

These are electronic appendices to the paper by Kaskan *et al.* 2005 Peripheral variability and central constancy in mammalian visual system evolution. *Proc. R. Soc. Lond. B* **272**. (doi:10.1098/ rspb.2004.2925)

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Table 1. Species and cortical areas included in this analysis, with references. (Cortical areas listed were present on a flattened map of the entire neocortex. Columns from V1 to motor indicate our clustering of cortical areas, though authors may have originally used different names. Those names are included in the body of the table. References: ^aKrubitzer & Kaas (1993); ^bPreuss & Kaas (1996); ^cKrubitzer & Kaas (1990); ^dVan Essen & Drury (1997); ^eFelleman & Van Essen (1991); ^fKrubitzer *et al.* (1993); ^gBeck & Kaas (1998); ^hLuetheke *et al.* (1989); ⁱKrubitzer *et al.* (1993); ^jZilles (1985); ^kLyon *et al.* (1988); ^lSlutsky *et al.* (1999); ^mLuetheke *et al.* (1988); ⁿHuffman *et al.* (2000); ^oBeck *et al.* (1995); ^pKrubitzer (1998); ^qBeck *et al.* (1995); ^rKrubitzer (1998); ^sCatania *et al.* (1999); ^tKrubitzer *et al.* (1997).)

species	common name	V1	V2	visual (other)	A1	R	aud. (other)	3b or SI	SII	SS (other)	M	motor (other)
<i>Aotus trivirgatus</i>	northern grey-necked owl monkey ^a	VI	VII	MT, DM, MST, FST, VPP	—	—	AI + R	3b	SII	3a, 1, 2, PV	M1	FEF, FV, SMA, FR
<i>Callithrix jacchus</i>	common marmoset ^a	VI	VII	MT, DM, FST, VPP	AI	R	—	3b	SII	3a, 1, PV	M	FEF, FV, SMA
<i>Chirogaleus medius</i>	fat-tailed dwarf lemur ^b	VI	—	MT	—	—	—	3b	—	—	—	—
<i>Galago senegalensis</i>	northern lesser bush baby ^c	17	18	MT, DM, DL, DI, MST, FST	AI	—	—	3b	SII	PV	M	FV
<i>Homo sapiens</i>	human ^d	17	18	MT, DM, DL, MST, FST, VP	AI	R	Aud	3b	—	3, 1, 2	4	6
<i>Macaaca sp.</i>	macaque ^{e,f}	VI	VII	MT, DM, DL, MST, FST, VP	AI	R	—	3b	SII	3a, 1, 2, PV, VS	M or 4	PreM or 6, M + Pre M, MEF, FEF, FV, SMA
<i>Nycticebus coucang</i>	slow loris ^g	VI	VII	MT	—	—	—	3b	—	3a, PV	M1	—
<i>Otolenur garnetti</i>	Garnett's greater bush baby ^h	VI	VII	MT, DM, MST, FST	A	—	Ar	—	—	SI + SII	—	—
<i>Saguinus fuscicollis</i>	saddleback tamarin ⁱ	17	18	MT, DL	AI	R	—	SI	SII	—	—	—
<i>Saimiri sciureus</i>	squirrel monkey ^b	VI	VII	MT, DM, DL, DI, MST, MST	—	—	—	3b	SII	3a, 1, 2, PV/IG	M	Premotor, M + PreM, FEF, FV
<i>Pteropus poliocephalus</i>	flying fox ^j	VI	VII	MT	AI	—	—	SI	SII	R, 1/2, PV, Ventral SS	M	FV, SMA
<i>Tupaia belangeri</i>	tree shrew ^k	V1	V2	—	—	—	—	Par1 + HL + FL	—	SS	—	—
<i>Rattus sp.</i>	rat ^l	Oc1	Oc2	—	Te1	Te2	Te3	—	—	—	Fr1 + Fr3	—
<i>Sciurus carolinensis</i>	grey squirrel ^m	17	18	—	AI	R	—	SI	SII	PV	M	TAI, TArv + TAcv, TP
<i>Spermophilus beecheyi</i>	California ground squirrel ⁿ	VI	VII	—	—	—	—	SI	SII	R, PV	—	TA, TP, PM
<i>Dactylopsila inrengata</i>	striped possum ^o	VI	VII	—	—	—	—	SI	SII	R or SR, PV	—	—
<i>Dasyurus hallucatus</i>	northern quoll ^{o,p}	VI	VII	VIS	AI	—	Aud	—	—	DSr, SII/PV	M	—
<i>Didelphis marsupialis</i>	North American opossum ^{o,q}	VI	VII	CT	—	—	—	SI	SII	SR, SC, PV	—	—
<i>Monodelphis domestica</i>	short-tailed opossum ^o	VI	—	CT	—	—	—	SI	—	—	—	—
<i>Smimtophis crassicaudata</i>	fat-tailed dunnart ^o	VI	—	CT	—	—	—	SI	—	—	—	—
<i>Trichosurus vulpecula</i>	brush-tailed possum ^o	VI	VII	—	—	—	—	SI	SII	R or SR, C or SC, PV	—	—
<i>Ornithorhynchus anatinus</i>	platypus ^r	Vc (VI)	—	Vr	A	—	Ar	SI	—	R, PV	M	—
<i>Tachyglossus aculeatus</i>	echidna ^r	Vc (VI)	—	Vr, Vis + Vis/SS	A	—	Ar	SI	—	R, PV	M	—
<i>Blarina brevicauda</i>	short-tailed shrew ^s	VI	—	—	AI	—	—	SI	SII	—	—	—
<i>Cryptotis parva</i>	least shrew ^s	VI	—	—	AI	—	—	SI	SII	—	—	—
<i>Echinops telfairi</i>	tenrec ^t	V	—	—	—	—	—	SI	SII	—	—	—
<i>Erinaceus europaeus</i>	hedgehog ^f	VI	VII	—	AI	—	—	SI	SII	PV/SII	—	—
<i>Sorex cinereus</i>	masked shrew ^s	VI	—	—	AI	—	—	SI	SII	R, PV	M	—
<i>Sorex longirostris</i>	southeastern shrew ^s	VI	—	—	AI	—	—	SI	SII	SI + SII	—	—
<i>Sorex palustris</i>	northern water shrew ^s	VI	—	—	AI	—	—	SI	—	SI + SII	—	—

Electronic Appendix B

Table 2. Retinal area and numbers of rods and cones in five species of New World primates: *Callithrix jacchus*, *Saguinus m. niger*, *Aotus* sp, *Saimiri ustius* and *Cebus apella*.

species	retinal area (mm ²)	total number of cones	total number of rods
<i>Callithrix jacchus</i>	184	3 587 937	9 786 595
case 2	224	3 881 809	11 553 809
mean	204	3 734 873	10 670 202
standard deviation	28	207 799	1 249 609
<i>Saguinus m. niger</i>	258	4 097 219	11 055 429
case 2	245	3 392 568	11 085 930
case 3	196	3 610 437	10 972 849
case 4	193	3 876 553	11 427 574
mean	223	3 744 194	11 135 446
standard deviation	33	307 505	200 525
<i>Aotus</i> sp.	635	2 389 765	158 777 328
case 2	557	2 205 835	122 513 951
mean	596	2 297 800	140 645 640
standard deviation	55	130 058	25 642 080
<i>Saimiri ustius</i>	293	3 605 376	35 345 904
case 2	365	3 519 988	38 511 202
case 3	408	2 941 289	28 269 440
case 4	341	3 486 604	32 326 612
mean	352	3 388 314	33 613 290
standard deviation	48	302 184	4 366 683
<i>Cebus apella</i>	454	3 853 230	45 121 826
case 2	455	3 798 460	55 060 093
case 3	575	4 486 339	47 458 781
case 4	541	4 295 170	48 856 446
case 5	576	5 268 207	57 015 172
case 6	637	5 364 746	61 331 721
case 7	468	4 592 541	48 144 647
mean	529	4 522 670	51 855 527
standard deviation	72	618 534	5 973 953