

# UNIVERSITY OF OSLO

## Faculty of Mathematics and Natural Sciences

**Exam in**                      **BIO 4350 Marine Mammals**

**Day of exam:**              **15 June 2012**

**Exam hours:**              **9 - 12**

**This examination paper consists of 1 page.**

**Appendices:**              **None**

**Permitted materials:**    **None**

*Make sure that your copy of this examination paper is complete before answering.*

1. Humpback whales (morphology, life history, predator behaviour, songs).
2. Describe hearing in cetacea.
3. Describe the biology of ringed seals.
4. Describe the population dynamics of marine mammals.
5. Sketch (i.e. not long descriptions) the arguments for and against the theory of stunning (killing with sound).
6. Where is the calving area for the Norwegian minke whales, and how often does a female get a calf? What is the diet and where do minke whales feed?
7. How old is a harbour seal pup when it goes into the water?
8. Sketch the arguments for the paleontological and genetical phylogeny of the Cetacea/Artiodactyla group.
9. Which are the two species that are regarded as probable candidates for being the ancestor of whales? Give short arguments for each candidate.
10. What is the function of seal whiskers?