S1. Interpolating fractional maturity ages

Resources allocated to reproduction are the product of density-dependent effects acting on fertility $Q_R(N, x)$ and the production rate at adult size W_τ (size at maturity):

$$m_x = Q_R(N, x)\psi(W_\tau, x)\left[1_{x>\lfloor\tau\rfloor}(x) + (\tau - \lfloor\tau\rfloor)1_{x=\lfloor\tau\rfloor}(x)\right],$$

where $1_{t\geq\lfloor\tau\rfloor}(t)$ is an indicator function, $\lfloor\tau\rfloor$ is a floor function, and $(\tau - \lfloor\tau\rfloor)$ is a fractional part of τ. The term in the square bracket performs a simple interpolation when τ is not an integer.