atoll equations

$$
\begin{aligned}
&L1: \\
&P_{sna} = \beta_{0a} + \beta_{1a}(Species_s) + \beta_{2a}(Nesting_n) + \epsilon_{sna} \\
&\\
&L2: \\
&\beta_{0a} = \gamma_{00} + \gamma_{01}(PC1) + \cdots + \gamma_{06}(PC6) + U_{0a} \\
&\beta_{1a} = \gamma_{10} + \gamma_{11}(PC1) + \cdots + \gamma_{16}(PC6) + U_{1a} \\
&\beta_{2a} = \gamma_{20} + \gamma_{21}(PC1) + \cdots + \gamma_{26}(PC6) + U_{2a}
\end{aligned}
\tag{1}
$$