**Supplementary Material**

Effects of wind energy production on a threatened species, the Bicknell’s Thrush *Catharus bicknelli*, with and without mitigation

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Appendix S1.Model selection for each facility explaining the probability of occurrence of the Bicknell’s Thrush at two wind energy facilities located in Quebec, Canada.

Appendix S1.Model selection for each facility explaining the probability of occurrence of the Bicknell’s Thrush at two wind energy facilities located in Quebec, Canada. Number of parameters (k), second order Akaike’s information criterion (AICc), ΔAICc, Akaike weight (AICω) and maximum log-likelihood (LL) are shown for each candidate model.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Candidate models** | ***K*** | **AICc** | **ΔAICc** | **AICω** | **LL** |
| **a) Facility without mitigation** |  |  |  |  |  |
| elevation x period | 7 | 182.41 | 0.00 | 0.30 | -83.77 |
| elevation x period + habitat suitability | 8 | 183.23 | 0.83 | 0.20 | -83.06 |
| habitat suitability + period | 5 | 186.51 | 4.10 | 0.04 | -88.03 |
| forest loss x period  | 7 | 187.43 | 5.02 | 0.02 | -86.28 |
| elevation x period + distance x period  | 10 | 187.49 | 5.08 | 0.02 | -82.88 |
| habitat suitability + forest loss x period  | 8 | 187.61 | 5.20 | 0.02 | -85.25 |
| period | 4 | 187.78 | 5.37 | 0.02 | -89.74 |
| distance x period  | 7 | 188.70 | 6.29 | 0.01 | -86.92 |
| habitat suitability + distance x period | 8 | 188.73 | 6.32 | 0.01 | -85.81 |
| forest loss x period + distance x period | 10 | 192.63 | 10.22 | 0.00 | -85.45 |
| Null | 2 | 193.54 | 11.13 | 0.00 | -94.72 |
| **b) Facility with mitigation** |  |  |  |  |  |
| elevation + forest loss x period | 6 | 182.12 | 0.00 | 0.52 | -84.84 |
| elevation + habitat suitability + forest loss x period | 7 | 184.25 | 2.13 | 0.18 | -84.83 |
| elevation + period | 4 | 184.59 | 2.47 | 0.15 | -88.19 |
| elevation + distance x period | 6 | 186.14 | 4.02 | 0.07 | -86.84 |
| elevation + habitat suitability + period | 5 | 186.70 | 4.58 | 0.05 | -88.19 |
| elevation + habitat suitability + distance x period | 7 | 188.24 | 6.12 | 0.02 | -86.82 |
| habitat suitability + forest loss x period | 6 | 199.61 | 17.49 | 0.00 | -93.58 |
| habitat suitability + period | 4 | 201.28 | 19.16 | 0.00 | -96.53 |
| forest loss + period | 5 | 201.67 | 19.55 | 0.00 | -95.68 |
| habitat suitability + distance x period | 6 | 201.73 | 19.61 | 0.00 | -94.64 |
| distance x period | 5 | 202.82 | 20.70 | 0.00 | -96.25 |
| period | 3 | 203.42 | 21.30 | 0.00 | -98.65 |
| null | 2 | 205.44 | 23.32 | 0.00 | -100.69 |