

Department of Biology

## Examination paper for BI3082 – Biodiversity and conservation biology II

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Date

Signature

**The percentage weight of each question for the total evaluation is marked in parenthesis.**

**Question 1 (25%):** Many populations are harvested by humans in some way, but the harvest can differ for example with respect to selectivity. What are the evolutionary effects of different forms of harvest on the traits in the population that is harvested? What are the implications for the populations?

**Question 2 (25%):** Why should we consider species interactions in conservation biology?

**Question 3 (25%):** Explain the main steps of an ecosystem restoration project. What kind of problems can emerge?

**Question 4 (25%):** Inbreeding is one of the processes that may cause problems in small populations.

- a) Explain what inbreeding is, and how inbreeding affects the genetic variation in a population.
- b) Explain how inbreeding usually affects fitness, and the main mechanisms for this effect.
- c) Imagine you are asked for advice on how to rescue an isolated and inbred population of Arctic fox somewhere in the Scandinavian mountains. Explain the advice you would give and why.