

Predicting the flow intermittence of headwater streams in France based on Explore2 flow projections adapted from CMIP 5 emission scenarios

Tristan JAOUEN¹, Lionel BENOIT², Louis HÉRAUT¹, Éric SAUQUET¹

¹INRAE Lyon-Grenoble Auvergne-Rhône-Alpes, RiverLy, France

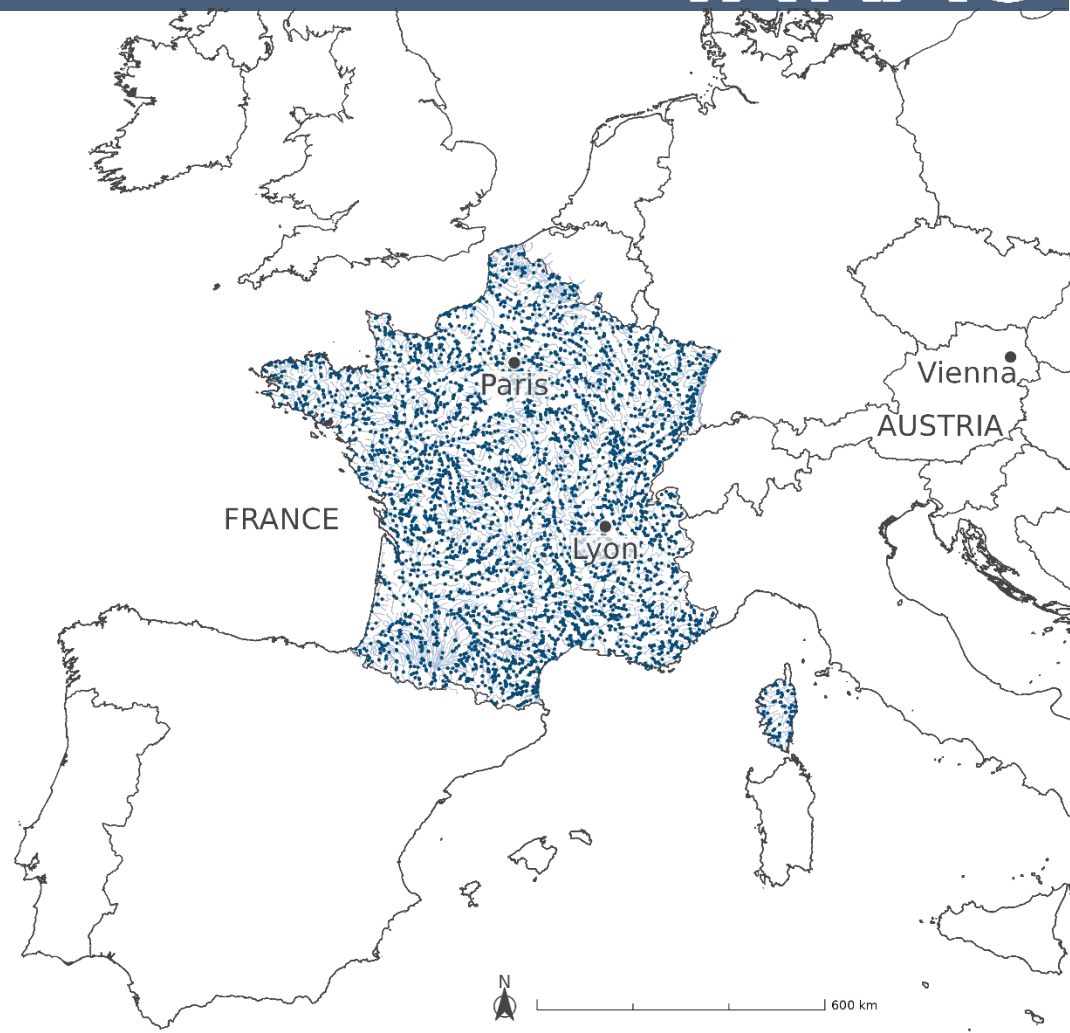
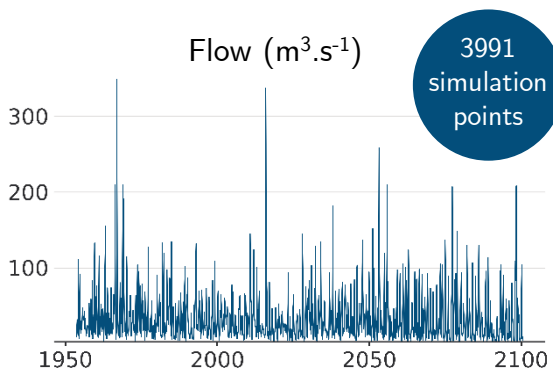
²INRAE PACA, Avignon, Biostatistique et processus SPatiaux, France

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Explore2 project




**MINISTÈRE
DE LA TRANSITION
ÉCOLOGIQUE
ET DE LA COHÉSION
DES TERRITOIRES**
*Liberté
Égalité
Fraternité*



Explore2 project



17 GCM x RCM



Emission scenarios:
RCP2.6, RCP4.5, RCP8.5

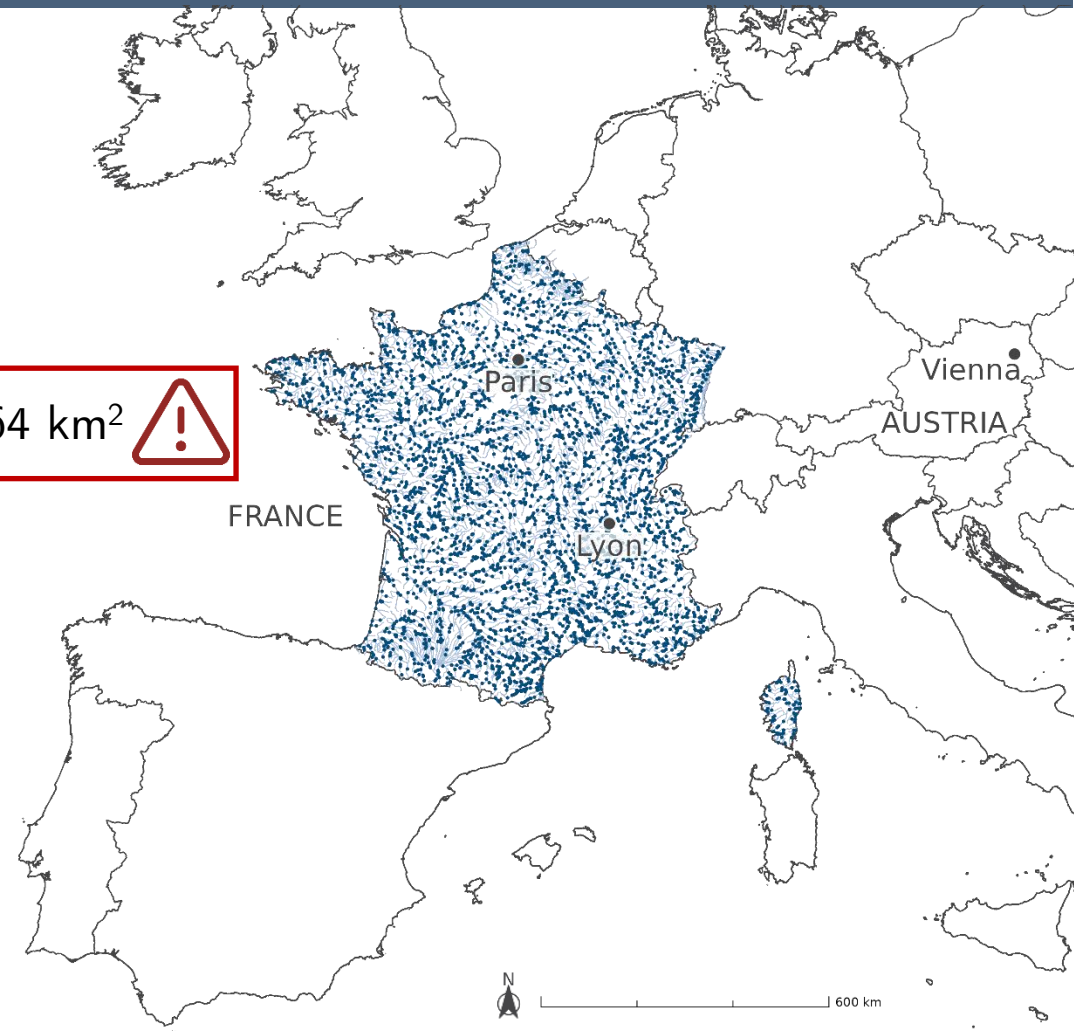
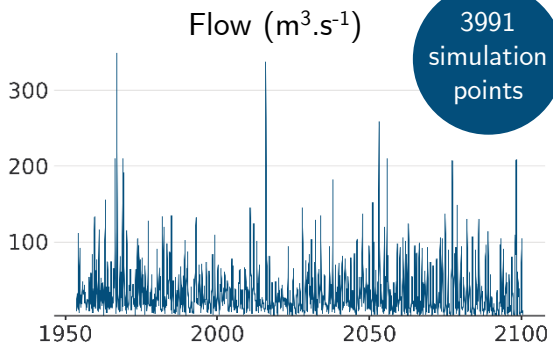


9 hydrological models

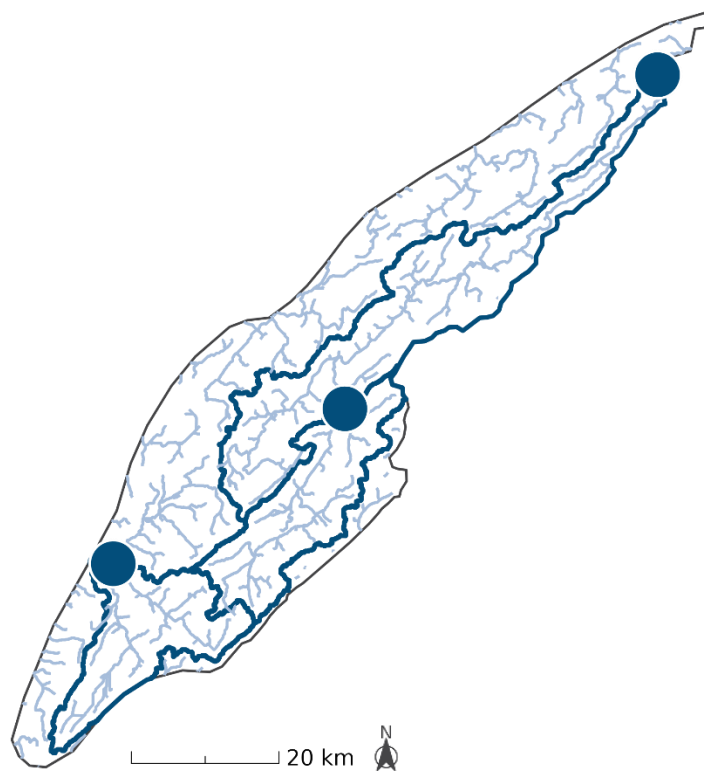
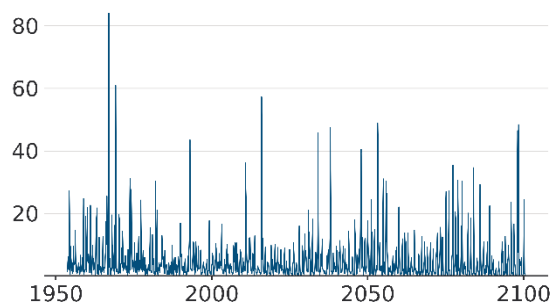
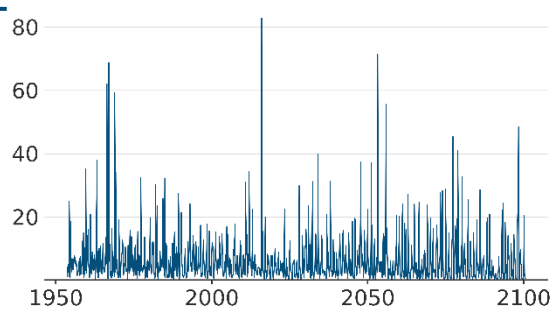
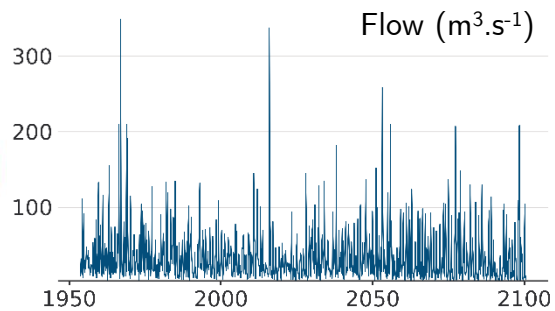
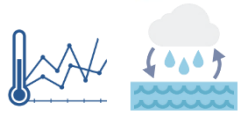
Resolution: 64 km²



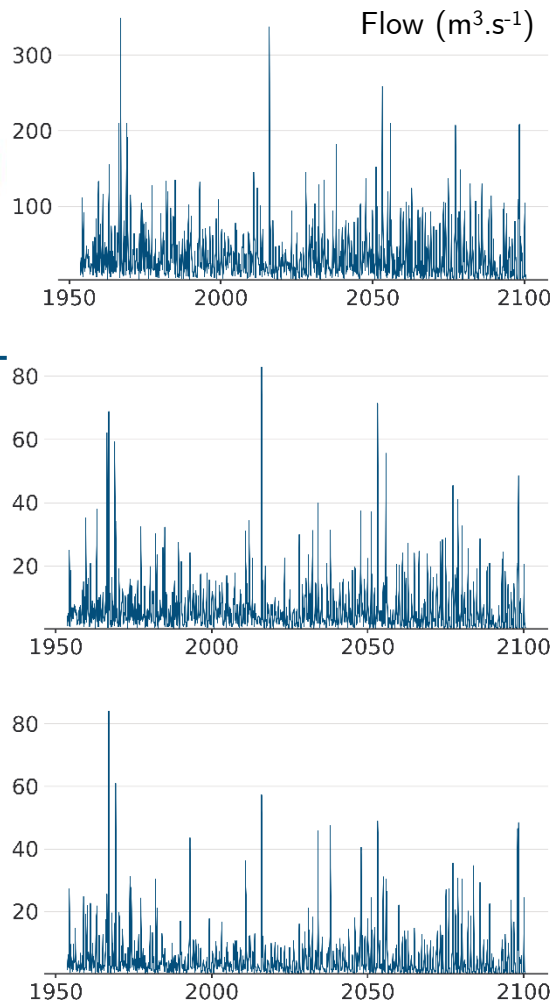
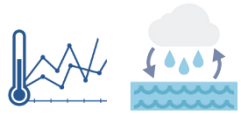
3991
simulation
points



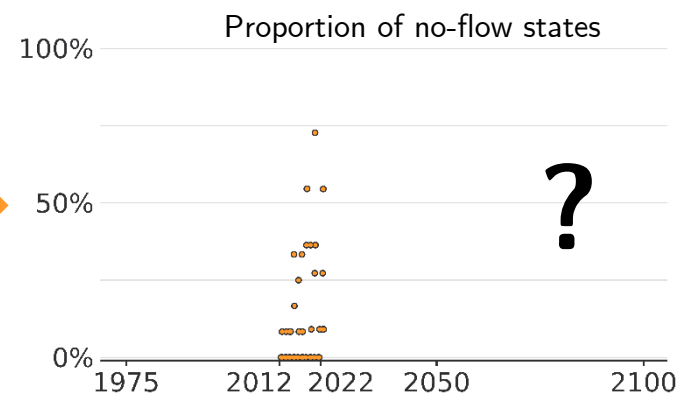
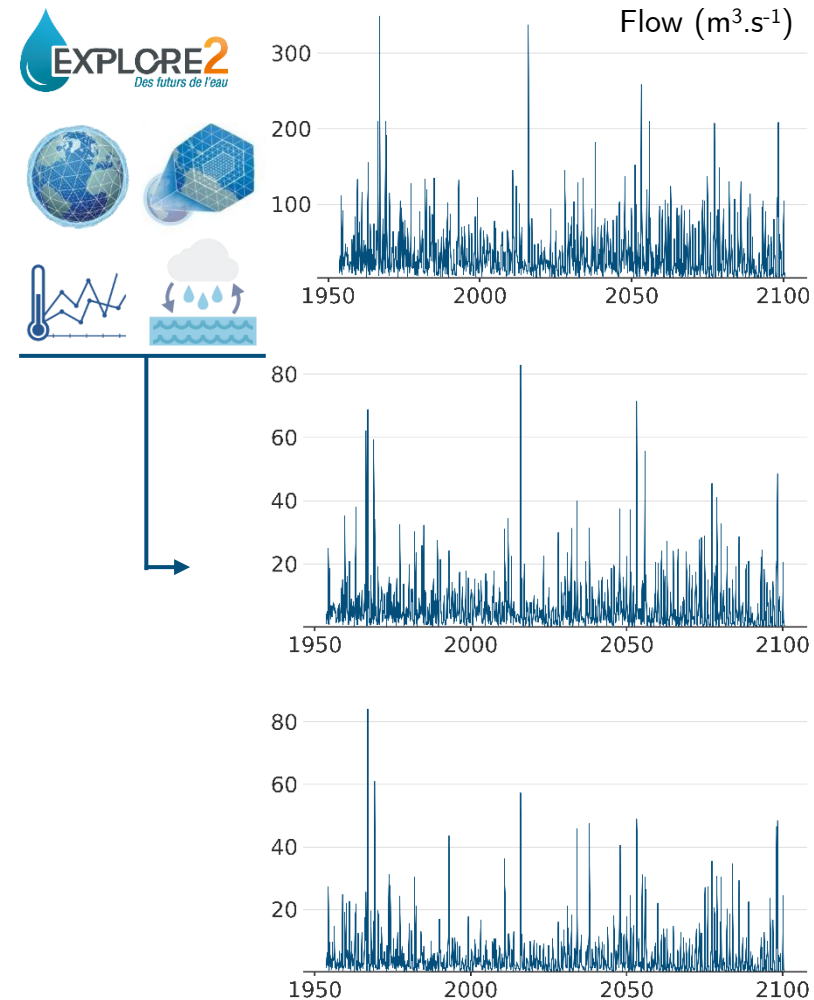
Explore2 extension using OFB network



Explore2 extension using OFB network



Explore2 extension using OFB network



Average proportion of no-flow states

Historic runs
(1976-2005)

Mid-term horizon
(2041-2070)

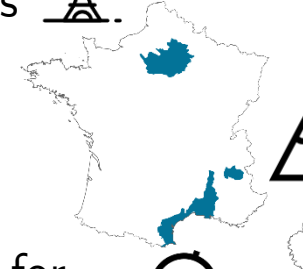
Long-term horizon
(2071-2100)

0% 10% 20% 30% 40% 50% 60% 70%



300 km

Projections
around Paris



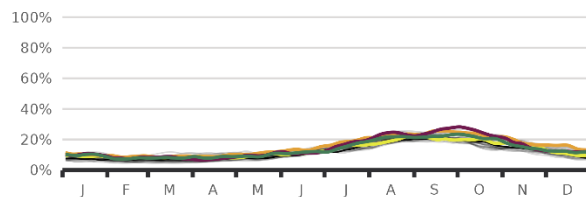
Projections
in the Alps



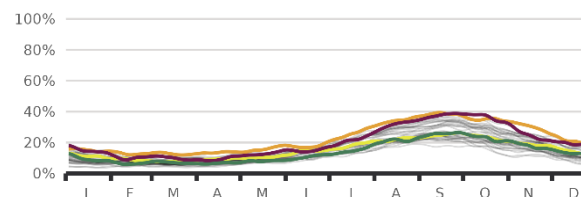
Projections for
the Côte d'Azur



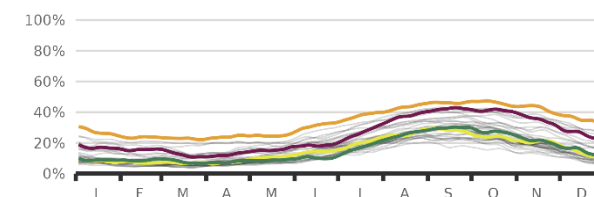
Historic runs (1976-2005)



Medium-term Horizon (2041-2070)



Long-term Horizon (2071-2100)



PICO A.12



THANK YOU FOR YOUR ATTENTION

Tristan JAOUEN¹, Lionel BENOIT², Louis HÉRAUT¹, Éric SAUQUET¹

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tristan.jaouen@inrae.fr