Thermal Performance Curve Notes

1. Why we need TPC in `physiology` and `ecology`?
    - TPC provide objective estimates of 'optimal' temperature (usually the temperature at which performance is maximal).
2. What `terms` do we have in TPC?
    1. **Performance breadth**
    2. **Tolerance Zone** (Critical Thermal Limits)
    3. **Optimum (Performence)**
        - Thermal Optimum T_0
    4. **x: Temperature**
    5. **y: Trait rates/values**
3. What properties do we have in TPC?
    - Single maximum point (Thermal optimum T_0)
    - Asymmetric skew towards `low body temperatures`
4. What `constraints` do we have on TPC functions?
    - Effects of temp on underlying `enzymatic reactions`
    - Some insects TPC predicted by `thermal kinetics of control enzymes`
5. Some hypothesis related to TPC:
    1. **Hotter-is-better Hypothesis**
        - Max performance of organisms with high opti. temp >> that of organisms with low opti. temp
    2. **Jack-of-all-temperatures Hypothesis**
        - Trade-off exists between maximal performance and breath of performance
        - The trade-off >> compromise between `flexibility` and `stability` of enzymes.