**Norwegian University of
Science and Technology**

**Faculty of Natural
Sciences and Technology**

Department of Biology

Contact during the exam: Trond Amundsen, tel 918 97 293

EXAM IN: **BI 2045 Communication and Reproductive Behaviour**

English

DATE: 29 May 2013

Credits: 7.5
No of pages: 1
Marking date: 19 June 2013

Hours: 4
Aids allowed: none

ALL QUESTIONS COUNT EQUAL FOR THE MARK

_____

It is recommended to illustrate your answers using concrete examples. Please read all questions before you start answering.

Question 1

What is sexual selection, and how is it different from natural selection? What are the main processes of sexual selection, and what can we do to test these in practice?

Question 2

When is sexual selection expected to affect males more strongly than females, when is it expected to affect females more strongly than males, and when would we expect sexual selection to act similarly strongly on both sexes? Explain relevant theory, and outline the current empirical knowledge about these issues.

Question 3

How can signals and sexual selection affect speciation? Please outline the current state of knowledge. Is there reason to believe that sexual selection is an important force in speciation, or rather the opposite?

Question 4

How do we go about to test potential explanations (hypotheses) in animal behaviour? Explain the logic of hypothesis testing, and how you have used this tool to understand the behavioural phenomenon that was the topic of your group's project. Finally discuss briefly what challenges behavioural biologists may encounter in empirical hypothesis testing.