



Newsletter

LIFE FOR LASCA

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LASCA: NATIVE OR ALLOCHTHONOUS?

Some native species in our territory that are in a state of decline and are in danger of disappearing for various reasons, elsewhere they are alien and cause problems. The terms autochthonous and allochthonous in fact do not indicate the condition of the species at all, but refer to a specific place. An example is precisely the Lasca (*Protochondrostoma genei*), an endemic species of the Padano-Veneto district and of a part of the Slovenian territory, which appears as an allochthonous species in the Tiber river basin in Central Italy.

GENETIC STUDIES ON LASCA IN THE TIBER

Prof. Massimo Lorenzoni (Department of Cellular and Environmental Biology of the University of Perugia) studied the Lasca in the Tiber river. An important turning point emerged from the genetic analyzes carried out by the research team of Prof. Lorenzoni: the individuals of Lasca present in the Tiber river are genetically similar to the Lasca specimens of Slovenia. These results will help the conservation of the Lasca in Slovenia and of the native species of the Tiber river through a possible movement of Lasca through capture in Central Italy and release in the Soča river in Slovenia. In this way, Slovenian wild Lasca specimens will increase and the indigenous fish fauna of the Tiber river will be freed from an allochthonous threat.



Lasca fry – Photo Pietro Beretta

THE SITUATION IN CENTRAL ITALY

The Lasca was accidentally introduced on the Tiber river over 50 years ago and, in a few years, has colonized many of the waterways present in the Apennine hydrographic network linked to the first release site and continues to expand its range even today.

Towards the end of the 1960s it also appeared in Tuscany and Lazio in the Centa, Magra, Arno and Ombrone rivers.

Being a long-time introduced species, it has had more time to expand its range of distribution, in fact it seems more widespread than more invasive species introduced more recently. This success is mainly due to the fact that, coming from Northern Italy, the Lasca found, in the Apennine rivers, similar environments to the native ones and therefore better possibilities of acclimatization and reproduction than other exotic species.

Lasca is a rheophilic species that colonizes environments with not excessively low temperatures, for this reason its expansion in the Apennines is not affected by the effects of climate change, which could indeed favor its expansion into the Tiber river and its tributaries. Other advantages for the Lasca in the Tiber river basin are the environmental quality, the absence of predators and the little interest of fishermen for this species.

OBSTACLES TO THE DIFFUSION OF THE LASCA IN THE APENNINES

At the moment the movements of the Lasca in the Apennine area are held back by bridges and dams, insurmountable obstacles for all fish species. In fact, the Lasca has spread more in the rivers without interruptions, such as the Paglia and the Chiani rivers, while in the Chiascio and Nera rivers it is present only in the terminal sections and in the confluences downstream of the obstacles.



Adult of Lasca - Photo FRIS

COMPARISON BETWEEN ORIGINAL AND INTRODUCTION AREAS

In the area considered by Lorenzoni, Lasca found favorable conditions for its settlement. In fact, the populations, although still in the development phase, being composed of many young individuals, seem to be in a better state than those of the rivers of origin.

In the native area the presence of the species is very fragmented for various reasons such as the alteration and degradation of habitats, the introduction of exotic species that prey and compete with the Lasca, water pollution, fishing practiced by sport fishermen .

In the Soča river basin in Slovenia, the Lasca is on the verge of extinction due to the presence of the Nose (*Chondrostoma nasus*), an exotic fish with which it competes. For this reason, actions aimed at its conservation have been undertaken through the LIFE for LASCA project.

In Italy, the Lasca has been included in the list of endangered species in the Red List of Italian Vertebrates.



Ticino River – Photo Pietro Beretta

TIBER RIVER: THE LASCA AS A THREAT

Following some studies, Prof. Lorenzoni hypothesizes that the Lasca, as a competitor for resources (habitat and food), could represent a threat to two endemic species of the Tiber river: the Etruscan chub (*Squalius lucumonis*) and the Italian roach (*Sarmarutilus rubilio*).

Studies seem to show that in environments where resources abound and therefore are not fully utilized by native species, the introduction of the Lasca does not seem to have caused any particular problems and damage. Greater problems could arise in the long term, when the widespread presence of Lasca could cause negative effects on the body condition especially of the older individuals of the two species considered in the studies.