

3.17 Primary production

For primary producers the production is estimated as a function of the producers' biomass, B_i , from a simple saturating relationship

$$f(B_i) = \frac{r_i \cdot B_i}{1 + B_i \cdot h_i} \quad \text{Eq. 67}$$

where, r_i is the maximum production/biomass ratio that can be realized (for low B_i 's), and r_i/h_i is the maximum net primary production when the biomass is not limiting to production (high B_i 's). For parameterization it is only necessary to provide an estimate of $r_i / (P/B_i)$, i.e., a factor expressing how much primary production can be increased compared to the base model state. If a [Forcing function?](#) is applied to primary production (see [Apply FF \(primary producer?\)](#)), it multiplies the r parameter in Eq. 67.