



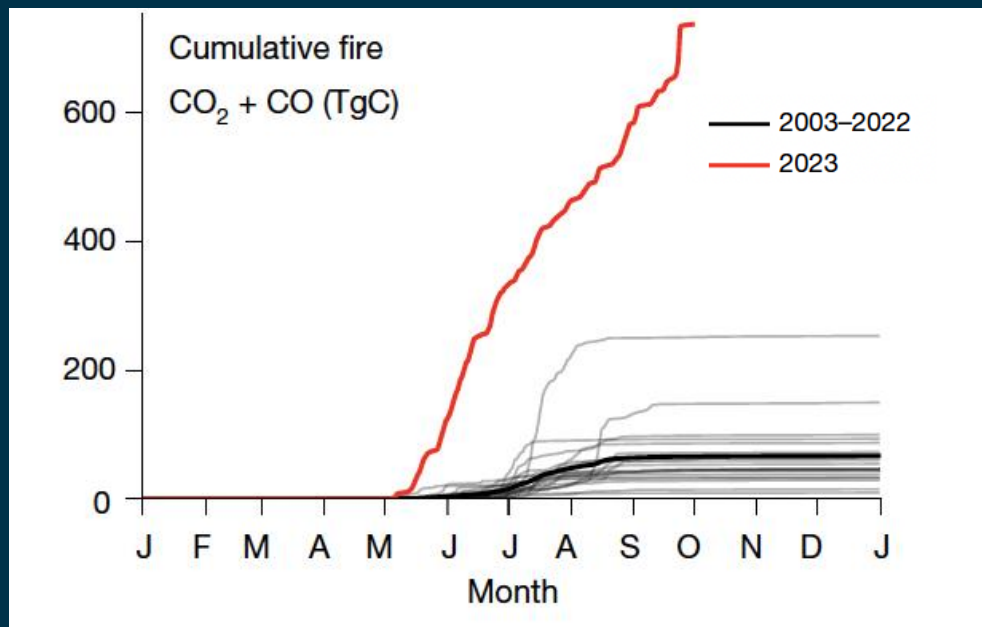
XFires

Modelling multidimensional causes and impacts of extreme fires in the climate system through X-ECV analysis

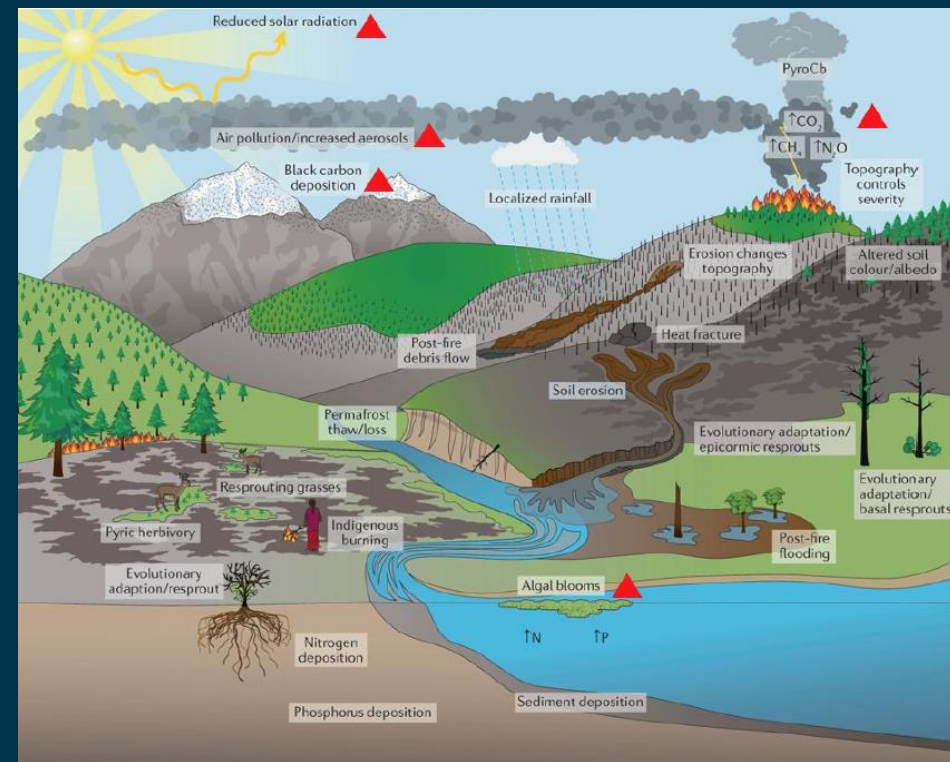


Variety of Environmental Impacts

Timely: Canadian fires 2023



Byrne et al., 2024



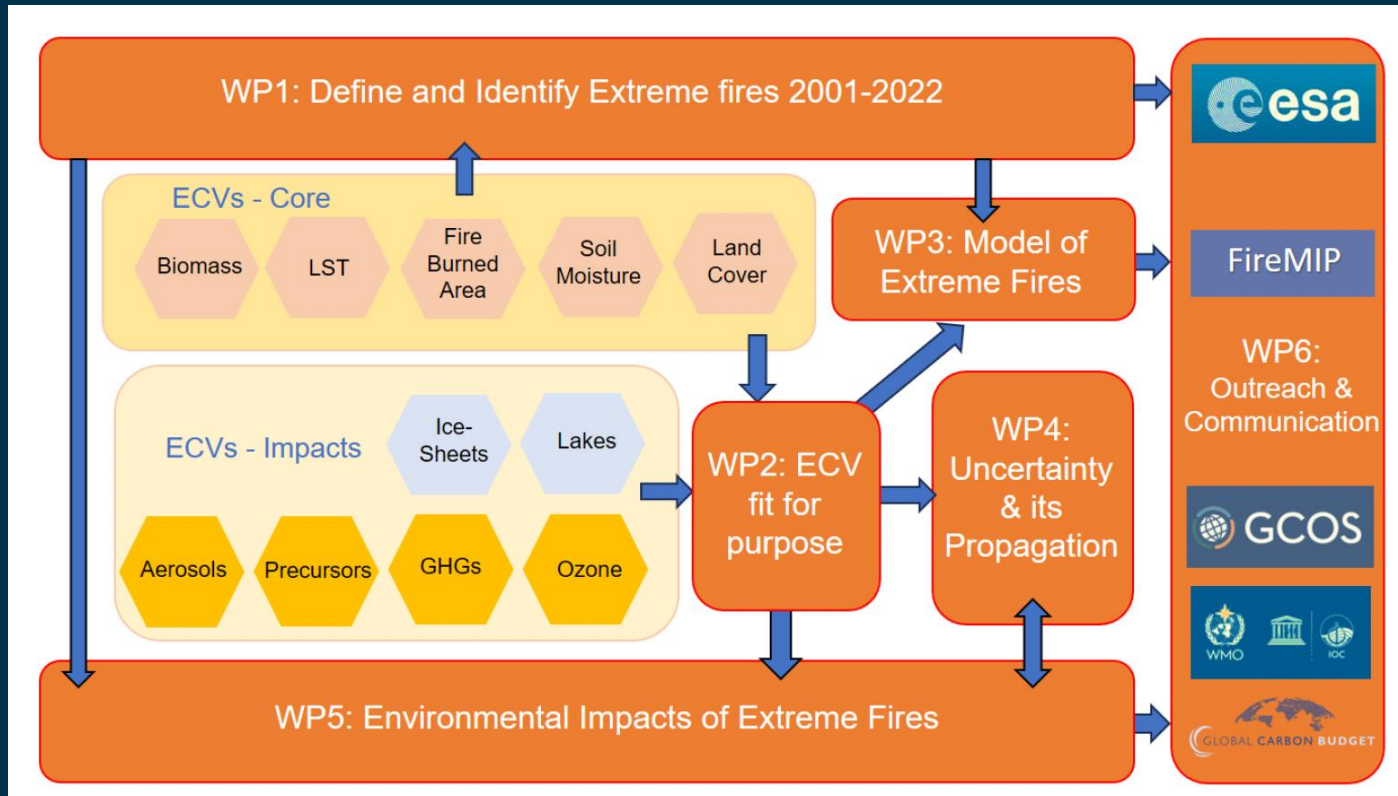
XFIRES foci

Bowman et al., 2009, 2020



XFires

Aim: a holistic understanding of extreme fires and their impact in the Earth system.



- ✓ Use relevant ECVs, to help *define and differentiate* extreme fires from ‘normal’ fires: fire, biomass, land cover, LST, soil moisture.
- ✓ Determine the *impact* of extreme fires using case studies on their atmospheric and climate impact using ECVs: Greenhouse gases, ozone, precursors and aerosols, and broader environmental impacts: Ice-sheets (Greenland), and Lakes.