WP 1.7.1. Farfalle e Mammiferi montani come indicatori eco sistemici dei cambiamenti climatici: aggiornamento della banca dati NextData (risultati ottenuti)

COMMUNITY ECOLOGY 16(2): 196-205, 2015
1585-8553/$ © AKADÉMIAI KIADÓ, BUDAPEST
DOI: 10.1556/168.2015.16.2.7

Long-term density fluctuations and microhabitat use of sympatric *Apodemus flavicollis* and *Myodes glareolus* in central Italy

G. Amori[1], V. Castigliani[2], O. Locasciulli[3] and L. Luiselli[4]

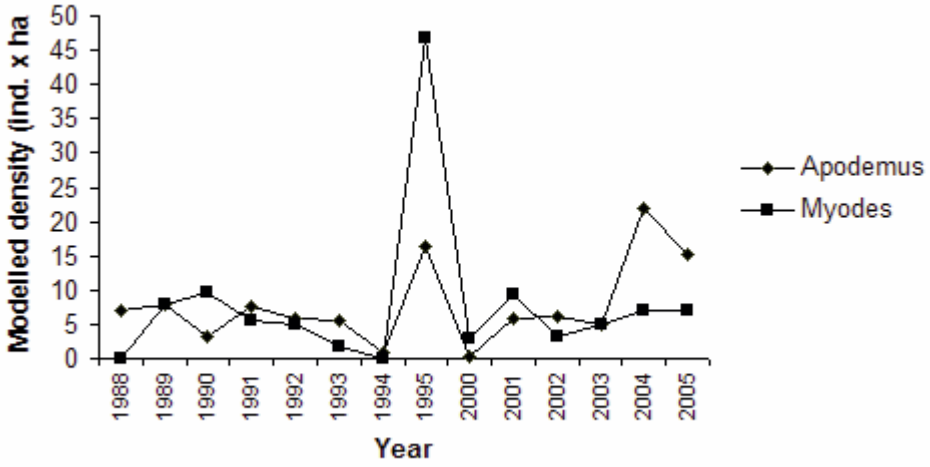


Figure 2. Mean modelled density (ind. × ha^{-1}) of the two rodent species, year-by-year, in the study area.

WP 1.7 Monitoraggio degli ecosistemi e della biodiversità in regioni montane

Ecol Res (2016) 31: 111–115
DOI 10.1007/s11284-015-1319-6

ORIGINAL ARTICLE

Giuliano Milana · Manuela Lai · Luigi Maiorano
Luca Luiselli · Giovanni Amori

Geographic patterns of predator niche breadth and prey species richness

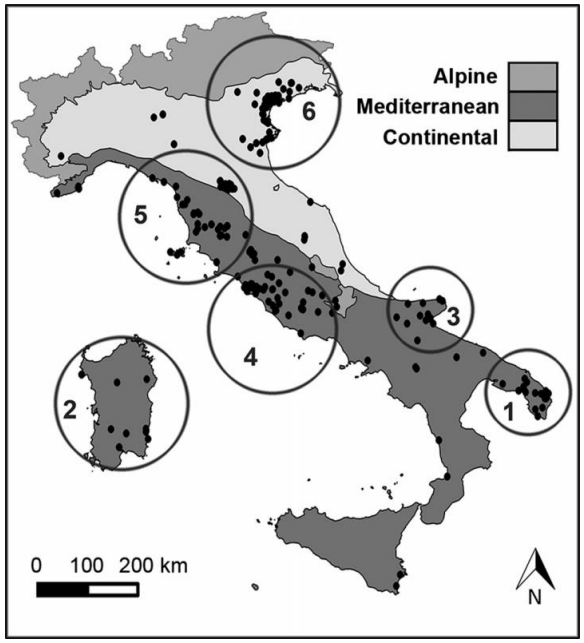


Fig. 1 Map of Italy, showing the 212 sites. Symbols (1) southern Apulia; (2) Sardinia; (3) northern Apulia; (4) Latium-Abruzzi; (5) Tuscany; and (6) North-eastern Italy

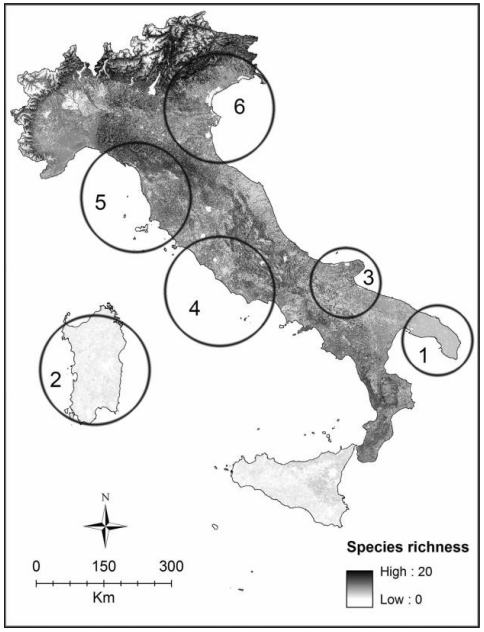


Fig. 3 Map of potential distribution density of small mammals across Italy

Hypotheses

(1) Are there relationships between apparent niche breadth of the predator and the potential diversity of prey?

(2) Does sample size have an effect on the apparent niche breadth of the predator?

Database:
216 localities
26 species
2506 specimens

© Hartmann & Weipert: Biodiversität und Naturausstattung im Himalaya V. - Erfurt 2015

Towards a georeferenced checklist of the butterflies of Bhutan: a preliminary account (Insecta: Lepidoptera)

Sbordoni V., Roma; Cristoforo Bozano, Milano, Karma Wangdi, Bumthang, Sherub Sherub, Bumthang, Silvio Marta, Stefano De Felici & Donatella Cesaroni, Roma

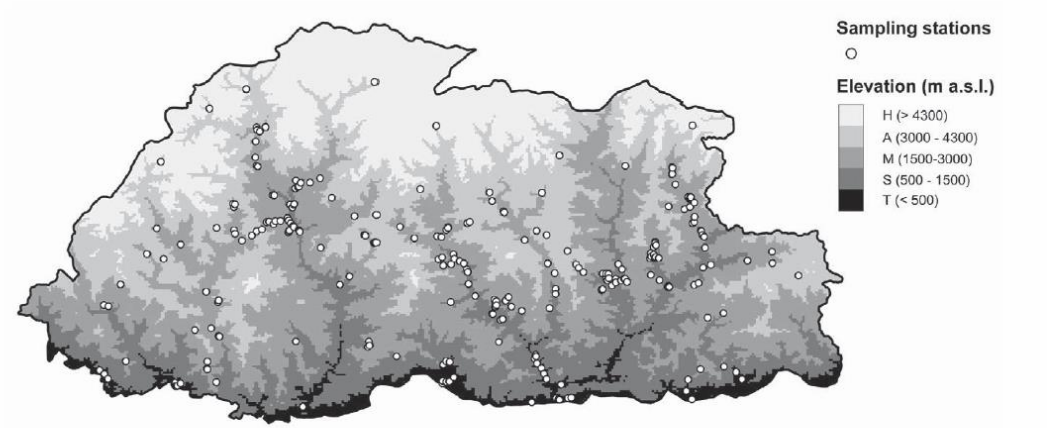
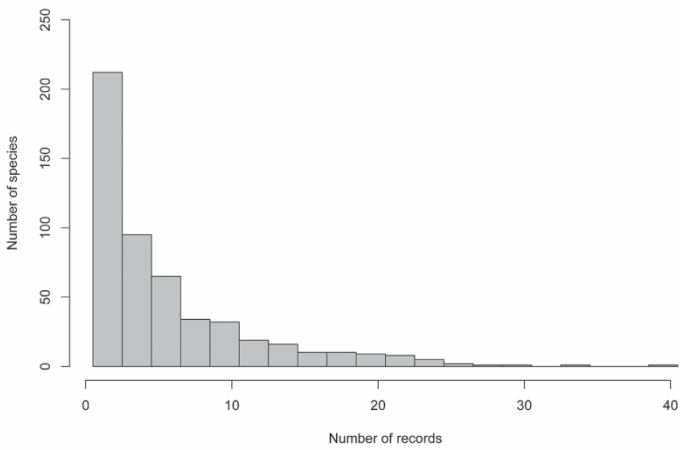


Figure 1: Spatial distribution of the 300 sampling stations throughout the whole of Bhutan. We collected a total of 2971 georeferenced records of occurrence for 523 species. Different shaded areas in the background map indicate the different elevation classes.



Journal of Biogeography (J. Biogeogr.) (2016)

ORIGINAL ARTICLE

Deciphering range dynamics: effects of niche stability areas and post-glacial colonization on alpine species distribution

Silvio Marta[1]*, Federica Lacasella[2], Paolo Gratton[3], Donatella Cesaroni[4] and Valerio Sbordoni[4]

Niche stability areas (NSAs) are portions of the species range where climate conditions remain suitable through time. They represent the core of species ranges.

The study highlights the relative roles of survival within NSAs and post-glacial dispersal in shaping the ranges of different alpine butterflies during the Holocene.

Fig. 2 Occurrences of (a) *Erebia* and (b) *Parnassius* used to calibrate models

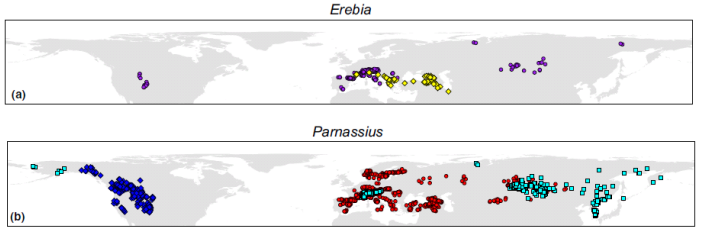


Figure 2 Occurrences of (a) *Erebia* and (b) *Parnassius* used to calibrate models. Symbols identify the different operational units. (a) *Erebia tyndarus* species complex: circles = Euro-Siberian (*Erebia* ES) clade and diamonds = Ponto-Mediterranean (*Erebia* PM) clade (*sensu* Albre *et al.*, 2008). (b) *Parnassius apollo–P. phoebus* species complex: circles = *P. apollo*; squares = Palaearctic + Alaskan populations (*P. phoebus* PA) and diamonds = Nearctic populations of the *P. phoebus* species complex (Todisco *et al.*, 2012). Map projection: Behrmann Cylindrical Equal Area.

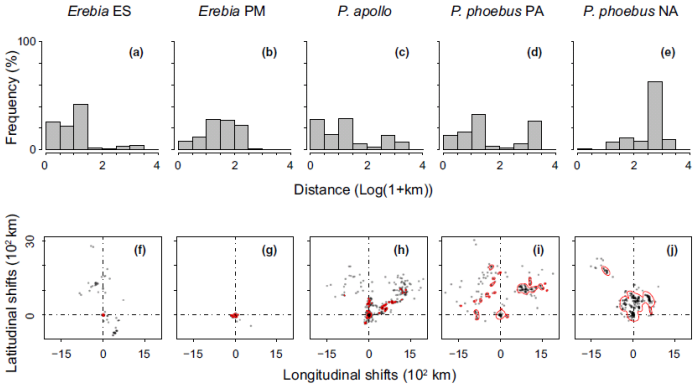


Figure 5 Spatial configuration of occurrences with respect to niche stability areas (NSAs). Histograms (a–e) show the distribution of the minimum distances between each record and the nearest NSA. Biplots (f–j) represent latitudinal and longitudinal shifts between each record and the nearest NSA, with grey shadings indicating the density of occurrences and solid contour lines enclosing 90% of the distribution, according to kernel density estimates. *Erebia* ES and *Erebia* PM: respectively, Euro-Siberian and Ponto-Mediterranean clades within the *E. tyndarus* species complex; *P. phoebus* PA and *P. phoebus* NA: respectively, Palaearctic + Alaskan populations and Nearctic populations within the *P. phoebus* species complex.

Syst. Biol. 65(2):292–303, 2016
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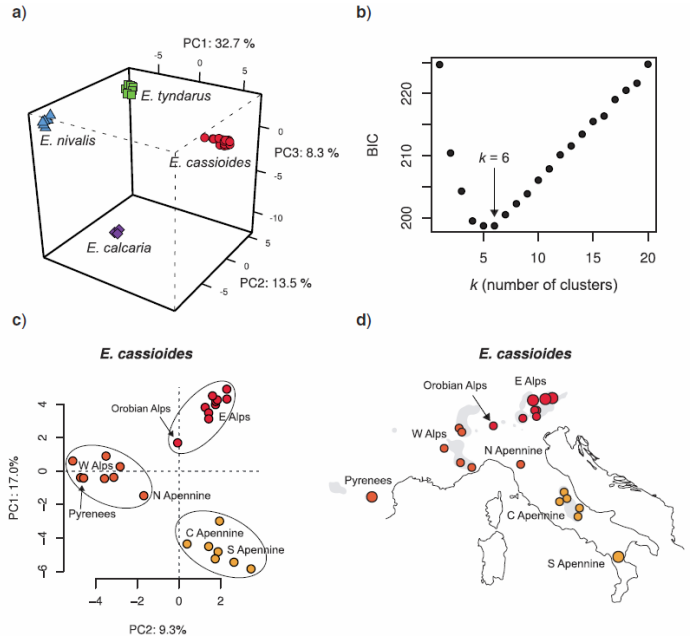
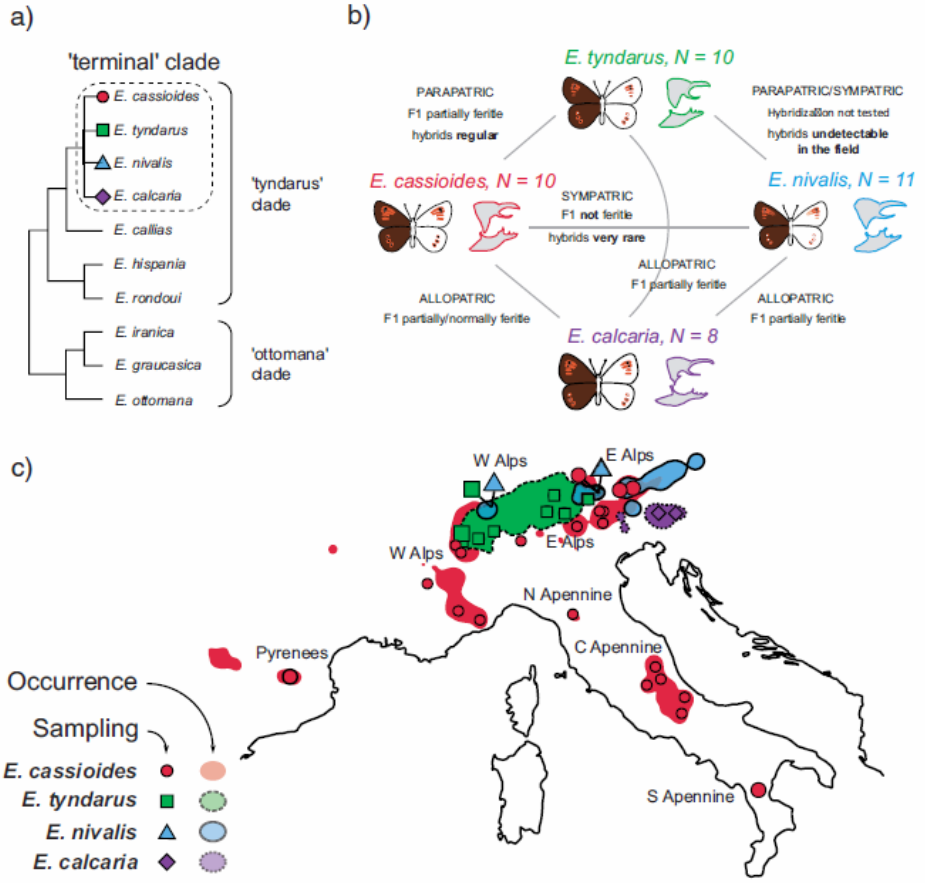
DOI:10.1093/sysbio/syv087
Advance Access publication November 14, 2015

Testing Classical Species Properties with Contemporary Data: How "Bad Species" in the Brassy Ringlets (*Erebia tyndarus* complex, Lepidoptera) Turned Good

PAOLO GRATTON[1,2,*], EMILIANO TRUCCHI[3,4], ALESSANDRA TRASATTI[1], GIORGIO RICCARDUCCI[1], SILVIO MARTA[1], GIULIANA ALLEGRUCCI[1], DONATELLA CESARONI[1], AND VALERIO SBORDONI[1]



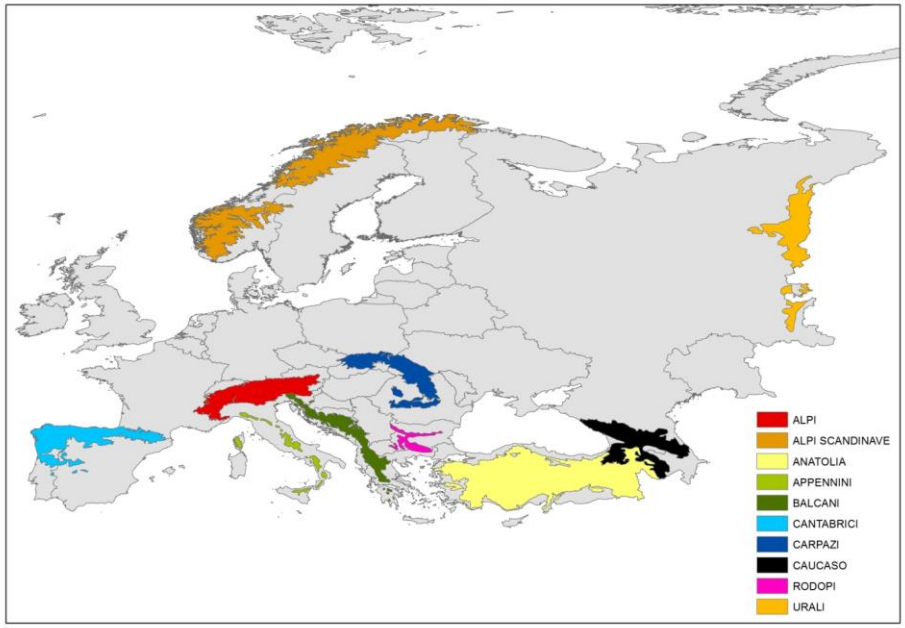


WP 1.7.1. Farfalle e Mammiferi montani come indicatori eco sistemici dei cambiamenti climatici: aggiornamento della banca dati NextData (indagini programmate)

MACROECOLOGICAL PATTERNS OF DISTRIBUTION AND ENDEMISM OF EUROPEAN MONTANE MAMMALS.

Hypotheses

(a) Steven hypothesis (with species richness along altitudinal gradient is assumed to increase universally from cool highlands to warm lowlands)
(b) Rosenzweig hypothesis (mid-domain effect, with diversity along elevational gradients being a reflection of underlying patterns of primary productivity).
(c) We also identify some main conservation implications for the observed patterns.



Mountain areas of Europe as defined by Olson & Dinerstein (1997)

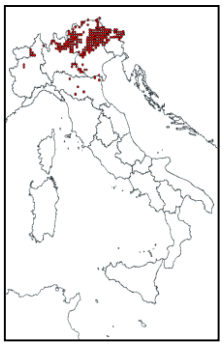
Climate change may affect the equilibrium in species-interaction: the alteration of prey (vipers) -predator (small mammals) system in mountain environment.

Potential effects of climate change on species distribution in relation to prey-predator interactions.

Italian distribution of the species were obtained from the CKmap

Bioclimatic variables from WorldClim database

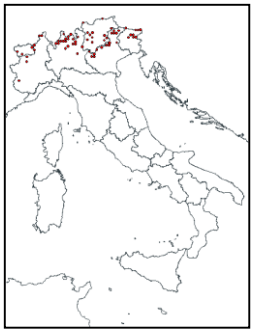
PREDATORS



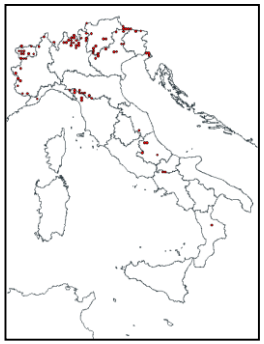
Vipera berus
(Adder)

Vipera ursinii
(Meadow viper)

PREYES



Sorex alpinus
(Alpine shrew)



Chionomys nivalis
(European snow vole)

REDUCED DISPERSAL ABILITIES AND NONEQUILIBRIUM DYNAMICS IN ALPINE ECOSYSTEMS

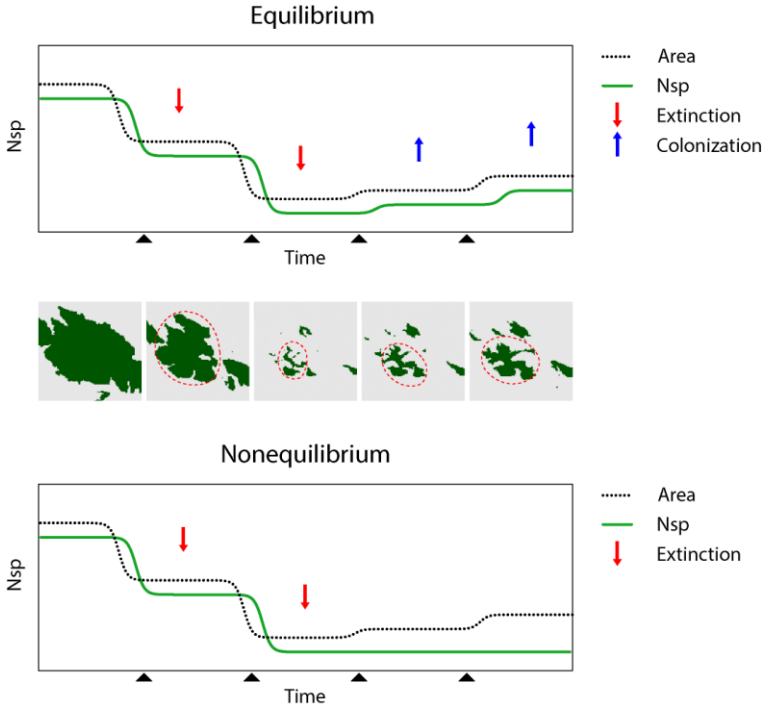
Current patterns of biological diversity in sky islands

Equilibrium dynamic (area + distance + age)
vs
Nonequilibrium dynamic (core area only)

Hypotheses (Holocenic trends):

- colonization counterbalanced the negative effects of island pulsation (**equilibrium**) in **good dispersers**

- only the area at the island' stronger contraction (core area) accounts for species richness (**nonequilibrium**) in **poor dispersers**



127 species / 12505 records:

Lepidoptera: 64 / 8680 - Orthoptera: 31 / 2119 - Carabidae: 32 / 1706