

Effects of a US-1 mitigation effort on hydrologic conditions and SAV abundance

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Restoration Requirements for Florida Bay

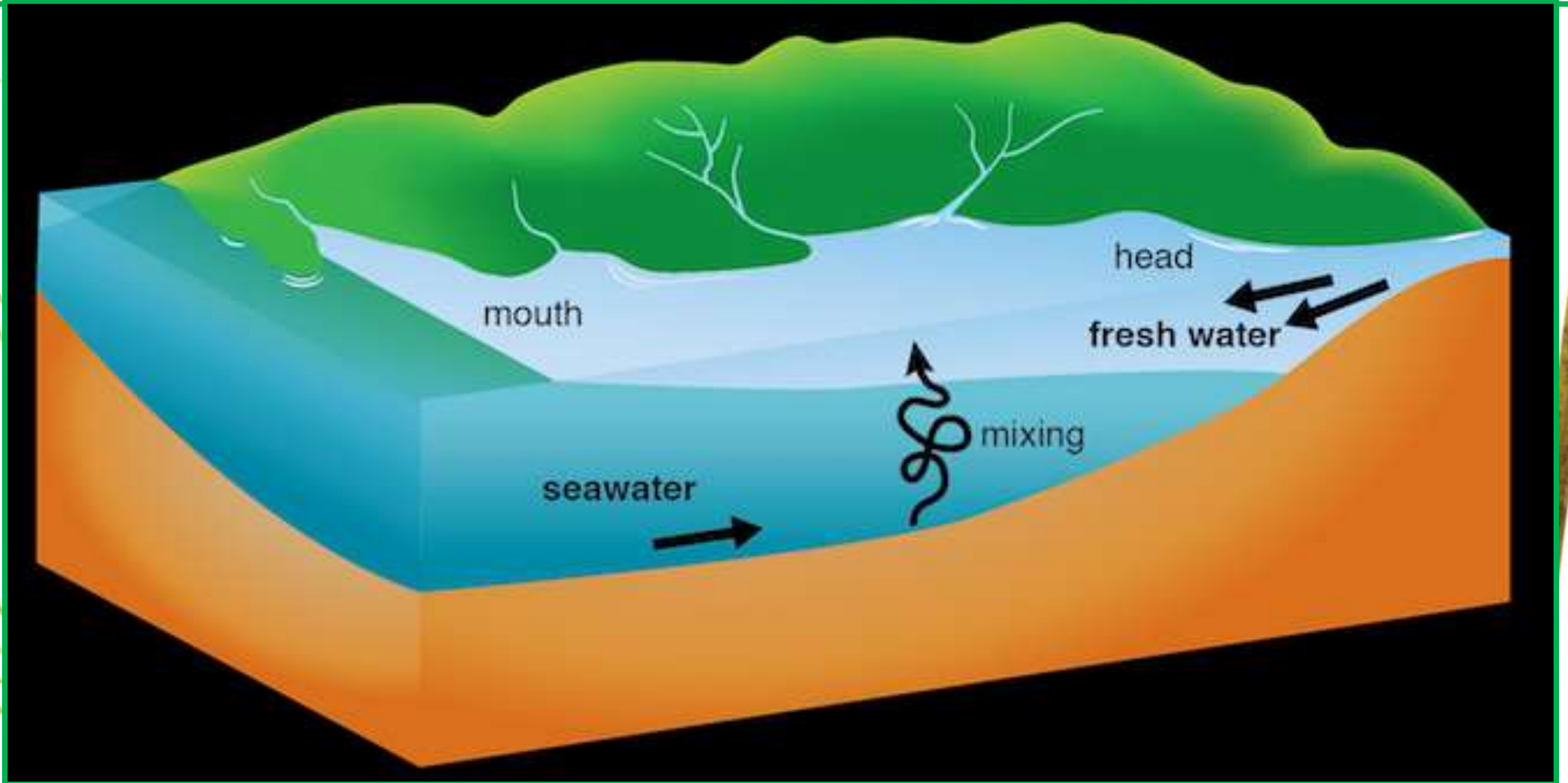


Image by Byron Inouye, University of Hawaii

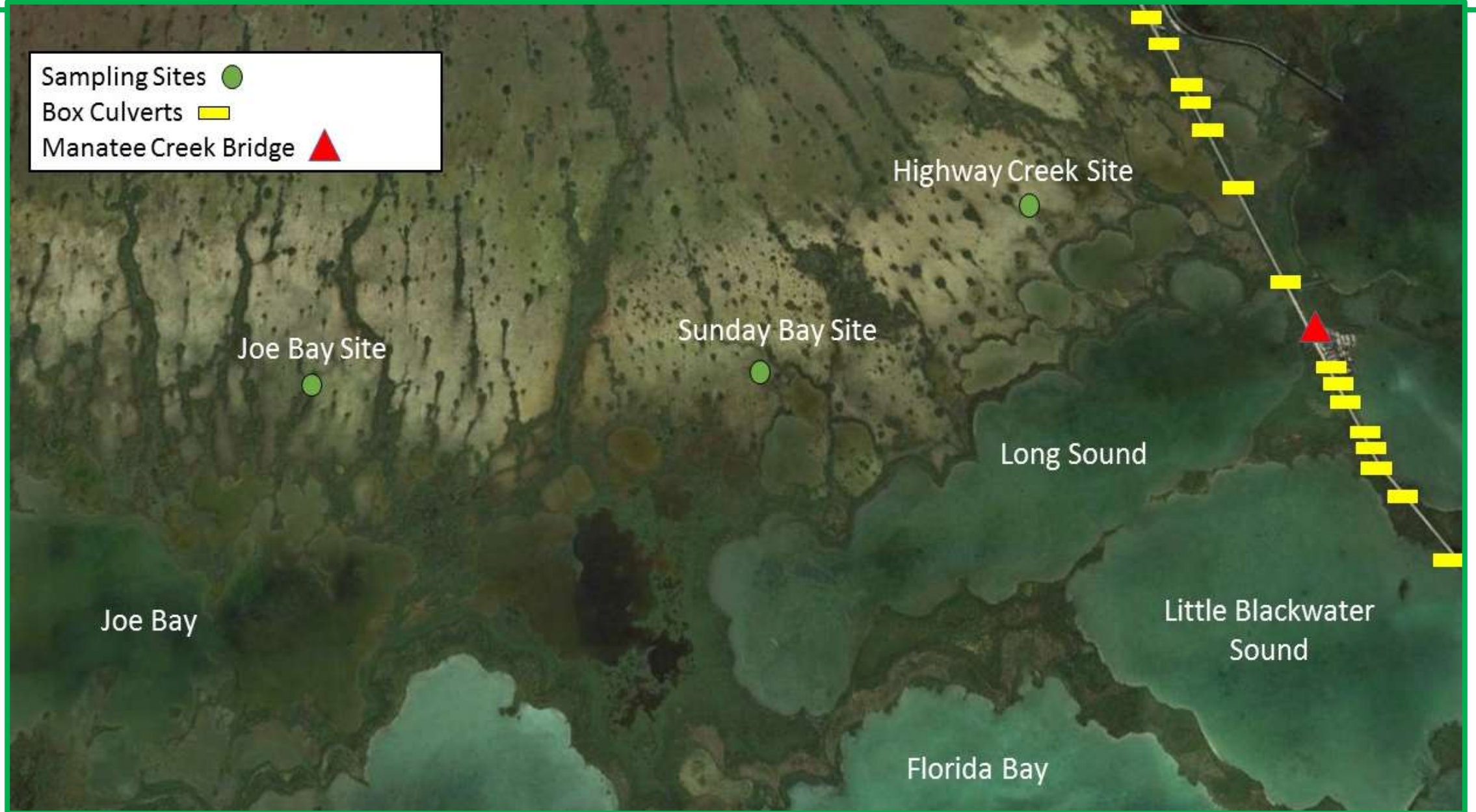
Location of Mitigation Structures along US-1



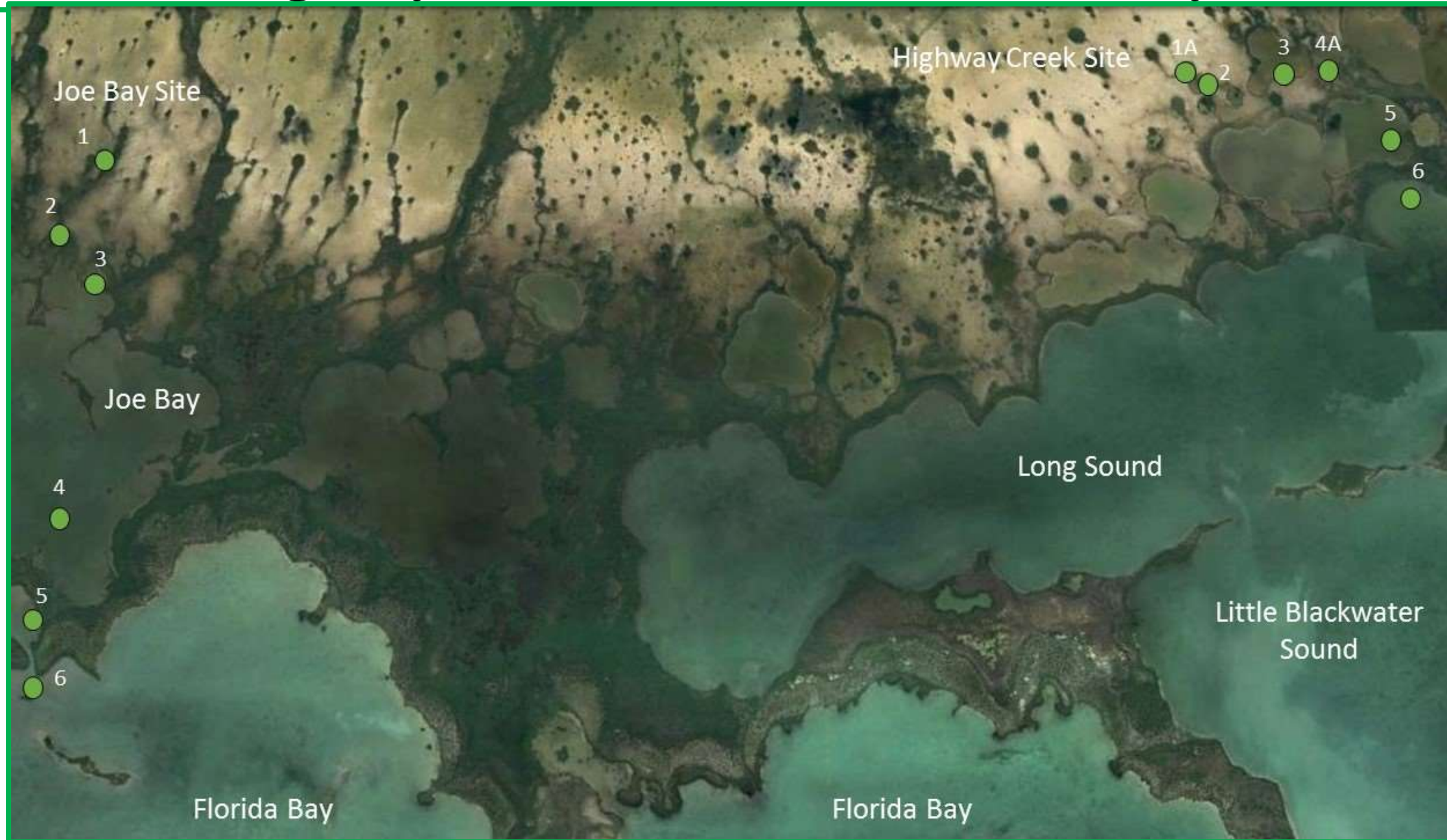
Highway Creek Site and Historic Mangrove Creeks



Sites within C-111 Watershed



Highway Creek and Control Site (Joe Bay)



Sampling Methods

-Bimonthly surveys

-Point intercept percent coverage method using 0.25 m² quadrat with 25 points

-Relating SAV coverage to hydrologic conditions:

water temperature (°C)

water depth (cm)

Salinity

sediment depth (cm) to bedrock

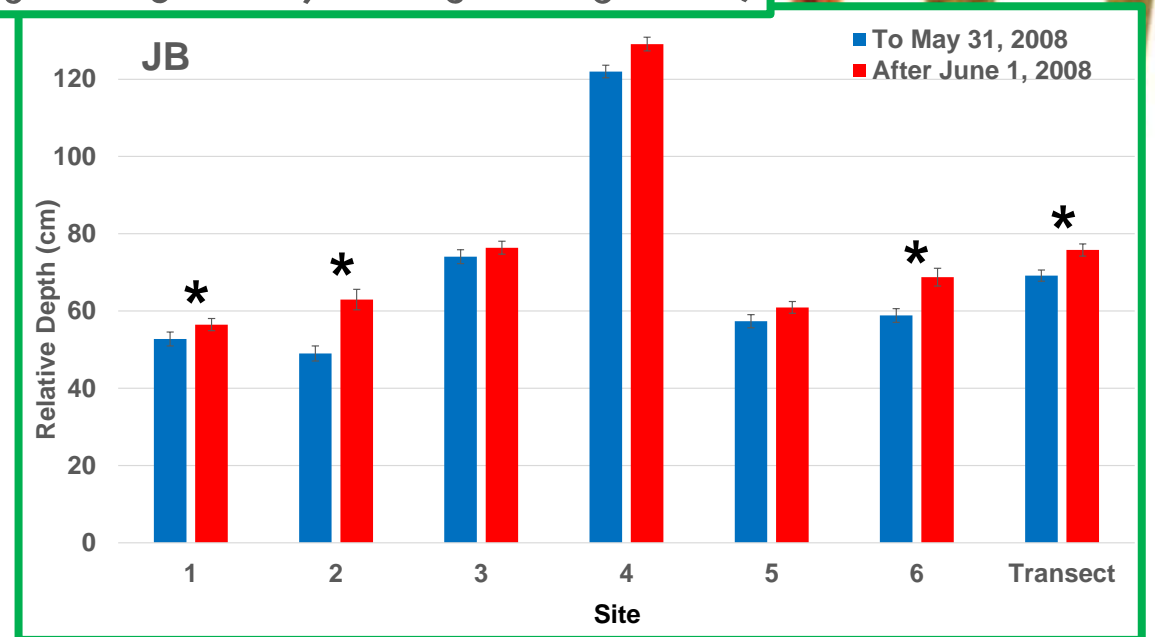
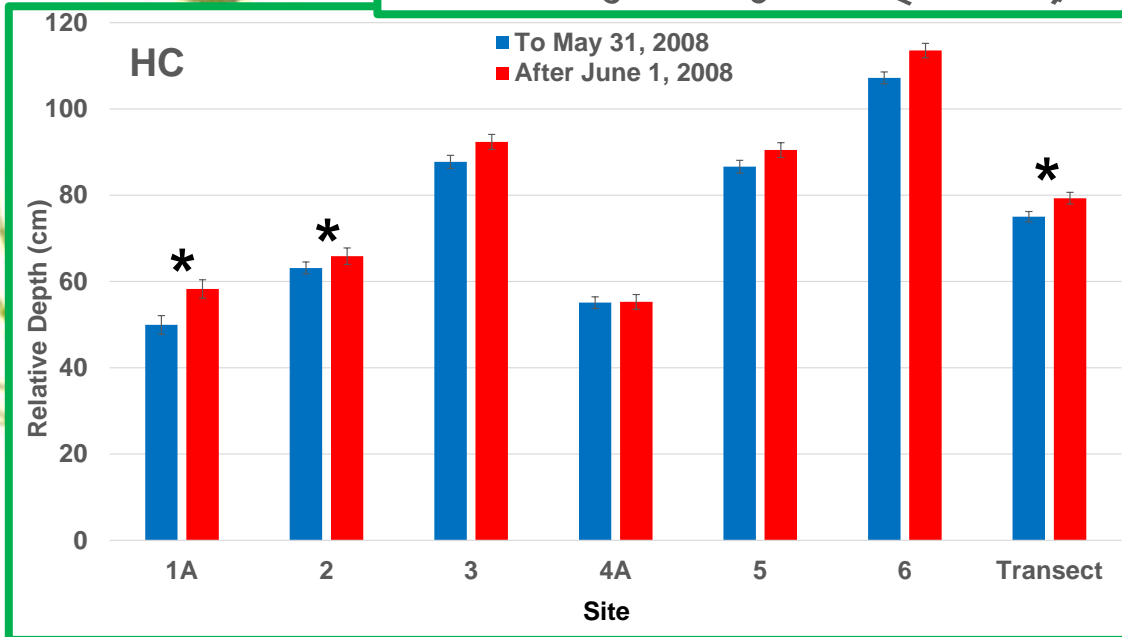
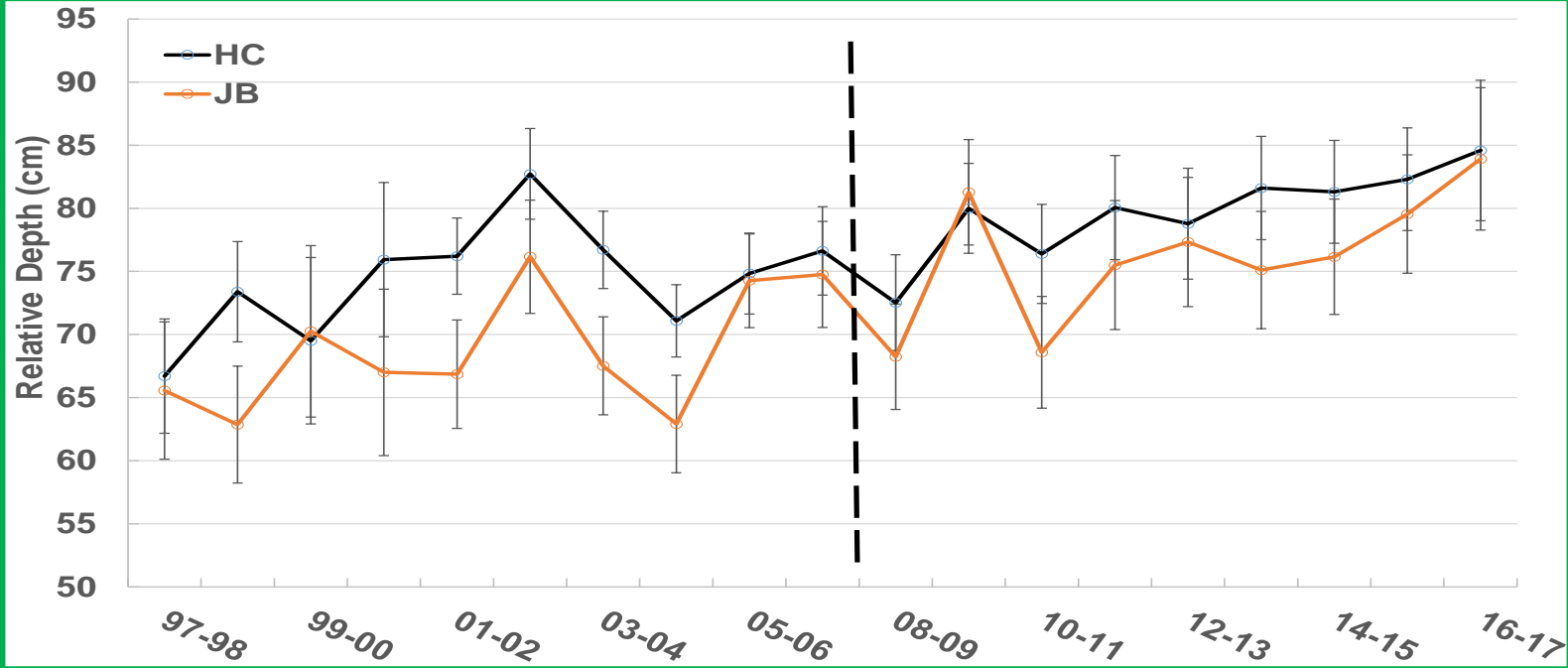
water clarity

-Hydroyear 2007-2008 eliminated from all analysis

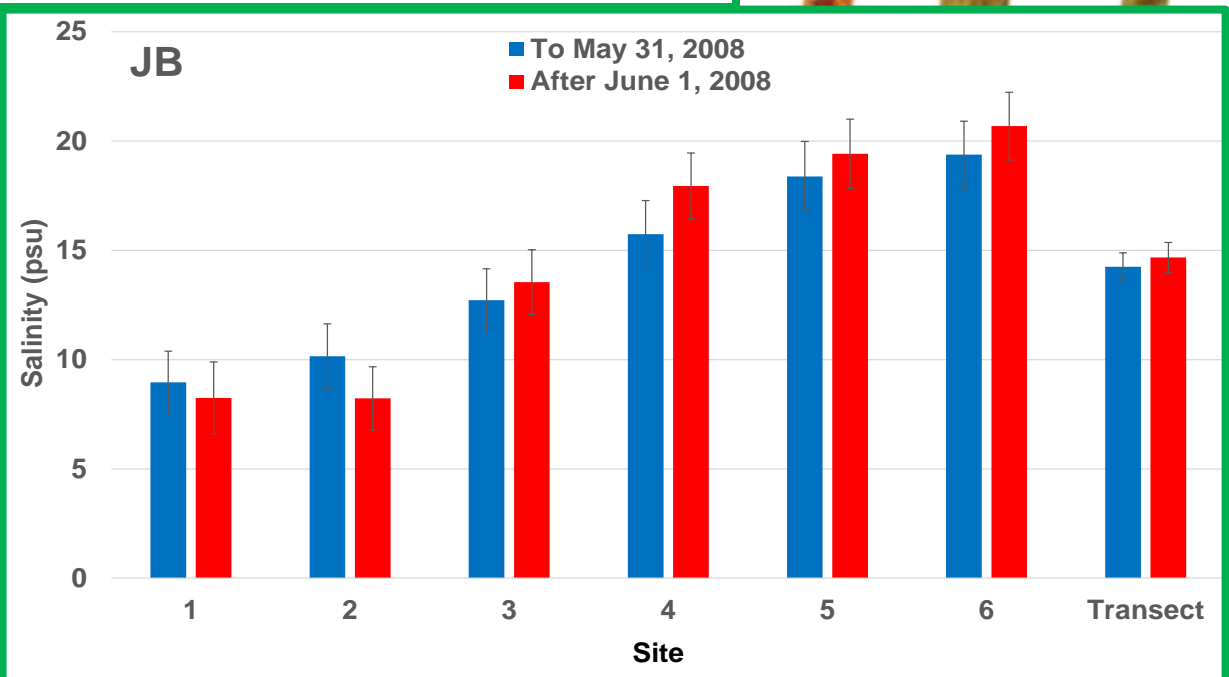
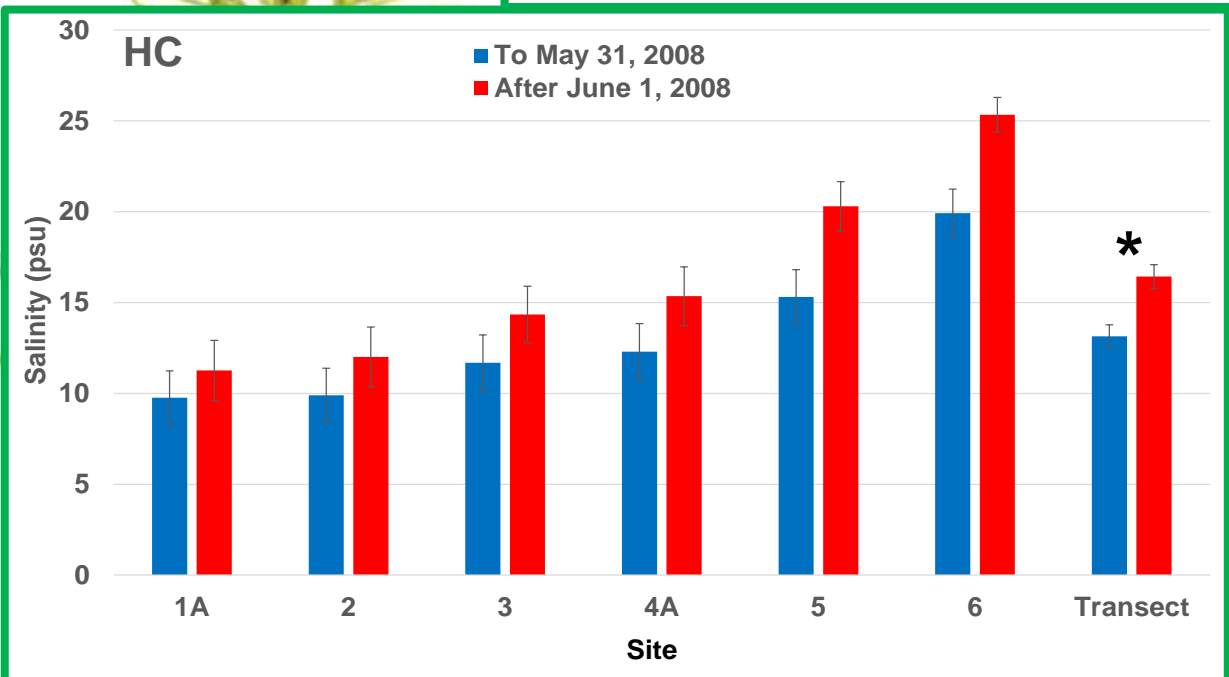
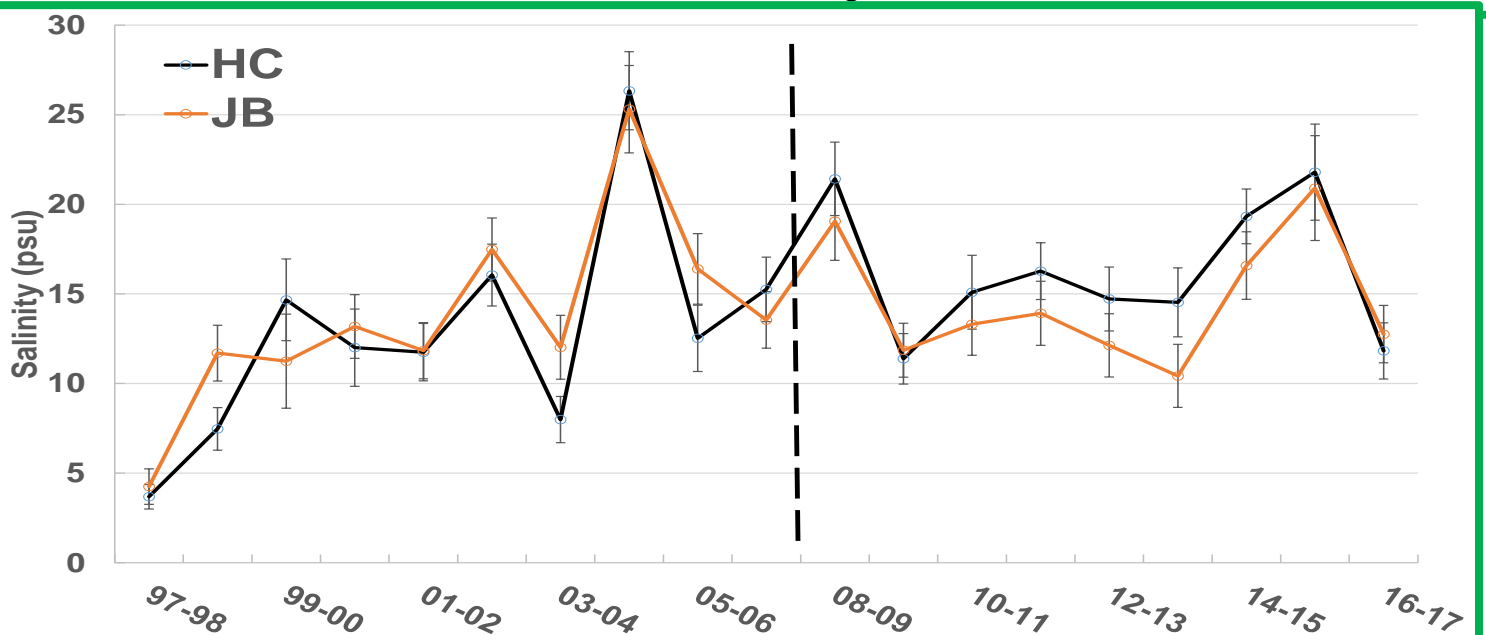
-ANOVA to determine effect before and after construction ($p < 0.01$)*



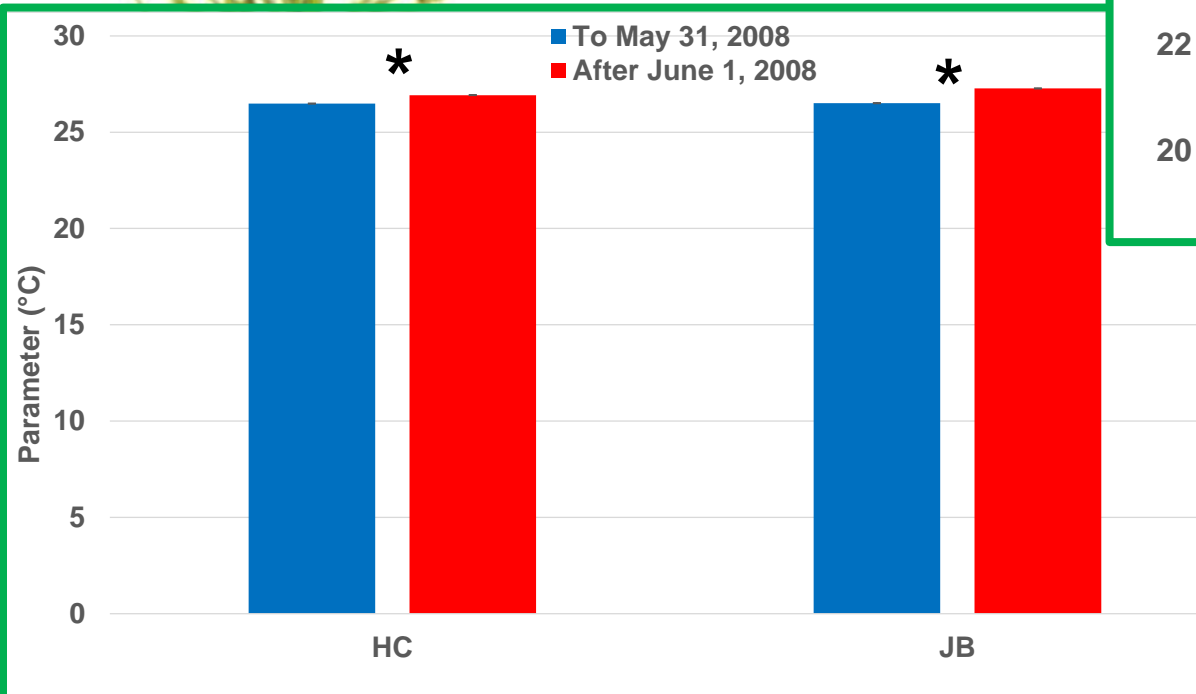
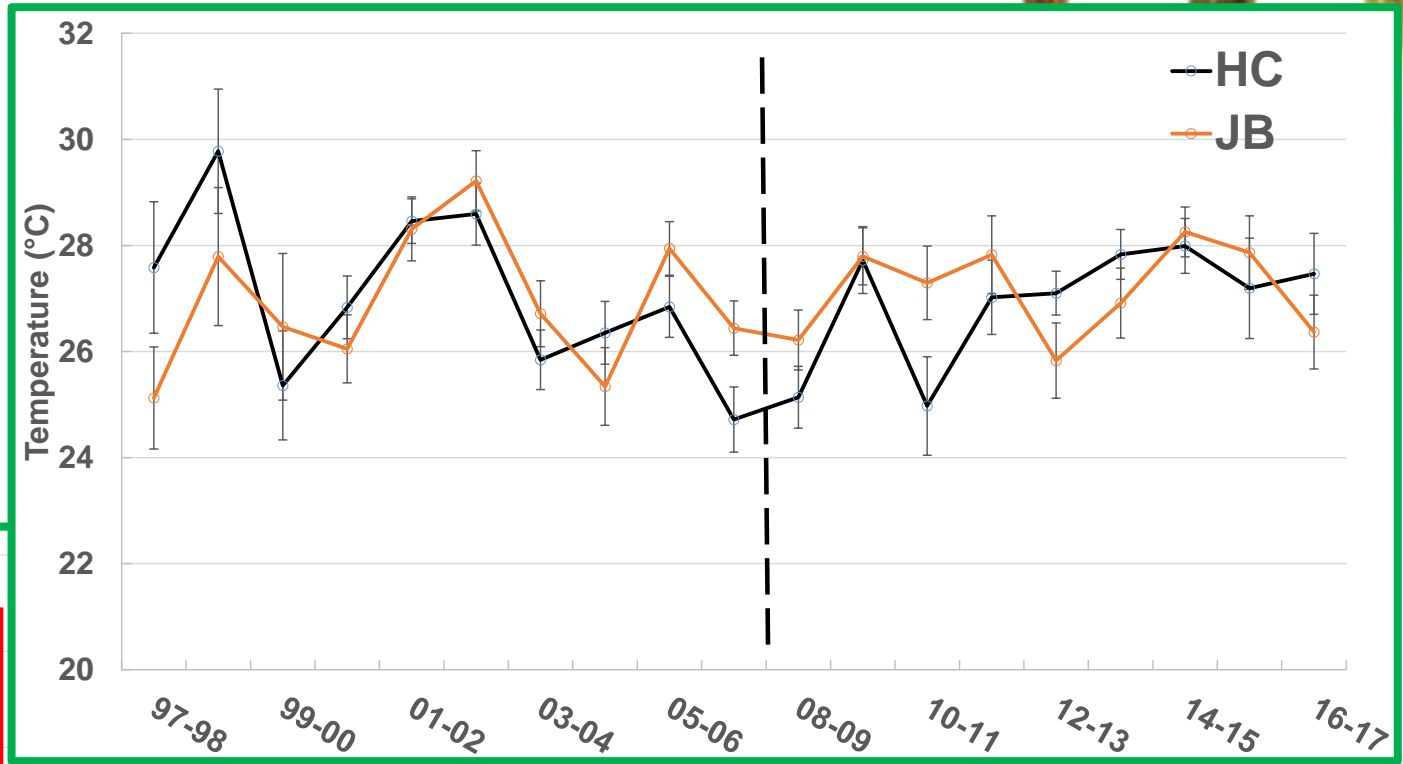
Water Depth



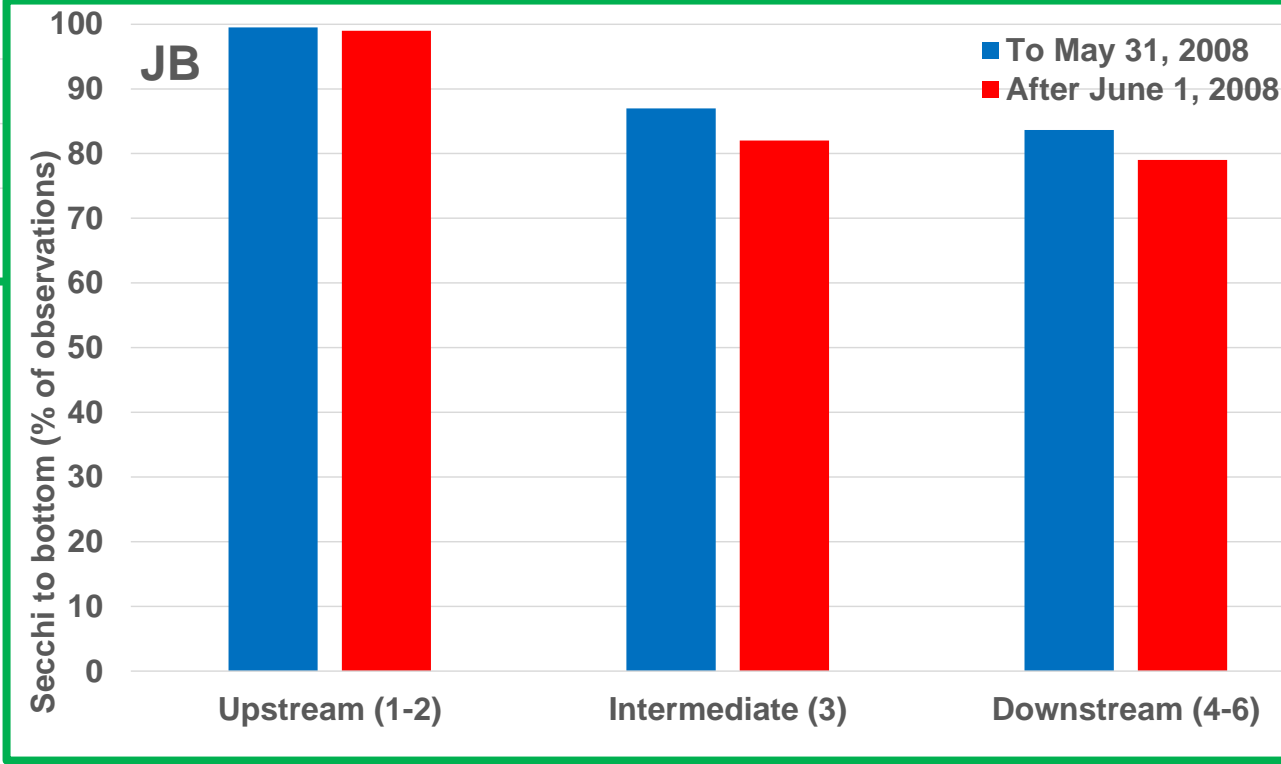
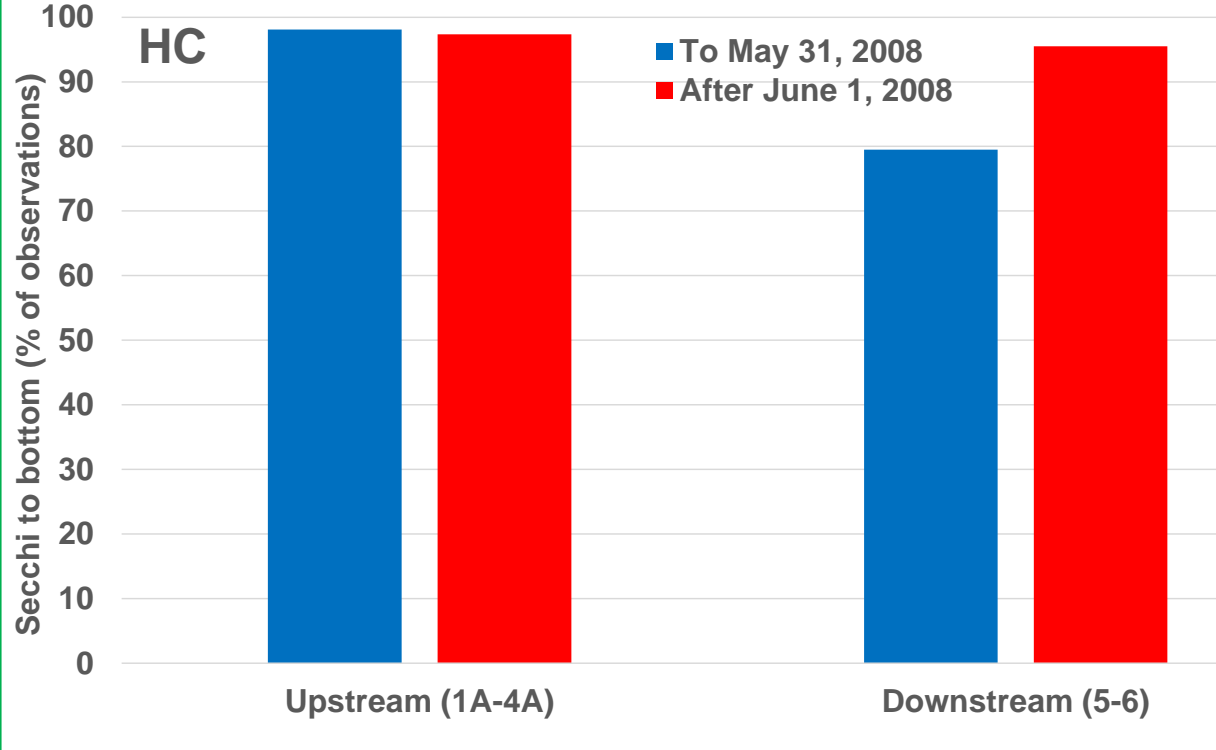
Salinity



Temperature

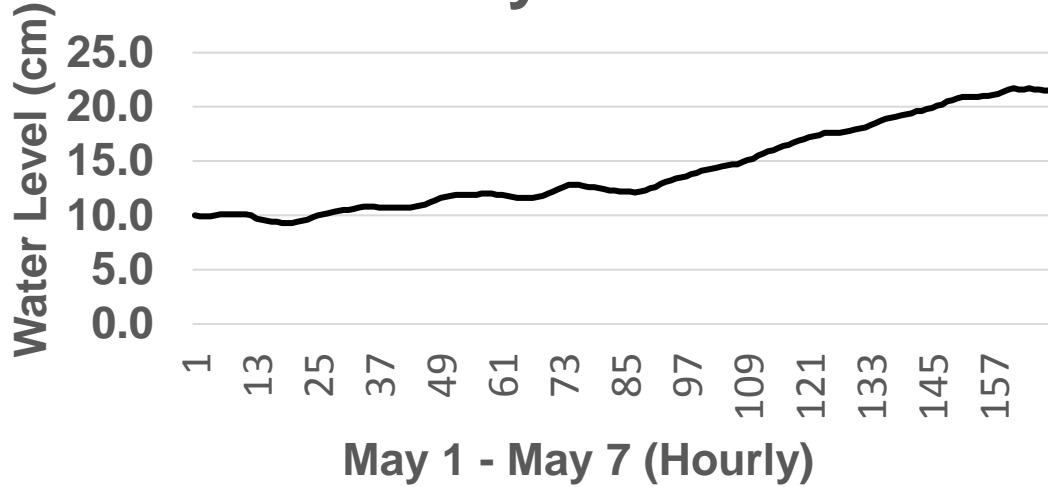


Water Clarity

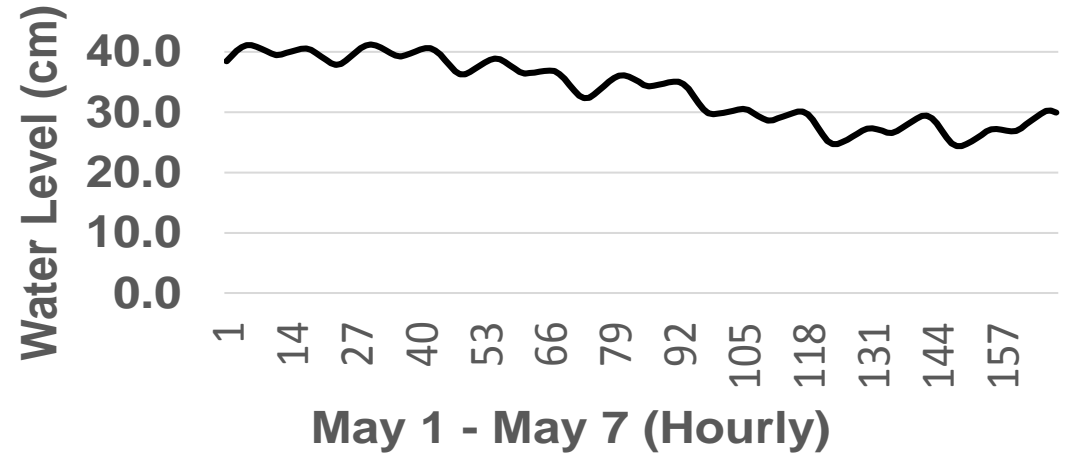


Enhancement of Tidal Signature at HC

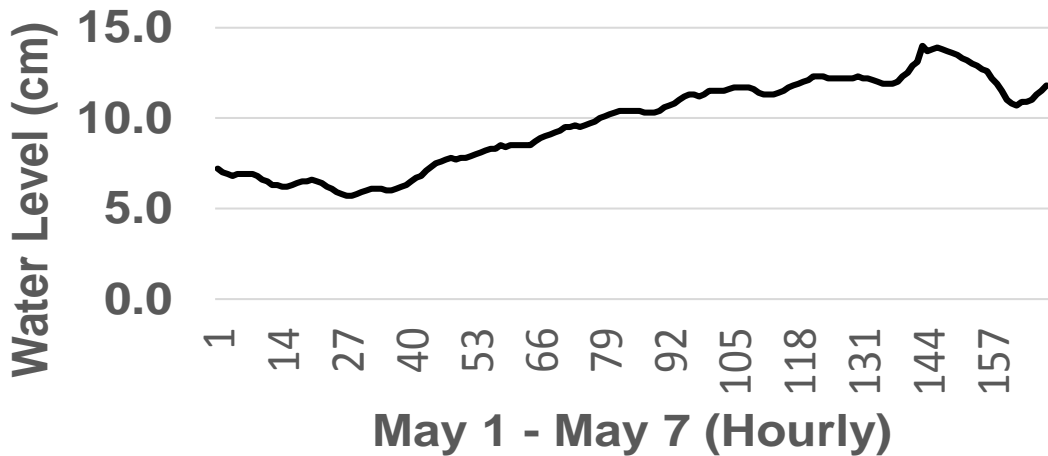
May-06



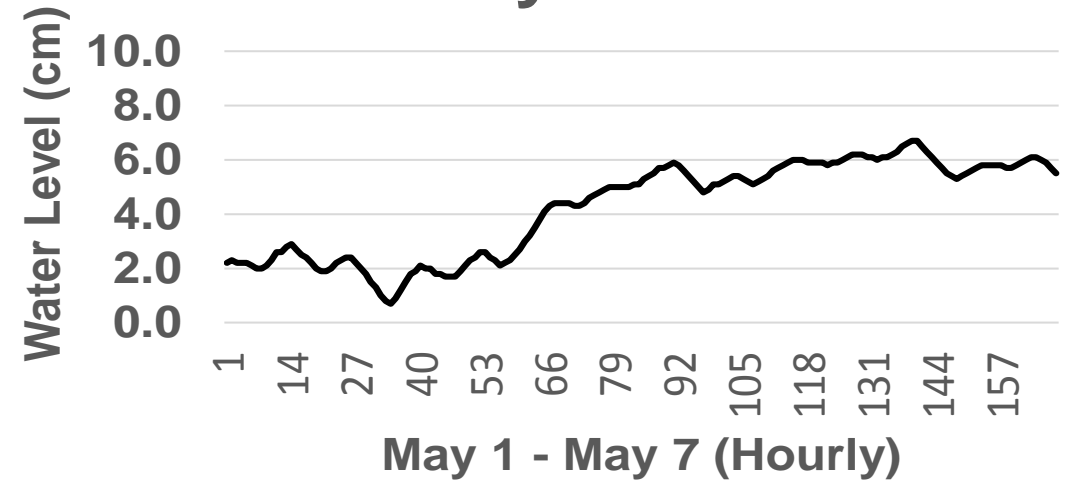
May-08



May-07

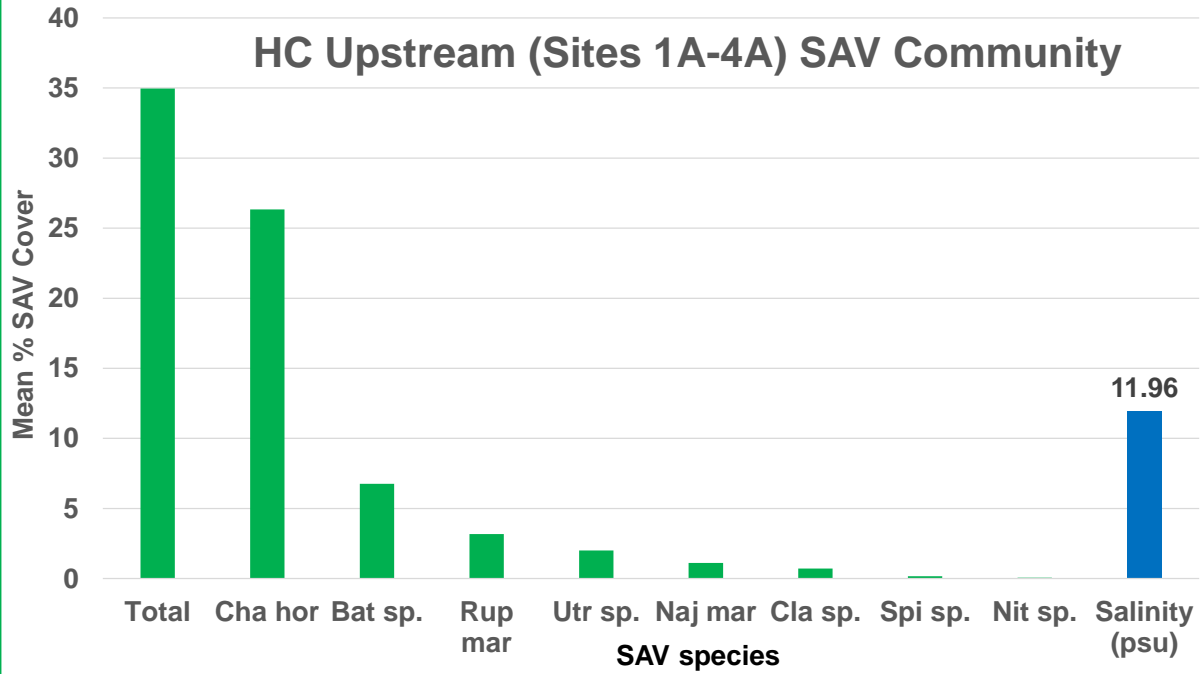


May-09

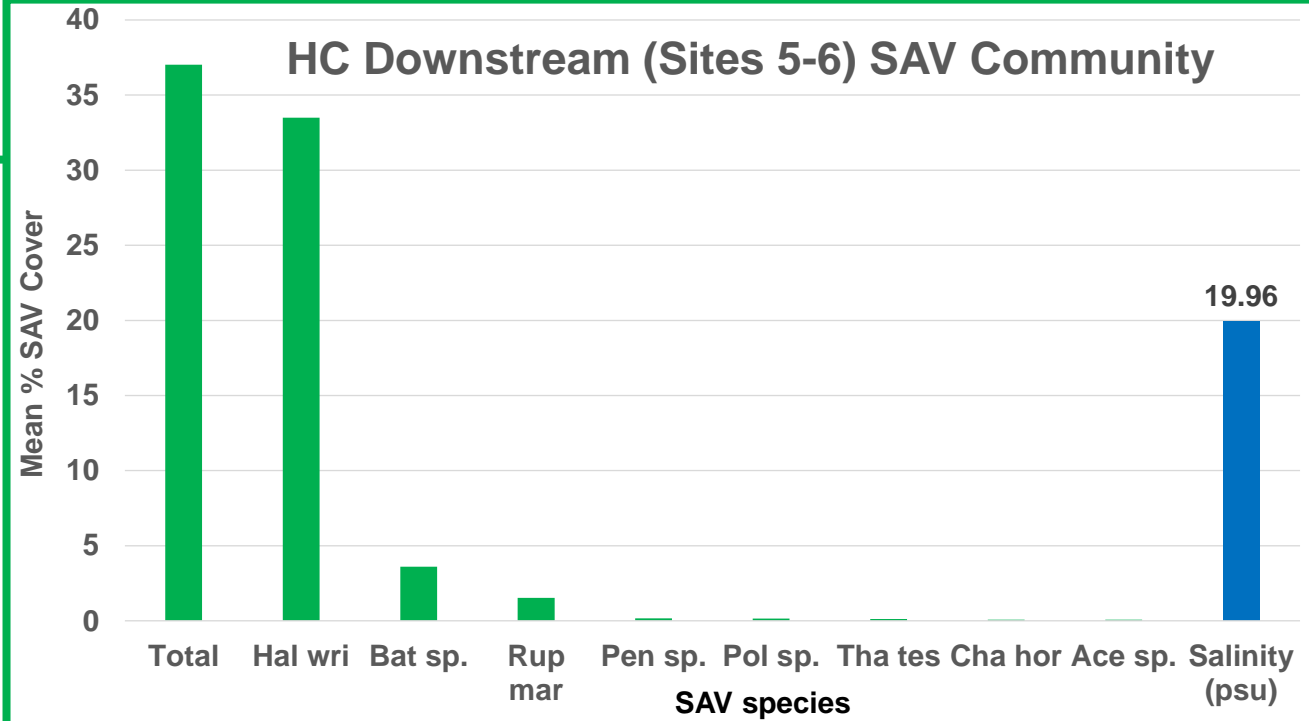


HC SAV Community

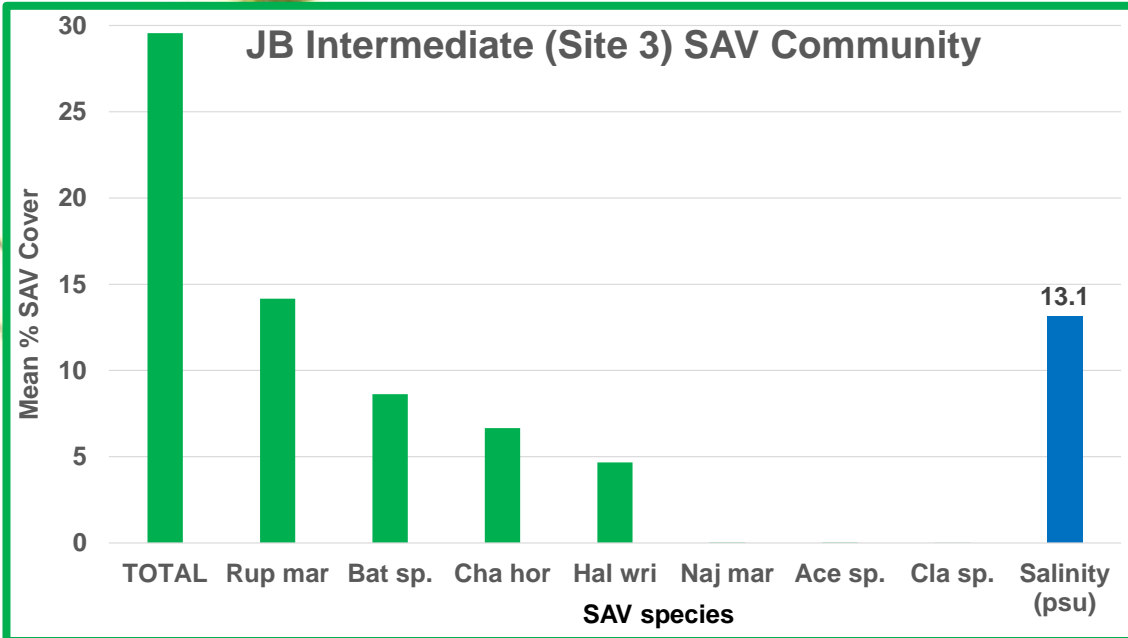
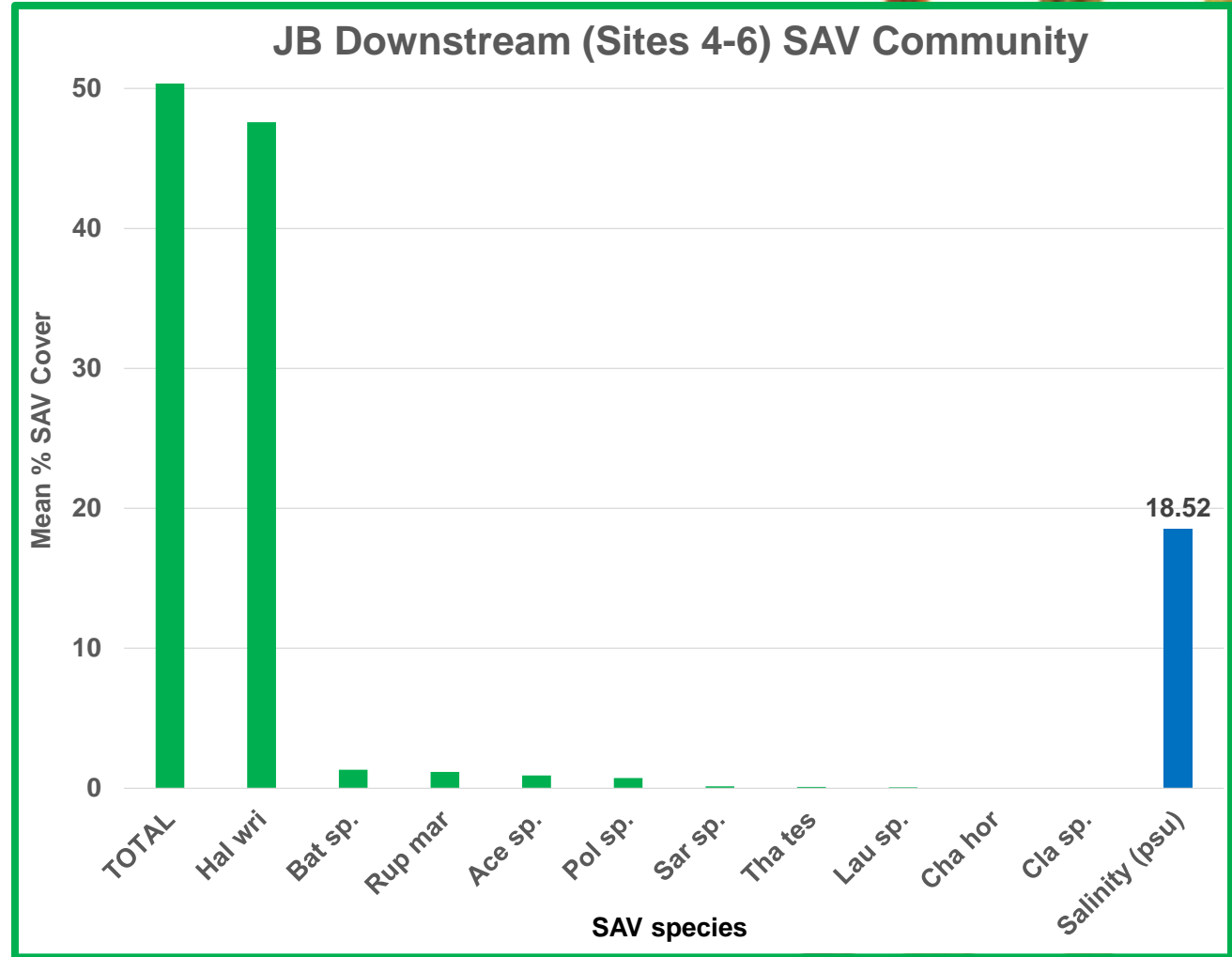
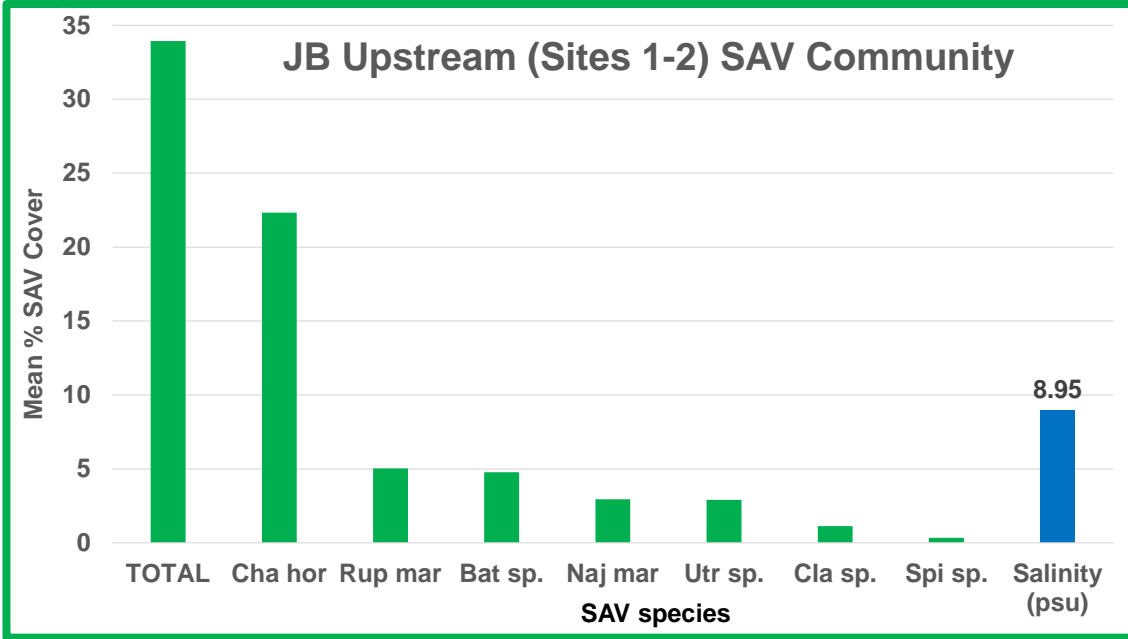
HC Upstream (Sites 1A-4A) SAV Community



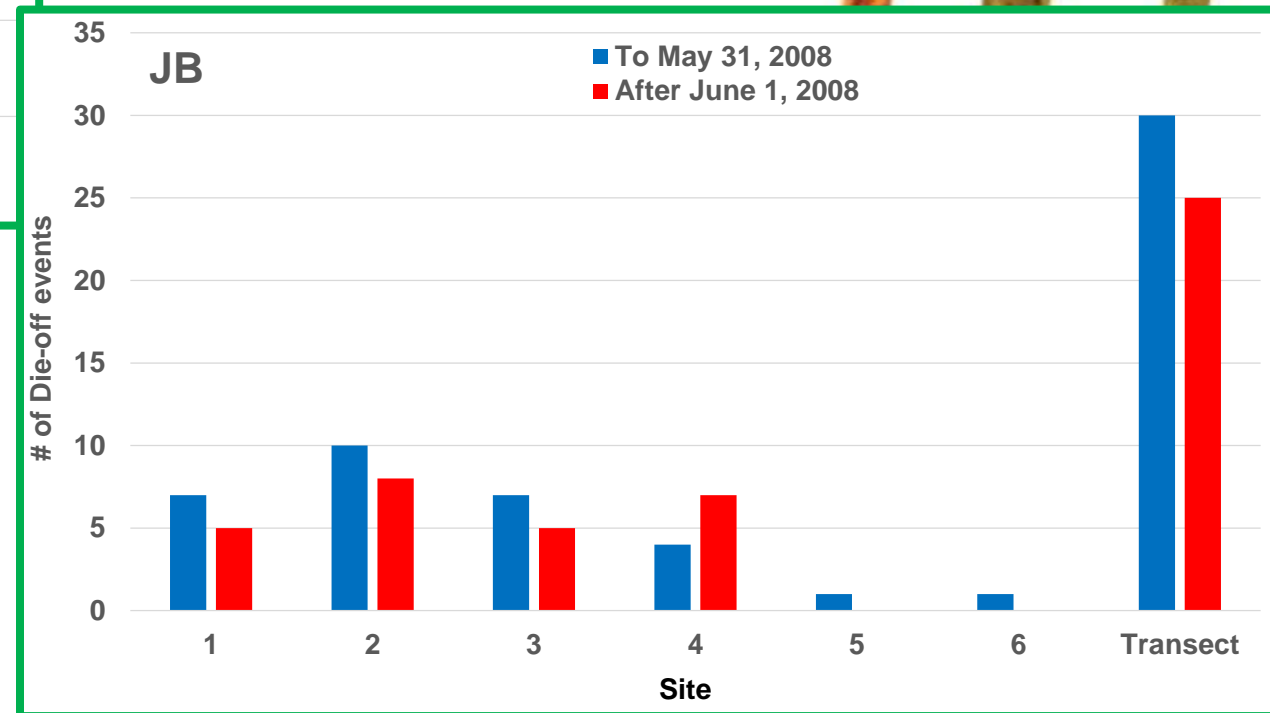
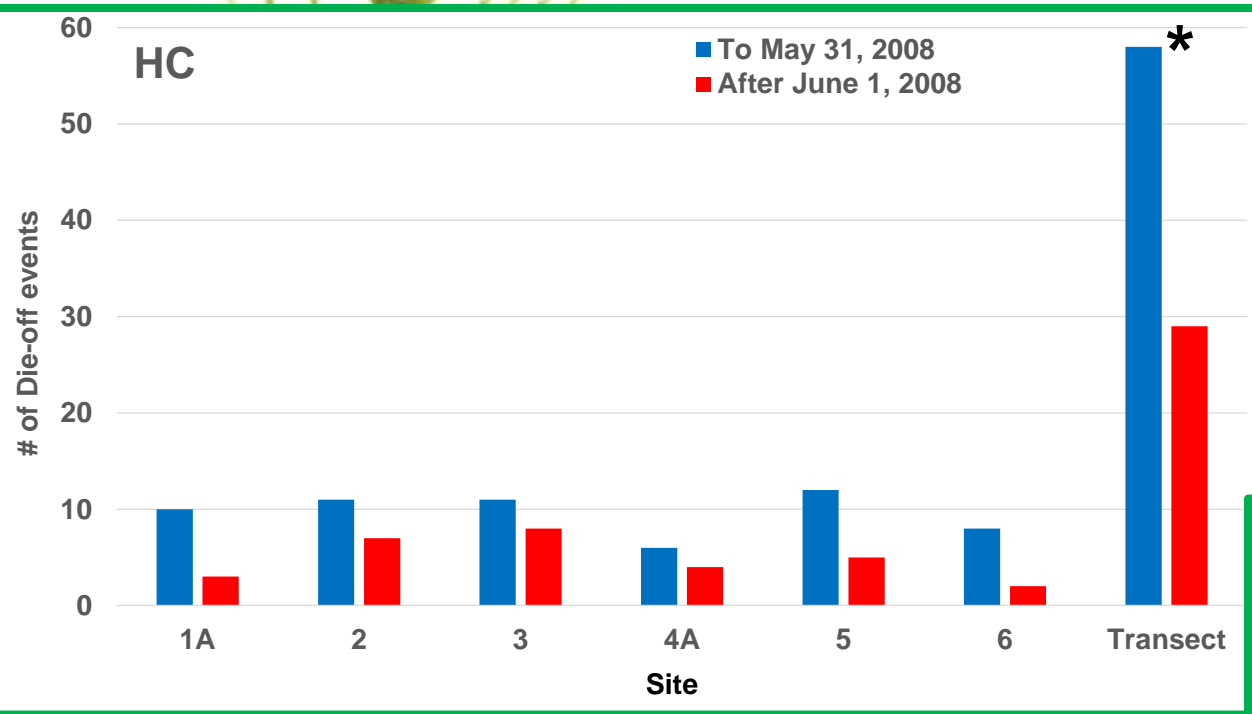
HC Downstream (Sites 5-6) SAV Community



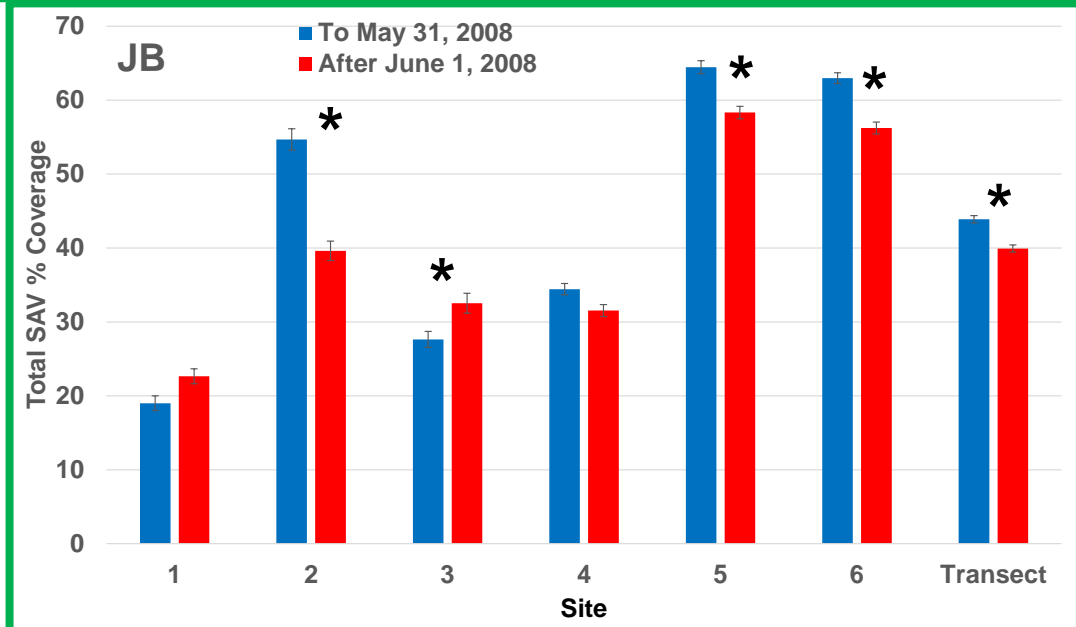
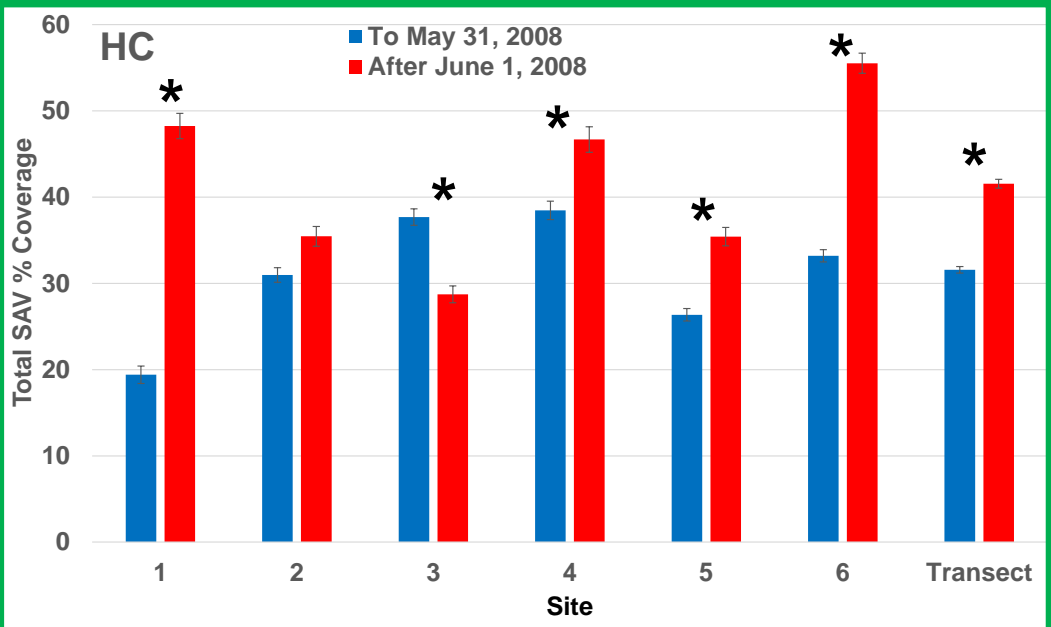
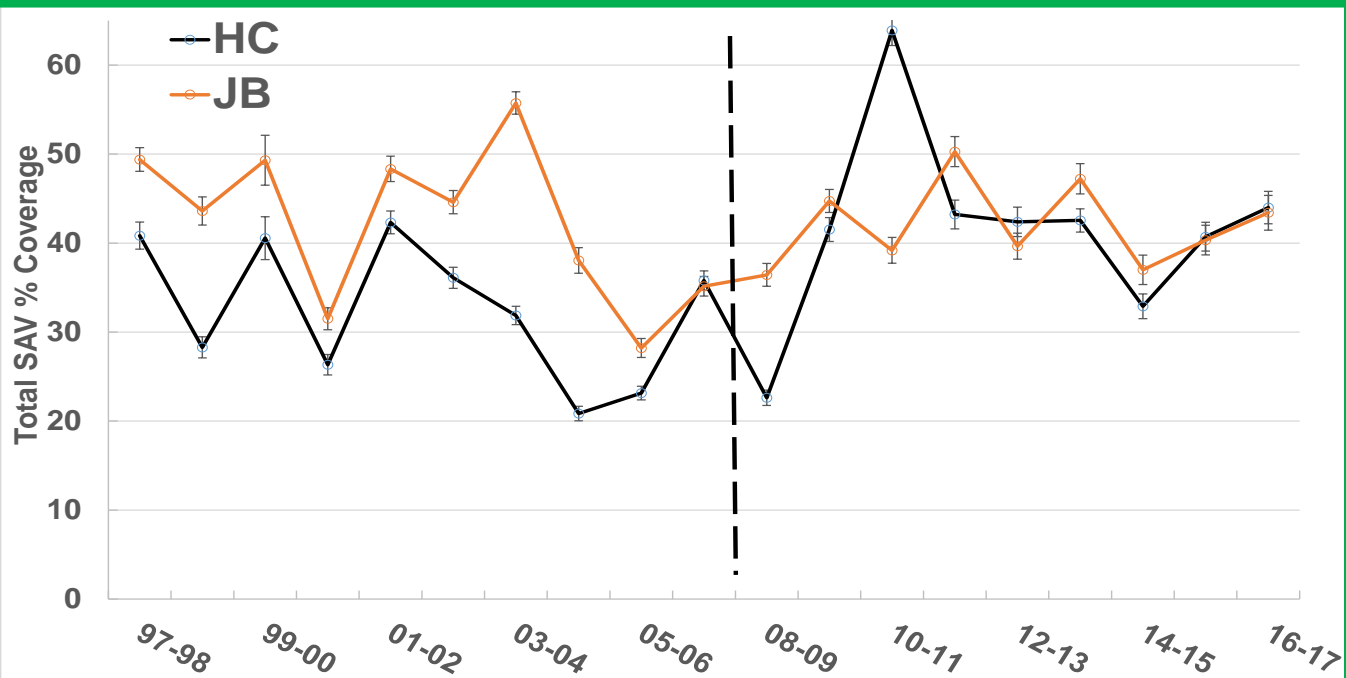
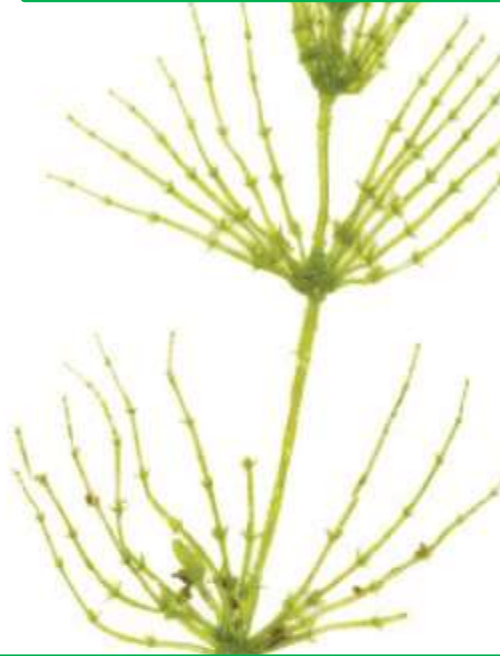
JB SAV Community



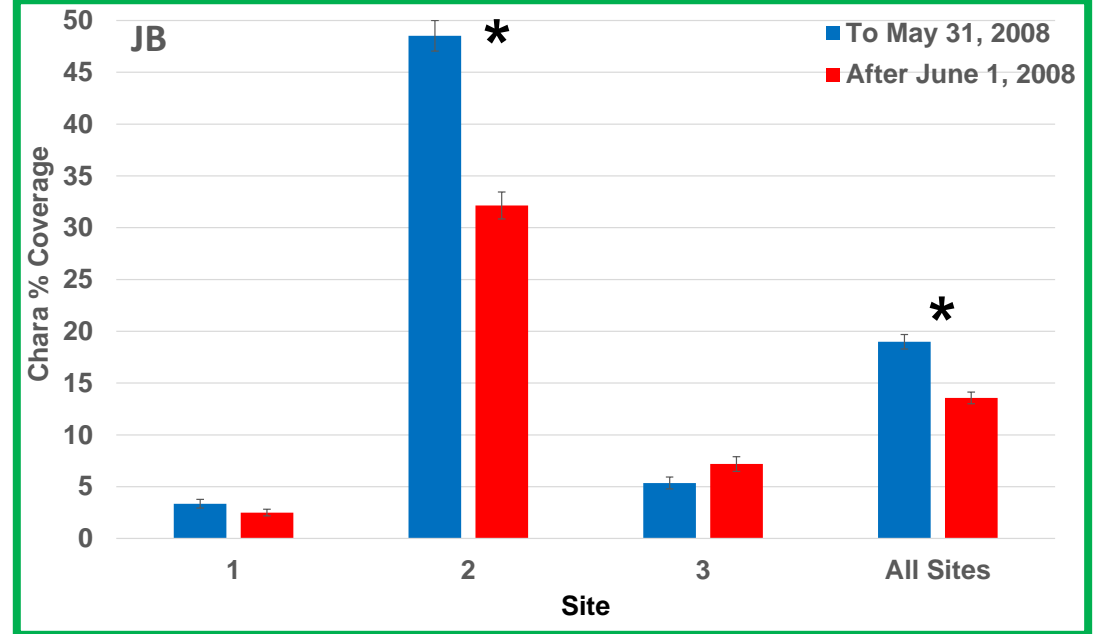
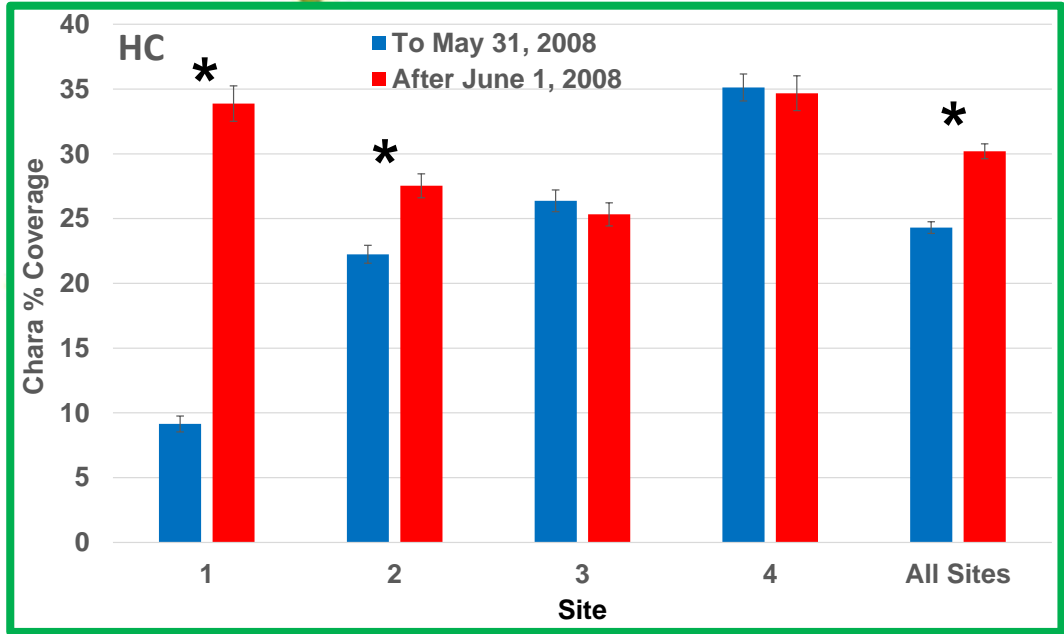
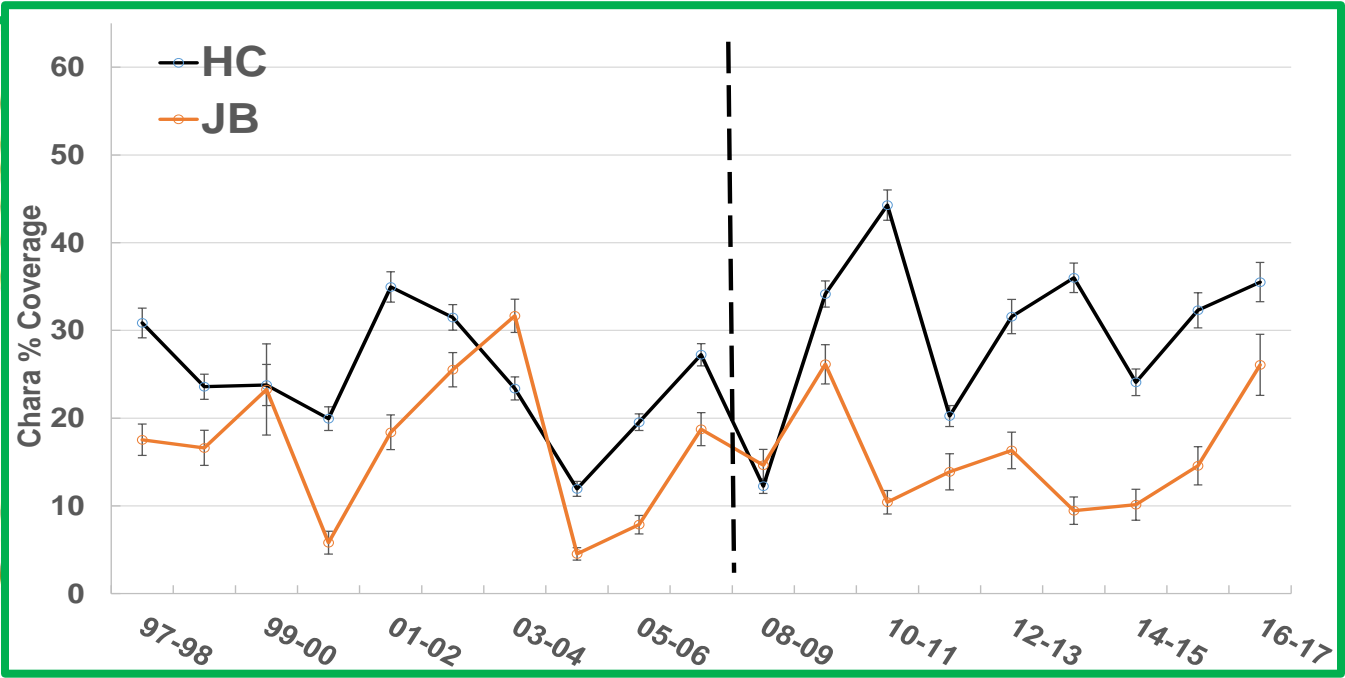
SAV Die-off Events



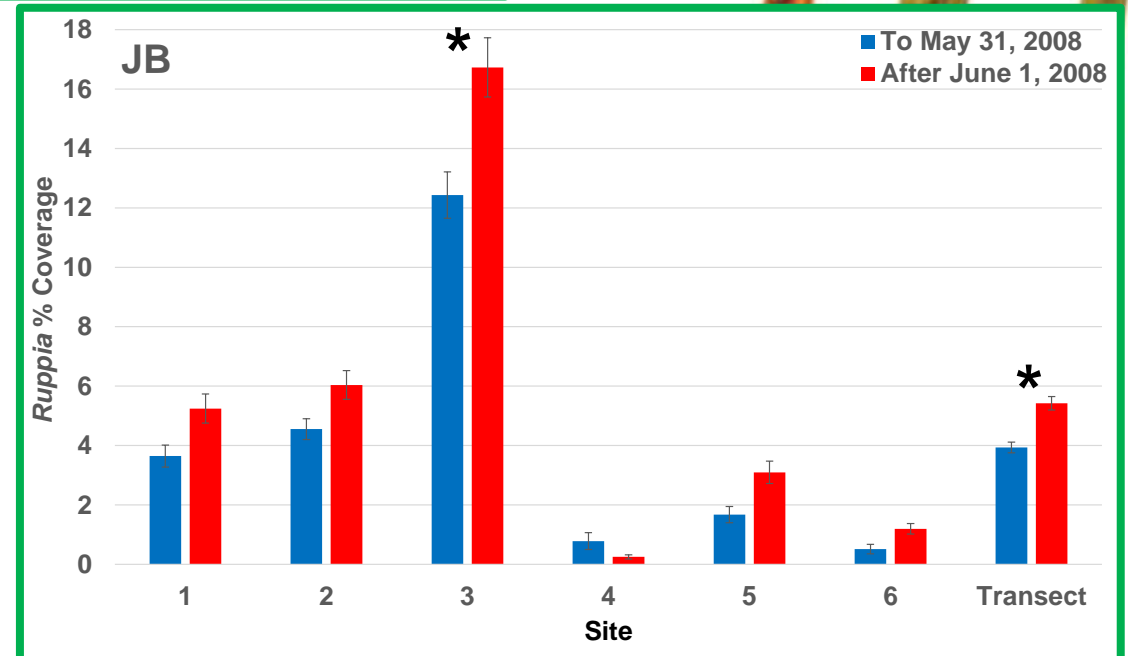
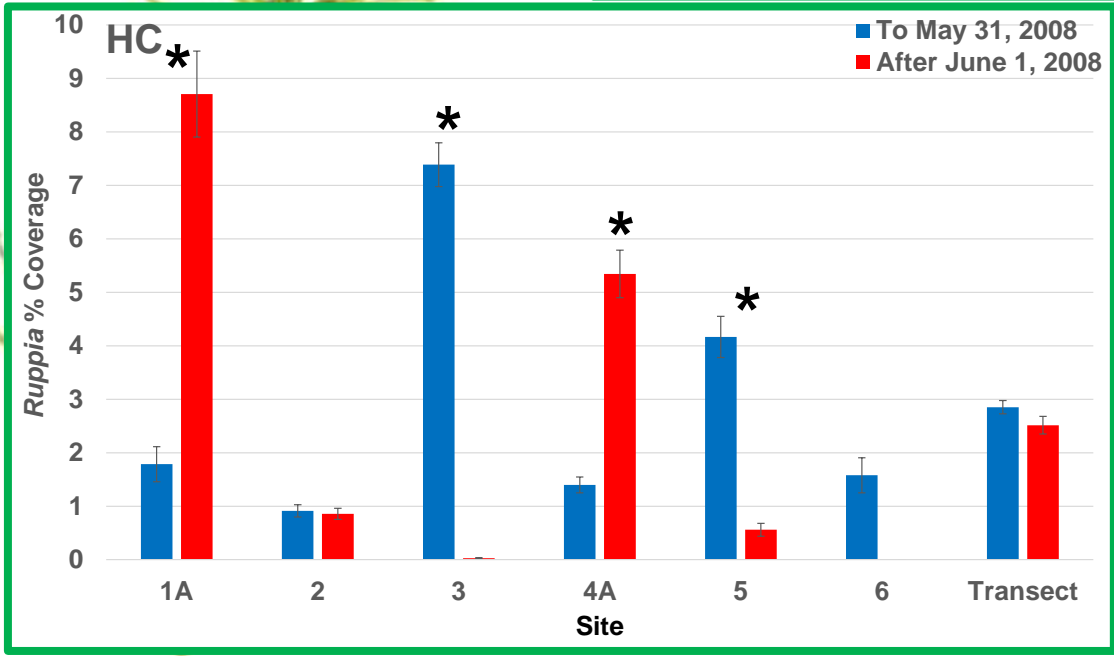
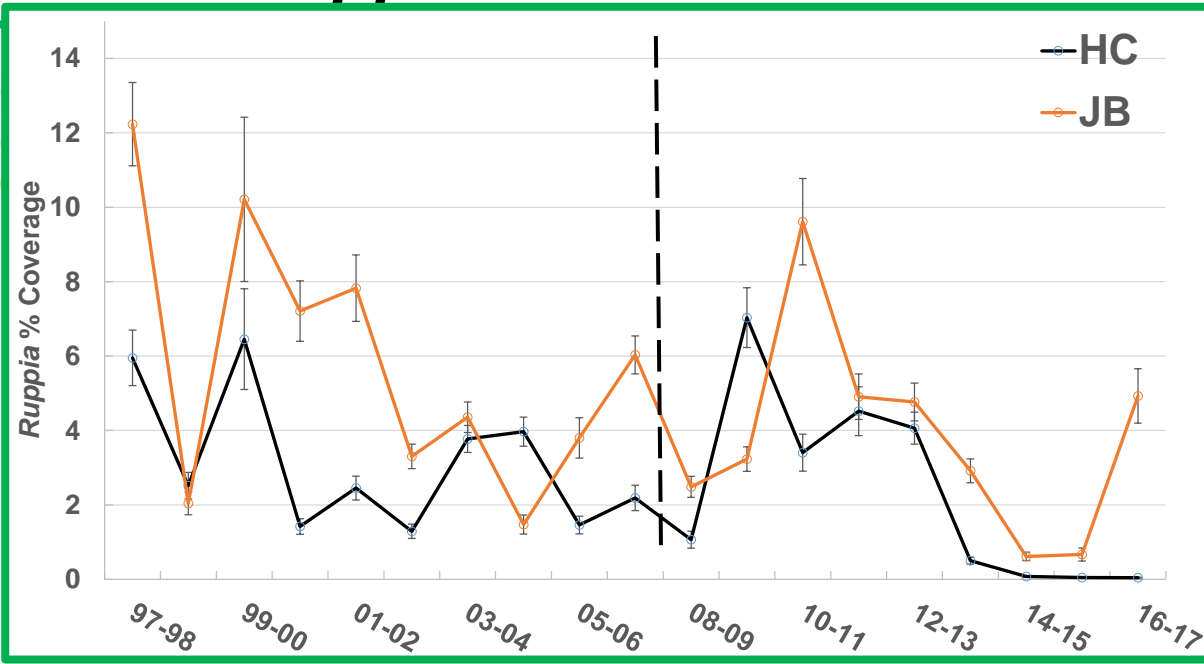
SAV Total Cover



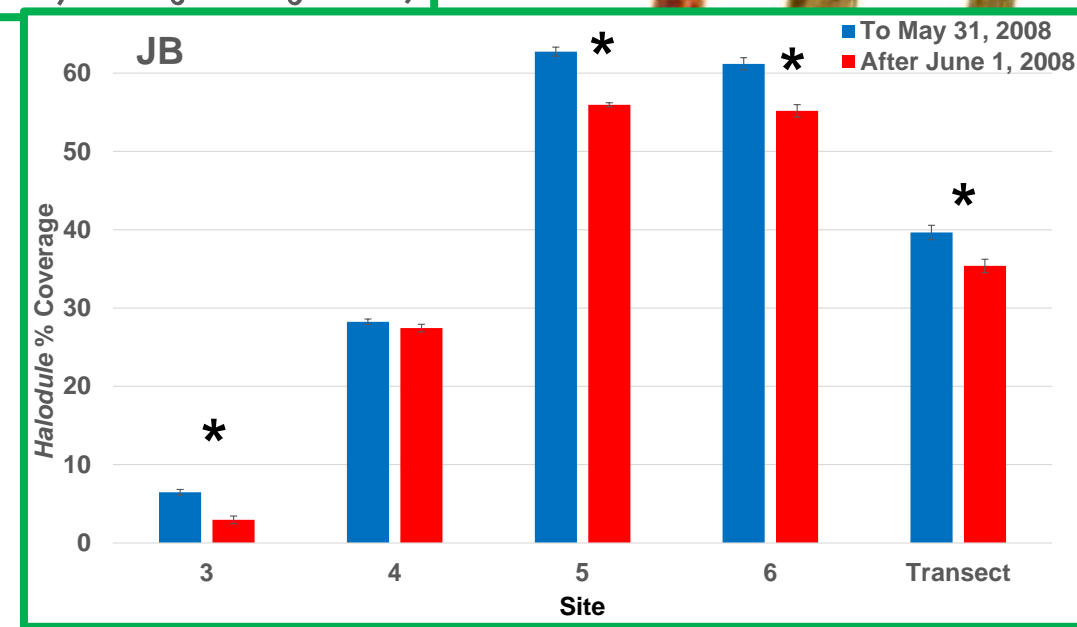
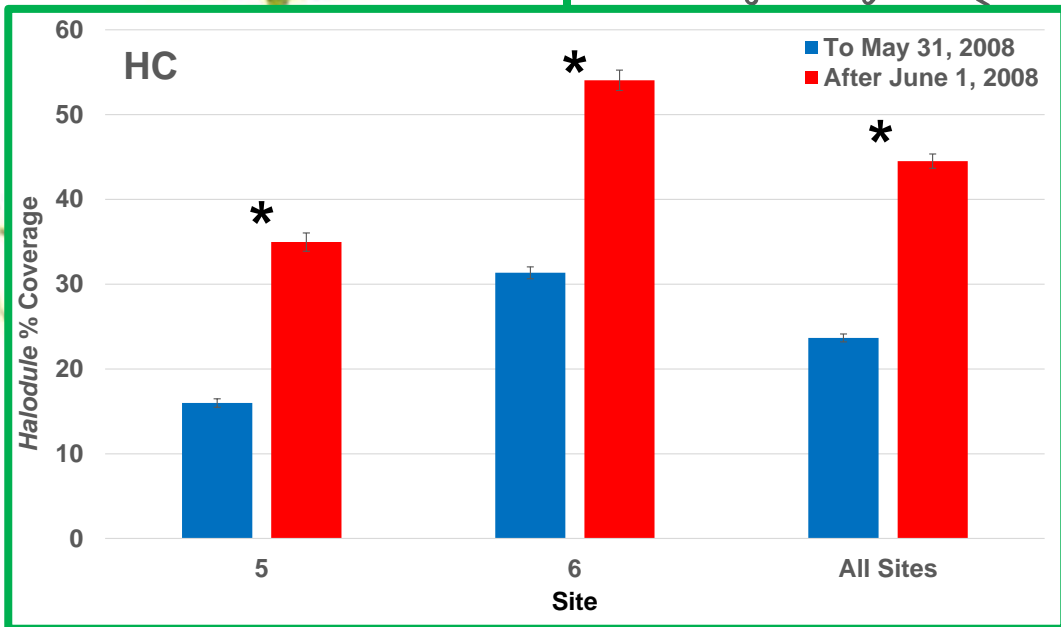
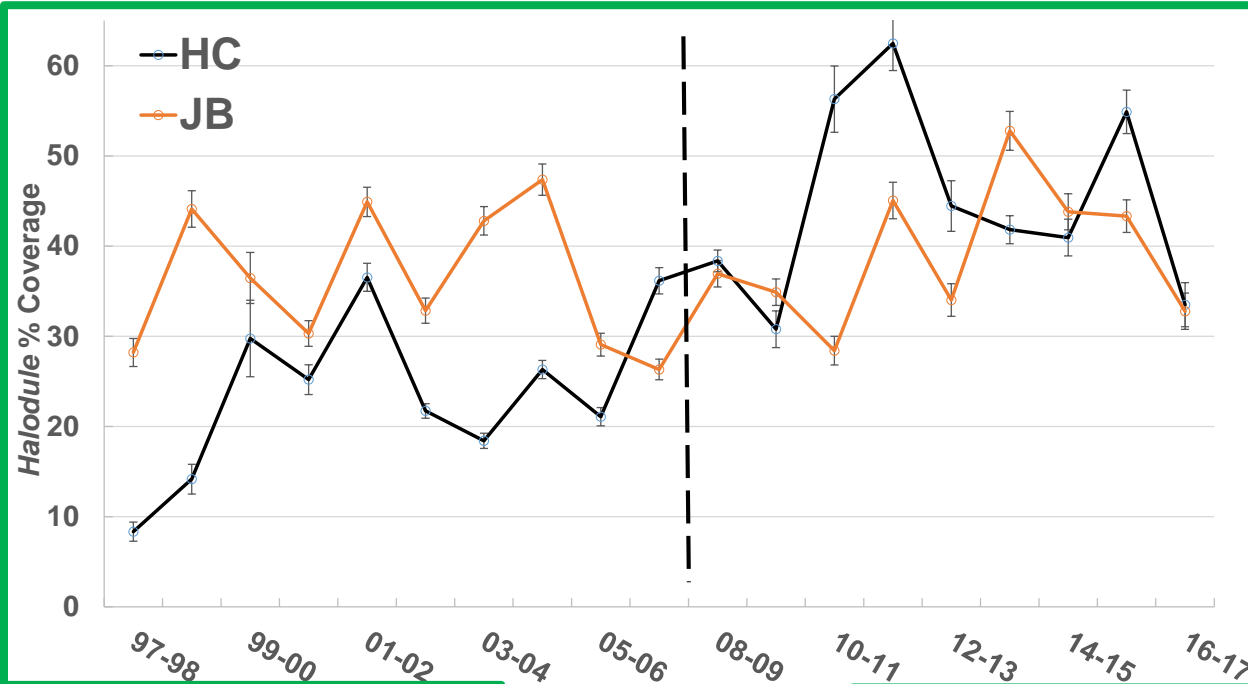
Chara hornemaniai Cover



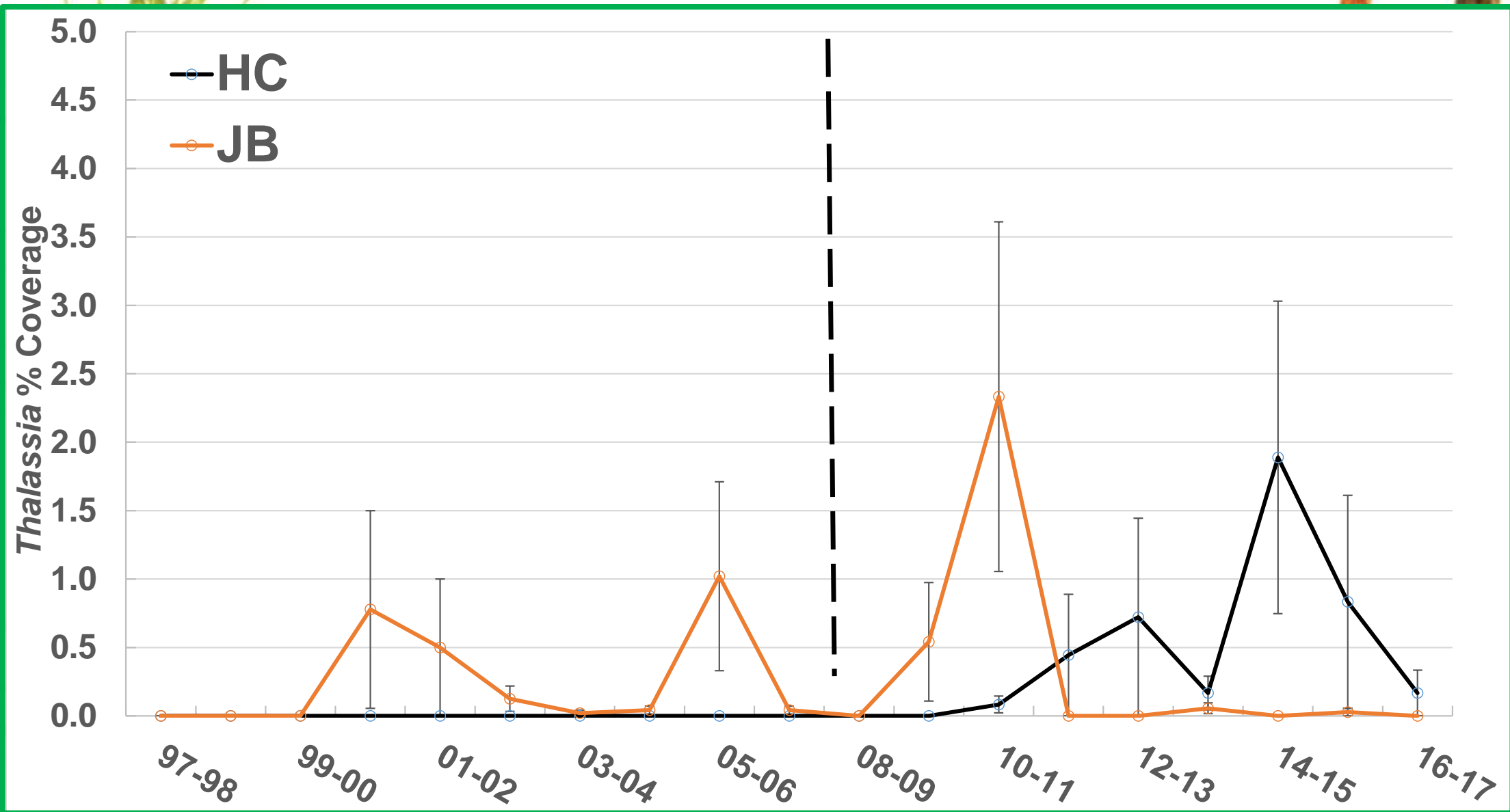
Ruppia maritima Cover



Halodule wrightii Cover



Thalassia testudinum Cover



Conclusions

Highway Creek

