Appendix S1. Description of candidate *a priori* deterministic functions

To determine concentration–response relationships between each stressor (X) and response (Y), we used the following candidate deterministic functions:

Null: \[ Y = a \]

Linear: \[ Y = bX + a \]

Quadratic: \[ Y = b_1X + b_2X^2 + a \]

Exponential: \[ Y = ae^{bx} \]

Power: \[ Y = aX^b \]

Monod: \[ Y = ((aX)/(b-X)) \]

Threshold (null left slope): if \( X < \) the predicted breakpoint, then \( Y = a \)
if \( X \geq \) the predicted breakpoint, then \( Y = b(X – \text{breakpoint}) – a \)

Threshold (null right slope): if \( X < \) breakpoint: \( Y = bX + a \)
if \( X > \) breakpoint: \( Y = b*\text{breakpoint} + a \)