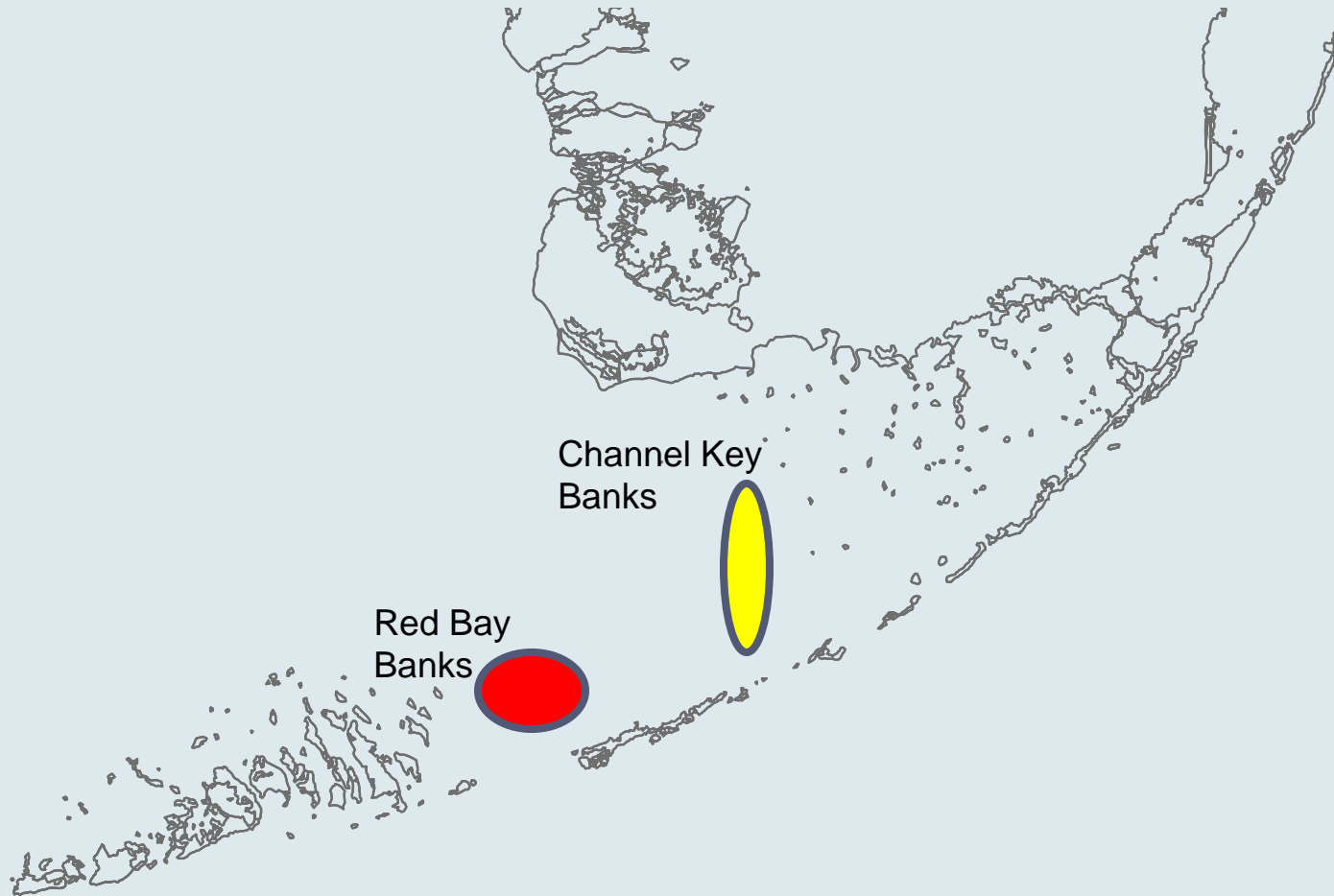




Biodiversity and ecosystem function of shallow bank systems within the Florida Keys National Marine Sanctuary

Burke, John S.; Kenworthy, W. Judson; Viehman, Shay; Degan, Brian
Center for Coastal Fisheries and Habitat Research, NCCOS, NOS, NOAA;

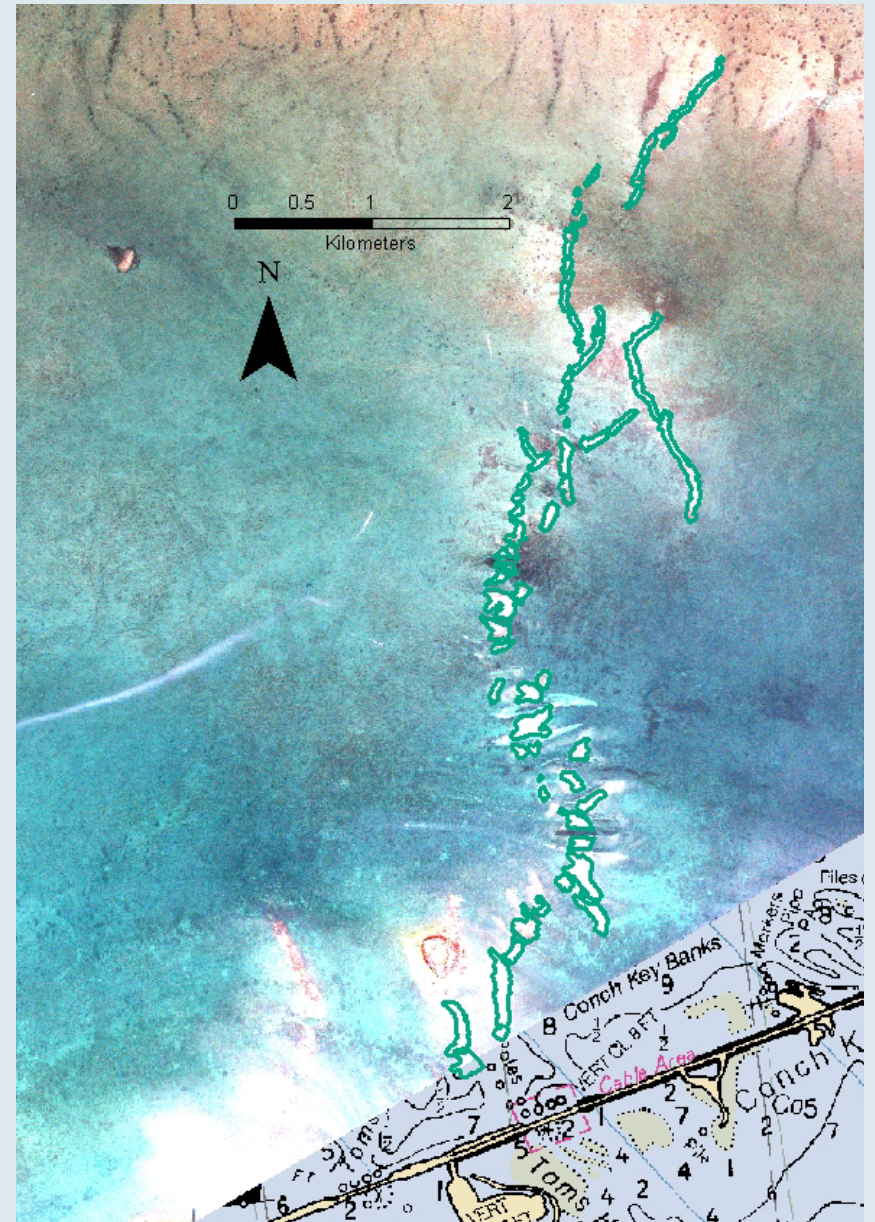
LOCATION: FLORIDA KEYS



Red Bay Banks

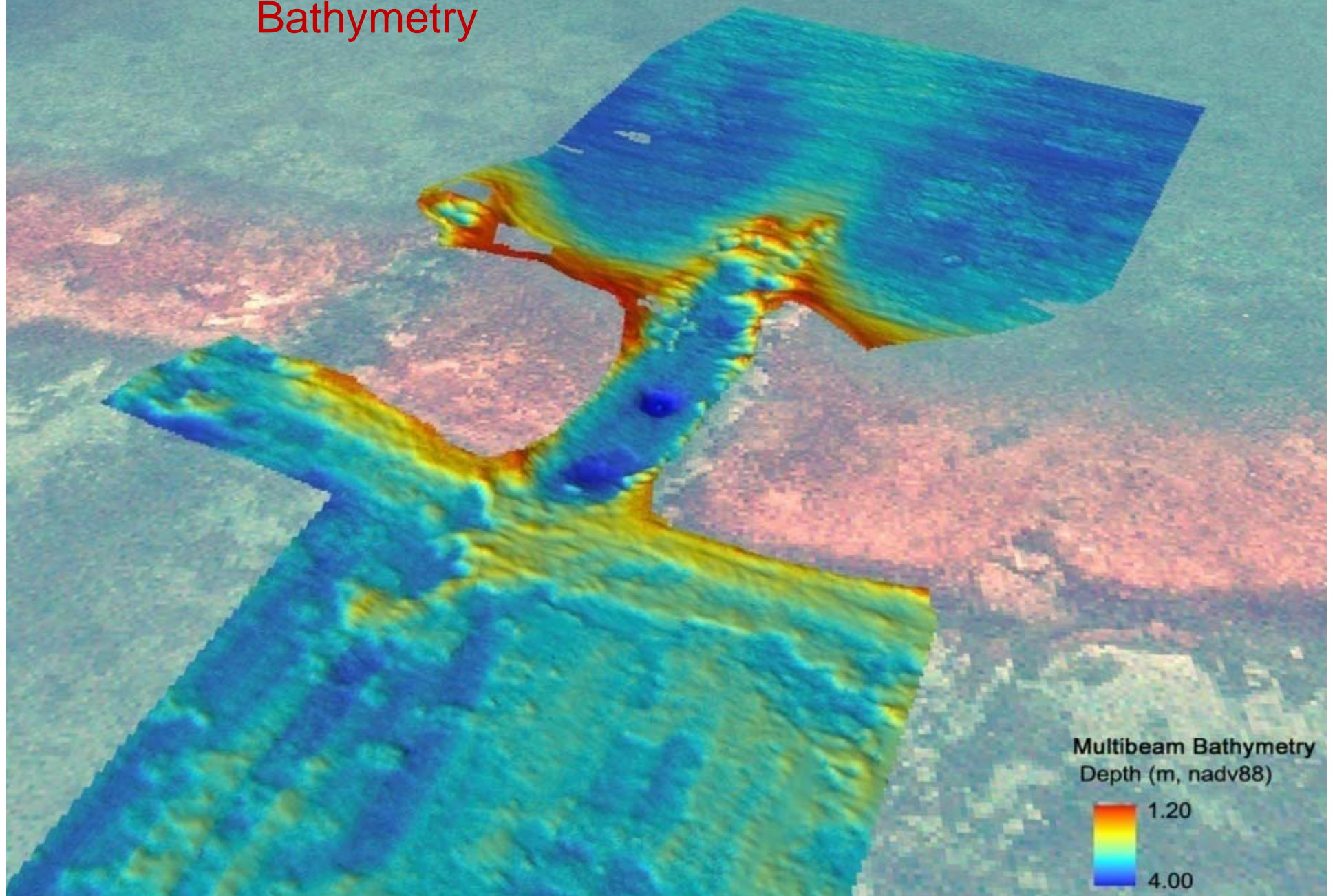


Channel Key Banks





Red Bay Banks Bathymetry



Red Bay Banks
Sampling
Strata

Channel

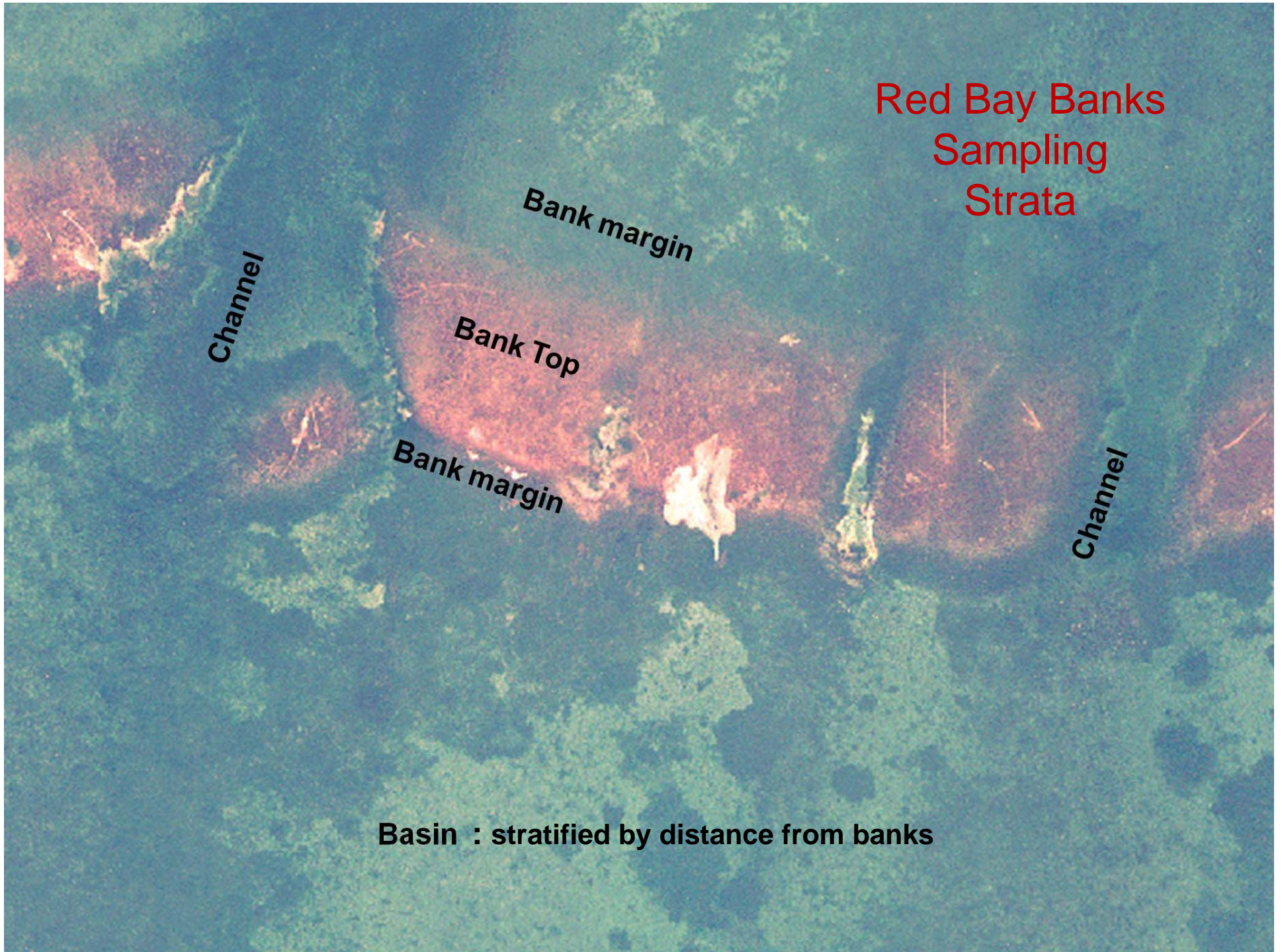
Bank margin

Bank Top

Bank margin

Channel

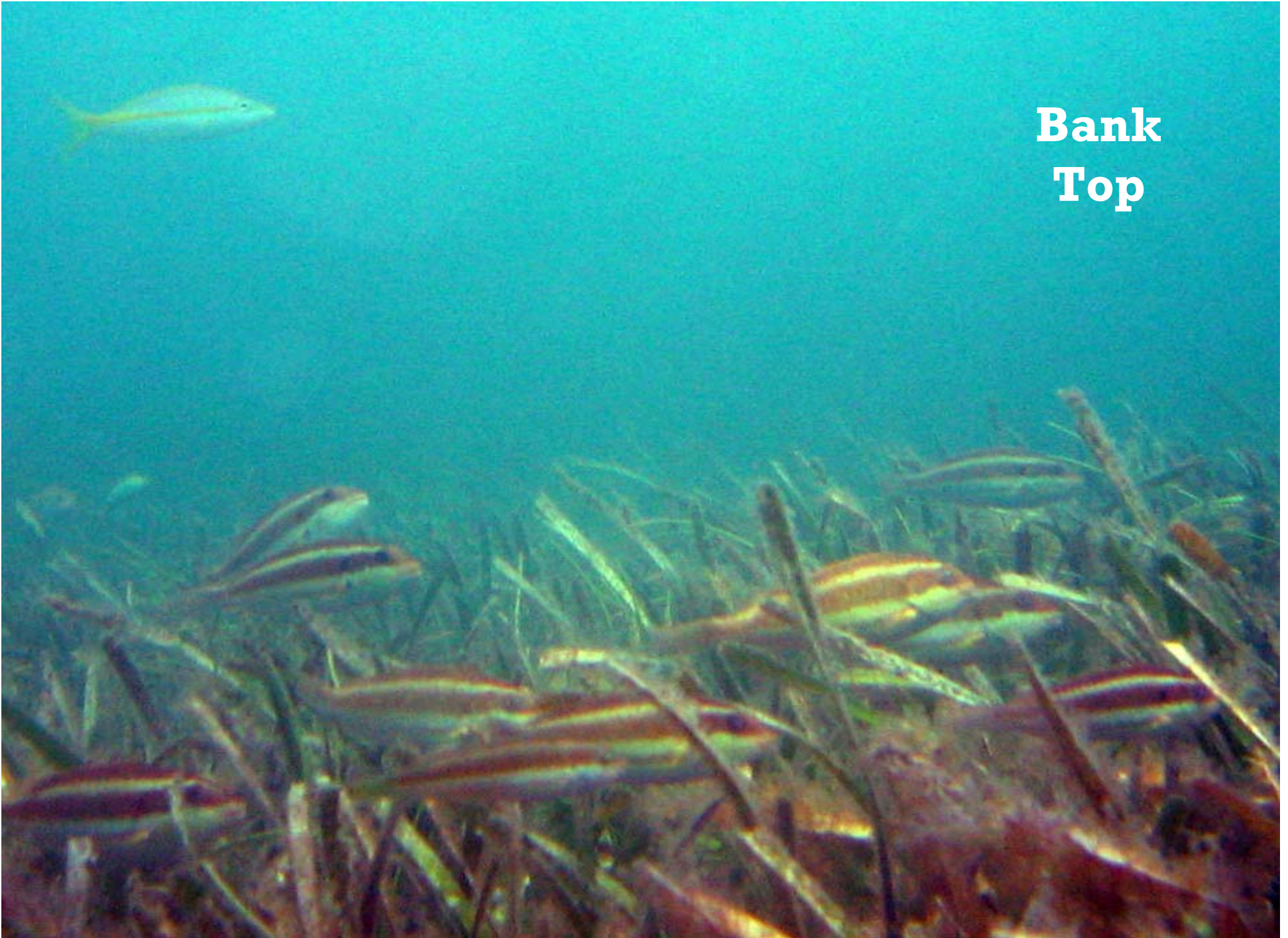
Basin : stratified by distance from banks



Channel



**Bank
Top**



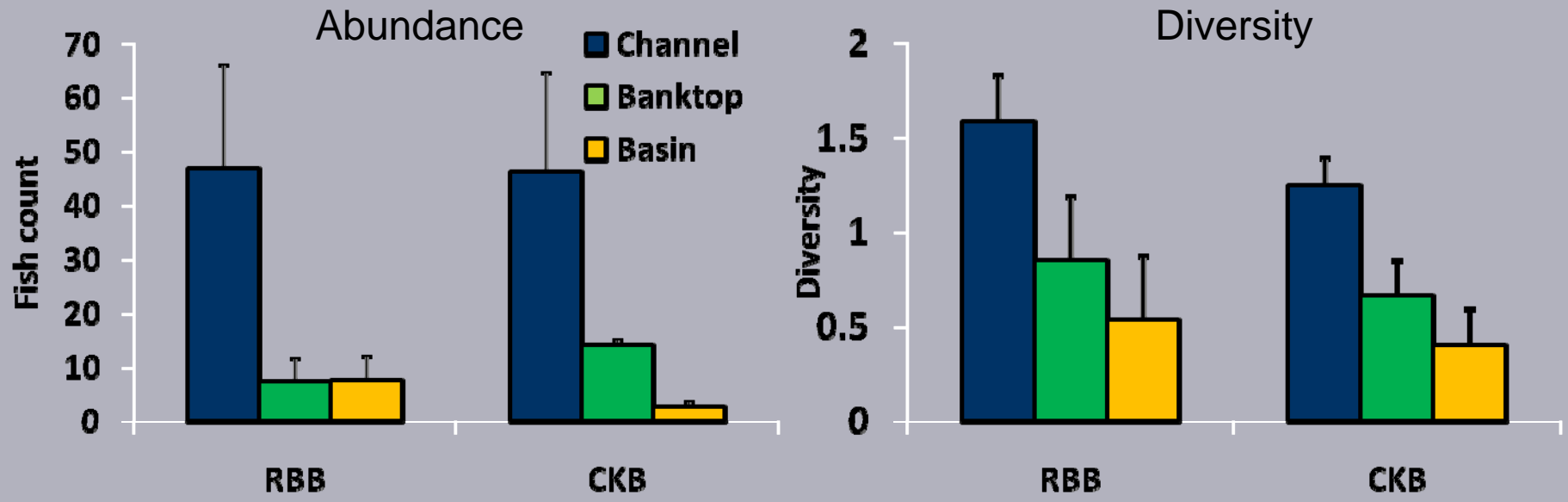
Bank margin



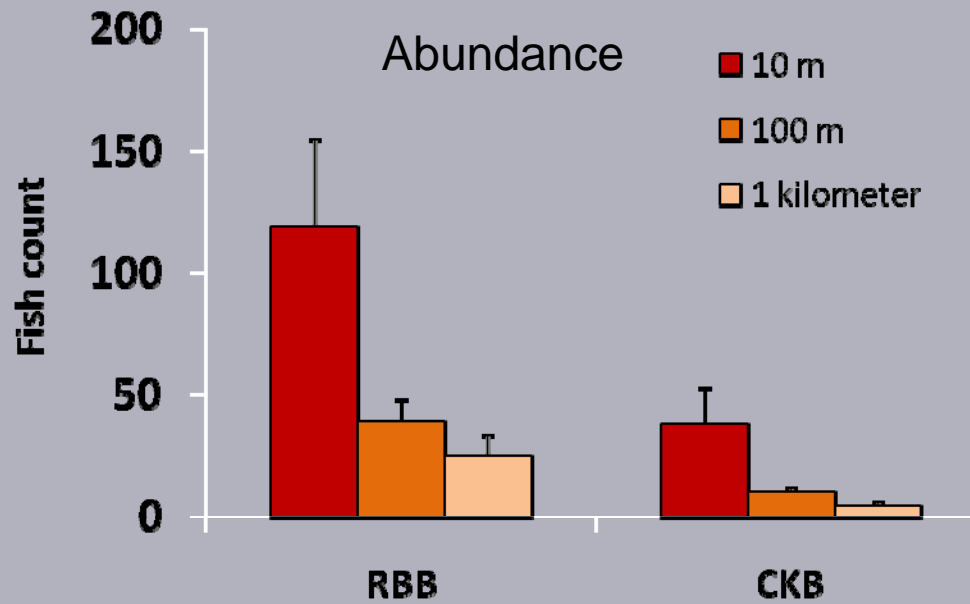
Basin



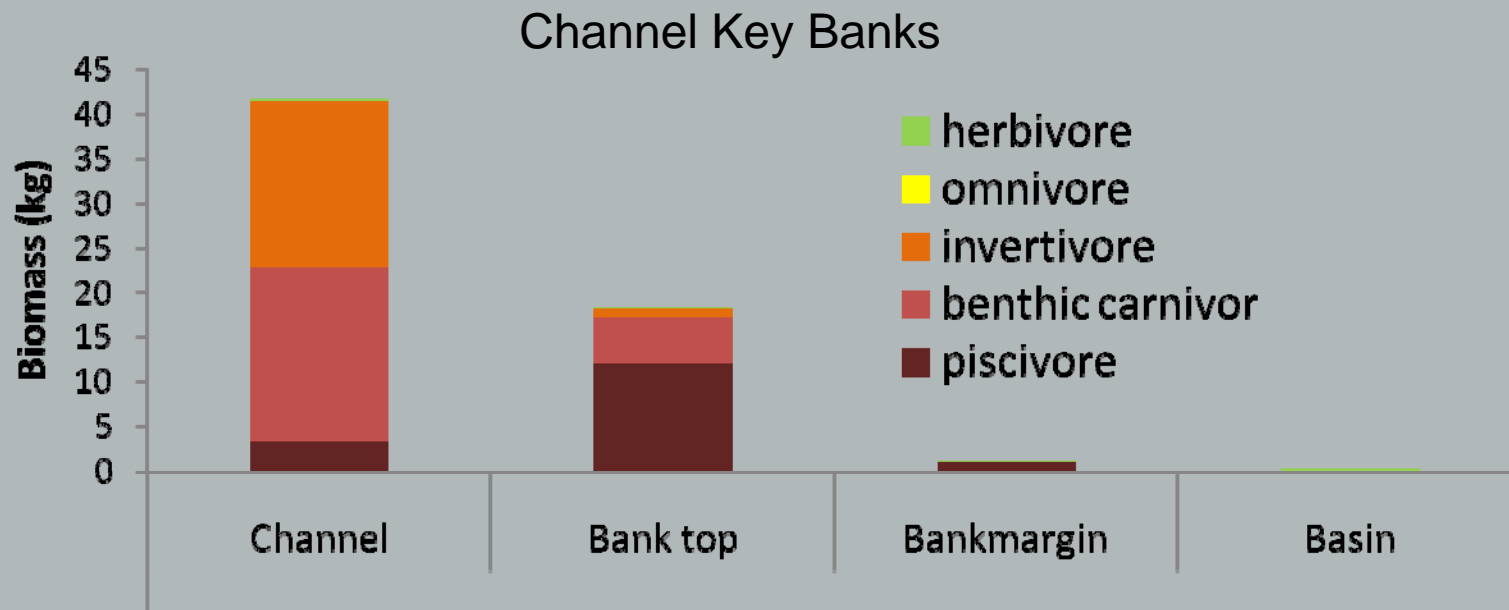
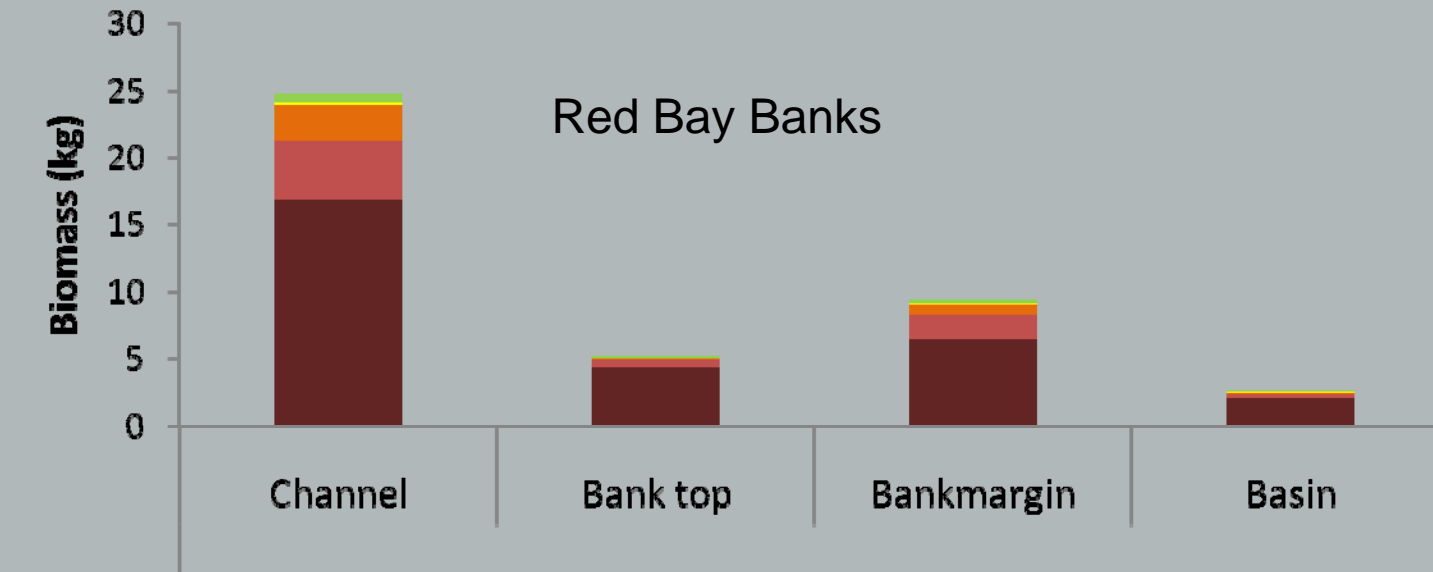
Variation among habitat strata 2004



Variation in basin fish density with distance from channel/bank system 2006



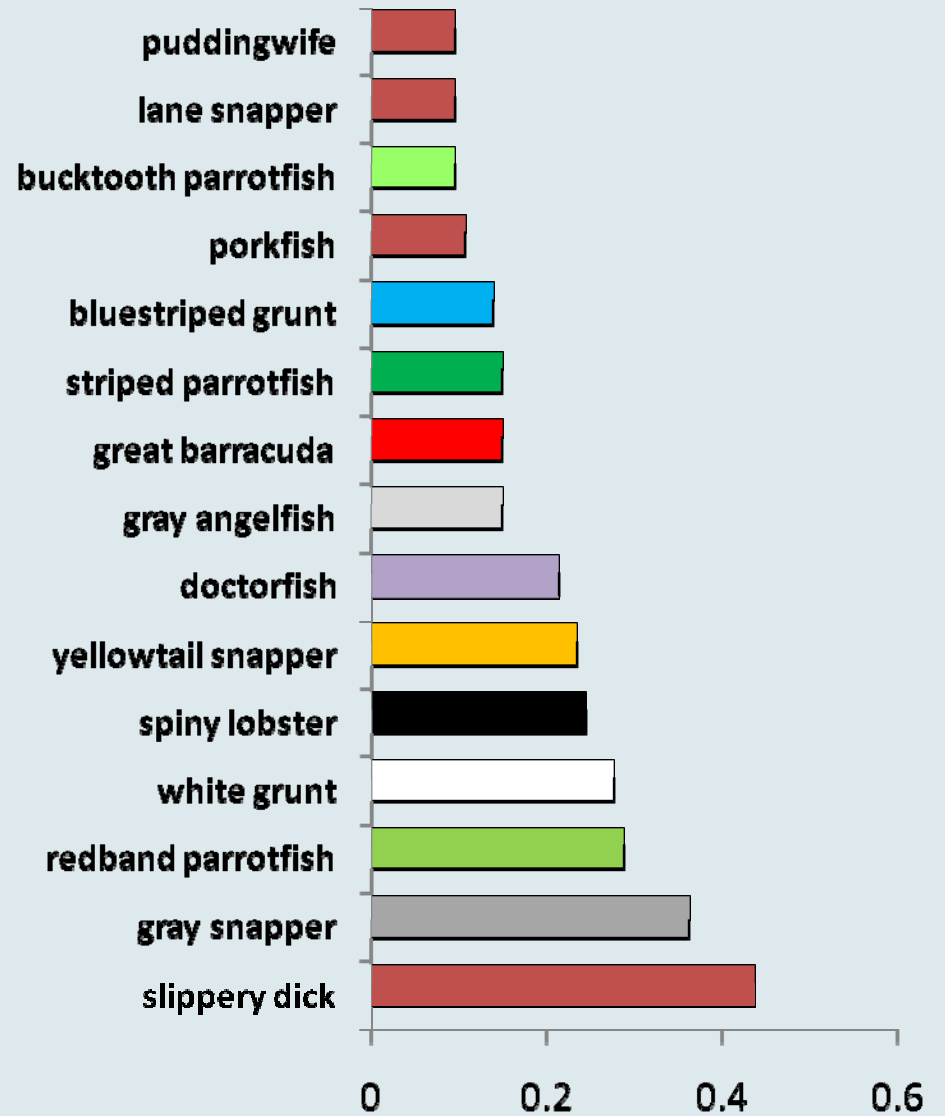
Trophic group biomass by habitat strata



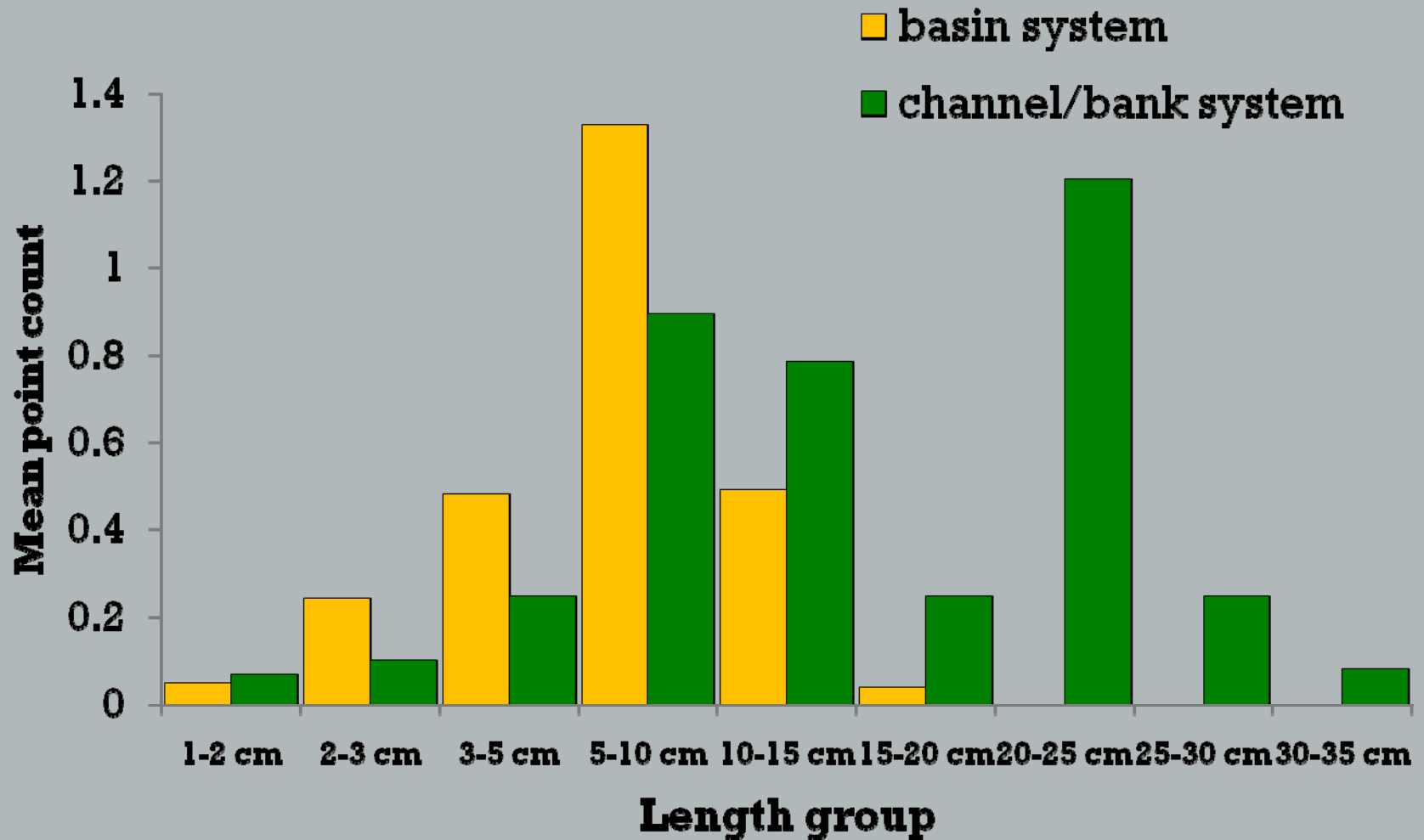
Channel fish community: % sighting frequency, 15 most frequently sighted species in point count surveys of RBB and CKB channels.

Red Bay Banks n-127

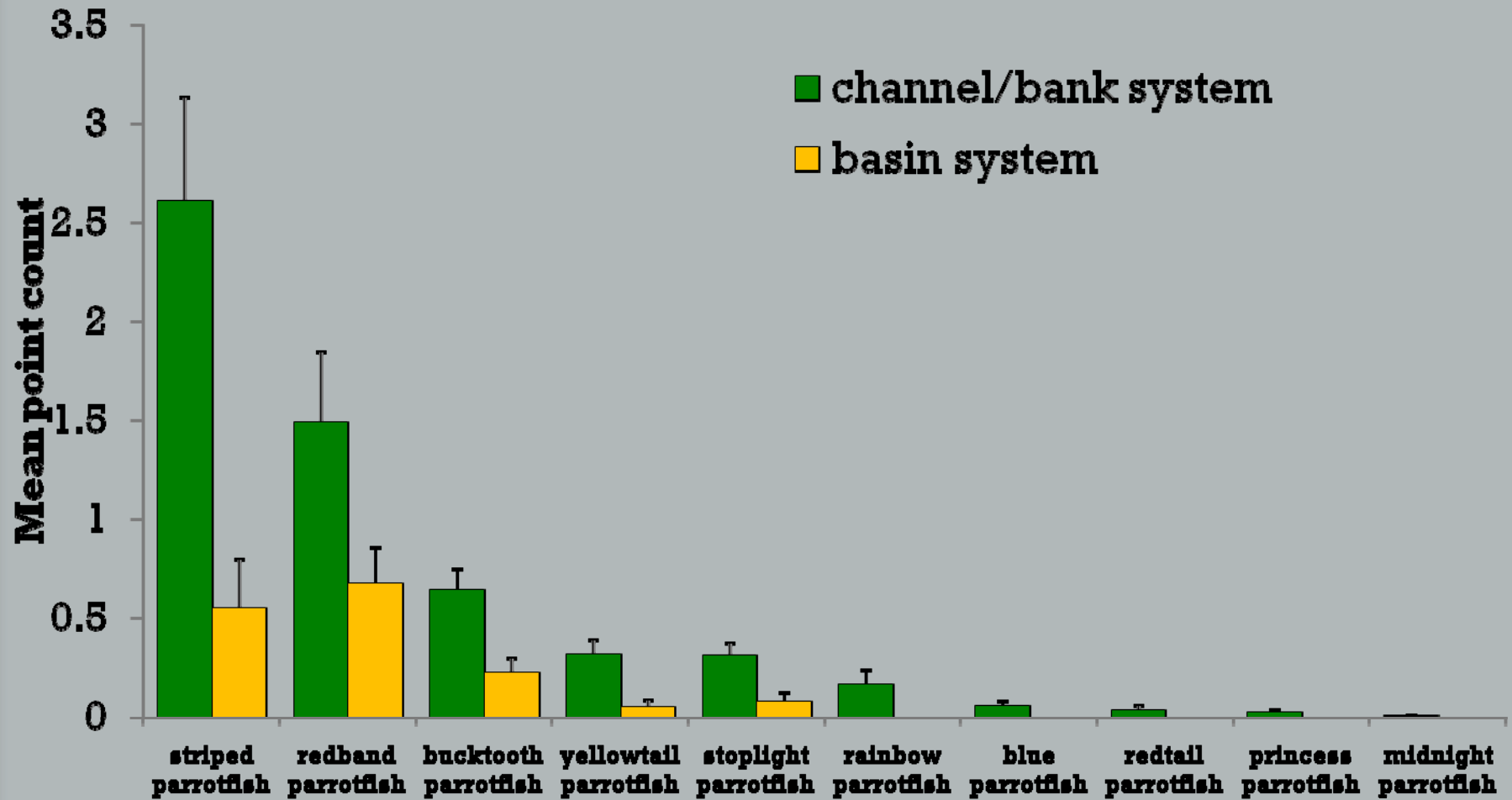
Channel Key Banks n=94

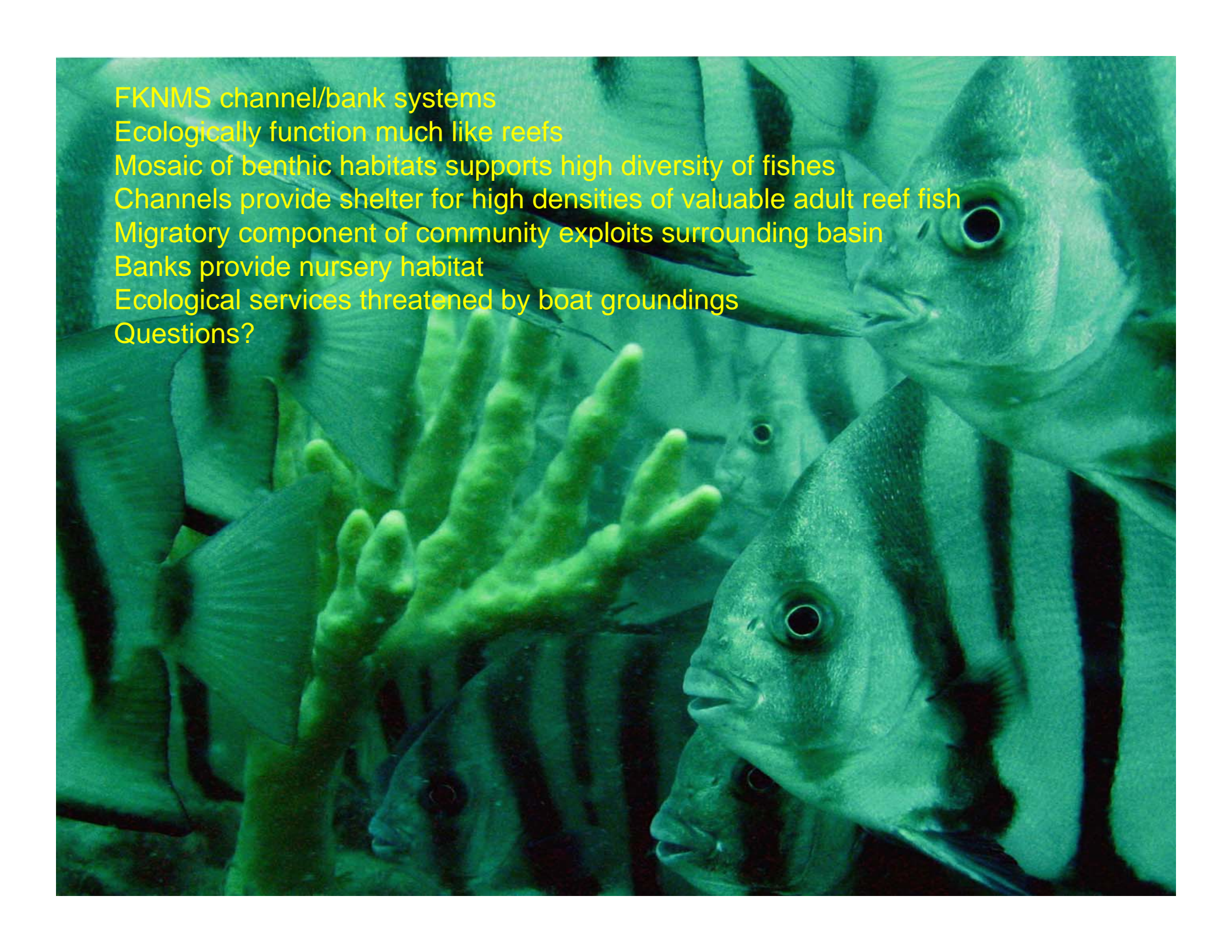


Comparison of bank system and surrounding basin: Length frequency distribution of white grunts.



Comparison of bank system and surrounding basin: abundance of parrotfishes.



A school of striped snappers (Lutjanus fulviflamma) is shown swimming in clear blue water above a coral reef. The fish have distinct vertical black stripes on their silver bodies. The coral reef below is composed of various types of coral, including branching and table corals. The scene is brightly lit, suggesting a shallow, healthy reef environment.

FKNMS channel/bank systems
Ecologically function much like reefs
Mosaic of benthic habitats supports high diversity of fishes
Channels provide shelter for high densities of valuable adult reef fish
Migratory component of community exploits surrounding basin
Banks provide nursery habitat
Ecological services threatened by boat groundings
Questions?