

**S3 Table. Average percentage of species' ranges captured in additional PAs including existing PAs scenarios. First sensitivity analysis to select species range representation target.**

| Scenario                            | Species range conservation target  | Boundary length modifier | % of PAs to total land area | Mean % of all species' ranges inside | Mean % of endangered species' ranges inside | Mean % of endemic species' ranges inside | Mean % of biological resource species' ranges inside |
|-------------------------------------|--|--------------------------|-----------------------------|--------------------------------------|---|--|--|
| Same targets                        | 10% of all species   | 0                        | 16.7                        | 17.8                                 | 27.4  | 21.8                                     | 20.5   |
|                                     |  | 0.0007                   | 16.6                        | 18.2                                 | 31.8  | 23.9                                     | 22.3   |
|                                     | 15% of all species   | 0                        | 16.6                        | 17.4                                 | 27.1  | 21.6                                     | 20.3   |
|                                     |  | 0.0007                   | 17.0                        | 18.5                                 | 32.4  | 24.3                                     | 22.7   |
| Specific targets for species groups | 50% for endangered<br>30% for endemic and bio resource<br>10% of remaining | 0                        | 11.0                        | 11.9                                 | 22.4  | 16.4                                     | 15.0   |
|                                     |  |                          | 16.5                        | 17.3                                 | 27.3  | 21.6                                     | 20.3   |
|                                     |  | 0.0007                   | 15.2                        | 16.6                                 | 29.9  | 22.1                                     | 20.6   |
|                                     |  |                          | 16.7                        | 18.2                                 | 32.1  | 24.0                                     | 22.4   |
|                                     | 55% for endangered<br>35% for endemic and bio resource<br>15% of remaining | 0                        | 11.0                        | 11.8                                 | 22.3  | 16.4                                     | 15.0   |
|                                     |  |                          | 16.7                        | 17.4                                 | 27.1  | 21.6                                     | 20.3   |
|                                     |  | 0.0007                   | 15.4                        | 16.8                                 | 29.9  | 22.3                                     | 20.8   |
|                                     |  |                          | 16.8                        | 18.4                                 | 31.9  | 24.0                                     | 22.5   |