

Supplementary Information

Evolutionary simulations of *Z*-linked suppression gene drives

Supplementary Figures and Supplementary Tables

All of the figures and tables in this document can also be viewed online at **XXXXXX**, along with the R code used to generate them.

Supplementary figures

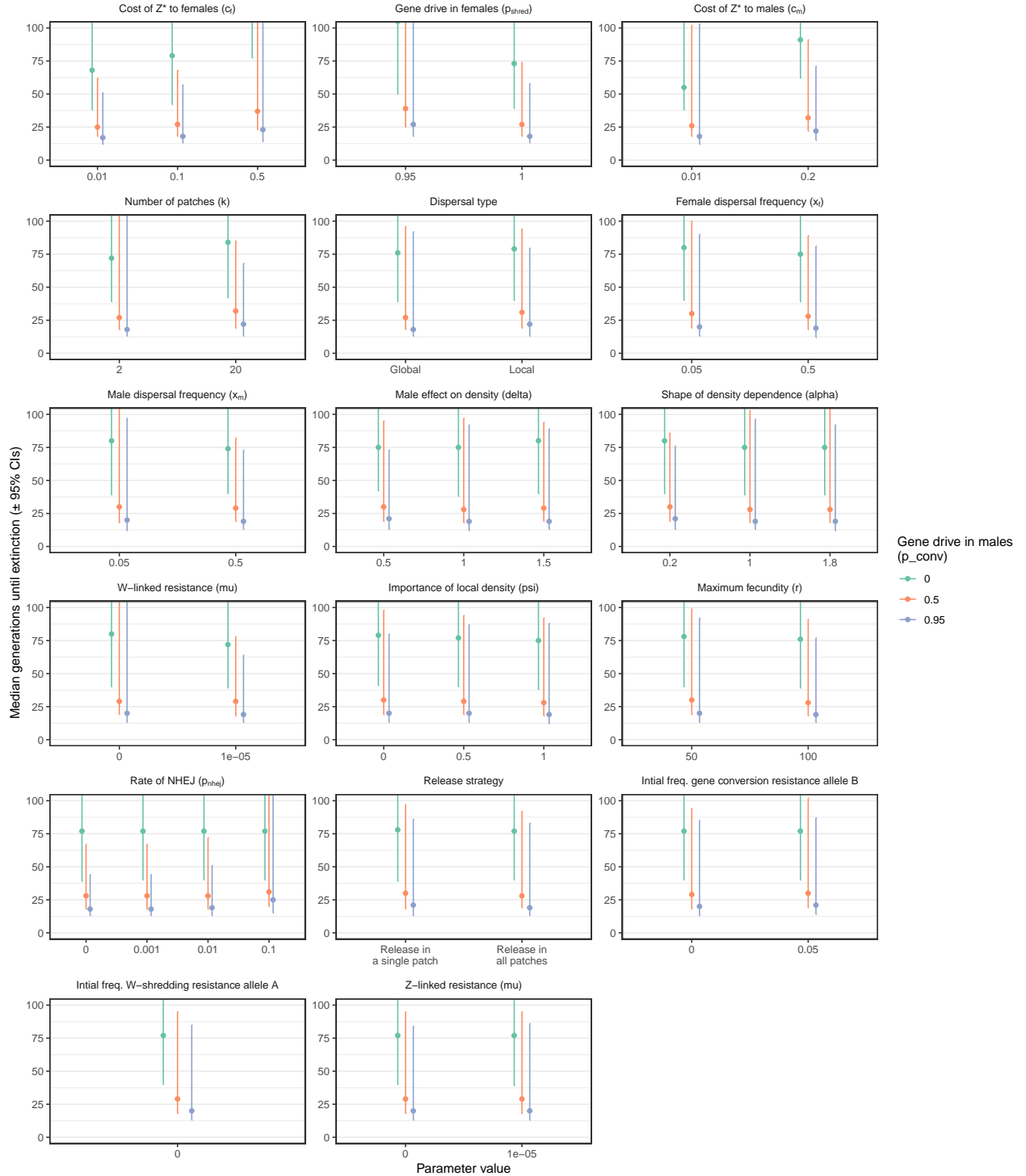


Figure S1: The percentage of simulations of a female-sterilising Z^* allele (not a W -shredder) that ended in extinction, for all runs with a particular value (shown on the x -axis) for a given parameter (shown in the panels). Note that the maximum values on the y -axis are more smaller than in Figure 2, indicating that a female-sterilising Z^* allele is likely to be less effective than a W -shredder at suppressing populations. The panels are ordered by the range of the x -axis, which indicates the relative importance of the variables for the probability of extinction.

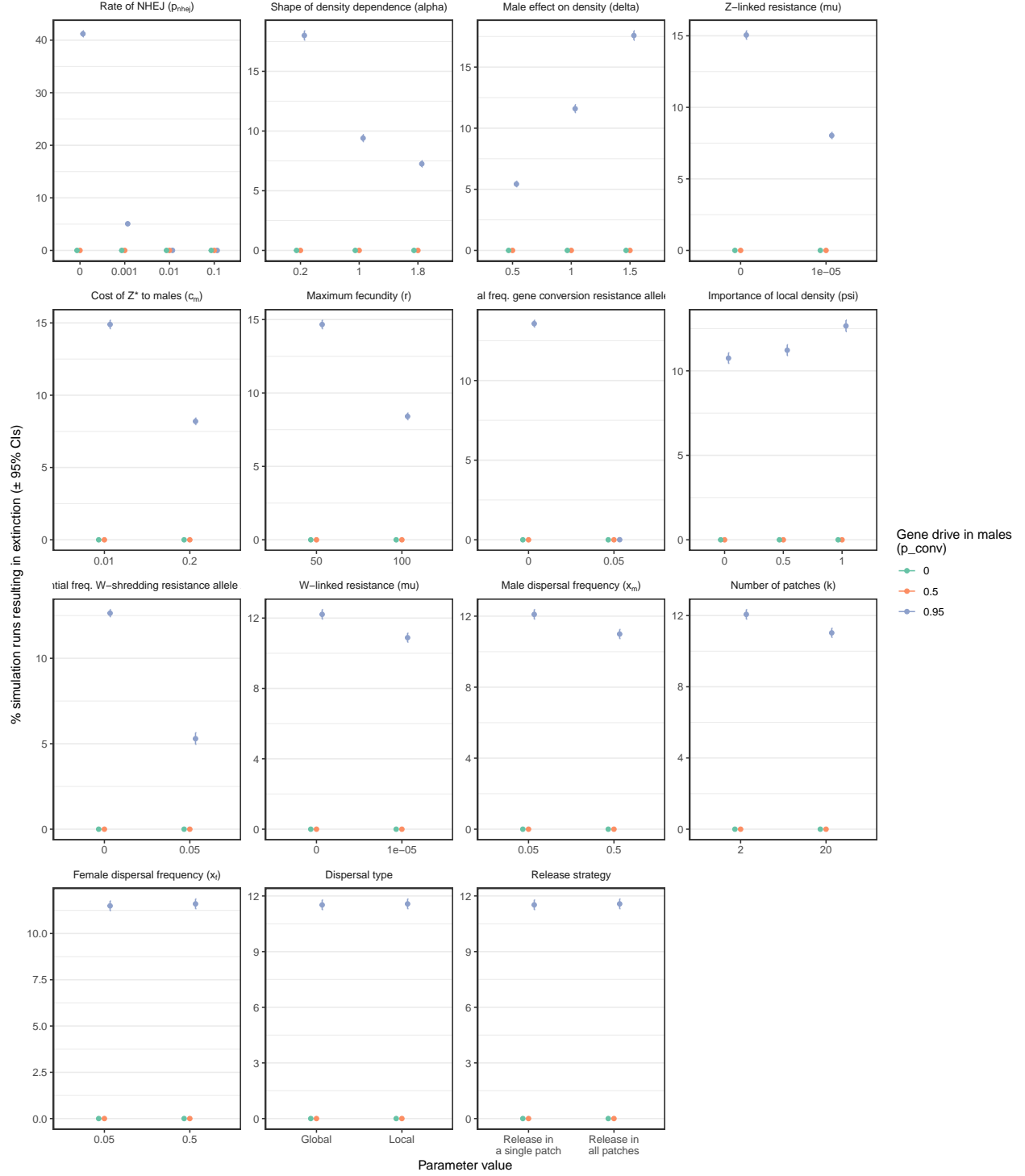


Figure S2: The percentage of simulations of a female-sterilising Z^* allele (not a W -shredder) that ended in extinction, for all runs with a particular value (shown on the x -axis) for a given parameter (shown in the panels). Note that the maximum values on the y -axis are more smaller than in Figure 2, indicating that a female-sterilising Z^* allele is likely to be less effective than a W -shredder at suppressing populations. The panels are ordered by the range of the x -axis, which indicates the relative importance of the variables for the probability of extinction.

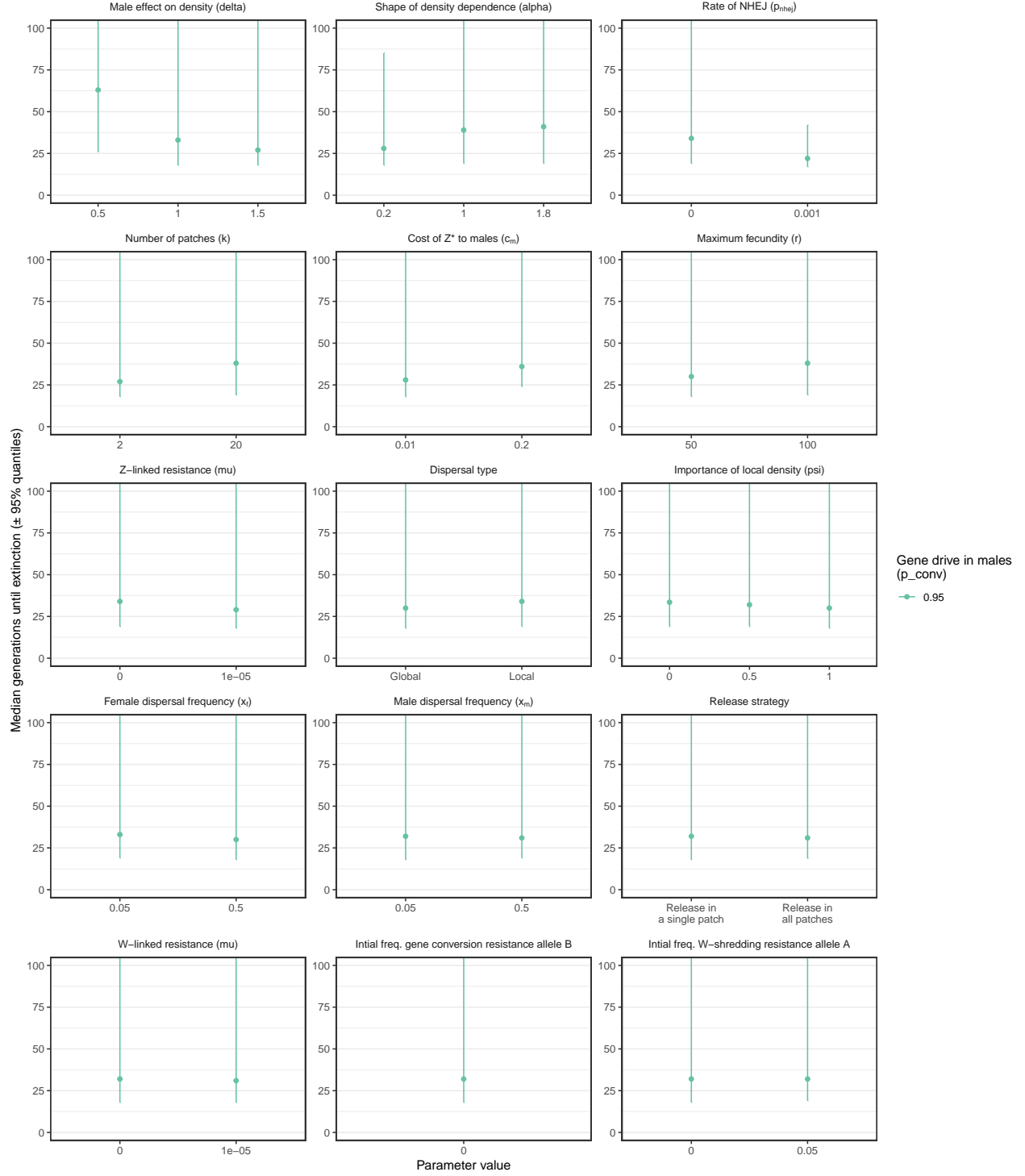


Figure S3: The percentage of simulations of a female-sterilising Z^* allele (not a W -shredder) that ended in extinction, for all runs with a particular value (shown on the x -axis) for a given parameter (shown in the panels). Note that the maximum values on the y -axis are more smaller than in Figure 2, indicating that a female-sterilising Z^* allele is likely to be less effective than a W -shredder at suppressing populations. The panels are ordered by the range of the x -axis, which indicates the relative importance of the variables for the probability of extinction.

Supplementary tables

Table S1: The number and percentage of simulation runs (out of 2316378 total) that ended with the five possible outcomes, for the subset of simulation runs focusing on a W -shredder gene drive.

Outcome	Number of simulations	%
Zd fixed without causing extinction	840913	36.3
Population went extinct	660783	28.5
Zd went extinct	425005	18.3
Wr fixed	316890	13.7
Timer expired	72787	3.1

Table S2: The number and percentage of simulation runs (out of 335063 total) that ended with the five possible outcomes, for the subset of simulation runs focusing on a female-sterilising *Z*-linked gene drive.

Outcome	Number of simulations	%
Zd went extinct	271104	80.9
Timer expired	44940	13.4
Population went extinct	12932	3.9
Wr fixed	6087	1.8