Resistant Population  
(Roselle Lake)

Ancestral Population  
(Sayward Estuary)

Susceptible Population  
(Gosling Lake)

Figure S1. Map of sampling locations for each of the study populations on Vancouver Island, Canada. Map courtesy of Vivid Maps 2021.
**Scoring Fibrosis:** We scored fibrosis in the peritoneal cavity visually using a dissecting microscope as: 0 (no fibrosis), 1 (some fibrosis, organs do not move freely), 2 (fibrosis adhering organs together), 3 (organs adhered together and to the peritoneal wall), 4 (severe fibrosis, difficult to open peritoneal cavity). See supplemental video “Scoring Fibrosis in Fresh Stickleback Fish” for a visual description of these four scoring levels. Scoring fibrosis is inherently destructive, as the connective tissue is broken as the fish is opened and organs are moved to see if they are adhered. This scoring also had to be done quickly, as we wanted to remove organs for further gene expression analysis rapidly after the fish was euthanized. Given this, each fish was only scored by one person. This limitation led us to break a continuous phenotype into only 4 levels which were clearly definable and distinguishable. While this meant simplifying much variation, we specifically defined these levels such that we were confident we could distinguish between them.

| Table S1. Least squared means and confidence intervals (from permuted t-tests) for fibrosis response results from the laboratory injection experiment. Broken up by time, population, and treatment. Exact values of least squared means and confidence intervals varied slightly depending on how models were constructed (question 1, 2, and 3 from the main text), but results were consistent. |
|---|---|---|---|---|
| 1 Day | 10 Days | 42 Days | 90 Days |
| LSM | CI | LSM | CI | LSM | CI | LSM | CI |
| **Ancestral Population (Sayward)** | | | | |
| PBS | 0 | na | 0.00 | -0.35, 0.35 | 0.08 | -0.16, 0.32 | 0.00 | -0.41, 0.41 |
| Alum | 0 | na | 2.82 | 2.47, 3.18 | 3.77 | 3.56, 3.99 | 4.00 | 3.67, 4.33 |
| Tapeworm | 0 | na | 0.11 | -0.23, 0.44 | 0.04 | -0.17, 0.26 | 0.00 | -0.29, 0.29 |
| Tapeworm+Alum | 0 | na | 2.64 | 2.27, 3.00 | 3.68 | 3.43, 3.92 | 3.67 | 3.33, 4.00 |
| **Susceptible Population (Gosling)** | | | | |
| PBS | -0.01 | -0.11, 0.08 | -0.14 | -0.53, 0.26 | 0.08 | -0.47, 0.62 | -0.16 | -1.40, 1.08 |
| Alum | 0.00 | -0.10, 0.10 | 2.27 | 1.88, 2.66 | 2.67 | 2.10, 3.24 | 3.12 | 2.36, 3.89 |
| Tapeworm | -0.01 | -0.10, 0.09 | -0.06 | -0.44, 0.33 | 0.14 | -0.44, 0.72 | 0.49 | -1.11, 2.11 |
| Tapeworm+Alum | 0.11 | -0.01, 0.20 | 2.62 | 2.24, 3.01 | 3.20 | 2.63, 3.77 | 3.00 | 1.89, 4.10 |
| **Resistant Population (Roselle)** | | | | |
| PBS | 0.04 | -0.63, 0.72 | 0.16 | -0.32, 0.65 | 0.13 | -0.35, 0.62 | 0.00 | -0.79, 0.79 |
| Alum | 1.24 | 0.56, 1.91 | 3.20 | 2.71, 3.69 | 2.71 | 2.22, 3.20 | 1.67 | 0.88, 2.46 |
| Tapeworm | 0.69 | -0.00, 1.38 | 1.41 | 0.90, 1.92 | 0.57 | 0.10, 1.04 | 0.25 | -0.23, 0.73 |
| Tapeworm+Alum | 1.69 | 1.01, 2.38 | 3.15 | 2.64, 3.66 | 2.30 | 1.80, 2.79 | 1.67 | 1.10, 2.22 |