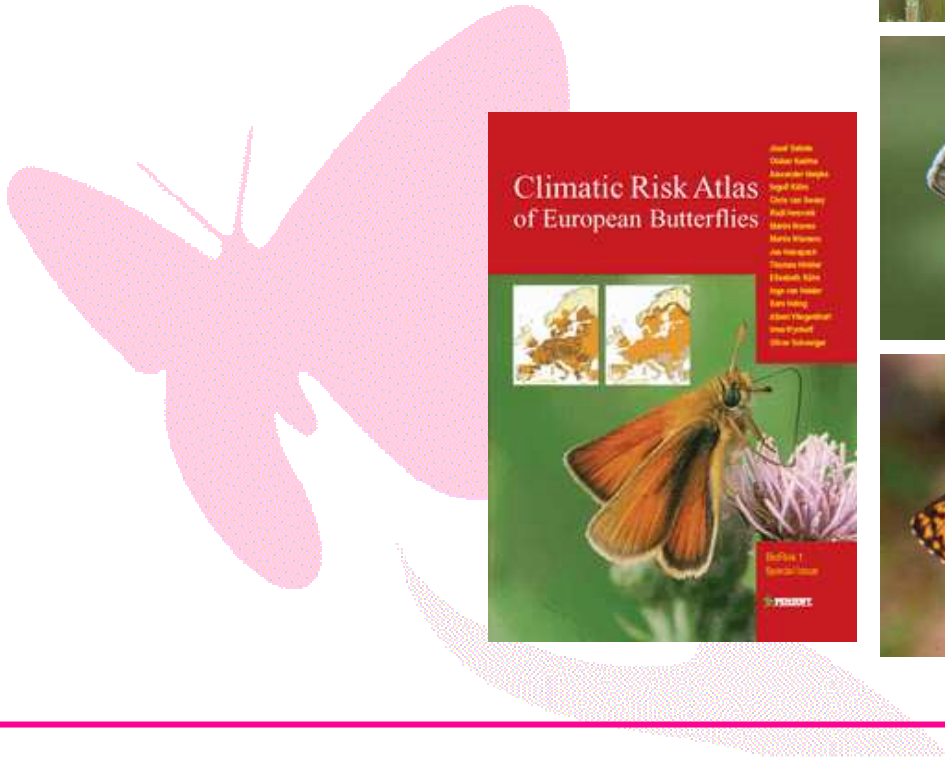
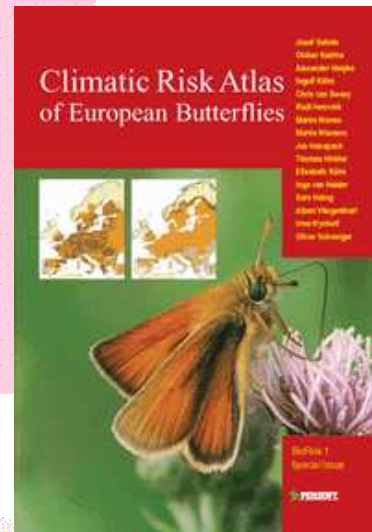
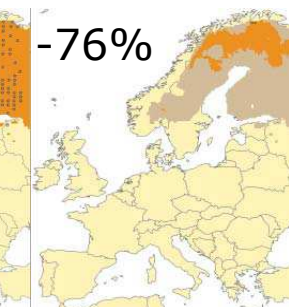
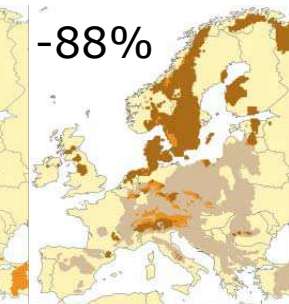
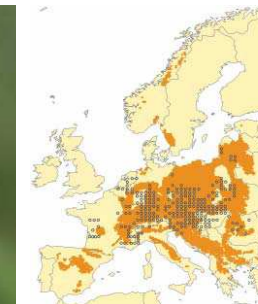
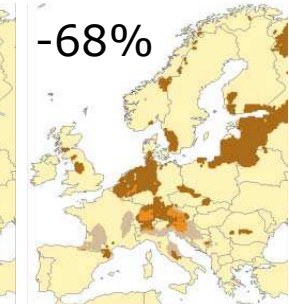
Climate change

- Wetland species
 - Climate sensitive!



Now

2080



Conservation

- Species action plans
 - e.g., *Coenonympha oedippus*
- Management (do's and dont's)
 - Wetland restoration
 - Not only butterflies ...
 - Habitat heterogeneity
 - "Climate proof" sites



Policy making

- European Red List
 - Threatened species
 - Species of European Conservation Concern (SPEC's)
 - Declining but not threatened (yet)
 - Annexes of Habitat Directive!
- High Nature Value Farming

van Swaay et al. (2011). Biol Conserv. 144: 470-478



Patron



"I whole-heartedly support Butterfly Conservation Europe at this critical time and wish them every success in conserving these beautiful creatures for future generations to enjoy"

<http://www.bc-europe.org/>
info@bc-europe.eu

Sir David Attenborough

