Ecography

ECOG-04412
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Supplementary material

Supplementary material Appendix 1. Studies providing the urban bird data from 61 sites

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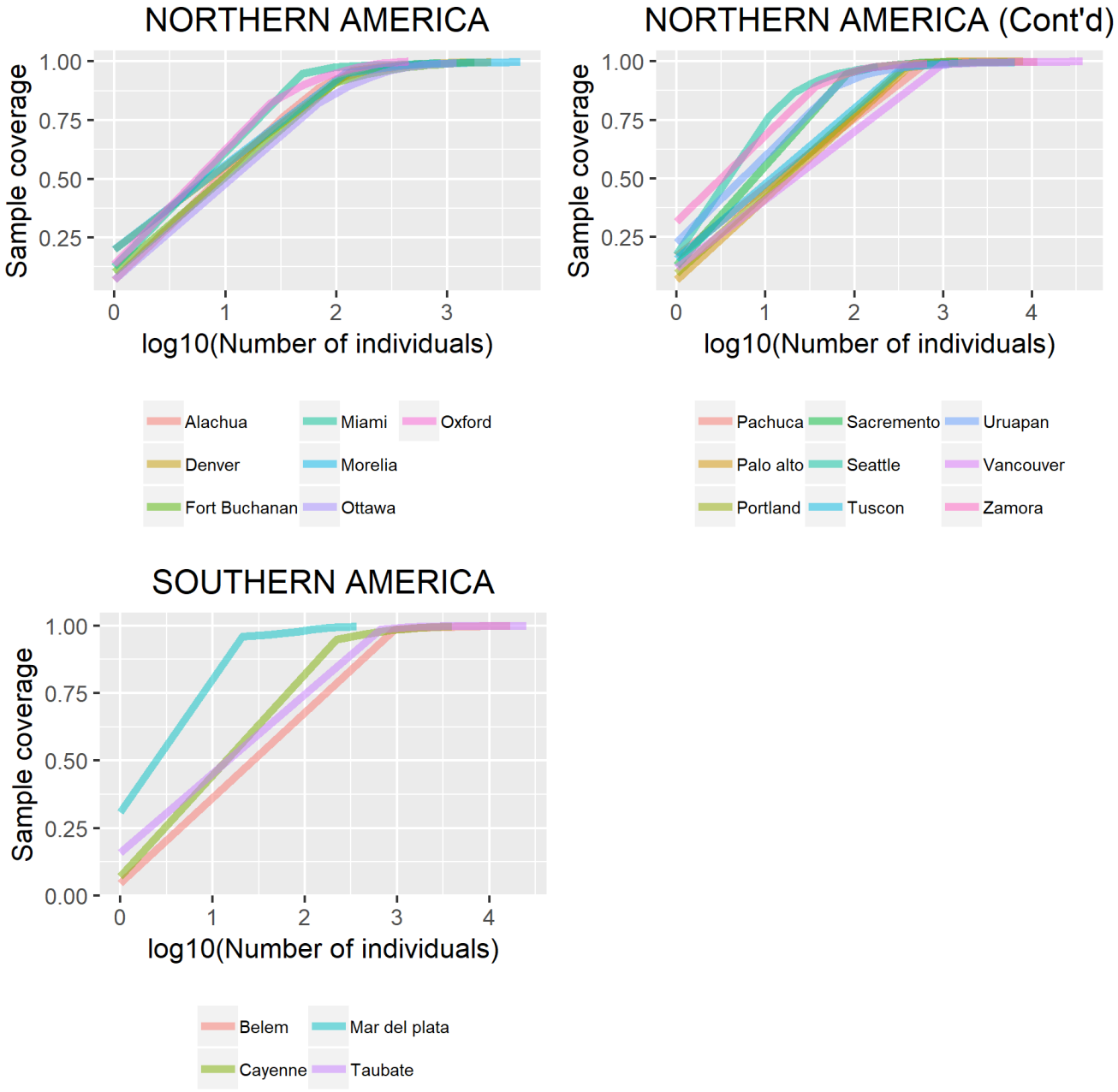
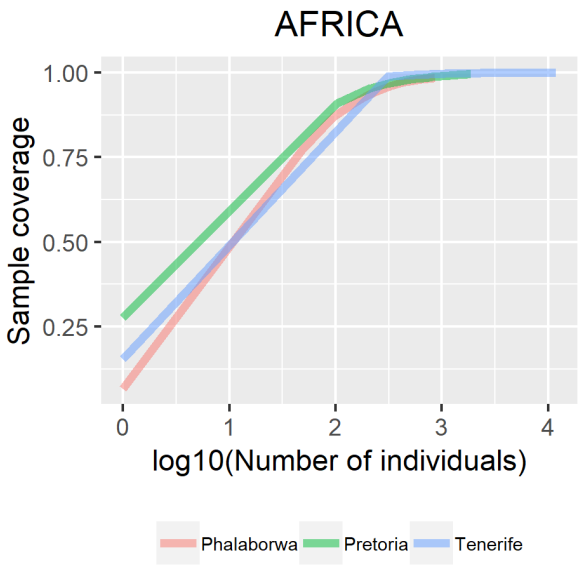
Supplementary material Appendix 2 – Rarefaction analyses on sampling coverage in different studies

Figure A1. Results of rarefaction analyses showing the relationship between sampling coverage and sampling effort, measured as number of individuals detected in different sites. Sites within the same TDWG-1 regions are plotted in the same graph.




AFRICA
Sample coverage
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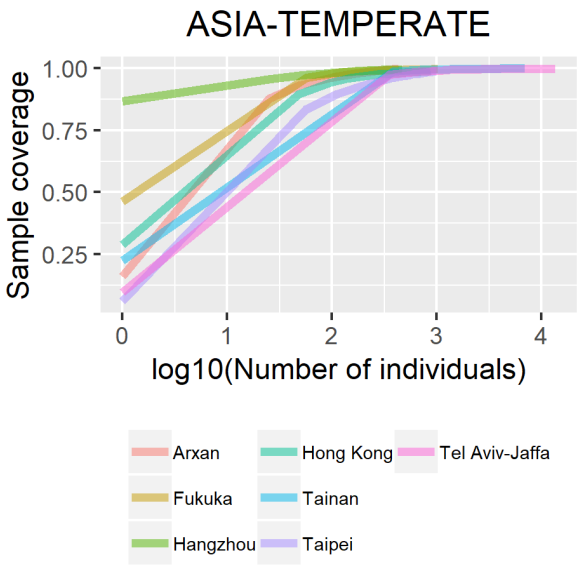
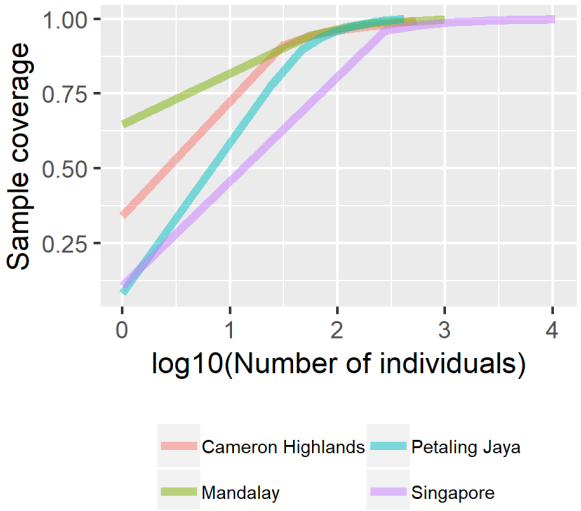
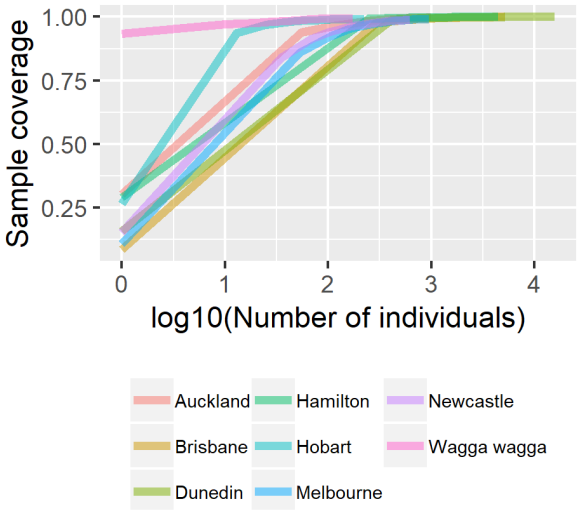
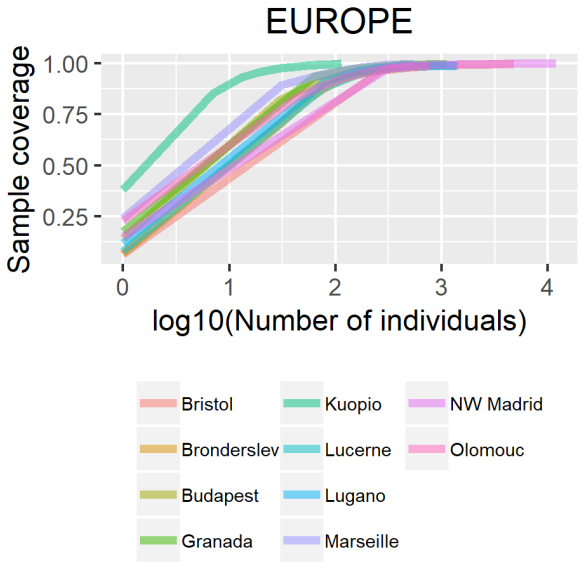
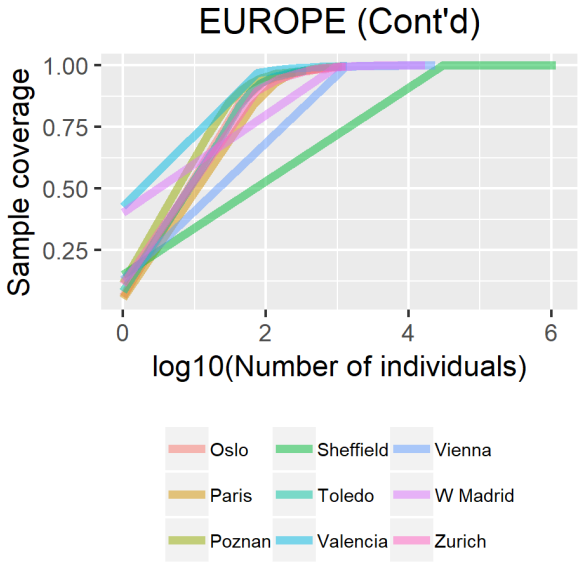
0.75
0.50
0.25
0
1
2
3
4
log10(Number of individuals)
Phalaborwa
Pretoria
Tenerife


ASIA-TEMPERATE
Sample coverage
1.00
0.75
0.50
0.25
0
1
2
3
4
log10(Number of individuals)
Arxan
Fukuka
Hangzhou
Hong Kong
Tainan
Taipei
Tel Aviv-Jaffa


ASIA-TROPICAL
Sample coverage
1.00
0.75
0.50
0.25
0
1
2
3
4
log10(Number of individuals)
Cameron Highlands
Mandalay
Petaling Jaya
Singapore


AUSTRALASIA
Sample coverage
1.00
0.75
0.50
0.25
0
1
2
3
4
log10(Number of individuals)
Auckland
Brisbane
Dunedin
Hamilton
Hobart
Melbourne
Newcastle
Wagga wagga


EUROPE
Sample coverage
1.00
0.75
0.50
0.25
0
1
2
3
4
log10(Number of individuals)
Bristol
Bronderslev
Budapest
Granada
Kuopio
Lucerne
Lugano
Marseille
NW Madrid
Olomouc


EUROPE (Cont'd)
Sample coverage
1.00
0.75
0.50
0.25
0
2
4
6
log10(Number of individuals)
Oslo
Paris
Poznan
Sheffield
Toledo
Valencia
Vienna
W Madrid
Zurich

Supplementary material Appendix 3 – Analyses on how alien species richness – alien species pool relationships vary along the urbanization gradient

Table A1. Results of linear mixed models analyzing how alien species richness – alien species pool relationships vary along the urbanization gradient, based on different definitions of the alien species pool. **Bold** values indicate statistical significance ($p < 0.05$). Variable names are abbreviated: Alien species pool (ASP); Impervious surface cover (ISC).

	All species		Urban exploiters	
	Estimates	p	Estimates	p
Intercept	-0.38	0.20	-0.14	0.60
ln(ASP+1)	**-0.60**	**<0.001**	**-0.43**	**<0.001**
ISC	**-0.18**	**0.04**	-0.16	0.08
ln(ASP+1)*ISC	**-0.36**	**<0.001**	**-0.32**	**0.001**
	R^2m	R^2c	R^2m	R^2c
	0.52	0.78	0.35	0.64

Supplementary material Appendix 4 – How inclusion of interaction terms improved model performance in predicting ASR

Table A2. A summary of the chi-square test for the nested model. Variables names are abbreviated: Alien species pool quantified as number of species introduced (ASP_{All}); Alien species pool quantified as number of urban-tolerant species introduced (ASP_{Urban}); Impervious surface cover (ISC); Native species richness (NSR).

Model	Interaction terms	AIC	AICc	R^2m	R^2c	p
$\ln(ASP_{All}+1)$, ISC, NSR	×	83.58	85.69	0.57	0.68	
	✓	58.61	62.13	0.70	0.83	<0.001
$\ln(ASP_{Urban}+1)$, ISC, NSR	×	82.09	84.12	0.71	0.80	
	✓	67.46	70.99	0.63	0.69	<0.001