

APPENDIX S3: Observed patterns of HOF models differ from random

We examined if the observed pattern of species' responses differed from random by computing response curves for the 1577 European species after randomisation of their occurrence along the minimum temperature gradient. The large majority of these response curves were flat, and only 3% showed non-truncated symmetric or skewed responses confirming that the observed patterns of species' responses were clearly different from random (Table S3.1).

Table S3.1: Percentage of all European species studied (n = 1577) with different shapes of probability of occurrence response curves to climatic gradients, estimated with Huisman-Olff-Fresco models for observed and randomised distributions along the TMIN gradient: flat (I), continuously increasing (II), continuously increasing and reaching a plateau (III), unimodal-symmetric (IV), or -skewed (V). Type IV and V were classified as truncated if their maximum or minimum did not fall within the inner 99% of the gradient.

	Observed	Random
Truncated		
I	0	76
II	4	13
III	11	2
IV	4	2
V	13	4
Non-truncated		
IV	33	2
V	35	1