

Some clarification of plots in FISHERIES/NOV/2019/SWG-PEL/34

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Enquiries to the authors have indicated that there is some confusion about standard errors and standard errors of the mean of δ shown in Figures 1A and 1B of FISHERIES/NOV/2019/SWG-PEL/34. These further plots are intended to assist readers on that point.

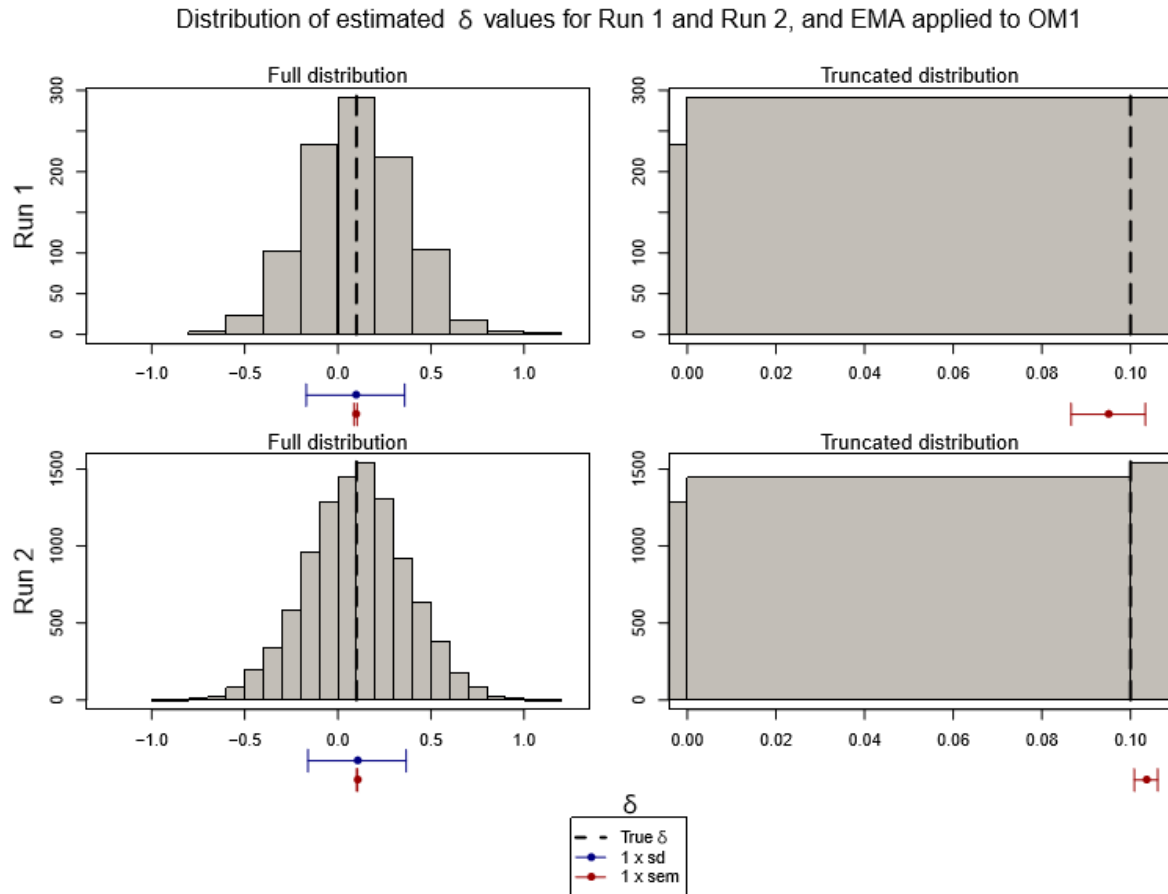


Figure 1: Histograms of the δ parameter are shown for Run1 ($M = 1000$ simulations) and Run2 ($M = 10\,000$ simulations) for the OM1+EMA combination of FISHERIES/NOV/2019/SWG-PEL/34. The top row shows the plots for Run1, with the left plot showing the full distribution, and the error bars underneath the plot marking 1x standard deviation from the mean (blue lines) and 1x standard error of the mean (which is calculated as standard deviation divided by the square root of the number of simulations M) shown by the red error bars. The plot on the right repeats this, but with the horizontal axis truncated for a clearer view of the standard error of the mean. The second row shows the same information for Run 2. The vertical dashed line marks the value 0.1, which is the value used for δ when generating the pseudo data (i.e. the “true” value). The mean of the estimates of δ is in each case within two standard error of the mean estimates of the true value of 0.1, thus providing no indication of estimator bias for δ itself.

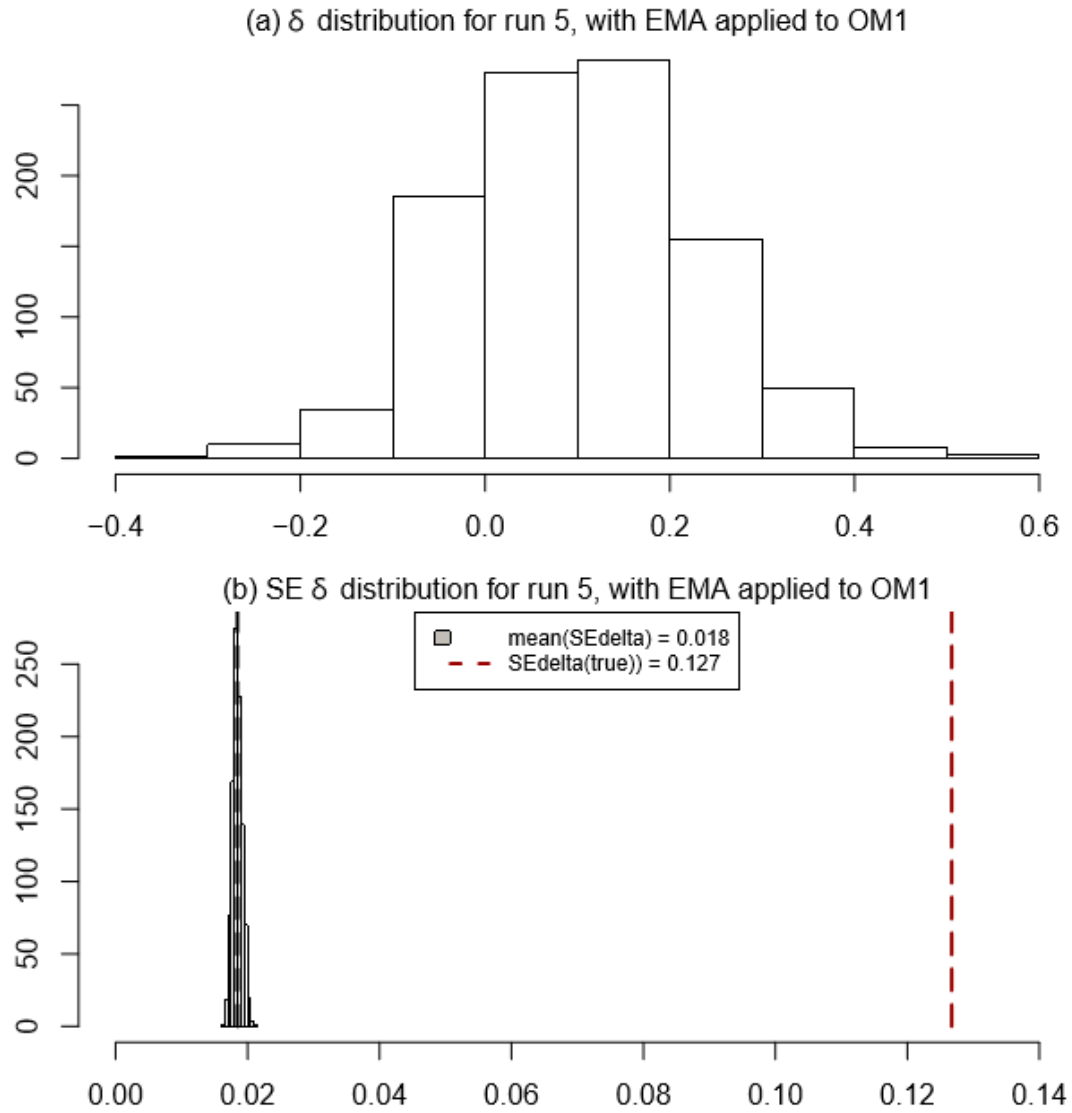


Figure 2: The top plot shows the distribution for δ for Run 5 of FISHERIES/NOV/2019/SWG-PEL/34, while the bottom plot shows a similar distribution of the SE_δ values (where the SE_δ values are the estimates of precision for δ produced by R for each individual simulation). The red vertical dashed line in (b) marks true SE_δ , the standard deviation of the δ values in (a). The values of the mean of the SE_δ values, and for the true SE_δ are provided in the legend. Their difference is the bias of this estimate of SE_δ .