

Table 4: Proportion of ecosystems selected that satisfy observations O1, O2, O3 and O4. Also shown is the proportion which do not satisfy different combinations of the observations, i.e, the proportion which may be argued to satisfy hypotheses H1 and H2, depending on what falsification of H1 is accepted.

Sampling	Line	T_{prop}	P_{mut}	Runs	O1	O2	O3	O4	$(O1 \cup O4)^c$	$(O2 \cup O4)^c$	$(O3 \cup O4)^c$	$(O1 \cup O2 \cup O4)^c$
Propagule	L	2000	0.01	46	0.2826	0.1304	0.0435	0.1522	0.6087	0.7826	0.8478	0.5870
	L	5000	0.01	57	0.3684	0.0526	0.0526	0.1228	0.5965	0.8421	0.8772	0.5965
	L	10000	0.01	60	0.5667	0.2333	0.1167	0.3333	0.4000	0.5167	0.6667	0.3500
	L	20000	0.01	75	0.3867	0.1600	0.0800	0.0667	0.6133	0.8133	0.9333	0.5467
	L	5000	0	43	0.1163	0.1163	0	0.2093	0.7209	0.6977	0.7907	0.6279
	L	5000	0.01	57	0.3684	0.0526	0.0526	0.1228	0.5965	0.8421	0.8772	0.5965
	L	5000	0.03	87	0.6092	0.3448	0.2529	0.3563	0.2644	0.4253	0.6437	0.2299
	L	5000	0.05	42	0.7381	0.5238	0.3095	0.3571	0.2381	0.4048	0.6429	0.1667
	L	5000	0.1	73	0.9178	0.8630	0.7260	0.5616	0.0822	0.1096	0.4384	0.0685
	H	2000	0.01	46	0.9348	0.6304	0.6304	0.2609	0.0652	0.2391	0.2609	0.0435
	H	5000	0.01	57	0.9649	0.5614	0.5614	0.2807	0.0351	0.2807	0.3158	0.0351
	H	10000	0.01	60	0.8167	0.4500	0.4167	0.4000	0.0667	0.1833	0.2500	0.0167
	H	20000	0.01	75	1	0.8000	0.8000	0.3733	0.0667	0.2667	0.3067	0
	H	5000	0	43	0.2326	0.1628	0.0465	0.6744	0.3953	0.3721	0.3953	0.3023
	H	5000	0.01	57	0.9649	0.5614	0.5614	0.2807	0.0351	0.2807	0.3158	0.0351
	H	5000	0.03	87	0.9655	0.5977	0.5517	0.2184	0.0345	0.1954	0.3678	0
	H	5000	0.05	42	1	0.8810	0.8810	0.5000	0.0714	0.2381	0.2619	0
	H	5000	0.1	73	1	0.9452	0.9315	0.4932	0.0137	0.0411	0.2740	0
	L	All	All	483	0.5238	0.3209	0.2195	0.2795	0.4182	0.5549	0.7205	0.3768
	H	All	All	483	0.8923	0.6480	0.6232	0.3830	0.0787	0.2153	0.3064	0.0373
Migrant	L	5000	0.01	49	0.7143	0.1429	0.0612	0.1224	0.2653	0.7959	0.8776	0.2449
	H	5000	0.01	49	1	0.6327	0.6327	0.1224	0.0204	0.5510	0.5918	0

The possible combinations of observations that falsify H1 are: (1) O1 alone, (2) O2 alone, (3) O3 (implies O1 and O2), (4) either O1 or O2 or both. These give sets where H1 and H2 are both satisfied: (1) $(O1 \cup O4)^c$, (2) $(O2 \cup O4)^c$, (3) $(O3 \cup O4)^c$, (4) $(O1 \cup O2 \cup O4)^c$, as shown in the table. For ecosystems selected using propagule sampling data is shown for variations in T_{prop} and P_{mut} . There is an inverse relation between mutation rate and the likelihood of satisfying H1 and H2 by combination (4) (final column).