# Supplementary Material

Table S1. Model selection table of binomial mixture models exploring the relationship between Pitcairn Reed Warbler abundance and variables quantifying habitat composition along 100 m long transects. Note that each model includes variables (wind, time of day, day of season) to account for variability in detection probability. k = number of estimable parameters, AIC = Akaike’s Information Criterion. The ‘full’ model includes all 7 habitat types and was the one used for inference and predicting abundance across the island.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | k | AIC | dAIC | wAIC |
| garden + lantana + mixed + rose\_apple + pandanus + hibiscus + grassfern + length | 15 | 1315.81 | 0.00 | 1.00 |
| garden + rose\_apple + pandanus + length | 11 | 1330.57 | 14.76 | 0.00 |
| garden + lantana + rose\_apple + pandanus + hibiscus + length | 13 | 1330.58 | 14.77 | 0.00 |
| garden + lantana + rose\_apple + pandanus + hibiscus + grassfern + length | 14 | 1331.01 | 15.20 | 0.00 |
| garden + lantana + rose\_apple + pandanus + length | 12 | 1331.13 | 15.32 | 0.00 |
| garden + lantana + rose\_apple + pandanus + grassfern + length | 13 | 1331.84 | 16.03 | 0.00 |
| rose\_apple + pandanus + length | 10 | 1333.49 | 17.68 | 0.00 |
| rose\_apple + length | 9 | 1345.69 | 29.88 | 0.00 |
| pandanus + length | 9 | 1358.61 | 42.79 | 0.00 |
| hibiscus + length | 9 | 1381.11 | 65.30 | 0.00 |
| grassfern + length | 9 | 1382.07 | 66.26 | 0.00 |
| length | 8 | 1385.43 | 69.62 | 0.00 |
| garden + length | 9 | 1386.83 | 71.02 | 0.00 |
| lantana + length | 9 | 1387.41 | 71.60 | 0.00 |