

Probability  
of extinction

Selection  
ratio

Intensity

Probability of ultimate survival of  
mutations with different favourable  
selective intensities

$p$	$\log p^{-1}$	$\frac{\log p^{-1}}{g}$	$\log \log p^{-1} - \log g$
.99	.01005,0336	1.00503,36	.00502,19
.98	.02020,08 <sup>07</sup>	1.01006,54	.01008,43
.96	.04082,19 <sup>95</sup>	1.02055,99	.02034,08
.93	.07257,08 <sup>93</sup>	1.03672,42	.03606,61
.90	.10536,0516	1.05360,52	.05221,78
.85	.16251,90	1.08346,00	.08015,97
.75	.28738,20	1.15072,80	.14472,94
.65	.43078,28	1.23080,80	.20767,08
.55	.59783,70	1.32852,67	.28407,06
.45	.79850,77	1.45183,22	.37282,62
.35	1.04982,22	1.61511,11	.47940,37
.25	1.38629,44	1.84839,15	.61196,49
.20	1.60943,79	2.01179,74	.69902,87
.16	1.83258,14	2.18164,45	.78007,71
.08	2.52572,86	2.74535,72	1.00991,11
.04	3.21887,58	3.35299,56	1.20985,41
.02	3.91202,30	3.99186,02	1.38425,73
.01	4.60517,02	4.65168,71	1.53721,43

When  $g$  is small

$$i = \frac{1}{2}g + \frac{5}{24}g^2 + \frac{1}{8}g^3 + \frac{151}{2880}g^4 + \frac{19}{288}g^5 + \frac{14057}{362880}g^6$$

$$g = 2i - \frac{5}{3}i^2 + \frac{7}{9}i^3 - \frac{131}{540}i^4 + \frac{19}{320}i^5$$

Probability of ultimate survival of mutations with different  
favourable selective intensities.