$$\dot{u}_1 = r_1 \cdot u_5 - r_2 u_1 \pm d_1 u_1$$ Egg.

$$\dot{u}_2 = r_2 u_1 - r_3 u_2 \pm d_2 u_2$$ Trochophore

$$\dot{u}_3 = r_3 u_2 \cdot \left(\frac{K_3 - u_3}{K_3}\right) - r_4 u_3 - d_3 u_3$$ Veliger.

$$\dot{u}_4 = r_4 \cdot u_3 \left(\frac{K_4 - u_4}{K_4}\right) - r_5 u_4 - d_4 u_4$$ Juvenile.

$$\dot{u}_5 = r_5 \cdot u_4 \left(\frac{K_5 u_5}{K_5}\right) - \cancel{d u_5} - d_5 u_5.$$ Adult.

$$\dot{u}_1 = r_1 u_5 \frac{(K-u_5)}{u_5} - r_2 u_1 - d_1 u_1$$

$$\dot{u}_2 = r_2 u_1 - r_3 u_2 - d_2 u_2$$

$$\dot{u}_3 = r_3 u_2 - r_4 u_3 - d_3 u_3$$

$$\dot{u}_4 = r_4 u_3 - r_5 u_4 - d_4 u_4$$

$$\dot{u}_5 = r_5 u_4 - (d_5 + \phi) u_5$$

$$u_1 = \frac{r_3 + d_2}{r_2} u_2 \; ; \; u_2 = \frac{r_4 + d_3}{r_3} u_3$$

$$u_3 = \frac{r_5 + d_4}{r_4} u_4 \; ; \; u_4 = \frac{d_5 + \phi}{r_5} u_5$$

$$u_1 = R_1 R_2 R_3 R_4 u_5 = \rho u_5 = u_1$$

$$\dot{u}_5 = r_1 u_5 \left(1 - \frac{u_5}{K}\right) = (r_2 + d_1)\,\rho\, u_5$$

$u_5^* = 0$

$$\boxed{u_5^* = \left[1 - \frac{r_2 + d_1}{r_1}\rho\right] K}$$

$$\begin{bmatrix} -r_2+d_1 & & & & & r_1 \\ r_2 & -r_3+d_2 & & & & \\ & r_3 & -r_4+d_3 & & & \\ & & r_4 & -r_5+d_4 & & \\ & & & r_5 & -d_5+\phi & \end{bmatrix}$$