verso un piano nazionale di monitoraggio della BIODIVERSITÀ

I MANUALI PER LE SPECIE E GLI HABITAT DI INTERESSE COMUNITARIO

# Il monitoraggio degli habitat nel contesto europeo

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Red List of European Habitats

2. Terrestrial and freshwater habitats

J.A.M. Janssen, J.S. Rodwell, M. García Criado, S. Gubbay, T. Haynes, A. Nieto, N. Sanders, F. Landucci, J. Loidi, A. Ssymank, T. Tahvanainen, M. Valderrabano, A. Acosta, M. Aronsson, G. Arts, F. Attorre, R-J. Bijsma, F. Bioret, C. Bità-Nicolae, I. Biurrun, M. Calix, J. Capelo, A. Čarni, M. Chytrý, J. Dengler, P. Dimopoulos, F. Essl, H. Gardfjell, D. Gigante, G. Giusso del Galdo, M. Hájek, F. Jansen, J. Jansen, J. Kapfer, A. Mickolajczak, J.A. Molina, Z. Molnar, D. Paternoster, A. Pierik, B. Poulin, B. Renaux, J.H.J. Schaminée, K. Šumberová, H. Toivonen, T. Tonteri, I. Tsiripidis, R. Tzonev & M. Valachovič

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Technical Report - 2016 - 102

**Mapping and Assessment of Ecosystems and their Services**

Urban ecosystems
4th Report

Final May 2016

ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

MINISTERO DELL'AMBIENTE E DELLA TUTELA DEL TERRITORIO E DEL MARE

**Manuali per il monitoraggio di specie e habitat di interesse comunitario (Direttiva 92/43/CEE) in Italia: habitat**

MANUALI E LINEE GUIDA

142 / 2016

Defining and applying the concept of Favourable Reference Values

Draft technical report, July 2016

**REPORT**
**European Vegetation Archive (EVA): an integrated database of European vegetation plots**

Milan Chytrý, Stephan M. Hennekens, Borja Jiménez-Alfaro, Ilona Knollová, Jürgen Dengler, Florian Jansen, Flavia Landucci, Joop H.J. Schaminée, Svetlana Aćić, Emiliano Agrillo, Didem Ambarlı, Pierangela Angelini, Iva Apostolova, Fabio Attorre, Christian Berg, Erwin Bergmeier, Idoia Biurrun, Zoltán Botta-Dukát, Henry Brisse, Juan Antonio Campos, Luis Carlón, Andraž Čarni, Laura Casella, János Csiky, Renata Ćušterevska, Zora Dajić Stevanović, Jiří Danihelka, Els De Bie, Patrice de Ruffray, Michele De Sanctis, W. Bernhard Dickoré, Panayotis Dimopoulos, Dmytro Dubyna, Tetiana Dziuba, Rasmus Ejrnæs, Nikolai Ermakov, Jörg Ewald, Giuliano Fanelli, Federico Fernández-González, Úna FitzPatrick, Xavier Font, Itziar García-Mijangos, Rosario G. Gavilán, Valentin Golub, Riccardo Guarino, Rense Haveman, Adrian Indreica, Deniz Işık Gürsoy, Ute Jandt, John A.M. Janssen, Martin Jiroušek, Zygmunt Kącki, Ali Kavgacı, Martin Kleikamp, Vitaliy Kolomiychuk, Mirjana Krstivojević Ćuk, Daniel Krstonošić, Anna Kuzemko, Jonathan Lenoir, Tatiana Lysenko, Corrado Marcenò, Vassiliy Martynenko, Dana Michalcová, Jesper Erenskjold Moeslund, Viktor Onyshchenko, Hristo Pedashenko, Aaron Pérez-Haase, Tomáš Peterka, Vadim Prokhorov, Valerijus Rašomavičius, Maria Pilar Rodríguez-Rojo, John S. Rodwell, Tatiana Rogova, Eszter Ruprecht, Solvita Rušina, Gunnar Seidler, Jozef Šibík, Urban Šilc, Željko Škvorc, Desislava Sopotlieva, Zvjezdana Stančić, Jens-Christian Svenning, Grzegorz Swacha, Ioannis Tsiripidis, Pavel Dan Turtureanu, Emin Uğurlu, Domas Uogintas, Milan Valachovič, Yulia Vashenyak, Kiril Vassilev, Roberto Venanzoni, Risto Virtanen, Lynda Weekes, Wolfgang Willner, Thomas Wohlgemuth & Sergey Yamalov
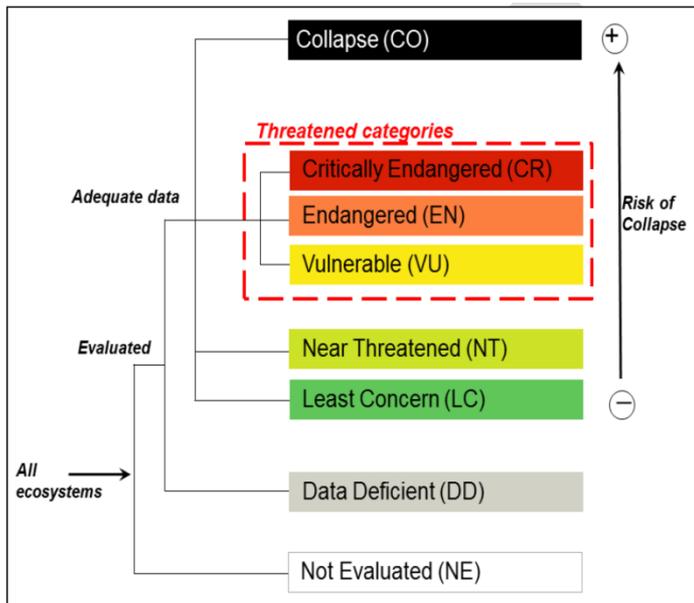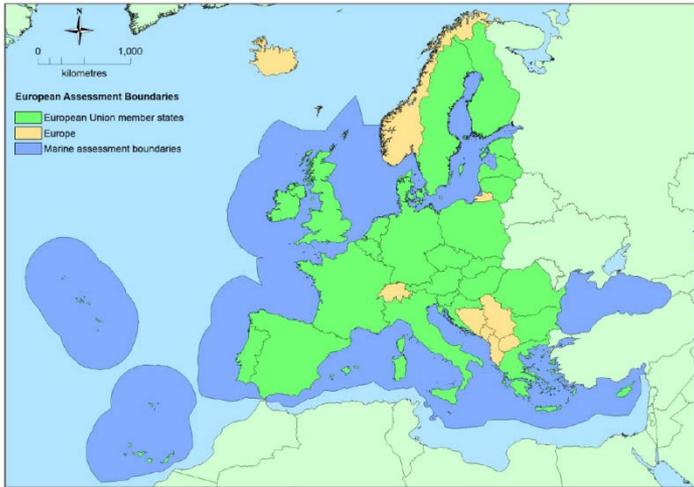
PRODROMO DELLA VEGETAZIONE D'ITALIA

HOME | PRODROMO | ELENCO SYNTAXA | ELENCO SPECIE | SERIE DI VEGETAZIONE | HABITAT NATURA 2000 | EUNIS HABITAT TYPES | PARCHI NAZIONALI

**PRODROMO DELLA VEGETAZIONE ITALIANA**
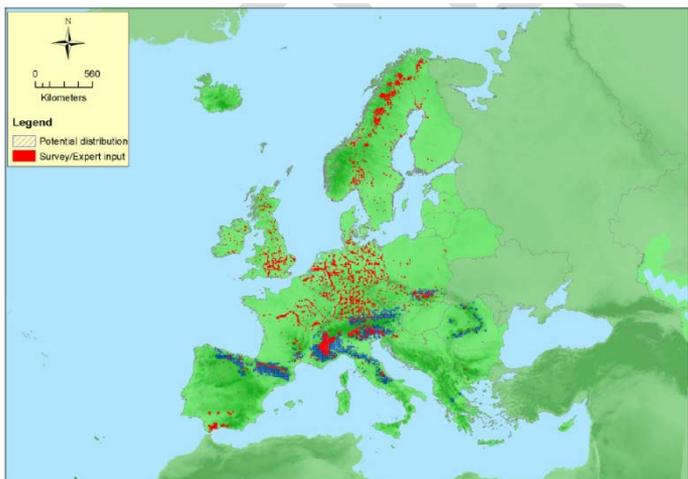
Cerca syntaxa, specie, autori, etc

Introduzione | Guida | Bibliografia | Glossario | Schema sintassonomico

# Red List of European Habitats

**European Assessment Boundaries**
- European Union member states
- Europe
- Marine assessment boundaries

0 — 1,000 kilometres

### Category diagram

- Collapse (CO)  (+)

**Threatened categories**
- Critically Endangered (CR)
- Endangered (EN)
- Vulnerable (VU)

- Near Threatened (NT)
- Least Concern (LC)  (−)

- Data Deficient (DD)
- Not Evaluated (NE)

*Adequate data* / *Evaluated* / *All ecosystems*

*Risk of Collapse*

### Criteria tables

**A. Reduction in quantity ***

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| A1 | Present (over the past 50 years) | ≥ 80% | ≥ 50% | ≥ 30% | 25-30% |
| A2a | Future (over the next 50 years) $$ | ≥ 80% | ≥ 50% | ≥ 30% | 25-30% |
| A2b | Future/present (over any 50 year period including the present and future) $$ | ≥ 80% | ≥ 50% | ≥ 30% | 25-30% |
| A3 | Historic (since ca 1750) ** | ≥ 90% | ≥ 70% | ≥ 50% | 40-50% |

**B. Restricted geographic distribution**

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| B1 | Extent of Occurrence (EOO)... # **AND** at least one of the following (a-c): (a) A continuing decline in EITHER: i. spatial extent OR ii. abiotic (environmental) quality appropriate to characteristic biota of the habitat OR iii. biotic quality (disruption to biotic interactions) appropriate to the characteristic biota of the habitat. (b) A threatening process that is likely to cause continuing declines in quantity and/or quality within the next 20 years. | ≤ 2,000 km² | ≤ 20,000 km² | ≤ 50,000 km² | close to VU threshold |
| | (c) Habitat exists at very few locations ... ## | 1 location | ≤ 5 locations | ≤ 10 locations | close to VU threshold |
| B2 | Area of Occupancy (AOO)... ### **AND** at least one of a-c above (same subcriteria as for B1). | ≤ 2 | ≤ 20 | ≤ 50 | close to VU threshold |
| B3 | Habitat exists at very few locations ## AND due to human activities or stochastic events in an uncertain future, and thus capable of becoming Critically Endangered or Collapsed within a very short time period | | | < 5 locations | close to VU threshold |

**C/D. Reduction in quality @**

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| C/D1 | Reduction in abiotic and/or biotic quality in the last 50 years In a quantitative way: | extreme reduction — severe decline (≥80%) affecting ≥ 80% of the extent | very substantial reduction — intermediate decline (≥ 50%) affecting ≥ 80% of the extent OR severe decline (≥80%) affecting ≥ 50% of the extent | substantial reduction — slight decline (≥ 30%) affecting ≥ 80% of extent OR intermediate decline (≥50%) affecting ≥ 50% of extent OR severe decline (≥ 80%) affecting ≥ 30% of the extent | fairly substantial reduction — close to VU threshold |
| C/D2 | Reduction in abiotic and/or biotic quality in the future (next 50 years) or in any 50-year period incl. past, present and future $$ | See C/D1 | See C/D1 | See C/D1 | See C/D1 |
| C/D3 | Historic reduction in abiotic and/or biotic quality, affecting... *** | Very severe decline (≥90% affecting ≥90% of the extent) | Very severe decline (≥90% affecting ≥70% of extent) OR severe decline (≥70% affecting ≥90% of extent) | Intermediate decline (≥50% affecting ≥90% of extent) OR severe decline (≥70% affecting ≥70% of extent) OR very severe decline (≥90% affecting ≥50%) | close to VU threshold |

**C. Reduction in abiotic quality @@**

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| C1 | Reduction in abiotic quality (environmental degradation) in the last 50 years | See C/D1 | See C/D1 | See C/D1 | See C/D1 |
| C2 | Reduction in abiotic quality in the future (next 50 years) or in any 50 years period incl. present and future $$ | See C/D1 | See C/D1 | See C/D1 | See C/D1 |
| C3 | Historic reduction in abiotic quality, affecting... *** | See C/D3 | See C/D3 | See C/D3 | See C/D3 |

**D. Reduction in biotic quality $**

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| D1 | Reduction in biotic quality in the last 50 years | See C/D1 | See C/D1 | See C/D1 | See C/D1 |
| D2 | Reduction in biotic quality in the future (next 50 years) or in any 50 years period incl. present and future $$ | See C/D1 | See C/D1 | See C/D1 | See C/D1 |
| D3 | Historic reduction in biotic quality, affecting... *** | See C/D3 | See C/D3 | See C/D3 | See C/D3 |

**E. Quantitative analysis $$**

| | | CR | EN | VU | NT |
|---|---|---|---|---|---|
| E | Quantitative analysis that estimates the probability of | ≥50% within 50 | ≥20% within 50 | ≥10% within | close to VU threshold |

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# Red List of European Habitats



| Number | Description | Code | Reference |
|---|---|---|---|
| 1 | Distribution maps of Annex I habitat types provided in the 2013 Article 17 report for the Habitat's Directive (covering EU27) | Art17 | EEA, Copenhagen |
| 2 | European Vegetation Archive (EVA). Dataset of vegetation relevés in Europe, version January 2016. | EVA | Chytrý et al. 2016 |
| 3 | Distribution of plant and animal species from the GBIF website, version January 2016 | GBIF | www.gbif.org |
| 4 | Natural Vegetation Map of Europe. Potential natural vegetation. Only used for forest types and other habitats where the potential distribution is likely to be similar to the actual distribution. | BOHN | Bohn et al. 2000/2003 |
| 5 | European Tree Map, indicating the domiannt tree in an image file. Used for a few forest habitats. | ETM | Hengeveld et al. 2012 |
| 6 | National databases of different countries, a.o. Spain (vegetation map), Hungary (habitat distribution maps), Bosnia & Herzegovina (N2000 database) | NAT | - |

| EU28 | Coastal | Freshwater | Mires and bogs | Grasslands | Heathland & Scrub | Forests | Sparsely vegetated | Total | |
|---|---|---|---|---|---|---|---|---|---|
| CR | - | - | 1 | 3 | - | - | - | 4 | |
| EN | 5 | 3 | 3 | 9 | 1 | 2 | 1 | 24 | |
| VU | 8 | 9 | 7 | 16 | 3 | 10 | 2 | 55 | |
| NT | 3 | 6 | 1 | 5 | 4 | 6 | 2 | 27 | |
| LC | 12 | 6 | 1 | 20 | 27 | 23 | 17 | 106 | |
| DD | 1 | 2 | - | - | 1 | 1 | 7 | 12 | |
| total | 29 | 26 | 13 | 53 | 36 | 42 | 29 | **228** | |
| threatened % | 45 | 46 | 85 | 53 | 11 | 29 | 10 | 36.4 | % |
| threat. % (excl. DD) | 46 | 50 | 85 | 53 | 11 | 29 | 14 | 37.9 | % |

# Red List of European Habitats

- Variabilità a scala nazionale della valutazione e necessità di un protocollo omogeneo per aumentarne la comparabilità.

- Valutazione basata essenzialmente su criteri geografici, riduzione della quantità (A1), o sulla riduzione della qualità abiotica e biotica (CD1) entrambe basate su valutazione dell'esperto.
- Nessuna misura di struttura, funzione e diversità è stata considerata.

- Difformità nell'interpretazione degli habitat e presenza di sottotipi regionali sottoposti a specifiche pressioni e minaccie (Prodomo della vegetazione in Italia e Euorveg Check list).

- Necessità di integrazione con le metodologie proposte dall'iniziativa del MAES (Mapping and Assessment of Ecosystems and their Services).

- Necessità di valutare soglie adatte per definire il rischio di estinzione (Valori favorevoli di riferimento).

# Natura 2000 in Albania

- Biodiversity Network

- European Vegetation Archive

- Manual of interpretation of habitats

- Monitoring protocol