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NEWSLETTER #3



The third transnational partners meeting of the LIVINGRIVER project took place in Balıkesir, Turkey, between the 4th and 6th of November 2019, organized by the partner BALIKESIR UNIVERSITY.

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Meet the Turkish partner

Balikesir University

Balikesir University (BAUN) is one of the leading universities in Turkey with an approximate student population of 40,000. It consists of 11 faculties, 4 postgraduate institutes, 13 vocational colleges, and 21 research centers. Two of the research centres, namely, Botanical Garden & Herbarium Research Center, and Renewable Energy Research Center enjoy a high profile and are reputed for their work in a range of disciplines both nationally and internationally. BAUN has also one of the most distinguished teacher-training programs in the country. Biology Education program offers environmental education lessons and produces projects as a partner with both local and national NGOs.



Projects mainly include such subjects as renewable energy, sustainable development for education, ecological footprint, and water education for teachers. The mission is to attain, produce, apply and promote knowledge, and to educate students of all ages and train professionals with that knowledge for the social, cultural, economic, scientific and technological development of society. Moreover, Volunteers for Public (TOG) is a university student society that gives training for ecological literature. Genç TEMA is another student society that makes projects against erosion, healthy water, and healthy soil.



Photo: Balikesir University facebook page

BAUN undertakes interdisciplinary research in the broad arenas of education as well as integrates and employs innovative methods and applications in education/training within different subject matters.



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TEACHER TRAINING COURSE

On October 2019, the University of Coimbra hosted the international training course of the LIVINGRIVER Project. The course lasted for 4 days and had as main goal endowing its participants with the theoretical bases and practical experience needed to approach and explore running waters (mainly streams), its historical contexts and ecology. The lecturers included Researchers and Professors of the UNL (Institute of Contemporary History) and of the UC (the Freshwater Ecology Lab - Centre for Functional Ecology).



During the first part of the course, the team of Nova University introduced the methodologies of historical research, identifying the various typologies of sources and the registration of tangible and intangible heritage, which contributes to the knowledge of the history of watercourses in strict relation with the communities who live and occupy its margins.



Five main topics were presented and discussed:

- Rivers as agents of History: an introduction to historical research;
- The case of the river Mondego;
- Historical and heritage research: guidelines and sheets;
- Oral History: introduction and guidelines;
- Historical and heritage research: a practical guide.

The practical part of the training comprised of some exercises and discussion of the results, and visits to the University of Coimbra Archive and Santa Clara-a-Velha Monastery, which aimed to demonstrate the diversity of historical sources available and the impact of the river Mondego on the architectural heritage.



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The second half of the course - “Grasping the Stream with a Litter Bag” - provided theoretical and practical backgrounds on streams ecology and detailed insights on a key ecosystem process: litter decomposition. This process will be used as a tool by the international participants to assess streams functional integrity.



An illustrated protocol in comics format and a practical kit was distributed to the participants. During the sessions, all had the opportunity to develop hands-on skills in the use of leaf litter (alder) decomposition both in lab and in field (Ribeira de S. João, Lousã, centre of Portugal) contexts. Demonstration and discussion of the techniques were highly participated.





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ASSOCIATED SCHOOLS ACTIVITIES

Presentation of Portugal's associated schools

Four Portuguese schools are involved and working in the LIVINGRIVER Project: Seia Secondary School, Alves Martins Secondary School, Gouveia Secondary School and D. Duarte Secondary School. A brief description of the schools can be found in the project website.

Exchange between ESAM (Portugal) and IES Ribeira do Louro (Spain)



On the 25th of September, in the scope of the LIVINGRIVER project, students and teachers from Alves Martins Secondary School (Viseu - Portugal), visited IES Ribeira do Louro (Porriño - Spain). The participants had the opportunity to have a walk in margins of Ribeira do Louro River, where they were able to identify flora and fauna species and they had a guided tour to the Treatment Plant of Tui.

Field activities

Students and teachers from the portuguese associated schools started to work on their adopted rivers, implementing the „Leaf Decomposition” methodology, which was presented and explained to the teachers in the First Teacher Training of the project.





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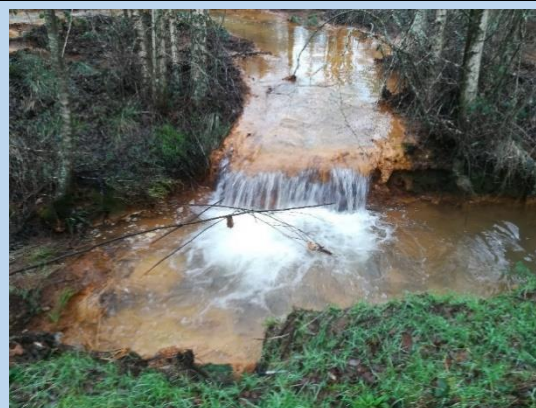


LIVINGRIVER
CARING AND PROTECTING THE LIFE AND
CULTURE AROUND RIVERS AND STREAMS

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”DyingRiver”

The students of the Xelmirez I School from Spain, have conducted a river inspection on the river "Lañas" (Touro). They wanted to note the influence of the proximity of the "Touro Mine" to that river. They were able to verify that the river was in very poor condition, with low biodiversity and low macroinvertebrate presence. All this reflects a great deal of pollution in the river, the students say that the study of these contaminated rivers could be called "DyingRiver" as opposed to the "LivingRiver".



Associated Schools from Brasov



Five romanian teachers are involved and working in the LIVINGRIVER Project from Technical College „Mircea Cristea” and Science College „Grigore Antipa” from Brasov. A brief description of the schools can be found in the project website.

In November took place a meeting with the teachers of the associated schools, who participated in the training course in Coimbra, to plan future activities within the project.



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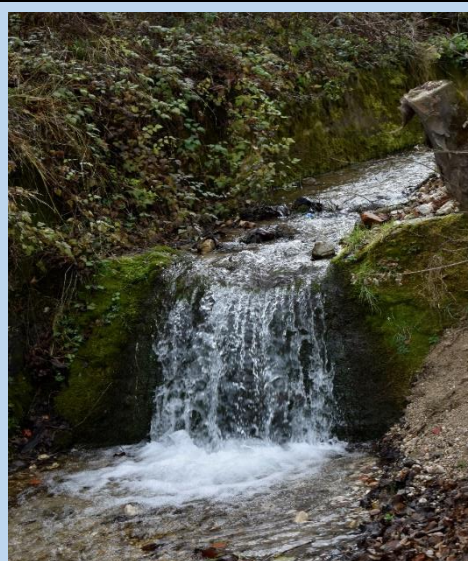
„Leaf picking ”

Taking advantage of the unusual rising temperature in November, the students from the associated schools went to the field to identify and collect the leaves of *Alnus glutinosa*, which had not been damaged by the very cold period in the beginning of November. The leaves will be used for next year's spring experiments.



Mills on the river

On December 13th 2019, teachers Constantinov Oana and Vasluianu Germina from the "Mircea Cristea" Technical College, together with their students, paid a visit to the neighborhood of Brasov Şchei. This area is crossed by the Graft River, which is the object of research in the LIVINGRIVER project. Following the water course to Solomon's Stones - a recreational area at present, the students identified the places where, between the XVIII – XIX centuries, there were several water mills and the teachers explained to them the importance of the stream in the life of the old Şchei neighborhood and the fact that between XVIII - XIX centuries, the stream flow was higher than today, because it could move several mill wheels, some even impressive, in relation to the stream and the current flow.





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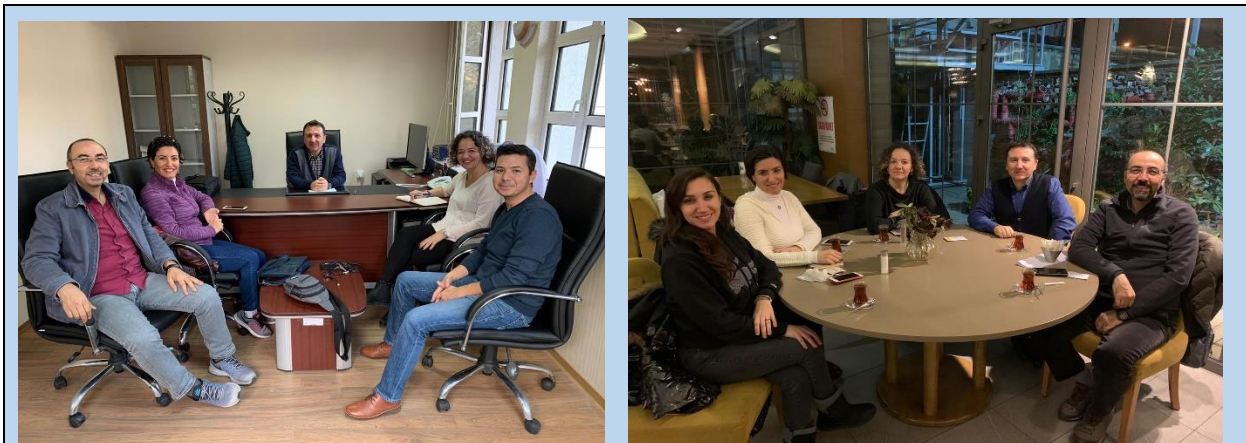
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Field activities by the Spanish associated schools

Collection of alder leaves for drying and storing



Meetings with teacher coordinators of associated schools with regards to the process and progress of the LIVINGRIVER project



November 19, 2019 – Meeting includes the strategies student selection and motivation for the aim of the project

January 07, 2020 – Meeting includes the topics such as planning the activities for students



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Workshops with high schools

Balikesir University developed and employed workshops entitled as “Water Awareness” to the students of Balikesir Science High School and Sırrı Yırcalı Anatolia High School on January 14, 2020. The workshops by Dr. Güngör Cabbar included interactive instruction as well as hands-on activities with group practices focusing on the importance of water, water management, water sustainability, rivers and seas along with their significance to our nature and life.

Sırrı Yırcalı Anatolia High School



Balikesir Science High School





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General meeting of teachers

On the 8th of January 2020, the teachers from the portuguese associated schools met in order to plan the school activities for this year. During the meeting it was discusses the second tecaher training course, the student’s activity, the short-film contest, the implementation of the scientific methodologies, the multiplier event, the projects social networks (mainly instagram) and were planned workshops and lectures in the associated schols, about the topic of the project.

This was the first time that all the teachers from the portuguese schools were together and it was an opportunity to meet each other, present the work being done in their own school and share experiences and advice with each other.





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THIRD TRANSNATIONAL PARTNERS MEETING

The third transnational partners meeting of the LIVINGRIVER project took place in Balıkesir, Turkey, between the 4th and 6th of November 2019, organized by the partner BALIKESIR UNIVERSITY.



During the third meeting, the current situation of the project and achievements were presented by the project coordinator. The partners shared their perspectives and experiences about the first teacher training, held in Coimbra. The findings regarding the evaluation of the teacher training were discussed amongst partners. In addition, the partners had a discussion about the development of the Ecomuseum, the Handbook for Field activities, the E-book and Digital Magazine.

The partners started to prepare the second teacher training course that will take place in Brasov from 7th to 10th of September 2020. The partners also discussed the dates and contents for the students' activity that will take place in Balıkesir, between 7th and 10th of October 2020.

The third transnational project meeting brought together partners and one of the associated schools in Balıkesir by having a school visit and a meeting with teachers.



The third transnational meeting also offered partners a schedule for social and cultural activities enriched with local visits (e.g., historical buildings, shopping). The partners were able to enjoy Turkish culture including traditional food, folklore dance performances, visits to ancient places (i.e. Pergamon) and beautiful landscapes.



The meeting was found to be valuable in terms of creating a good communication amongst partners and better know each partner's expectations.



Partners agreed on the future project goals, activities, and responsibilities to be undertaken by each partner.



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PROJECT PRESENTATION AT NATIONAL & INTERNATIONAL EVENTS

AQUAPORTO

The LIVINGRIVER project was present in the Water Festival, AQUAPORTO, organized by the City Hall of Porto.

Between 11th and 13th of October, ASPEA participated in the Festival organizing activities related to rivers and riparian areas, as well as sharing information about the project with students, teachers, ONG's and the general public.



LIVINGRIVER at the 2nd National Meeting on Citizen Science

On the 24th and 25th of October of 2019 NOVA and Coimbra Universities presented the LIVINGRIVER Project during the 2nd National Meeting on Citizen Science in Lisbon, Portugal. The meeting was about sharing good practices, challenges, methodologies on Citizen Science and learn about similar projects developed in Portugal. The presentation was well-received, raising interest and awareness about the project and the proposed methodologies.





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ASPEA's General Meeting

On the 21st of December the LIVINGRIVER project was presented to ASPEA's staff, collaborators and associates in a general meeting/Christmas meeting, held in the association's headquarters in Lisbon.

The short presentation aimed to present the project, it's goals and outputs and talk about the work being done with the associated schools.



LivingRiver presentation at the National Forestry Research Institute

The LIVINGRIVER project was disseminated within the event "Identification of medium and long term measures, in order to ensure the sustainability of the water resource for the Metropolitan Area of Brasov, in the context of climate change", organized by the National Forestry Research Institute - Brasov branch on the 15th of November 2019.

The event was attended by representatives of the following institutions:

- Brasov Water Management System
- Brasov Water Supply Company
- Babes-Bolyai University of Cluj-Napoca
- Transilvania University of Brasov





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NEWS

River Project - Thirtieth Edition Training Course

On Saturday, September 28, the thirtieth edition of the training days of the River Project corresponding to the autumn campaign was held, at the Hydrobiological Station of the Encoro do Con (EHEC), in Vilagarcía de Arousa, with the participation of fifteen people.

Participants were received at around eleven o'clock in the morning and it began with the presentation of the training day with an introduction to the Rios Project by Paco Bañobre. This introduction also commented on the general status of the Galician rivers starting with the Annual Report of the Rios Project 2018.

Then, Ramsés Pérez presented his conference "Rivers of Language and Culture" where he highlighted the tangible and intangible heritage (such as the vernacular names of each area to name each of the members of the river ecosystem) related to rivers, and the real need to preserve it by failing a possible intergenerational transmission of popular knowledge by new generations.

At 2h30 pm all the members of the course had lunch together in the EHEC facilities

At 4 pm we start our journey to the river Con, near EHEC, to do a sampling and identification of macroinvertebrates in the riverbed with the collaboration of Rufino Vieira, head of the Scientific Station. In the same stretch different areas (with plenty of leaves, stones and sand) were chosen to make the stretch sample present as many species as possible. The organisms were identified with the help of the identification cards of the Rios Project.

Later, at the station's facilities, a more thorough observation was made using magnifying glasses, to observe the different structures and to improve their understanding of the different macroinvertebrate species.





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1158 persons removed more than 14 tons of waste in the XII Simultaneous river clean-up of River Project, in Galicia

In it participated groups of children and adults and were cleaned big rivers and small streams. Everybody had the same objective to take care of our rivers and make the society aware of the need for them to be well preserved.

All kinds of waste were collected. As always, plastic was the main component found (bottles, bags), there were many wheels (from cars and lorries), glasses, car engines, motorbikes, as well as clothing and foot wear. The wet wipes were again the most abundant waste.

It was calculated that the residues of the region are around 14 tons, in total. It should be kept in mind that our main objective it is not this and that environmental volunteers are not cheap labour who can stand in for the council's lack of work. We are, on the other hand, a group of people who help to rise the society's awareness. The rivers situation has to change and, therefore, more activities like this should be done.



“Get wet for the rivers”, the slogan of the XII simultaneous river clean up, has been carried out by approximately 52 councils throughout Galicia, a total of 75 entities (associations, ecologist groups, ADEGA delegations, schools) and also 9 councils which directly organize this activity. The action was carried out on a total of 53 stretches of rivers. Some associations had to move the activity due to rain. With other groups, the communication did not work and so there is no relevant data.



For this activity ADEGA collaborated with the “Biodiversity foundation”, as well as the Councils of: Allariz, A Estrada, Arzúa, Cambre, Carballo, Fene, Gondomar, Meis, Melide, Nigrán, Ourense, Pontearreas, Pontevedra, Rianxo, Ribadumia, Salceda de Caselas, Santiago de Compostela, Teo, Tomiño and Xinzo de Limia.

On the website of River Project ([Proxecto Ríos](#)) a report can be found with the activity's final conclusions and pictures. River Project is financed by “Augas de

Galiza” and it depends on “Mobility and Infrastructure delegation”.

We wish to say thanks once again to all the Galician Volunteers and their dedication to our rivers, another year more with Galicians getting wet for the rivers.



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Short-film contest

In 2020 short-film contests will be held, by the LIVINGRIVER projects, aiming to raise awareness and raise the debate on the topics of the project.

The contest will be running from the beginning of March to the end of May and will be destined Secondary School students from the partner countries.

The contest will happen, separately, in each of the partner countries with one partner being responsible for it.

More informations will be available soon, in the project website.

CineEco Festival



On the 16th of October three associated schools from the project had the opportunity to participate in the International Environmental Film Festival CineEco, in Seia (Portugal). The students were able to watch some short-films and meet some directors, aiming to inspire them for the short-film contest of the LIVINGRIVER project, which will start in March 2020. Students and teachers from the Secondary Schools of Seia, Alves Martins and D. Duarte also had the opportunity to visit Serra da Estrela Interpretation Center and participate in a blindfold concert.





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RESOURCES

Film Title: Blue Heart

Description: The Balkan Peninsula is home to the last wild rivers in Europe. However, a deluge of more than 3,000 proposed hydropower developments threaten to destroy the culture and ecology of this forgotten region. Blue Heart, now in its first digital release, documents the battle for the largest undammed river in Europe, Albania's Vjosa, the effort to save the endangered Balkan lynx in Macedonia, and the women of Kruščica, Bosnia and Herzegovina, who are spearheading a months-long, 24/7 protest to protect their community's only source of drinking water.

Link: <https://www.youtube.com/watch?v=OhmHByZ0Xd8>

Initiative Very Nile (<http://verynile.org/>)

“VeryNile is the first initiative to develop large scale means to clean the Nile while raising awareness on the importance of protecting our environment. VeryNile organizes cleaning events and develops eco-friendly solutions to remove trash from the river. VeryNile is co-founded by Egyptian start-ups Greenish and Bassita.”

The first automatic river cleaning system, invented by two Romanian IT-engineers

The startup WeSupply.xyz, founded by two IT engineers from Oradea, has created an automatic river cleaning system called "DRAVIR", designed to extract over 500 tonnes of waste every year.

How DRAVIR works:

The automatic waste collection system was designed to extract over 500 tons of waste every year. Strategically placed along the river, the system will collect waste from water. The streams of water will attract the waste, and they will be locked in a container within the collection system.

Once the container is filled, it will be extracted from the water, brought to shore to collect the collected waste and placed back in the collection system.

Link: https://www.youtube.com/watch?v=a5-fEurtFn4&feature=emb_logo





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The „Waste Shark” Drone in Romania



The "Waste Shark" drone, purchased by MaiMultVerde Association (*development of projects that bring environmental benefits, environmental protection*), was used for the first time in Romania, at the end of last week. In terms of technology used, Waste Shark is one of the most advanced floating waste management solutions. The drone collects plastic and microplastics, garbage, oils, algae and chemical pollutants from the surface of the water. The shark can be used for cleaning rivers, deltas, lakes and beaches.

Link: <https://www.youtube.com/watch?v=dBA0-W4E0Gk>

Integrated water information and documentation in Turkey

The screenshot shows the SUTEMA website interface. The main content area includes a large text graphic with the headline "Yeryüzündeki milyarlarca yıldır suyun hiç değişmediğini biliyor musun?" and "Anadolunun ilk barajının Hititler tarafından 3000 yıl önce yapıldığını?". Below this, it says "SUTEMA SEN suyu tüm yönleriyle keşfetmeye çağırıyor. Suyun sesine kulak ver...". The sidebar on the right features a map of Turkey titled "ANADOLU'DA DÖNEMLERE ÖZGÜ SU YAPILARI" and "TÜRKİYE'NİN BAŞLICA TARİHİ SU YAPILARI". The bottom of the page has a navigation bar with icons for "MAHİ GÖZLEME", "NİBELİĞİN KORUMASI", "GELECEĞİN SUYU", "RÖVÜK KESİM", and "SUYUN NIBASI".

Link: <https://sutema.org/>