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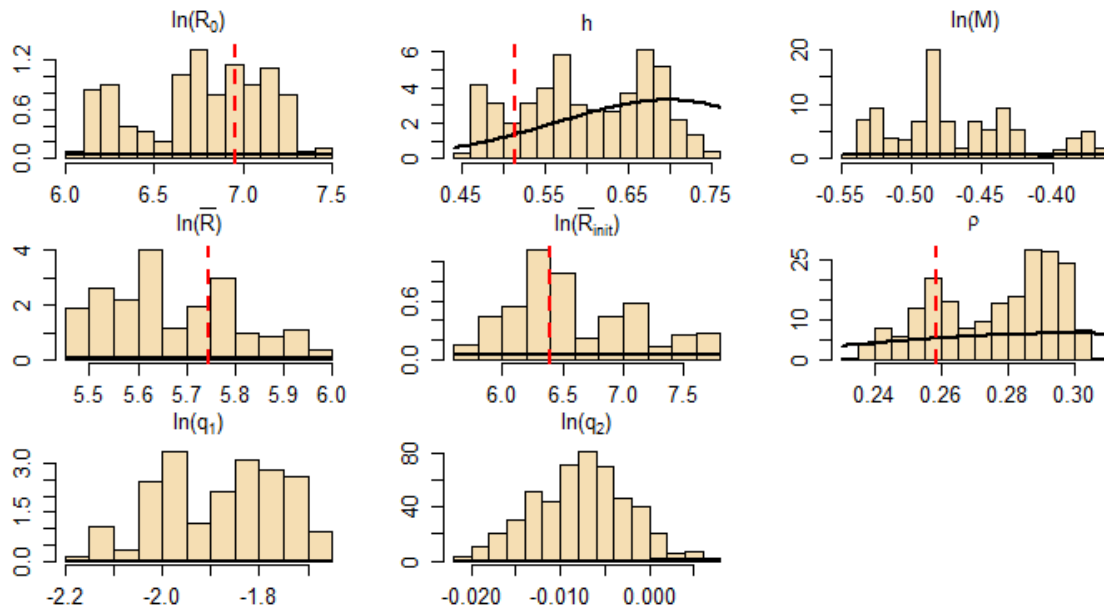


Figure 1. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Haida Gwaii AM2 model with constant natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

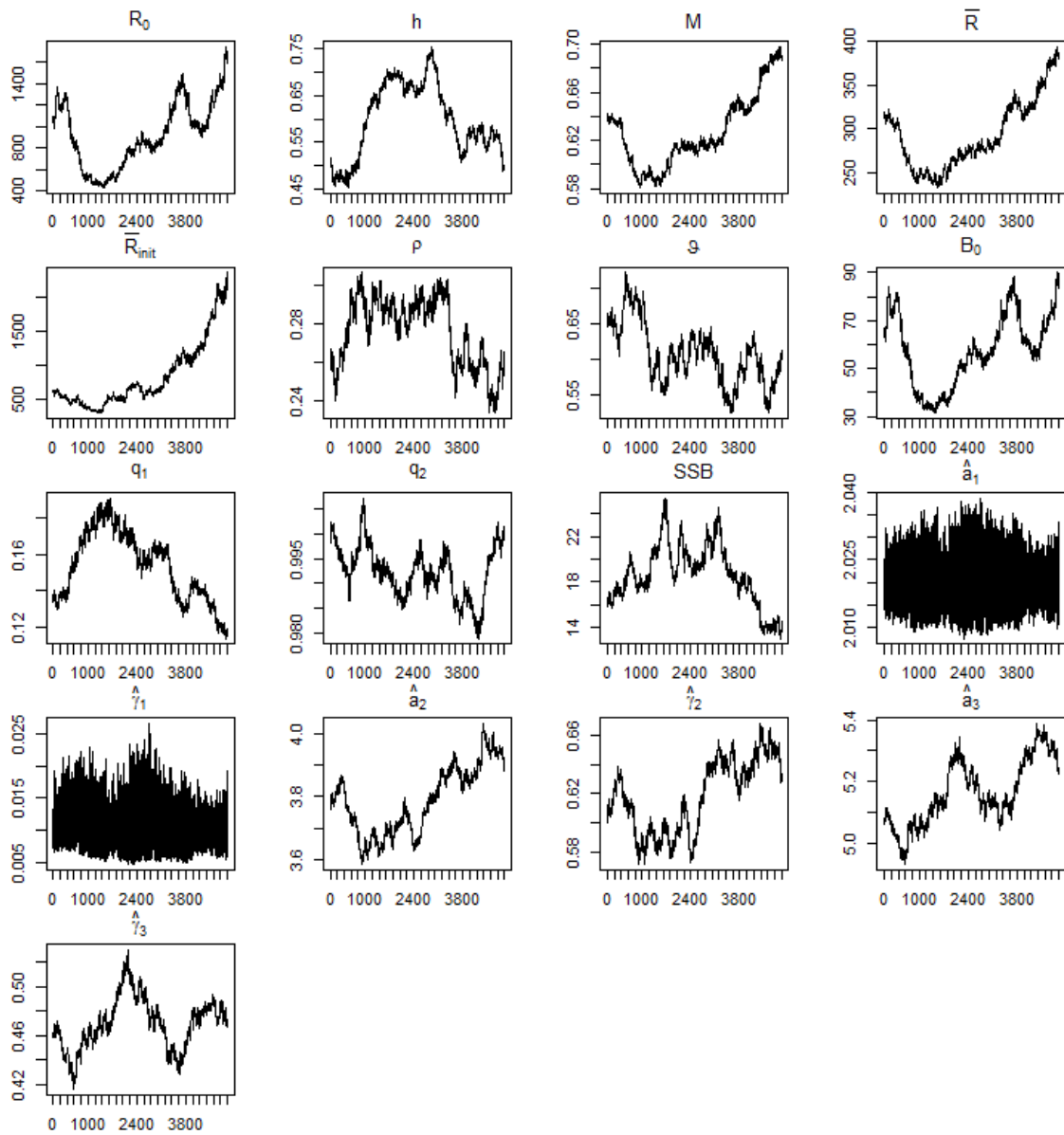


Figure 2. Trace plots for MCMC output of estimated parameters for the Haida Gwaii AM2 model with constant natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

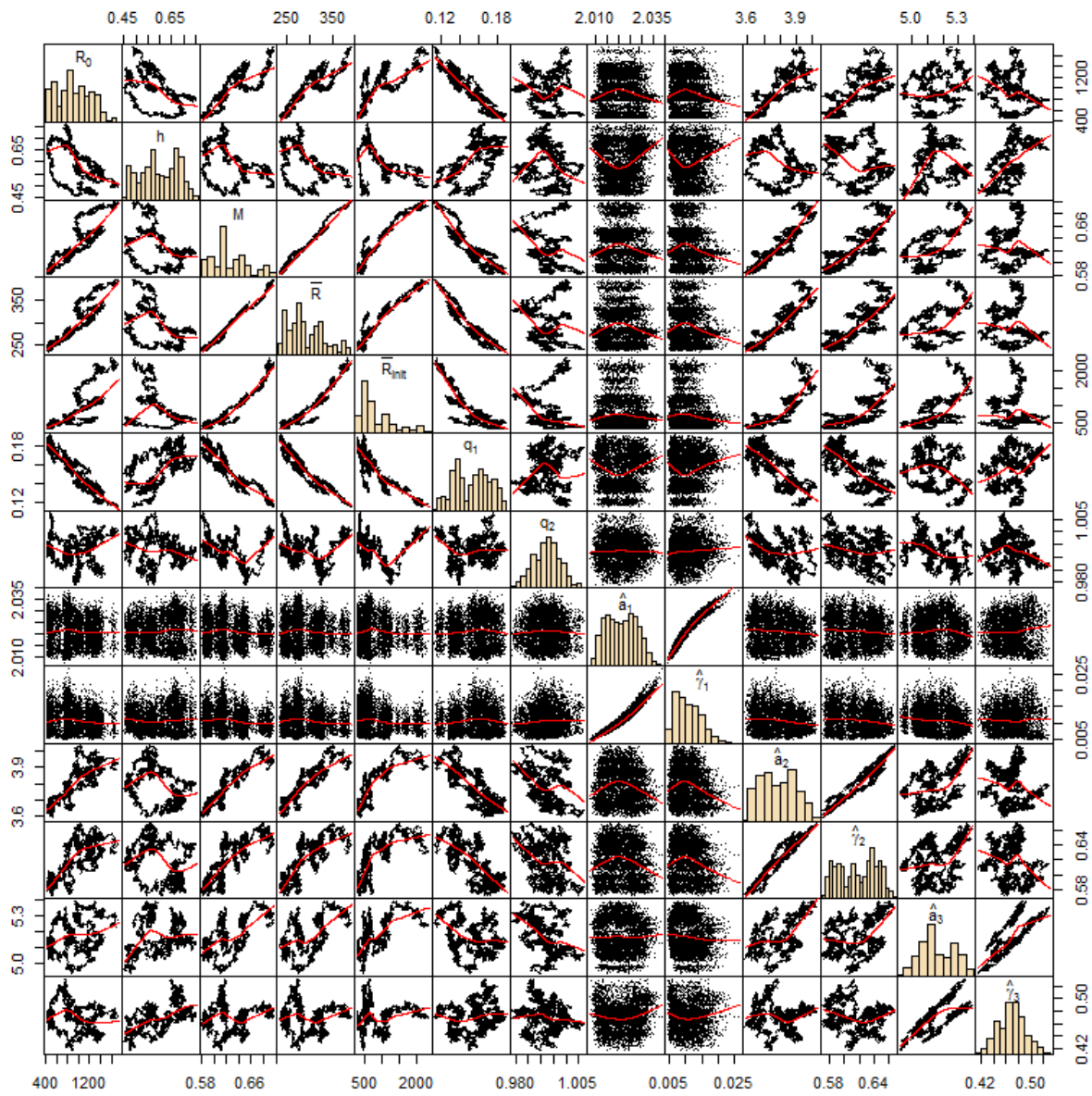


Figure 3. Pairs plots for MCMC output of estimated parameters in for the Haida Gwaii AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

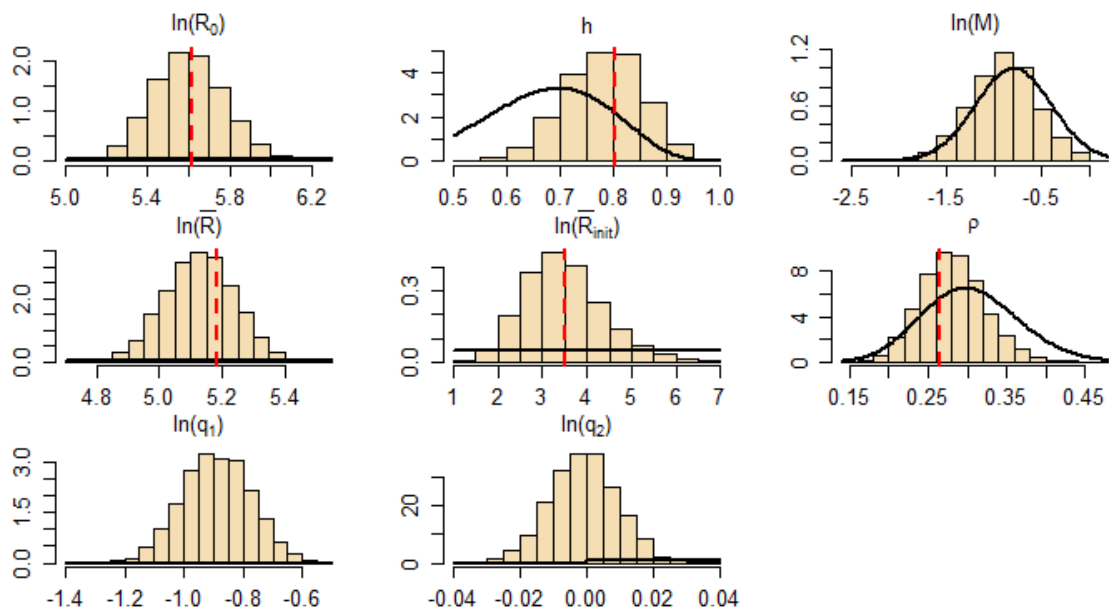


Figure 4. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Haida Gwaii AM2 model with time-varying natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

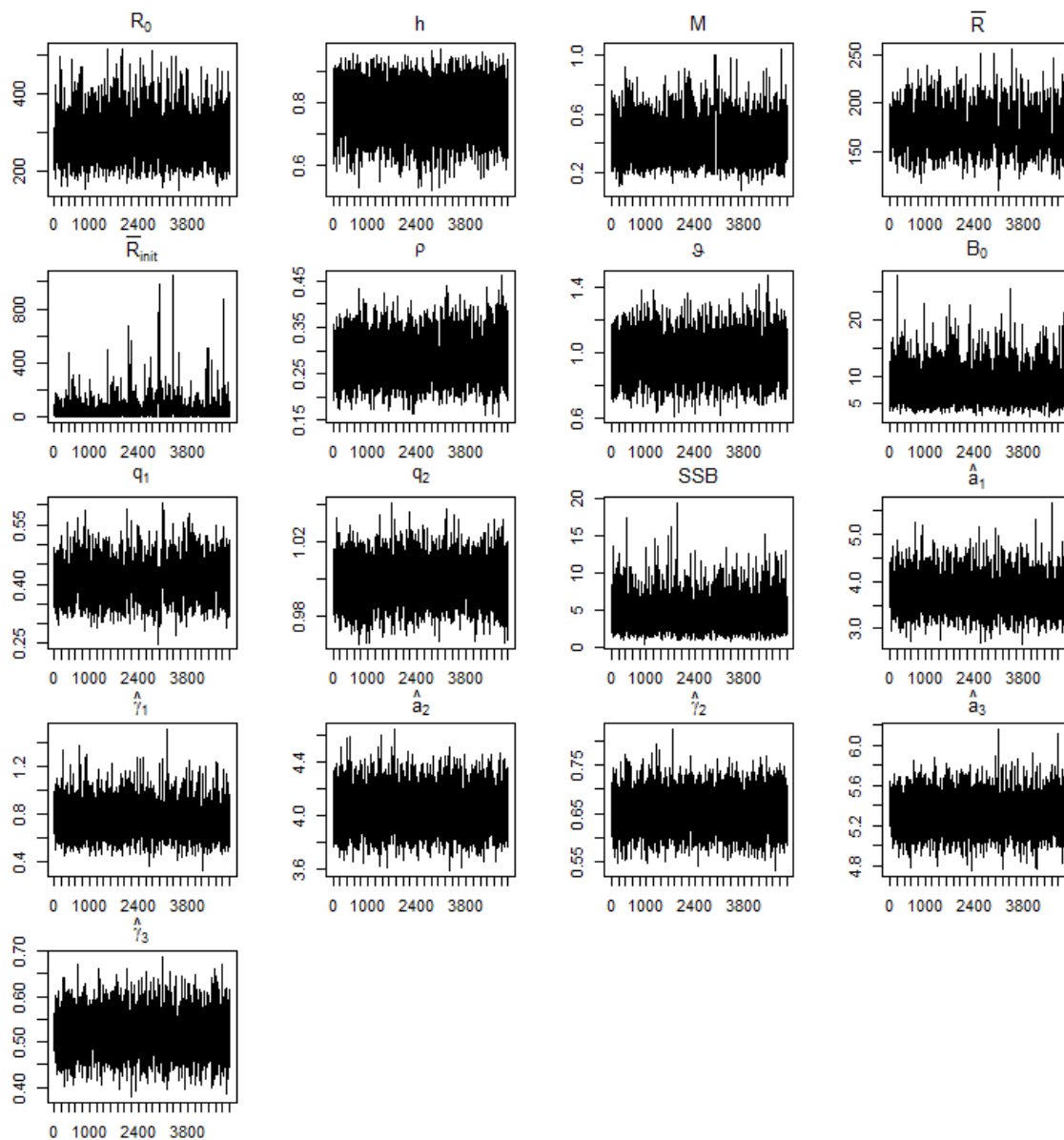


Figure 5. Trace plots for MCMC output of estimated parameters for the Haida Gwaii AM2 model with time-varying natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

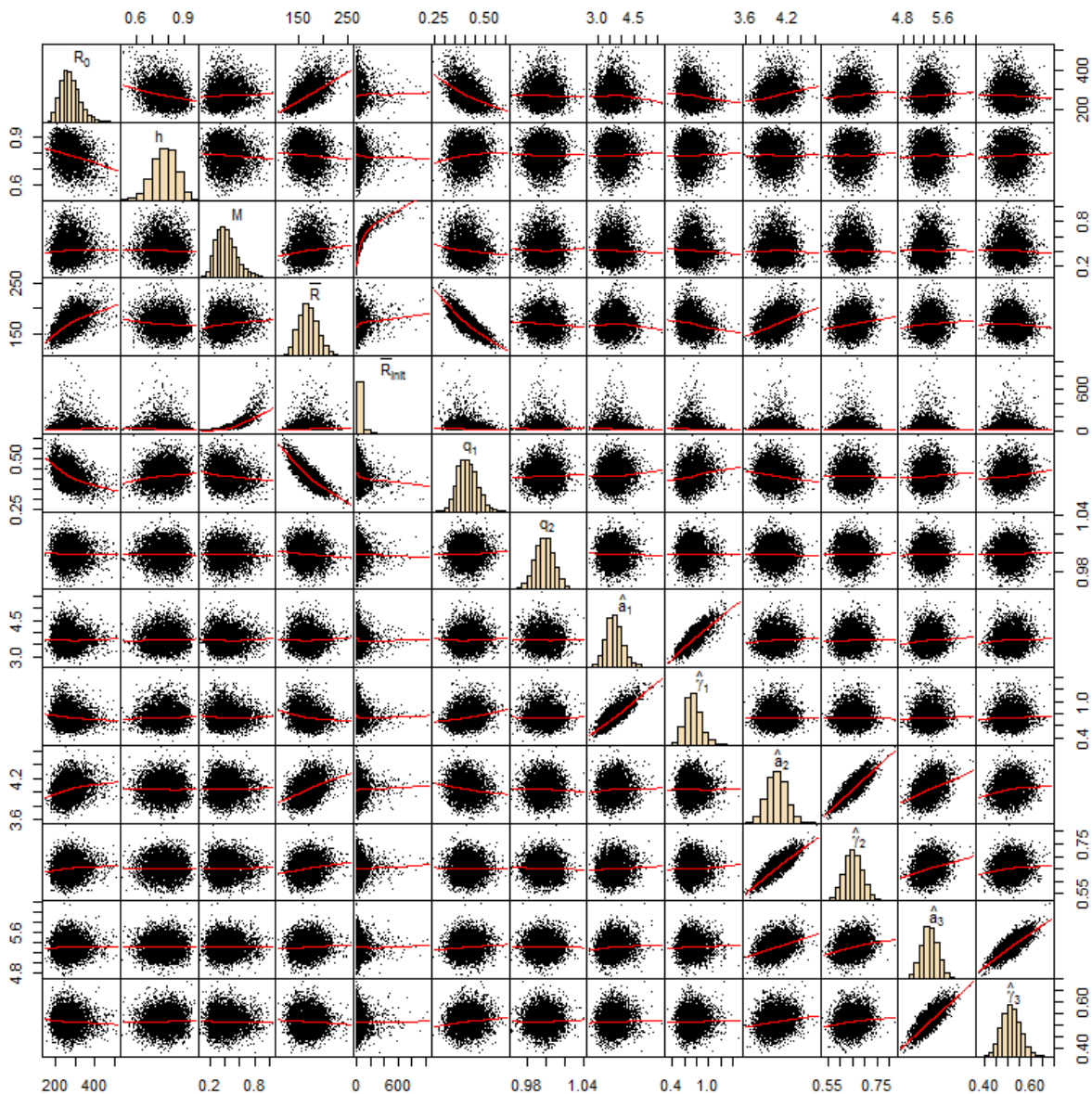


Figure 6. Pairs plots for MCMC output of estimated parameters in for the Haida Gwaii AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

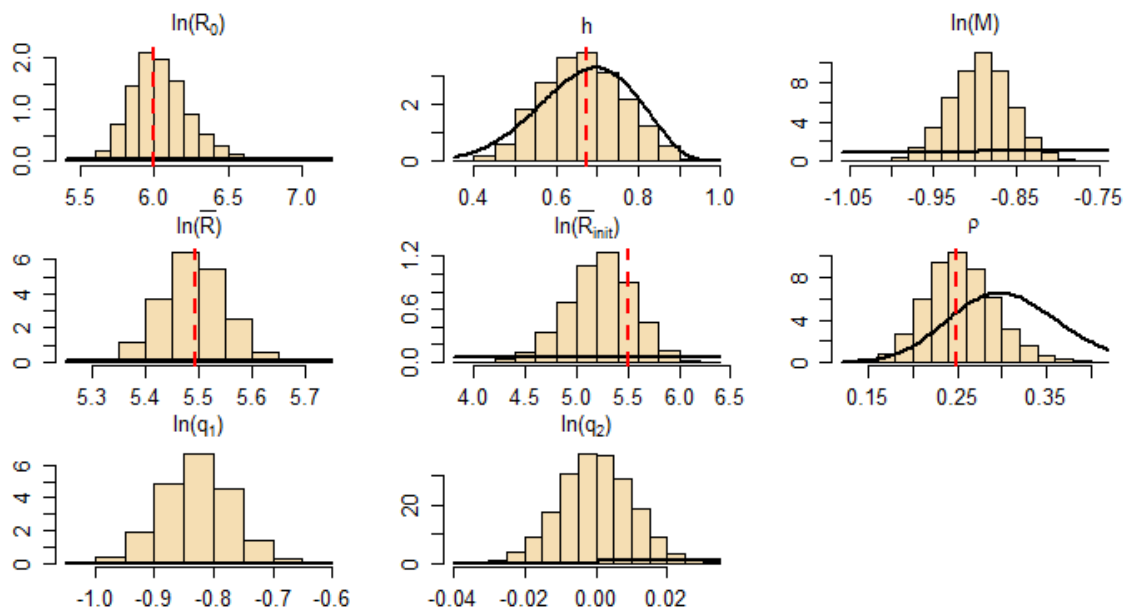


Figure 7. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Prince Rupert District AM2 model with constant natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.



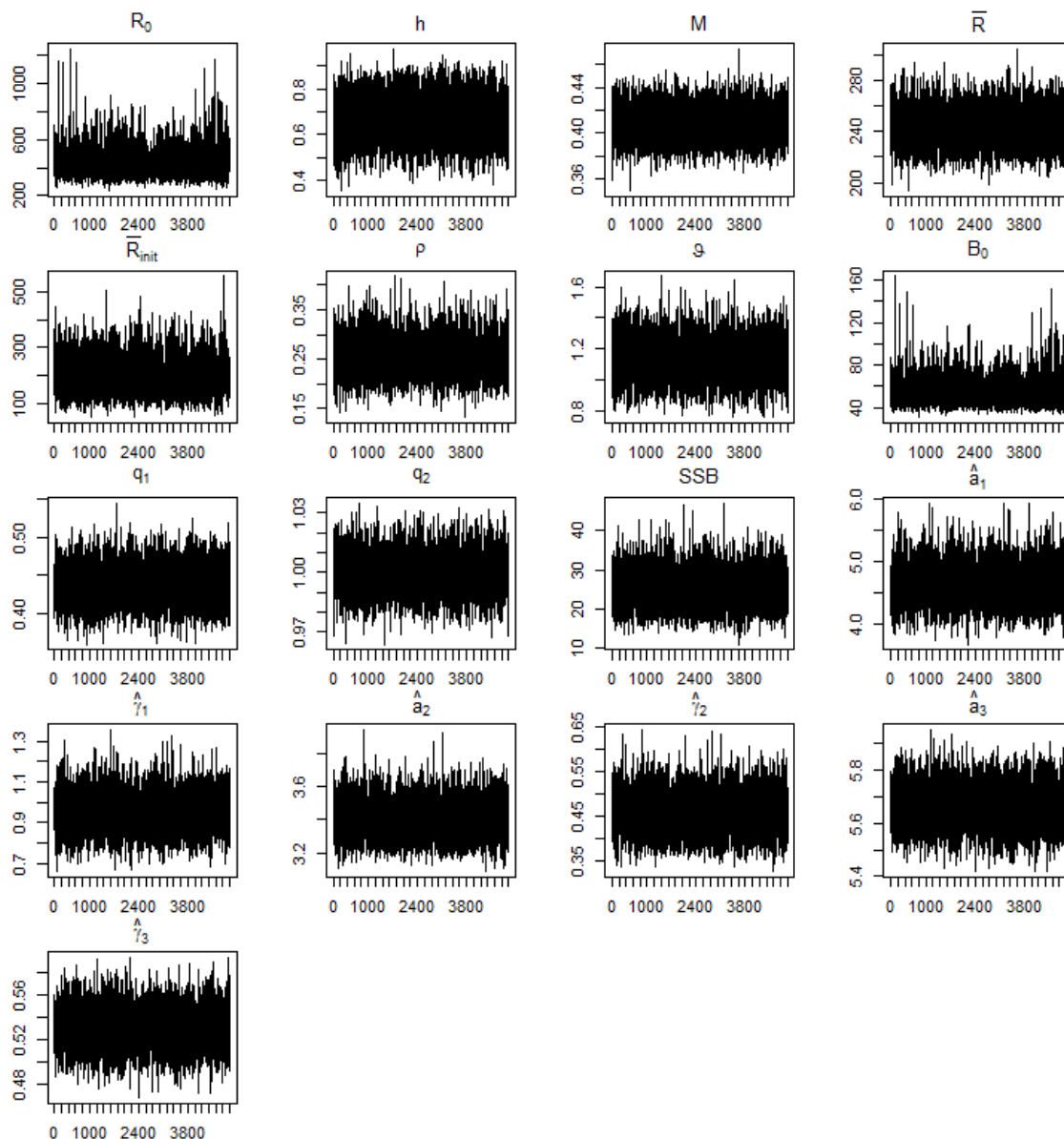


Figure 8. Trace plots for MCMC output of estimated parameters for the Prince Rupert District AM2 model with constant natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

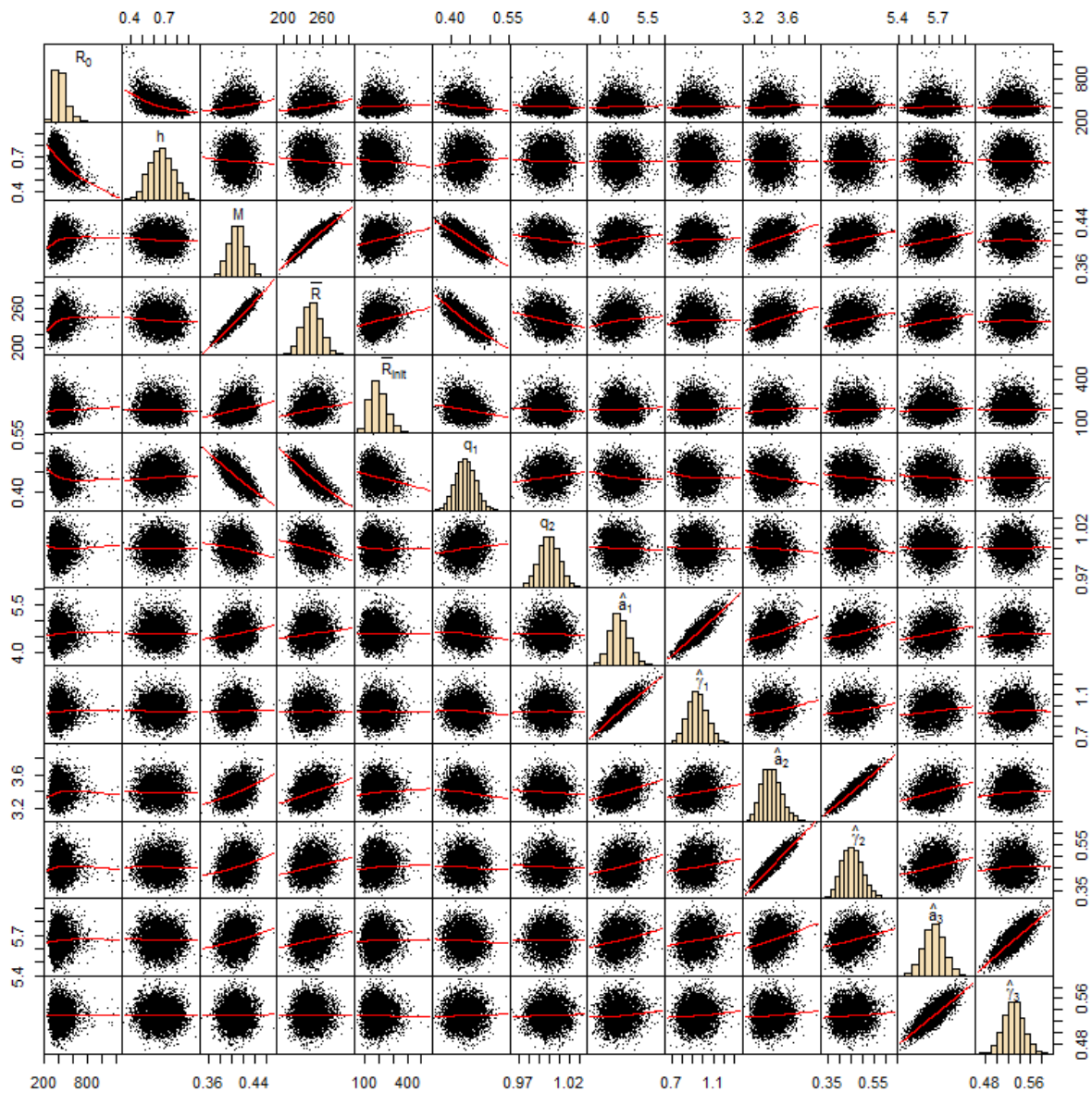


Figure 9. Pairs plots for MCMC output of estimated parameters in for the Prince Rupert District AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

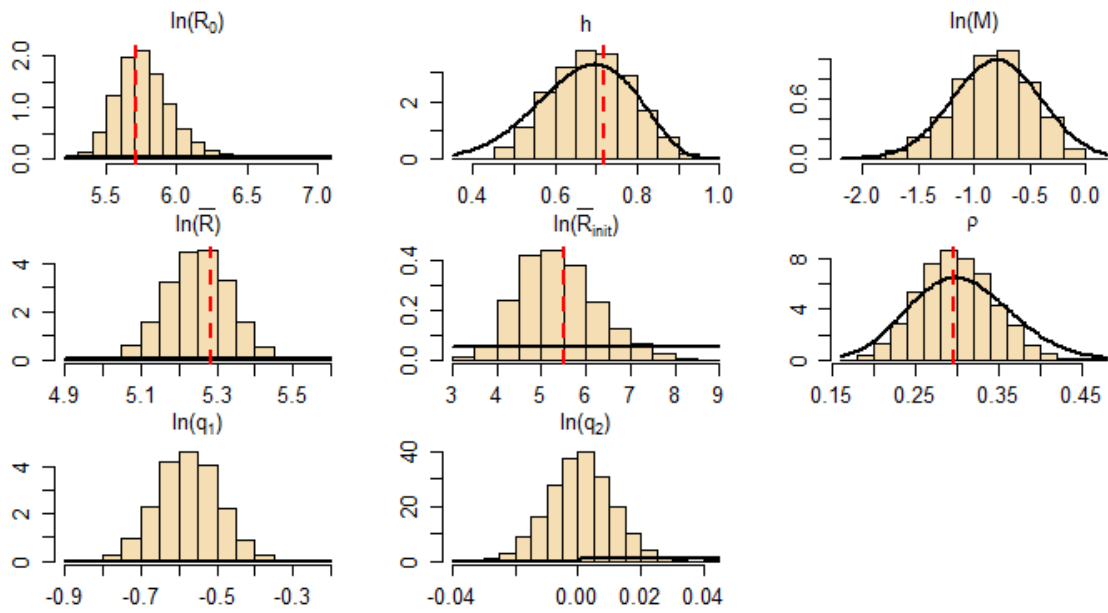


Figure 10. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Prince Rupert District AM2 model with time-varying natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

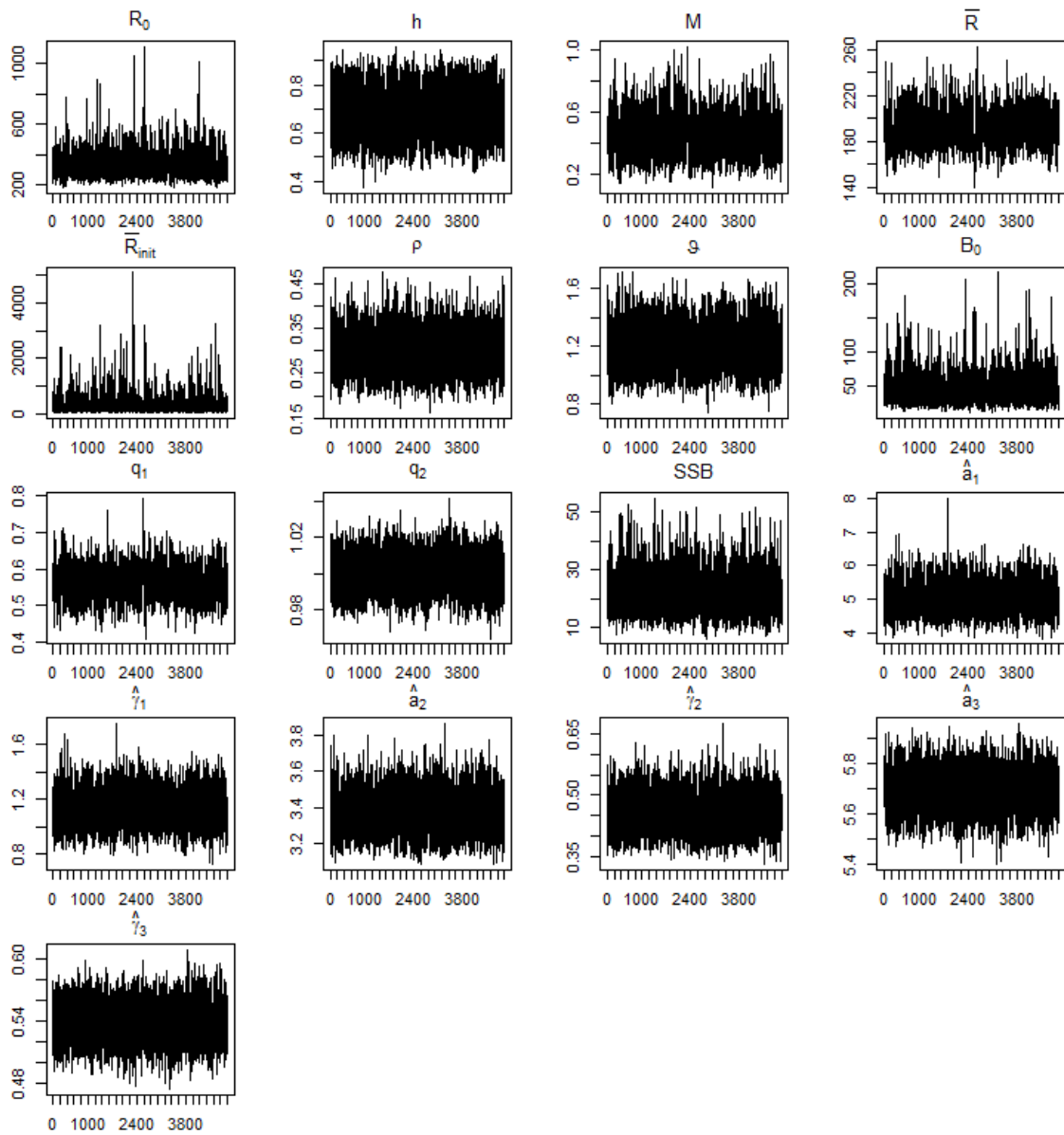


Figure 11. Trace plots for MCMC output of estimated parameters for the Prince Rupert District AM2 model with time-varying natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

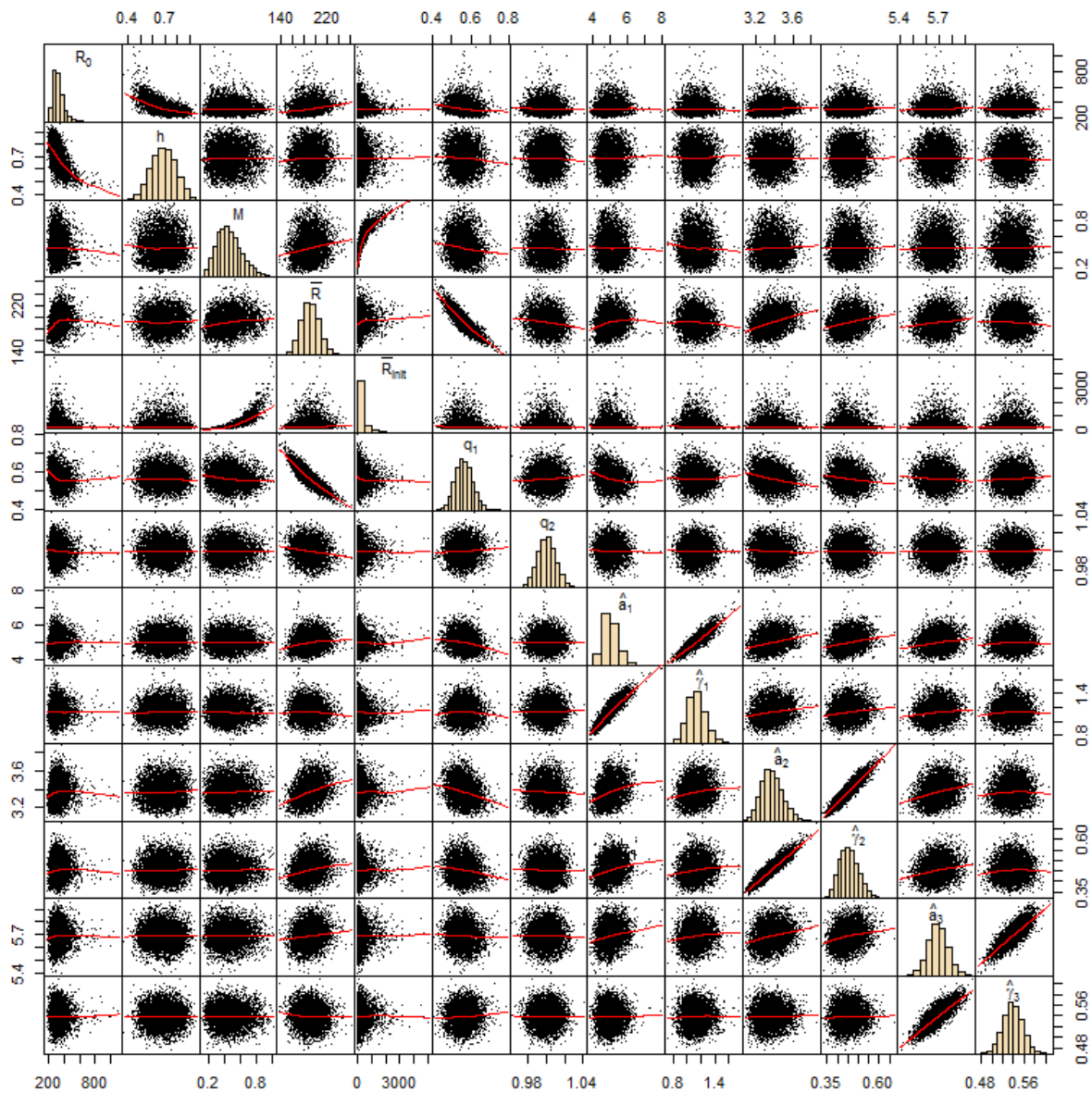


Figure 12. Pairs plots for MCMC output of estimated parameters in for the Prince Rupert District AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

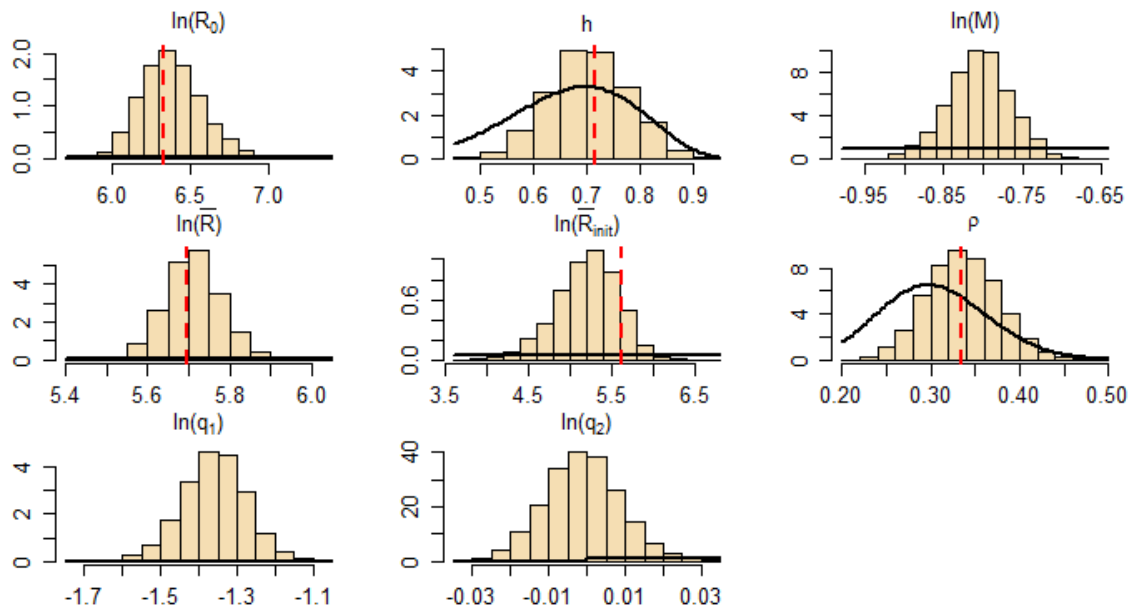


Figure 13. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Central Coast AM2 model with constant natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

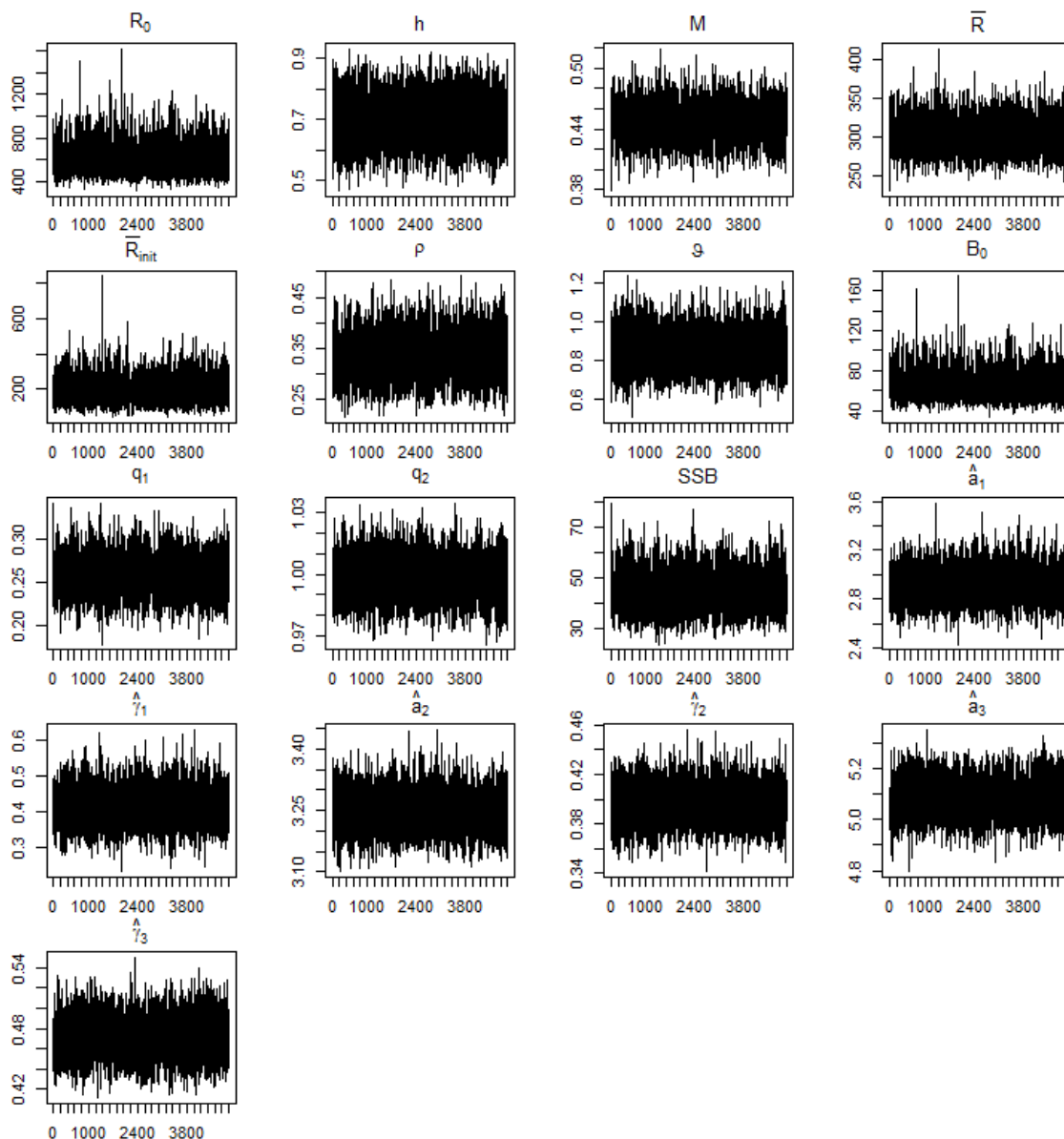


Figure 14. Trace plots for MCMC output of estimated parameters for the Central Coast AM2 model with constant natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.



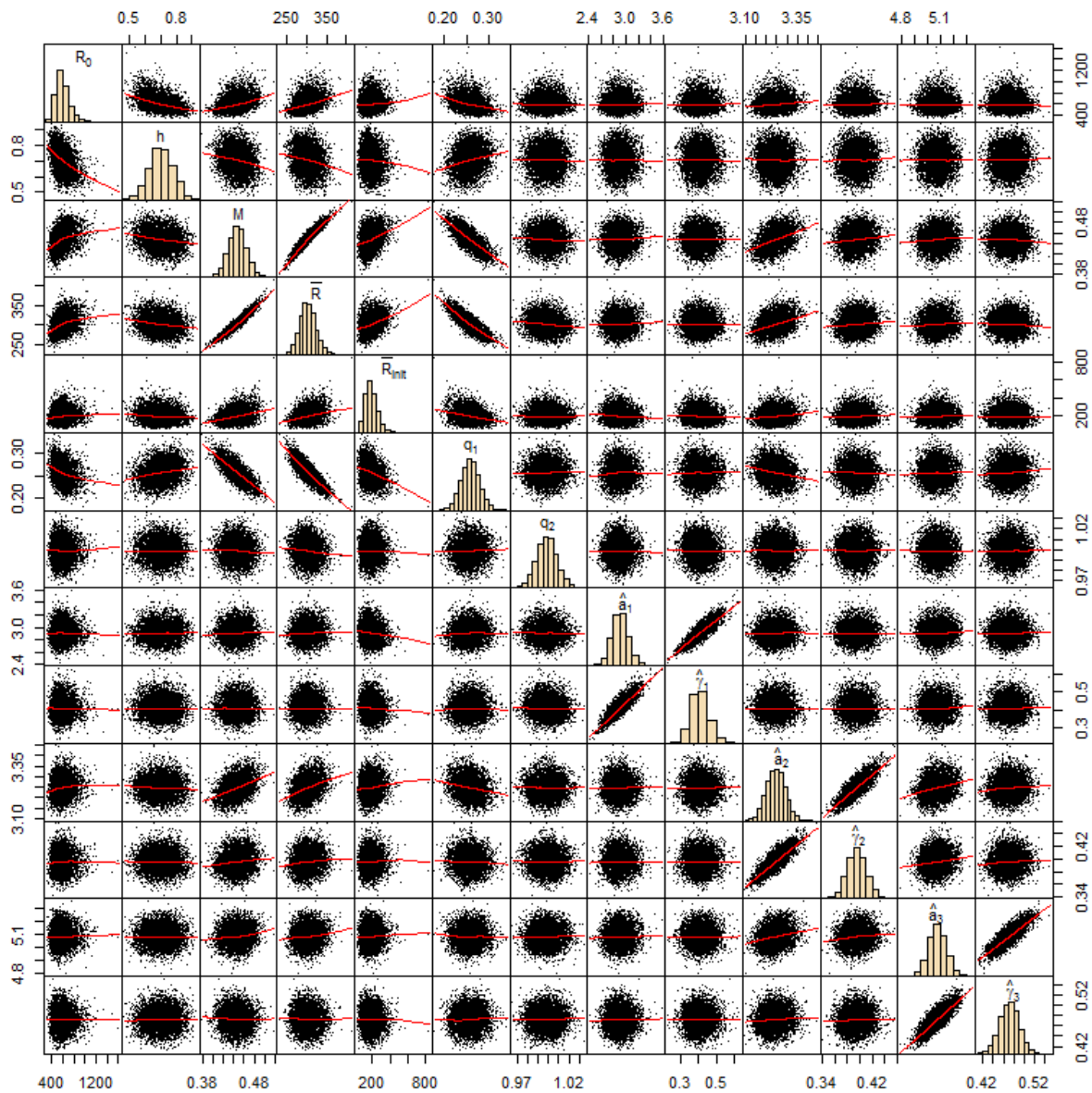


Figure 15. Pairs plots for MCMC output of estimated parameters in for the Central Coast AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.



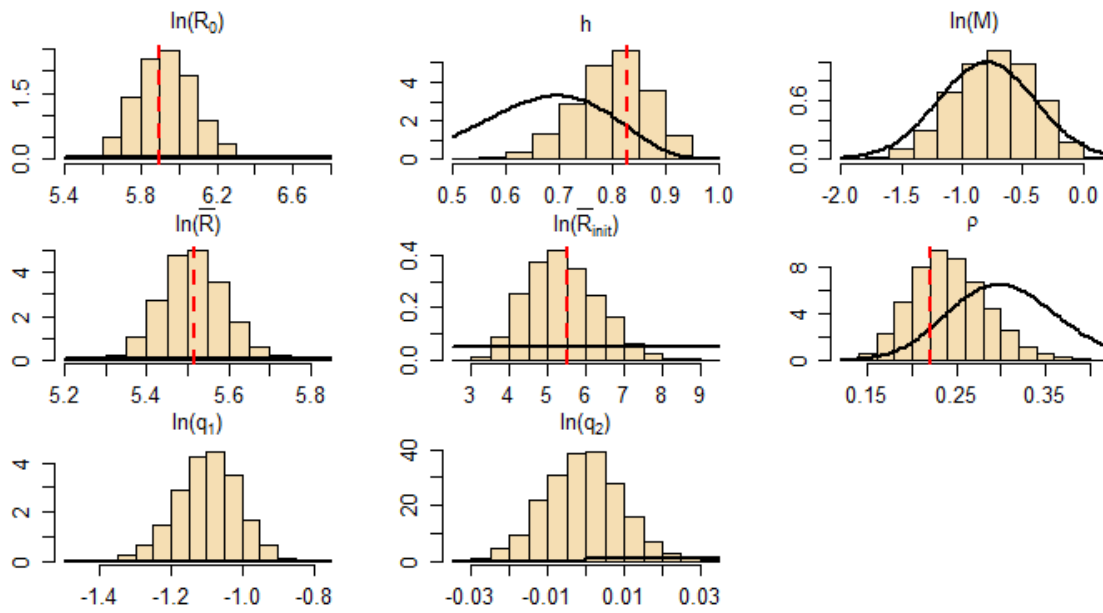


Figure 16. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Central Coast AM2 model with time-varying natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

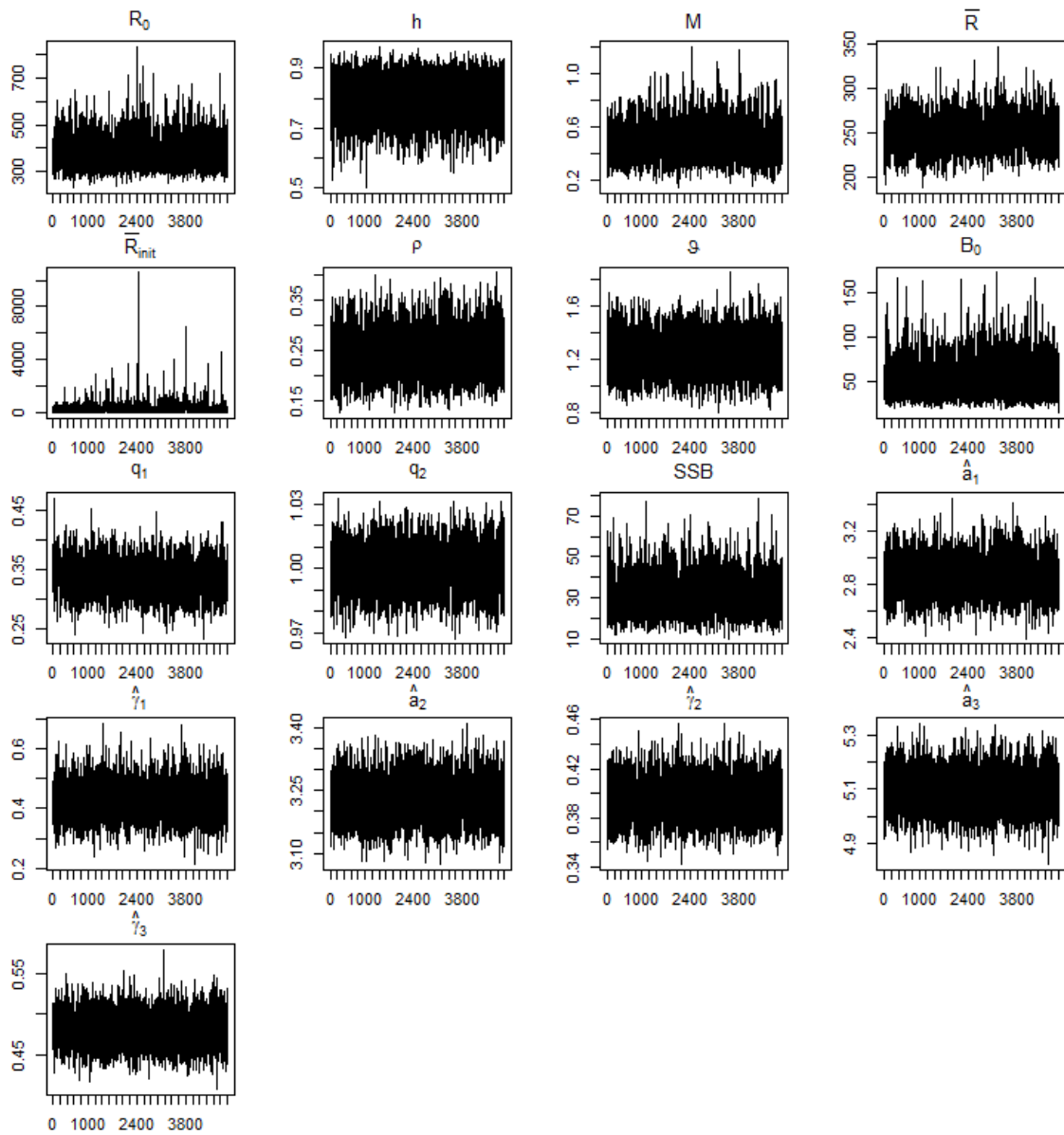


Figure 17. Trace plots for MCMC output of estimated parameters for the Central Coast AM2 model with time-varying natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

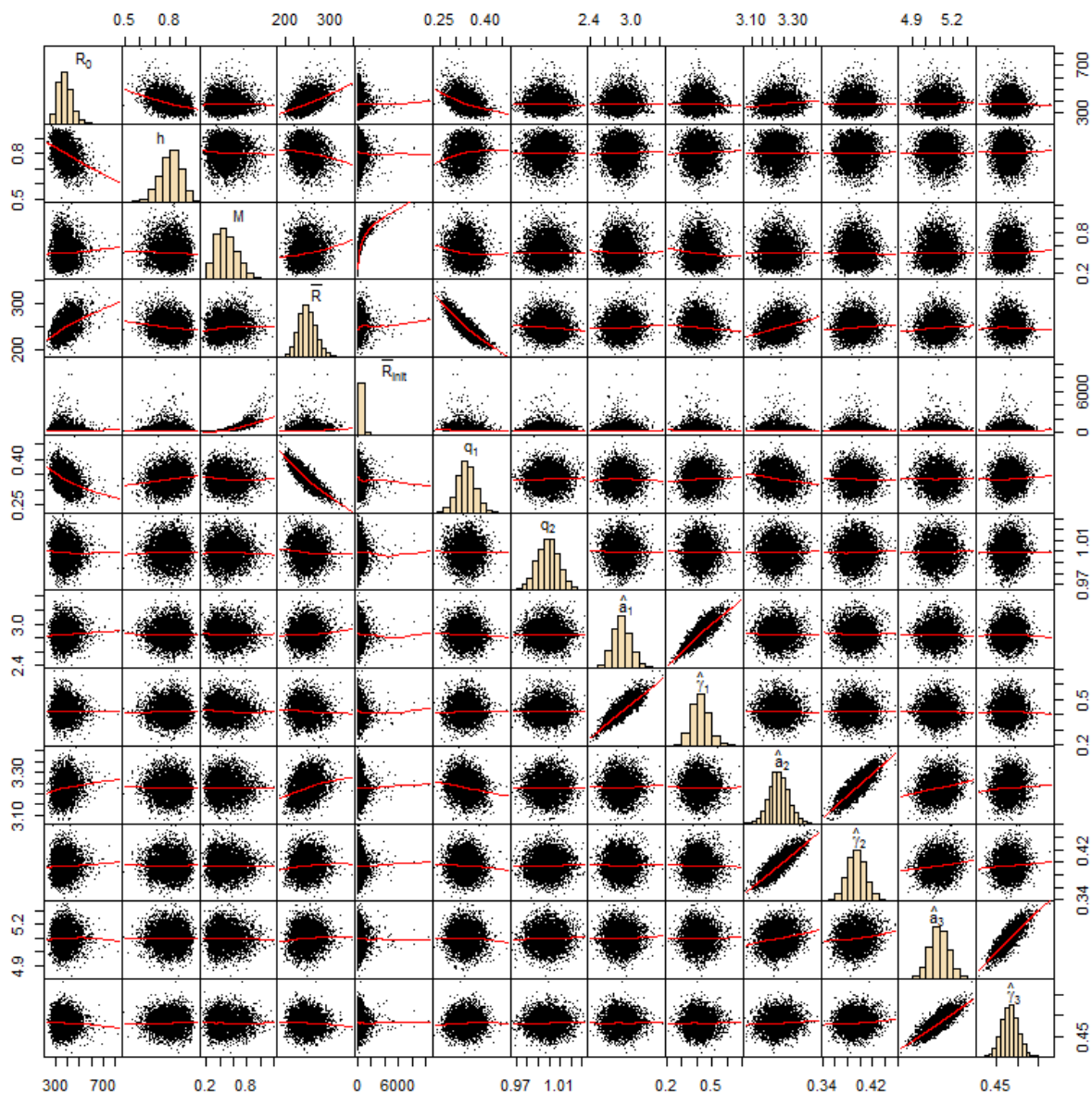


Figure 18. Pairs plots for MCMC output of estimated parameters in for the Central Coast AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

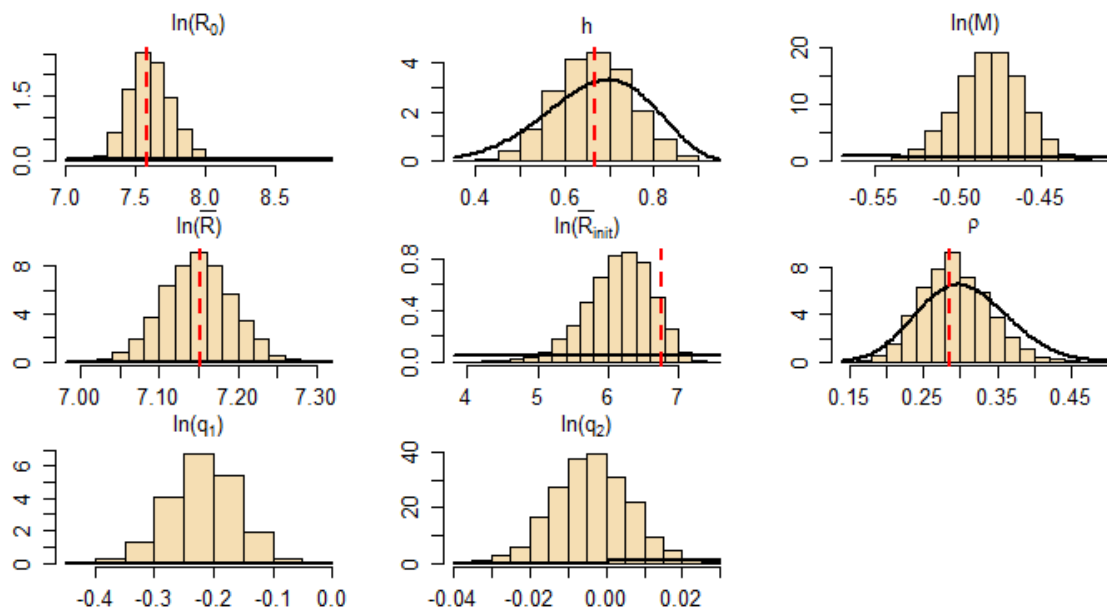


Figure 19. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Strait of Georgia AM2 model with constant natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

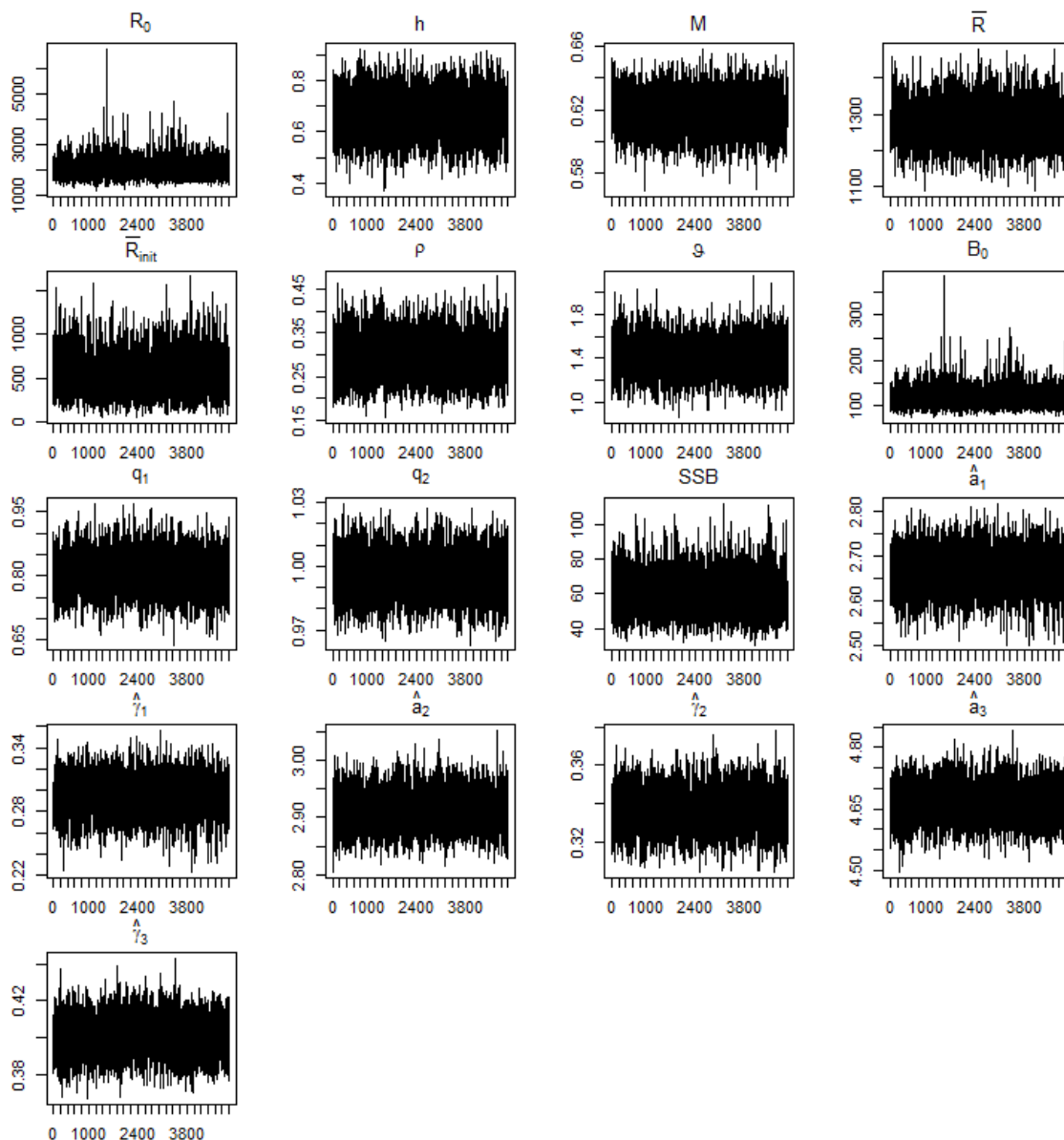


Figure 20. Trace plots for MCMC output of estimated parameters for the Strait of Georgia AM2 model with constant natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

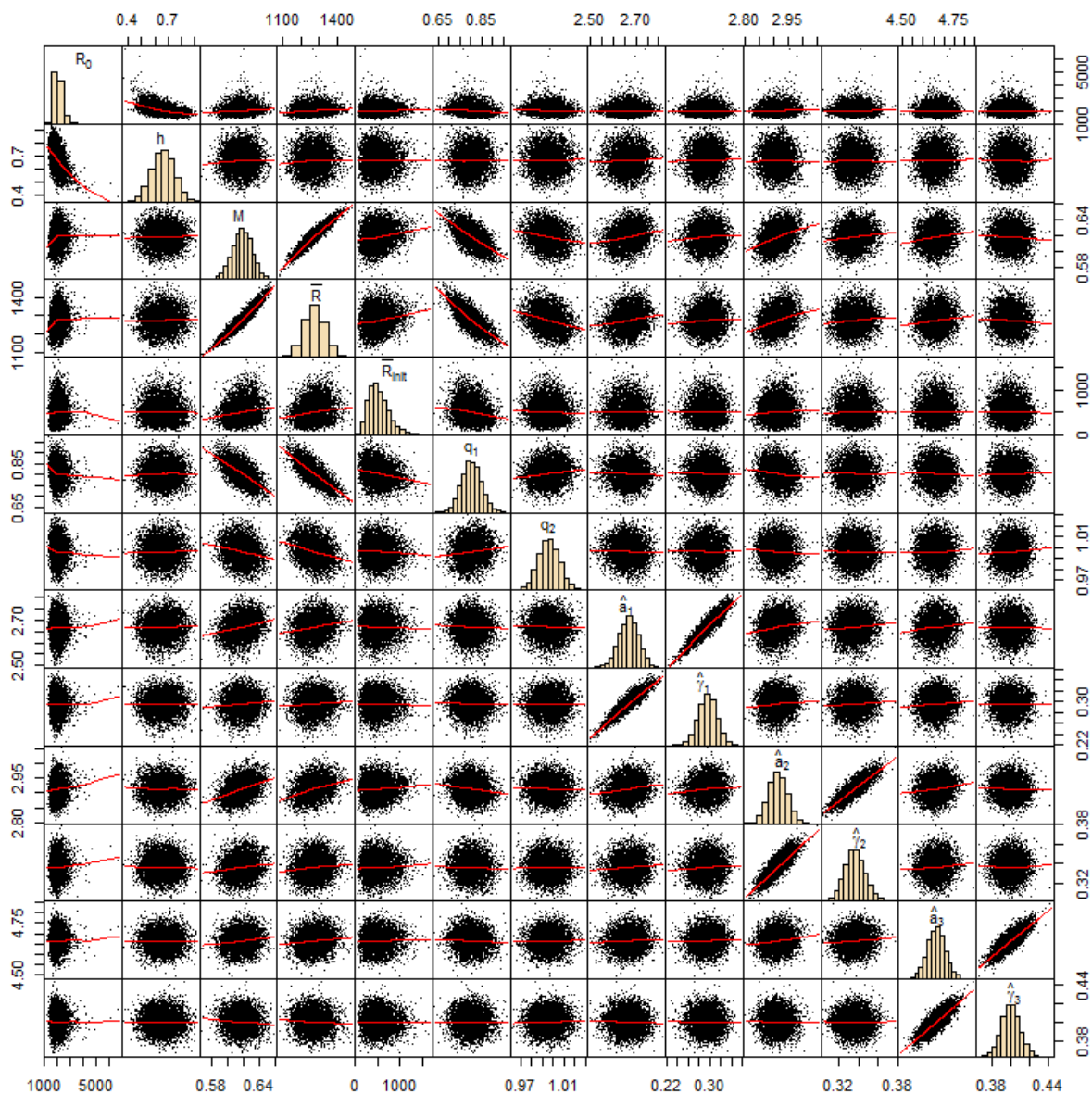


Figure 21. Pairs plots for MCMC output of estimated parameters in for the Strait of Georgia AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

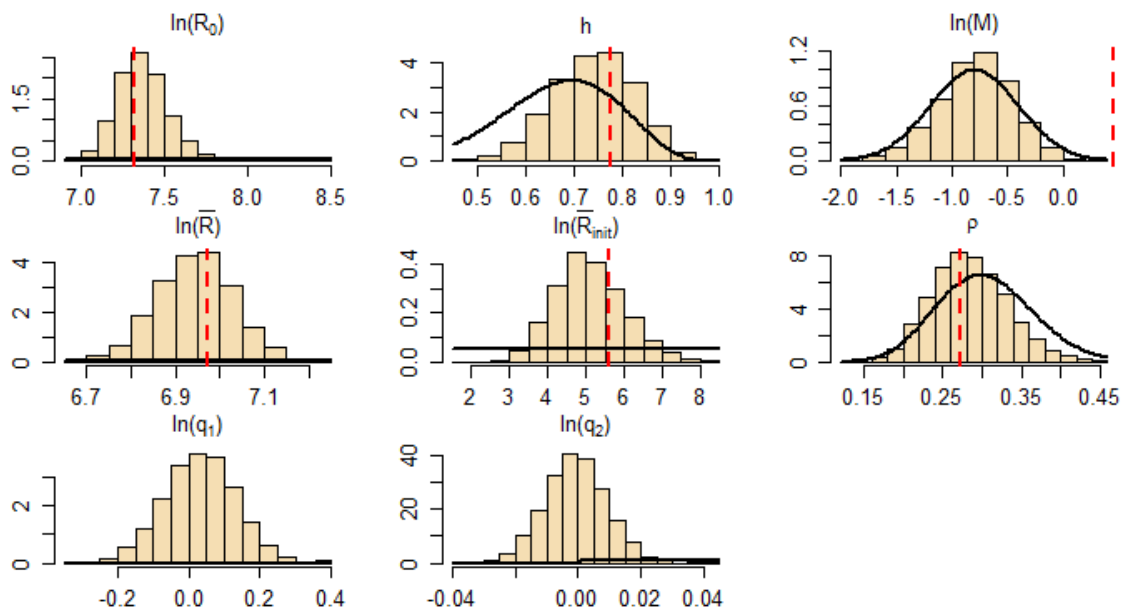


Figure 22. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the Strait of Georgia AM2 model with time-varying natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

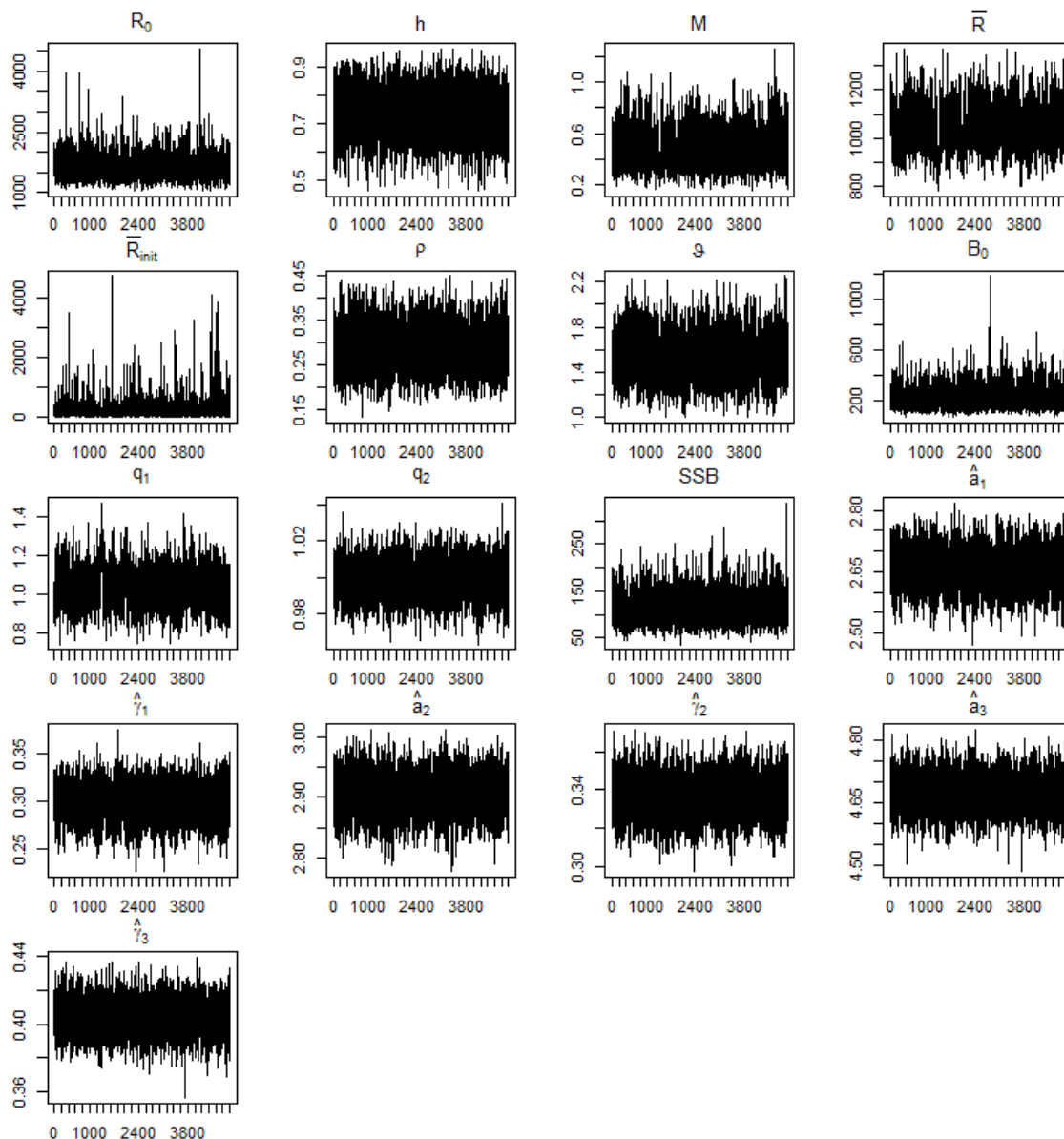


Figure 23. Trace plots for MCMC output of estimated parameters for the Strait of Georgia AM2 model with time-varying natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.



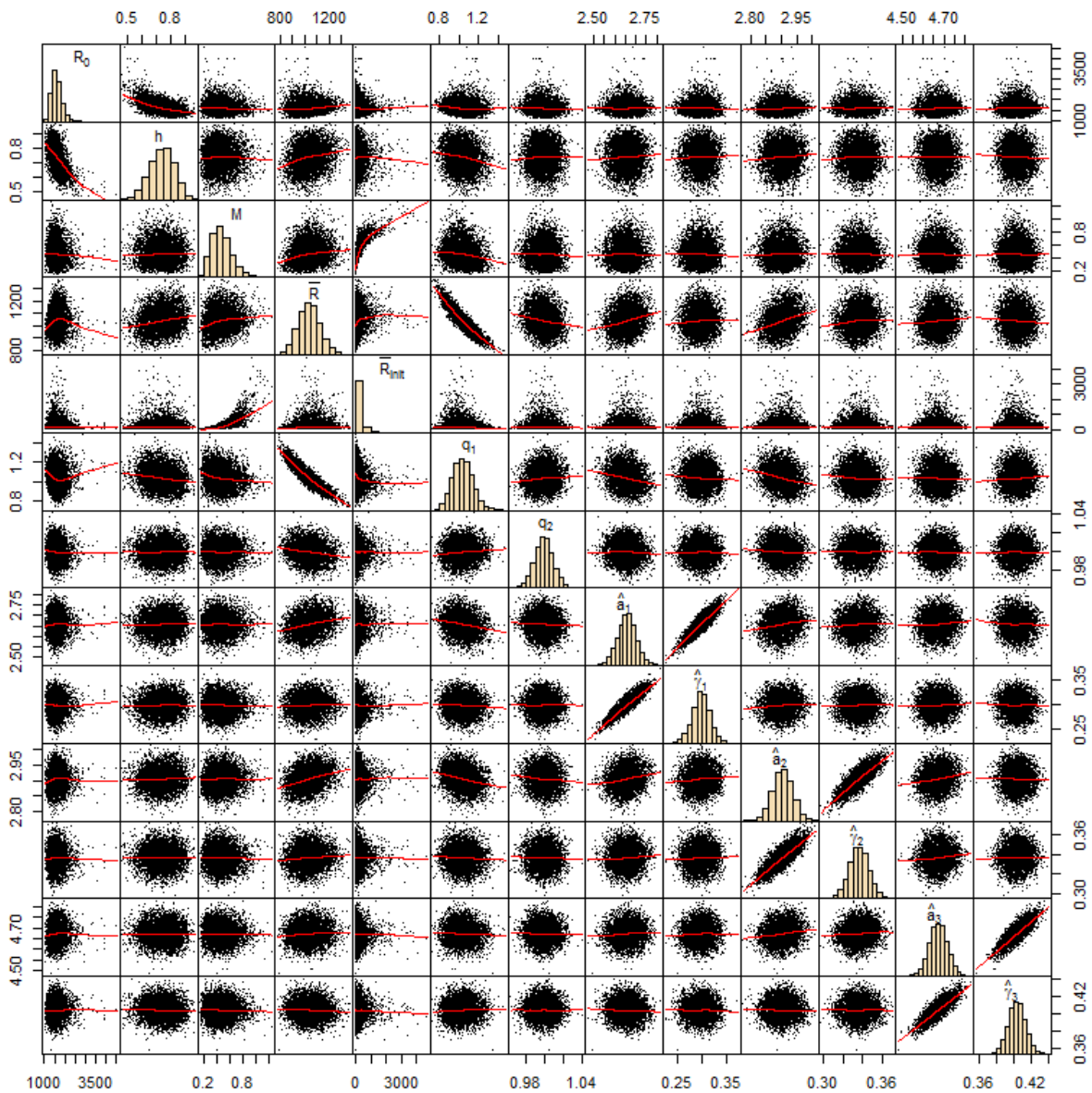


Figure 24. Pairs plots for MCMC output of estimated parameters in for the Strait of Georgia AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

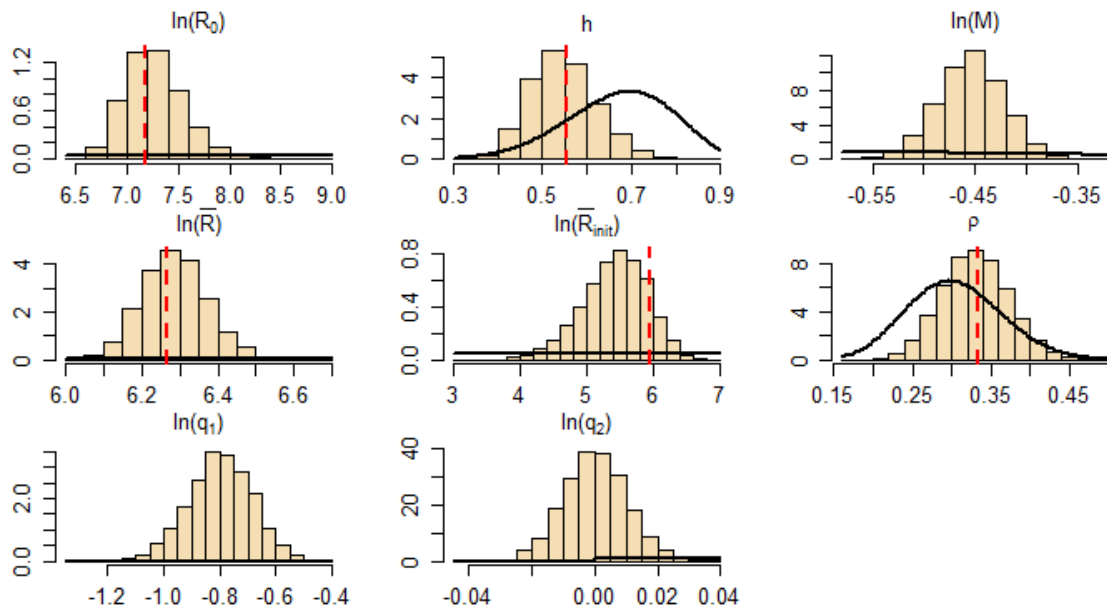


Figure 25. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the WCVI AM2 model with constant natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

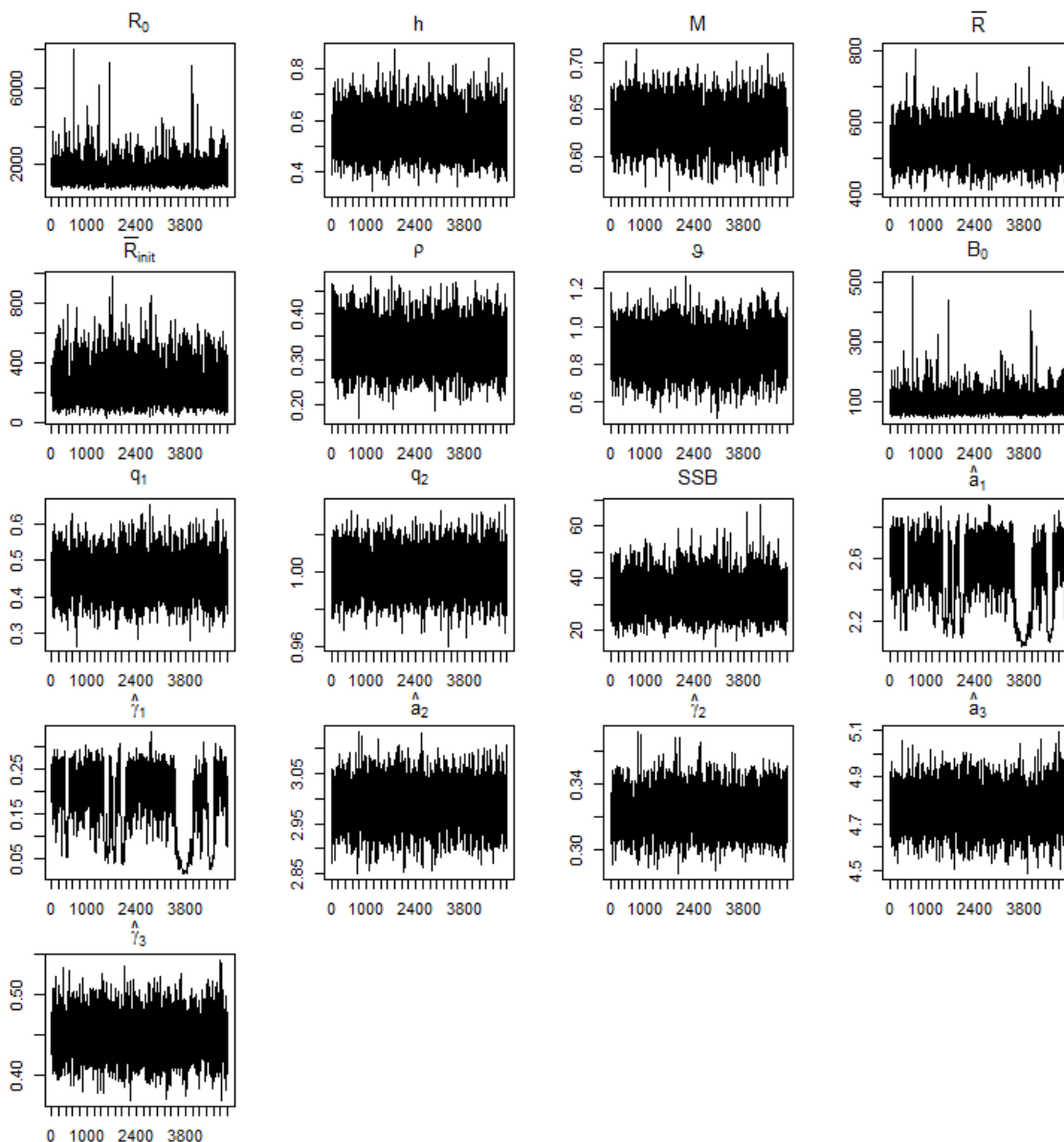


Figure 26. Trace plots for MCMC output of estimated parameters for the WCVI AM2 model with constant natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

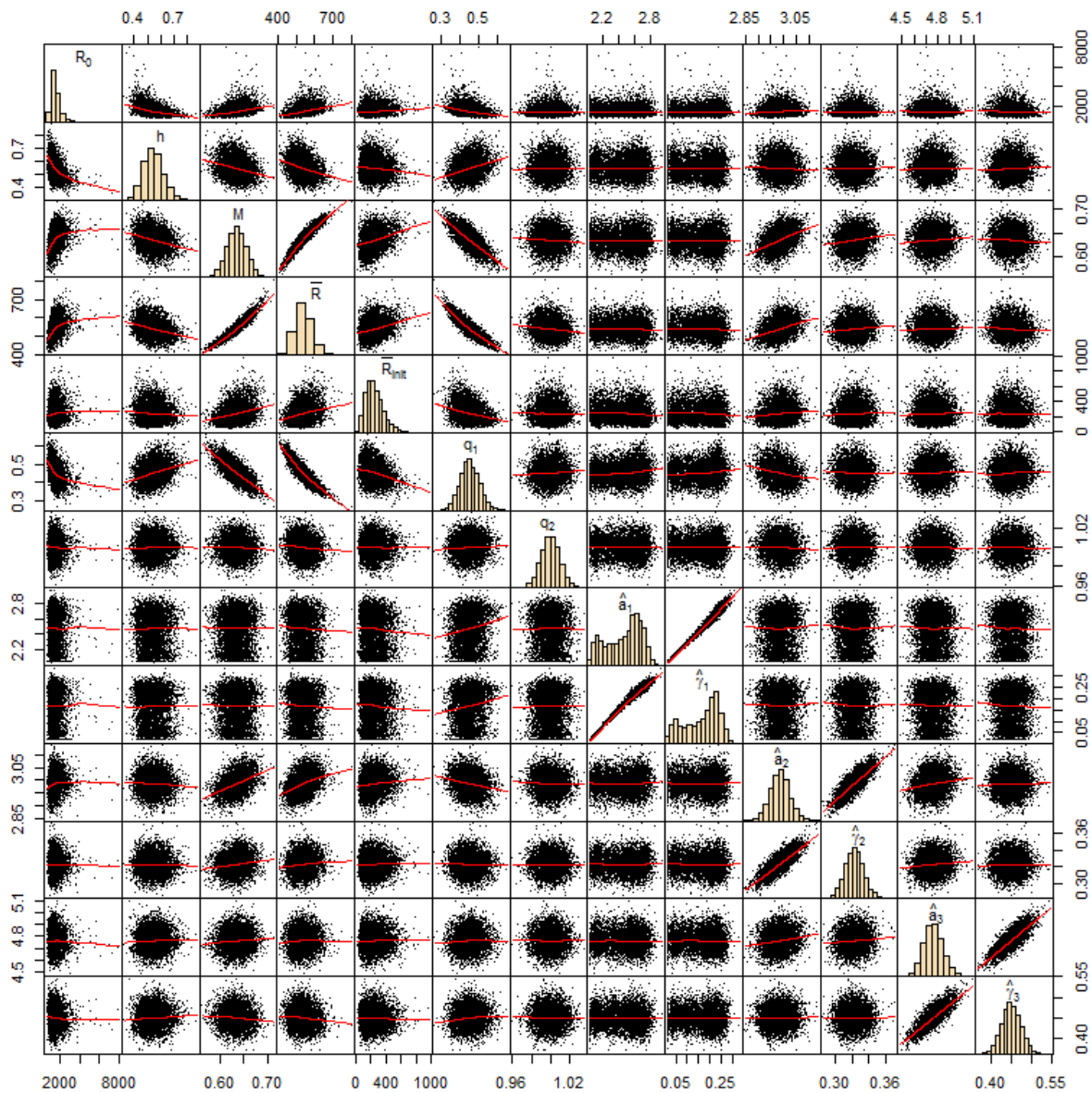


Figure 27. Pairs plots for MCMC output of estimated parameters in for the WCVI AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.

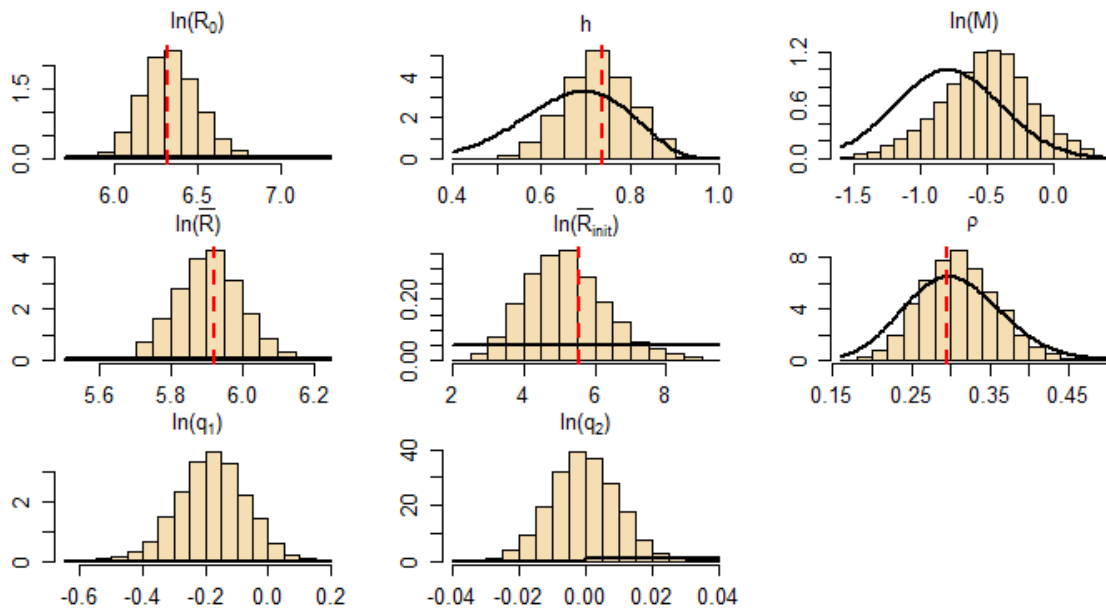


Figure 28. Prior probability distributions (lines) with comparative posterior histograms (bars) used in the WCVI AM2 model with time-varying natural mortality. Parameters  $q_k$  represent gears where:  $k = 1$  is the surface survey and  $k = 2$  is the dive survey. The dotted red lines are the MPD estimates.

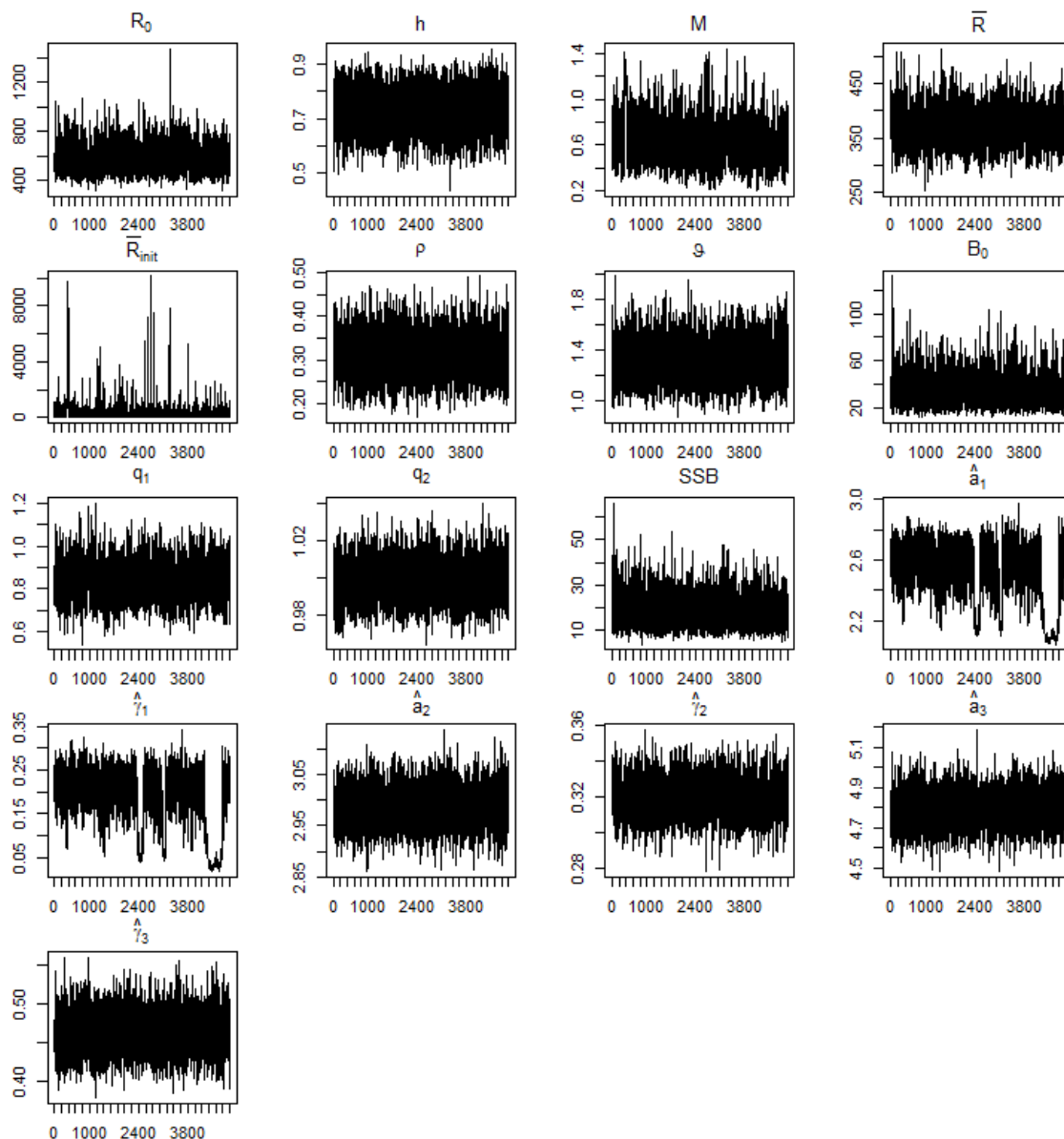


Figure 29. Trace plots for MCMC output of estimated parameters for the WCVI AM2 model with time-varying natural mortality. The MCMC run had chain length 5 million, with a sample taken at every 5,000th iteration. The catchability parameter  $q_1$  represents the surface survey and  $q_2$  the dive survey. Parameters  $\hat{a}_k$  (selectivity-at-age-50%), and  $\hat{\gamma}_k$  (selectivity standard deviation-at-50%) represent gears as follows:  $k = 1$ : Other fisheries,  $k = 2$ : Roe seine,  $k = 3$ : Gillnet roe.

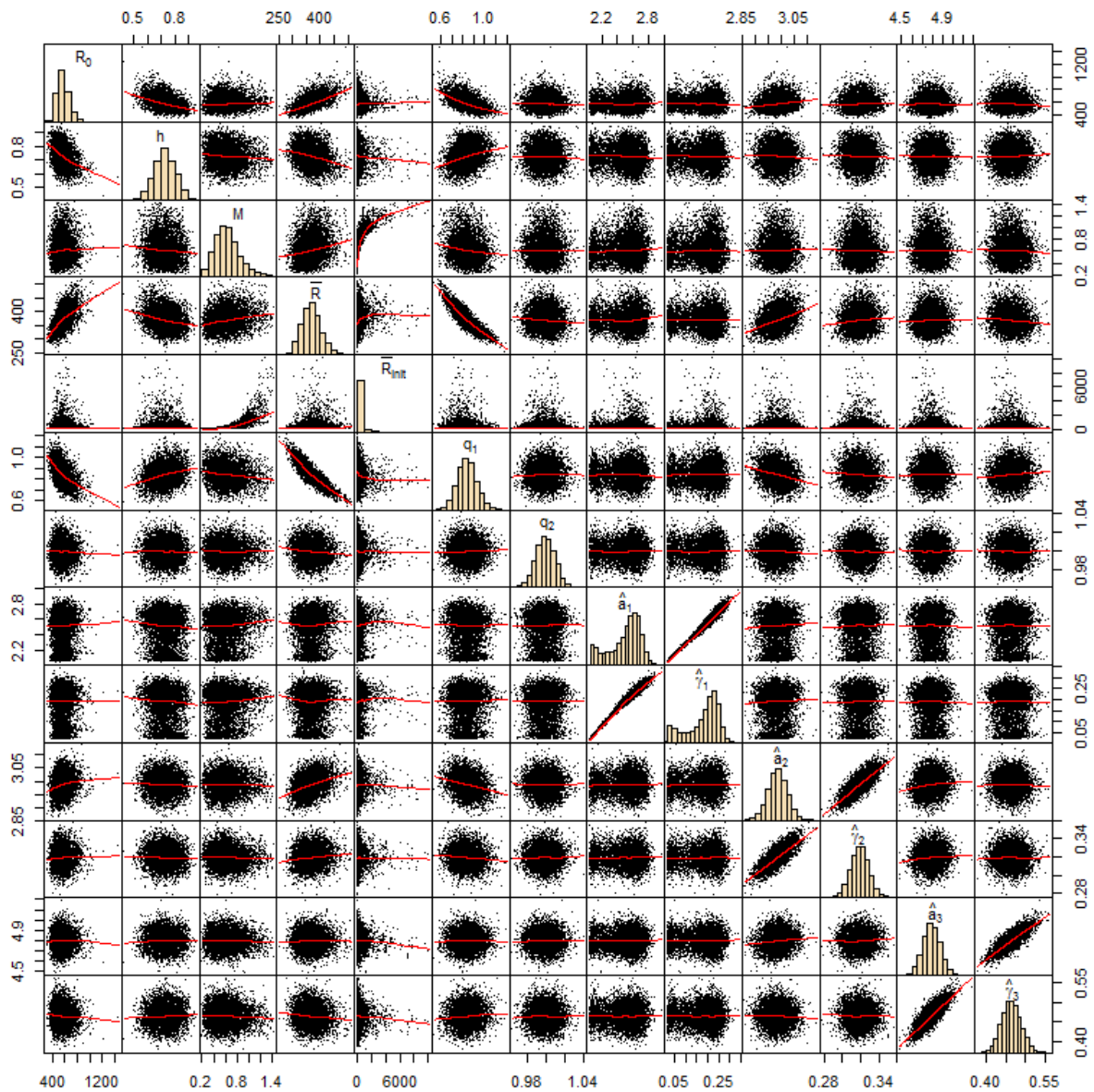


Figure 30. Pairs plots for MCMC output of estimated parameters in for the WCVI AM2 model with constant natural mortality. See Figure ?? for parameter descriptions.