**Appendix S5.** Ranking of best models (ΔAIC <2) for detection probability (*p*) using the combined approach: manatee`s presence detected using both direct and indirect methods were combined in one presence matrix.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Models*** | ***K*** | ***AIC*** | ***∆AIC*** | ***ωAIC*** |
| *Ψ (.) p (Cover)* | 3 | 158.83 | 0.00 | 0.87 |
| *Ψ (.) p (Clim)* | 3 | 164.53 | 5.70 | 0.05 |
| *Ψ (.) p (Peri)* | 3 | 164.79 | 5.96 | 0.04 |
| *Ψ (.) p (Comp)* | 3 | 165.61 | 6.78 | 0.02 |
| *Ψ (.) p (.)* | 2 | 172.40 | 13.57 | 0.00 |
| *Ψ (.) p (Transp)* | 3 | 173.02 | 14.19 | 0.00 |
| *Ψ (.) p (River)* | 3 | 173.24 | 14.41 | 0.00 |
| *Ψ (.) p (Depth)* | 3 | 173.62 | 14.79 | 0.00 |

Note: K: number of parameters; AIC: adjustment of the Akaike information criterion; ΔAIC: difference between AIC values of each model in relation to the model with lower AIC value; ωAIC: model weight.