



river
collective

STUDENTS FOR RIVERS CAMP

INTERDISCIPLINARY RIVER CONSERVATION
CAMP FOR YOUNG UNIVERSITY STUDENTS
ON THE DART 2023:
FROM SOURCE TO SEA

PROJECT SUMMARY

The River Collective invites 30 bachelors, masters and PhD students from around the world, representing a diverse range of disciplines, to the Students for Rivers Camp (SRC) on the River Dart and Estuary, south-west England. For the 5th annual SRC in 2023, the River Collective is taking a new direction through a source-to-sea exploration of the Dart, combining science, art and community empowerment for an interdisciplinary and intercultural education. A week-long programme of workshops, lectures and practical fieldwork training will engage students in the protection of free-flowing and thriving rivers and coastal ecosystems. The SRC base will be located along the banks of the winding River Dart, where participants will return to each day after learning from local river and coastal communities, researchers and experts, inspiring creative collaborations between participants.

We discuss the future of river and coastal ecosystems in the context of a fast changing planet and the power of community-led action in protecting these most vulnerable habitats. Students will expand their ideas by asking questions at the forefront of environmental and social sciences; how can nature-based solutions be used to restore healthy, thriving ecosystems? How can we reestablish the connection between nature and people in the quest for resilient climate change solutions?

Our aim is to celebrate rivers, from source to sea, and learn from local communities in the protection of the natural world to sustain a healthy living environment (social, economic and environmental) for all species including humans. Through the case study experience of the Dart Valley, which has parallels to many threatened rivers worldwide, the SRC provides an entry point for future scientists, artists, lawyers and other experts to take an active role in river conservation.



introducing

THE RIVER COLLECTIVE TEAM



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OUR VALUES

PASSION

INCLUSIVITY

COLLABORATION

INSPIRATION

INTERDISCIPLINARY

ACTION

OPEN ACCESS SCIENCE

JUSTICE

PROJECT DETAILS

Proposed Camp dates: 3-10 September 2023

Location: The River Dart and Estuary, South-West England, UK

Organiser:

River Collective - Verein für die interdisziplinäre Zusammenarbeit zum Schutz der Flüsse,
based in Graz, Austria

Number of student places: 30

We are looking for sponsors dedicated to supporting environmental engagement projects through collaborative action. We welcome comments on this proposal and invite specialists in environmental and social sciences and creative arts to work with us towards developing an interdisciplinary approach to student and community empowerment.

A budget breakdown for this project is available on request.



BACKGROUND

Only one third of the rivers worldwide still flow freely from source to sea [1] and already more than 80% of the freshwater biodiversity is lost [2]. The planet is changing and we are called to action. New perspectives and new ideas are needed to challenge the status-quo. However, traditional education systems rarely allow for the creative and trans-disciplinary thinking which is needed to create such a needed change. Students are asked to choose a study field on which to specialize early in their lives. Passion and the wish to make a change are often abandoned due to the strict structures of academia, with employability or research funds' availability often becoming the main criteria for the choice of study area. The gap between subjects is rarely bridged and interdisciplinarity is only slowly making its way forward, and typically only amongst already similar fields.

In the SRC program, we provide an alternative to this situation by inviting students from diverse fields of study, embracing their backgrounds, to come together based on a single passion: Rivers. By combining not only art and science education, but also action, this project provides a new entry point for the younger generation that is eager to lead the change that is needed but struggles to take a position or is uncertain of the role they can play. While most summer schools are organized as an exchange between two countries, we aim to bring together 30 international students: **15 from the UK, and 15 from outside of the UK**. This camp gives local UK students opportunities for outdoor exploration, sharing their home lands with students from abroad. Furthermore, the SRC offers local students an opportunity to develop actionable ideas to tackle environmental problems on their home river, through the support of experts and the collaboration with non-local students. We specifically hope to make scholarships available for students from disadvantaged backgrounds.

The fifth annual event of its kind, this year's Students for Rivers Camp will bring together all experience from the earlier editions, which took place in Slovenia (in 2019), online (though focused on Montenegro, in 2020), Albania (2021) and Austria (2022). SRC 2023 seeks to represent a wide range of perspectives on river and coastal ecosystem protection, including not only the more traditional biological and physical sciences, but also social sciences, art and storytelling. Further, the camp will be developed in close collaboration with local partner organisations which we invite to comment on this proposal. The case study of the Dart is an opportunity to highlight the strength in partnerships between non-government organisations, government bodies, community action groups, scientific researchers and outdoor businesses to achieve meaningful local change that has global significance. By stimulating interaction between these communities and the students, we are pushing the boundaries of education and conservation by removing the dividing line between them.

THE DART

Two tributaries, the East Dart and the West Dart, come together to form the main River Dart at the aptly named location of Dartmeet in the south-east of Dartmoor National Park, Devon. Flowing through granite moorland, temperate rainforests, and small villages and towns including Buckfastleigh and Totnes, the Dart travels 75 km before joining the sea at Dartmouth and Kingswear inside the South Devon Area of Outstanding Natural Beauty and South Hams district. Its tidal limit is marked by Totnes Weir approximately 17 km from the mouth at Dartmouth. For centuries, the Dart has attracted writers, storytellers, poets, artists and scientists to describe its enchanting beauty and complex morphology. The Dart Valley was formed during the last Ice Age and flooded to become a deep 'ria', or drowned river valley, due to post-glacial sea level rise of 120 m. Today, its local residents and visitors from afar enjoy the river and coastal waters for recreational swimming, kayaking, fishing and hiking throughout the year, with the local tourism industry benefiting from the natural beauty of the valley. The Dart has long sustained industrial growth and development, and since 2015 the Totnes Weir Hydro power plant has generated enough energy to power 300 homes for 40 years, with a commitment to preserving the migratory passage of priority fish species Atlantic salmon (*Salmo salar*). In 2019, the Dart Estuary Marine Conservation Zone was designated in recognition of its rich coastal saltmarshes and intertidal habitat. However, the Dart faces increasing pressures. Downstream of Dartmoor's moorland landscape are many towns and villages at risk of flooding during flash flood events. The geology, changing weather patterns and land management practices means that soils are not absorbing and storing water efficiently, leading to excessive run-off and erosion. The Dart drains a catchment of 487 km² and flows through a steep river valley, making its fresh and coastal waters vulnerable to multiple sources of pollution. In recent years, communities within the Dart catchment have expressed concern over the lack of water flowing through this valley and there has been a rise in outdoor swimmers calling the bathing water quality of the Dart into question. The Dart is home to a strong community of willing and dedicated river defenders who are actively involved with citizen science opportunities to monitor the health of the water. The challenges and successes of managing this catchment presents an opportunity to introduce students to river-to-coast approaches in water conservation and protection, highlighting the power of strong transdisciplinary partnerships and inclusive community engagement to deliver climate-resilient solutions for the world's rivers.

Sources:

Westcountry Rivers Trust: The River Dart

South Devon AONB Estuaries Management Plan

GOALS

The main goal of the Dart Valley Students for Rivers Camp is to empower an international group of students early in their careers, giving them interdisciplinary skills and intercultural knowledge to help bring their ideas into action for river and coastal conservation in collaboration with local organisations. By joining the camp, they will be able to:

1. *Explore their role as a scientist, artist, lawyer and/or activist.* There are multiple ways to contribute to the protection of rivers. We emphasize the interconnectedness of people, rivers, science, and creativity, and show that all have something invaluable to contribute. This exploration should help students to understand their potential role and to appreciate those others with enthusiasm, rather than judgment.
2. *Put River Conservation (and diverse disciplines including science, economics, law and arts) in a global context* - Our students have the potential to contribute to the local fight of river defenders, but will be most effective when understanding the global context. We help them understand the socio-economic conditions which shape the decision making processes on a global and local level.
3. *Be creative about communication* - Participants will walk away with the realisation that their toolbox is more than scientific papers or traditional research, and that interdisciplinary collaboration and creative communication can make the difference between numbers on a paper and a policy change.
4. *Engage with local citizens* - We bring international and regional students together with the local communities. Students will gain new perspectives as locals exchange their stories, and their non-academic experiences in living with their efforts to keep the rivers healthy and free-flowing. This will create a strong learning environment, which will give new perspectives for the students.
5. *Get to action* - After broadening the context, opening the toolbox and understanding the local living environment, we will empower participants to combine new skills and thinking with their own (expert) knowledge and that of others. We create space for the students to develop new initiatives that consider multiple perspectives and that can directly support the local communities in their endeavors to protect rivers. We push participants to find solutions that are also applicable to similar challenges in other watersheds, including their own.





CAMP ACTIVITIES

After selecting a motivated group of river passionates in the early stages of their (academic) career, we gather for a week-long gathering full of activities, mostly outdoors. The program will include the following elements:

- Expert lectures and workshops - Through various sessions, the SRC gives space for discussions on topics relating to the natural functioning of rivers and coastal ecosystems, from scientific monitoring to policy-making and from the importance of data accessibility and visualisation to the intersection between arts and environmentalism.
- River Experience and Excursions - Learning about the river is done best while experiencing it. During practical fieldwork trips from source to sea of the Dart, students are triggered to open their eyes for details they might normally pass by, linking up the complex ecosystem that a river is part of. Students will be invited to take to the water itself through a canoe tour of the Dart estuary, where we will learn about the transition from freshwater into coastal systems, and the importance of immersive outdoor experiences in fostering positive relationships between humans and nature.
- Actions for Rivers - The moment to turn knowledge into action. Inspired by the various discussions during the week, the students have the chance to form interdisciplinary groups around their project ideas. The students will be invited to present these ideas during Dart Fest, where these ideas can turn into creative actions.



CAMP SCHEDULE

An example of the SRC 2023 schedule is provided below with potential themes for each day. The SRC will follow the Dart's journey from river to coast, equipping students with practical skills and knowledge in freshwater and coastal monitoring. We invite local partners, artists and researchers to share ideas and encourage creative collaborations.

	Theme	Suggested topics		Evening Activities
Day 1	Welcome	Student Arrivals		Introductions
Day 2	Introduction to the Dart	The Dart in a global context: Introduction to the area	Nature-based Solutions on the Dart	
Day 3	Freshwater: Dartmeet to Totnes	Freshwater fish, invasive species and riverfly ID skills	River soundscapes	Storytelling
Day 4	Coastal and Marine: Totnes to Dartmouth	Changes in the coastal environment Estuary tour by canoe	Rockyshore ID skills: snorkel safari	Free time
Day 5	Voices of the Dart	The past, present and future communities of the Dart	Citizen Science on the Dart	Movie night
Day 6	Science Communication	Workshop ideas: 1. Creative Communication: e.g. stopmotion Animation and Graphic Design 2. Water Languages and Accessibility 3. Stakeholder Mapping and Community Engagement	Mapping the Dart from Source to Sea Student Poster Presentations SRC Summaries	Free time
Day 7	Community Action	Dart Fest		End of SRC party
Day 8	End of Camp	Student departures		
	Outdoor/Indoor Classroom based	Practical fieldwork	Event	

DART FEST

Local residents, outdoor businesses, community groups and environmental organisations are invited to join the SRC in a celebration titled **Dart Fest**. This event will take place in Princetown, Dartmoor, where students will present their findings from a week of immersive workshops, lectures and fieldwork. Space will be given to local researchers, residents, volunteer groups, artists, musicians and environmental organisations who also wish to share their stories and experiences through art or scientific research. Dart Fest will facilitate further conversations between SRC students and local communities, giving real opportunities to practice science communication and forge connections that can lead to impactful solutions. It is hoped this event might also give opportunity for local partnerships to come together to discuss ways to continue engaging younger generations who represent the future scientists, artists and outdoor explorers who will champion the delivery of many of the climate-change solutions in development today.



PAST RELEVANT EXPERIENCE

The River Collective has been a registered Association and NGO since May 2020. It is dedicated to protecting rivers, and empowering young students and local activists through education and collaboration. Over the past four years, the River Collective, lead by a team of river passionates, has organized four “Students for Rivers Camps”; the Soca River in Slovenia, the Lim River in Montenegro (hosted online), the Valbona River in Albania, and the Ötztaler Ache River in Austria. These camps have been further supported by “Actions for Rivers”, a project incubator gathering students from 35 different countries around the globe. In response to the quarantine environment, it organized regular “Science Chats” and “Movie Nights” in which, together with leading experts on rivers and conservation, discussions are hosted via zoom on the role that science and activism can play in protecting rivers and nature. Once a year, a world-wide Home River Bioblitz is organized, as a global event in which locals discover and document the biodiversity of their home rivers through citizen science.

In all their activities, state-of-the-art educational methodologies are used and developed, allowing participants to explore new perspectives. These have included innovations such as the development of a serious game about the role of corruption in hydropower development, and participatory workshops on ecopolitical mapping and creating river anthologies. Through these activities, the River Collective has grown into a virtual space where scientists, river defenders and adventurers can connect and put their global knowledge into action.



WORKS CITED

[1] Grill, G., Lehner, B., Thieme, M. et al. (2019). Mapping the world's free-flowing rivers. Nature 569, 2.

<https://doi.org/10.1038/s41586-019-1111-9>

[2] WWF (2020) Living Planet Report 2020 - Bending the curve of biodiversity loss. Almond, R.E.A., G Petersen, T. (Eds). WWF, Gland, Switzerland.

MEDIA AND SOCIALS

MEDIA and social platforms

[M1] Facebook page of the River Collective:

<https://www.facebook.com/rivercollectiveriver>

[M2] Instagram of the River Collective: @therivercollective

[M3] Youtube channel of the River Collective:

https://www.youtube.com/channel/UCvzHv4Ma92n-view_as=subscriber

PHOTO CREDITS

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