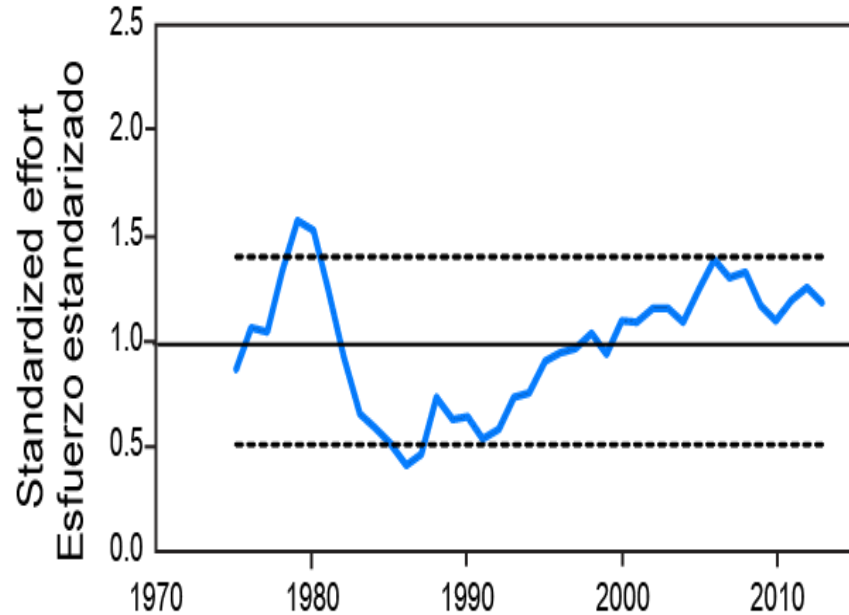
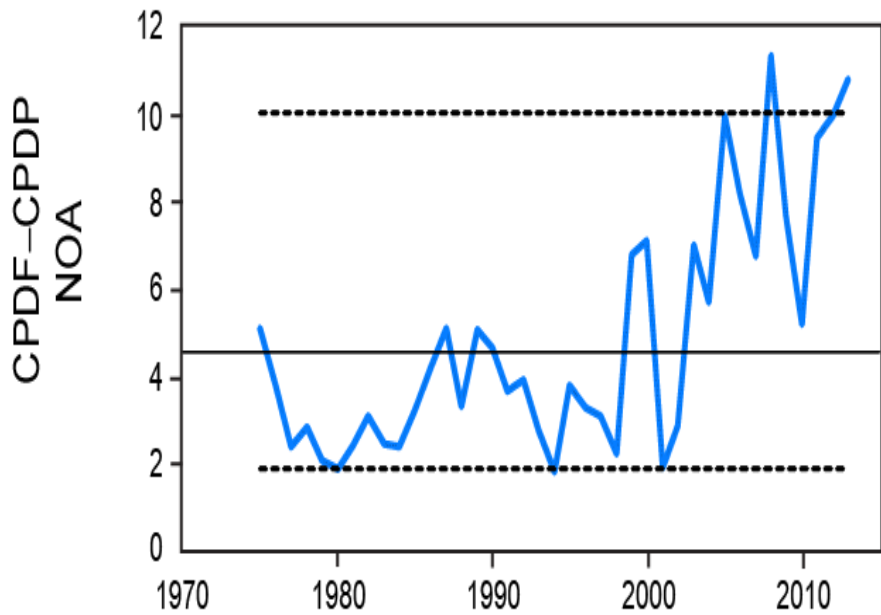
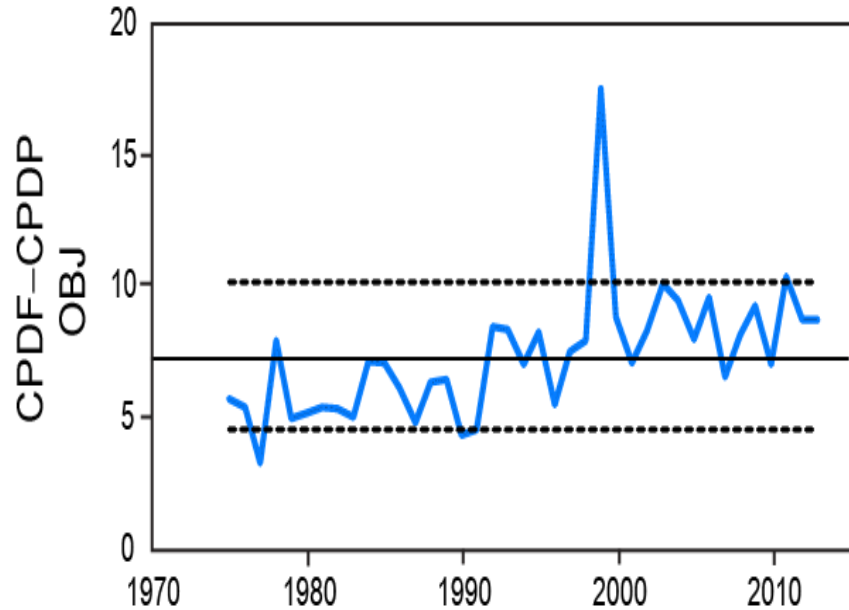
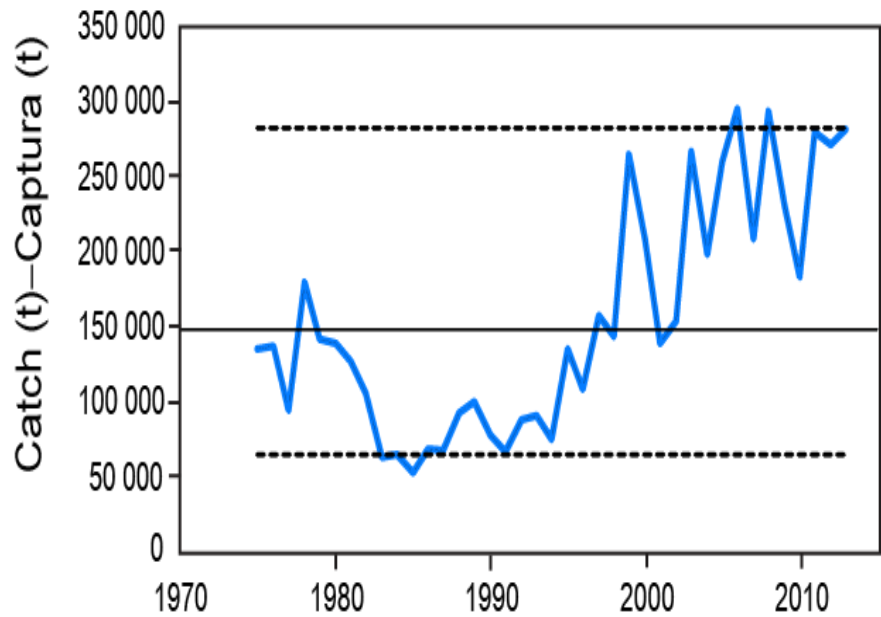
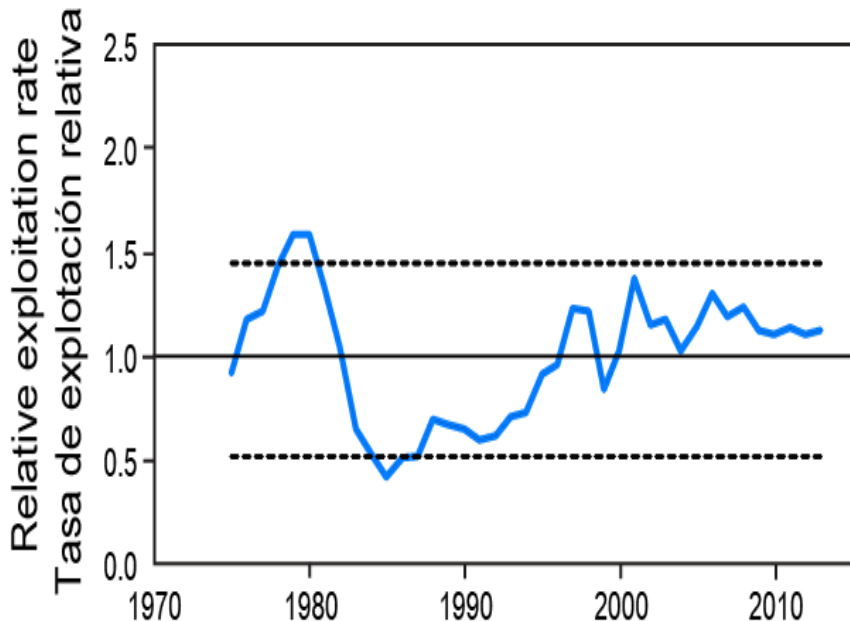
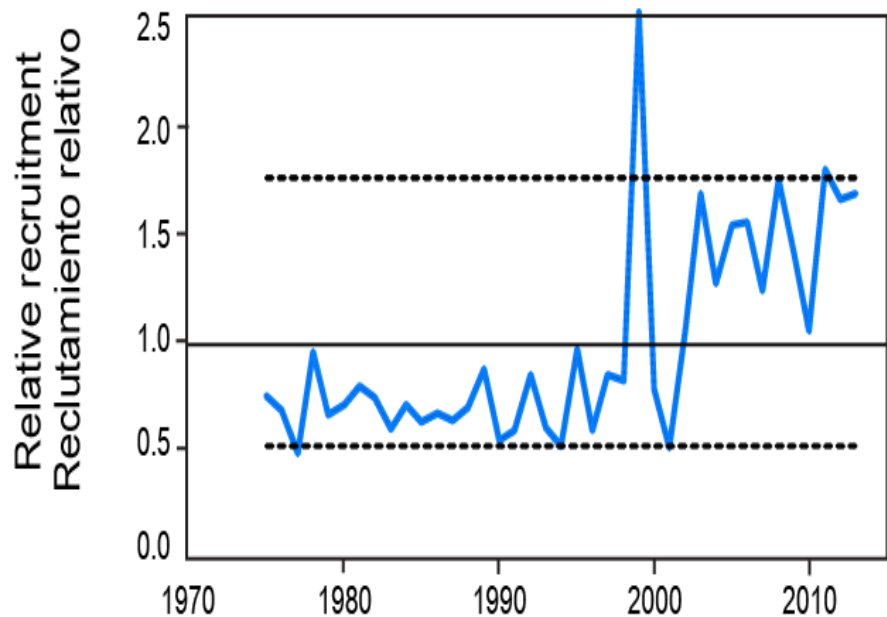
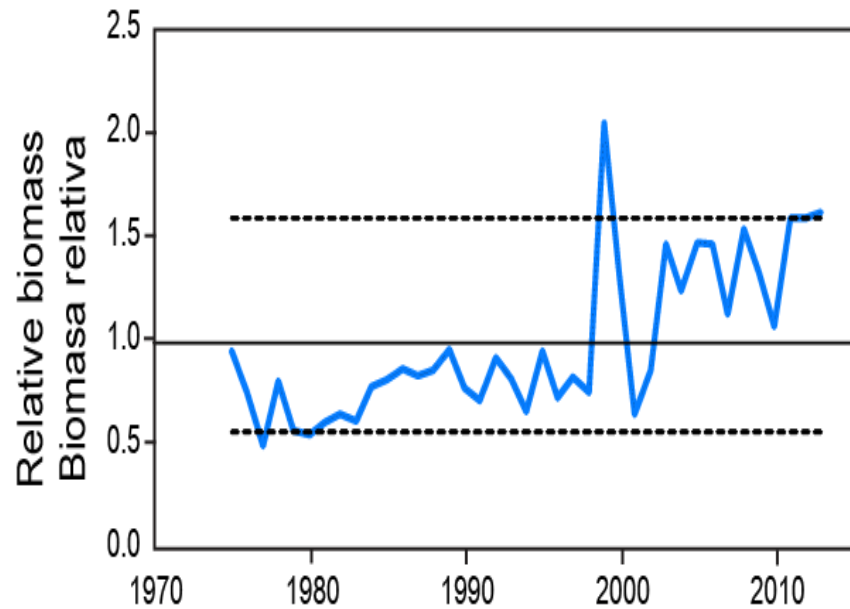
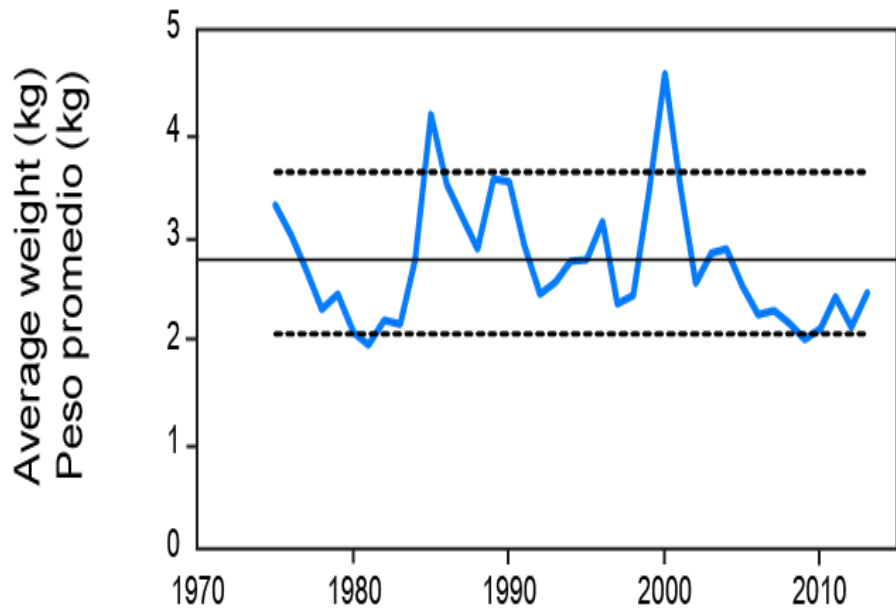


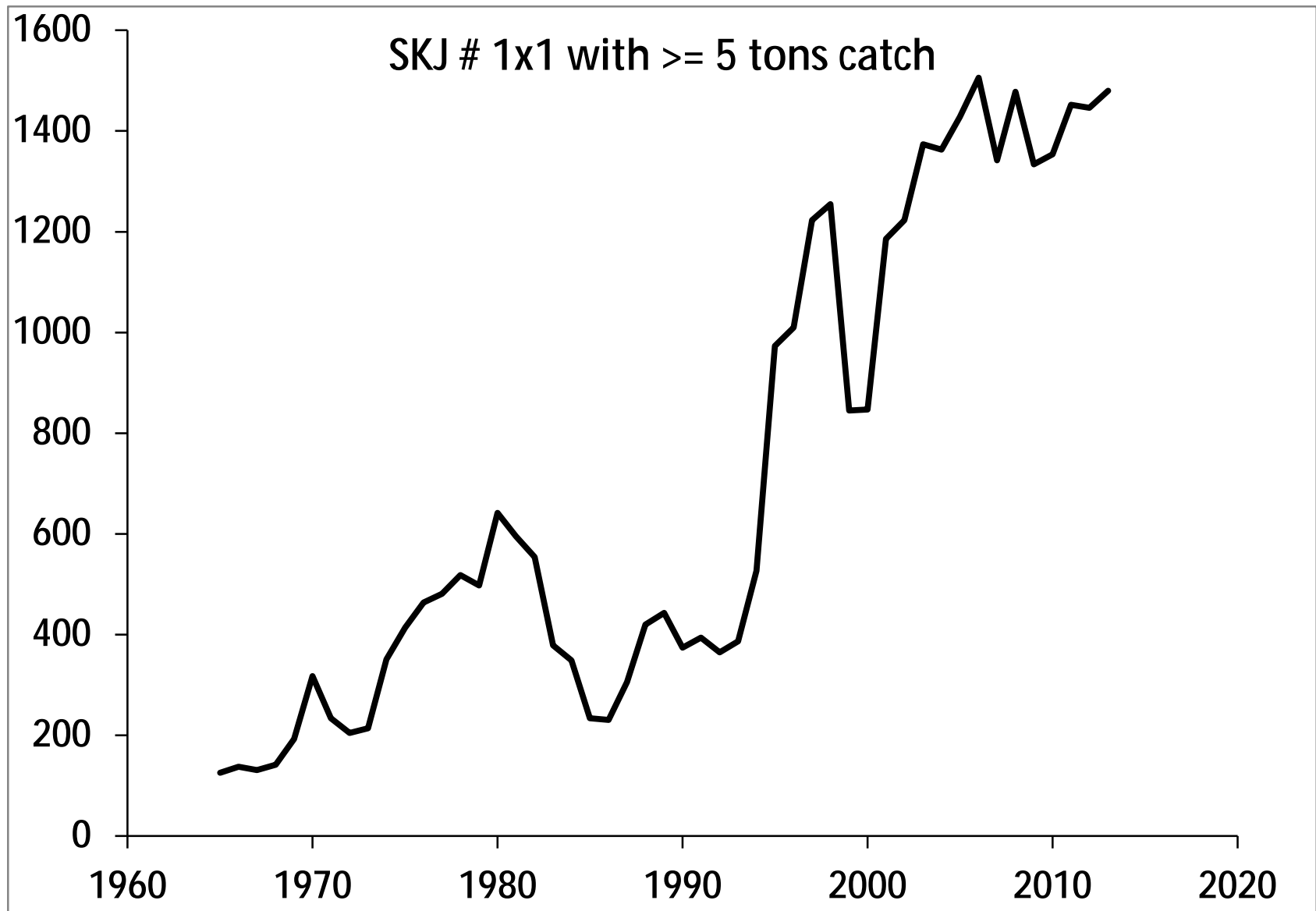
INDICATORS OF STOCK STATUS FOR SKIPJACK TUNA IN THE EASTERN PACIFIC OCEAN

Indicators

- Based on data (catch, effort, CPUE, and mean weight)
- Based on a simple population dynamics model (biomass, recruitment, and exploitation rate)
- Reference levels based on the 5th and 95th percentiles







Conclusions

- The main concern with the skipjack tuna stock was the constantly increasing exploitation rate.
- However, this appears to have leveled off in recent years, including the expansion of the fishery.
- The indicators have yet to detect any adverse consequence of this increase in exploitation rate.
- The average weight was below its lower reference level in 2009, which can be a consequence of overexploitation, but it can also be caused by recent recruitments being greater than past recruitments or expansion of the fishery into areas occupied by smaller skipjack.
- The continued decline in average length is a concern and, combined with leveling off of catch and CPUE, may indicate that the exploitation rate is approaching or above the level associated with MSY