



**S5 Fig. Under a range of assumptions, each pair of growth (dashed) and loss curves (solid line) of tree cover can have three intersections.** These intersections are either stable (solid circle) or unstable (open circle) equilibria. At the y-axis there is an additional unstable trivial equilibrium (open circle). In all these cases, the model has alternative stable states (see also Fig 2b). a. Different growth rates  $r$  ( $r=0.0001, 0.0002$  (red line),  $0.0003$  (cyan line),  $0.0004$  (purple line) and  $0.0005$  (yellow line)) and default loss (blue line). b. Different exponents ( $\beta$ ) of the Richards' growth curve  $r(1 - T^\beta)$  ( $\beta = 0.25$  (green line),  $0.5$  (red line),  $1$  (cyan line),  $2$  (purple line) and  $4$  (yellow line)) and default loss (blue line). c. Different exponents ( $\gamma$ ) of the relation between fire frequency and tree cover loss  $P(T)^\gamma$  ( $\gamma = 0.5$  (blue line),  $1$  (green line),  $1.5$  (red line),  $2$  (cyan line),  $2.5$  (purple line) and  $3$  (yellow line)) and default growth (black line). d. The effect of different functions for the mortality of trees due to fire:  $m_B T^\alpha$  ( $\alpha = 0$  (blue line),  $0.5$  (green line),  $1$  (red line)) for two levels of growth rate ( $r=0.0001$  (purple line),  $0.0002$  (cyan line)). For other parameters see Fig. 2.