| Model Parameter | From | To | Silver Carp | Bighead Carp |
| --- | --- | --- | --- | --- |
| transition probability | A | D | 0.0527 (0.0345-0.2110) | 0.1433 (0.0000–0.1858) |
|  | A | M | 0.1493 (0.0000‑0.1899) | 0.0001 (0.0000–0.1542) |
|  | A | S | 0.0000 (0.0000–0.0056) | 0.0000 (0.0000–0.0056) |
|  | A | P | 0.0000 (0.0000–0.0041) | 0.0000 (0.0000–0.0102) |
|  | A | L | 0.0029 (0.0000–0.0444) | 0.0151 (0.0034–0.0359) |
|  | A | A | 0.7954 (0.7410–0.8706) | 0.8342 (0.7895–0.8849) |
|  | L | D | 0.0000 (0.0000–0.0007) | 0.0000 (0.0000–0.0029) |
|  | L | M | 0.0000 (0.0000–0.1113) | 0.1266 (0.0000–0.1694) |
|  | L | S | 0.0393 (0.0000–0.0606) | 0.0000 (0.0000–0.0090) |
|  | L | P | 0.0564 (0.0212–0.0841) | 0.0050 (0.0000–0.0396) |
|  | L | L | 0.8819 (0.8440–0.9130) | 0.8295 (0.6773–0.8828) |
|  | L | A | 0.0071 (0.0026–0.0152) | 0.0272 (0.0111–0.3034) |
|  | P | D | 0.0000 (0.0000–0.0017) | 0.0001 (0.0000–0.1349) |
|  | P | M | 0.0000 (0.0000–0.0016) | 0.0000 (0.0000–0.0070) |
|  | P | S | 0.0277 (0.0080–0.0998) | 0.0880 (0.0160–0.1489) |
|  | P | P | 0.6368 (0.5215–0.8538) | 0.8579 (0.8071–0.9124) |
|  | P | L | 0.3404 (0.0727–0.4562) | 0.0186 (0.0024–0.0642) |
|  | P | A | 0.0000 (0.0000–0.0031) | 0.0000 (0.0000–0.0087) |
|  | S | D | 0.0000 (0.0000–0.0005) | 0.0000 (0.0000–0.0037) |
|  | S | M | 0.0000 (0.0000–0.0005) | 0.0207 (0.0063–0.0467) |
|  | S | S | 0.9156 (0.8945–0.9347) | 0.7404 (0.6475–0.8324) |
|  | S | P | 0.0310 (0.0186–0.0830) | 0.2186 (0.1355–0.3107) |
|  | S | L | 0.0541 (0.0019–0.0768) | 0.0120 (0.0004–0.0530) |
|  | S | A | 0.0000 (0.0000–0.0021) | 0.0000 (0.0000–0.0086) |
|  | M | D | 0.0009 (0.0000–0.0047) | 0.0163 (0.0078–0.0294) |
|  | M | M | 0.7680 (0.7229–0.8546) | 0.7696 (0.7294–0.8078) |
|  | M | S | 0.0104 (0.0044–0.0197) | 0.0209 (0.0107–0.0359) |
|  | M | P | 0.0012 (0.0001–0.0064) | 0.0000 (0.0000–0.0039) |
|  | M | L | 0.0077 (0.0003–0.2244) | 0.1786 (0.0000–0.2265) |
|  | M | A | 0.2095 (0.0000–0.2574) | 0.0001 (0.0000–0.2192) |
|  | D | D | 0.8473 (0.8047–0.8845) | 0.8089 (0.7791–0.8366) |
|  | D | M | 0.0110 (0.0033–0.0261) | 0.0182 (0.0102–0.0294) |
|  | D | S | 0.0000 (0.0000–0.0024) | 0.0023 (0.0003–0.0074) |
|  | D | P | 0.0000 (0.0000–0.0024) | 0.0081 (0.0016–0.1896) |
|  | D | L | 0.0000 (0.0000–0.0036) | 0.0000 (0.0000–0.0039) |
|  | D | A | 0.1399 (0.1041–0.1815) | 0.1534 (0.0000–0.1887) |
| survival probability |  |  | 0.9634 (0.9556–0.9708) | 0.9690 (0.9611–0.9762) |
| battery life |  |  | 0.9709 (0.9670–0.9744) | 0.9678 (0.9627–0.9724) |
| detection overall mean |  |  | 0.9064 (-0.1155–1.6685) | 0.9332 (-0.2780–1.8650) |
| detection standard deviation |  |  | 0.9841 (0.5191–2.5646) | 1.2208 (0.6054–3.4820) |
| detection effect pool A |  |  | 0.2590 (0.1442–0.6173) | 0.3429 (0.2067–0.4271) |
| detection effect pool L |  |  | 0.1543 (0.1236–0.1846) | 0.3313 (0.2683–0.7296) |
| detection effect pool P |  |  | 0.7720 (0.5173–0.9364) | 0.3639 (0.1404–0.4676) |
| detection effect pool S |  |  | 1.3143 (1.2475–1.0996) | 1.5065 (1.1463–4.0551) |
| detection effect pool M |  |  | 1.6688 (1.2254–2.3550) | 1.7175 (1.4754–2.9824) |
| detection effect pool D |   |   | 2.1760 (1.7864–2.6334) | 2.4770 (1.8409–4.0946) |