

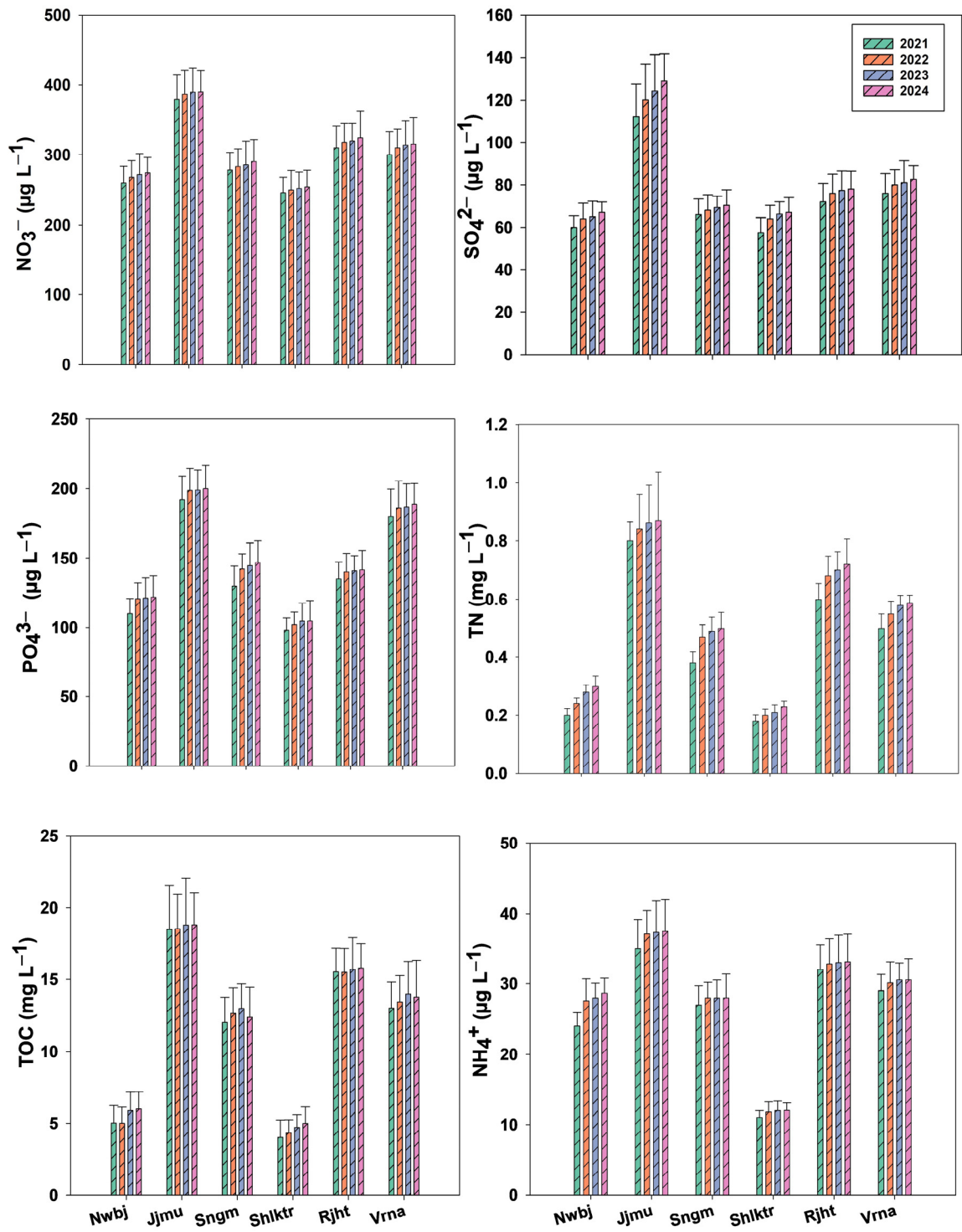


Figure S1. Spatio-temporal variations in the concentrations of nutrients and total organic carbon (TOC) in the Ganga River water. Values are mean ($n = 18$) $\pm$ SE.

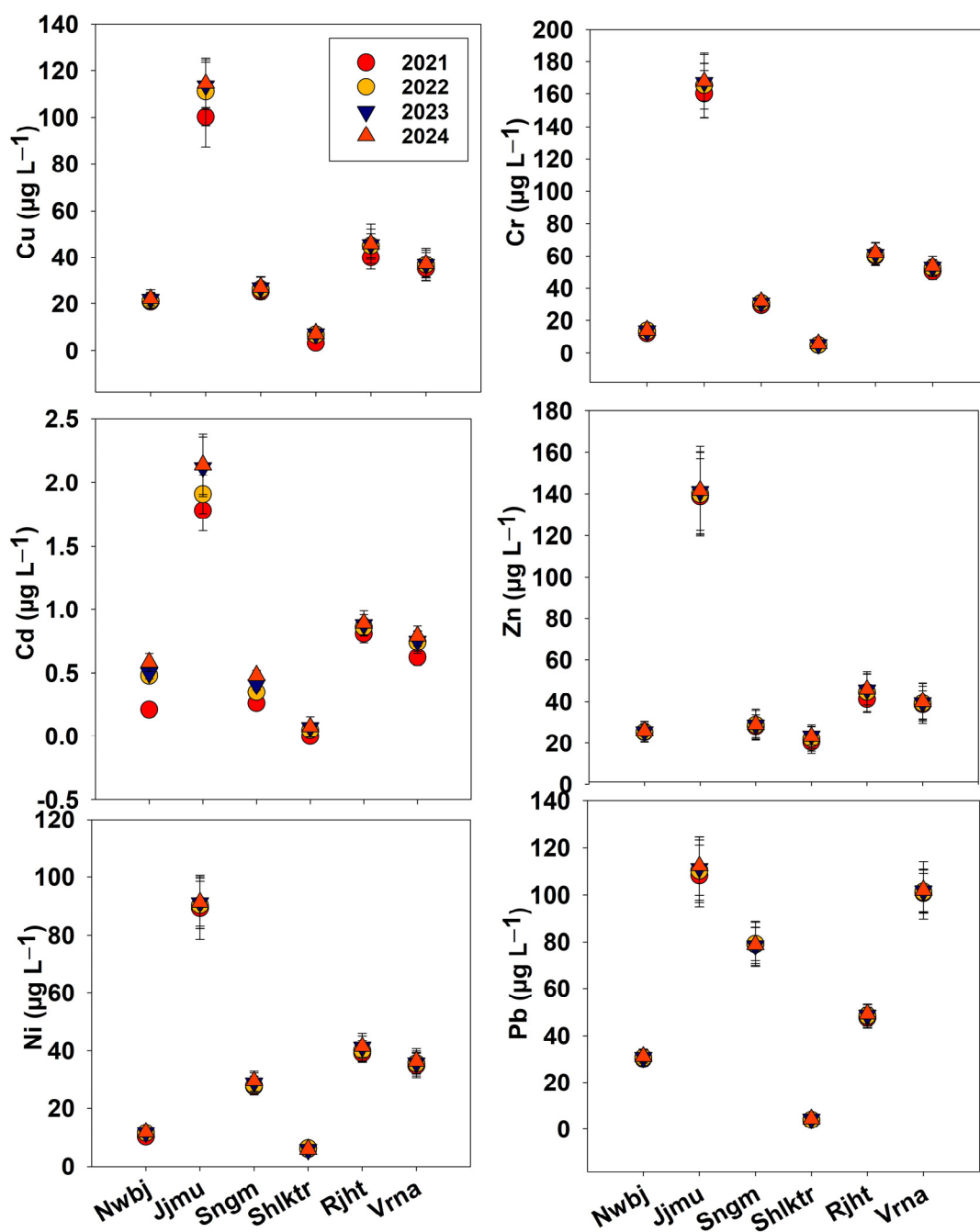


Figure S2. Spatio-temporal variations in the concentrations of metal pollutants in the Ganga River water. Values are mean ($n = 18$) $\pm$ SE.

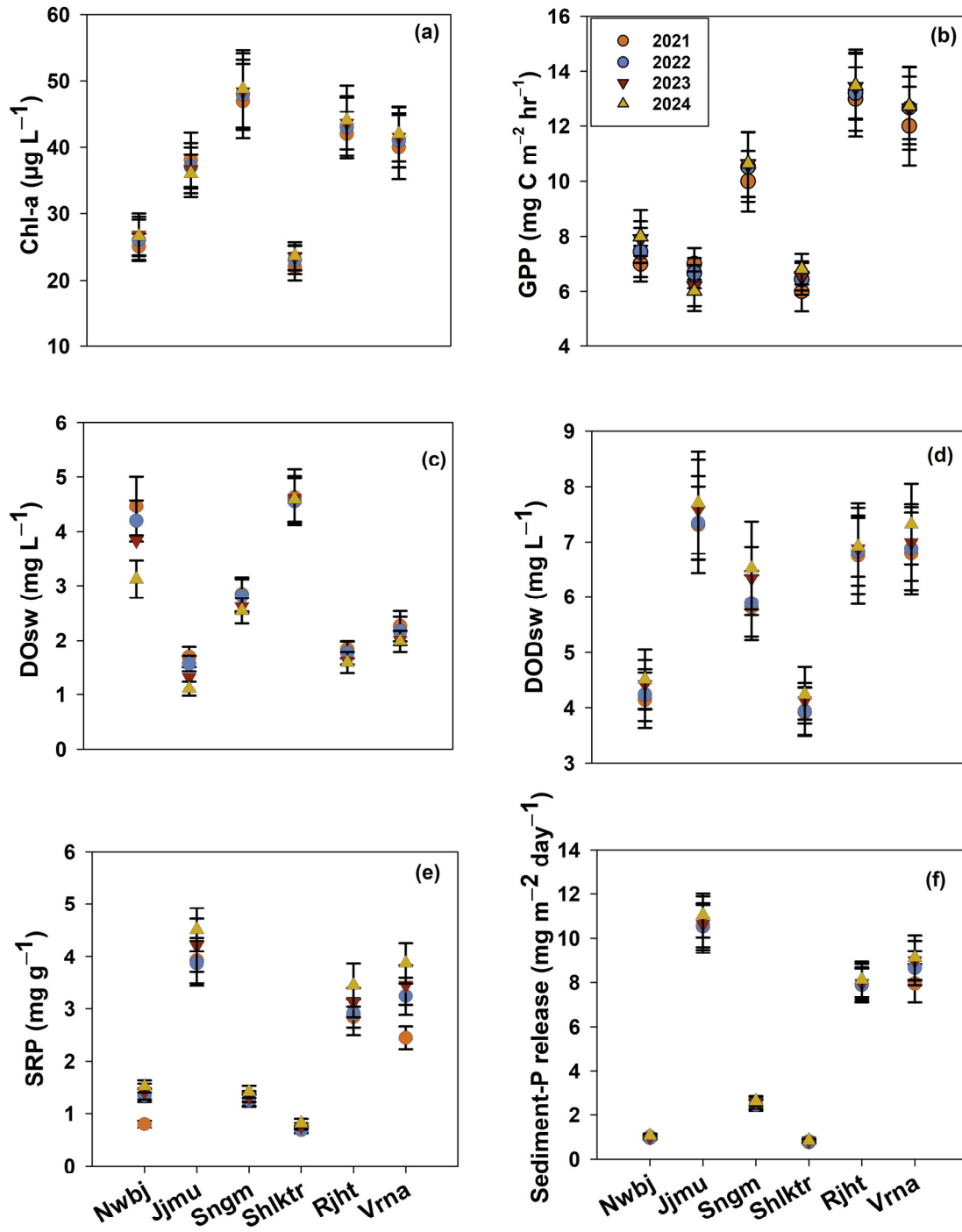


Figure S3. Spatio-temporal variations in: (a) Chl-a biomass, (b) gross primary productivity (GPP), (c) dissolved oxygen at sediment-water interface (DO_{sw}), (d) Dissolved oxygen deficit at sediment-water interface, (e) SRP and (f) sediment-P release at study sites. Values are mean ($n = 18$) $\pm$ SE.

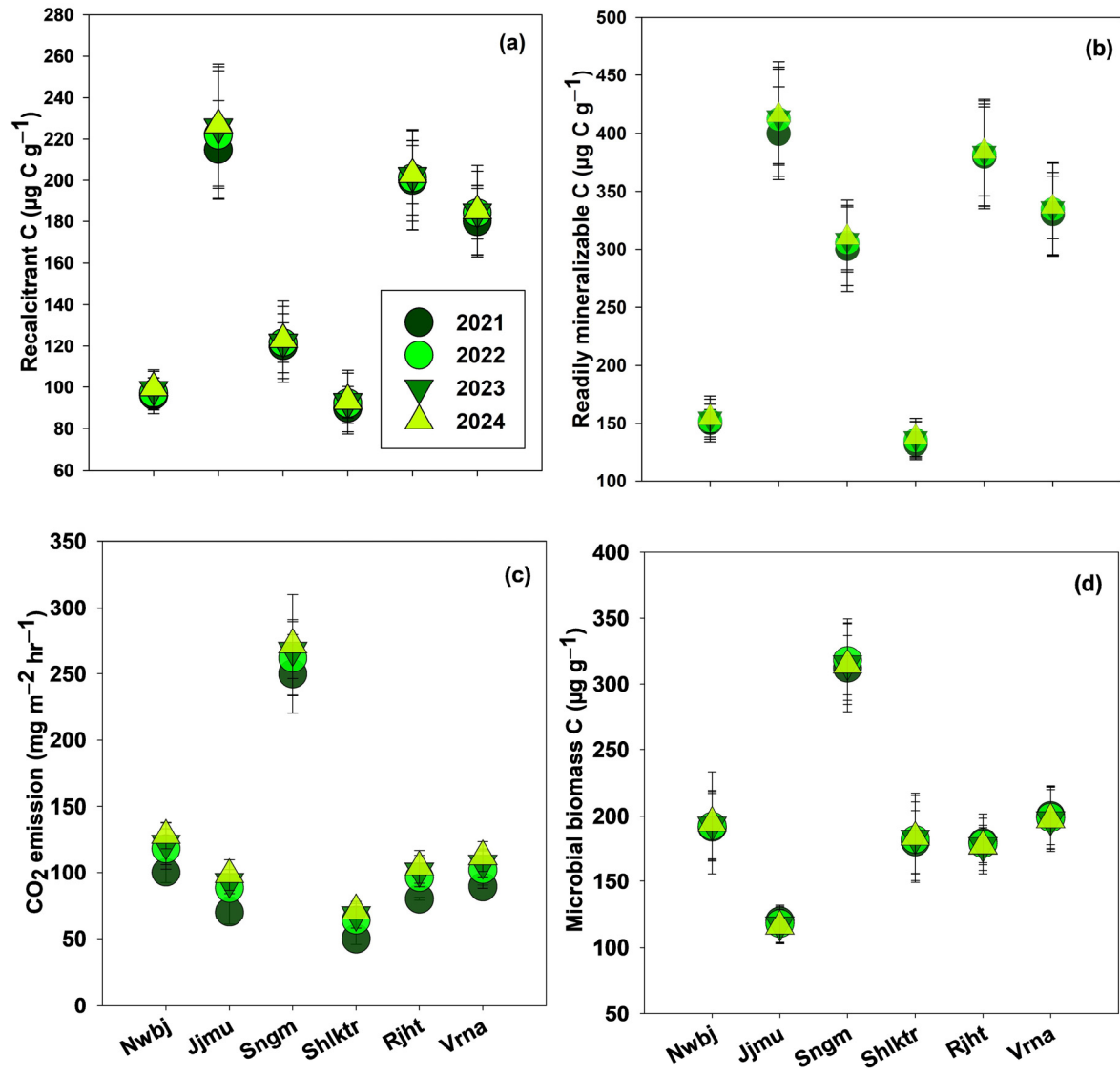


Figure S4. Spatio-temporal trends in: (a) recalcitrant carbon, (b) readily mineralizable carbon, (c) CO₂ emission and (d) microbial biomass C. Values are mean ($n = 18$) $\pm$ SE.