**Appendix 4.** Relationship between species richness, mean body mass and the prevalence of the 10 ecological functions performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables (patch size, and percentages of forest cover, pasture, mixed land use and urban areas). Solid lines represent the posterior mean and the dotted lines the 95% credible intervals of the model predictions. The numbers in each figure give the posterior probability by which the community-weighted mean value for each ecological function is greater at the largest value of the environmental variable than at the smallest value of the environmental variable. The posterior probabilities are rounded to two decimals, so that “1” means “> 0.995” and “0” means “< 0.005”. For example, the value “1” for “Browsing” versus “Patch size” means that there is very strong statistical support (posterior probability > 0.995) for the proportion of species following the browsing strategy being larger in large patches (more precisely, patches as large as the largest in our data) than in small patches (more precisely, patches as small as the smallest in our data). Cases with at least 0.95 posterior support are highlighted in bold.



**1**

**1**

**0**

**0**

**0**

**Figure S8.** Relationship between species richness of assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**1**

**0**

**0**

0.21

**1**

**Figure S9.** Relationship between mean body mass of assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**1**

**1**

**1**

**0**

**0.01**

**Figure S10.** Relationship between browsing function performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



0.89

0.54

**0.99**

0.39

**0**

**Figure S11.** Relationship between grazing function performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



0.93

0.64

**1**

**0**

**0**

**Figure S12.** Relationship between small seed dispersal performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



0.69

**0.05**

0.74

0.11

0.5

**Figure S13.** Relationship between large seed dispersal performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**0**

**0**

**0**

**1**

**1**

**Figure S14.** Relationship between small seed depredation performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**0**

**1**

**1**

**0**

0.31

**Figure S15.** Relationship between large seed depredation performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



0.58

**0.02**

**0.04**

0.69

0.54

**Figure S16.** Relationship between small vertebrate predation performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**1**

**1**

**0.02**

**0**

**0.05**

**0.04**

**0**

**0.02**

**1**

**1**

**Figure S17.** Relationship between medium vertebrate predation performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**Figure S18.** Relationship between large vertebrate predation performed by assemblages of medium- and large-sized mammals of the Atlantic Forest, Brazil, and landscape variables.



**1**

0.09

**1**

**0**

**0**

**Figure S19.** Relationship between invertebrate predation performed by assemblages of medium- and large-sized of the Atlantic Forest, Brazil, and landscape variables.