

Table S1. Comparison of parameter values when using all salamander data (“ALL”) versus when using only data from salamanders collected underneath cover objects (“CO”). P.h. represents *P. hubrichti* and P.c. represents *P. cinereus*. Output is shown for mean parameter estimates from posterior distributions (“Mean”), standard deviations of posterior distributions (“sd”), and 2.5% and 97.5 % values from each posterior (i.e., 95% credibility intervals).

| Species | Variable | Method | Site Type | Mean | sd | 2.50% | 97.50% |
|---------|----------------|--------|-----------|--------|-------|--------|--------|
| P.h. | Body Condition | ALL | Dominant | 0 | 0.048 | -0.097 | 0.09 |
| P.h. | Body Condition | CO | Dominant | 0.018 | 0.048 | -0.079 | 0.113 |
| P.h. | Body Condition | ALL | Mixed | 0.008 | 0.05 | -0.093 | 0.107 |
| P.h. | Body Condition | CO | Mixed | 0.005 | 0.052 | -0.101 | 0.11 |
| P.h. | Body Condition | ALL | Rare | -0.066 | 0.091 | -0.243 | 0.113 |
| P.h. | Body Condition | CO | Rare | -0.07 | 0.093 | -0.25 | 0.115 |
| P.c. | Body Condition | ALL | Dominant | -0.109 | 0.041 | -0.19 | -0.027 |
| P.c. | Body Condition | CO | Dominant | -0.104 | 0.044 | -0.189 | -0.014 |
| P.c. | Body Condition | ALL | Mixed | -0.084 | 0.041 | -0.166 | -0.002 |
| P.c. | Body Condition | CO | Mixed | -0.079 | 0.044 | -0.166 | 0.01 |
| P.c. | Body Condition | ALL | Rare | -0.118 | 0.064 | -0.246 | 0.008 |
| P.c. | Body Condition | CO | Rare | -0.117 | 0.067 | -0.245 | 0.015 |
| P.h. | Tail loss | ALL | Dominant | 0.238 | 0.42 | -0.59 | 1.068 |
| P.h. | Tail loss | CO | Dominant | 0.276 | 0.425 | -0.572 | 1.124 |
| P.h. | Tail loss | ALL | Mixed | 1.096 | 0.457 | 0.194 | 2.01 |
| P.h. | Tail loss | CO | Mixed | 1.171 | 0.473 | 0.234 | 2.12 |
| P.h. | Tail loss | ALL | Rare | 1.072 | 0.83 | -0.534 | 2.72 |
| P.h. | Tail loss | CO | Rare | 1.087 | 0.823 | -0.55 | 2.701 |
| P.c. | Tail loss | ALL | Dominant | 0.355 | 0.433 | -0.608 | 1.142 |
| P.c. | Tail loss | CO | Dominant | 0.393 | 0.406 | -0.444 | 1.165 |
| P.c. | Tail loss | ALL | Mixed | 0.556 | 0.41 | -0.3 | 1.343 |
| P.c. | Tail loss | CO | Mixed | 0.606 | 0.396 | -0.185 | 1.366 |
| P.c. | Tail loss | ALL | Rare | 0.776 | 0.601 | -0.397 | 1.958 |
| P.c. | Tail loss | CO | Rare | 0.84 | 0.582 | -0.28 | 1.972 |

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|------|-------------|-----|----------|--------|-------|--------|-------|
| P.h. | Recruitment | ALL | Dominant | -0.864 | 0.476 | -1.828 | 0.085 |
| P.h. | Recruitment | CO | Dominant | -0.798 | 0.491 | -1.792 | 0.184 |
| P.h. | Recruitment | ALL | Mixed | -0.831 | 0.545 | -1.929 | 0.255 |
| P.h. | Recruitment | CO | Mixed | -0.827 | 0.551 | -1.913 | 0.256 |
| P.h. | Recruitment | ALL | Rare | -0.098 | 0.869 | -1.874 | 1.547 |
| P.h. | Recruitment | CO | Rare | -0.038 | 0.888 | -1.819 | 1.688 |
| P.c. | Recruitment | ALL | Dominant | -0.013 | 0.617 | -1.24 | 1.199 |
| P.c. | Recruitment | CO | Dominant | 0.042 | 0.555 | -1.067 | 1.114 |
| P.c. | Recruitment | ALL | Mixed | -0.604 | 0.635 | -1.957 | 0.543 |
| P.c. | Recruitment | CO | Mixed | -0.478 | 0.582 | -1.686 | 0.613 |
| P.c. | Recruitment | ALL | Rare | 0.72 | 0.766 | -0.905 | 2.099 |
| P.c. | Recruitment | CO | Rare | 0.85 | 0.706 | -0.638 | 2.138 |