



«Actions to protect, conserve and promote biodiversity. Field studies of endemic, endangered and nationally important species of Greece». Funded by the Natural Environment and Climate Change Agency (NECCA)

TITLE

Salmo lourosensis (Delling, 2010): Population size estimation and in situ efforts for reproductive success enhancement of an endemic and threatened freshwater fish species of Greece

(Project ID: 12620)

PRINCIPAL INVESTIGATOR

LEONARDOS IOANNIS

HOST INSTITUTION

UNIVERSITY OF IOANNINA

ABSTRACT

Salmo lourosensis is an endemic trout species that lives only in the upper part of Louros River, Greece. It is an endangered (EN) fish species according to the Greek Red Data Book and its conservation status is considered unfavorable- bad with a deteriorating trend. The main threats *S. lourosensis* is facing are habitat loss, modification and fragmentation, dam construction, pollution, competition for food with *O. mykiss*, water abstraction and fishing. The species is protected by the Annex II of the 92/43/EC and indirectly by the 2000/60/EC. The population was estimated to 1752 individuals with a decreasing short-term trend, while the species habitat was not considered sufficient, with the data being collected a decade ago. The purpose of this proposal is the estimation of *S.lourosensis* population, the description of its distribution and the enhancement of its population by artificial reproduction. The proper duration for the completion of this study is considered to be 12 months. Samplings will be conducted monthly using a backpack electrofishing device. The individuals caught will be marked and a capture- tag- recapture method will be used to estimate the population size. The tagging process will be based on the non-lethal method of fin mutilation of a small part of the fins. During the reproduction, mature male and female individuals, as well as their sperm and eggs will be collected, and fertilization will occur. The fertilized eggs will be released in safe places, called redds and will be monitored until the hatching of the eggs. Due to the species' conservation status and the limited size of its population, the study will be based solely on non-lethal methods and all the individuals will be released soon after the collection of the data. Considering the tagging method and fin mutilation for the estimation of the population size, fins can regenerate, but they are often distorted, allowing fish identification.
