

**NATIONAL UNIVERSITY OF IRELAND
GALWAY**

OLLSCOIL NA hÉIREANN, GAILLIMH.

SEMESTER II, SUMMER EXAMINATIONS, 2000

BSc (Honours) Zoology (ZO401)

SECOND PAPER

Extern examiner : Professor G. Fava.

Time allowed : Three hours

Answer four questions

1. In many ecosystems, much of the energy required by heterotrophic organisms does not derive directly from living photosynthetic organisms but passes along the detritus food chain. Discuss fully in illustrated detail.
2. Describe the life history strategies of fish which help ensure a successful species and comment on the capacity of fish populations to respond to fisheries exploitation.
3. Write an essay on marine eutrophication.
4. Discuss the phenomenon of succession in the ecosystem of your choice
5. Write an essay on protozoa of medical importance.
6. Describe the evolutionary changes in the heart and aortic arches from fishes to mammals.