Does the ratio of juvenile sardine:anchovy observed in the fishery and the recruit surveys correlate with that predicted by models?

SWG-PEL Meeting

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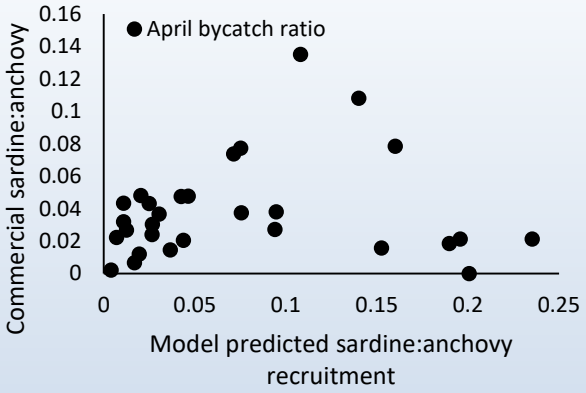
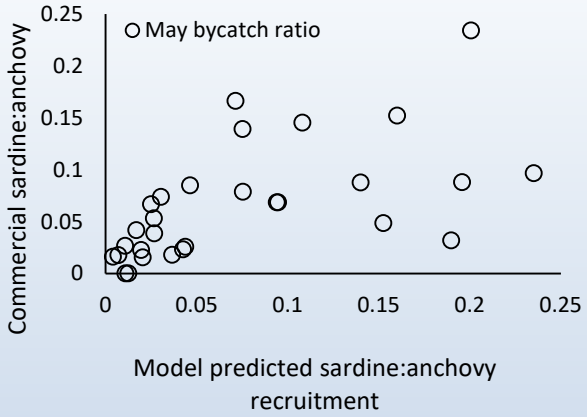
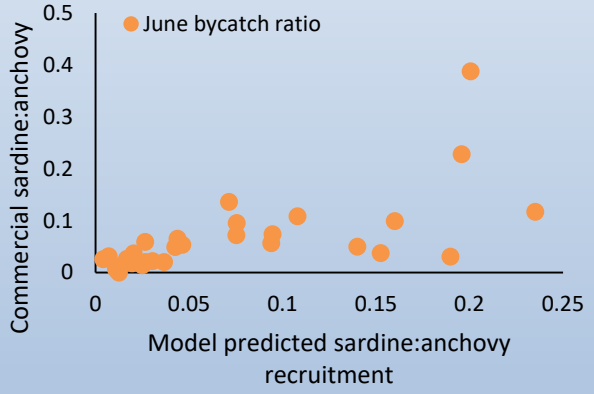
What is the “true” ratio of sardine : anchovy recruitment

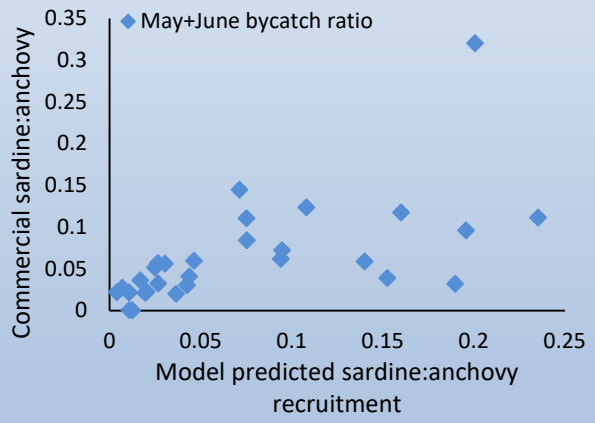
- Can observations available in real-time from the fishery or from the recruit survey provide a good indication of the true underlying ratio of sardine:anchovy recruitment?
- (“True” = model predicted)

Commercial bycatch ratios



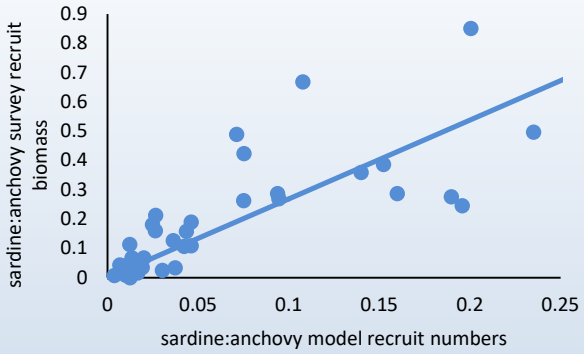


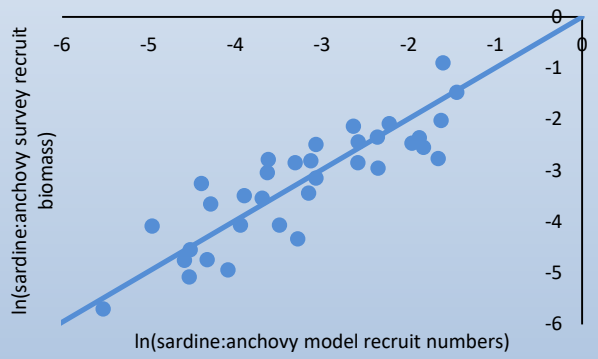


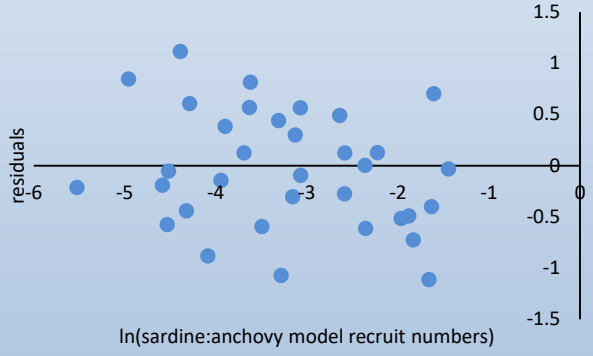


- Bycatch ratio in commercial catches v “true” ratio at the time of the survey
- Observed bycatch ratio **CAN’T** be used to provide a reliable indication of the underlying ‘true’ ratio. Low ratios occur with both low and high true ratios (possibly due to management). But high bycatch ratios only observed during years of medium to high ‘true’ ratios

Survey ratios in biomass

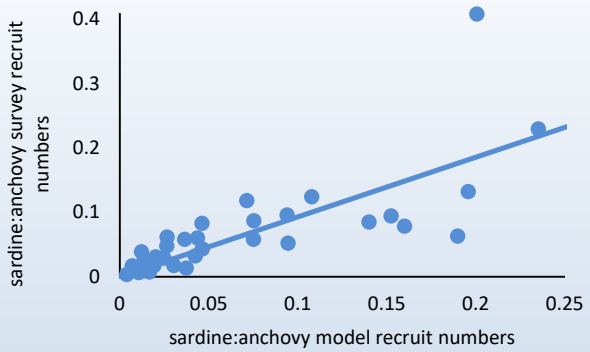


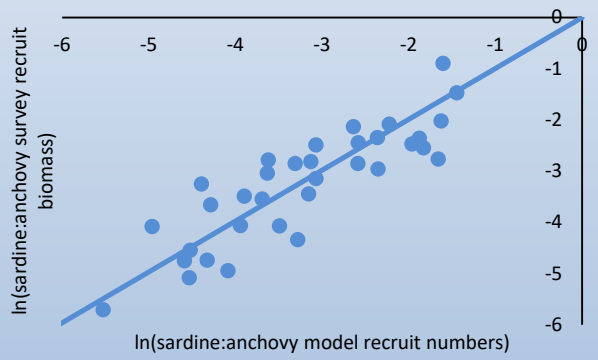


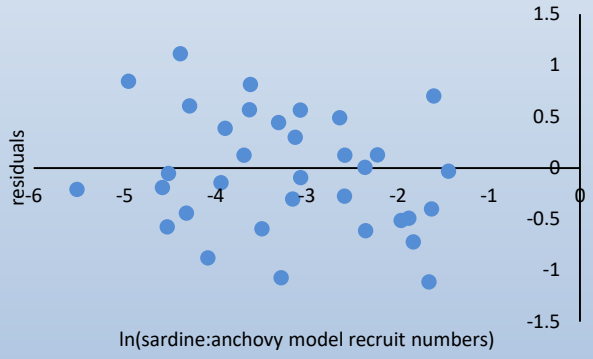


- Observed ration ~2.7x “true” ratio at the time of the survey (slope of 0.69 in log space)
- Observed bycatch ratio **COULD** be used to provide an indication of the underlying ‘true’ ratio. There is a close to linear relationship, but the standard deviation of the residuals in log space is 0.73

Survey ratios in numbers







- Observed ration ~0.9x “true” ratio at the time of the survey (slope of 0.99 in log space)
- Observed bycatch ratio **COULD** be used to provide an indication of the underlying ‘true’ ratio. There is a close to linear relationship, but the standard deviation of the residuals in log space is 0.58

Does the ratio of juvenile sardine:anchovy observed in the fishery and the recruit surveys correlate with that predicted by models?

Thank you!