

THE UNIVERSITY OF EDINBURGH  
INSTITUTE OF ATMOSPHERIC AND ENVIRONMENTAL  
SCIENCES  
SCHOOL OF GEOSCIENCES

**EFFECTS OF AFFORESTATION AND FOREST  
MANAGEMENT ON SOIL CARBON DYNAMICS AND  
TRACE GAS EMISSIONS IN AN SITKA SPRUCE (*Picea  
sitchensis* (Bong) Carr.) FOREST**

**Argyro Zerva**

B.Sc., Technological Institute of Lamia (Greece)  
M.Sc., University of Edinburgh

A Thesis submitted for the Degree of Doctor of Philosophy  
April 2004