Cultch mass summary

16 reefs (4 in each density quartile)

4 samples at each bar = 64 total samples

Concerns:

-Delay between density/mass measurements (oyster growth, mortality, recruitment, harvest over the ~9 months between these two sample types)

-Gear bias between transect (density) and quadrat (mass) measurements

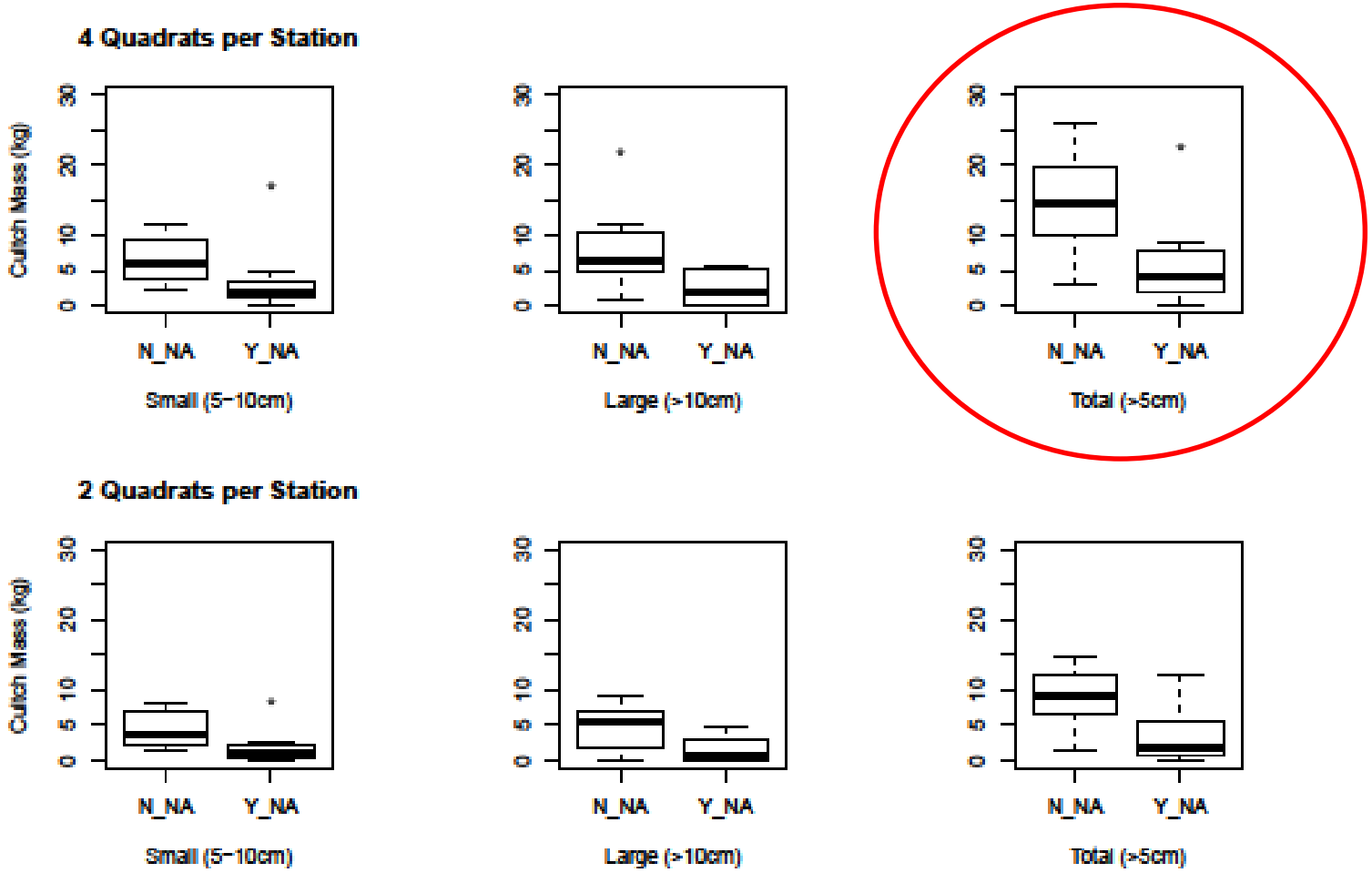
-Given intrareef density variation, random quadrats sometimes on a very different density location than transects on same reef. Grouping reefs into density categories based on transect data may not be appropriate.

-Smaller seive size (5cm) still allows many large shells to pass through (see pic)

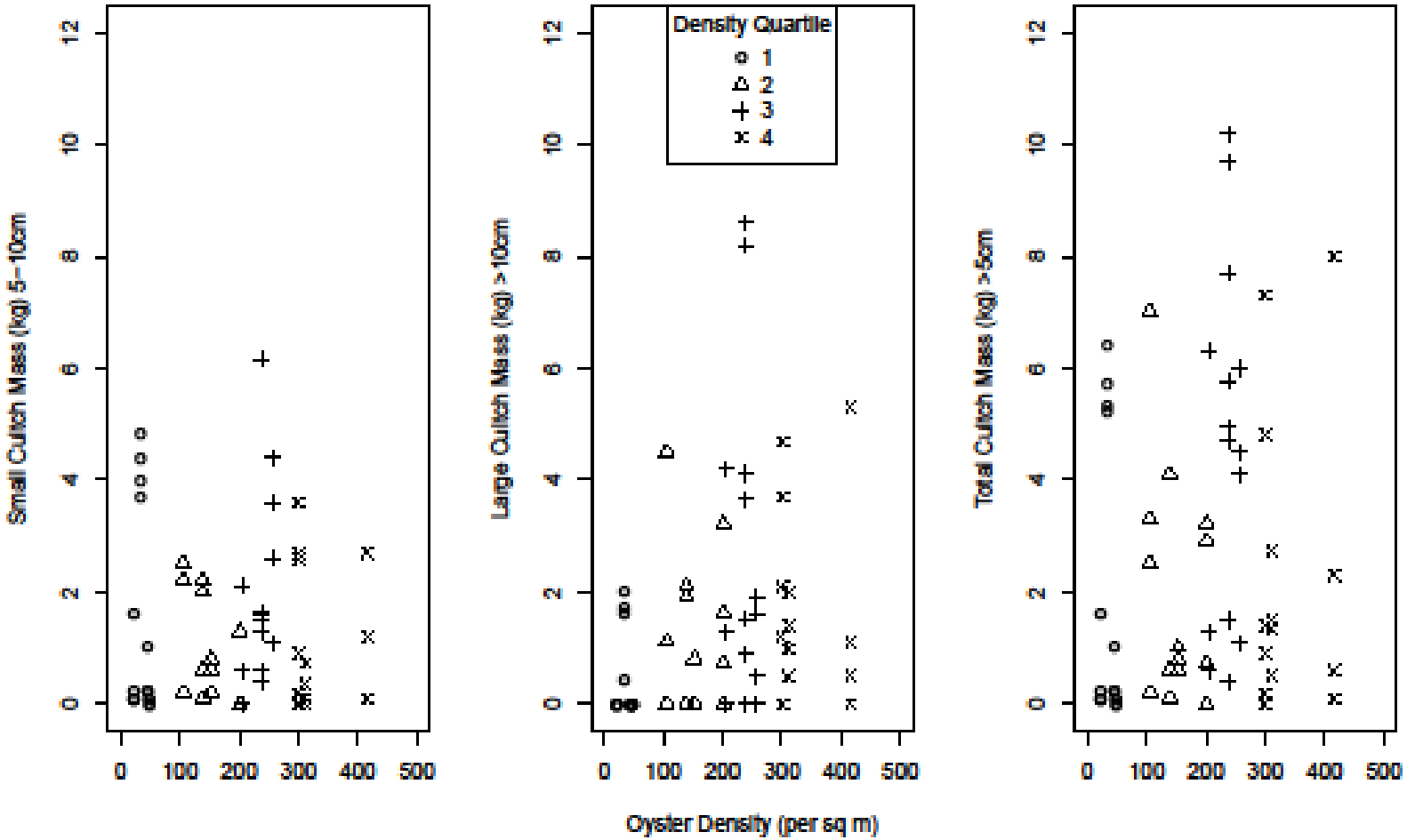
-These concerns likely prohibit any meaningful density-cultch analysis

-If proceeding with analysis, glm

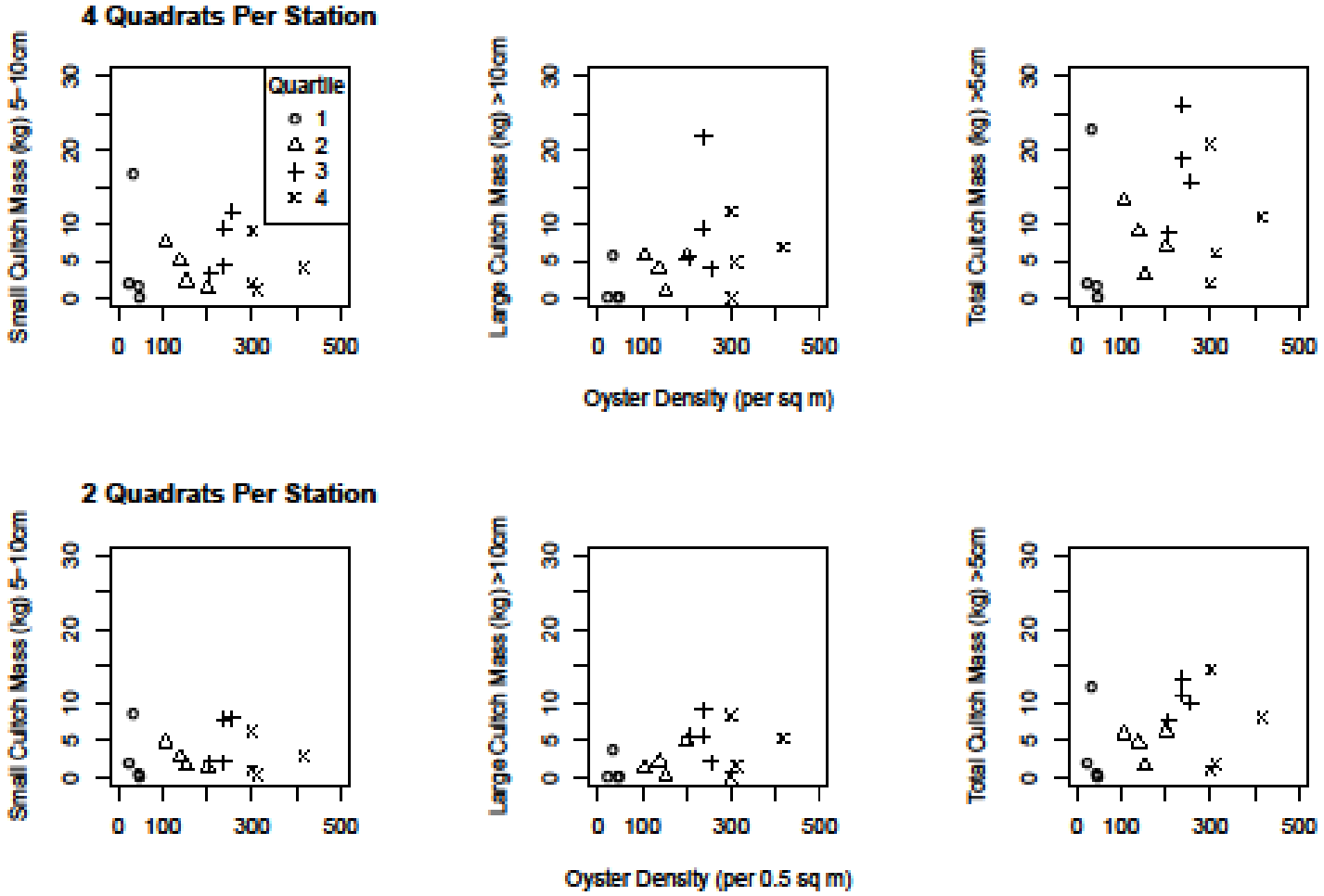
Most interesting result in my opinion:
More total reef in area closed to harvest (t-test, P<0.05) , but variable (red circle)



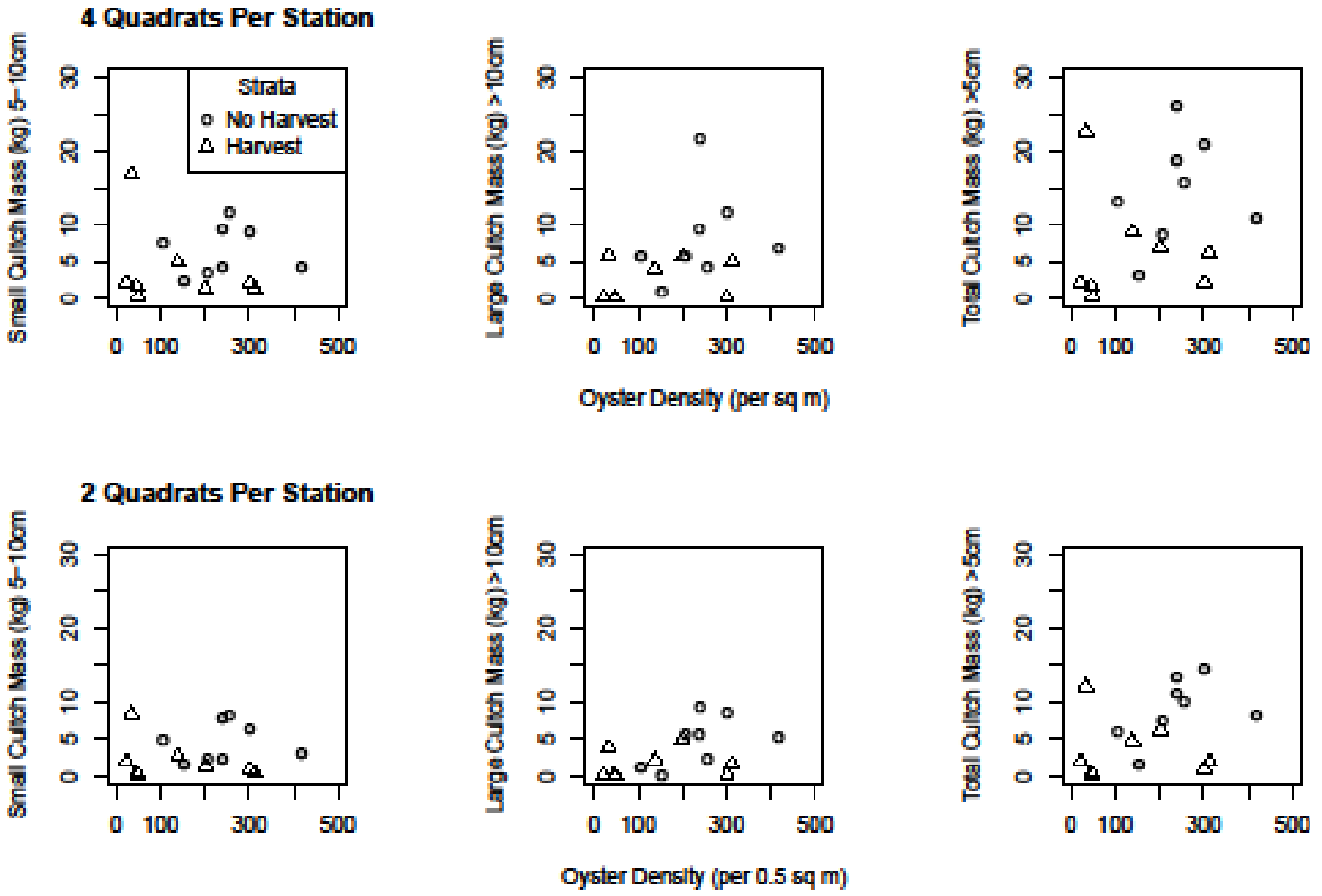
Raw cultch mass data (same density used for 4 cultch mass samples on each reef)



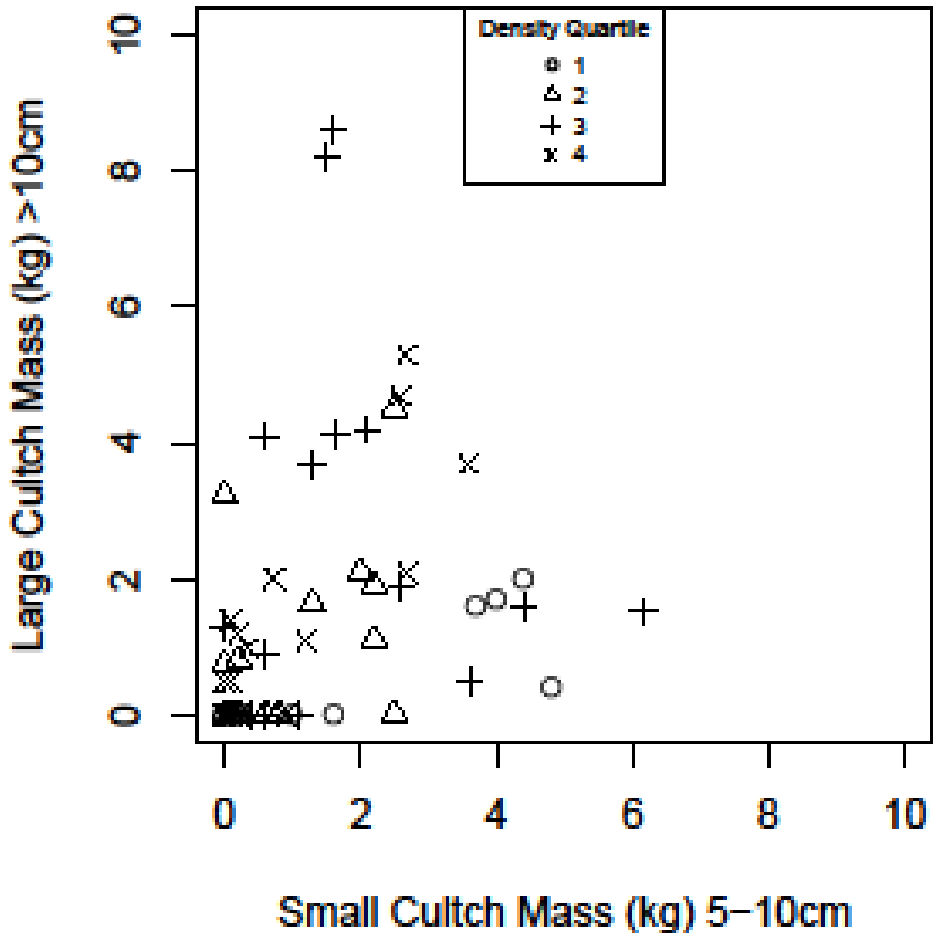
Sum of all cultch mass samples per reef, comparing 4 vs 2 samples, showing quartiles



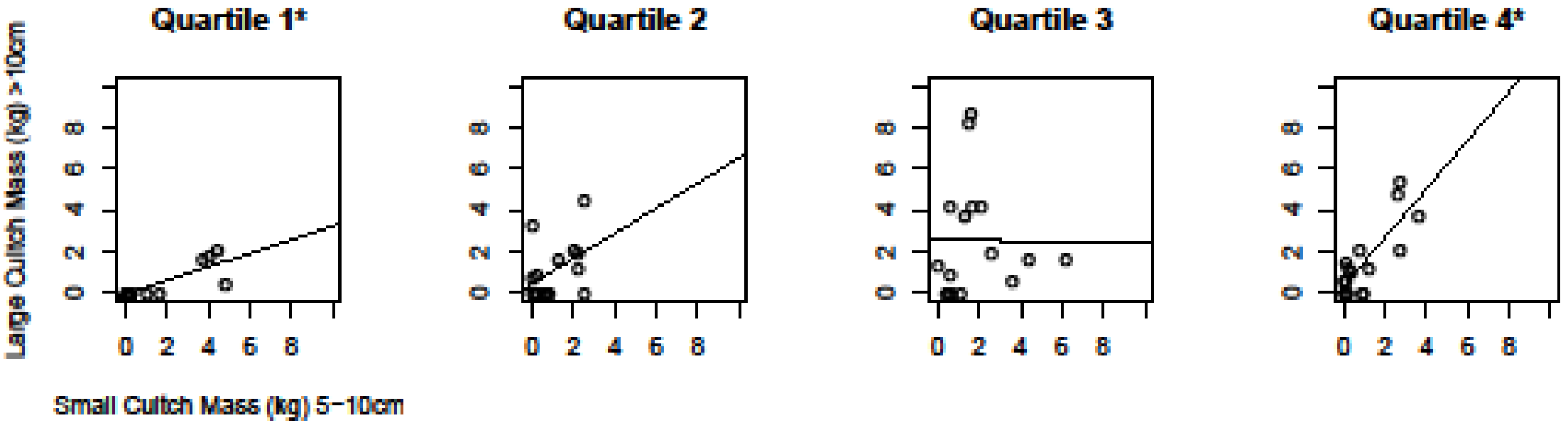
Sum of all cultch mass samples per reef, comparing 4 vs 2 samples, showing strata



Small vs Large Cultch comparison, showing density quartile
Low and High Density reefs (quartile 1 and 4) appear to show best relationship



Small vs Large Cultch comparison, showing density quartile
Low and High Density reefs (quartile 1 and 4) appear to show best relationship
(* indicates linear model P<0.05)



Small vs Large Cultch comparison, showing harvest strata
Poor relationship