

Supplementary Note S1

Additional profile likelihood plots and ridge direction summaries

SYNTHETIC DEMONSTRATION CONTENT
Illustrative values only; no empirical data or scientific result is reported.

Figure S1. Illustrative profile likelihoods

Schematic response of a fit criterion to two normalized model parameters.

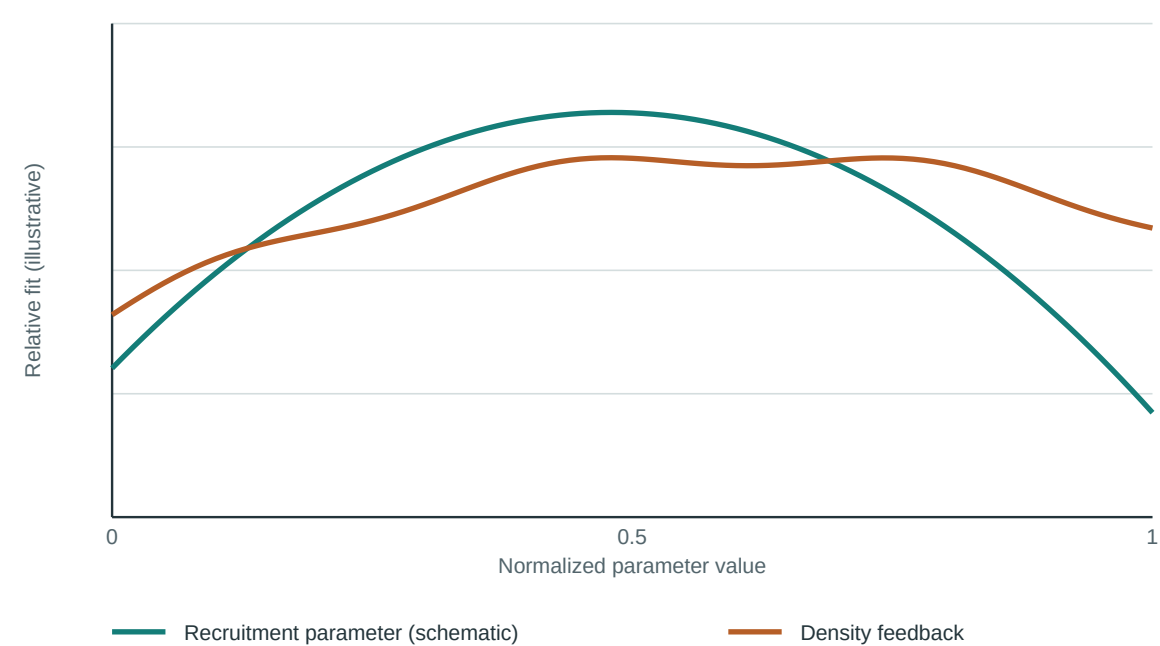


Table S1. Illustrative ridge-direction summary

Qualitative examples of parameter combinations that can yield similar fits.

Direction	Illustrative interpretation
Recruitment / survival	Higher recruitment can mask lower survival in sparse counts.
Density / observation	Weak density feedback can resemble noisier observation.
Process / observation	Two noise components can trade off when data are limited.