Supplementary Material

Appendix S1 Summary data on extent of original and current land use types, and the observed number of extinct or threatened species in 20 tropical biodiversity hotspots.

	Biodiversity hotspot land use (km^2)[a]					Observed number of species[b]	
Biodiversity hotspot	Original vegetation extent	Vegetation remaining	Disturbed forest	Agricultural land	Urban area	Total known	Extinct or threatened
Atlantic Forest	1,233,875	99,944	389,864	740,694	3,373	143	55
Caribbean Islands	229,549	22,955	105,147	100,457	989	162	47
Cerrado	2,031,990	438,910	481,902	1,110,419	759	17	10
Coastal Forests of Eastern Africa	291,250	29,125	157,388	104,274	463	11	2
Eastern Afromontane	1,017,806	106,870	518,292	391,846	799	106	35
East Melanesian Islands	99,384	29,815	17,805	51,764	0	149	33
Guinean Forests of West Africa	620,314	93,047	269,165	256,623	1,479	75	31
Horn of Africa	1,659,363	82,968	1,336,156	239,511	728	24	9
Indo-Burma	2,373,057	118,653	1,096,742	1,148,821	8,841	64	18
Madagascar and the Indian Ocean Islands	600,461	60,046	465,545	74,825	45	181	57
Madrean Pine-Oak Woodlands	461,265	92,253	312,771	55,657	584	22	7
Mesoamerica	1,130,019	226,004	604,296	298,108	1,611	208	32
New Caledonia	18,972	5,122	6,203	7,647	0	23	7
Philippines	297,179	20,803	74,382	200,756	1,238	186	56
Polynesia-Micronesia	47,239	10,015	282	36,632	311	163	92
Sundaland	1,501,063	100,571	734,178	661,652	4,662	142	43
Tropical Andes	1,542,644	385,661	976,172	179,763	1,048	579	110
Tumbes-Chocó-Magdalena	274,597	65,903	134,588	73,978	128	110	21
Wallacea	338,494	50,774	89,015	198,589	116	262	49
Western Ghats and Sri Lanka	189,611	43,611	74,952	69,986	1,062	35	10

[a]'Original vegetation extent' and 'vegetation remaining' were based on Conservation International (2008). 'Agricultural land' and 'urban area' were calculated using ArcGIS Version 9.2 (ESRI, Redlands, California) based on ESA (2008) (agricultural land: ESA land categories 11,14,20,30; urban area: ESA land category 190). 'Disturbed forest' was calculated by subtracting areas of agricultural land and urban area from vegetation remaining. [b]Observed number of total known species and extinct or threatened species in each biodiversity hotspot were based on Conservation International (2008) and IUCN (2008). Threatened species are those classified as 'vulnerable', 'endangered', 'critically endangered', or 'extinct'.

Appendix S2 Summary data on 59 pairwise comparisons of species diversity between a pristine and a neighboring disturbed habitat (data compiled by Sodhi et al. 2009).

Disturbed habitat	Diversity metric	Pristine diversity	Disturbed diversity	σ value*	Site (country)	Site (locality)	Reference
Agricultural land	Rarefied primary forest species richness at 225 individuals	86	42.2	0.51	Malaysia	Johor	Peh et al. 2005
Agricultural land	Rarefied primary forest species richness at 250 individuals	89.4	51.3	0.43	Malaysia	Johor	Peh et al. 2005
Agricultural land	Rarefied forest species richness at 55 individuals	20.4	5.3	0.74	Philippines	Luzon	Posa & Sodhi 2006
Agricultural land	Rarefied forest species richness at 55 individuals	20.4	12.5	0.39	Philippines	Luzon	Posa & Sodhi 2006
Agricultural land	Rarefied forest species richness at 55 individuals	20.4	14.4	0.29	Philippines	Luzon	Posa & Sodhi 2006
Agricultural land	Species richness of frugivores and nectarivores	10.1	1.9	0.81	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness of frugivores and nectarivores	10.1	2.2	0.78	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness of insectivores	13.8	1.6	0.88	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness of insectivores	13.8	1.8	0.87	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness of endemic	14.4	0.8	0.94	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness of endemic	14.4	1.6	0.89	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness	25	4.8	0.81	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness	25	4.8	0.81	Indonesia	Sulawesi	Schulze et al. 2004
Agricultural land	Species richness	83	11	0.87	Indonesia	Central Java	Sodhi et al. 2005
Agricultural land	Species richness	180	69	0.62	Indonesia	Sumatra	Thiollay 1995
Agricultural land	Species richness	180	92	0.49	Indonesia	Sumatra	Thiollay 1995
Agricultural land	Species richness	180	105	0.42	Indonesia	Sumatra	Thiollay 1995
Disturbed forest	Forest species richness	91	30	0.67	Singapore	Singapore	Castelletta et al. 2000
Disturbed forest	Species richness	203	138	0.32	Singapore	Singapore	Castelletta et al. 2000
Disturbed forest	Species richness	62	42	0.32	Indonesia	Bogor, Java	Diamond et al. 1987
Disturbed forest	Species richness (frugivores)	17	10	0.41	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness (omnivores)	49	48	0.02	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness (insectivores)	111	83	0.25	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness	193	142	0.26	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness	274	191	0.30	Thailand, Malaysia, Indonesia	Peninsular Thailand and Malaysia; Indonesia: Borneo,	Lambert & Collar 2002

						Sumatra and Java	
Disturbed forest	Species richness	14	11	0.21	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness	14	12	0.14	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Rarefied primary forest species richness at 225 individuals	86	76.6	0.11	Malaysia	Johor	Peh et al. 2005
Disturbed forest	Rarefied primary forest species richness at 250 individuals	89.4	82.4	0.08	Malaysia	Johor	Peh et al. 2005
Disturbed forest	Rarefied forest species richness at 55 individuals	20.4	22.1	-0.08	Philippines	Luzon	Posa & Sodhi 2006
Disturbed forest	Species richness	110	109	0.01	Thailand	Southern Thailand	Round & Brockelman 1998
Disturbed forest	Species richness of frugivores and nectarivores	10.1	5.5	0.46	Indonesia	Sulawesi	Schulze et al. 2004
Disturbed forest	Species richness of insectivores	13.8	10.5	0.24	Indonesia	Sulawesi	Schulze et al. 2004
Disturbed forest	Species richness of endemic	14.4	6.5	0.55	Indonesia	Sulawesi	Schulze et al. 2004
Disturbed forest	Species richness	25	19.8	0.21	Indonesia	Sulawesi	Schulze et al. 2004
Disturbed forest	Species richness (frugivores)	17	12	0.29	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness (omnivores)	49	37	0.24	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness (insectivores)	111	86	0.23	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness	193	135	0.30	Malaysia	Pahang	Johns 1986
Disturbed forest	Species richness	120	86	0.28	Malaysia	Pahang	Johns 1989
Disturbed forest	Species richness	120	100	0.17	Malaysia	Pahang	Johns 1989
Disturbed forest	Species richness	274	248	0.09	Thailand, Malaysia, Indonesia	Peninsular Thailand and Malaysia; Indonesia: Borneo, Sumatra and Java	Lambert & Collar 2002
Disturbed forest	Species richness (omnivore)	14	13	0.07	Malaysia	Sabah	Lambert 1992
Disturbed forest	Species richness (insectivore)	46	38	0.17	Malaysia	Sabah	Lambert 1992
Disturbed forest	Species richness	207	199	0.04	Malaysia	Sabah	Lambert 1992
Disturbed forest	Species richness	14	11	0.21	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness	14	12	0.14	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness	14	13	0.07	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness	14	13	0.07	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness	14	13	0.07	Indonesia	Kalimantan	Lammertink 2004
Disturbed forest	Species richness (species with restricted geographical ranges)	16	12	0.25	Indonesia	Seram	Marsden 1998

Disturbed forest	Species richness	73	57	0.22	Indonesia	Seram	Marsden 1998
Disturbed forest	Species richness (total)	119	89	0.25	Thailand	Northern Thailand	Pattanavibool & Dearden 2002
Disturbed forest	Species richness	110	67	0.39	Thailand	Southern Thailand	Round & Brockelman 1998
Disturbed forest	Species richness	83	20	0.76	Indonesia	Central Java	Sodhi et al. 2005
Disturbed forest	Species richness	83	26	0.69	Indonesia	Central Java	Sodhi et al. 2005
Disturbed forest	Species richness	83	33	0.60	Indonesia	Central Java	Sodhi et al. 2005
Disturbed forest	Species richness	15	11	0.27	Malaysia	Negeri-Sembilan	Styring & Ickes 2001
Disturbed forest	Understorey species richness	83	73	0.12	Malaysia	Negeri-Sembilan	Wong 1986

*****The sensitivity of taxon to each disturbed habitat (σ value) was calculated as: $1-\left(\frac{\text{Disturbed diversity}}{\text{Pristine diversity}}\right)$.

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