



NEWSLETTER

December 2020



Boletus reticulatus (Cèpe d'été, Photo by P. Leclercq)

Edito

2020 started as a year that marked the decade of action, but instead has been unexpectedly hit by the COVID-19 pandemic. It also was planned as a "super year" for biodiversity with many important events and milestones, including the COP 15 in Kunming, China which was earmarked as the biggest biodiversity conference in a decade as it was to decide on the post-2020 Global Biodiversity Framework. Despite this, we have adapted, moved online, and together the European Environment Agency and European Topic Centre on Biological Diversity have managed to reach several milestones, including the launch of the State of Nature report at the completely virtual Green Week in October, along with the revamp of BISE, and launch of the Monitoring and Assessment of Ecosystems and their Services, which marked the end of nearly a decade of work together with the JRC.

It's been an active end of year. EEA has been busily shepherding the natural close of internal and external cycles, whilst at the same time celebrating and planning for a new decade of ambition under the initiatives of the European Green Deal and the new EEA-Eionet Strategy, which has just formally been adopted by the EEA Management Board, and where "biodiversity and ecosystems" remains a key area of work.

2021 will be no less busy, with biodiversity only ramping up in agendas such as the sustainable finance taxonomy. It is set to be a year of important work including setting up our role in the Biodiversity Monitoring framework, and contributing to the Legally Binding Instrument on restoration. It will also see the implementation of key events that were delayed, including the COP15 and IUCN Congress. We look forward to another year of good collaboration, and wish you the best and safest for this holiday period.

Riyong Kim, Head of Natural Capital and Ecosystems (NCE, European Environment Agency)



Focus on...

Riyong Kim

Riyong Kim is Head of Natural Capital and Ecosystems (NCE) at the EEA. She is responsible for the strategic development of the Agency's work around biodiversity and ecosystems encompassing condition and trends in land and water environments, natural capital accounting as well as cross-cutting themes around food and production systems. Prior to joining EEA, Riyong led the programme on Decision Metrics and Finance at EIT Climate KIC. This work included developing a systems innovation approach to tackling short-termism and mainstreaming climate in financial markets in the EU.



Photo by Charlotte Hilligsøe

She has worked in environmental and climate policy closely with UN Environment and UNFCCC, and before that, led the work on developing the methodology for capturing environmental and forest resources under the Living Standards Measurement Survey with the UN FAO, CIFOR, and World Bank PROFOR, and for the regional ENPI-FLEG program with IUCN.

Riyong has an interdisciplinary background, with a B.A., and B.Sc. in Environmental Science from University of New South Wales, Australia, and a M.Sc. In Agricultural Development (Forestry) and Ph.D. In Natural Resource Economics from University of Copenhagen, Denmark. She started her career working in international development and leading country programmes in Timor Leste and Aceh, Indonesia, and brings experience from the Brazilian Amazon, and Democratic Republic of Congo, as well as EU and CEE countries. Born in Australia with Korean heritage, Riyong is based in Copenhagen with her two kids.

Sophie Condé

One of the founding figures of the ETC, Sophie Condé has been part of the Muséum core team for 25 years. As the work expanded from technical support to the Nature Directives to other biodiversity policies, she played a key role in developing new areas of expertise, such as indicators (with the SEBI initiative) or ecosystem assessment, working closely with JRC, DG Environment and experts from Member States on the MAES project. In addition to her role as expert and task manager, she took on the mantle of ETC deputy manager to support Dominique Richard.



Photo by F. Bernard

Since October 1st, Sophie has been enjoying a well-deserved retirement on a island in Southern Brittany.

Sandra Naumann

Sandra Naumann, newly assigned ETC/BD deputy manager in succession to Sophie Condé, is a Senior Fellow at Ecologic Institute and coordinates the Institute's activities on biodiversity and Nature-based Solutions (NBS). Her work focuses on the evaluation and enhancement of land use and biodiversity conservation policies and their links to climate change. She works on different research projects in the area of NBS, assessing the policy and institutional context, the linkages between NBS, biodiversity and ecosystem services as well as citizen's perceptions of urban nature.



Photo by S. Peschke

Sandra contributed to various projects analysing the drivers behind the successful implementation of the EU Nature Directives, assessing the status of implementation of Natura 2000 in Germany, the contribution of CAP measures to biodiversity, climate mitigation and soil protection as well as the integration of biodiversity data into urban assessments. As a member of the expert groups on 'nature-based solutions and renaturing' cities and the 'Valorisation of NBS research projects', she supported the European Commission, DG for Research and Innovation in the development of a European policy and research agenda for NBS.



Nature Directives

Reporting under the Nature Directives

State of Nature in the EU report



The outcomes of Article 12 and Article 17 reporting (Nature Directives reporting) form the basis for the State of Nature in the EU report. The final 2020 European Environment Agency Report ‘[State of Nature in the EU – Results from the reporting under the Nature Directives 2013-2018](#)’ was published on 19 October 2020. This report provides the most recent assessment of the state of nature in the EU and is based on reports from Member States under the Birds (2009/147/EC) and the Habitats (92/43/EEC) directives and on subsequent assessments of the status of all protected habitats and species at EU or EU biogeographical levels. The report, apart from the detailed zoom on the status and trends of habitats and species, also provides the overview of main biodiversity drivers, impact of measures including the impact of the Natura 2000 network and the global assessment of progress towards Target 1 of the EU Biodiversity Strategy. The report further highlights the successes in nature conservation, shortcomings in current protection measures and actions and measures needed to further improve the conservation status of targeted habitats and species and the population status of birds.

The report is a result of a fruitful collaboration between several ETC partners, who made a major contribution to this report, and EEA. The report fully relies on the EU datasets and EU assessment compiled by the ETC/BD and EEA in preparation for production of the report. The report itself can be seen as an accomplishment of six years work process, which includes the ETC’s and EEA’s work on harmonising the assessment methods and approaches in Member State reports, compiling the quality assured EU datasets and diverse data products, elaborating on the publicly reviewed EU assessments and preparing the analysis and assessment feeding into the report.

The methods applied in the EEA’s State of Nature report are provided in the ETC/BD’s [State of Nature in the EU - Methodological paper](#). This technical document explains all methodological processes that led to the assessments and results presented in the State of Nature Report. It includes descriptions of methodological approaches applied for determining conservation status and trends for Birds and Habitats Directive habitats and species, pressures and responses to protected species and habitats, the status of the Natura 2000 network and progress towards the relevant targets of the EU Biodiversity Strategy to 2020.

Although the main output from the reporting process is incontestably the State of Nature report, the wealth of data resulting from this process is available for a wide spectrum of users via diverse data products, including the tabular and spatial datasets, data viewers or online statistics and dashboards presenting both the EU and Member State results. All data products largely prepared by ETC/BD are available through the EEA’s [Nature reporting data](#) webpage.



State of Nature - EU Green Week session



© EU - Denis Clason

The main findings from the State of Nature report were shown at the Day 1 of the [EU Green Week 2020](#) virtual conference. During the Green Week session ‘How healthy is our nature? The 2020 State of Nature report’, Hans Bruyninckx, the executive director of EEA, stressed that the protected habitats and species continue to decline and that urgent action is essential to reverse these trends. Two ETC/BD experts participated to the State of Nature Green Week session. Sandra Naumann from Ecologic Institute made a short intervention on opportunities and challenges for fostering biodiversity and climate targets; Zelmira Gaudillat from MNHN in her short presentation pointed to needs of systemic changes in the agriculture and forestry in relation to ongoing deterioration of status of EU nature.

SEBI indicators

The process for updating the indicators continues with a new version of the indicator on “Nationally designated terrestrial protected areas in Europe” (SEBI 007). This last update shows that in 2020, terrestrial protected areas now cover 26 % of EU’s land (EU 27), with 18 % of this area designated as Natura 2000 sites. However, designation of protected areas is not in itself a guarantee of biodiversity conservation, and effective management will require building a coherent and well-connected network of protected areas with clearly defined conservation objectives and measures. In 2021, ETC/BD will continue to support EEA in reviewing the SEBI indicators in the light of the new governance and monitoring framework provided by the EU biodiversity strategy for 2030, as well as the post-2020 global biodiversity framework and Sustainable Development Goals.

Ecosystem Assessments

Mapping and Assessment of Ecosystems and their Services (MAES)

The first EU-wide Ecosystem Assessment was released on October 21st, during the 2020 Biodiversity Green Week. Carried out by the Joint Research Centre, the European Environment Agency, DG Environment and the European Topic Centres on Biological Diversity and on Urban, Land and Soil Systems, this masterpiece of more than 1 000 pages is the result of eight years of intense interactions between science and policy. It presents an analysis of the pressures and condition of terrestrial, freshwater and marine ecosystems of the EU, using a single and comparable methodology based on European data on trends of pressures and condition relative to the policy baseline in 2010.

This assessment provides an indicator framework to measure change in ecosystems and address specific policy needs. It constitutes a knowledge base to support the evaluation of the 2020 EU biodiversity targets and provides a data foundation for future assessments and policy developments, in particular to support the ecosystem restoration agenda of the next decade (2020-2030). Facts alone are a necessary condition, but they are not enough for transformative change to take place. It is now time to act and implement the European Green Deal!

Key conclusions of this report are that the condition of ecosystems under legal designation is largely unfavourable, but also that there are large gaps in those legal protections. On land, 76 % of the area of terrestrial ecosystems, mainly forests, agroecosystems and urban ecosystems are excluded from a legal designation under the Birds and Habitats Directives. Moreover, impacts from climate change on ecosystems are increasing, among which the rising land and sea surface temperatures, the reduction in effective rainfall, the higher incidence of extreme drought events and the further acidification of marine ecosystems relative to the 2010 baseline values.



Invasive alien species of union concern are most often reported by Member States in coastal, forest and freshwater habitats protected by the Habitats Directive, but it appears that they have the most important impacts in urban and grasslands ecosystems. As a result, and despite downward trends of emissions of nitrogen and phosphorus to the environment, the combination of pressures on ecosystems as well as their possible interactions with climate change, and the further spread of invasive alien species, are causing a serious threat to the EU's biodiversity. Pressures from overfishing activities and marine pollution are also high, leading to the degradation and loss of marine biodiversity and habitats.

Finally, the analysis of trends in ecosystem services concluded that while the current potential of ecosystems to deliver services (timber, protection against floods, crop pollination and nature-based recreation) is equal to or lower than the baseline value for 2010, the demand for these services has significantly increased. A lowered potential in combination with a higher demand creates the risk of further eroding the condition of ecosystems and their contribution to human well-being.

Press Release:

https://ec.europa.eu/commission/presscorner/detail/en/mex_20_1960

EU ecosystems and their services on BISE:

<https://biodiversity.europa.eu/ecosystems>

[Support to the EU Pollinators Initiative](#)

The ETC/BD has published a report that aims at identifying the habitat types from the Annex I of the Habitats Directive that are the most important for pollinating insects. Typical plant species for Annex I habitat types (6 693 species) were classified regarding their importance (used as food source) for pollinating insects. Then, species richness of those important plant species (about 3 800 species) was used to rank all habitat groups and Annex I habitat types. Grasslands, Sclerophyllous scrubs and Temperate heaths are the top three habitat groups important for pollinating insects.

Further work on additional parameters to improve the ranking will be carried out in 2021: improving the compilation of typical species of the selected

Annex I habitats, and testing the use of habitat distribution and habitat type area as additional indicators to decide the ranking of habitat types regarding their importance for pollinating insects.

<https://www.eionet.europa.eu/etcs/etc-bd/products/etc-bd-reports/etc-bd-technical-paper-1-2020-report-for-a-list-of-annex-i-habitat-types-important-for-pollinators>

[Green Infrastructure network in Europe](#)

The backbone of the EU Green Infrastructure consists of the Natura 2000 network and the other protected areas at the European level. As such, the Green infrastructure network in Europe is characterized by all Green infrastructure that can be connected with each other through natural and semi-natural corridors. During the last year, ETC/BD tried to assess this EU GI network toward its ability to provide multiple Ecosystem services, themselves addressing some of the EU policy objectives. Using existing data from JRC and CORINE land cover, ETC/BD produced maps of the EU GI network supporting three EU policy sectors (Biodiversity conservation, Climate mitigation and Water protection) showing low, limited, important and key service areas. This work however only shows the potential ability for this network to support those EU policies, as it does not consider data related to ecosystem condition.

The question of condition was considered in another work led by ETC/ULS, in collaboration with ETC/BD. Dedicated to wetlands, this mapping study used the Extended Wetland Ecosystem maps from 2015, JRC's maps on Ecosystem services and distribution maps of species of Community interest according to their conservation status, in order to show both the ability of wetlands to contribute to the Favourable conservation status of selected species of Community interest (very low, low, high contribution) and to provide ecosystem services (low, limited, important and key services areas). The result aims at guiding restoration efforts through six "level of intervention" categories. ETC/BD intervened on the field of synergies and trade-offs among ecosystem services provided by those ecosystems, in order to show where restoration could enhance the delivery of multiple ecosystem services.



EU Biodiversity strategy

All along 2020, ETC/BD has been compiling a monthly digest of published articles of ideas, proposals and initiatives related to the EU post-2020 biodiversity strategy, in English, French, Spanish, Portuguese and German. At first, this digest related the diversity of contribution and position toward the post-2020 global biodiversity framework, until the Strategy was officially published in May 2020. Then, this work provided an overview of the different analyses of this new strategy, from NGOs to Member States passing by thematically oriented actors. Later in 2020, the digests allowed to take a step back on the strategy by collecting points of view and analyses of biodiversity conservation with regard to the other EU policies being revised, and in particular those relating to agriculture: the Common Agricultural Policy (CAP).

In 2021, this monthly digest initiative will focus on Ecosystem restoration and restoration effectiveness, in order to feed the reflection on the implementation of the Restoration plan, as well as the development of the new legally binding instrument which will set the various targets and objectives to be achieved in 2030. Organised in thematic volumes, the digests will try to cover feedbacks from ongoing ecosystem restoration activities, scientific proposals for restoration targets, position papers, grey literature and corporate papers.

EUNIS

EUNIS habitats

An NRC EIONET webinar took place on December 8th with a focus on the revision of the EUNIS inland water habitats. The webinar is an extension of the 2019 EIONET consultation where participants commented on a proposed revision to current structure. The webinar itself focussed on specific questions from the consultation such as amendments to the proposed discriminating factors and the inclusion of missing water body types.

There were up to 29 participants throughout the day and 13 EIONET countries were represented. ETC/BD consortium partners WENR and MNHN presented, along with colleagues from ETC/ICM and EEA, on the overview of the EUNIS classification, the background to the proposed inland waters revision, other freshwater habitat typologies and biological datasets that feed into the revision. The webinar was divided into consecutive sessions on standing and running waters. Following on from this, it is intended to hold a workshop with a group of freshwater experts, in March 2021, with the aim of further refining the proposal. The revision will be completed in late 2021.

Invasive Alien Species (IAS)

What did the Member States report on pressures caused by IAS under the Habitats and the Birds Directive? And which impacts of IAS on the habitats and species covered by these directives were reported in the context of the IAS regulation?

These questions were investigated by UBA, MNHN and SLU as ETC/BD partners. The experts looked at the numbers and frequency of habitats and species affected by IAS of Union concern.

The resulting report illustrates – by means of case studies - the differences in information on IAS occurrence, distribution and impact provided by the Member States. Furthermore, the distribution of IAS of Union concern is compared to Natura 2000 network.

Species presence status per country (Matrix)

click on a country or species name to highlight the column or row

Presence status of the species
● present ○ unknown ○ not present

	Country																										
	AT	BE	BG	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	RO	SE	SI	SK	UK
Alopecurus aegyptiaca	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Alternanthera philoxeroides	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Asclepias syriaca	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Baccharis halimifolia	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Cabomba caroliniana	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Callosciurus erythraeus	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Corvus splendens	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Eichhornia crassipes	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Elodea nuttallii	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Eriocheir sinensis	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Gunnera tinctoria	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

[Link to the](#) Dashboard

Further reading:

<https://zenodo.org/record/4280719#.X79xJ81KjIV>



Protected areas networks

In the yearly technical coordination meeting between the Council of Europe, European Commission, European Environment Agency, ETC/BD and UNEP/WCMC, a discussion was initiated on how the existing data flows on protected areas need to be improved to serve the assessment of progress towards the new European and global targets on protected areas networks. A first exchange on guidelines between the EC and the Member States recently revealed that key terms such as on strict protection and other area based conservation measures (OECMs) still require further definition. The ETC/BD will support the EEA in the coming year with the clarification of key concepts, the revision of the dataflows and the preparation for the assessment of the Trans European Nature Network in 2024.

News from EIONET

With COVID-19 rising again through Europe, the usual NRC Biodiversity meeting was converted to a series of webinars, with the support of the ETC/BD (WENR and MNHN):

September 29: dedicated to the new EU Biodiversity Strategy to 2030, it was also the opportunity to present to the network the EEA and Eionet Strategy to 2030.

November 20: focussed on the State of Nature report, with the participation of the Council of Europe to present the first results of the reporting under resolution 8 of the Bern Convention, towards pan European assessment of species and habitats.

December 8: targeted on the revision of the EUNIS classification of inland water habitats (see EUNIS).

The use of polls and open questions has helped the meetings to remain interactive, even with such large groups online. This paves the way for other webinars in 2021, in addition to an in person meeting, if circumstances allow.

News from our partners

Ecologic

Biodiversity and Nature-based Solutions

The report outlines the contribution of over 30 EU-funded research and innovation projects to EU biodiversity, climate and other policy objectives and sustainable transition processes.



It highlights new approaches to support the development and management of biodiverse nature-based solutions (NBS) and provides insights into governance models to deliver biodiversity benefits. Remaining research gaps as well as policy recommendations to promote the mainstreaming and enhanced contribution of biodiverse NBS across biodiversity and other sectoral policies are provided, not least to foster a sustainable societal transformation in Europe and beyond.

<https://oeuropa.eu/en/publication-detail/-/publication/d7e8f4d4-c577-11ea-b3a4-01aa75ed71a1/language/en/format/PDF/source-172569677>

JNCC

UK Biodiversity Indicators 2020

The UK biodiversity indicators were updated on 15 October 2020 on the JNCC website – see <https://jncc.gov.uk/ukbi>



The indicators are published by JNCC and Defra as a National Statistics Compendium, and are Government official statistics about changes in biodiversity.

The UK Biodiversity Indicators are dependent on a wide variety of data, provided by government, research bodies, and the voluntary sector – in total nearly 100 organisations are involved.

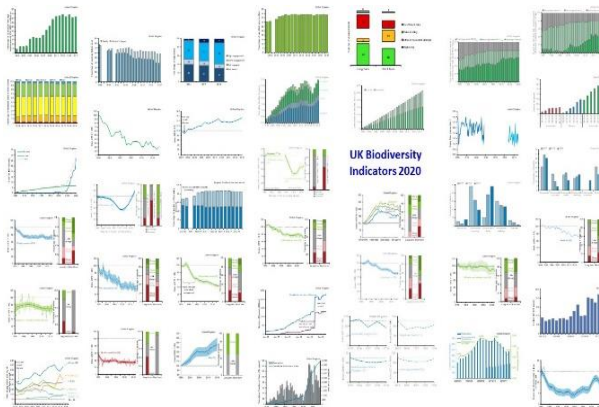


The presentation and assessment of the indicators has been verified by the data providers, and the production and editing of the indicators is overseen by government statisticians.

Contact file:

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Naturalis

Catalogue of Life infrastructure

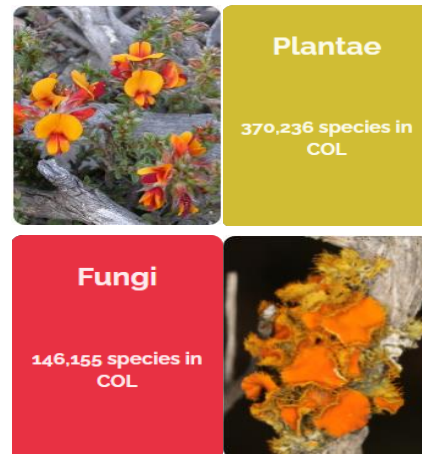
Catalogue of Life (COL) is the global index of species. Taxonomic communities are at the heart of the COL Checklist. These communities provide the authoritative content that make up the global species list. COL delivers daily services to resolve species names for many users originating from amongst others, the scientific community, biodiversity data infrastructures, but also from nature management authorities and policymakers. For the ETC/BD, Naturalis Biodiversity Center and COL assist in resolving species names originating from legal documents of EU Members States.

In December, COL will launch the first products of the new COL infrastructure. This infrastructure is built in close partnership with the Global Biodiversity Information Facility.

The first products consist of the [COL Portal](#), [COL ChecklistBank](#), and [COL API](#). Through the new portal and API, monthly updates of the COL Checklist will be available. COL ChecklistBank will serve as a common repository for publishing and making available authoritative taxonomic checklists. Some, but not all, of these checklists will contribute to the global COL Checklist. The European Nature Information System of the European Environmental Agency will make use of the services of the new Catalogue of Life infrastructure to resolve species names.

<https://www.catalogueoflife.org>

<https://www.gbif.org>



Publications

ETC/BD Technical Papers and Working papers

The ETC/BD and its predecessors have produced many reports over the past 25 years. A selection of these reports is now available on our website in the [ETC/BD Technical papers and Working papers section](#).

ETC/BD reports are also coming to Zenodo, the open-access European repository, in a dedicated community curated by EEA: [the European Topic Centre knowledge hub](#).



The current European Topic Centre on Biological Diversity (ETC/BD) is a partnership of 11 organisations led by the Muséum national d'Histoire naturelle (MNHN) under a framework contract with the European Environment Agency (EEA) which runs from January 2019 until the end of 2021.

[MNHN](#) [Ecologic](#) [ILE-SAS](#) [JNCC](#) [NATURALIS](#) [NCA-CR](#) [S4E](#) [SLU](#) [UBA](#) [URJC](#) [WENR](#)



A winter morning in Normandie, France (Photo by F. Zingale)

This newsletter is produced twice a year.

If you have any contribution for the next issue of this newsletter, please forward them to Muriel Vincent (muriel.vincent@mnhn.fr)

Visit our website at:

<https://www.eionet.europa.eu/etcs/etc-bd>