



Trophodynamics of Per- and Polyfluoroalkyl Substances in the Food Web of a Large Atlantic Slope River

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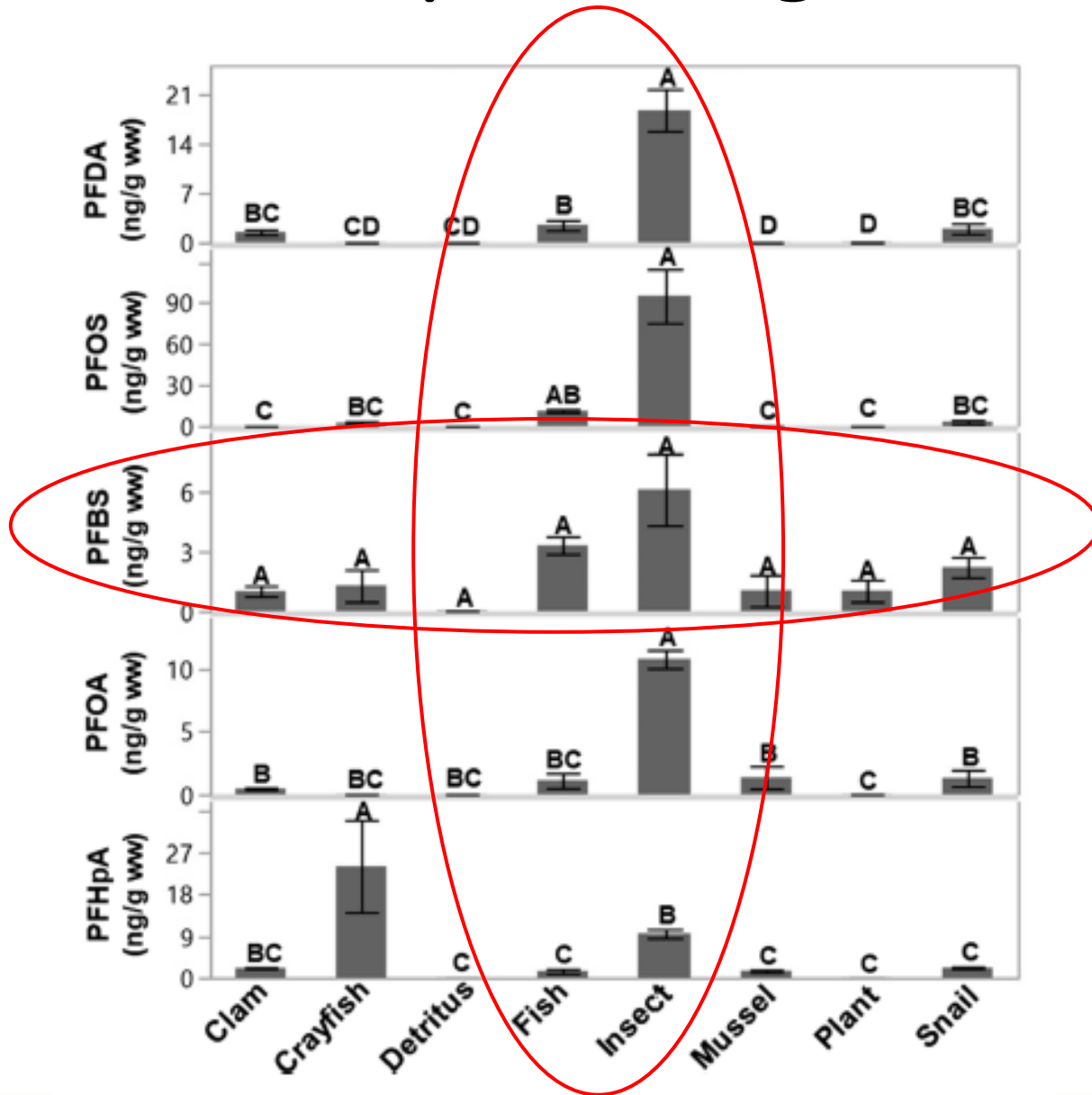
Read Online

Yadkin-Pee Dee River

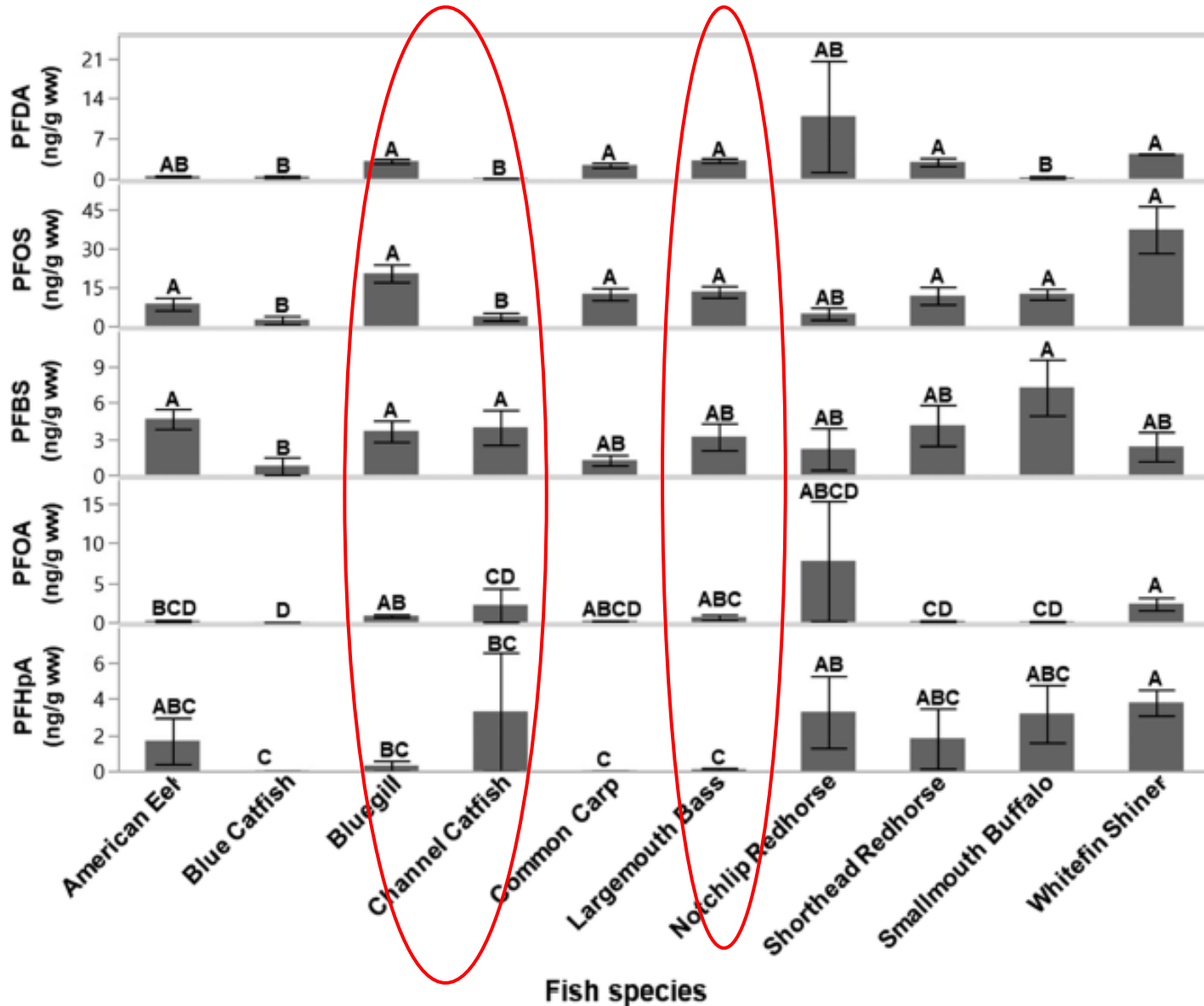
- Ecosystem value
 - Water supply, crop irrigation, industry, hydroelectric power, & recreation
- Over 2,200 permitted discharge facilities, but no known PFAS production or military facilities
- Priority aquatic species
 - 31 fishes, 21 mussels, and 1 crayfish



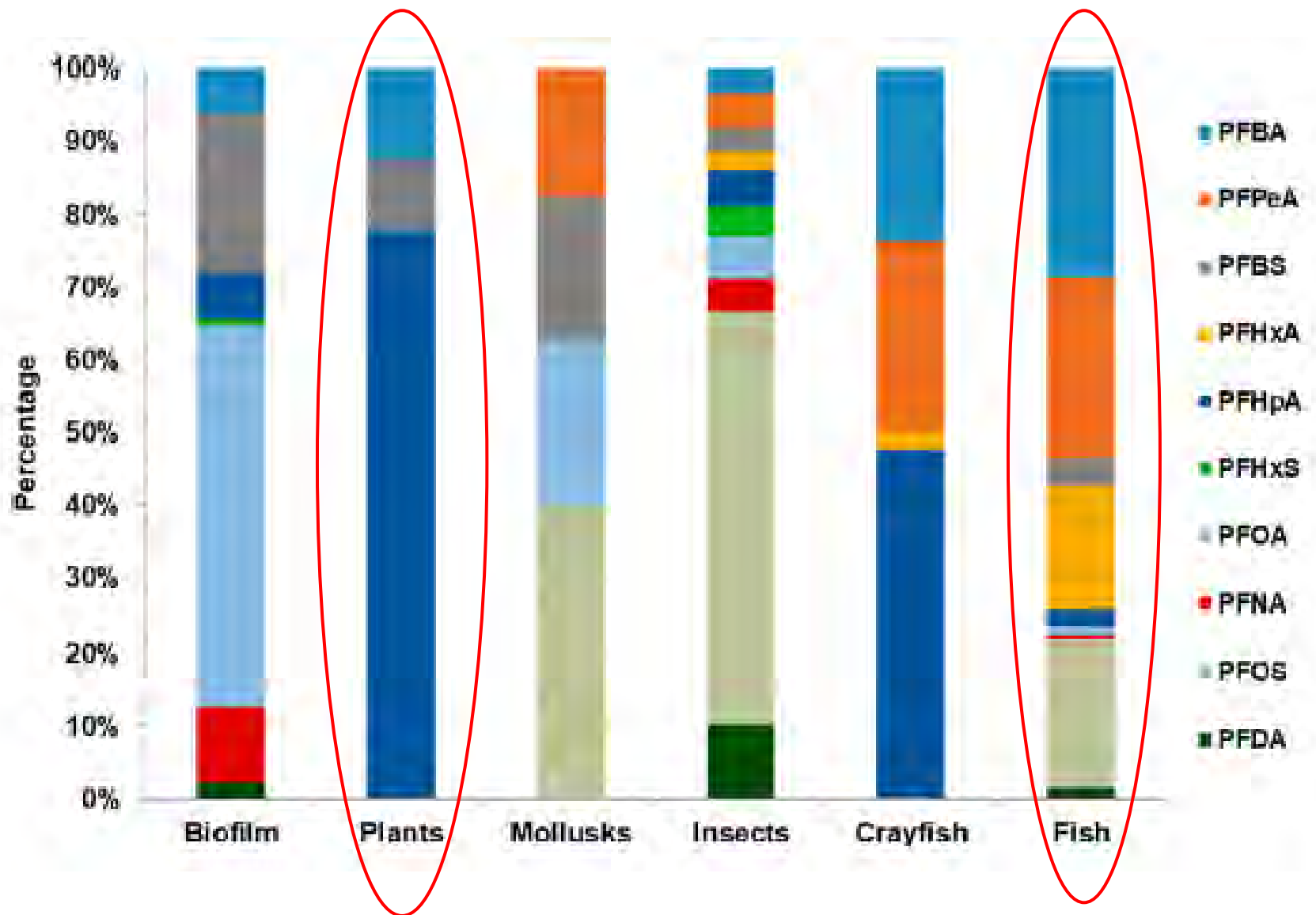
PFAS in Aquatic Organisms



PFAS in Fishes



PFAS Sum Total in Aquatic Organisms



The Issues: Water and Biotic Quality

- PFAS measured in every step of aquatic food web—system lacks direct industrial or military PFAS inputs
- Implications for ecological and human health—base of food web (plants, insects, fish)
- Need for statewide PFAS fish monitoring program—resident vs. migratory fish

waterfowl?



The Issues: Communities

- Are my recreationally caught fish safe to eat?
 - Communication and education differs for PFAS in Fish Consumption Advisories than for other PBTs
 - Creates health disparities for subsistence fisherman
- Are my home grown vegetables, fruit, and livestock safe to eat?
 - PFAS contaminated groundwater and soil
- Are my farm grown livestock and crops safe to market and sell to others for consumption?
 - Economic and liability concerns