

Monitoring Alpine River Dynamics from a biodiversity and landscape perspective







Tagliamento

It is the dominant river system of the Friuli region

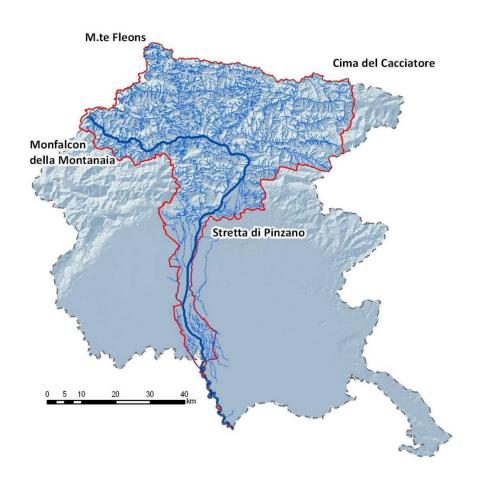
Source: Passo della Mauria (1194 m)

Stream network length: 2726 km

Length: 178 km

Basin: 2580 km²



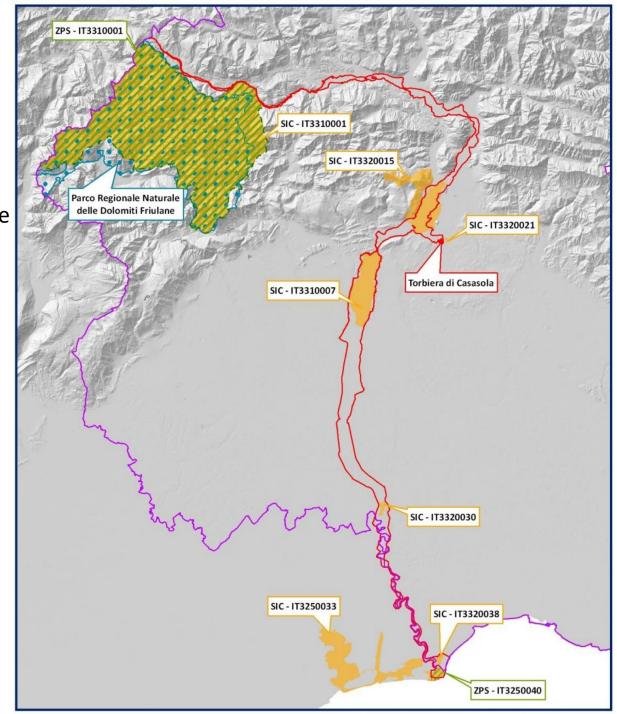


Because of high coarse sediment production in the catchment, the Tagliamento River displays a wide braided channel along 90 km of its course

Nature protection

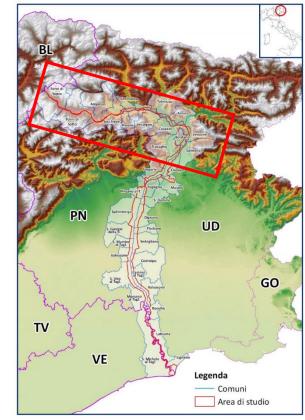
The corridor has escaped massive river engineering and floodplain development schemes

Near-pristine system



Mountain range

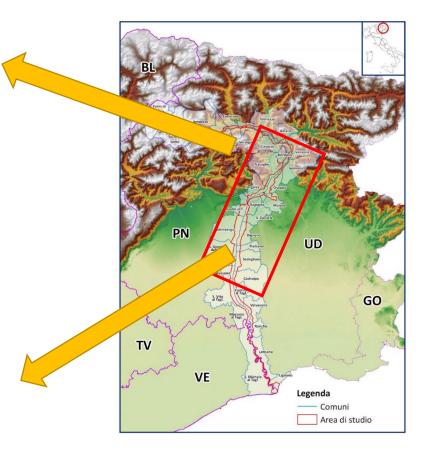




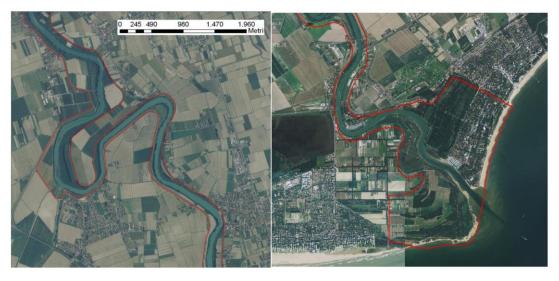
Barided channel



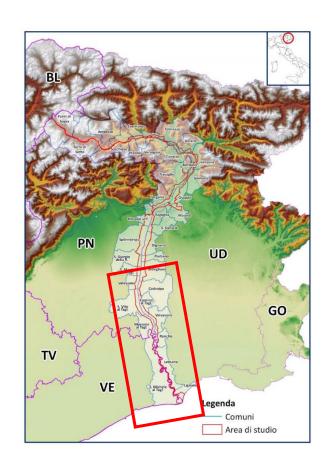




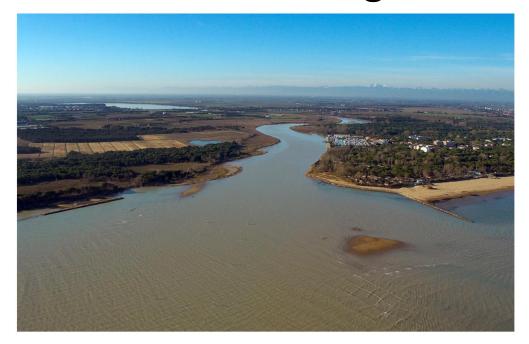
Lowland – single channel

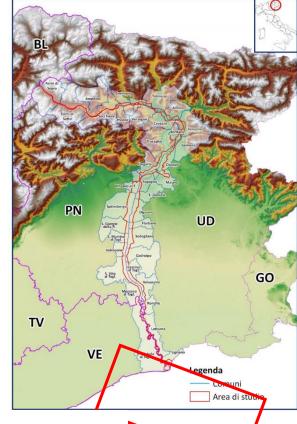






River mouth and lagoon



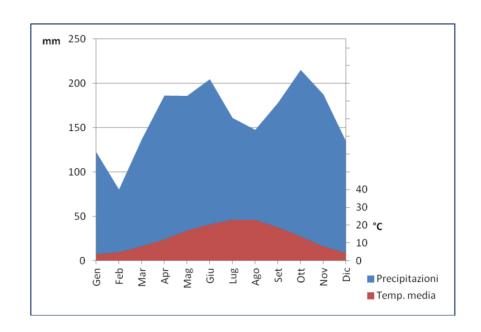


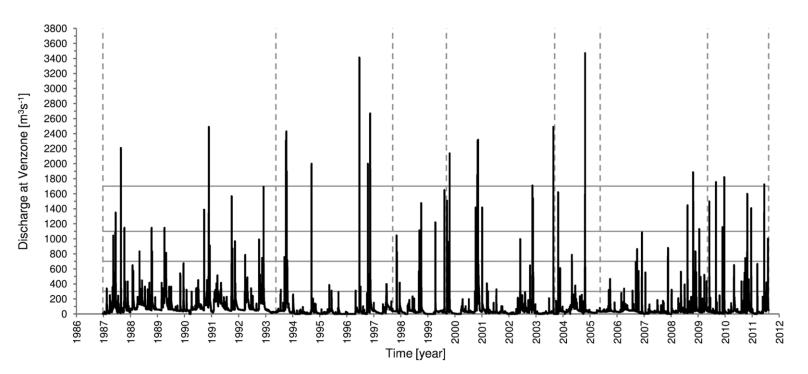


Hydrology

Mean annual precipitation (1961–1990) 2000 mm. Ranging from 1500 mm in some small portions of the upper and lower parts up to 3100 mm in some central sub-basins

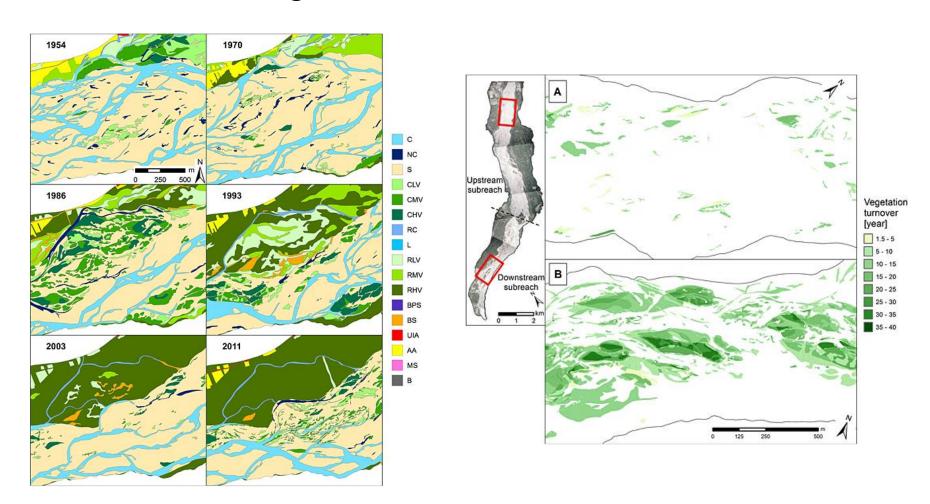
The Tagliamento River is characterized by a flashy pluvio-nival flow regime





River dynamics

Vegetation turnover in a braided river: frequency and effectiveness of floods of different magnitude



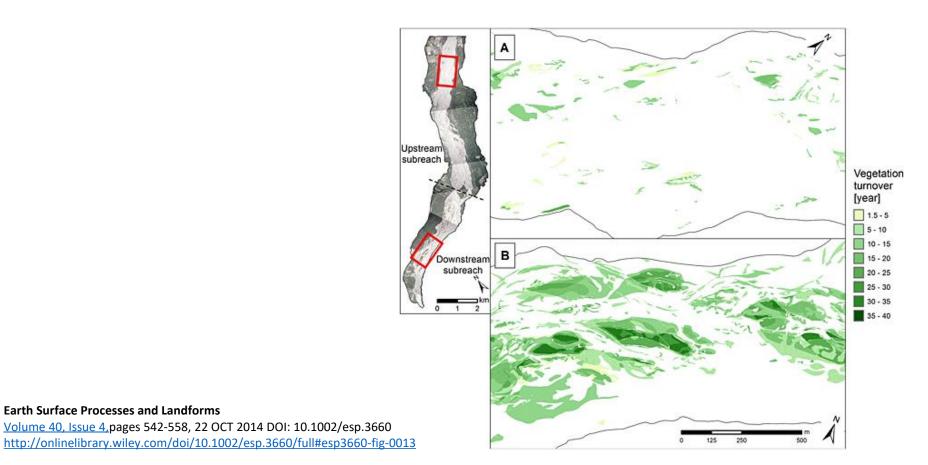
Earth Surface Processes and Landforms

<u>Volume 40, Issue 4, pages 542-558, 22 OCT 2014 DOI: 10.1002/esp.3660 http://onlinelibrary.wiley.com/doi/10.1002/esp.3660/full#esp3660-fig-0005</u>

River dynamics

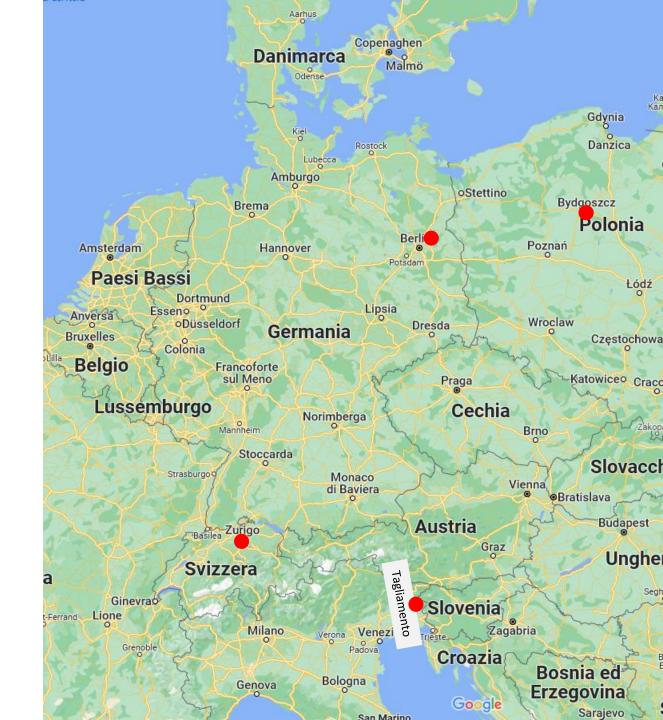
Earth Surface Processes and Landforms

Results show that vegetation turnover is remarkably rapid in the study reach with 50% of in-channel vegetation persisting for less than 5–6 years and only 10% of vegetation persisting for more than 18–19 years.





Partners



Online activities

Field week









04/2022



Online activities - Friday afternoon at 14:00

22/04	Presentation of program and activities					
	→ presentation of summerschool aims and program, Friuli and Tagliamento background					
	→ GIS, Remote sensing introduction					
	→introduction about the functioning of rivers in different areas					
29/04	Dating riverbanks, analyzing river dynamics of last 10-20 years? /sentinel, orthophotos					
06/05	Fluvial dynamics					
13/05	Soils, organic matter and nutrients					
20/05	Flora and forest monitoring tools					
27/05	defining topics and groups					
10/06	Result presentation and programmed sampling design					

Field week 25 20/06 – 26/06

Week 25	Sun -19/06	Mon -20/06	Tue -21/06	Wed -22/06	Th -23/06	Fri -24/06	Sat 25/06	Sun -26/06
Morning	Travel	Introduction to Summer School The week agenda Hypothesis presentation by groups Presentation of survey area and definition of survey protocols (experimental design)	Field survey	Field survey	Field survey	Lagoon day: visiting Grado and Marano Lagoon by boat	Group work	Travel
Afternoon	Accommoda tion	Field survey	Field survey	Field survey	Group work	Lagoon day: visiting Grado and Marano Lagoon by boat	Presentations	Travel
Evening	Official welcome party	Group work	Group work	Group work	Group work	Free evening in Udine	Farwell	Travel

Places



Paluzza – Cesfam FACILITY



