

Appendix 3

Malishev, M & Civitello, DJ. Modelling how resource competition among snail hosts affects the mollusciciding frequency and intensity needed to control human schistosomes

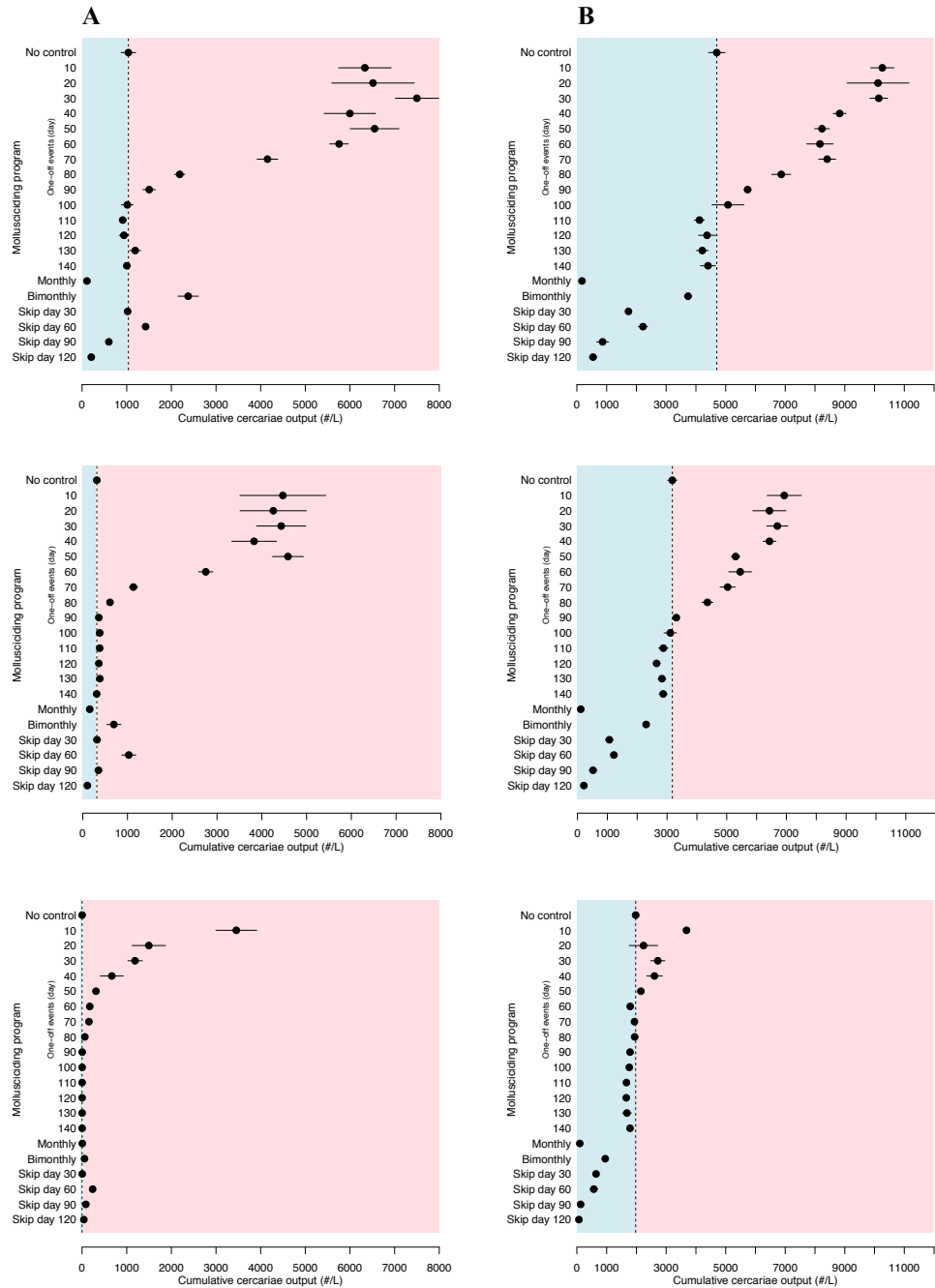


Figure A1. Cumulative human-infectious cercariae output ($\# \text{ L}^{-1} \pm \text{SE}$) for A) logistically growing periphyton algae and B) constant detritus subsidy after the seven simulated molluscicide programs ($n = 5$) for schistosomiasis control at 95% host mortality ($h_b = 3.0 \text{ d}^{-1}$) showing potential program success (left of dashed line, in blue) and failure (right of dashed line, in red) under high (top), normal (middle, shown in Figure 2), and low (bottom) resource input rates: no control, one-off control every tenth day (day 10–140), monthly, bimonthly (every two months), skipping day 30, skipping day 60, skipping day 90, and skipping day 120. High, normal, and low resource growth rates: $r = 0.1, 0.25$, and 0.5 d^{-1} for algae and $det = 0.1, 0.25$, and 0.5 mg C d^{-1} for detritus. Cumulative cercariae output increases with resource growth rate, and the relative success or failure of the mollusciciding strategies show a consistent pattern across growth rates, with worse outcomes for early, one-off control.