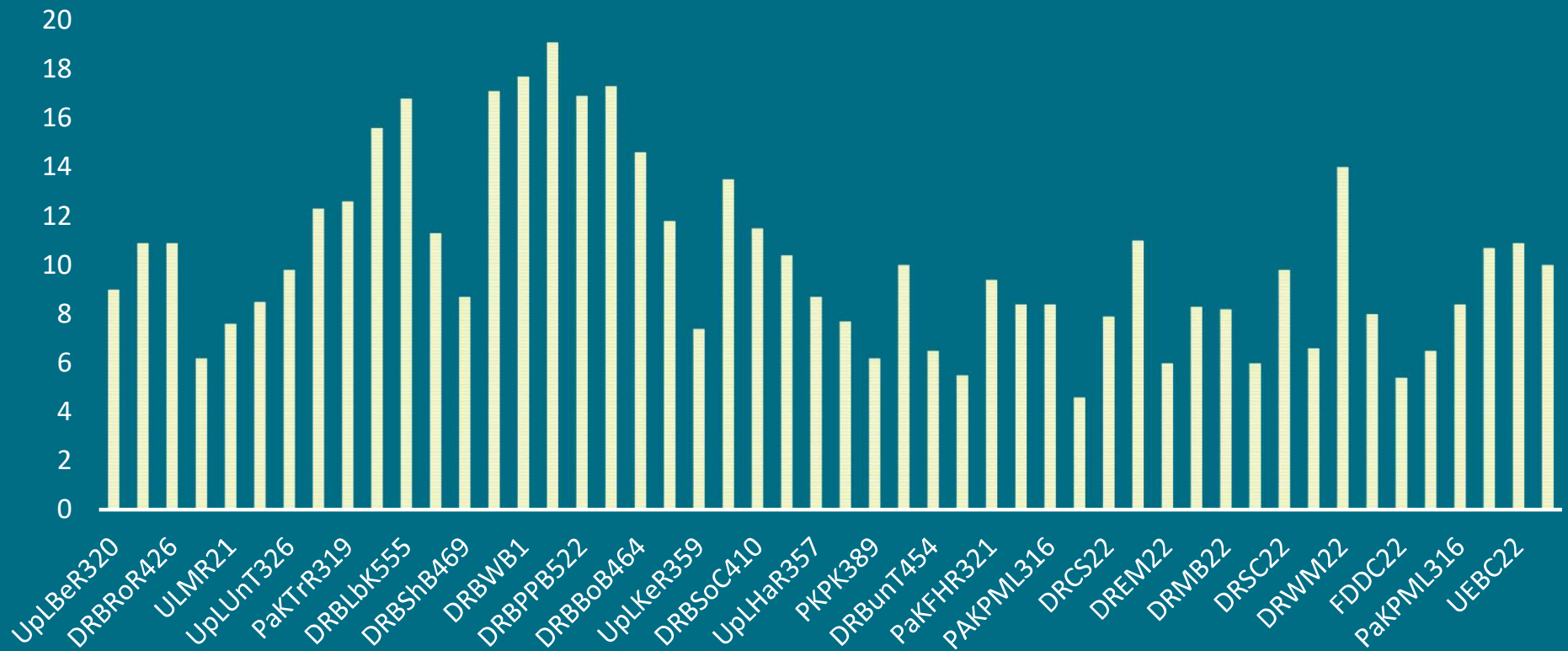
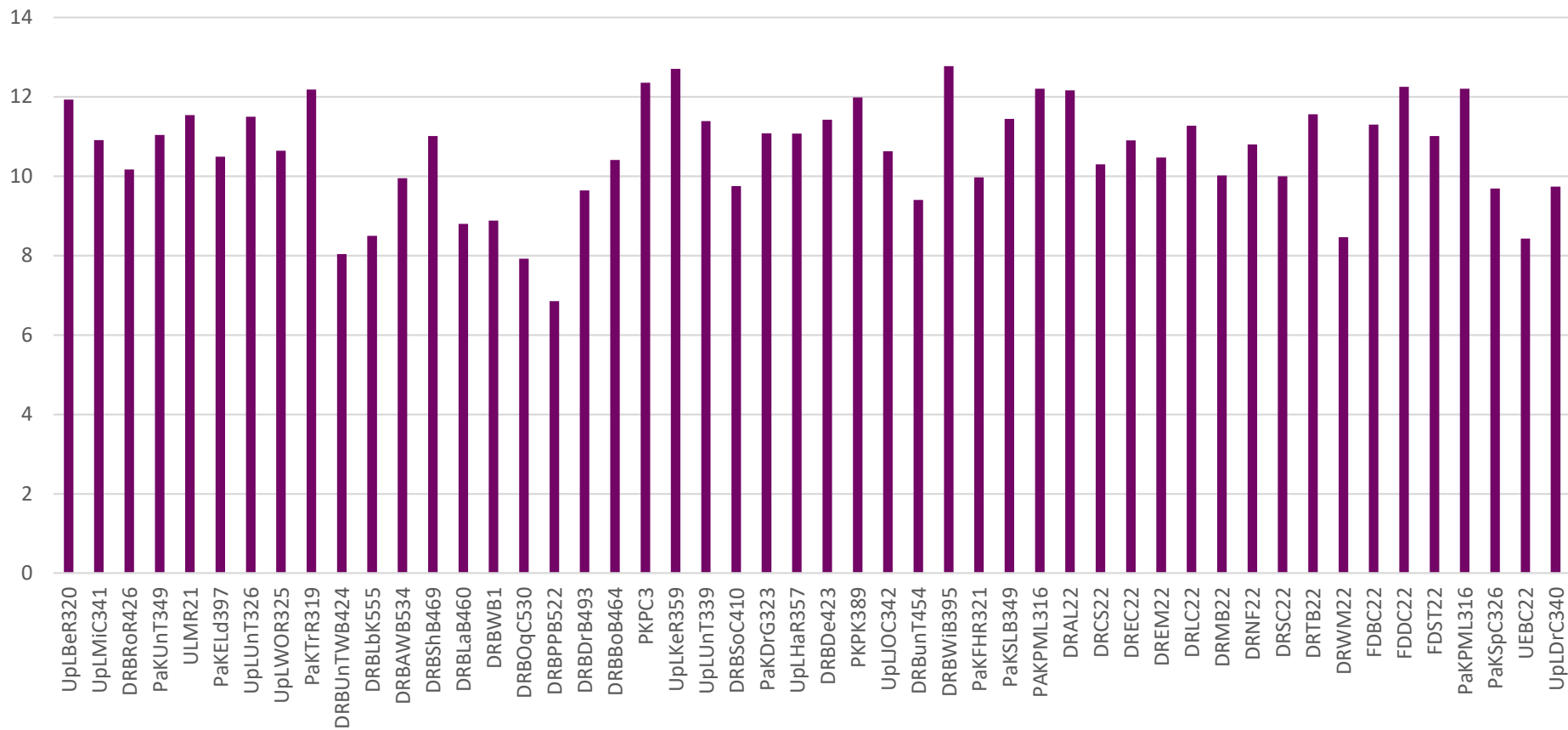


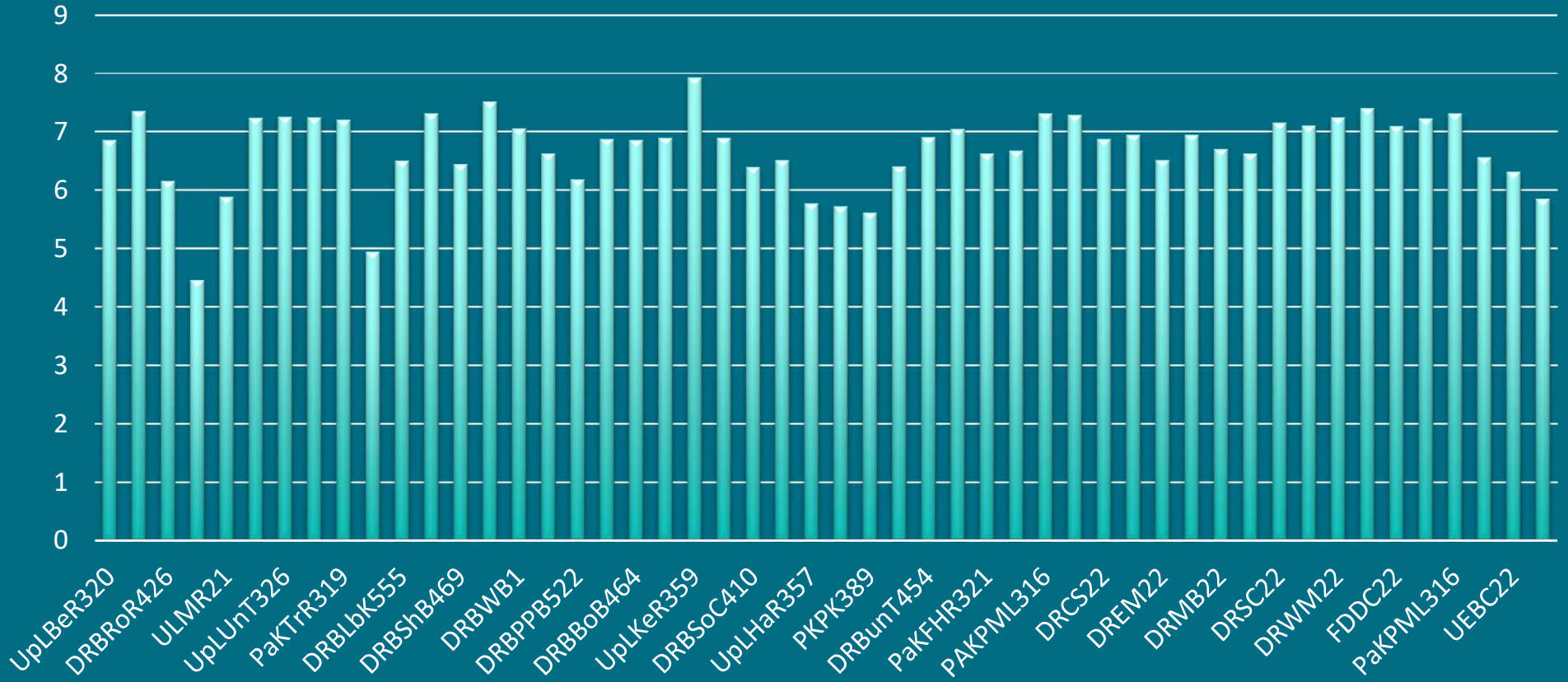
TEMPERATURE (°C)



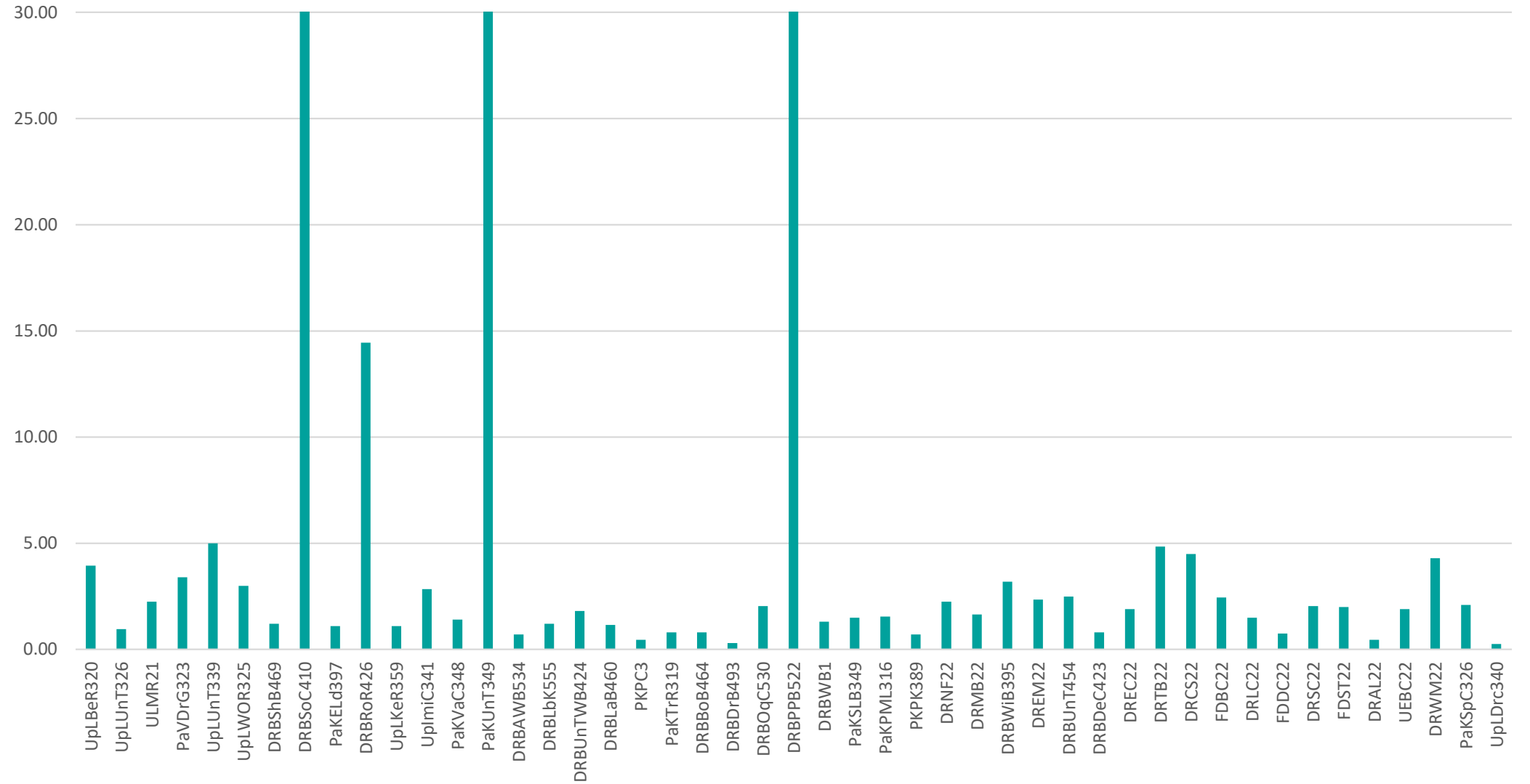
Dissolved Oxygen (mg/L)



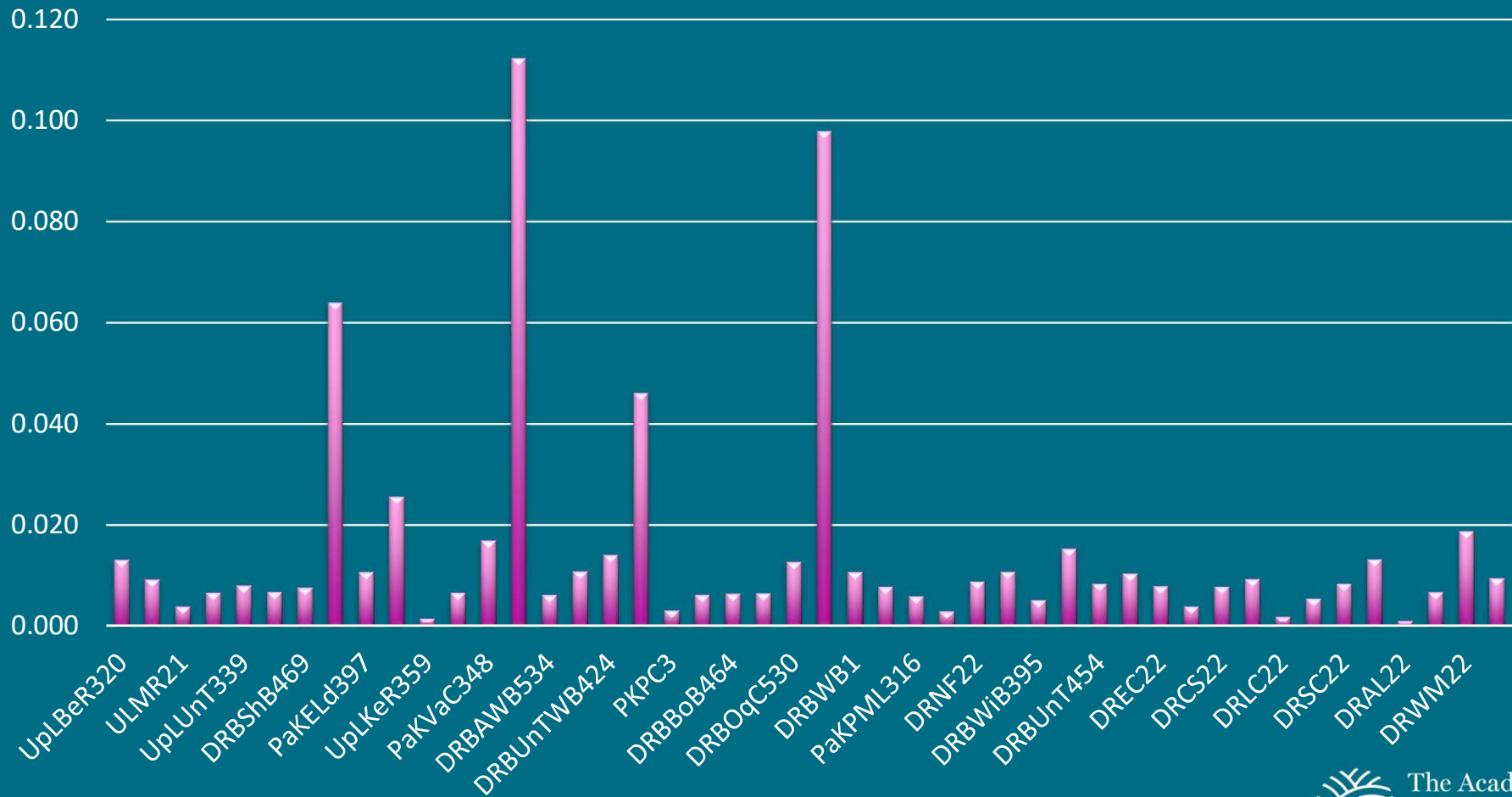
pH



TSS (mg/L)



TP (mg/L)



DNA

- eDNA, Metabarcoding, and tissue barcoding – what's the difference?
- CO1 (mitochondrial) and 12S (rRNA) genes



Fish

- Brook Trout (*Salvelinus fontinalis*) DNA was found in three of our eDNA samples: Berry Run, Vandermark Creek, and Bouchoux Brook
- DNA from fish in the genus *Salvelinus* was found in those same streams as well as Keppers Run, Oquaga Creek, Dry Brook, Little Beaver Kill, and a tributary of Wynkoop Brook
- 15 other species of fish were found at various sites

Lepomis_gibbosus

Lepomis_macrochirus

Catostomus_commersonii

Exoglossum_maxillingua

Luxilus_cornutus

Notemigonus_crysoleucas

Notropis_procne

Rhinichthys_atratulus

Rhinichthys_cataractae

Semotilus_atromaculatus

Cottus_confusus

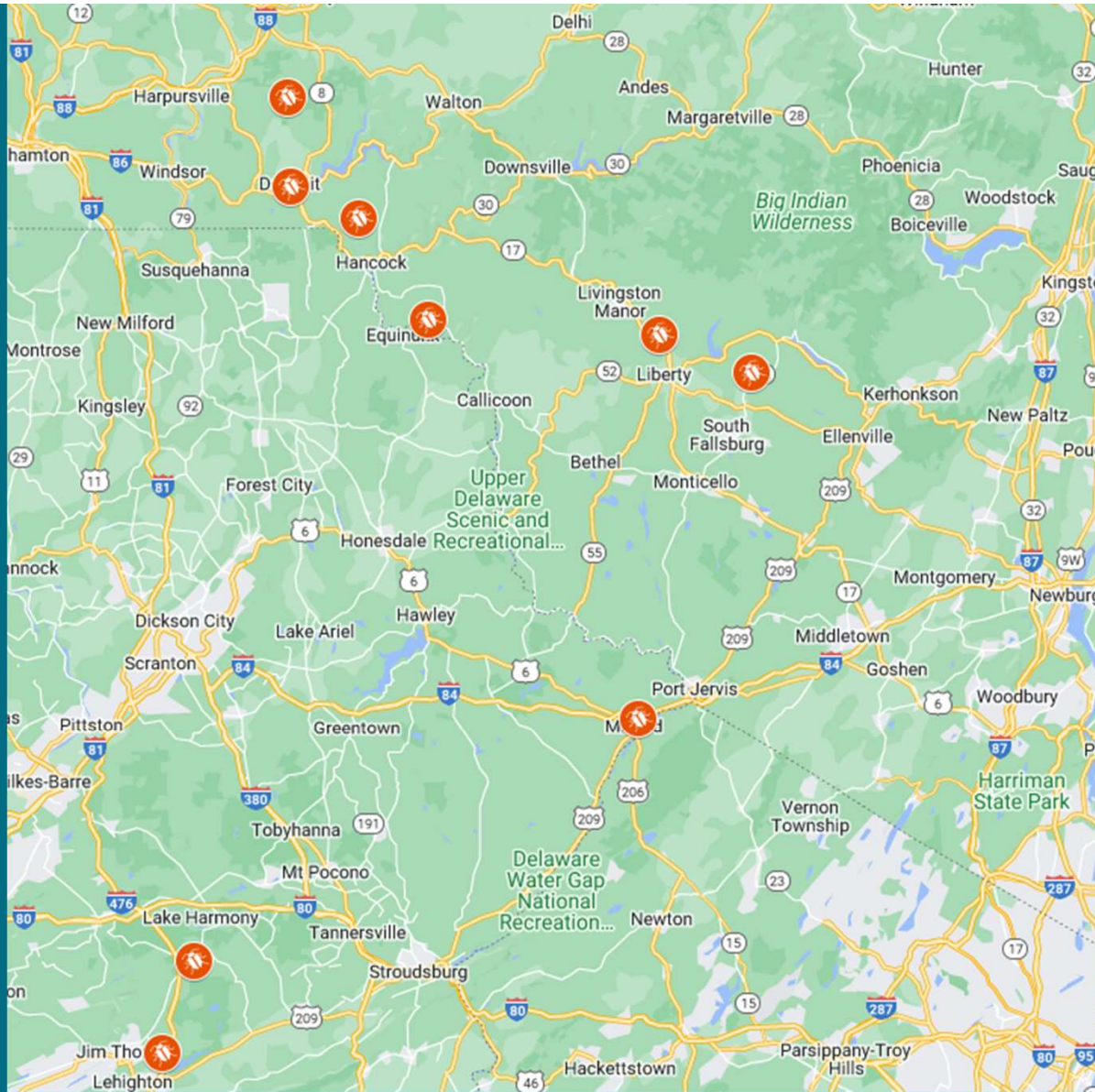
Oncorhynchus_mykiss

Salmo_trutta

Salvelinus_fontinalis

Ameiurus_nebulosus

Noturus_insignis



Mollusks

- 7 species of mollusks were detected, 3 bivalves and 4 gastropods

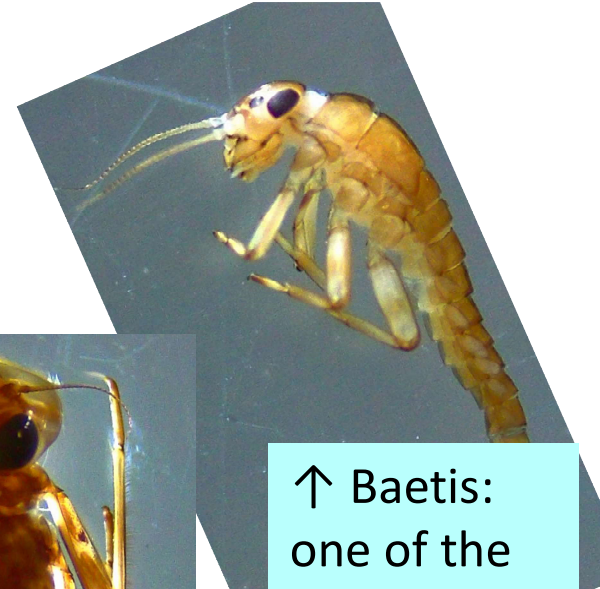


Scientific Name	Common Name
Lasmigona_compressa	Creek Heelsplitter
Kurtiella_bidentata	Marine!!
Pisidium_casertanum	Fingernail Clam
Succinea_putris	Amber Snail
Lymnaea_humilis	Galba Snail
Physella_ancillaria	Pumpkin Physa
Valvata_piscinalis	European valve snail

Insects



335 species were detected in our 2021 samples!!



↑ Baetis: one of the most abundant!



← Dolophilodes: common at most sites



Other cool finds!

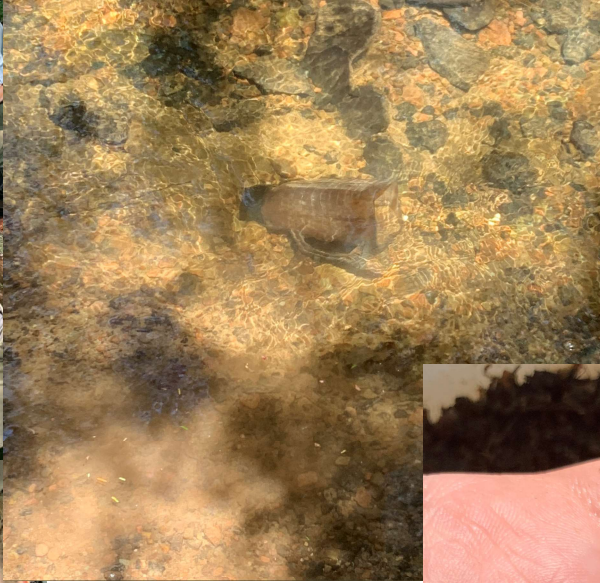
- 6 species of amphibians (American Toad, Fowlers Toad, Green Frog, Pickerel Frog, Northern two-lined salamander, and the Eastern Newt)

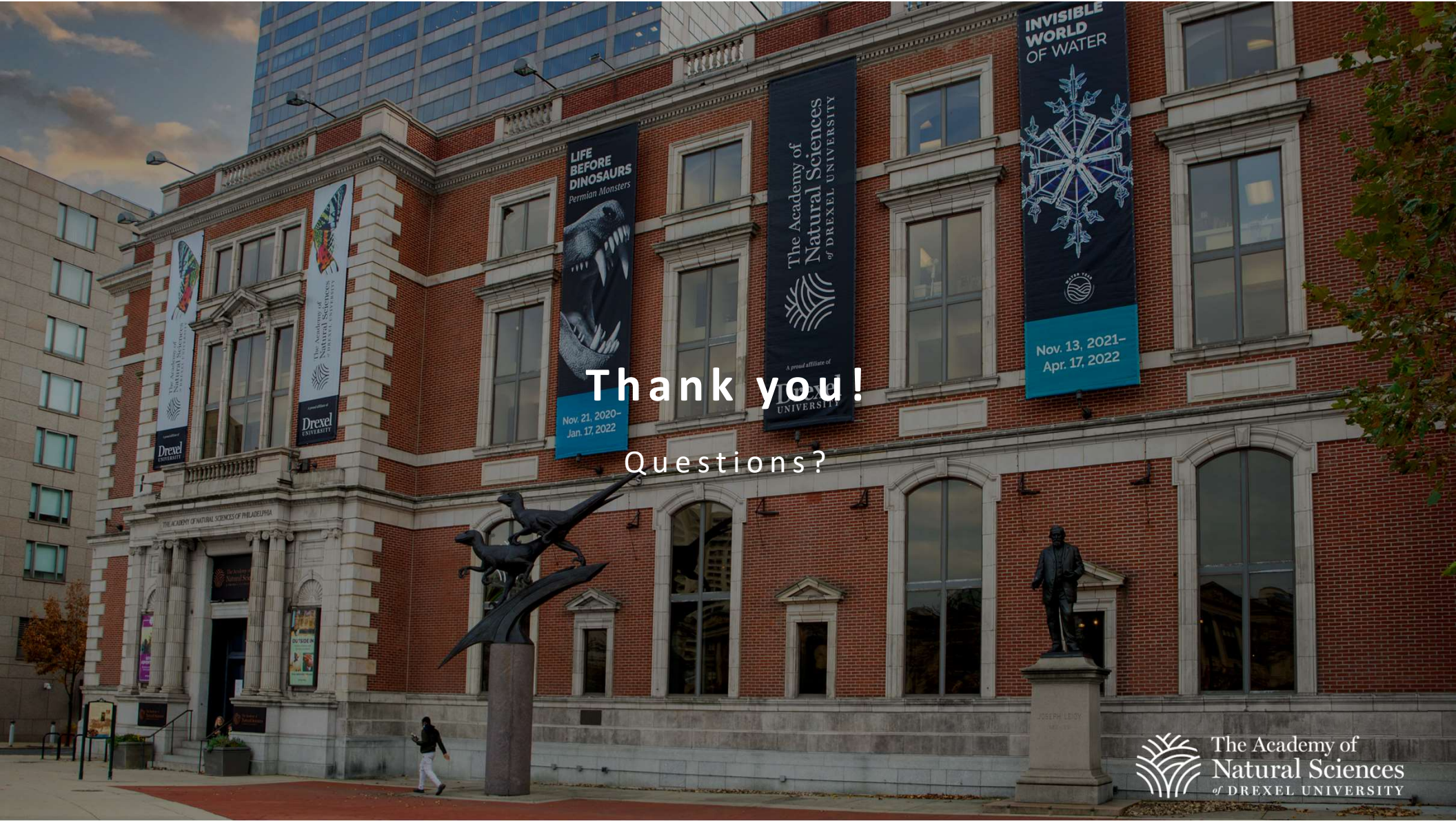


So how does all this relate to Climate Change?!

- Climate change is impacting our streams, but we don't have a good understanding of their biodiversity or function – we are closer to understanding current biodiversity so we can track any changes over time
- In order to understand these streams, we are focusing on relationships between structure and function – the other metrics we collected will tell us more about how these streams are set up to handle changes over time – we are figuring out how resilient they can be.







Thank you!

Questions?