



TAGLIAMENTO

Saving the Wild One

WWF POSITION PAPER



The Tagliamento, on the right, can be clearly seen from satellites images.

The Tagliamento River is the last large free flowing River in Mid-Europe. Its gravel bed can even be seen on satellite images, thereby emphasizing its value as a large corridor for migrating species.

Species living in this large dynamic ecosystem are highly specialized as they have to cope with regular floods and droughts. The habitat and species diversity is hence outstanding and needs to be protected.

The Tagliamento source is located in the North East of Italy, within the wild and impressive Carnic Alps, from where it flows into Adriatic Sea between the regions of Veneto and Friuli Venezia Giulia.

**The average
flow rate of the
Tagliamento is 90 m³
per second.**

With its 170 km-long course and a hydrographical basin of 2,917 km² the river winds and turns majestically towards the sea, gaining communities' respect also with its flow rate, that is around 90 m³ per second on average, but can reach flood peaks up to 4,000 m³ per second. In particular the island-braided mid-section is a unique ecosystem across European Rivers due to its enormous length (90 km).

Its characteristics single it out as one of the last pristine Alpine rivers, while severe threats and pressures menacing its integrity, and that of its catchment area, call for stringent protection measures.

WWF recognizes the high ecological value of the Tagliamento River, and have fought hard for its protection and against the major threats during the past years. The halt or significant mitigation of these threats constitutes the basis of WWF's vision for the Tagliamento.

The River Tagliamento and The First World War

During the First World War the Tagliamento constituted the frontline between Austria-Hungary and Italy. Hundreds of thousands of lives were lost in harsh fighting along the river banks and in the adjacent areas and the river still holds enormous cultural and historical significance for Italy.

During the First World War, in this area the frontline was kept with the typical "trench warfare", in which each army took a position and defended it from trenches dug in the ground.

In the October 1917's Caporetto Battle, where the Italian Army was beaten by the Austro-Hungarians supported by Germans with the use of poisonous gas, both sides had thousands of deaths and Italians had to retreat towards West.

The Italian Army stopped on the Tagliamento River, from where attempted to defend a new frontline. Many clashes happened along the River, before drawing back to the Piave River.

The Tagliamento was then crossed back in October 1918, when the Austro-Hungarians were overcome and driven to armistice.

It is still possible to find a lot of trenches in the higher basin of Tagliamento and within the surrounding mountains.

The Tagliamento is considered an example of river ecology, since its morphology is almost intact and it still conserves its ecosystem dynamics. The river, with its typical braided course and its gravel and sand islands, which is used as example for many restoration projects in the whole Europe, has been studied by researchers for many years now.

The river is rich in flora and fauna, represented by two Natura 2000 protected areas along its course. Its upper part is also important as Marble Trout (*Salmo (trutta) marmoratus*) breeding area. Those areas are endangered by habitat reduction and unregulated water level management. The whole basin itself is rich in biotopes and peculiar wetlands, hosting Habitats of pan-European importance.

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Conservation values

Tagliamento is the last large semi-natural, dynamic braided river in Europe with semi-natural hydrology and geomorphology and in particular intact large wood dynamics.

It is also an important corridor enabling vital exchange of material and individuals among Mediterranean and Alpine populations. In particular, its mind-blowingly large, beautiful and dynamic habitat mosaic is highly attractive for species, plants and humans.

Tagliamento's outstanding habitat diversity is enriched by the longest island-braided (90 km) river section among European rivers, and maintained by regular floods and natural dynamics. The presence of islands and sand bars allows a 670-km long riparian ecotone, and together with a wide riparian forest (around 32 km²) host a huge species inventory, such as 87 riparian bug species out of which a third is on the red list, many Amphibian species (eg. up to 13 different species on a 2 km² patch in the mid-section) like *Rana latastei*, *Rana temporaria*, *Triturus alpestris* and *T. carnifex*. The area is also habitat for the Horned Viper (*Vipera ammodytes*) and many other reptiles. Birds species are hosted thanks to the rich habitat diversity, among which Little Ringed Plover (*Charadrius dubis*) can be found in densities that could reach 22 breeding pairs per river kilometer in the mid section; a project of reintroduction is also regarding the Griffon Vulture (*Gyps fulvus*).

Among Mammals, the area of the mid course hosts an important bat nursery (with at least 3 different bats species); the entire basin is important for the main alpine Mammals in its upper part, hosting European Polecat (*Mustela putorius*) in its riparian forests, while rumors of European Otter's presence (*Lutra lutra*) are becoming stronger year by year in the Northeastern tributaries.

Healthy populations of Alpine Tamarix (*Myricaria germanica*) all over the river, from source to mouth, is unique in Europe and contributes to the bio-corridor connecting the Northern Adriatic Sea to the Alps.

This richness in biodiversity is a vital value service itself, but the river also provides other very important ecosystem services at an extremely large scale (from the Alps to Adriatic Sea): flood protection, thanks to the huge active riverbed, that can measure up to 2 km width and hosts a natural gravel bed that can hold up to 4000 m³ per second, groundwater accumulation capacity, as aquifers can reach depths up to 300 m, and water purification.

Threats

The whole Tagliamento basin is subject to severe threats:

- **Water withdrawal:** This threat concerns mainly the main tributaries which are used mostly for hydropower production and other industrial purposes. In the river's lower course water withdrawal is mainly due to agriculture.
- **Hydrological modifications:** Mostly, this threat is caused by unsustainable water basin management, mainly due to unregulated water discharge from hydropower installations.
- **Morphological modifications:** Planned detention basins in the middle course of the river (in a Natura 2000 site) representing an impending if not yet actual threat. Sand and gravel excavation severely impact the river morphology.

- **Infrastructure:** A high-voltage power line and two highways are planned in the upper portion of the catchment area.

In more than 20 years of activity on Tagliamento protection, WWF committed itself, together with other organizations, in a ceaseless work to protect the Tagliamento against detention basins projects, new infrastructures, hydropower water withdrawals and gravel extraction.



The Tagliamento middle course reaches a width of up to 3 km, with gravel and sand bars.

We demand for Tagliamento

Keep the Tagliamento wild! WWF asks that the following demands are met in order to preserve the high value of the river, and transmit it to future generations:

- Stop the most severe threats, first of all detention basins and hydropower installations;
- Halt or significantly mitigate new road infrastructures in its higher basin;
- Implement Natura2000-level protection for the catchment area and the upper and medium river course;
- Implement regional protocols and standards for existing hydropower plants (es. CH2OICE protocol, or other standards and tools for hydropower sustainability) and reduce the whole water withdrawal from the river and its tributaries;
- Obtain official international recognition of the Tagliamento's extraordinary ecological value and of an economical potential for area, with the help and involvement of the region and all the interested municipalities and communities.

Our position on Tagliamento

The preservation of this river's natural and wild dynamics, morphology, and landscape, and the conservation of the full extent of its biodiversity, are a duty of this generation and a call for all to do our part in transmitting it to the next generation.

Therefore WWF demands that this important natural heritage is effectively preserved. WWF calls for extended and effective legal protection of the whole river system, based on highest ecological standards.

Download WWF-Italy's reports on Tagliamento from the following site (mostly in Italian):
<http://regionali.wwf.it/client/regionali.aspx?root=6899&>



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Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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