LateX Equations:

$$S_h = -\lambda_h N_{sy} + 1 - \alpha N_{sy}(\iota) + 1 - \omega_a \mu_a N_{ih} - \mu_a N_{sh}$$

$$S_l = -\lambda_l N_{sl} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_a \mu_a N_{il} - \mu_a N_{sh}$$

$$S_y = -\lambda_y N_{sy} + 1 - \alpha N_{sy}(\iota) + 1 - \omega_y N_{sh}$$

$$A_h = -\lambda_h N_{sy} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_a \mu_a * N_h - \mu_a * N_{sh}$$

$$A_l = -\lambda_l * N_{sl} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_a * \mu_a * N_h - \mu_a * N_{sh}$$

$$A_y = -\lambda_y * N_{sy} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_y * N_{sh}$$

$$I_h = -\lambda_h N_{sy} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_a \mu_a * N_h - \mu_a * N_{sh}$$

$$I_l = -\lambda_l * N_{sl} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_a * \mu_a * N_h - \mu_a * N_{sh}$$

$$I_y = -\lambda_y * N_{sy} + 1 - \alpha * N_{sy} * (\iota) + 1 - \omega_y * N_{sh}$$

$$R_h = \gamma * N_{ih} + 1 - \alpha * N_{ry} * (\iota) + 1 - \mu_a * N_h * N_{rh}$$

$$R_l = \gamma * N_{il} + 1 - \alpha * N_{ry} * (\iota) + 1 - \mu_a * N_h * N_{rl}$$

$$R_y = \gamma * N_{iy} + 1 - \alpha * N_{ry} * (\iota) + 1 - \mu_a * N_h * N_{ry}$$

$$V_h = \omega_a N_h - \mu_a N_{vh} + 1 - \omega_y * N_{sy} * \iota$$

$$V_h = \omega_a N_l - \mu_a N_{vl} + 1 - \omega_y * N_{sy} * \iota$$