Supplementary Material

Optimizing sampling and monitoring of species interactions within Biodiversity Observation Networks - Dansereau et al. 2026

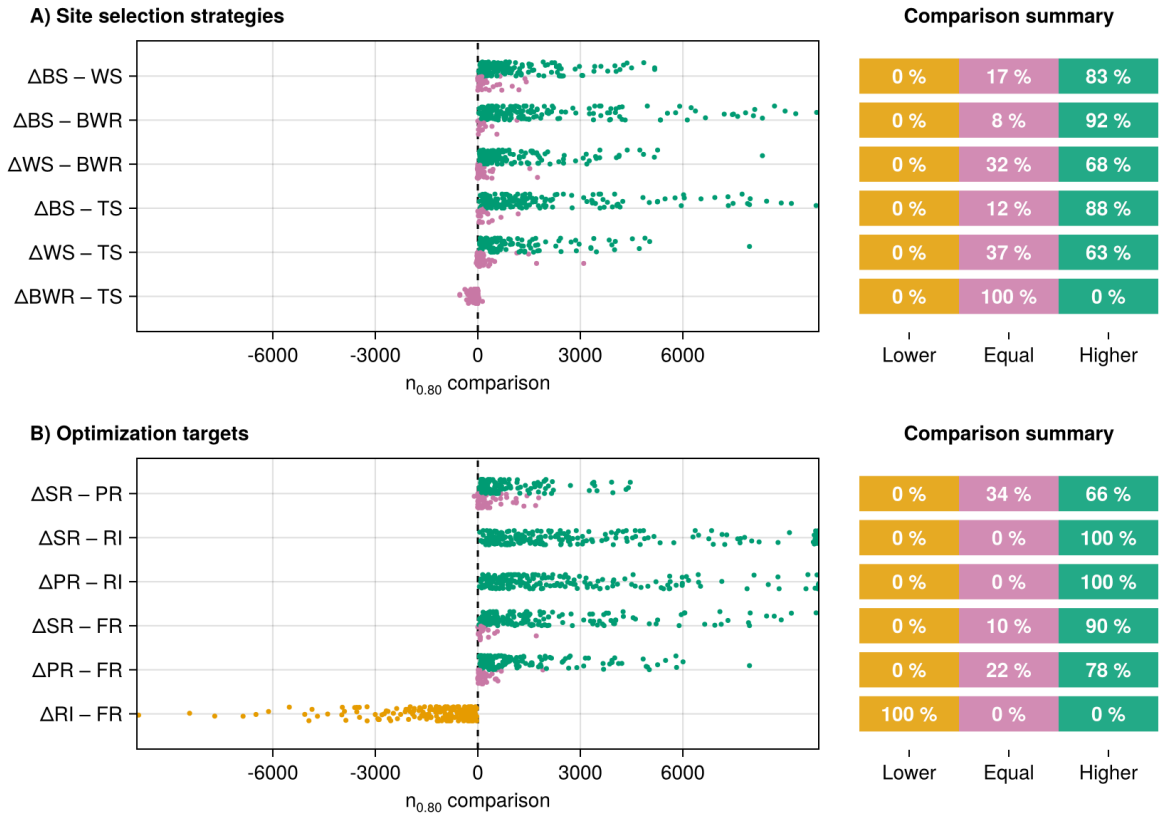

Figure S1: Pair-wise within-simulation comparison of efficiency between all site selection strategies and optimization targets for 200 independent simulations. The comparison is based on the number of sites required to document 80% of the focal species' interactions ($n_{0.80}$), described in Equation 2. We use the labels Δ Option1 – Option2 to highlight that the comparison value represents the $n_{0.80}$ for Option 1 minus the $n_{0.80}$ for Option 2. Negative values (in orange) indicate that the first compared option led to a more efficient sampling than the second one (lower $n_{0.80}$, faster documentation of interactions), while positive values (in green) indicate it required a higher sampling effort (higher $n_{0.80}$, slower documentation). Equal values (in pink) have overlapping confidence intervals. The order of the compared options matches Figure 5 and was selected for narrative purposes.

Site selection strategies BS – Balanced Sampling; WS – Weighted Sampling; BWR – Balanced Within Range; TS – Targeted Sampling;

Optimization Targets RI – Realized interactions; SR – Species richness; PR – Probabilistic range; FR – Focal species range