

R code and population-size estimates for *Comparative Performance of Methods for Population-Size Estimation Based on Multiple Lists*

File	Description
R code files	
<i>Common functions (source this code first)</i>	
R/PSE_sim_functions.R	Work-horse functions <i>required</i> by other code
<i>Sample-generation and sample evaluation code</i>	
R/plotBetaDist.R	Plot the beta distributions for inhomogeneities in encounter probabilities (manuscript Fig. 1)
R/unique_encounter_table.R	Code to produce manuscript Table 1.
R/PSE_sample_counts.R	Compute expected counts of unique individuals (not used for manuscript)
R/PSE_generate_samples-alt.R	Top-level R code which generates the simulated samples.
R/HeterogeneityPlots.R	Top-level R code to generate “heterogeneity” plots for Supplemental Figure S2
R/PSE_count_encounters.R	Compute counts of individual encounters by sample and list number.
<i>Population size estimation</i>	
R/PSE_estimate_BMA-x.R	Estimation using Bayesian model averaging, $x = 1, \dots, 9$
R/PSE_estimate_LCM-x.R	Estimation using Bayesian nonparametric latent-class modeling, $x = 1a, \dots, 1d, 2, \dots, 12$
R/PSE_estimate_LLM-x.R	Estimation using loglinear model selection, $x = 1, \dots, 4$
R/PSE_estimate_LLM-hetero.R	Loglinear model estimation including assorted “heterogeneity” corrections in models Mh and Mth
<i>Population-size estimates</i>	
R/PSEsimSamples_alt.Rdata	.Rdata file containing the combined estimates produced by PSE_get_estimates.R
<i>Summary and analysis of population size estimates</i>	
R/PSE_get_estimates.R	Combine BMA, LCM and LLM estimates
R/computeSummaries.R	Compute summary performance measures for the size estimates
R/PSE_get_LLM-hetero_estimates.R	Comine estimates produced by PSE_estimate_LLM-hetero.R
R/summarize_estimate_failure_frequencies.R	Summarize the frequencies of estimation failures
R/plotEstimates.R	Manuscript Figure 2.
R/Table_2.R	Manuscript Table 2.
R/Table_3.R	Manuscript Table 3 and Supplemental Table S2.
R/Table_LLM-hetero.R	Manuscript Table 4.
R/PSE_LCM_chains.R	Supplemental Figure S1.
Data files	
data/PSE_estimates.csv	A comma-separated ASCII file containing the results from R/PSE_get_estimates.R