

Table S3. Comparative infection levels between males and females for *A. franciscana* hosts from Salar de Atacama lagoons and *A. persimilis* hosts from Patagonian lagoons in Chile. N, number of examined *Artemia* individuals; SE, standard error. Fl-1, *Flamingolepis* sp.1; Fl-2, *Flamingolepis* sp. 2; CP, *Confluaria podicipina*; Fsp, *Fimbriarioides* sp.; Wsp, *Wardium* sp; EA, *Eurycestus avoceti*; FA, *Fuhrmannolepis averini*; GS, *Gynandrotaenia stammeri*. Sex effects were analyzed using Z test for prevalence and Mann-Whitney U test for intensity and abundance.

| | <i>A. franciscana</i> | | | | | <i>A. persimilis</i> | | | | |
|-----------------------------------|-----------------------|----------------------|--------|--------|---------|----------------------|--------------------|--------|----------|---------|
| | Males (N=539) | Females (N = 585) | Z | U | p-value | Males (N=524) | Females (N=576) | Z | U | p-value |
| Total infection | | | | | | | | | | |
| N infected | 21 | 25 | | | | 55 | 45 | | | |
| Prevalence % | 3.9 | 4.3 | 0.187 | - | 0.852 | 10.5 | 7.8 | 1.451 | - | 0.147 |
| Mean intensity ±SE | 1.6 ±0.52 | 1.08 ±0.06 | - | 245 | 0.531 | 1.07 ±0.04 | 1.04 ±0.03 | | 1224 | 0.862 |
| Intensity range | 1-12 | 1-2 | - | - | - | 1-3 | 1-2 | - | - | - |
| Mean abundance ±SE | 0.06 ±0.02 | 0.05 ±0.009 | - | 157080 | 0.754 | 0.11 ± 0.02 | 0.08 ±0.01 | - | 146848.5 | 0.127 |
| Specific cestode infection | | | | | | | | | | |
| Prevalence Fl-1 | 2.4 | 3.8 | 1.175 | - | 0.240 | 4.2 | 5.9 | - | - | - |
| Prevalence Fl-2 | 0.4 | 0.2 | 0.0671 | - | 0.946 | - | - | - | - | - |
| Prevalence CP | - | - | - | - | - | 1.0 | 2.1 | 1.221 | - | 0.222 |
| Prevalence Fsp | - | - | - | - | - | 4.0 | 1.9 | 1.893 | - | 0.058 |
| Prevalence Wsp | - | - | - | - | - | 0.2 | 0 | 0.0954 | - | 0.924 |
| Prevalence EA | 0.2 | 0.2 | -0.668 | - | 0.504 | - | - | - | - | - |
| Prevalence FA | 0.9 | 0 | 1.844 | - | 0.065 | - | - | - | - | - |
| Prevalence GS | 0.2 | 0.2 | -0.668 | - | 0.504 | - | - | - | - | - |

(-) Denotes no available data