

1 **APPENDIX 5**

2 Table A5.1 Pair-wise contrasts evaluating the effect of governance regime (Indigenous, Colonial  
 3 Control and Environmental Justice) on each resilience metric (n=22). P-values adjusted via  
 4 Tukey method. Bold = significant, non-bold = not significant. The effect of Governance Regime  
 5 differed among the metrics we used to assess each resilience principle.  
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| Resilience Principle          | Metric  | Indigenous vs. Colonial Control | Colonial Control vs. Environmental Justice | Environmental Justice vs. Indigenous |
|-------------------------------|---|---------------------------------|--|--------------------------------------|
| Manage Diversity & Redundancy | Marine Species & Habitat Diversity            | <b>0.0032</b>                   | <b>0.0006</b>                              | <b>&lt;0.0001</b>                    |
|                               | Species Response Diversity                    | 0.4136                          | 0.1528                                     | <b>0.0059</b>                        |
|                               | Diversity of Perspectives                     | <b>0.0024</b>                   | 0.7390                                     | <b>0.0002</b>                        |
|                               | Diversity of Livelihoods                      | <b>0.0001</b>                   | 0.5567                                     | <b>&lt;0.0001</b>                    |
|                               | Diversity in Herring Size Structure           | <b>&lt;0.0001</b>               | <b>&lt;0.0001</b>                          | <b>&lt;0.0001</b>                    |
|                               | Diversity in Herring Spawning Season Dates    | <b>0.0006</b>                   | <b>&lt;0.0001</b>                          | <b>&lt;0.0001</b>                    |
| Manage Connectivity           | Degree of Information Sharing                 | <b>&lt;0.0001</b>               | 0.7737                                     | <b>&lt;0.0001</b>                    |
| Manage Slow variables         | Understanding of Gradual Changes              | <b>&lt;0.0001</b>               | 0.9111                                     | <b>0.0001</b>                        |
|                               | Decisions Updated With New Information        | <b>0.0001</b>                   | 0.6176                                     | <b>&lt;0.0001</b>                    |
|                               | Ability of Managers to Respond to Key Changes | <b>0.0036</b>                   | 0.9696                                     | <b>0.0026</b>                        |

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|-----------------------------------|---|-------------------|--------|-------------------|
| Complex Adaptive Systems Thinking | Willingness to Embrace Change                       | 0.2168            | 0.9560 | 0.1355            |
|                                   | Preparedness to Cope with Unexpected Events         | <b>0.0679</b>     | 0.2533 | <b>0.0006</b>     |
| Encourage Learning                | Innovation & Willingness to Experiment              | <b>0.0002</b>     | 0.7774 | <b>&lt;0.0001</b> |
|                                   | Sharing of Scientific Resources                     | <b>0.0167</b>     | 0.5219 | 0.1813            |
| Broaden Participation             | Level of Participation                              | <b>&lt;0.0001</b> | 0.4453 | <b>&lt;0.0001</b> |
|                                   | Level of Trust                                      | <b>&lt;0.0001</b> | 0.2782 | <b>&lt;0.0001</b> |
|                                   | Level of Cooperation                                | <b>&lt;0.0001</b> | 0.9756 | <b>&lt;0.0001</b> |
| Promote Polycentric Governance    | Use of Indigenous Knowledge & Stewardship Protocols | <b>&lt;0.0001</b> | 0.4924 | <b>&lt;0.0001</b> |
|                                   | Distribution of Power in Decision Making            | <b>0.1216</b>     | 0.9864 | <b>0.0797</b>     |
|                                   | Accountability                                      | <b>&lt;0.0001</b> | 0.4318 | <b>&lt;0.0001</b> |
|                                   | Indigenous Authority to Access Herring              | <b>&lt;0.0001</b> | 0.7448 | <b>0.0001</b>     |
|                                   | Willingness for Conflict Resolution                 | <b>&lt;0.0001</b> | 0.5467 | <b>0.0003</b>     |

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