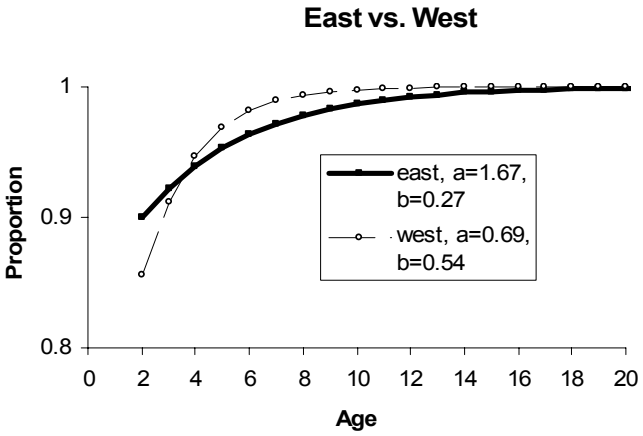
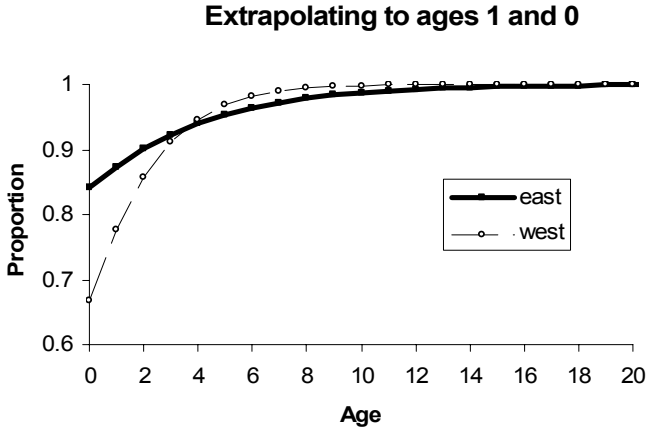
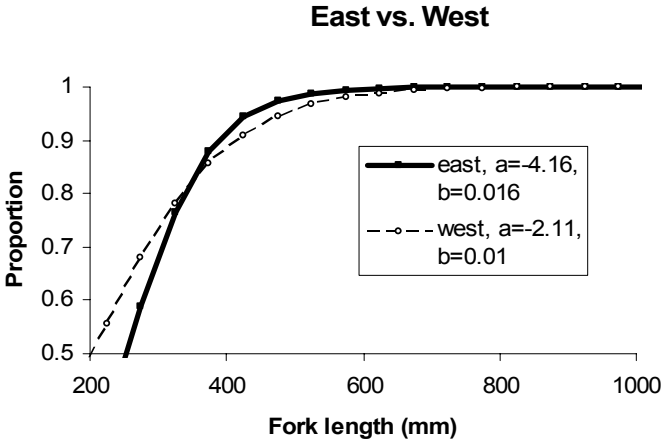
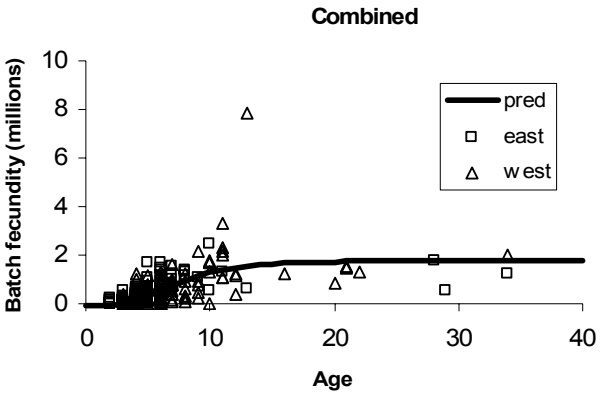
Addendum to "Characterization of red snapper reproduction" SEDAR7-DW-35



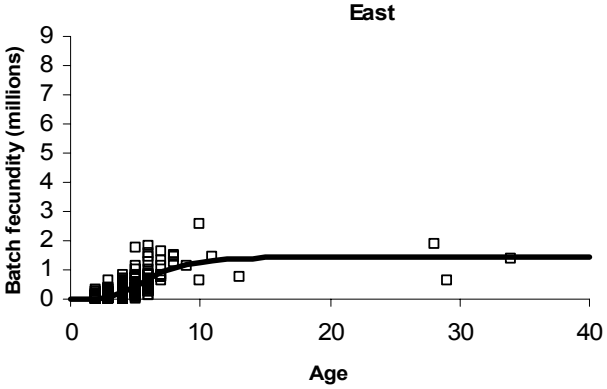


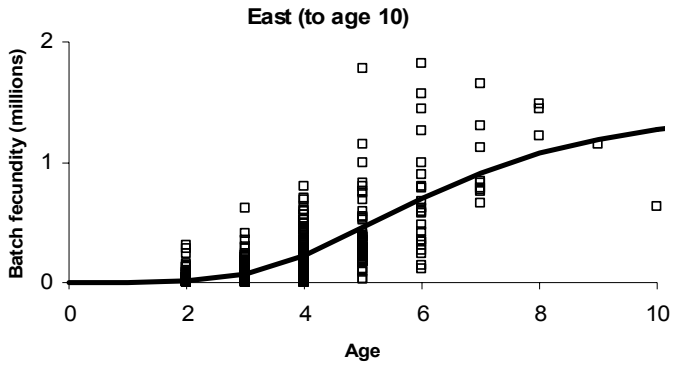


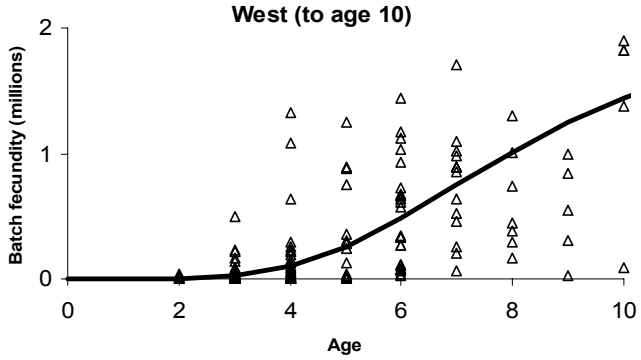
Logistic regression of maturity data based upon individual responses rather than aggregated proportions. This takes sample size into account. Fishing mode was treated as a random effect. The curves for the east and west are significantly different, but not very large. From Clay Porch, NMFS, SEFSC, Miami, FL.

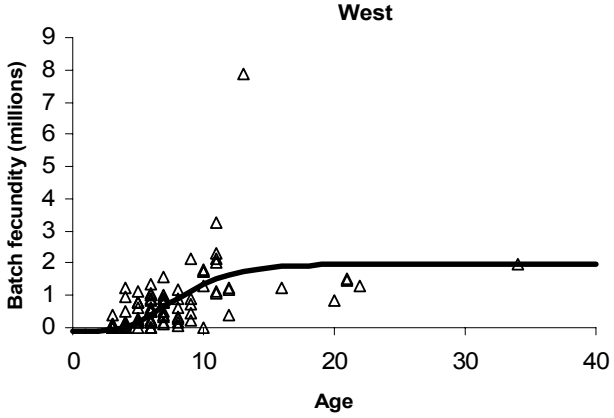

Combined
Batch fecundity (millions)
10
8
6
4
2
0
0
10
20
30
40
Age
pred
east
west


Combined (to age 8)
Batch fecundity (millions)
2
1
0
0
2
4
6
8
Age
pred
east
west

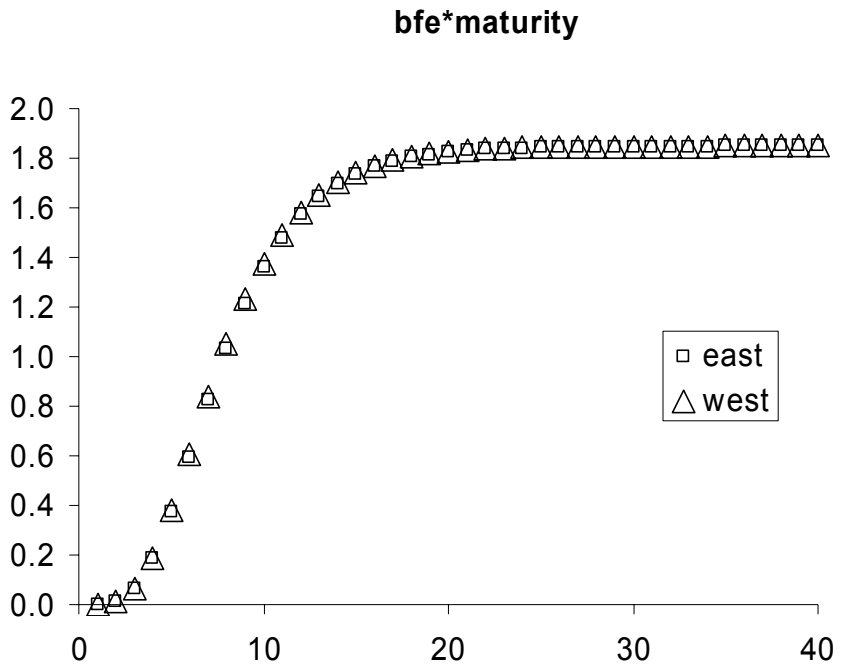

East
Batch fecundity (millions)
9
8
7
6
5
4
3
2
1
0
0
10
20
30
40
Age







Batch fecundity expressed as a power function of the Von Bertalanffy equation (VB): BFE=a*(1-exp(-kt))^b. Based on the AIC information criteria, the VB function fit the data better than a Beverton-Holt asymptotic function or quadratic function. The difference between the curves for the east and west, although discernible, was not statistically significant according to the AIC criteria. From Clay Porch, NMFS, SEFSC, Miami, FL.



Product of batch fecundity at age (east and west combined) and maturity at age (east and west distinct). The batch fecundity of younger animals (age 2 and 3) is so small that the differences observed in the maturation rates between the east and the west have no discernible effect on the relative production of each age class.