

NATIONAL UNIVERSITY OF IRELAND
GALWAY

OLLSCOIL NA hÉIREANN, GAILLIMH.

SEMESTER II, SUMMER EXAMINATIONS, 2000

Third Science Zoology (ZO308)
and Third Environmental Zoology (ZO303).

Extern examiner : Professor G. Fava.

Time allowed : Three Hours

Answer five questions, at least two from each section.

Section A.

1. Either write brief notes on three of the following topics : orthokinesis ; klinotaxis; dorsal light reactions; mnemotaxis; circadian rhythms or write a brief essay on animal learning.
2. Describe the general features of riverine ecosystems, with reference to the river continuum concept.
3. Discuss the factors which may cause population cycles in Red Grouse.
4. Either, with respect to the ecosystem of your choice, discuss the community concept in ecology, or discuss the concept of ecological niche.
5. Detail the current status and habitat requirements of three Irish wild mammals.

Section B.

6. Give an account of diving physiology in whales and seals.
7. Write an appreciation of the estuarine ecosystem.
8. Provide a general account of animal-sediment relations in coastal waters.
9. Either give an account of the various reproductive strategies which have evolved in marine animals to achieve the basic requirements of a successful species and refer briefly to the advantages of each strategy or describe, in graphic detail, the various adaptations of marine animals to planktonic existence and give an account of vertical migration.
10. Either write an account of the lophophorate phyla or write a short account of two of the following : Ctenophora, Nemertea, Sipunculida.