



Høgskolen i Telemark

EXAM

4505 Conservation Biology

16.05. 2014

Time : 4 hours

Language: english

Numbers of pages: 3 including the front page

Aid: dictionary

Appendix : -

Exam result will be available on Studentweb

- 1.) What are the three levels of biodiversity? Explain the differences between the levels.
List five threats to biodiversity that result from human activity.

- 2.) What should be considered when networks of protected areas are designed? Name eight points. Give an example from the excursion that clearly shows the limitations to an ideal design of protected areas.
What are the arguments in the SLOSS debate?

- 3.) Ex situ conservation is a supplement to in situ conservation. List four different ex situ facilities. What are positive side effects of ex situ conservation?
What are limitations of ex situ conservation?

- 4.) Use the terms "direct use value", "indirect use value", "option value", "existence value", and "bequest value" to explain the total value of a tropical forest ecosystem.
Carbon sequestration in forests is an indirect use value of the forest ecosystem. Explain efforts that the Norwegian government conducts to conserve this value, both in Norway and in other countries?

- 5.) What is meant by ecological footprint? Name three factors that keep the footprint high/low? You estimated your personal ecological footprint during the lectures, some of you got a result of 2.2, compare this result with the worlds average footprint, the average Norwegian footprint, and the average footprint of for example Mozambique or Malawi?
How can extreme differences in the ecological footprints be a problem for the protection of biodiversity?

- 6.) What is the IUCN Red List? What are the Red List categories? Include a short explanation for each category. Give two species examples that we have encountered during our excursion that are (regionally) threatened according to the Norwegian Red list.

- 7.) What are the six IUCN classification categories of protected areas? Explain the categories, consider also area size and human disturbance.
Where do we find the largest national parks, give examples from both Norway and other parts of the world. Which ecosystem in Norway should be protected to protect as many red listed species as possible?

8.) One way of deciding which areas to protect is to use the species approach. This includes the use of so-called focal species. Mention three groups of focal species and how their protection will benefit other species. In which of the groups would you classify sea otters, explain shortly the role of sea otters in their ecosystem.

What are eligibility criteria for umbrella species?