

Identifying target species and seed sources for the restoration of threatened trees in southern Brazil

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TABLE S1 Threatened and rare tree species from the Araucaria Forest in Paraná, southern Brazil, with their conservation status, known number of individuals, frequency of occurrence, abundance, and secondary and recorded data for flowering and fruiting phenology. Blank cells indicate no data.

Species	Status ¹	No. of trees	Frequency ² (%)	Abundance ³ (km ⁻¹)	Flowering phenology		Fruiting phenology	
					Secondary data ⁴	Recorded ⁵	Secondary data ⁴	Recorded ⁵
<i>Acca sellowiana</i> (O.Berg) Burret ⁶	R	15	19.2	0.2	Sep.–Nov.	Nov.	Jan.–Apr.	Jan.–Mar.
<i>Agonandra excelsa</i> Griseb.	R	3	3.8	0.04	Jul–Oct.		Nov.–Jan.	Jan.
<i>Albizia edwallii</i> (Hoehne) Barneby & J.W.Grimes	VU3	30	26.9	0.4	Oct.–Jan.	Nov.–Dec.	Mar.–Jun	Apr.–May
<i>Araucaria angustifolia</i> (Bert.) O. Ktze	NT ⁷ , EN ⁸ , CR ⁹	110	96.2	1.6	Sep.–Oct.	Sep.–Oct.	Apr.–May	May–Jul
<i>Bunchosia pallescens</i> Skottsbo.	R	2	7.7	0.03	Nov.–Feb.	Jan.	May–Aug.	May
<i>Butia eriospatha</i> (Mart. ex Drude) Becc.	EN ⁸ , VU ⁹	30	11.5	0.4	Oct.–Jan.	Nov.	Feb.–May	Feb.–Mar.
<i>Casearia lasiophylla</i> Eichler	DD ⁹ , R	60	50.0	0.9	Aug.–Sep.	Sep.–Oct.	Sep.–Oct.	Jan.–Feb.
<i>Cassia leptophylla</i> Vogel	R	14	19.2	0.2	Nov.–Jan.	Dec.	Jun–Jul	Jan.–Mar.
<i>Cedrela fissilis</i> Vell.	EN ⁹	114	84.6	1.7	Aug.–Sep.	Nov.–Dec.	Jul–Aug.	Jul–Aug.
<i>Colletia paradoxa</i> (Spreng.) Escal. ⁶	R	7	7.7	0.1	Jan.–May	Mar.	Feb.–Jul	
<i>Curitiba prismatica</i> (D. Legr.) Salywon & Landrum	R	8	11.5	0.1	Dec.–Feb.	Dec.–Feb.	Jan.–Mar.	Mar.
<i>Cybistax antisiphylitica</i> (Mart.) Mart.	R	4	15.4	0.1	Dec.–Mar.	Sep	May–Oct.	
<i>Cyphomandra diploconos</i> (Mart.) Sendtn. ⁶	NT ⁹	23	23.1	0.3	Oct.–Jan.	Oct.–Jan.	Mar.–Jun	Mar.–Jun
<i>Eugenia involucrata</i> DC.	R	21	23.1	0.3	Sep.–Nov.		Oct.–Dec.	Sep.
<i>Eugenia pyriformis</i> Cambess.	R	17	19.2	0.2	Aug.–Oct.		Nov.–Mar.	Feb.–Mar.
<i>Handroanthus albus</i> (Cham.) Mattos	R	19	30.8	0.3	Jul–Sep.	Jul–Sep.	Oct.–Nov.	Sep.–Oct.

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					Secondary data ⁴	Recorded ⁵	Secondary data ⁴	Recorded ⁵
<i>Ilex paraguariensis</i> A.St.-Hil.	NT ⁹	68	61.5	1.0	Oct.–Dec.	Nov.	Jan.–Mar.	Jan.–Mar.
<i>Inga lentiscifolia</i> Benth.	EN ⁷ , VU ⁹	3	7.7	0.04	Sep.–Dec.	Nov.	Nov.–Apr.	Jan.
<i>Lafoensia pacari</i> A.St.-Hil.	R	13	23.1	0.2	Jun–Nov.		Oct.–Mar.	Jun–Aug.
<i>Lonchocarpus muehlbergianus</i> Hassl.	NT ⁷	16	26.9	0.2	Oct.–Jan.	Jan.	Jul–Aug.	
<i>Machaerium brasiliense</i> Vogel	R	10	19.2	0.1	Jun–Aug.		Apr.–May	Apr.
<i>Maytenus aquifolia</i> Mart. ⁶	R	3	11.5	0.04	Aug.–Dec.	Nov.	Aug.–Dec.	Jan.
<i>Maytenus ilicifolia</i> Mart. ex Reissek ⁶	NT ⁷	15	19.2	0.2	Aug.–Oct.	Sep.	Jan.–Mar.	Jan.
<i>Myrcianthes gigantea</i> (D.Legrand) D.Legrand	R	15	26.9	0.2	Oct.–Dec.	Nov.	Jan.	Jan.
<i>Ocotea nutans</i> (Nees) Mez	R	28	42.3	0.4	Mar.–Apr.		Sep.–Nov.	
<i>Ocotea odorifera</i> (Vell.) Rohwer	NT ⁷ , EN ⁸ , VU ⁹	56	53.8	0.8	Aug.–Sep.	Jan.	Apr.–Jun	Mar.–Aug.
<i>Ocotea porosa</i> (Nees & Mart.) Barroso	NT ⁷ , EN ⁸ , VU ⁹	125	65.4	1.8	Oct.–Nov.	Sep.–Dec.	Jan.–Mar.	Feb.–Apr.
<i>Oreopanax fulvum</i> Marchal	NT ⁷	28	23.1	0.4	Jan.–Apr.	Jan.–Apr.	Aug.–Sep.	May–Oct.
<i>Ouratea sellowii</i> (Planch.) Engl. ⁶	R	2	3.8	0.03	Feb.–Jun	Jan.	Jul–Oct.	Apr.–May
<i>Picramnia excelsa</i> Kuhlmann ex Pirani	R	12	26.9	0.2	Dec.–May	Feb.–Apr.	Jan.–Aug.	Mar.–Apr.
<i>Picrasma crenata</i> (Vell.) Engl.	R	9	15.4	0.1	Sep.–May	Nov.–Dec.	Feb.–Aug.	
<i>Podocarpus lambertii</i> Klotzsch ex Endl.	NT ⁹	49	26.9	0.7	Sep.–Dec.	Nov.–Dec.	Feb.–May	Feb.–May
<i>Quillaja brasiliensis</i> (A.St.-Hil. & Tul.) Mart.	VU ⁷	3	7.7	0.04	Dec.–Feb.	Feb.	Mar.–Apr.	May
<i>Scutia buxifolia</i> Reissek	R	1	3.8	0.01	Oct.–Dec.		Jan.–Mar.	
<i>Sloanea lasiocoma</i> K.Schum.	R	11	19.2	0.2	Sep.–Nov.		Jan.–Feb.	Jan.
<i>Tetrorchidium rubrivenium</i> Poepp.	NT ⁷	10	15.4	0.1	Sep.–Oct.		Jan.–Feb.	
<i>Trithrinax brasiliensis</i> Mart.	VU ⁷ , DD ⁸ , DD ⁹	25	3.8	0.4	Jul–Dec.	Jul–Aug.	Jan.–Jul	
<i>Zanthoxylum kleinii</i> (R.S.Cowan)	R	48	23.1	0.7	Nov.–Jan.		Feb.–Mar.	

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P.G.Waterman								
<i>Agarista pulchella</i> Cham. ex G.Don ⁶	R							
<i>Albizia burkartiana</i> Barneby & J.W.Grimes	VU ⁹							
<i>Aloysia hatschbachii</i> Moldenke ⁶	EN ⁷							
<i>Azara uruguayensis</i> (Speg.) Sleumer	EN ⁷							
<i>Castela tweedii</i> Planch. ⁶	R							
<i>Cedrela lilloi</i> C.DC.	DD ⁸ , EN ⁹							
<i>Chionanthus filiformis</i> (Vell.)	NT ⁹							
P.S.Green								
<i>Cunila incana</i> Benth. ⁶	EN ⁷							
<i>Gleditsia amorphoides</i> (Griseb.) Taubert.	EN ⁷ , DD ⁸							
<i>Inga sellowiana</i> Benth.	EN ⁹							
<i>Machaerium paraguariense</i> Hassl.	NT ⁷							
<i>Maytenus boaria</i> Molina	R							
<i>Maytenus dasyclada</i> Mart. ⁶	R							
<i>Mimosa urticaria</i> Barneby ⁶	EN ⁷							
<i>Myrceugenia bracteosa</i> (DC.)	VU ⁹							
D.Legrand & Kausel								
<i>Myrceugenia gertii</i> Landrum	EN ⁷							
<i>Myrceugenia hatschbachii</i> Landrum ⁶	DD ⁸ , R							
<i>Myrceugenia miersiana</i> (Gard.)	NT ⁹							
D.Legrand & Kausel								
<i>Myrceugenia scutellata</i> D.Legrand	NT ⁷ , VU ⁹							
<i>Myrcia selloi</i> (Spreng.) N.Silveira	R							
<i>Myrcianthes pungens</i> (O.Berg)	EN ⁹							
D.Legrand								
<i>Myrciaria cuspidata</i> O. Berg	VU ⁹							

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					Secondary data ⁴	Recorded ⁵	Secondary data ⁴	Recorded ⁵
<i>Myrcarpus frondosus</i> Allem.	NT ⁷ , DD ⁹							
<i>Ocotea catharinensis</i> Mez	NT ⁷ , EN ⁸ , VU ⁹							
<i>Rollinia salicifolia</i> Schltl.	EN ⁷							
<i>Ruprechtia laxiflora</i> Meisn.	R							
<i>Sambucus australis</i> Cham. & Schltl. ⁶	R							
<i>Schinus engleri</i> F.A.Barkley ⁶	DD ⁹ , R							
<i>Solanum melissarum</i> Bohs ⁶	NT ⁹							
<i>Solanum pinetorum</i> (L.B.Sm. & Downs) Bohs ⁶	NT ⁷ , NT ⁹							
<i>Solanum reitzii</i> L.B.Sm. & Downs	VU ⁷							
<i>Symplocos glandulosomarginata</i> Hoehne	R							
<i>Tibouchina kleinii</i> Wurdack ⁶	EN ⁷							

¹CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; DD, Data Deficient; R, Rare

²Frequency of occurrence based on 26 sites

³Based on the number of mother trees per kilometre of walked trails at all 26 sites evaluated

⁴From bibliography or herbarium database (Lorenzi, 1992, 1998, 2009; INCT, 2012)

⁵Obtained from field trips during March 2011–March 2014

⁶Small tree or shrub

⁷SEMA, 1995

⁸MMA, 2008

⁹IUCN, 2013