P_RDN under the weak mutations effects approximation

$$P_{rescue} \underset{\lambda \ll r_{max}}{\approx} 1 - exp(-N_0\, U\, e^{-\alpha}\, \alpha^{-3/2}) \quad \text{with} \quad \alpha \approx \frac{r_D^2\, r_{max}}{4\lambda}$$

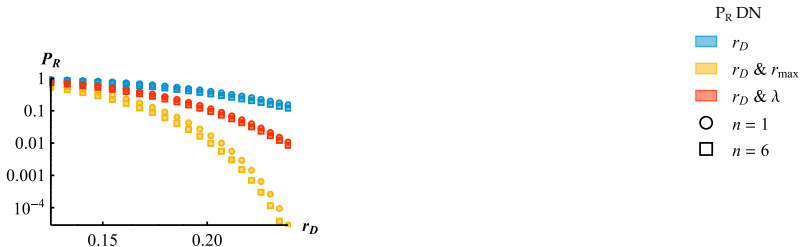$$P_{rescue} \underset{\lambda \ll r_{max}}{\approx} 1 - exp(-N_0\,U\,e^{-\alpha}\,\alpha^{-3/2}) \quad \text{with} \quad \alpha \approx \frac{r_D^2\,r_{max}}{4\lambda}$$

The effective stress level

P_R DN

- r_D
- r_D & r_{max}
- r_D & λ
- ○ $n = 1$
- □ $n = 6$

P_R

r_D

P_RDN under the weak mutations effects approximation

$$P_{rescue} \approx 1 - exp(-N_0 \, U \, e^{-\alpha} \, \alpha^{-3/2}) \quad \text{with} \quad \alpha \approx \frac{r_D^2 \, r_{max}}{4\lambda}$$

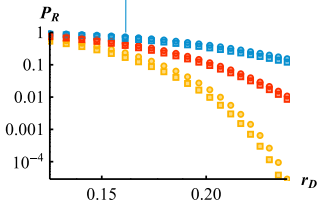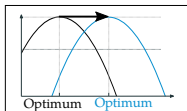$\lambda \ll r_{max}$
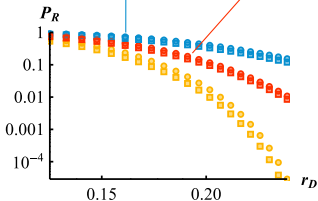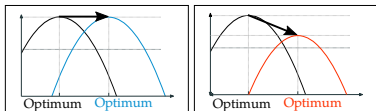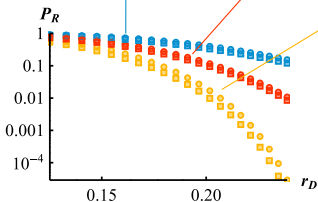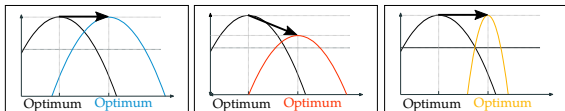
The effective stress level

P_R DN

- ▬ r_D
- ▬ r_D & r_{max}
- ▬ r_D & λ
- ○ $n = 1$
- □ $n = 6$

$P_R DN$
under the weak mutations
effects approximation

$$P_{rescue} \underset{\lambda \ll r_{max}}{\approx} 1 - exp(-N_0\, U\, e^{-\alpha}\, \alpha^{-3/2}) \quad \text{with} \quad \alpha \approx \frac{r_D^2\, r_{max}}{4\lambda}$$
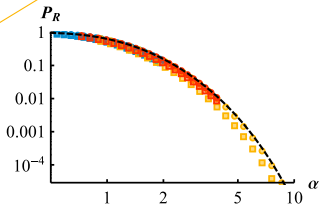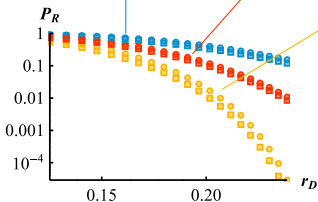
The effective stress level
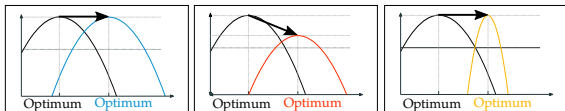

P_R

$P_R DN$

- ■ r_D
- ■ r_D & r_{max}
- ■ r_D & λ
- ○ $n = 1$
- □ $n = 6$

P_RDN
under the weak mutations effects approximation

$$P_{rescue} \approx 1 - exp(-N_0\, U\, e^{-\alpha}\, \alpha^{-3/2})$$
$$\lambda \ll r_{max}$$

with $\alpha \approx \dfrac{r_D^2\, r_{max}}{4\lambda}$

The effective stress level

$P_R DN$
under the weak mutations effects approximation

$$P_{rescue} \approx 1 - exp\left(-N_0\, U\, e^{-\alpha}\, \alpha^{-3/2}\right) \underset{\lambda \ll r_{max}}{} \quad \text{with} \quad \alpha \approx \frac{r_D^2\, r_{max}}{4\lambda}$$

The effective stress level

$P_R DN$ under the weak mutations effects approximation

$$P_{rescue} \underset{\lambda \ll r_{max}}{\approx} 1 - exp(-N_0 U e^{-\alpha} \alpha^{-3/2})$$

with $\alpha \approx \dfrac{r_D^2 \, r_{max}}{4\lambda}$

The effective stress level

$P_R DN$

- r_D (blue)
- r_D & r_{max} (yellow)
- r_D & λ (red)
- $\circ$ $n = 1$
- $\square$ $n = 6$
- $--$ $P_R DN$ $\lambda << r_{max}$

α summarizes the effect on the ER probability of **all the different scenarios** of stressing environmental change