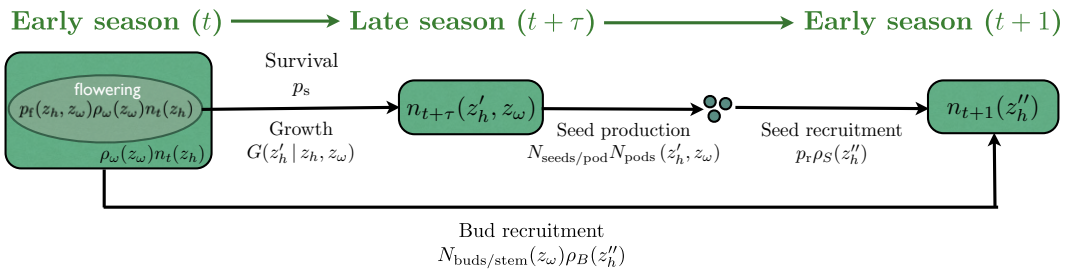

$$n_{t+1}(z''_h) = \underbrace{\rho_B(z''_h) \int\int N_{\mathrm{buds/stem}}(z_\omega)\rho_\omega(z_\omega)n_t(z_h)\, dz_h dz_\omega}_{\text{Clonal pathway}} + \underbrace{p_{\mathrm{r}}\rho_S(z''_h)N_{\mathrm{seeds/pod}} \int\int N_{\mathrm{pods}}(z'_h, z_\omega)\, n_{t+\tau}(z'_h, z_\omega)\, dz'_h dz_\omega}_{\text{Sexual pathway}}$$

$$n_{t+\tau}(z'_h, z_\omega) = \int p_{\mathrm{s}}(z_h, z_\omega)G(z'_h \mid z_h, z_\omega)p_{\mathrm{f}}(z_h, z_\omega)\rho_\omega(z_\omega)n_t(z_h)\, dz_h$$

Terms	Description	Functional form
$p_{\mathrm{s}}(z_h, z_\omega)$	Probability of ramet survival	$logit^{-1}(\alpha + \beta_{z_h} + \beta_{z_\omega} + u_{\alpha s} + u_{z_\omega s} + u_{\alpha y} + u_{z_\omega y})$
$G(z'_h \mid z_h, z_\omega)$	Growth	$\alpha + \beta_{z_h} + \beta_{z_\omega} + \beta_{z_h:z_\omega} + u_{\alpha s} + u_{\alpha y} + u_{z_h y} + N(0, \sigma^2)$
$p_{\mathrm{f}}(z_h, z_\omega)$	Probability of flowering	$logit^{-1}(\alpha + \beta_{z_h} + \beta_{z_\omega} + \beta_{z_h:z_\omega} + u_{\alpha s} + u_{\alpha y} + u_{z_h y} + u_{z_\omega y})$
$N_{\mathrm{pods}}(z'_h, z_\omega)$	Number of pods	$exp(\alpha + \beta_{z'_h} + u_{\alpha s} + u_{z'_h s} + u_{\alpha y} + u_{z_\omega y})$
$N_{\mathrm{seeds/pod}}$	Number of seeds per pod	α
$N_{\mathrm{buds/stem}}(z_\omega)$	Number of buds per stem	$exp(\alpha + \beta_{z_\omega})$
p_{r}	Probability of seed recruitment	α
$\rho_\omega(z_\omega)$	Herbivory distribution	$(1 - p_\omega)I(z_\omega) + p_\omega \ln N(\mu, \sigma^2)$
$\rho_S(z''_h)$	Seed recruit distribution	$\ln N(\mu, \sigma^2)$
$\rho_B(z''_h)$	Bud recruit distribution	$N(\mu, \sigma^2)$