APPENDIX E
Modelling the effect of directional spatial ecological processes at different scales

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TWO FIGURES (FIGS. E1, E2) DESCRIBING THE SINE WAVE STRUCTURE OF SPATIAL EIGENFUNCTIONS AND COMPARING CHOSEN AEM AND MEM EIGENFUNCTIONS ALONG A TRANSECT

**Fig. E1.** Comparison of eigenfunctions calculated within the AEM (a, c, e, g, i) and the MEM (b, d, f, h, j) frameworks for a transect with 100 regularly-spaced sites. For conciseness, only AEM and MEM eigenfunctions #1, 2, 3, 15, and 16 are compared. AEMs have larger wavelengths than MEMs. Also, AEM eigenfunctions do not start or end near zero (dotted line).
Fig. E2. Comparison of eigenfunctions calculated within the AEM (a, c, e, g, i) and the MEM (b, d, f, h, j) frameworks for an irregular transect with 100 irregularly-spaced sites. The irregular transect was generated by sampling from a uniform [0, 100] distribution 100 times and sorting the data in increasing order. For conciseness, only AEM and MEM eigenfunctions #1, 2, 3, 15, and 16 are compared. All eigenfunctions were drawn along the same transect. In addition to what was explained in Fig. E1, this figure shows the robustness of the two approaches to conserve their structure even when computed for an irregular set of points.