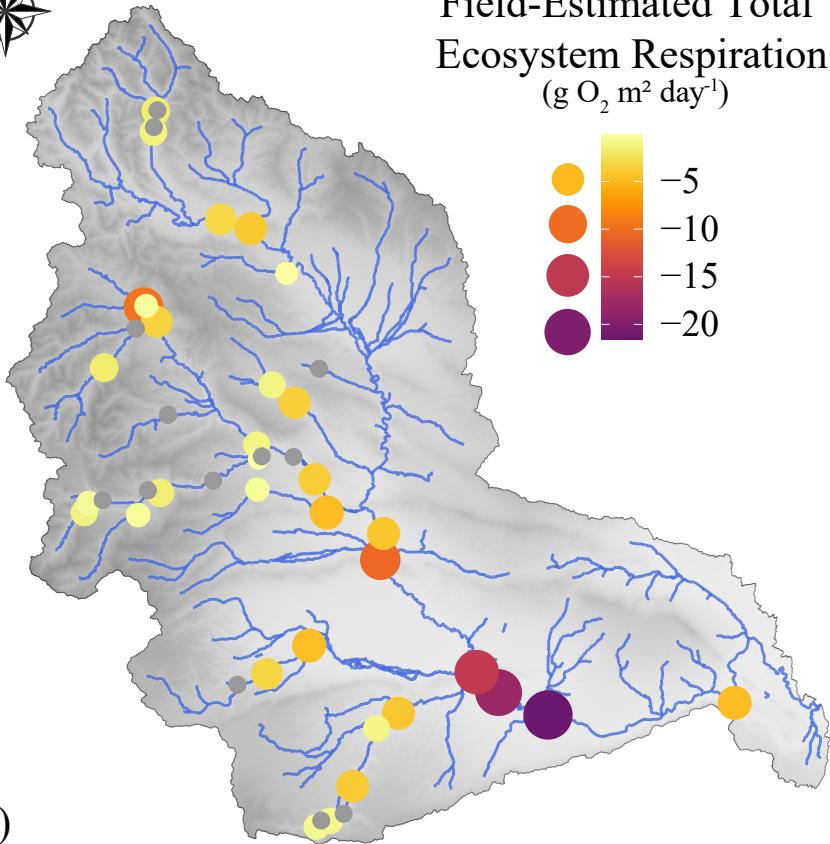
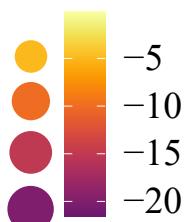


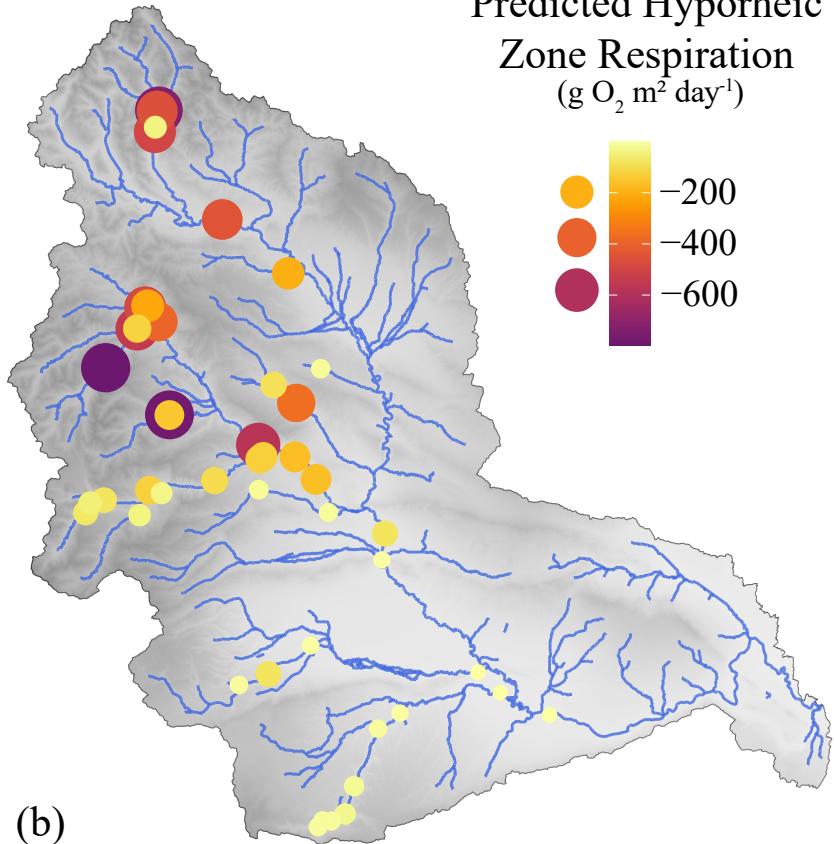
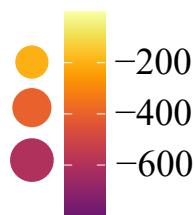


Field-Estimated Total  
Ecosystem Respiration  
( $\text{g O}_2 \text{ m}^2 \text{ day}^{-1}$ )



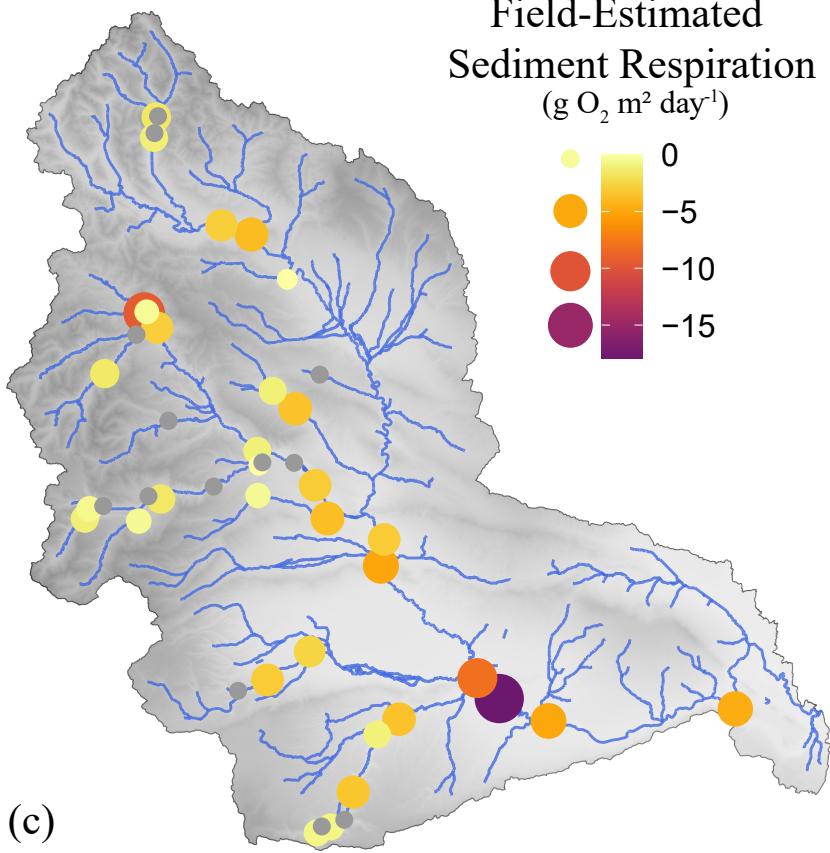
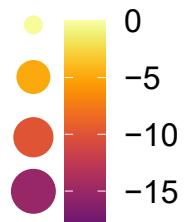
(a)

Predicted Hyporheic  
Zone Respiration  
( $\text{g O}_2 \text{ m}^2 \text{ day}^{-1}$ )



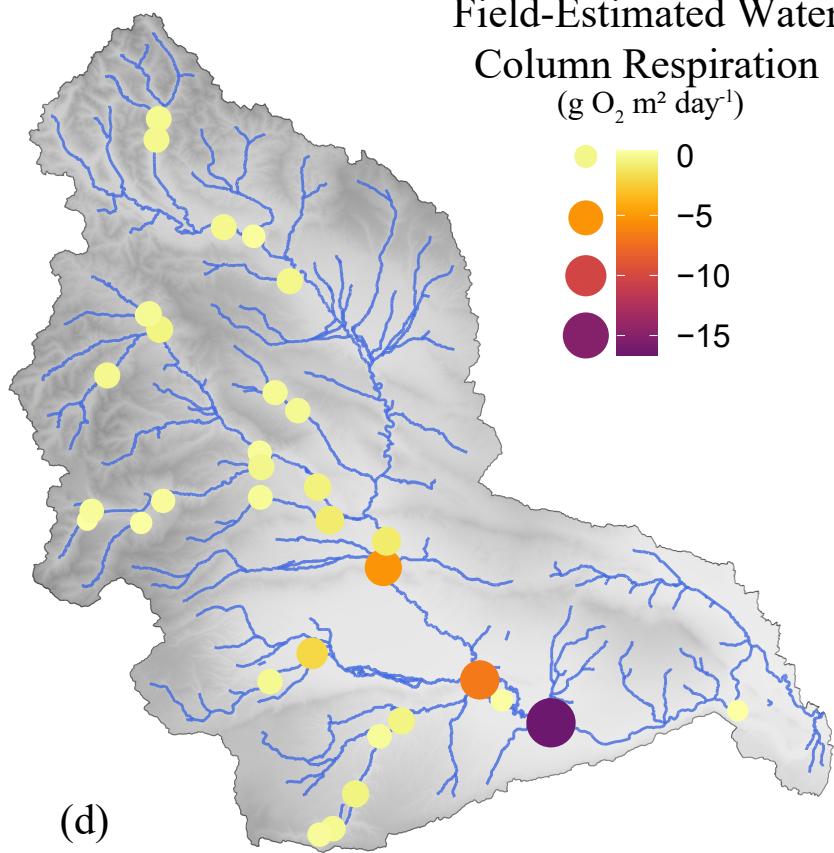
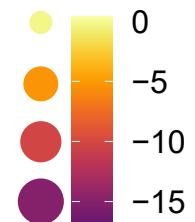
(b)

Field-Estimated  
Sediment Respiration  
( $\text{g O}_2 \text{ m}^2 \text{ day}^{-1}$ )



(c)

Field-Estimated Water  
Column Respiration  
( $\text{g O}_2 \text{ m}^2 \text{ day}^{-1}$ )



(d)

40 km