



life
fluvial

LIFE16 NAT/ES/000771



Action E.2. Outreach and awareness programme

newsletter nº2

december 2019

IMPROVEMENT AND SUSTAINABLE MANAGEMENT
OF RIVER CORRIDORS
OF THE IBERIAN ATLANTIC REGION





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lifefluvial

acquisition of land

authorization of occupation for the start of the actions



On May 15th, felling started in 4.5 ha. of eucalyptus plantations on the left bank of the Ribadeo Ria. This land had been previously expropriated by the town council of Ribadeo, within the Natura 2000 network under the LIFE FLUVIAL project, with the purpose of restoring it and giving the ria back its naturalness.

The first step was to remove the formations dominated by eucalyptuses, which denature the landscape and worsen the state of conservation of the natural ecosystems. Subsequently, since November, the natural habitats proper to the banks of the ria have been restored, by planting native species (oaks, laurels, strawberry trees, hazels, blackthorns, wild pear and apple trees, etc.). The seedlings are of local origin to ensure the origin of the plants and prevent genetic pollution problems.



progress in the restoration actions

actions in A Lagoa do Rei



Action C7, in A Lagoa do Rei (SAC Parga-Ladra-Támoga ES1120003), has been practically completed in 2019, after the execution of its first stage in 2018. Thus, the accessibility of the informative equipment around the lake has been adapted, improving its function and enabling the environmental education and awareness raising tasks in a more rational manner.

In the late summer months, the topography of the edge of the lake was corrected, easing the slope in order to favor a wider ecotone environment between aquatic and terrestrial environments and, therefore, the maintenance of its flooding for a longer period, preventing the water level from falling too quickly in summer in that area. This will have a bearing on a better recovery of habitat 91E0*. The material generated during this action has been used to reinforce the hillock that separates the lake environment from the interpretative path that surrounds the wet complex, so that the action has reinforced the isolation of the lake from external disturbance.

The restoration of the vegetation cover of habitat 91E0* has been completed. It has entailed the planting of its characteristic species (*Salix atrocinerea*, *Fraxinus excelsior*), improving its state of conservation and increasing its connectivity to the other habitats. The works, based on low-intensity actions, are exemplary as regards their adaptation to the fragility of the lake environment, by respecting it and taking care not to have any significant impact on the key components of the ecosystem.



actions in the enclaves of the Miño river

Action C6 seeks to improve the condition of habitat 91E0* in 3 enclaves of the Miño River corridor (SAC Parga-Ladra-Támoga ES1120003) in the towns of Lugo, Rábade and Guitiriz.

In the Miño River - Lugo enclave, some alders suffering from the decay syndrome, as well as *Robinia pseudoacacia*, have been removed from the left bank of the river.

In the Miño River - Rábade enclave, action has been taken on the right bank of the river. The action has completed the tasks begun in 2018, with the removal of some alders suffering from the decay syndrome and some very large trunks of *Populus × canadensis*.



In the Parga River (a tributary of the Miño) enclave, in the vicinity of the San Alberte chapel (Guitiriz), action has been taken on both banks. Mainly, some alders suffering from the decay syndrome have been removed, generating a large amount of wood. It has not been possible to use heavy machinery in this operation. The wood has had to be transported afloat in the low water season with cables to prevent impact on the aquatic environment and the riverside. Finally, near a small rural settlement by the river, several trunks of *Eucalyptus* spp have been removed.



In the 3 fluvial sections, the action to eliminate pressure and threats has been completed with the restoration of habitat 91E0* by reforestation with their characteristic species. The generated wood has been donated with social purposes to the people who live nearby, stimulating the support and participation of the local agents, as well as the municipal bodies, the Council of Lugo, environmental entities and the inhabitants of the area themselves.

actions in the Ribadeo Ria – Eo Ria corridor

The tasks to improve and restore the natural habitats in the river-estuary Ribadeo Ria / Eo Ria corridor (SAC Eo River - Galicia ES1120002, SPAB Ribadeo ES000085, SAC/SPAB Eo Ria ES1200016) had already started in the year 2018 by controlling the new eucalyptus shoots in Ribadeo.

The eucalyptuses in the other enclaves of the Galician bank of the ria began to be cut down in May. A total of around 5 hectares was acted upon. During the work, the native trees (sallow willows, alders, oaks, Pyrenean oaks, ash trees, maples, laurels, etc.) that were growing among the eucalyptuses were conserved and they shall constitute an integral part of the restoration.

The other exotic, invading species had been previously (from January 23rd until May) removed from other enclaves within action C1. The removal included pampas grass (*Cortaderia selloana*), black wattle (*Acacia melanoxylon*), Cape ivy (*Delairea odorata*), giant reed (*Arundo donax*), liquorice plant (*Helichrysum petiolare*), rose (*Rosa sp.*), buttonweed (*Cotula coronopifolia*), wandering Jew (*Tradescantia fluminensis*) and calla lily (*Zantedeschia aethiopica*).

Since November, some tree species typically found in riverside forests and Galician-Portuguese oak groves have been planted in these areas.

All the actions have been executed by TRAGSA with the scientific and technical advice of the Institute of Natural Resources and Territorial Planning (INDUROT).



actions in the middle basin of the Eo River

The actions to improve and restore the river corridor in the middle basin of the Eo River (SAC Eo River - Galicia ES1120002, SAC Eo River - Asturias ES1200023) began on February 11th, 2019 in the San Tirso de Abres action enclaves and then continued upstream through A Pontenova and Meira up to the Ribeira de Piquín enclaves. A total of over 620 alders suffering from the decay syndrome were cut down and some invading exotic species, such as black wattle (*Acacia melanoxylon*), crocosmia (*Crocosmia × crocosmiiflora*), Cape ivy (*Delairea odorata*) and wandering Jew (*Tradescantia fluminensis*), were removed. The most recurrent herbaceous invading exotic plants were crocosmia and wandering Jew, which can adapt very well to the weather and soil conditions of the Eo River and had invaded a large part of the banks. In 2019, action has been taken in around 500 m² that had been invaded by crocosmia and 300 m² by wandering Jew.

All the actions have been executed by TRAGSA with the scientific and technical advice of the Institute of Natural Resources and Territorial Planning (INDUROT).



actions at the Arnao and Villadún lakes

The work to improve the state of conservation of the Arnao and Villadún lakes (SAC/SPAB Eo Ria ES1200016) was completed in December 2019. The first tasks began on January 10th of that same year at the Arnao lake with the removal of some herbaceous invading exotic species, such as calla lily (*Zantedeschia aethiopica*) and the tiny floating plant of the *Lemna* genus. For their removal, thin landing nets were used, as well as a rubber dinghy, which made it possible to reach the areas that were farthest from the bank. At the Villadún lake, Cape ivy (*Delairea odorata*), a climbing invading plant found in the least flooded areas of the lake, was removed by hand.

At the Arnao lake, many specimens of exotic trees and shrubs were removed too, such as Monterey pines (*Pinus radiata*), Canadian poplars (*Populus × canadensis*), weeping willows (*Salix babylonica*), yuccas (*Yucca* sp.) and tamarisks (*Tamarix gallica*).

The planting of trees typically found in habitat 91E0* (sallow willows, ash trees, maples, laurels and birches) was carried out in two stages. In March, propagation of willow trees by cuttings began at the edges of both lakes. From June 21st until December, the rest of the planting was carried out. The planting framework was chosen at random, giving some continuity to the tree formations present at the lake with the purpose of creating species dynamics that were as natural as possible. These actions will serve to shelter a lot of bird species that visit the lakes, which is why they are so important for nature conservation.



All the actions have been executed by TRAGSA with the scientific and technical advice of the Institute of Natural Resources and Territorial Planning (INDUROT).



actions at the Lima River SCI

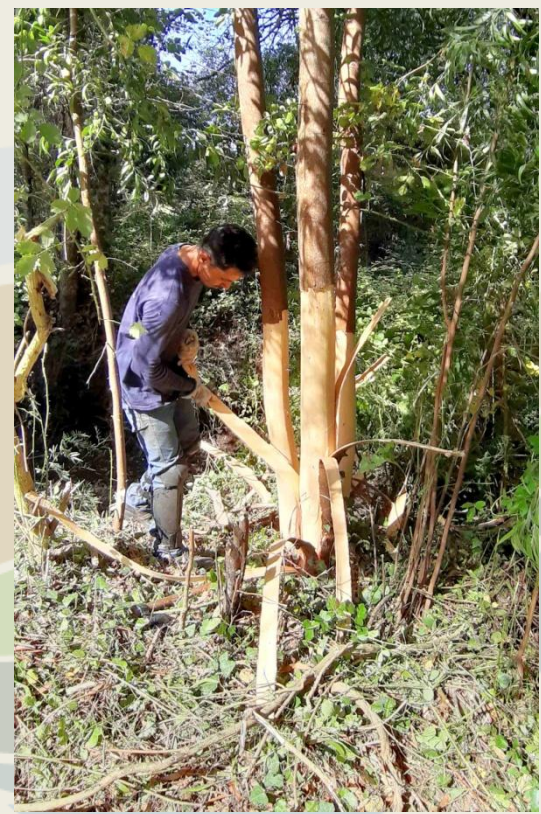
Around the Estorãos River, a tributary of the Lima River, three tasks have been carried out in relation to the conservation of alder trees (*Alnus glutinosa*), because of the effects of the *Phytophthora* group *alni*. disease, the passive restoration of habitat 91E0* and the removal of potentially invading exotic species.

The first task was the identification, georeferencing and marking of symptomatic and dead alders, to monitor the development of the disease and for subsequent selective felling respectively.

In the passive restoration context, for the protection of natural regeneration, fences were installed and monitored in a meadow with handling (grazing and hay cutting) and in a natural pastureland with no handling, in order to assess the impact of grazing and cultural practices in the recruitment and survival of the species that are characteristic of the habitat and to use the results of such monitoring to promote their conservation and recovery.

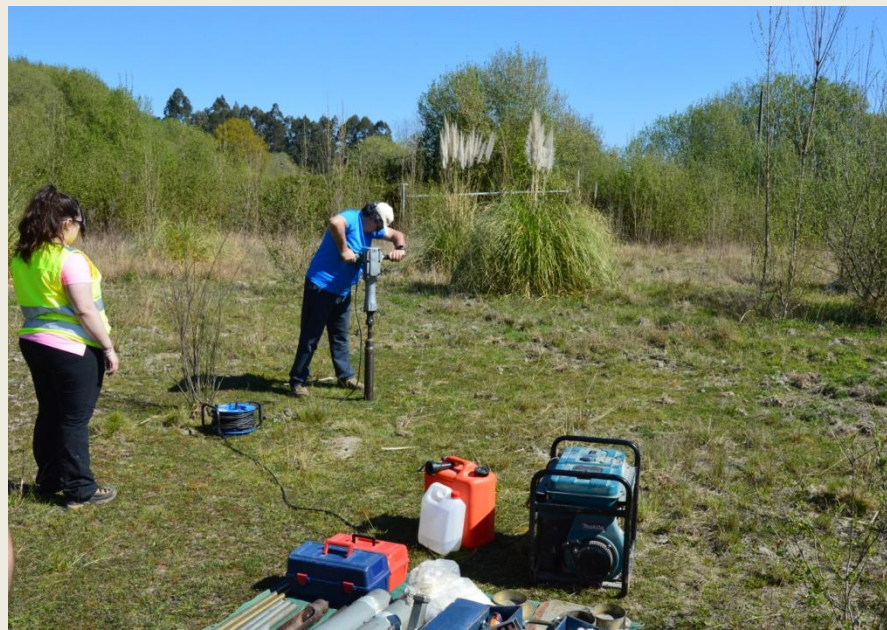


In September 2019, some potentially invading exotic species were removed from two plots with 2.7 hectares through the felling of eucalyptuses (*Eucalyptus camaldulensis*), the debarking of acacias (*Acacia* spp.) and the grubbing of poke (*Phytolacca americana*), wandering Jew (*Tradescantia fluminensis*) and acacias (only for the smallest plants). Several techniques were tested to increase the effect of the debarking in the acacias by coating the trunks with some natural substances.



preparation work in the As Mariñas SACs

In 2019, the action to be taken in SAC Betanzos-Mandeo (ES1110007) and SAC Abegondo-Cecebre Reservoir (ES1110004) has been defined and explained in the corresponding projects, which will be undertaken as soon as the necessary authorizations of the permits, which have been already applied for, are obtained.



↔ Calicatas (SAC ES1110007); IBADER

↔ Inspection of the action perimeter from inside the reservoir (SAC ES1110004); EMALCSA, ADR MARIÑAS-BETANZOS, GN HÁBITAT



communication and dissemination

project folder

In order for a work resource such as a folder to also have the purpose of disseminating the objectives of LIFE FLUVIAL, it was decided that it should include the most significant generic contents of the project in four languages: Castilian, Portuguese, Galician and English.



A total of 5,000 units were made and distributed among the project partners.

This dissemination action was carried out by the InterEo Association in collaboration with the Institute of Natural Resources and Territorial Planning (INDUROT).



children's book

In a project where environmental education aimed at the educative community plays such an important role as in LIFE FLUVIAL, being able to reach a younger audience with adapted contents is essential. Therefore, a children's book was designed and made *ad hoc* as part of the "The Bolechas" collection, whose main characters are very popular in Asturias, Galicia and Portugal.



Rivers rise in **mountains**, they run fast to the **valleys** and then more slowly until they flow into the **sea**.

A **river corridor** is made up of a river, its gallery forest and the area that is flooded when the river level rises.



A total of 2,000 copies of "The Bolechas take a walk along the river" were published and proportionately distributed for the spreading activities programmed by the project partners in each territory. 1,000 copies of the children's book prepared by LIFE FLUVIAL were in Galician, 650 in Castilian and 350 in Portuguese.

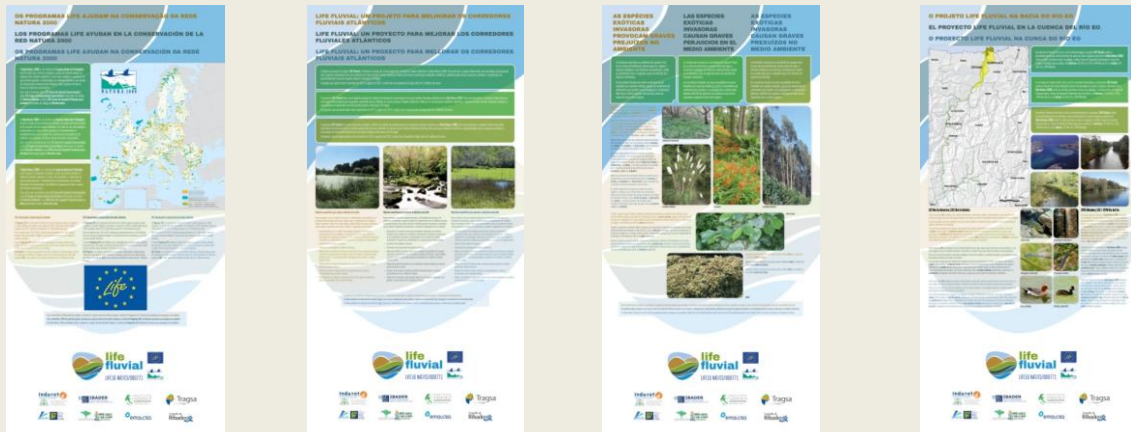
It gives information about the LIFE program, the Natura 2000 network and the river corridors, with their main values and threats.

The action was implemented by the Institute for Agrarian Biodiversity and Rural Development (IBADER).



traveling exhibition

The purpose of the traveling exhibition is to provide information about the most significant contents of the LIFE FLUVIAL project to the widest possible audience.

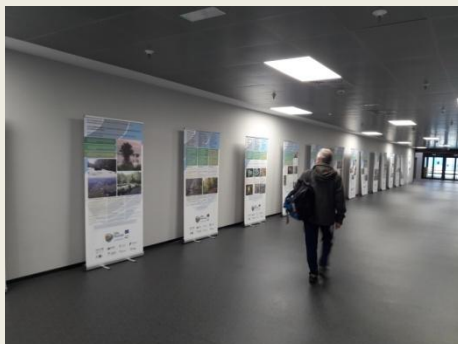


To be precise, 15 roll-ups printed on canvases were prepared, coordinated by the Mariñas-Betanzos Association and checked by the experts at the Institute for Agrarian Biodiversity and Rural Development (IBADER) and the Institute of Natural Resources and Territorial Planning (INDUROT), to be exhibited at different events at the request of the project partners.



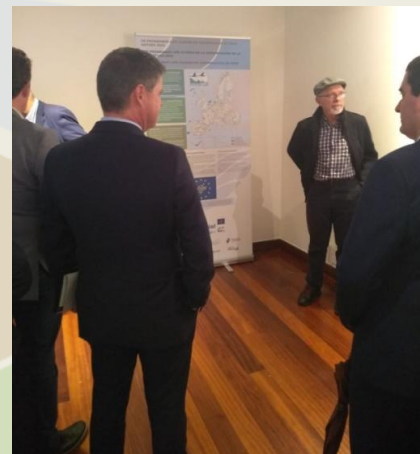
↑ Mieres Campus
(Asturias)
02/07/19 - 18/09/19

↓ Open Science
Cambre (A Coruña)
21/09/19 - 22/09/19



↗ Vegadeo Municipal
Arts Center (Asturias)
06/06/19 - 28/06/19

← Emalcsa
Casa del Agua (A Coruña)
06/11/19 - 15/12/19



← MaB Young Forum
Spanish Network of Biosphere Reserves
(RERB) (Bergondo-A Coruña)
23/10/19 - 25/10/19



promotional items

With the purpose of spreading the image of the project, a series of items were made to be distributed at events, school workshops and on volunteer days, as well as to be used by LIFE FLUVIAL's own technical team.

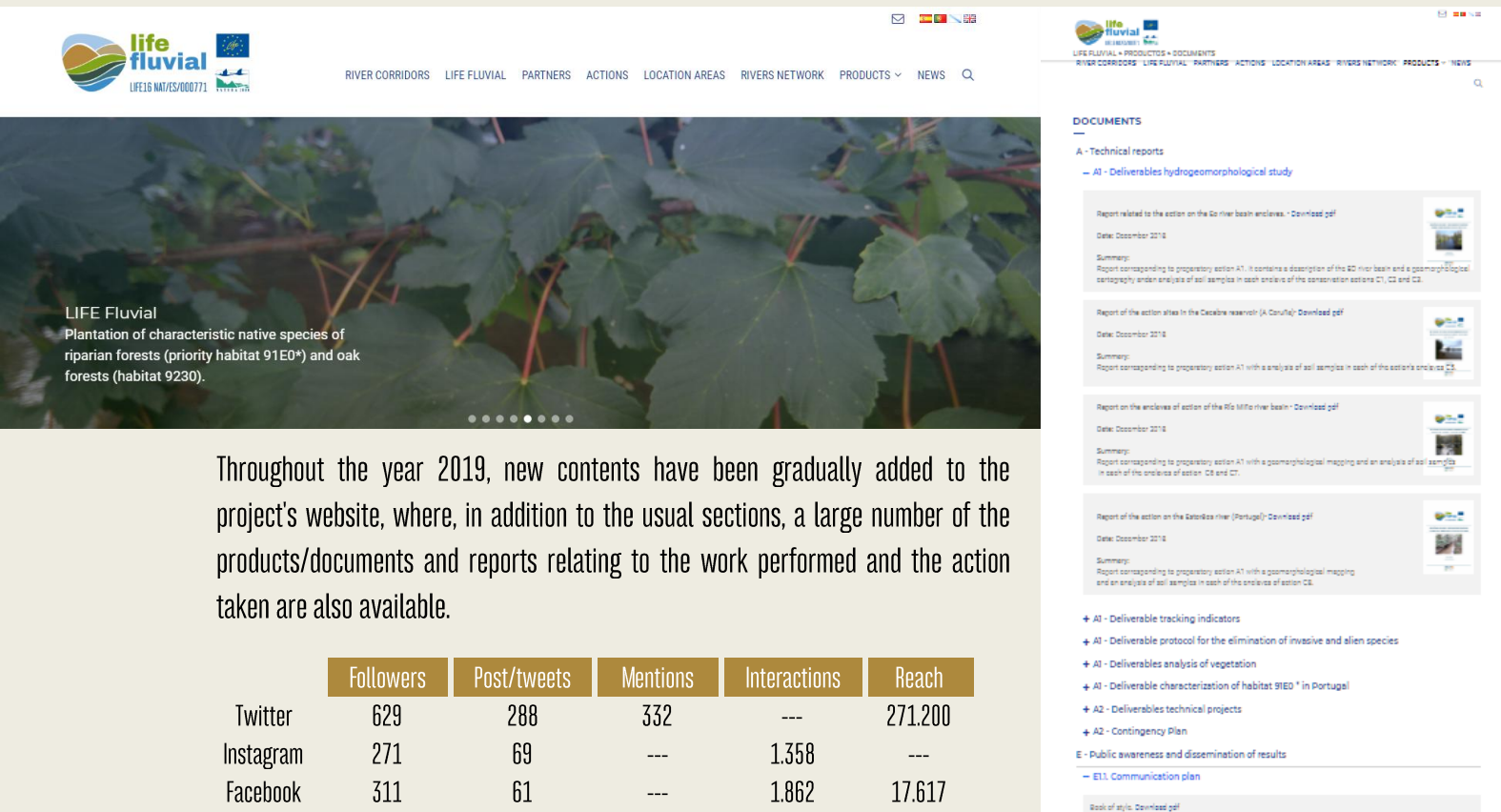


↑ Pencils [1,000 units]; Pens [1,000 units]; Colored pencils [1,000 units]; Pins [1,000 units]; Badges [1,000 units]; USB flash drivers [2,000 units]

↓ T-shirts [1,000 units]; Caps [500 units]; Satchels [1,000 units]; Vests [400 units]; Raincoats [120 units]; Jackets [72 units]



LIFE FLUVIAL website



LIFE FLUVIAL
Plantation of characteristic native species of riparian forests (priority habitat 91E0*) and oak forests (habitat 9230).

Throughout the year 2019, new contents have been gradually added to the project's website, where, in addition to the usual sections, a large number of the products/documents and reports relating to the work performed and the action taken are also available.

	Followers	Post/tweets	Mentions	Interactions	Reach
Twitter	629	288	332	---	271.200
Instagram	271	69	---	1.358	---
Facebook	311	61	---	1.862	17.617
Wensite	---	---	---	---	9.248
TOTAL	1.211	418	332	3.220	298.065

DOCUMENTS

A - Technical reports

— A1 - Deliverables hydrogeomorphological study

Report related to the action on the Guadiana basin enclosures. Download pdf
Date: December 2018

Summary:
Report corresponding to preparatory action A1. It contains a description of the 60 river basin and a geomorphological cartography and an analysis of soil samples in each of the enclosures of the conservation actions C1, C2 and C3.

Report of the action area in the Cazorla reservoir (JA Cazorla). Download pdf
Date: December 2018

Summary:
Report corresponding to preparatory action A1 with an analysis of soil samples in each of the action's enclosures C1, C2 and C3.

Report on the enclosures of action of the Rio Tago river basin. Download pdf
Date: December 2018

Summary:
Report corresponding to preparatory action A1 with a geomorphological mapping and an analysis of soil samples in each of the enclosures of action C1, C2 and C3.

Report of the action on the Guadiana river (Portugal). Download pdf
Date: December 2018

Summary:
Report corresponding to preparatory action A1 with a geomorphological mapping and an analysis of soil samples in each of the enclosures of action C1, C2 and C3.

+ A1 - Deliverable tracking indicators

+ A1 - Deliverable protocol for the elimination of invasive and alien species

+ A1 - Deliverables analysis of vegetation

+ A1 - Deliverable characterization of habitat 91E0* in Portugal

+ A2 - Deliverables technical projects

+ A2 - Contingency Plan

E - Public awareness and dissemination of results

— E11. Communication plan

Book of style. Download pdf

social media

Las The news and events generated by the project have been spread through the main social networks.



Facebook

LIFE FLUVIAL (@lifefluvial)

10 de diciembre a las 14:30

El pasado 8 de diciembre, hemos celebrado un taller sobre la importancia de la conservación de los corredores fluviales atlánticos en el C.P. Alentejo de Vagos.

Instagram

lifefluvial

148 publicaciones 265 seguidores 136 seguidores

LIFE FLUVIAL
Mejora y gestión sostenible de corredores fluviales de la región atlántica ibérica.
Indurrot Bader ISA Ribadeo InterEco Marifas Betanzos Traga Emalia

Twitter

LIFE FLUVIAL (@lifefluvial)

Mejora y gestión sostenible de corredores fluviales atlánticos ibéricos (LIFE16 NAT/ES/000771).
Indurrot Bader ISA Ribadeo InterEco Marifas Betanzos Traga Emalia

LIFE16 NAT/ES/000771
Newsletter no. 2. December 2019

spreading and awareness raising

school workshops in the municipality of Abegondo

The Mariñas-Betanzos Association organized and carried out a total of three workshops in Abegondo (A Coruña), all of them at San Marcos Nursery and Primary School during February 2019. The first one took place on February 8th, with 43 year-3 students; whereas the other two were held on February 18th with 20 year-5 students each.

Their objectives were focused on some of the main awareness-raising values within the LIFE FLUVIAL framework, such as the water cycle and its importance for the environment, as well as climatic change and how river corridors can contribute to its mitigation.



Date	School	Year	Students	Subject matter
08/02/2019	San Marcos Nursery and Primary School	Year 3	43	Water cycle
18/02/2019	San Marcos Nursery and Primary School	Year 5	20	Climatic change
18/02/2019	San Marcos Nursery and Primary School	Year 5	20	Climatic change
Total workshops:		3	Total students:	83

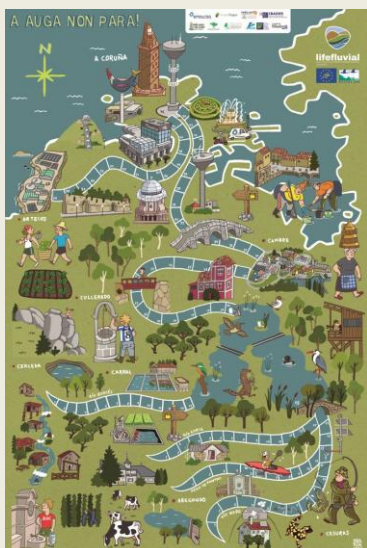
school workshops in the municipality of A Coruña

The Mariñas-Betanzos Association, in collaboration with EMALCSA, organized a total of 15 educational workshops in the city of A Coruña during March and April 2019.

Their objectives were essentially focused on one of the main awareness-raising values within the LIFE FLUVIAL framework: the water cycle and its importance for the environment. In addition, information was given about the main values proclaimed by the project and about the Natura 2000 networks in the area.



Date	School	Year	Students	Subject matter
25/03/2019	Emilia Pardo Bazán Nursery and Primary School	Year 6	73	Ciclo del agua
26/03/2019	Zalaeta Nursery and Primary School	Year 5	22	Ciclo del agua
27/03/2019	J. Cornide Saavedra Nursery and Primary School	Year 5 and year 6	19	Ciclo del agua
27/03/2019	Eusebio da Guarda Nursery and Primary School	Year 5	27	Ciclo del agua
27/03/2019	Rosalía de Castro Nursery and Primary School	Year 5	23	Ciclo del agua
01/04/2019	Concepción Arenal Nursery and Primary School	Year 5	50	Ciclo del agua
01/04/2019	Karbo School	Year 5	23	Ciclo del agua
01/04/2019	Karbo School	Year 6	20	Ciclo del agua
02/04/2019	Santo Domingo Nursery and Primary School	Year 5	51	Ciclo del agua
02/04/2019	Santo Domingo Nursery and Primary School	Year 6	49	Ciclo del agua
03/04/2019	Alborada Nursery and Primary School	Year 5	74	Ciclo del agua
03/04/2019	Alborada Nursery and Primary School	Year 6	37	Ciclo del agua
26/04/2019	Emilia Pardo Bazán Nursery and Primary School	Year 5	74	Ciclo del agua
07/05/2019	Salgado Torres Nursery and Primary School	Year 5	49	Ciclo del agua
07/05/2019	Salgado Torres Nursery and Primary School	Year 6	46	Ciclo del agua
Total workshops:		15	Total students:	637



The contents of the workshops were focused on the protection of water, the responsible use of water and of river corridors as connectors of water, fauna and flora. Question-answer dynamics were used by means of a game board.



school workshops in the municipality of Cambre

The Mariñas-Betanzos Association, in collaboration with EMALCSA, organized two workshops in Cambre on March 26th, 2019 at Emilio González López Nursery and Primary School.

Date	School	Year	Students	Subject matter
26/03/2019	E. González López Nursery and Primary School	Year 5	23	Water cycle
26/03/2019	E. González López Nursery and Primary School	Year 6	24	Water cycle
Total workshops:		2	Total students:	47

The educational contents dealt with water on Earth, the water cycle both in nature and as used for human consumption, as well as advice for a responsible use at home.

The explanations were complemented with game dynamics that included questions to be discussed among the students. The game simulates a water route in the metropolitan area of A Coruña within the basins of the Mero and Barcés Rivers, which are the sources of water for the Abegondo-Cecebre Reservoir SAC.



school workshops in the municipality of Sada

The objectives of the workshops were focused on some of the main awareness-raising values within the LIFE FLUVIAL framework, such as climatic change and how river corridors can contribute to its mitigation, as well as the problems posed by invading exotic species.



Transversely, the main values proclaimed by the project were also explained in each talk, as well as the Natura 2000 network areas that FLUVIAL is acting upon in the province of A Coruña. A total of 8 workshops were organized in Sada between January and May 2019.

Date	School	Year	Students	Subject matter
22/01/2019	Mosteirón High School	Year 4 of c. s. e.	7	Invading exotic species
29/01/2019	Mosteirón High School	Year 3 of c. s. e.	25	Climatic change
12/02/2019	Pedro Barrié Nursery and Primary School	Year 6	63	Invading exotic species
15/02/2019	Mosteirón Nursery and Primary School	Year 5	34	Climatic change
22/02/2019	Mosteirón Nursery and Primary School	Year 5	18	C. change / Inv. spec.
22/02/2019	Mosteirón Nursery and Primary School	Year 5	18	C. change / Inv. spec.
08/04/2019	Isaac Díaz Pardo High School	Year 1 of the higher s. e. c.	17	Climatic change
14/05/2019	Isaac Díaz Pardo High School	Year 1 of c. s. e.	46	Natura 2000 network
Total workshops:		8	Total students:	228

c.s.e. (compulsory
secondary education)
s.e.c. (secondary-
education course)

On the outing to the country (14/05/2019), 46 students of the first year of compulsory secondary education visited the Betanzos-Mandeo SAC, where they got to know the Teixeira Ethnographic Center (Curtis) and the Chelo site (Coirós), and they learned to identify some of the most relevant native flora species.



Finally, during the 2019-2020 school year, three workshops have so far been carried out in the town of Sada. In these instances, the defined subject matter was focused on “river corridors and biodiversity”, with lectures on the importance of LIFE FLUVIAL's work in the Natura 2000 network and the birds that are most representative of these environments, as well as the chance for the students themselves to make nest boxes.

Date	School	Year	Students	Subject matter
11/12/2019	Pedro Barrié Nursery and Primary School	Year 6	25	River corridors and biodiversity
11/12/2019	Pedro Barrié Nursery and Primary School	Year 6	26	River corridors and biodiversity
12/12/2019	Pedro Barrié Nursery and Primary School	Year 6	25	River corridors and biodiversity
Total workshops:		3	Total students:	76



school workshops in the municipality of Curtis

On November 22nd, 2019, at Curtis High School (A Coruña), a workshop on invading exotic species was carried out, focusing on matters such as the impact of such species on biological diversity, as well as the mitigation action that the LIFE FLUVIAL project is going to take in the territory.



Date	School	Year	Students	Subject matter
22/11/2019	Curtis High School	Year 3 of compulsory secondary education	30	Invading exotic species



school workshops in the municipality of Vegadeo

The first workshop, organized by INDUROT and InterEo, was divided into two parts. The first part took place on May 21st, 2019, celebrating Natura 2000 Network's Day, in the auditorium of Eo Ria Associated Rural School, located on the Abres (Vegadeo) premises. The second session, with a trip to the country, took place on June 5th, Environment Day, at the Arnao lake (Castropol).



Some aspects of the LIFE program were highlighted, as well as of Natura 2000 Network Day and of the LIFE FLUVIAL project itself. In addition, the students were shown various plants, and they were explained how to distinguish native species from invading exotic species, with a memory game where they had to match some images related to river corridors.

During the outing to the Arnao lake, they were explained the action taken on this project site and taught how the propagation of willows by cuttings is done in this area.

The workshop was attended by all the students of this school (from the Plantón and Abres premises) and some teachers. There were a total of 37 students: 12 from preschool education and 25 from year 1 to year 6 of primary education.



During the school year 2019-2020, InterEo and INDIUROT have organized a school workshop on the importance of conserving the Atlantic river corridors at Jovellanos de Vegadeo State School.

The year one and year two students have learned about plant and animal biodiversity, the threats faced by the river corridors and the solutions that the LIFE FLUVIAL project is implementing to improve them.

In the first part of the workshop, María Fernández García, Mauro Sanna and José Juan Rodríguez explained the LIFE FLUVIAL project by means of a presentation in which the students were able to actively participate and learn how to identify the most characteristic trees found in a gallery forest and the invading plants.



In the second part, we had fun with the River Game, a memory game with the pictures of native/exotic plants and animals and the condition of the Atlantic river corridors.



In the last part, the students were encouraged to draw the river corridor based on their knowledge and the way they see it.



school workshop in the municipality of Villalba

In this instance, the workshop was aimed at students of Terra Chá Nursery and Primary School (Villalba, province of Lugo). A total of 19 year 4, year 5 and year 6 girls and boys attended.

This activity, which took place on October 28th, 2019, was based on the contents of the children's book published by LIFE FLUVIAL "The Bolechas take a walk along the river", with the collaboration of staff from Televisión de Galicia, who prepared and recorded on site an episode of their series "BraulioTuber", where a puppet of "Os Bolechas" interacts with the students.

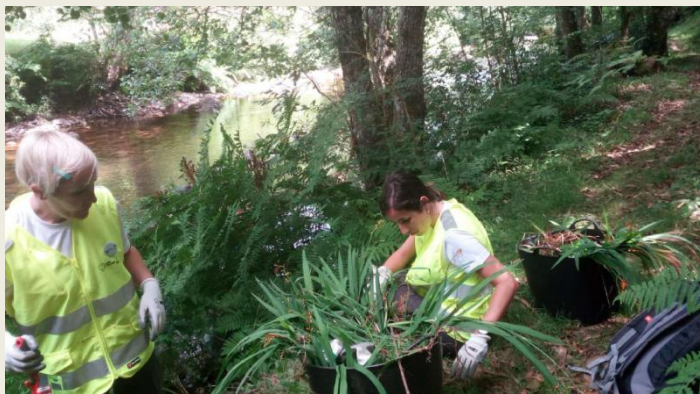
To support this action, some technical staff from the Institute for Agrarian Biodiversity and Rural Development (IBADER) and the Mariñas-Betanzos Association came to the recording.



Volunteer day in Ribeira de Piquín

The environmental objective of this activity was the improvement of the Cantabrian alder tree areas, 1.5 km along the banks of the Eo River, by means of the removal of the invading plant *Crocasmia × crocosmiiflora*. The removal was only done by hand so that the fragile habitat of the river corridor would not be damaged.

The technical explanations about the work to be carried out were given by staff from the Institute of Natural Resources and Territorial Planning (INDUROT).



After 3 hours of work, the removed material was taken to the collection areas. Over 2 m³ of *Crocasmia* were obtained and it was later processed by Tragsa staff.



volunteer day in Guitiriz

On July 29th, 2019, through the associated beneficiary Institute for Agrarian Biodiversity and Rural Development (IBADER), the LIFE FLUVIAL project took part in an environmental volunteer day together with “Da Auga e da Pedra” Work Camp, sponsored by the Guitiriz Town Council (Lugo) and the Directorate-General for Youth, Participation and Voluntary Work of the Regional Ministry of Social Policy (Autonomous Government of Galicia).



Thus, the IBADER technical team and experts in environment team management attached to the Work Camp took part, together with the volunteers, in actions to control invading species, mainly mimosa (*Acacia dealbata*), in river corridors of the town of Guitiriz.



Additionally, the team of volunteers went to the Parga River section in SAC Parga-Ladra-Támoga (ES1120003) in order to see the restoration work within the LIFE FLUVIAL framework that had been carried out by the associated beneficiary TRAGSA with IBADER's technical steering.



“green employment” working day in Oleiros

On February 28th, 2019, the technical staff of the Mariñas-Betanzos Association presented the LIFE FLUVIAL project and, in particular, the actions programmed for the Abegondo-Cecebre Reservoir SAC and the Betanzos-Mandeo SAC, within the framework of the “Green Employment in the Biosphere Reserves. Resources of the Territory and Tools for their Enhancement” course, organized by the University Outreach and Environmental Information Center of Galicia (CEIDA) at their headquarters in Oleiros (A Coruña).



6th Symposium on Conservation of Biodiversity in Salamanca

On March 2nd, 2019, the staff of the Institute of Natural Resources and Territorial Planning (INDUROT) took part in the 6th Symposium on Conservation of Biodiversity in the city of Salamanca, with the paper “Restoration of River Corridors in the Iberian Atlantic Northwest: the LIFE FLUVIAL Project”, given by the researcher Antonio Torralba.



Natura 2000 Network Day

To celebrate Natura 2000 Network Day in 2019, within the framework of the LIFE FLUVIAL project, the Mariñas-Betanzos Association programmed a set of activities focused on increasing public awareness of the need to protect the river corridors.

A total of 125 students in the fifth year of primary education from Vales Villamarín High School (Betanzos) took part in the actions, carried out on May 20th, 21st and 22nd, with the collaboration of the A Coruña Council, who allowed the use of the Mariñán country house (Bergondo).



↑ Welcome and guided tour around the Mariñán country house

→ LIFE FLUVIAL lecture

↓ Native birds and invading species lecture



↓ Bird watching workshop



← Nest box workshop
(the resulting nest boxes were distributed among schools throughout the territory)



↑↓ Institutional visit
(Regional Minister of Infrastructures and Mobility; mayors of Abegondo, Bergondo and Betanzos)



↑ Visit to the Betanzos-Mandeo SAC



EMALCSA “Water never stops” event

On May 23rd, at the Water House, EMALCSA's premises in A Coruña, was held the final event of the environmental education competition “Water never stops”, whose contents included the LIFE FLUVIAL project.

The said event, organized by the beneficiary partners EMALCSA and Mariñas-Betanzos Association, had the participation of the four schools that had reached the final, who, with the same game dynamics as in the previous stages, competed to win the final prize: a guided tour around the *Mariñas Coruñesas e Terras do Mandeo* Biosphere Reserve, especially around the area included in the Natura 2000 network.

Every contestant received, as a reward for their effort, a set of LIFE FLUVIAL items: a satchel, a T-shirt, a pin, a badge and a copy of the “The Bolechas take a walk along the river” book. And every group received a nest box as well.



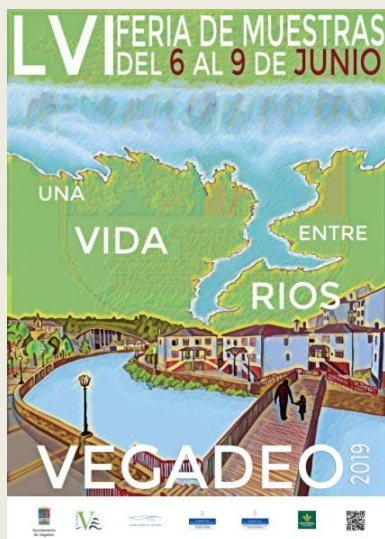
6th anniversary of the Mariñas Coruñesas e Terras do Mandeo Biosphere



On June 6th, 2019, the *Mariñas Coruñesas e Terras do Mandeo* Biosphere Reserve celebrated its 6th anniversary, hosted by the town of Betanzos. LIFE FLUVIAL was present at this event.



56th Vegadeo trade fair



From June 6th to 9th, 2019, Vegadeo held its 56th traditional trade fair. This fair, which was first organized in 1964, has gradually become a real benchmark, with 46,000 visitors this year.

LIFE FLUVIAL, through its beneficiary partners INDUROT and InterEo, took part with its own stand, which, in addition to educational material distribution, had wall charts describing the most relevant aspects of its actions. On the 9th, the “Water Game” took place, with the purpose of making the children aware of the problems faced by the river corridors. In that same period, the municipal arts center of this Asturian town was the venue for the project’s traveling exhibition.



participation in Restauraríos 2019

Within the framework of the 3rd Iberian Fluvial Restoration Congress “Restaura Ríos 2019”, held on June 12th-14th in Murcia, coordinators of nine projects financed with European funds have highlighted the importance of communication and awareness raising in the strategy for fighting against invading exotic species, which are the main threat to the endemisms of the Iberian rivers.

The LIFE FLUVIAL project, represented by Jorge Marquínez, director of the Institute of Natural Resources and Territorial Planning (INDUROT), was present at this debate.



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the University of Oviedo in Europe. Research success stories



LIFE FLUVIAL was present on June 28th at the “The University of Oviedo in Europe: Research success stories” conference, describing the project, its achievement process, the action taken, the expected results and the results achieved. On that same date, in the Low Cloister of the Historical Building of the University of Oviedo there was an exhibition of the active European projects in which the University of Oviedo is taking part, including the LIFE FLUVIAL panel.

summer course on Biosphere Reserves at IBADER

On September 2nd-5th, 2019, the Institute for Agrarian Biodiversity and Rural Development (IBADER) in the Terra Campus of the USC organized the Summer Course «NATURAL HERITAGE AND BIODIVERSITY IN THE BIOSPHERE RESERVES», with the purpose of communicating the new trends in the Biosphere Reserves. On the trips to the country, several Natura 2000 Sites were visited, including the Eo River SAC (ES1120002), where LIFE FLUVIAL actions are currently in progress.



2019 MaB young forum China

The MaB 2019 “Committed to Biodiversity” Young Forum took place in the Biosphere Reserve of Changbaishan, China, on September 15th-18th, 2019.

This event is closely related to the preparation of the United Nations Convention on Biological Diversity (CBD CoP15). Its purpose is to prepare proposals for actions that contribute to the Biodiversity action framework after 2020 for dealing with climatic change and sustainable development.

The representatives of the *Mariñas Coruñesas e Terras do Mandeo* Biosphere Reserve provided, among other things, information about the LIFE FLUVIAL project.



open science Cambre 2019



2019 is the second year that the Mariñas Betanzos Association has participated with its own stand in Open Science Cambre (A Coruña), which took place on September 21st-22nd, 2019 in the gardens surrounding the Romanesque church in this town.

The activities, which were made known to the general public, were focused on aspects such as “Get to Know your Biosphere Reserve”; the environmental education program “Educating in the Biosphere”; operational innovation groups; the “Water Never Stops” game and workshops to promote biodiversity. Explicitly associated with LIFE FLUVIAL, three-page leaflets, folders and promotional material were handed out, the project's traveling exhibition was installed and the “LIFE FLUVIAL Wheel of Fortune” game was organized, with questions for children.



presence at FIC Rural 2019

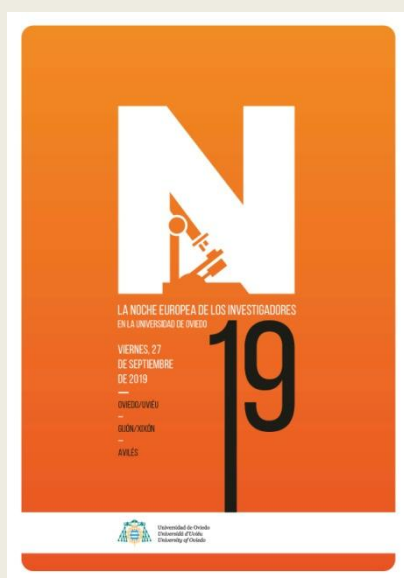


Fic Rural is an assembly point to favor collaboration and the exchange of views about the past, present and future of the rural world, with the purpose of creating a collaboration network to dynamize the rural world of the Compostela region and of the towns within the province of A Coruña.

Held at the *Fundación Laboral de la Construcción* (Labor Foundation for Construction), in Santiago de Compostela, on September 22nd-28th, FIC Rural 2019 included a stand of the Galician Rural Development Groups Association, where the Mariñas-Betanzos Association offered information about the LIFE FLUVIAL project.



European Researchers' Night



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On September 27th, LIFE FLUVIAL, through the Institute of Natural Resources and Territorial Planning (INDUROT), was present at the 10th European Researchers' Night organized by the University of Oviedo, held in the Former Fish Square of Avilés, where it spread some knowledge about the native flora and fauna through the River Games.

AVILÉS

Antigua Plaza del Pescado
Plaza Santiago López

STAND 1
CIENCIA MUY MINI
<i>Lo que el ojo no ve</i>
STAND 2
JUEGOS DEL RÍO
<i>LIFE Fluvial... porque me lleva la corriente</i>
STAND 3
LECTORES DE LETRAS ANTIGUAS
<i>Tu historia está escrita</i>
STAND 4
DESCUBRIENDO EL CÓDIGO GENÉTICO
<i>ATCC</i>
STAND 5
EL MAGETISMO REVOLUCIONARIO
<i>Desde los talismanes hasta la LEVITACIÓN</i>
STAND 6
DRONES4STUDENTS
<i>¡Despegamos!</i>
STAND 7
LOS COLORES DE LAS PLANTAS
<i>Verde que te quiero verde</i>
STAND 8
POETAS EN LA NOCHE
<i>Escribe tu propio poema y que las musas te acompañen</i>
STAND 9
CON LA VISTA EN EL CIELO
<i>De la Tierra a la Luna</i>

19th Science Week, University of Oviedo

On November 4th-17th, as part of the activities organized to celebrate School Science Day, included in the Science Week, the LIFE FLUVIAL project was mentioned in 9 talks at six primary and secondary education schools in Asturias (Pablo Miaja State School, San Lázaro - Escuelas Blancas State School and La Inmaculada School in Oviedo; Obanca State School in Cangas del Narcea; and San Lorenzo School and Los Pericones State School in Gijón), by means of the specific talk *We replace eucalyptuses with alder trees and oaks: improving the Atlantic river corridors with LIFE Fluvial*, as part of the talk *Learning about insects: diversity and behavior of Asturian dragonflies* in reference to the species found in our river corridors that are associated with the river alder trees. The subject matter was addressed in a more playful manner for the primary education students.

The talks were given by INDUROT researcher Antonio Torralba Burrial.

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XIX SEMANA DE LA CIENCIA Y LA TECNOLOGÍA DE LA UNIVERSIDAD DE OVIEDO

DEL 4 AL 17 DE NOVIEMBRE DE 2019

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Life Stop Cortaderia networking

On November 20th, LIFE FLUVIAL was present at the Second Work Meeting to Fight against Pampas Grass (*Cortaderia selloana*), held at the University Outreach and Environmental Information Center of Galicia (CEIDA), within the framework of the project LIFE STOP CORTADERIA (LIFE17 NAT/ES/000495).



The purpose of this seminar was to pool techniques, strategies and management models aimed at controlling *Cortaderia selloana* in the Cantabrian coast autonomous regions and Portugal.



scientific popularization at the Central University Hospital of Asturias (HUCA)

On November 22nd, LIFE FLUVIAL took part in the scientific popularization actions organized by the Scientific Culture and Innovation Unit (UCC+i) of the University of Oviedo in the hospital lecture room of the Central University Hospital of Asturias (HUCA), Oviedo. The objective of the workshops is to complement the annual lecture programs and collaborate in the different activities that are periodically organized to dynamize the daily life at the hospital.



Antonio Torralba Burrial and Mauro Sanna, members of the LIFE FLUVIAL team, went there from the Institute of Natural Resources and Territorial Planning (INDUROT) with the River Games scientific popularization proposal, which is a fun way of learning about river corridors, their associated biodiversity and the threats they face, in addition to the action being taken with this LIFE project to improve the Atlantic river corridors.

6th Conference on Fluvial Restoration in Lisbon

The LIFE FLUVIAL project was represented by Patricia María Rodríguez González (CEF/ISA, University of Lisbon) at the 6th Conference on Fluvial Restoration, which was held on November 28th, 2019 in Lisbon (*Centro de Congressos do Laboratório Nacional de Engenharia Civil - LNEC*), through the presentation of a paper called "Challenges regarding the ecological restoration of the river corridors of the Iberian northwest: the LIFE FLUVIAL project". It addressed the following topics: i) the importance of river corridors; ii) European results of the state of conservation of the fluvial forests in different biogeographical regions; iii) the main biotic and abiotic threats to habitat 91E0*; iv) presentation of the LIFE FLUVIAL project (LIFE16 NAT/ES/000771), in particular the entities involved, its objectives and action plan, highlighting those implemented in the *Paisagem Protegida das Lagoas de Bertandos e São Pedro de Arcos* (Ponte de Lima, Portugal).

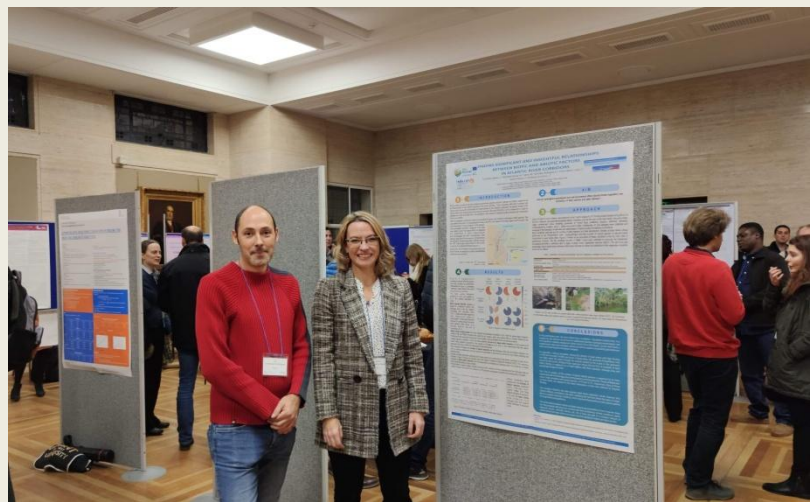


The event was organized by the *Comissão Especializada da Qualidade da Água e dos Ecossistemas* (CEQAE), supported by the *Comissão Especializada da Água, Agricultura e Florestas* (CEAAF) of the *Associação Portuguesa dos Recursos Hídricos* (APRH).

participation in the 12th international Conference of ERCIM WG

By means of the participation of INDUROT researcher María Elena Fernández, LIFE FLUVIAL was present at the 12th International Conference of the ERCIM WG on Computational and Methodological Statistics, held in London on December 14th-16th, 2019.

The exhibited works included the poster called “LIFE FLUVIAL project: Finding significant and insightful relationships between biotic and abiotic factors in Atlantic river corridors”.



coordination meetings

NEEMO-IDOM monitoring visit

The 2nd LIFE FLUVIAL Monitoring Meeting was held on March 12th-13th. The IDOM representative, Itxaso Mora, carried out an administrative checking of the project and visited some of the areas of action in order to evaluate the progress of the specific conservation actions: Rábade, San Tirso de Abres, Ribadeo and Castropol.



coordination meeting in Mieres

Project partnership coordination meetings were held on: 03/07/2019 (video conference) and 01/10/2019 (Mieres, Asturias).



partnership meetings

A meeting was held on June 4th, 2019 in the municipal arts center of Vegadeo (Asturias) to monitor the project indicators. It was attended by the partners INDUROT, IBADER, TRAGSA and University of Lisbon.



Review committees

1st review committee in Portugal

Additionally, in coordination with the review committees of Galicia and Asturias, the 1st Review Committee corresponding to the action taken in Portuguese territory met on February 8th, 2019.

The meeting, which was held in the Environmental Interpretation Center of the Bertandos and S. Pedro de Arcos Lakes, was structured in two parts. Firstly, there was an exposition of the progress of the work by the Agricultural College of the University of Lisbon and, later, a guided tour around the intervention areas took place.





life
fluvial

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socios / partners / parceiros