

Subject area II Species extinction - overview

1

Check out the [video by Gregor Hagedorn](#) as an introduction.

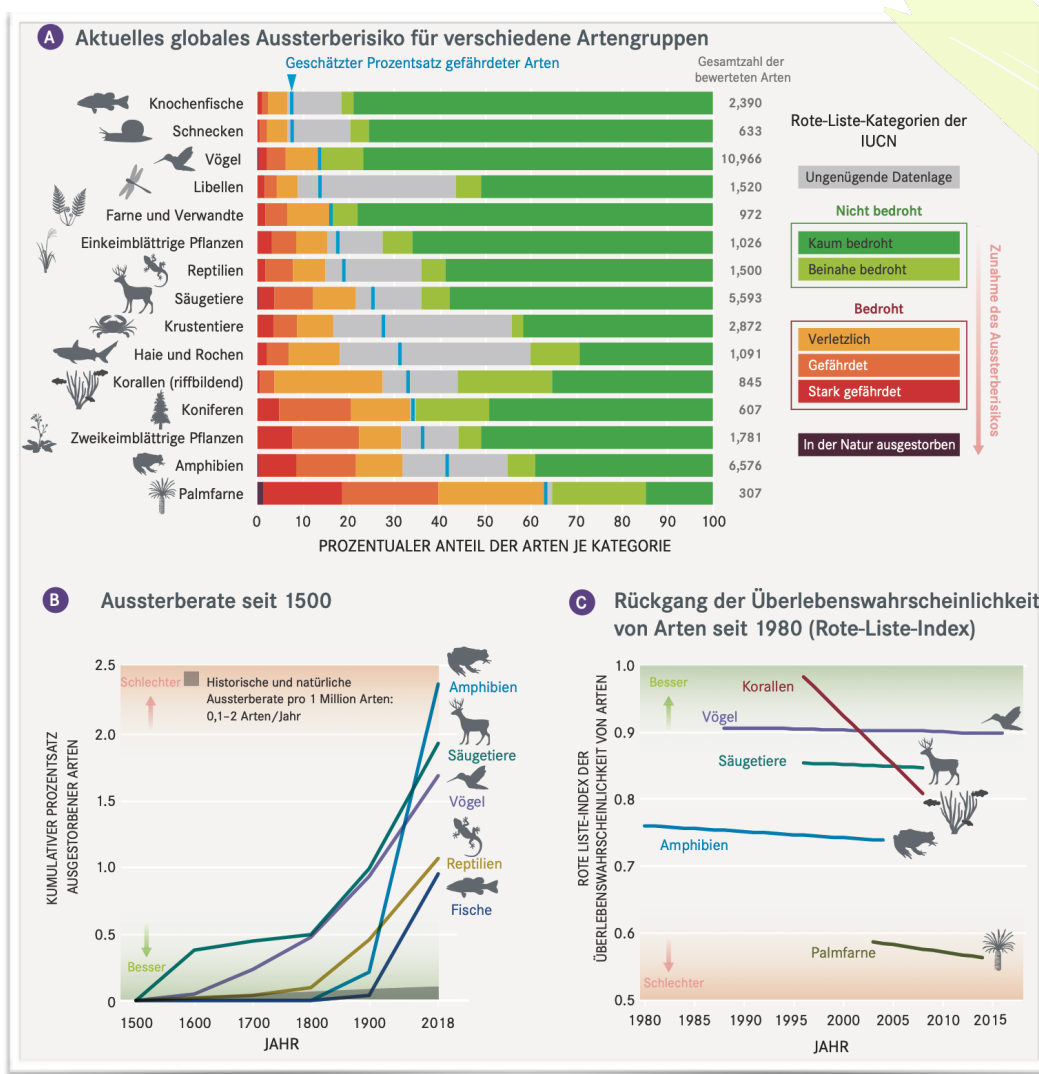


2

Consider Figure 1 and **summarize** the current endangerment status of animal and plant species.

Also include the information from the video. **Name** particularly serious cases. You may choose a language for the summary (German, English, or even another language).

Info about the red list can be found under T 1



Info text

Dicotyledonous plants include most flowering plants. Monocotyledonous plants are grasses, but also orchids and bulbous plants such as leeks, lilies and tulips.

Name the species groups that are particularly endangered

Fig. 1 (IPBES 2019: 8)



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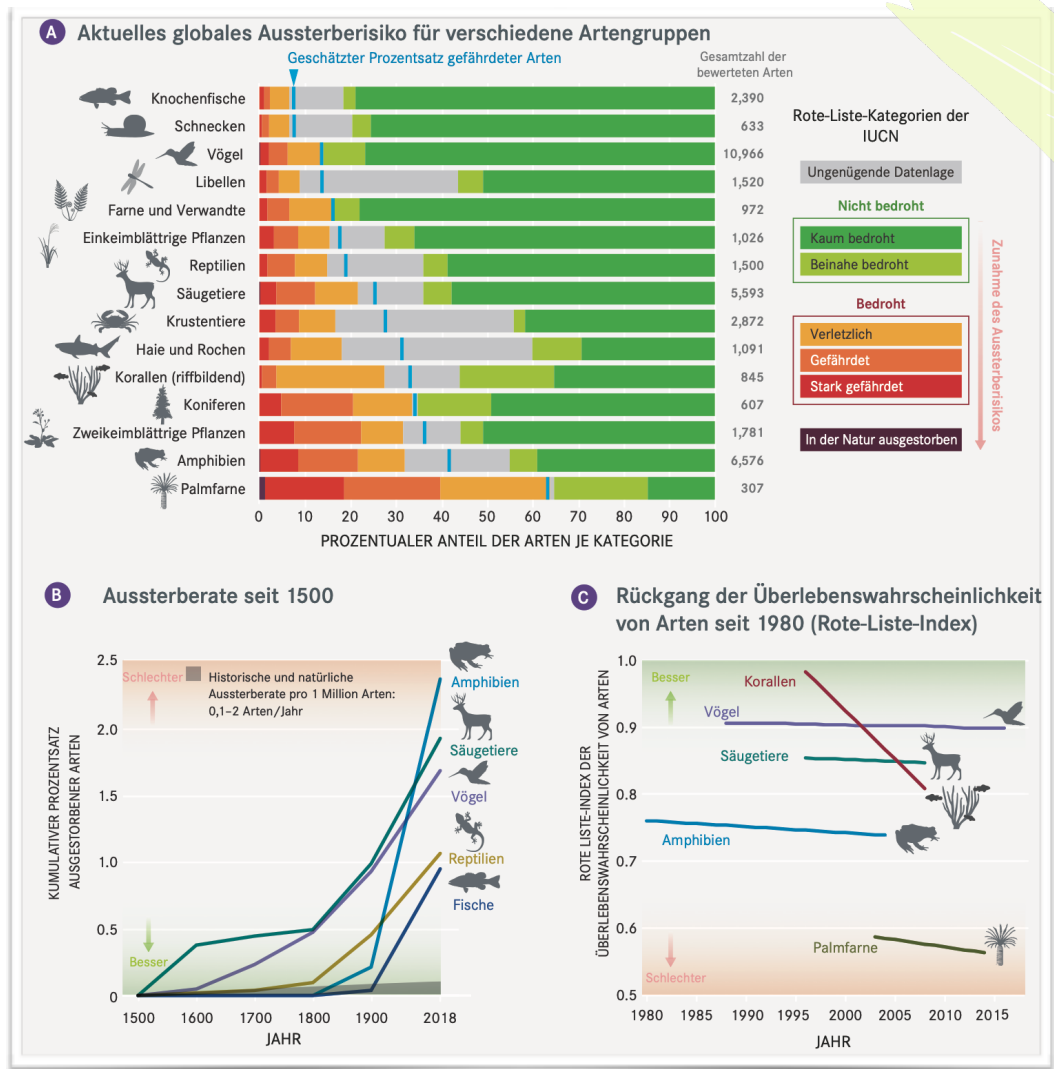


2

Consider Figure 1 and **summarize** the current threat status of animal and plant species .

Also include the information from the video. **Name** particularly serious cases. You may choose a language for the summary (German, English, or even another language).

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Info text

Dicotyledonous plants include most flowering plants. Monocotyledonous plants are grasses, but also orchids and bulbous plants such as leeks, lilies and tulips.

Name the species groups that are particularly endangered

Palm ferns, amphibians, dicotyledonous plants, coral, steep increase but also in all classes of animals (mammals, birds, reptiles and fish).



Subject area II Task 3 - Optional

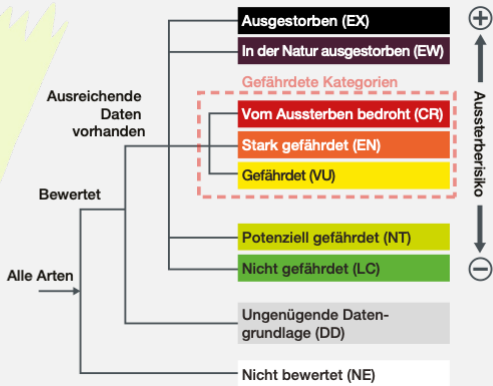
Figure 2 shows the regional dimension of species loss in Europe and Central Asia.

List particularly problematic areas, either in German or in English, and address the situation in Western Europe in particular.

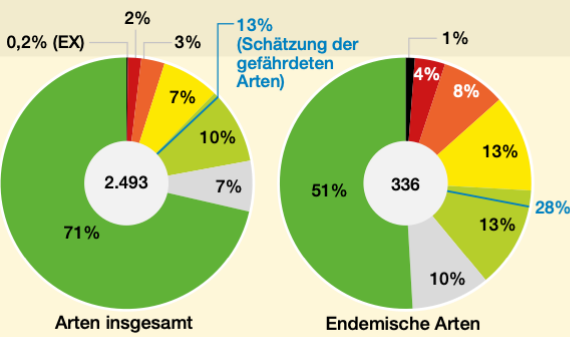
Abbildung SPM 5 A **Vom Aussterben bedrohte Arten in Europa und Zentralasien nach der Roten Liste der gefährdeten Arten der Weltnaturschutzunion (IUCN) von 2015**

EX: ausgestorben, CR: vom Aussterben bedroht, EN: stark gefährdet, VU: gefährdet, NT: potenziell gefährdet, DD: ungenügende Datengrundlage, LC: am wenigsten gefährdet. Unter den Kategorien CR, EN, VU geführte Arten gelten als gefährdet. Der blaue Balken entspricht der besten Schätzung des Verhältnisses von gefährdeten und ausgestorbenen Arten, unter der Annahme, dass derselbe Anteil von als DD kategorisierten Arten gefährdet oder ausgestorben ist wie der Anteil der Arten, bezüglich derer genügend Daten vorliegen (m.a.W., EX, CR, EN, VU, NT, LC). Es werden nur Arten von umfassend ausgewerteten taxonomischen Gruppen berücksichtigt. Quelle: IUCN, 2017.⁷

ÜBERSICHT DER KATEGORIEN DER ROTEN LISTE DER IUCN



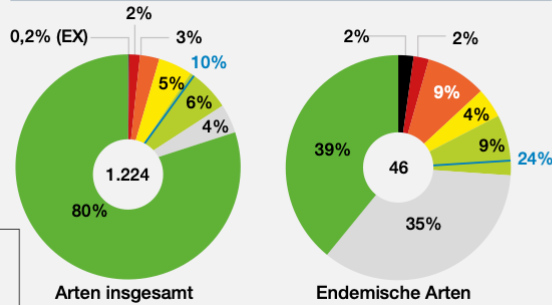
GESAMTEUROPA UND ZENTRALASIEN



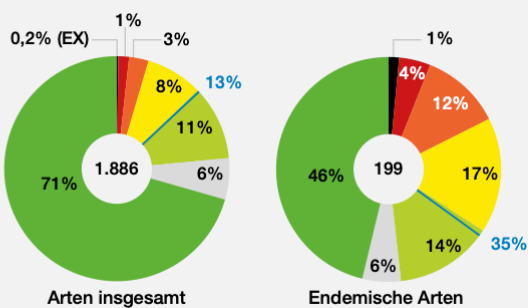
Info
Endemic species occur only in a specific area.



OSTEUROPA



MITTEL- UND WESTEUROPA



ZENTRALASIEN

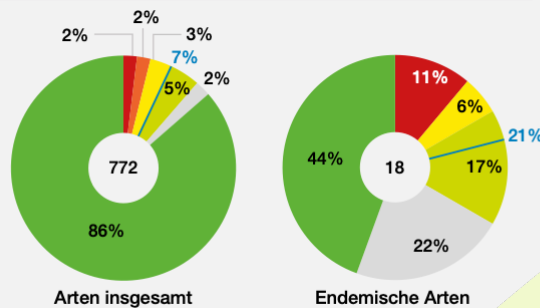


Fig 2. (IPBES 2018a: 22).



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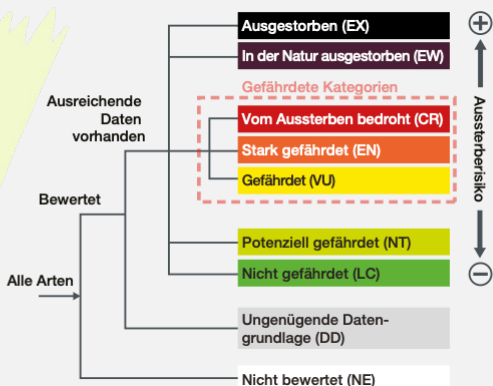
List particularly problematic areas, either in German or in English, and address the situation in Western Europe in particular.

Overall, endemic species are particularly endangered. This applies to the whole of Europe and Central Asia; in Central and Western Europe the situation is even more dramatic (approx. 48% at least potentially endangered).

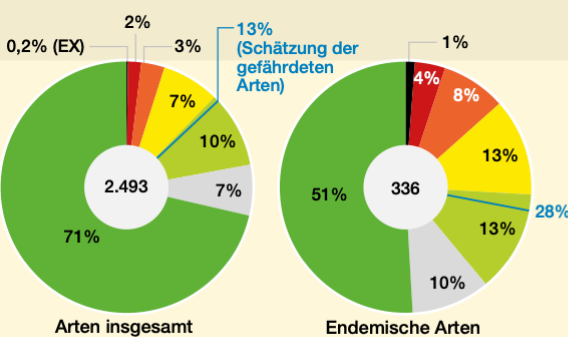
Abbildung SPM 5 A Vom Aussterben bedrohte Arten in Europa und Zentralasien nach der Roten Liste der gefährdeten Arten der Weltnaturschutzunion (IUCN) von 2015

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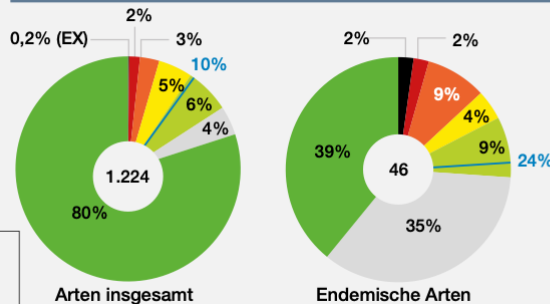
GESAMTEUROPA UND ZENTRALASIEN



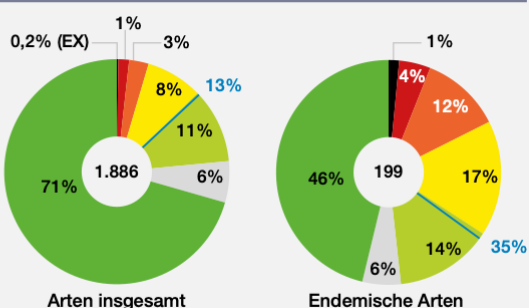
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OSTEUROPA



MITTEL- UND WESTEUROPA



ZENTRALASIEN

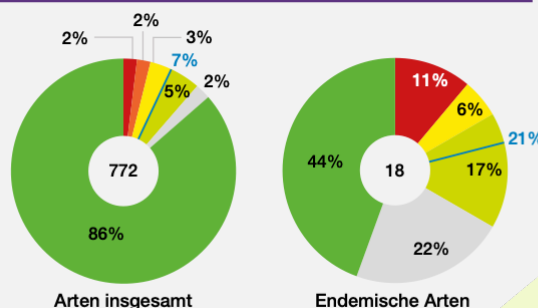


Fig 2. (IPBES 2018a: 22).



Fig. 3 shows the current development of species threats in the different parts of the world; the text M 1 deals with the special situation in tropical regions.

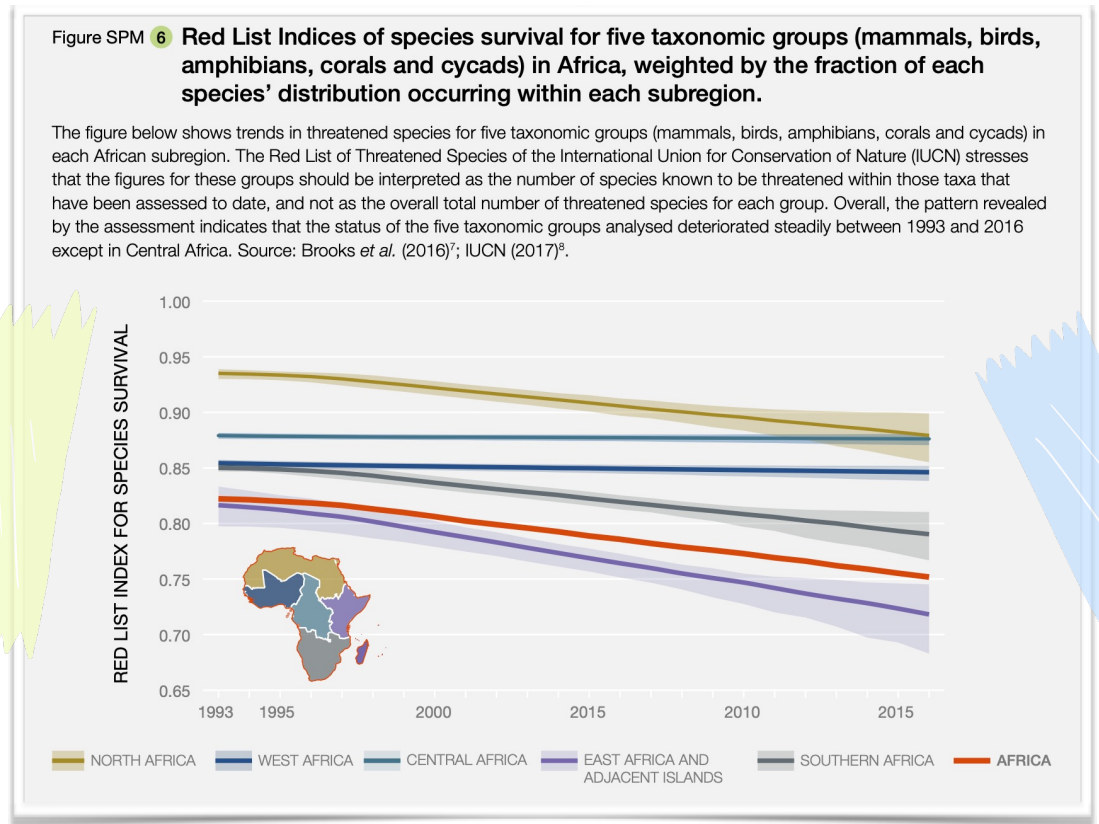


Fig 3. (IPBES 2018b: 24).

M 1 Hotspots of species extinction: Africa and Latin America

Particularly endangered animals, according to the report, are the eastern lowland gorilla in the Congo, leatherback turtles in Costa Rica and sturgeons in the Yangtze River - the latter have declined by 97 percent since 1970. Latin America as a whole is in an "outstandingly bad" position, said study author Christoph Heinrich of WWF. In Europe, the decline of the animal species studied is 25 percent, according to the report. The strongest interventions in the landscape occurred here before 1970 and thus before the beginning of the study period, Heinrich explained the comparatively good value with. As the report states, most places without a human footprint are in just a few countries: Russia, Canada, Brazil and Australia. (...) Nature destruction and overexploitation are happening at unprecedented rates, according to the report. "We are losing the diversity of life on Earth," said Christoph Heinrich. In light of the numbers, WWF is calling for systemic change in agricultural policies, the food system and global supply chains. In addition, one-third of the Earth must be placed under protection by 2030, he said.

(Dorhöfer 2019)

Summarize the key messages in English.



Subject area II

Task 4

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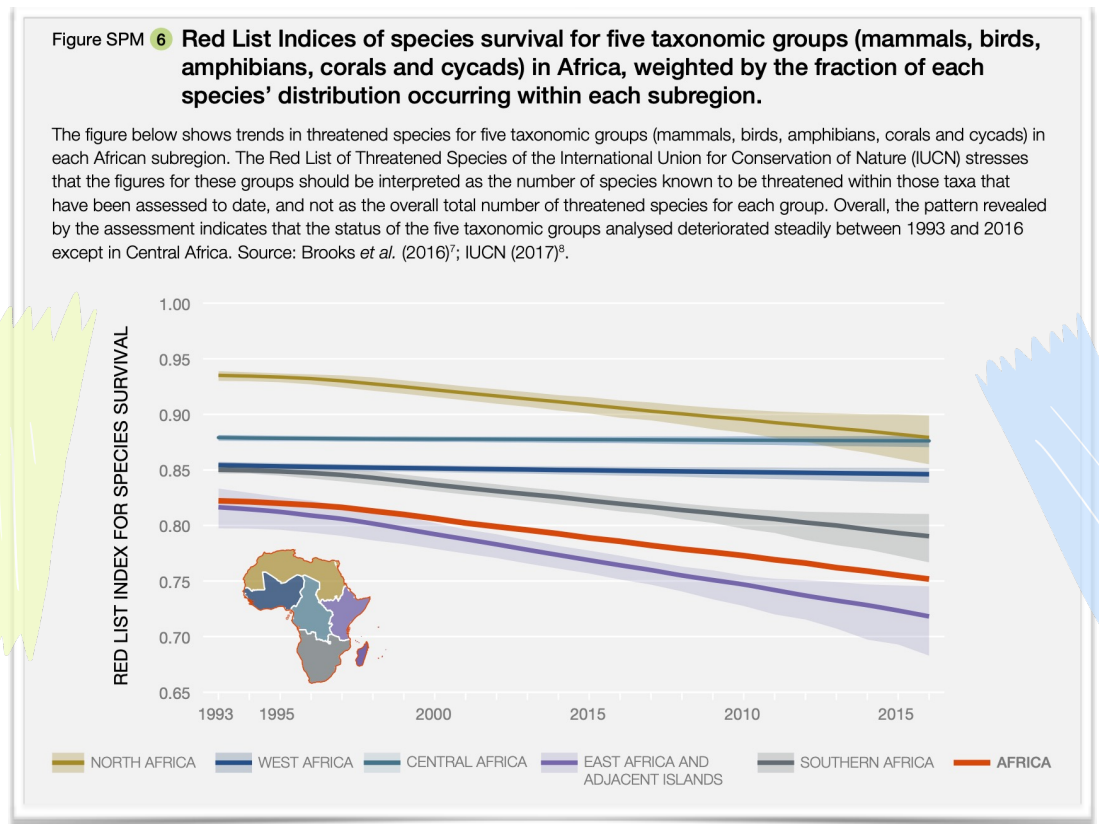


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(Dorhöfer 2019)

Summarize the key messages in English.

Only in South and Central Africa is the situation stable at a (low level); in all other regions of Africa, the threat is rising sharply. In East Africa, for example, the survival probability for many species is only 75%. Eastern lowland gorillas in Congo, leatherback turtles in Costa Rica, and sturgeons in the Yangtze River are outstanding negative examples. In Europe, the species decline had started earlier, so the negative trend since 1970 is not as strong. Only a few regions are free from human intervention (M 1).

Species extinction in general:

Dörhöfer, P. (2019). The extinction of species is happening faster than expected. Frankfurter Rundschau. <https://www.fr.de/wissen/artensterben-geht-faster-thought-12908450.html> (25.11.2021).

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2018a). *Regional Assessment. Biodiversity and ecosystem services in Europe and Central Asia*. IPBES Secretariat: Bonn. https://www.de-ipbes.de/files/IPBES_Broschuere_ECA_2019.pdf (24.08.2021).

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2018b). *The regional assessment report on Biodiversity and Ecosystem Services for Africa*. IPBES secretariat: Bonn. https://ipbes.net/sites/default/files/spm_africa_2018_digital.pdf (24.08.2021).

Video:

Scientists for Future (2021). *Dr. Gregor Hagedorn - Biodiversity II - Species Extinction (S4F Spotlight)*. Scientists for Future. <https://www.youtube.com/watch?v=ICz7KHbupGA&t=7s> (24.08.2021).

Other materials:

Federal Agency for Nature Conservation (BfN) (oJ) *Biological diversity in the classroom - materials for primary school and secondary school*. BfN. <https://biologischediversity.bfn.de/infothek/anleitungsmaterial.html> (07.09.2021).

Jessel, Prof. Dr. B. (2011). Value and valorization of biological diversity. Federal Agency for Nature Conservation. https://www.hss.de/fileadmin/media/downloads/Berichte/110407_PP_Jessel.pdf (07.09.2021).