Supplementary Materials

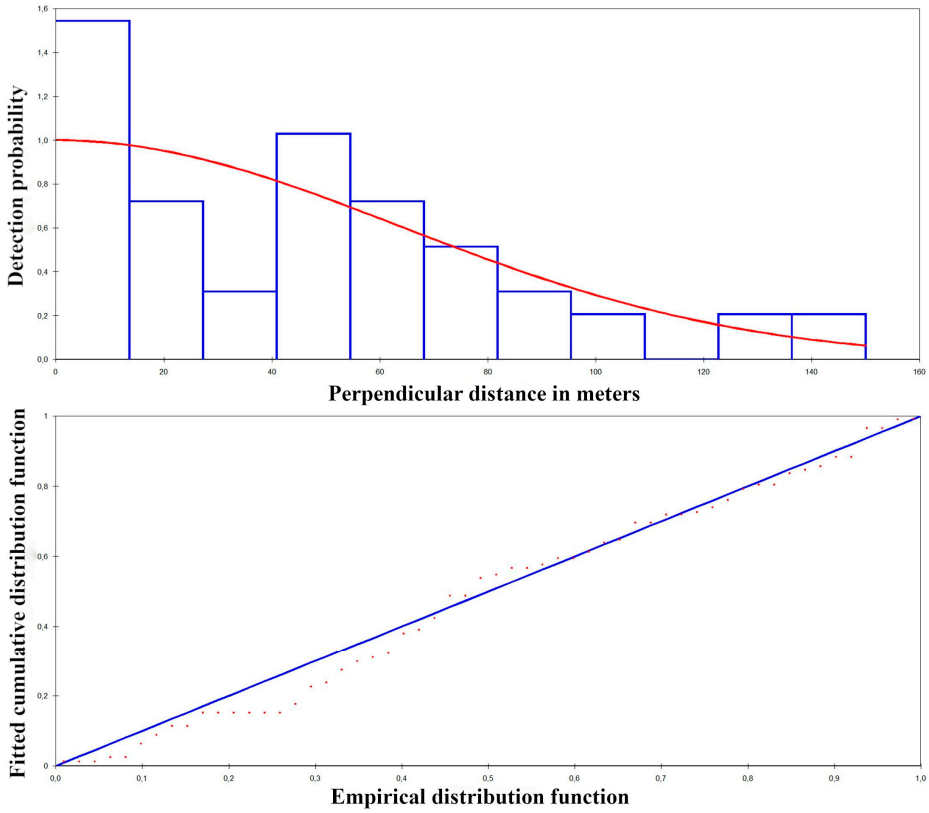

Figure S1. Detection function (above) and Q-Q plot (below) relative to a CDS half-normal analysis performed with a distance of truncation (w) of 150 m for the species *Eumomota superciliosa*. See Table S1 for GoF tests and compare to final modes (see Figures S3 and S4)

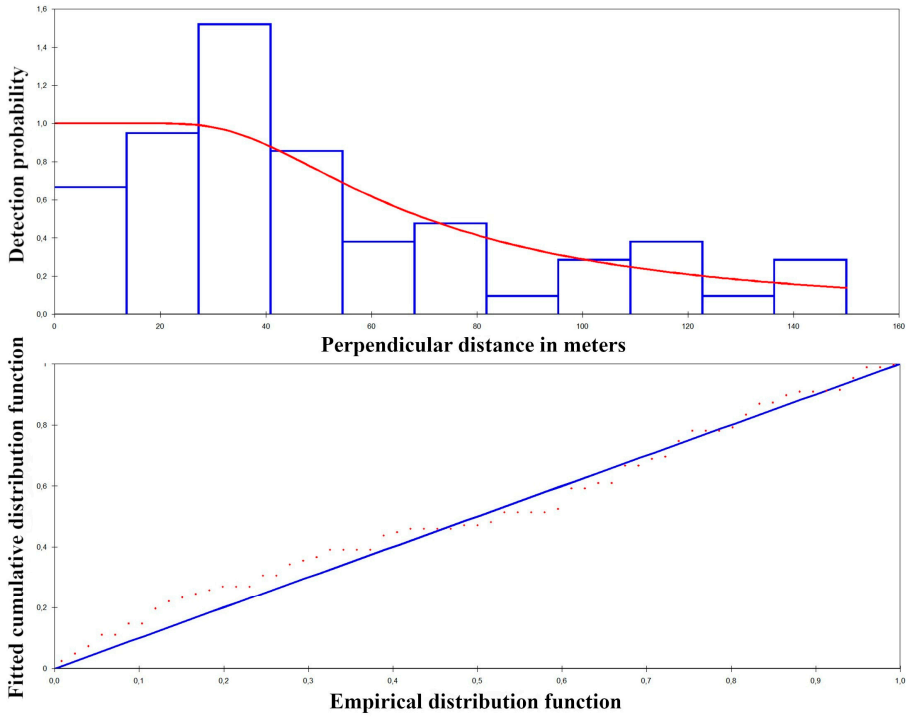

Figure S2. Detection function (above) and Q-Q plot (below) relative to a CDS hazard rate analysis performed with a distance of truncation (w) of 150 m for the species *Momotus lessonii*. See Table S1 for GoF tests and compare to final

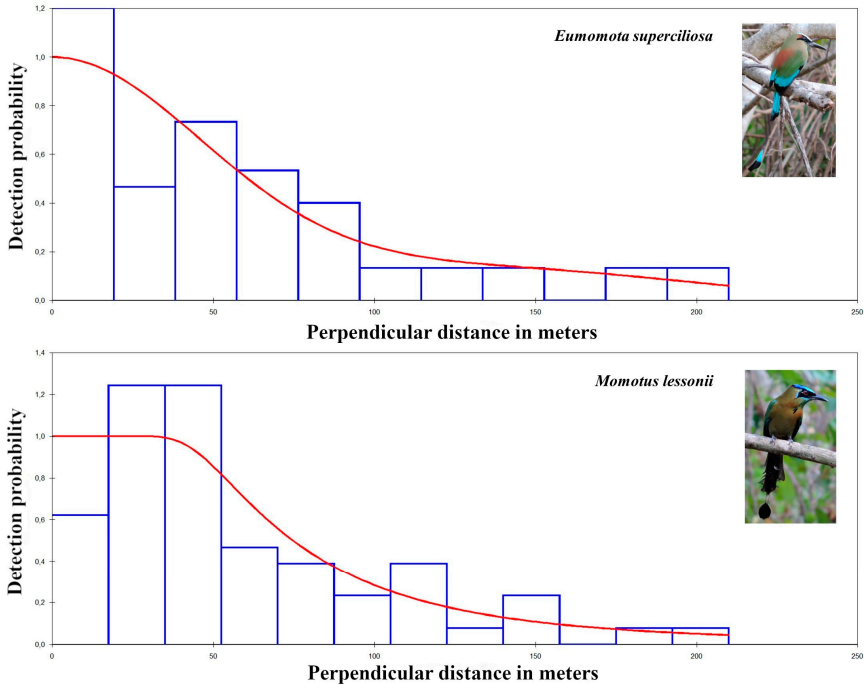

Figure S3. Detection functions of the selected analyses (analyses 1 and 5 in Table 1), based on the curve's goodness of fit (GoF) on the histogram (see section 2. Materials and Methods), computed separately for each species.

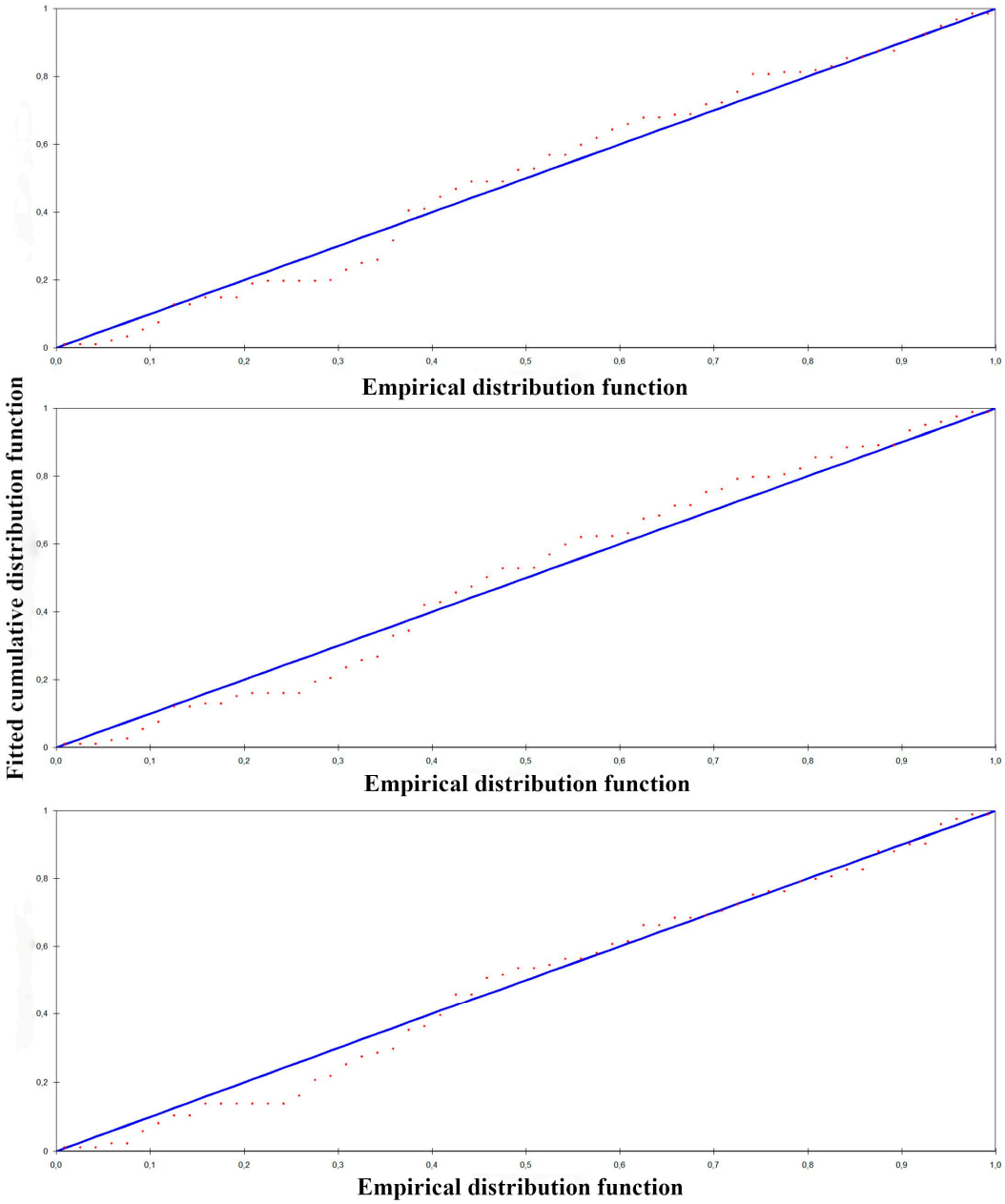

Figure S4. Q-Q plots of models reported in Table 1 for *Eumomota superciliosa*. From the top to the bottom are shown plots corresponding to analysis numbers 1, 2 and 3.

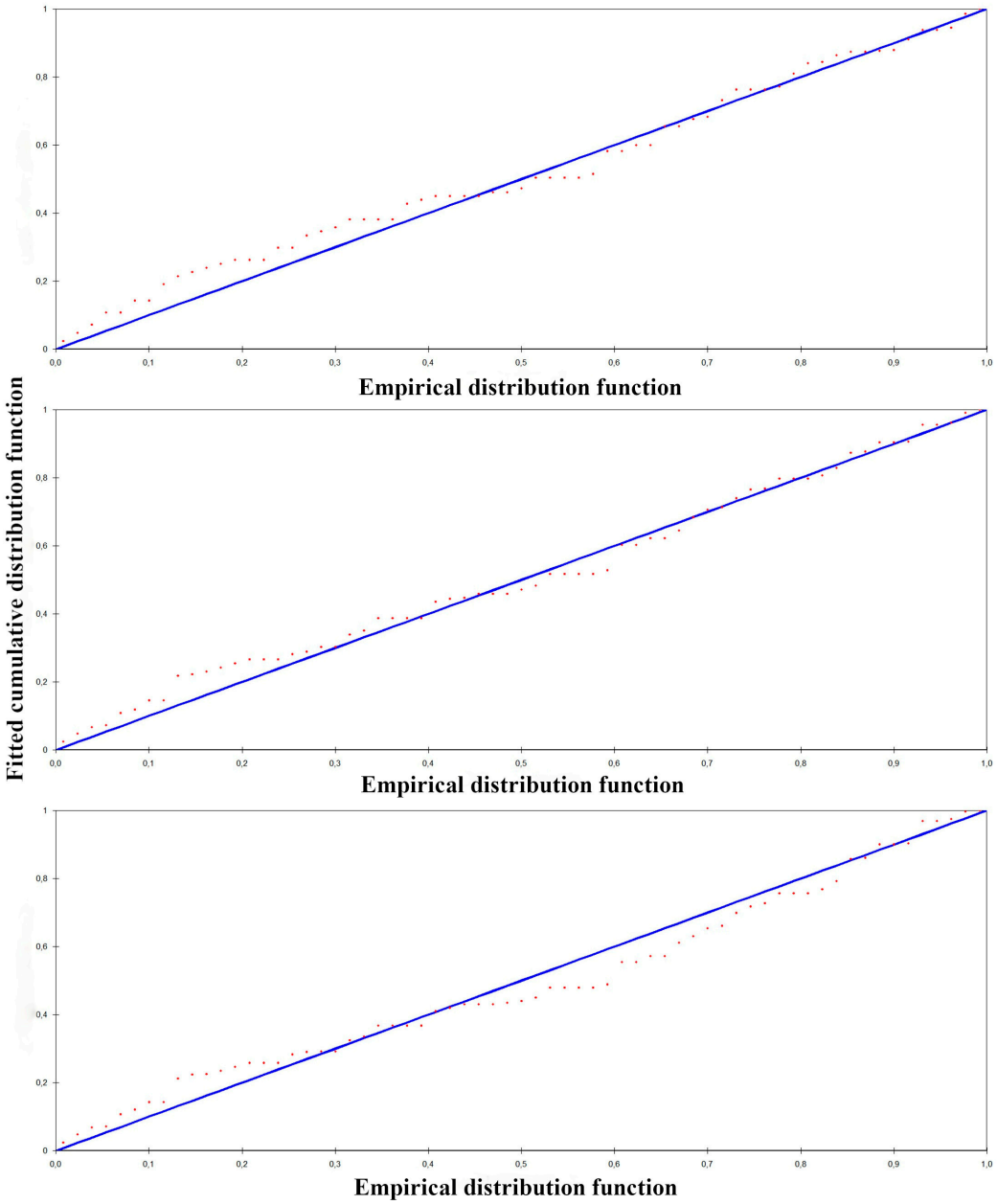

Figure S5. Q-Q plots of models reported in Table 1 for *Momotus lessonii*. From the top to the bottom are shown plots corresponding to analysis numbers 4, 5 and 6.

Table S1. Summary of the results of two illustrative analyses run at a distance of truncation (w) of 150 m for comparison with the selected models (see Table 1). Distances around 150 m were the most inspected for the selection of an appropriate w, but some obvious discrepancies made us reject them, notably in the goodness of fit (e.g., see $p(\chi^2)$ values and see Figures S1 and S2) and rather high percentages of non-considered contacts (8.7% and 15.2% for *M. lessonii* and *E. superciliosa*, respectively).

SPECIES	ANALYSIS	MODEL	k	w	n	KSt GoF	CvMt GoF	p(χ^2)	p	ESW	D ± SE	%CV	95% CI
E. superciliosa	CDS	Half Normal	1	150	56	0.44	$0.60 < p \leq 0.70$	0.18	0.52	78.56	20.66 ± 4.80	23.24	12.62-33.83
M. lessonii	CDS	Hazard Rate	2	150	63	0.64	$0.50 < p \leq 0.60$	0.22	0.54	81.61	22.38 ± 6.68	29.83	12.14-41.24