

ESPECIES EXÓTICAS INVASORAS

Problemática y herramientas de gestión, control y erradicación

Cáceres 20 y 21 de marzo de 2018

Especies exóticas invasoras en el marco del proyecto LIFE CIPRIBER



Why a LIFE project: recent studies have shown a decline in populations of some cyprinid fish species of the Duero and Tajo river basin, as well as increase of the spread of exotic species.

In Castilla y León there are half of the autochthonous fish species present in Spain, with a total of 22 species, 14 of them are Iberian endemism, and one a specific endemism of the area of the project.

General objective: protect and recover the populations of this endemic species of cyprinids according to the Annex II of the Habitat Directive

Total project budget: **2.429.049,00 €**

EU LIFE financial contribution 50 %

Start date: 02/06/2014

End date: 31/08/2018

Coordinating beneficiary

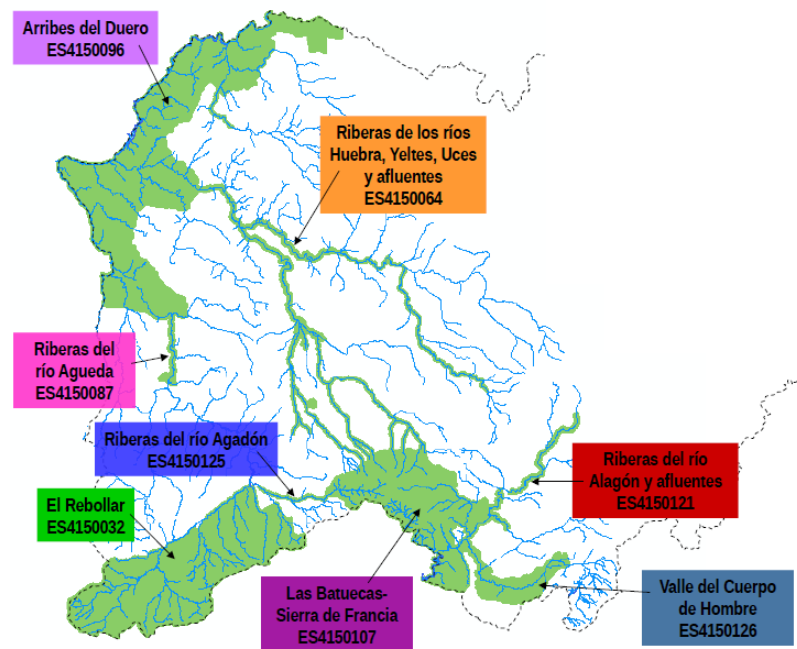
Confederación Hidrográfica del Duero

Beneficiaries associated

Junta de Castilla y León
Fundación Patrimonio Natural
Confederación Hidrográfica del Tajo

Territory

The LIFE+ project is located in the southwest of the province of Salamanca due to the composition, abundance and degree of protection of the endemic fish communities present in this area, some of them can only be found in this area and are considered endangered, and also, because of the number of SICs associated to the rivers of this area.



ACTIONS

Initial situation diagnosis: starting point for the comparison of fish population evolution and habitat status.

Farm Fishing Action Plan: develop an innovative captive breeding protocol based in natural conditions

Performance Framework Document in Rivers: assessment of the initial situation regarding the ecological status and the river connectivity

Making a native fish resource stock in Galisancho: captive breeding for reintroduction of the species listed in Annex II of the Habitats Directive.

Monitoring of fish species: assessment of the evolution of the fish community. This protocol will be as well as an early warning system for invasive species.

Protocol for action against invasive species

Habitat restoration: improvement of river connectivity by demolition of barriers and construction of fish passages, and restoration of degraded river areas.

Water Management Plan and Fish Management Plan: establish a framework for actions in order to guarantee conservation goals and future sustainability of the project.

1. Fish population studies

1.1. Assessment of the initial state of each species in the different SICs of the rivers Agueda, Huebra-Yeltes, Uces and Alagón.



1.2. Assessment of the fish population evolution according to the historical data (comparison with data from the last 25 years)

1.3. Further detailed studies of some species in some river sections, where more information is needed.

1.4. Local studies where habitat remediation measures take place (both restoration and connectivity measures), and where reintroduction of species from the farm fishing are release.

ALIEN EXOTIC SPECIES

Gambusia: in all rivers

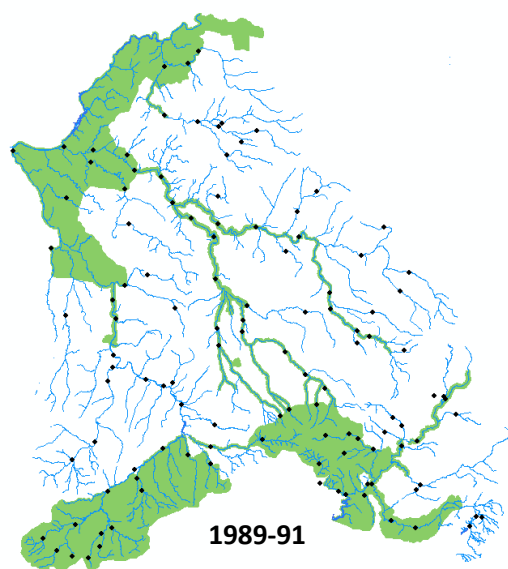
Alburno: first references in 2014 in the basins of rivers Huebra and Alagón

Black-Bass: first references in 2014 in the basins of rivers Huebra and low part of river Agueda

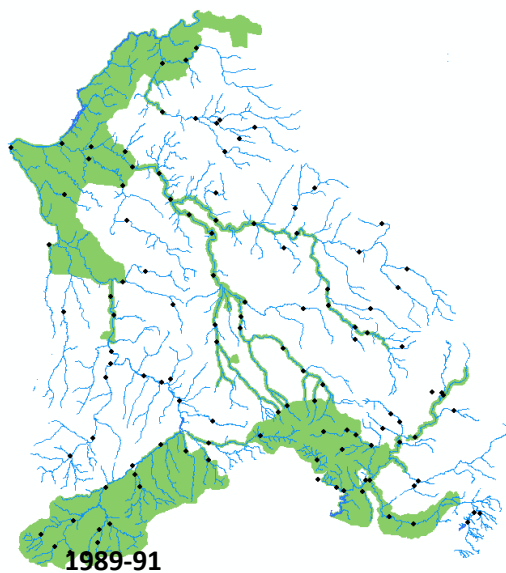
Perca Sol: first references in 2009 in the low part of river Agueda

Lucio: first references in 2014 in the low part of river Agueda

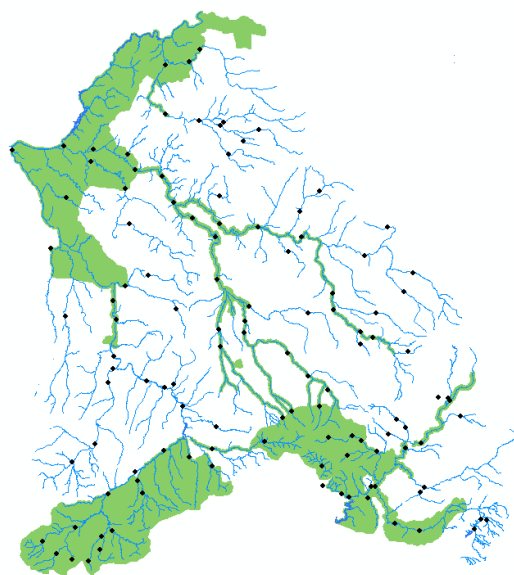
Lucio (*Esox lucius*)



Carpa (cyprinus carpio)



Alburno (*Alburnus alburnus*)



1989-91



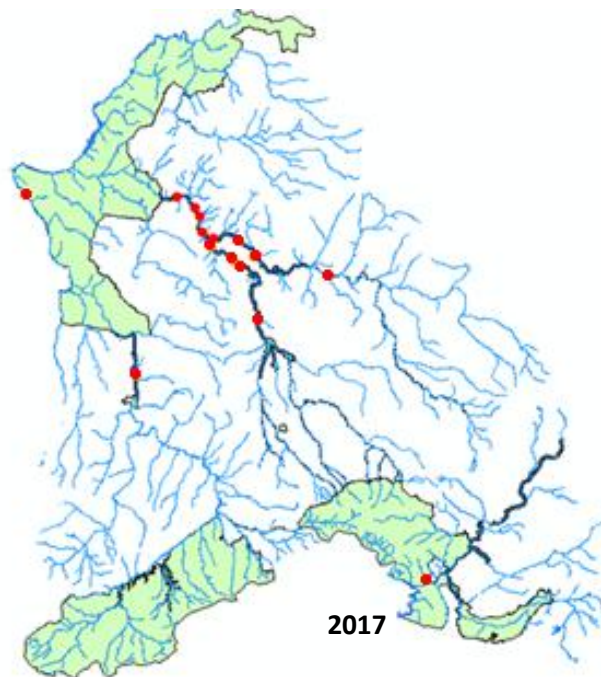
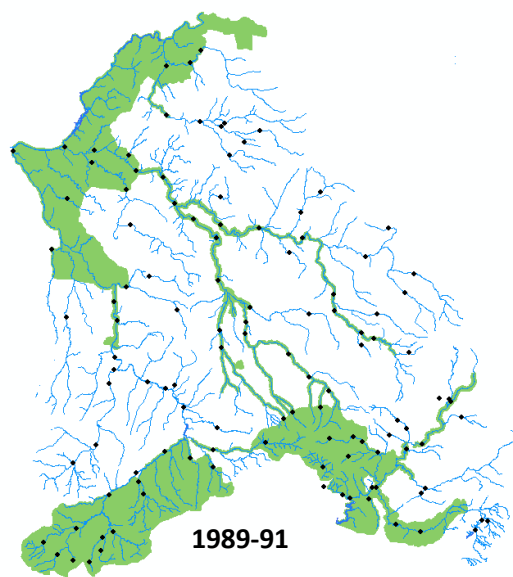
2017

first references in 2014 in the basins of rivers
Huebra and Alagón

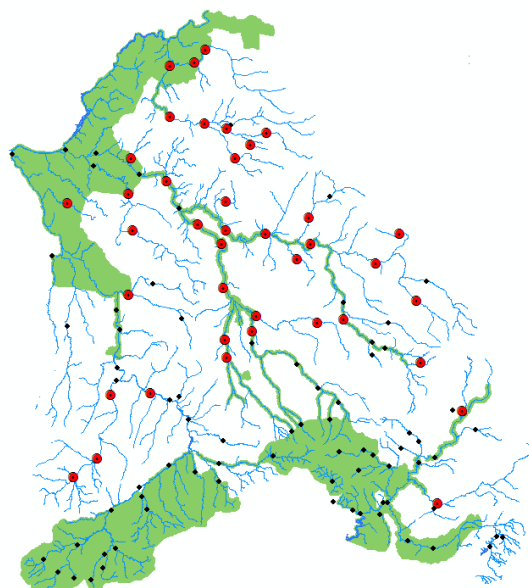
Black Bass (*Micropterus salmoides*)



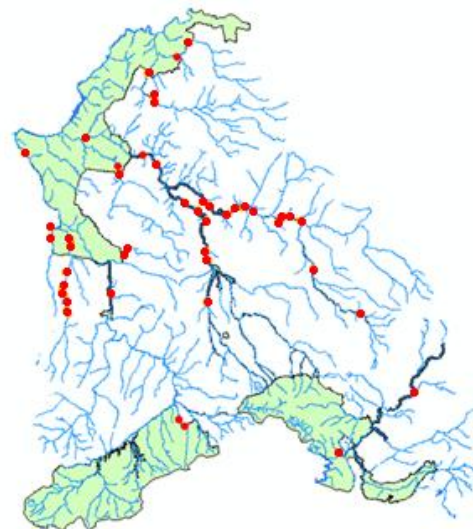
Perca Sol (*Lepomis gibbosus*)



Gambusia (Gambusia holbrooki)



1989-91

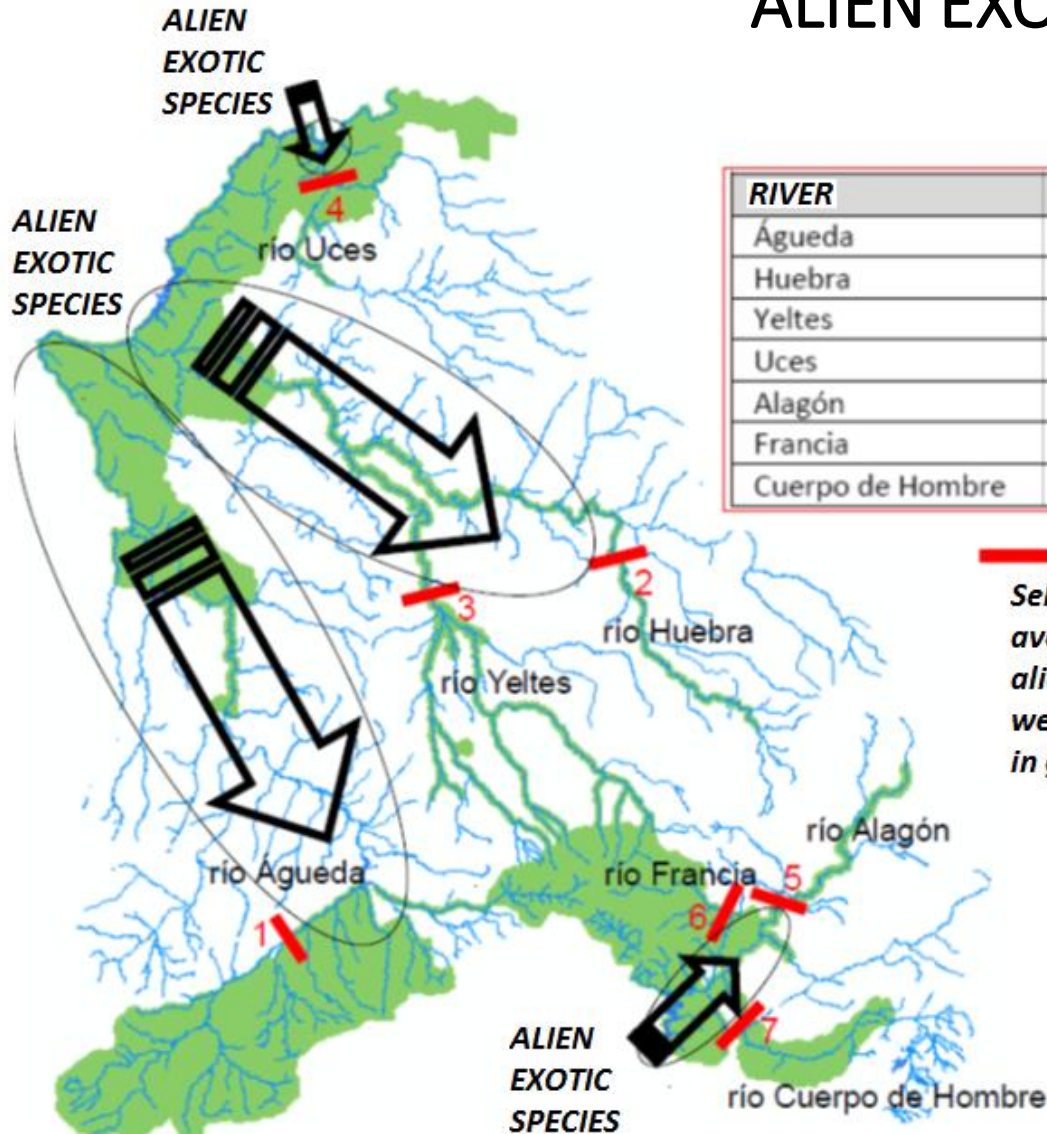


2017

2-

HABITAT RESTORATION MEASURES

ALIEN EXOTIC SPECIES STRATEGY



RIVER	NAME	
Águeda	Embalse de Irueña	1
Huebra	Jumillano	2
Yeltes	Balneario de Retortillo	3
Uces	Pozo de los Humos	4
Alagón	El Pipero	5
Francia	La Regajera	6
Cuerpo de Hombre	Central de Valdelageve	7

Selected river barriers to avoid the spread upstream of alien exotic species where well fish populations are still in good conditions

CONCLUSIONS

The regulated lower section of the river Águeda is “lost” in terms of alien species eradication because of the presence of large number of alien species (pike, black bass and sun perch) and the river conditions.

Last year, it has appeared in the upper section of the river Águeda above the dams of Irueña and Agueda the black bass, what it is surely and intentional introduction.

The fishes in the rivers “*Turones*” and “*Rivera de dos Casas*” have been disappeared, probably because the effect of the severed droughts seasons due to the climate change, and river restoration measures has to been taken in advance in order to reintroduce the endemic species.

The river Uces is well preserved, and only has Gambusia.

The lower section of the rivers Huebra and Yeltes has several alien species. The recently presence and rapidly spread of the Alburno is enhance by the river connectivity measures. The actions focus on the improvement of the habitat (connectivity) to the Barbo, Boga y Cacho with high mobility demands, helps the spread of Alburno. Isolation strategy of well preserved river sections is effective but it has and impact on this endemic species.

The Sarda resist very critical drought conditions like this past years, but as well does the sun perch. Therefore the only effective conservation strategy is to avoid its entrance in the upper sections of the river. In this case, we believe that the strategy of isolation river sections is fundamental.

Most of the alien species introductions are intentional introductions (fisherman etc.), and well proved since appear in different isolated sections of the river very far away each other.