**Supporting Information**

**One strategy doesn’t fit all: determinants of urban adaptation in mammals**

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**Table S1.** Values of Aspect Ratio (wing span / wing area) for 81 bat species, and relative reference.

|  |  |  |
| --- | --- | --- |
| **Species** | **Aspect Ratio** | **Ref N** |
| *Artibeus jamaicensis* | 6.4 | 1 |
| *Artibeus lituratus* | 6.1 | 1 |
| *Asellia tridens* | 6.9 | 2 |
| *Balionycteris maculata* | 8.1 | 1 |
| *Cardioderma cor* | 5.2 | 3 |
| *Carollia perspicillata* | 6.1 | 1 |
| *Cynopterus brachyotis* | 7.7 | 1 |
| *Cynopterus horsfieldii* | 7.9 | 1 |
| *Cynopterus sphinx* | 6.7 | 1 |
| *Desmodus rotundus* | 6.7 | 1 |
| *Eidolon helvum* | 6.9 | 1 |
| *Eonycteris spelaea* | 8.6 | 1 |
| *Epomophorus gambianus* | 5.9 | 1 |
| *Epomophorus wahlbergi* | 6.1 | 1 |
| *Eptesicus fuscus* | 6.4 | 1 |
| *Eptesicus serotinus* | 6.5 | 1 |
| *Eumops perotis* | 9.5 | 1 |
| *Glossophaga soricina* | 6.4 | 1 |
| *Hipposideros ater* | 5.5 | 4 |
| *Hipposideros caffer* | 6.3 | 1 |
| *Hipposideros speoris* | 6.5 | 1 |
| *Lasiurus borealis* | 6.7 | 1 |
| *Lavia frons* | 5.4 | 1 |
| *Leptonycteris curasoae* | 5.9 | 5 |
| *Macroderma gigas* | 6.1 | 3 |
| *Macroglossus minimus* | 6.5 | 1 |
| *Megaderma lyra* | 6.2 | 1 |
| *Megaderma spasma* | 5 | 3 |
| *Micropteropus pusillus* | 8.7 | 1 |
| *Mimon crenulatum* | 8.3 | 1 |
| *Molossus molossus* | 8.7 | 1 |
| *Molossus rufus* | 11 | 1 |
| *Mops condylurus* | 9.1 | 1 |
| *Myotis albescens* | 6.9 | 1 |
| *Myotis daubentonii* | 6.3 | 1 |
| *Myotis lucifugus* | 6 | 1 |
| *Myotis myotis* | 6.3 | 1 |
| *Myotis nattereri* | 6.4 | 1 |
| *Myotis nigricans* | 6.5 | 1 |
| *Myotis tricolor* | 6.2 | 1 |
| *Myotis velifer* | 6.2 | 1 |
| *Neoromicia nanus* | 7.3 | 1 |
| *Noctilio albiventris* | 7.8 | 1 |
| *Noctilio leporinus* | 9 | 1 |
| *Nyctalus noctula* | 7.4 | 1 |
| *Nycteris grandis* | 5.2 | 1 |
| *Nycteris macrotis* | 5.2 | 1 |
| *Nycteris thebaica* | 5.5 | 1 |
| *Nyctimene robinsoni* | 5.6 | 1 |
| *Phyllostomus hastatus* | 7.6 | 1 |
| *Pipistrellus ceylonicus* | 7.9 | 1 |
| *Pipistrellus kuhlii* | 6.3 | 1 |
| *Pipistrellus subflavus* | 6.2 | 1 |
| *Pipistrellus tenuis* | 6.5 | 6 |
| *Plecotus auritus* | 5.7 | 1 |
| *Pteronotus parnellii* | 8.1 | 7 |
| *Pteropus scapulatus* | 7.3 | 8 |
| *Pteropus tonganus* | 7.1 | 1 |
| *Pteropus vampyrus* | 8.4 | 1 |
| *Rhinolophus ferrumequinum* | 6.1 | 1 |
| *Rhinolophus hipposideros* | 5.7 | 1 |
| *Rhinolophus landeri* | 6.1 | 1 |
| *Rhinolophus megaphyllus* | 6.1 | 1 |
| *Rhinopoma hardwickii* | 6.9 | 1 |
| *Rhinopoma microphyllum* | 8 | 1 |
| *Rhynchonycteris naso* | 6.5 | 9 |
| *Rousettus aegyptiacus* | 5.9 | 1 |
| *Rousettus amplexicaudatus* | 6.3 | 1 |
| *Saccopteryx bilineata* | 6.1 | 1 |
| *Scotophilus heathii* | 7.5 | 1 |
| *Scotophilus kuhlii* | 7.3 | 10 |
| *Scotorepens sanborni* | 8 | 11 |
| *Sturnira lilium* | 6.5 | 1 |
| *Syconycteris australis* | 6.2 | 1 |
| *Tadarida aegyptiaca* | 9.7 | 1 |
| *Taphozous longimanus* | 9.8 | 1 |
| *Taphozous melanopogon* | 10 | 1 |
| *Tylonycteris pachypus* | 8.3 | 12 |
| *Uroderma bilobatum* | 6.3 | 1 |
| *Vespertilio murinus* | 7 | 1 |

**Table S2.** Classification of mammals (n=182) according to their degree of synurbization (dweller, visitor or both), with relative references.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Order** | **Family** | **Species** | **Urban** | **Ref N** |
| Carnivora | Canidae | *Canis aureus* | visitor | 13 |
| Carnivora | Canidae | *Canis latrans* | visitor/dweller | 14, 156 |
| Carnivora | Canidae | *Canis lupus* | visitor | 15 |
| Carnivora | Canidae | *Nyctereutes procyonoides* | visitor | 16 |
| Carnivora | Canidae | *Urocyon cinereoargenteus* | dweller | 17 |
| Carnivora | Canidae | *Vulpes vulpes* | dweller | 18, 157, 169 |
| Carnivora | Felidae | *Felis catus* | dweller | 19 |
| Carnivora | Felidae | *Panthera pardus* | visitor/dweller | 20 |
| Carnivora | Felidae | *Puma concolor* | visitor | 21 |
| Carnivora | Herpestidae | *Cynictis penicillata* | dweller | 22 |
| Carnivora | Herpestidae | *Galerella sanguinea* | dweller | 23 |
| Carnivora | Herpestidae | *Herpestes auropunctatus* | visitor/dweller | 24 |
| Carnivora | Herpestidae | *Herpestes javanicus* | dweller | 25 |
| Carnivora | Hyaenidae | *Crocuta crocuta* | visitor/dweller | 26, 158 |
| Carnivora | Hyaenidae | *Hyaena hyaena* | visitor | 27 |
| Carnivora | Mephitidae | *Mephitis mephitis* | dweller | 28 |
| Carnivora | Mephitidae | *Spilogale gracilis* | dweller | 28 |
| Carnivora | Mephitidae | *Spilogale putorius* | dweller | 29 |
| Carnivora | Mustelidae | *Lontra canadensis* | visitor/dweller | 30 |
| Carnivora | Mustelidae | *Lutra lutra* | visitor/dweller | 31 |
| Carnivora | Mustelidae | *Lutrogale perspicillata* | dweller | 32 |
| Carnivora | Mustelidae | *Martes foina* | dweller | 34, 159 |
| Carnivora | Mustelidae | *Meles meles* | dweller | 33 |
| Carnivora | Mustelidae | *Mustela nivalis* | dweller | 35 |
| Carnivora | Otariidae | *Zalophus californianus* | visitor | 36 |
| Carnivora | Phocidae | *Phoca vitulina* | visitor | 37 |
| Carnivora | Procyonidae | *Nasua narica* | visitor | 38 |
| Carnivora | Procyonidae | *Procyon lotor* | dweller | 39 |
| Carnivora | Ursidae | *Melursus ursinus* | visitor | 40 |
| Carnivora | Ursidae | *Ursus americanus* | visitor/dweller | 42, 160 |
| Carnivora | Ursidae | *Ursus arctos* | visitor | 15 |
| Carnivora | Viverridae | *Genetta genetta* | dweller | 15 |
| Carnivora | Viverridae | *Genetta tigrina* | dweller | 43, 161 |
| Carnivora | Viverridae | *Paguma larvata* | dweller | 44, 162 |
| Carnivora | Viverridae | *Paradoxurus ermaphroditus* | dweller | 45, 162 |
| Carnivora | Viverridae | *Viverricula indica* | dweller | 46, 162 |
| Cetartiodactyla | Cervidae | *Axis axis* | visitor | 46 |
| Cetartiodactyla | Cervidae | *Capreolus capreolus* | visitor | 47 |
| Cetartiodactyla | Cervidae | *Cervus elaphus* | visitor | 48 |
| Cetartiodactyla | Cervidae | *Cervus nippon* | dweller | 44 |
| Cetartiodactyla | Cervidae | *Dama dama* | visitor | 49 |
| Cetartiodactyla | Cervidae | *Muntiacus reevesi* | visitor/dweller | 23 |
| Cetartiodactyla | Cervidae | *Odocoileus virginianus* | visitor | 50 |
| Cetartiodactyla | Suidae | *Sus scrofa* | visitor | 51 |
| Cetartiodactyla | Tayassuidae | *Pecari tajacu* | visitor | 52 |
| Cetartiodactyla | Tayassuidae | *Tayassu pecari* | visitor | 53 |
| Chiroptera | Emballonuridae | *Saccolaimus saccolaimus* | dweller | 54 |
| Chiroptera | Emballonuridae | *Taphozous melanopogon* | dweller | 54 |
| Chiroptera | Molossidae | *Chaerephon chapini* | visitor | 55 |
| Chiroptera | Molossidae | *Chaerephon leucogaster* | dweller | 56 |
| Chiroptera | Molossidae | *Chaerephon plicatus* | visitor | 57 |
| Chiroptera | Molossidae | *Cynomops abrasus* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Cynomops greenhalli* | visitor/dweller | 59 |
| Chiroptera | Molossidae | *Cynomops planirostris* | visitor/dweller | 59 |
| Chiroptera | Molossidae | *Eumops auripendulus* | dweller | 60 |
| Chiroptera | Molossidae | *Eumops bonariensis* | dweller | 60 |
| Chiroptera | Molossidae | *Eumops glaucinus* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Eumops hansae* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Eumops maurus* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Eumops perotis* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Molossus currentium* | visitor/dweller | 59 |
| Chiroptera | Molossidae | *Molossus molossus* | visitor/dweller | 61 |
| Chiroptera | Molossidae | *Molossus rufus* | visitor/dweller | 62 |
| Chiroptera | Molossidae | *Mops condylurus* | visitor/dweller | 56 |
| Chiroptera | Molossidae | *Mops leucostigma* | dweller | 63 |
| Chiroptera | Molossidae | *Mormopterus jugularis* | dweller | 63 |
| Chiroptera | Molossidae | *Mormopterus planiceps* | dweller | 64 |
| Chiroptera | Molossidae | *Nyctinomops aurispinosus* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Nyctinomops laticaudatus* | visitor/dweller | 59 |
| Chiroptera | Molossidae | *Nyctinomops macrotis* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Otomops martiensseni* | dweller | 65 |
| Chiroptera | Molossidae | *Promops centralis* | visitor/dweller | 59 |
| Chiroptera | Molossidae | *Promops nasutus* | visitor/dweller | 58 |
| Chiroptera | Molossidae | *Tadarida aegyptiaca* | dweller | 65 |
| Chiroptera | Molossidae | *Tadarida australis* | visitor/dweller | 66 |
| Chiroptera | Molossidae | *Tadarida brasiliensis* | dweller | 67 |
| Chiroptera | Molossidae | *Tadarida teniotis* | dweller | 68 |
| Chiroptera | Nycteridae | *Nycteris thebaica* | dweller | 69, 56 |
| Chiroptera | Phyllostomidae | *Artibeus cinereus* | visitor/dweller | 58 |
| Chiroptera | Phyllostomidae | *Artibeus lituratus* | dweller | 70, 163 |
| Chiroptera | Phyllostomidae | *Artibeus planirostris* | visitor/dweller | 58 |
| Chiroptera | Phyllostomidae | *Carollia perspicillata* | visitor/dweller | 58 |
| Chiroptera | Phyllostomidae | *Desmodus rotundus* | visitor/dweller | 71 |
| Chiroptera | Phyllostomidae | *Glossophaga soricina* | visitor/dweller | 58 |
| Chiroptera | Phyllostomidae | *Platyrrhinus lineatus* | visitor/dweller | 58 |
| Chiroptera | Phyllostomidae | *Sturnira lilium* | dweller | 72 |
| Chiroptera | Pteropodidae | *Cynopterus sphinx* | dweller | 73 |
| Chiroptera | Pteropodidae | *Eidolon helvum* | visitor | 74 |
| Chiroptera | Pteropodidae | *Epomophorus wahlbergi* | visitor/dweller | 75 |
| Chiroptera | Pteropodidae | *Pteropus alecto* | visitor | 76 |
| Chiroptera | Pteropodidae | *Pteropus giganteus* | visitor | 77 |
| Chiroptera | Pteropodidae | *Pteropus poliocephalus* | visitor | 78 |
| Chiroptera | Pteropodidae | *Pteropus scapulatus* | visitor | 78 |
| Chiroptera | Pteropodidae | *Rousettus aegyptiacus* | dweller | 79 |
| Chiroptera | Pteropodidae | *Rousettus leschenaultii* | dweller | 80 |
| Chiroptera | Rhinolophidae | *Rhinolophus ferrumequinum* | visitor | 81 |
| Chiroptera | Rhinolophidae | *Rhinolophus hipposideros* | visitor | 82 |
| Chiroptera | Rhinopomatidae | *Rhinopoma hardwickii* | visitor/dweller | 80 |
| Chiroptera | Vespertilionidae | *Chalinolobus gouldii* | dweller | 66 |
| Chiroptera | Vespertilionidae | *Eptesicus fuscus* | dweller | 83 |
| Chiroptera | Vespertilionidae | *Eptesicus nilssonii* | visitor/dweller | 84 |
| Chiroptera | Vespertilionidae | *Eptesicus serotinus* | dweller | 85 |
| Chiroptera | Vespertilionidae | *Hypsugo savii* | dweller | 68 |
| Chiroptera | Vespertilionidae | *Kerivoula picta* | dweller | 86 |
| Chiroptera | Vespertilionidae | *Lasiurus borealis* | visitor | 87 |
| Chiroptera | Vespertilionidae | *Myotis bocagii* | dweller | 69 |
| Chiroptera | Vespertilionidae | *Neoromicia nanus* | dweller | 88 |
| Chiroptera | Vespertilionidae | *Nyctalus lasiopterus* | visitor | 89 |
| Chiroptera | Vespertilionidae | *Nyctalus noctula* | dweller | 90, 164 |
| Chiroptera | Vespertilionidae | *Nyctalus plancyi* | dweller | 91 |
| Chiroptera | Vespertilionidae | *Pipistrellus abramus* | dweller | 91 |
| Chiroptera | Vespertilionidae | *Pipistrellus ceylonicus* | visitor | 80 |
| Chiroptera | Vespertilionidae | *Pipistrellus coromandra* | visitor/dweller | 80 |
| Chiroptera | Vespertilionidae | *Pipistrellus javanicus* | dweller | 92 |
| Chiroptera | Vespertilionidae | *Pipistrellus kuhlii* | dweller | 93 |
| Chiroptera | Vespertilionidae | *Pipistrellus pipistrellus* | dweller | 94 |
| Chiroptera | Vespertilionidae | *Pipistrellus pygmaeus* | dweller | 95 |
| Chiroptera | Vespertilionidae | *Pipistrellus tenuis* | dweller | 92 |
| Chiroptera | Vespertilionidae | *Plecotus auritus* | visitor/dweller | 96 |
| Chiroptera | Vespertilionidae | *Plecotus austriacus* | visitor/dweller | 97 |
| Chiroptera | Vespertilionidae | *Scotophilus dinganii* | visitor | 56 |
| Chiroptera | Vespertilionidae | *Scotophilus heathii* | visitor | 80 |
| Chiroptera | Vespertilionidae | *Scotophilus kuhlii* | visitor/dweller | 54 |
| Chiroptera | Vespertilionidae | *Vespertilio murinus* | visitor | 98 |
| Didelphimorphia | Didelphidae | *Didelphis virginiana* | dweller | 99 |
| Didelphimorphia | Didelphidae | *Monodelphis domestica* | visitor/dweller | 100 |
| Diprotodontia | Macropodidae | *Macropus giganteus* | visitor | 101, 165 |
| Diprotodontia | Petauridae | *Petaurus breviceps* | visitor | 102 |
| Diprotodontia | Phalangeridae | *Trichosurus vulpecula* | dweller | 103 |
| Diprotodontia | Pseudocheiridae | *Pseudocheirus peregrinus* | dweller | 104 |
| Eulipotyphla | Erinaceidae | *Atelerix frontalis* | dweller | 105 |
| Eulipotyphla | Erinaceidae | *Erinaceus europaeus* | dweller | 106 |
| Eulipotyphla | Erinaceidae | *Erinaceus roumanicus* | dweller | 107 |
| Eulipotyphla | Soricidae | *Blarina brevicauda* | dweller | 108 |
| Eulipotyphla | Soricidae | *Crocidura hirta* | dweller | 109 |
| Eulipotyphla | Soricidae | *Crocidura leucodon* | dweller | 110 |
| Eulipotyphla | Soricidae | *Crocidura russula* | dweller | 111 |
| Eulipotyphla | Soricidae | *Crocidura suaveolens* | dweller | 112 |
| Eulipotyphla | Soricidae | *Sorex araneus* | dweller | 111 |
| Eulipotyphla | Soricidae | *Sorex minutus* | dweller | 111 |
| Eulipotyphla | Soricidae | *Suncus etruscus* | dweller | 115 |
| Eulipotyphla | Soricidae | *Suncus murinus* | dweller | 113 |
| Hyracoidea | Procaviidae | *Procavia capensis* | dweller | 114 |
| Lagomorpha | Leporidae | *Oryctolagus cuniculus* | visitor/dweller | 115 |
| Lagomorpha | Leporidae | *Sylvilagus floridanus* | dweller | 116 |
| Peramelemorphia | Peramelidae | *Isoodon obesulus* | dweller | 116 |
| Peramelemorphia | Peramelidae | *Perameles nasuta* | dweller | 117 |
| Primates | Cebidae | *Callithrix jacchus* | dweller | 118 |
| Primates | Cebidae | *Callithrix kuhlii* | dweller | 119 |
| Primates | Cebidae | *Callithrix penicillata* | dweller | 120, 166 |
| Primates | Cebidae | *Saguinus bicolor* | dweller | 121 |
| Primates | Cebidae | *Saguinus geoffroyi* | dweller | 122 |
| Primates | Cebidae | *Saguinus leucopus* | dweller | 123 |
| Primates | Cercopithecidae | *Chlorocebus aethiops* | visitor | 124 |
| Primates | Cercopithecidae | *Chlorocebus pygerythrus* | dweller | 125 |
| Primates | Cercopithecidae | *Macaca fascicularis* | visitor/dweller | 126 |
| Primates | Cercopithecidae | *Macaca mulatta* | visitor | 127, 132, 23 |
| Primates | Cercopithecidae | *Macaca radiata* | visitor/dweller | 128 |
| Primates | Cercopithecidae | *Macaca sylvanus* | dweller | 129 |
| Primates | Cercopithecidae | *Papio anubis* | visitor | 130 |
| Primates | Cercopithecidae | *Papio ursinus* | visitor | 131 |
| Primates | Cercopithecidae | *Semnopithecus entellus* | dweller | 132, 167 |
| Rodentia | Caviidae | *Hydrochoerus hydrochaeris* | dweller | 133, 168 |
| Rodentia | Cricetidae | *Calomys musculinus* | dweller | 134 |
| Rodentia | Cricetidae | *Microtus arvalis* | dweller | 110 |
| Rodentia | Cricetidae | *Peromyscus leucopus* | dweller | 135 |
| Rodentia | Cricetidae | *Sigmodon fulviventer* | dweller | 136 |
| Rodentia | Cricetidae | *Sigmodon hispidus* | visitor/dweller | 137 |
| Rodentia | Hystricidae | *Hystrix cristata* | visitor/dweller | 138 |
| Rodentia | Muridae | *Apodemus agrarius* | dweller | 139, 110 |
| Rodentia | Muridae | *Apodemus flavicollis* | dweller | 110 |
| Rodentia | Muridae | *Apodemus sylvaticus* | dweller | 140 |
| Rodentia | Muridae | *Mastomys natalensis* | dweller | 141 |
| Rodentia | Muridae | *Mus musculus* | dweller | 142 |
| Rodentia | Muridae | *Rattus exulans* | dweller | 143 |
| Rodentia | Muridae | *Rattus flavipectus* | dweller | 45, 162 |
| Rodentia | Muridae | *Rattus norvegicus* | dweller | 144 |
| Rodentia | Muridae | *Rattus rattus* | dweller | 145 |
| Rodentia | Muridae | *Sundamys muelleri* | dweller | 146 |
| Rodentia | Myocastoridae | *Myocastor coypus* | dweller | 147 |
| Rodentia | Nesomyidae | *Cricetomys gambianus* | visitor/dweller | 109 |
| Rodentia | Sciuridae | *Callosciurus finlaysonii* | dweller | 148 |
| Rodentia | Sciuridae | *Funambulus pennantii* | dweller | 149 |
| Rodentia | Sciuridae | *Marmota monax* | dweller | 150 |
| Rodentia | Sciuridae | *Sciurus anomalus* | dweller | 151 |
| Rodentia | Sciuridae | *Sciurus carolinensis* | dweller | 152 |
| Rodentia | Sciuridae | *Sciurus granatensis* | dweller | 153 |
| Rodentia | Sciuridae | *Sciurus niger* | dweller | 149 |
| Rodentia | Sciuridae | *Sciurus vulgaris* | dweller | 154 |
| Rodentia | Sciuridae | *Tamias striatus* | dweller | 155 |

**Table S3.** Sample size for all datasets used, and respective number of urban species.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Urban** | **Taxon** | **N** | **N Urban** | **% Urban** |
| Visitor | Carnivora | 73 | 8 | 11 |
|  | Cetartiodactyla | 68 | 8 | 11.8 |
|  | Primates | 130 | 4 | 3.1 |
|  | Chiroptera | 47 | 6 | 12.8 |
| Dweller | Carnivora | 92 | 15 | 16.3 |
|  | Rodentia | 202 | 19 | 9.4 |
|  | Primates | 132 | 6 | 4.5 |
|  | Eulipotyphla | 24 | 7 | 29.2 |
|  | Chiroptera | 52 | 11 | 21.1 |

**Macintosh HD:Users:Oritteropus:Desktop:Progetti:Synurbic mammals:MS:v.4:R&R:Fig. S1.pdfFig. S1.** Relationship between the resolution of urban density and urban mammal richness raster maps and their corresponding Spearman’s correlation coefficient.

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