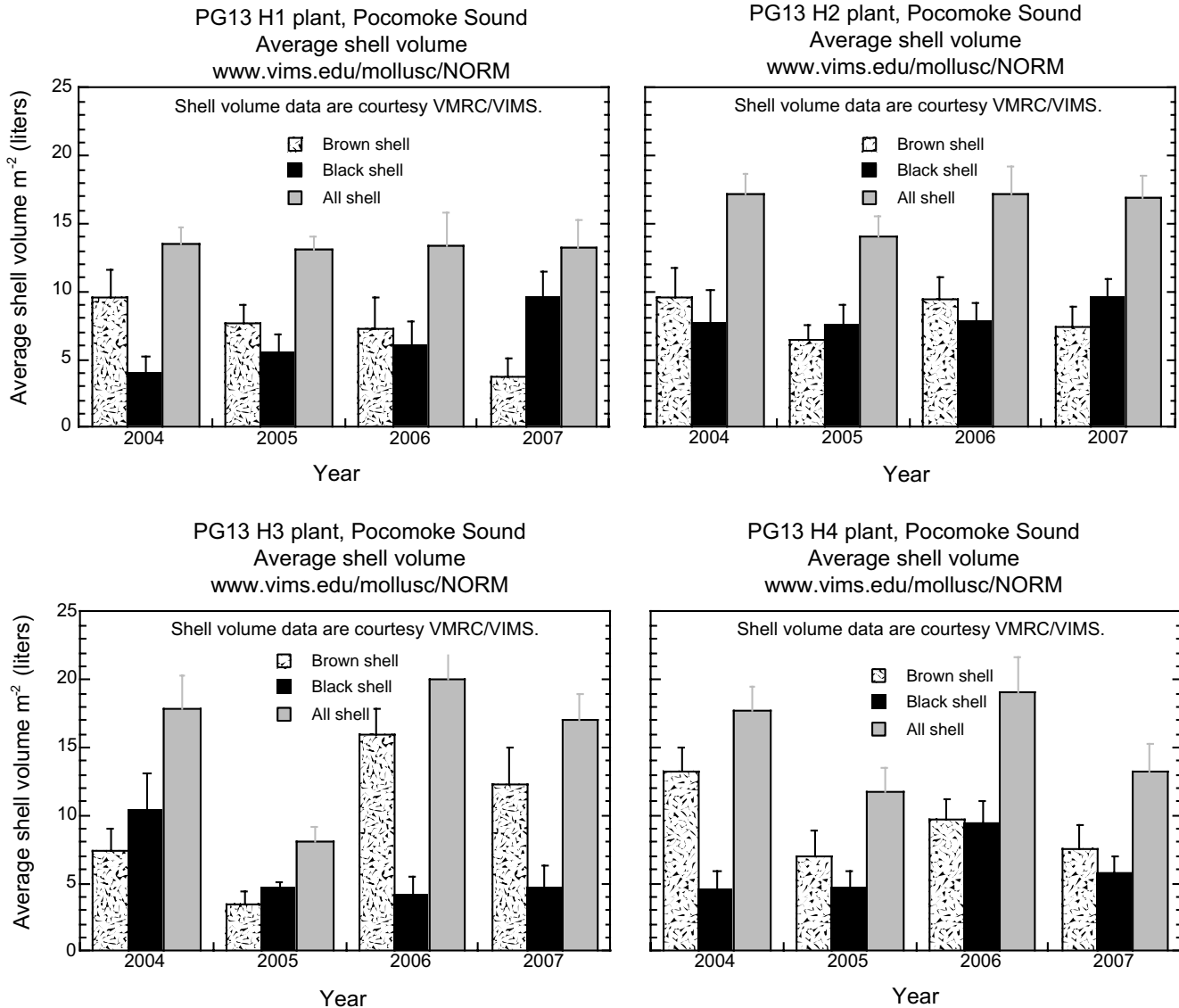


Speaker's Notes: Pocomoke Sound Shell volume from Patent Tong Surveys 2004-07

Contact Ms. Melissa Southworth (melsouth@vims.edu) for additional information or questions regarding these data.



Oyster populations on subtidal shell plants in Pocomoke Sound are surveyed annually with patent tongs. Shell volume measurements quantitatively describe available oyster shell habitat. Brown (any shell with > 10% of its surface brown with fouling organisms present on the shell) and black (any shell with > 90% of its surface black with no living organisms present on the shell) shell volumes (liters) collected in patent tong samples are added to estimate total or all shell volume. Over time, the ratio between brown and black shell volume tends to decrease as the shells settle post-planting. This trend is especially evident in habitats with soft bottoms (e.g. mud). In general, brown shell volume is a good indicator of the amount of cultch (habitat) available for oyster larvae to settle on whereas the presence of black shell is an indicator of shells that have either been buried or experienced prolonged periods of poor oxygen conditions. In either case, black shell is not suitable habitat for settling oyster larvae. Differences in total shell volumes recorded during patent tong surveys using stratified random sampling between years at the same site may reflect shell deterioration or sinking post-planting as well as the consistency or evenness of shell distribution within the site at planting. Shells were planted by VMRC on Shell Plant PG 13 H3 early in 2006. This planting activity is reflected in the large increase in both brown shell and total shell volume when compared with the other three sites during 2006 and with volumes at that site in 2005. Since 2005, brown shell volume has remained relatively stable at PG 13 H2 and PG 13 H4. Brown shell volume has decreased at PG 13 H1 since 2005 such that brown shell volumes recorded at PG 13 H1 in 2007 are approximately half of the 2004 values.