**Supplementary Material**

**Table S1** – Native and Non-native Species Collected in Itatiaia National Park, their family, status and abbreviation.

| **Species** | **Family** | **Status** | **Abbreviation** |
| --- | --- | --- | --- |
| *Achyrocline satureioides* | Asteraceae | Native | ach\_sat |
| *Ageratum fastigiatum* | Asteraceae | Native | age\_fas |
| *Andropogon leucostachyus* | Poaceae | Native | and\_leu |
| *Aristida recurvata* | Poaceae | Native | ari\_rec |
| *Austrolycopodium erectum* | Lycopodiaceae | Native | aus\_ere |
| *Axonopus compressus* | Poaceae | Native | axo\_com |
| *Axonopus fissifolius* | Poaceae | Native | axo\_fis |
| *Axonopus siccus* | Poaceae | Native | axo\_sic |
| *Bidens segetum* | Asteraceae | Native | bid\_seg |
| *Borreria dasycephala* | Rubiaceae | Native | bor\_das |
| *Bromus brachyanterus* | Poaceae | Native | bro\_bra |
| *Bromus catharticus* | Poaceae | Native | bro\_cat |
| *Calamagrostis viridiflavescens* | Poaceae | Native | cal\_vir |
| *Callisia diuretica* | Commelinaceae | Native | cal\_diu |
| *Campuloclinium parvulum* | Asteraceae | Native | cam\_par |
| *Carex bonariensis* | Cyperaceae | Native | car\_bon |
| *Carex fuscula* | Cyperaceae | Native | car\_fus |
| *Chaptalia nutans* | Asteraceae | Native | cha\_nut |
| *Chascolytrum brasiliense* | Poaceae | Native | cha\_bra |
| *Chascolytrum itatiaiae* | Poaceae | Native | cha\_ita |
| *Conyza bonariensis* | Asteraceae | Native | con\_bon |
| *Ctenanthe setosa* | Marantaceae | Native | cte\_set |
| *Cuphea ingrata* | Lythraceae | Native | cup\_ing |
| *Cyperus cellulosoreticulatus* | Cyperaceae | Native | cyp\_cel |
| *Cyperus hermaphroditus* | Cyperaceae | Native | cyp\_her |
| *Cyperus surinamensis* | Cyperaceae | Native | cyp\_sur |
| *Danthonia secundiflora* | Poaceae | Native | dan\_sec |
| *Desmodium affine* | Fabaceae | Native | des\_aff |
| *Dichanthelium hebotes* | Poaceae | Native | dic\_heb |
| *Dichanthelium sabulorum* | Poaceae | Native | dic\_sab |
| *Dichanthelium sciurotoides* | Poaceae | Native | dic\_sci |
| *Dicranopteris flexuosa* | Geicheniaceae | Native | dic\_fle |
| *Echinolaena inflexa* | Poaceae | Native | ech\_inf |
| *Emilia coccinea* | Asteraceae | Native | emi\_coc |
| *Emilia fosbergii* | Asteraceae | Native | emi\_fos |
| *Eragrostis airoides* | Poaceae | Native | era\_air |
| *Eriope macrostachya* | Lamiaceae | Native | eri\_mac |
| *Euplassa itatiaiae* | Proteaceae | Native | eup\_ita |
| *Fimbristylis dichotoma* | Cyperaceae | Native | fim\_dic |
| *Galianthe brasiliensis* | Rubiaceae | Native | gal\_bra |
| *Gamochaeta grazielae* | Asteraceae | Native | gam\_gra |
| *Grazielia multifida* | Asteraceae | Native | gra\_mul |
| *Homolepis glutinosa* | Poaceae | Native | hom\_glu |
| *Hydrocotyle itatiaiensis* | Araliaceae | Native | hyd\_ita |
| *Hydrocotyle quinqueloba* | Araliaceae | Native | hyd\_qui |
| *Hypericum brasiliense* | Hypericaceae | Native | hyp\_bra |
| *Inulopsis scaposa* | Asteraceae | Native | inu\_sca |
| *Iresine diffusa* | Amaranthaceae | Native | ire\_dif |
| *Juncus microcephalus* | Juncaceae | Native | jun\_mic |
| *Juncus tenuis* | Juncaceae | Native | jun\_ten |
| *Leptostelma maximum* | Asteraceae | Native | lep\_max |
| *Luzula ulei* | Juncaceae | Native | luz\_ule |
| *Microlicia isophylla* | Melastomataceae | Native | mic\_iso |
| *Ocellochloa pulchella* | Poaceae | Native | oce\_pul |
| *Oxalis debilis* | Oxalidaceae | Native | oxa\_deb |
| *Parodiophyllochloa cordovensis* | Poaceae | Native | par\_cor |
| *Paspalum melanospermum* | Poaceae | Native | pas\_mel |
| *Paspalum notatum* | Poaceae | Native | pas\_not |
| *Paspalum paniculatum* | Poaceae | Native | pas\_pan |
| *Paspalum pilosum* | Poaceae | Native | pas\_pil |
| *Paspalum polyphyllum* | Poaceae | Native | pas\_pol |
| *Philodendron appendiculatum* | Araceae | Native | phi\_app |
| *Phyllanthus niruri* | Phillantaceae | Native | phy\_nir |
| *Plantago australis* | Plantaginaceae | Native | pla\_aus |
| *Poa bradei* | Poaceae | Native | poa\_bra |
| *Pseudechinolaena polystachya* | Poaceae | Native | pse\_pol |
| *Rhynchospora albomarginata* | Cyperaceae | Native | rhy\_alb |
| *Rhynchospora cephalotes* | Cyperaceae | Native | rhy\_cep |
| *Rhynchospora edwalliana* | Cyperaceae | Native | rhy\_edw |
| *Rugoloa pilosa* | Poaceae | Native | rug\_pil |
| *Schizachyrium sanguineum* | Poaceae | Native | sch\_san |
| *Schizachyrium spicatum* | Poaceae | Native | sch\_spi |
| *Setaria parviflora* | Poaceae | Native | set\_par |
| *Sida rhombifolia* | Malvaceae | Native | sid\_rho |
| *Sisyrinchium micranthum* | Iridaceae | Native | sis\_mic |
| *Sisyrinchium palmifolium* | Iridaceae | Native | sis\_pal |
| *Sisyrinchium uliginosum* | Iridaceae | Native | sis\_uli |
| *Solanum americanum* | Solanaceae | Native | sol\_ame |
| *Solanum enantiophyllanthum* | Solanaceae | Native | sol\_ena |
| *Sporobolus indicus* | Poaceae | Native | spo\_ind |
| *Stevia crenulata* | Asteraceae | Native | ste\_cre |
| *Tradescantia fluminensis* | Commelinaceae | Native | tra\_flu |
| *Anthoxanthum odoratum* | Poaceae | Alien | ant\_odo |
| *Bidens pilosa* | Asteraceae | Alien | bid\_pil |
| *Centella asiatica* | Apiaceae | Alien | cen\_asi |
| *Commelina diffusa* | Poaceae | Alien | com\_dif |
| *Cosmos sulphureus* | Asteraceae | Alien | cos\_sul |
| *Crocosmia crocosmiiflora* | Iridaceae | Alien | cro\_cro |
| *Curcuma longa* | Zingiberaceae | Alien | cur\_lon |
| *Cynodon dactylon* | Poaceae | Alien | cyn\_dac |
| *Desmodium adscendens* | Fabaceae | Alien | des\_ads |
| *Dracaena fragans* | Asparagaceae | Alien | dra\_fra |
| *Eleusine indica* | Poaceae | Alien | ele\_ind |
| *Epipremnum aureum* | Araceae | Alien | epi\_aur |
| *Eragrostis cilianensis* | Poaceae | Alien | era\_cil |
| *Eragrostis plana* | Poaceae | Alien | era\_pla |
| *Eriochloa villosa* | Poaceae | Alien | eri\_vil |
| *Galinsoga parviflora* | Asteraceae | Alien | gal\_par |
| *Geranium thumbergii* | Geraniaceae | Alien | ger\_thu |
| *Hedychium coronarium* | Zingiberaceae | Alien | hed\_cor |
| *Houttuynia cordata* | Saururaceae | Alien | hou\_cor |
| *Hydrangea macrophylla* | Hydrangeacea | Alien | hyd\_mac |
| *Impatiens walleriana* | Balsaminaceae | Alien | imp\_wal |
| *Musa rosaceae* | Musaceae | Alien | mus\_ros |
| *Poa annua* | Poaceae | Alien | poa\_ann |
| *Prunella vulgaris* | Lamiaceae | Alien | pru\_vul |
| *Rubus rosifolius* | Rosaceae | Alien | rub\_ros |
| *Rumex acetosella* | Polygonaceae | Alien | rum\_ace |
| *Tradescantia zebrina* | Poaceae | Alien | tra\_zeb |
| *Trifolium repens* | Fabaceae | Alien | tri\_rep |
| *Urochloa maxima* | Poaceae | Alien | uro\_max |
| *Youngia japonica* | Asteraceae | Alien | you\_jap |

**Fig. S1**. Dispersion test result and simulated and observed residuals analyses plot for the absolute native species richness model with a quadratic term. 



**Fig. S2**. Dispersion test result and simulated and observed residuals analyses plot for the relative native species richness model with a quadratic term. 

**Fig. S3**. Dispersion test result and simulated and observed residuals analyses plot for the absolute non-native species richness model with a quadratic term.

**Fig. S4**. Dispersion test result and simulated and observed residuals analyses plot for the relative non-native relative species richness model with a quadratic term.