empirical references

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This document contains the sources and references for the empirical data we used in *Extending Bayesian Elo-rating to quantify the steepness of dominance hierarchies* (https://doi.org/10.1101/2022.01.28.478016). It was built using EloSteepness.data (version 0.9.4).

The actual matrices are in:

library(EloSteepness.data)
empirical_matlist

Table 1: Dominance interaction networks

data set	species	common name	group size	interactions	sparseness	reference
addison1982_dom_2	Capra hircus	goat	9	106	0.28	Addison & Baker (1982)
$alados1992_dom_1$	$Nanger\ dama$	dama gazelle	7	298	0.00	Alados & Escós (1992)
$alados1992_dom_2$	$Nanger\ dama$	dama gazelle	9	324	0.03	Alados & Escós (1992)
$alados1992_dom_3$	Nanger dama	dama gazelle	7	270	0.05	Alados & Escós (1992)
$alados1992_dom_5$	$Gazella\ cuvieri$	Cuvier's gazelle	5	658	0.00	Alados & Escós (1992)
$alados1992_dom_6$	$Gazella\ cuvieri$	Cuvier's gazelle	8	666	0.00	Alados & Escós (1992)
$alados1992_dom_7$	$Gazella\ cuvieri$	Cuvier's gazelle	7	604	0.00	Alados & Escós (1992)
$allee1954_dom_1$	Mustelus canis	smooth dogfish	10	267	0.38	Allee & Dickinson (1954);
						Shizuka & McDonald (2012)
appleby1983_dom_1	Cervus elaphus	red deer	7	83	0.38	Appleby (1983)
archie2006_dom_02	Loxodonta africana	African elephant	6	48	0.07	Archie et al. (2006)
archie2006_dom_03	$Loxodonta\ africana$	African elephant	5	25	0.10	Archie et al. (2006)
archie2006_dom_05	$Loxodonta\ africana$	African elephant	10	64	0.44	Archie et al. (2006)
$archie2006_dom_06$	$Loxodonta\ africana$	African elephant	6	39	0.13	Archie et al. (2006)
archie2006_dom_08	Loxodonta africana	African elephant	7	26	0.43	Archie et al. (2006)
archie2006_dom_11	$Loxodonta\ africana$	African elephant	8	62	0.21	Archie et al. (2006)
$archie2006_dom_12$	Loxodonta africana	African elephant	5	24	0.00	Archie et al. (2006)
archie2006_dom_13	$Loxodonta\ africana$	African elephant	5	33	0.00	Archie et al. (2006)
archie2006 dom 15	$Loxodonta\ africana$	African elephant	5	24	0.30	Archie et al. (2006)
archie2006 dom 16	$Loxodonta\ africana$	African elephant	5	35	0.00	Archie et al. (2006)
archie2006_dom_18	Loxodonta africana	African elephant	6	33	0.07	Archie et al. (2006)
$arlet2009_dom_4$	Lophocebus albigena	gray-cheeked mangabey	5	73	0.00	Arlet & Isbell (2009)
arlet2009 dom 5	Lophocebus albiqena	gray-cheeked mangabey	9	257	0.00	Arlet & Isbell (2009)
arlet2011_dom_3	Lophocebus albigena	gray-cheeked mangabey	5	63	0.00	Arlet et al. (2011)
$athman2010_dom_1$	Macaca radiata	bonnet macaque	7	80	0.00	Athman (2010)
balasubramaniam2014_dom_1	$Macaca\ tonkeana$	Tonkean macaque	9	174	0.14	Balasubramaniam (2014);
						Demaria & Thierry (2001)
balasubramaniam2014_dom_2	Macaca nigra	crested macaque	6	516	0.00	Balasubramaniam (2014)
banks1956_dom_1	Gallus gallus	red jungle fowl	9	1097	0.00	Banks (1956)
$banks1956_dom_2$	Gallus gallus	red jungle fowl	9	970	0.00	Banks (1956)
banks1956_dom_3	Gallus gallus	red jungle fowl	10	1164	0.00	Banks (1956)
banks1956_dom_4	Gallus gallus	red jungle fowl	10	1200	0.00	Banks (1956)
banks1956 dom 5	Gallus gallus	red jungle fowl	9	1297	0.00	Banks (1956)
banks1956_dom_6	Gallus gallus	red jungle fowl	9	1093	0.00	Banks (1956)
banks1956_dom_7	Gallus gallus	red jungle fowl	10	1023	0.00	Banks (1956)
banks1956_dom_8	Gallus gallus	red jungle fowl	10	1351	0.00	Banks (1956)
barrette1986_dom_1	Rangifer tarandus	woodland caribou	20	823	0.06	Barrette & Vandal (1986)
bartlett1971_dom_1	$Macaca\ mulatta$	rhesus macaque	13	85	0.23	Bartlett & Meier (1971)
$\frac{-}{\text{bartlett1971}} \frac{-}{\text{dom}} \frac{-}{2}$	$Macaca\ mulatta$	rhesus macaque	13	138	0.18	Bartlett & Meier (1971)
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data set	species	common name	group	interactions	sparseness	reference
barton1993 dom 1	Papio anubis	olive baboon	26	511	0.34	Barton & Whiten (1993)
beilharz1982 dom 1	Bos taurus	dairy cow	11	59	0.44	Beilharz & Zeeb (1982)
beilharz1982_dom_2	Bos taurus	dairy cow	9	60	0.36	Beilharz & Zeeb (1982)
bell1978_dom_1	$Naupho eta\ cinerea$	cockroach	5	101	0.00	Bell & Gorton (1978)
bell1978 dom 2	$Naupho eta\ cinerea$	cockroach	5	92	0.00	Bell & Gorton (1978)
bell1978_dom_3	$Naupho eta\ cinerea$	cockroach	5	123	0.10	Bell & Gorton (1978)
bell1978 dom 4	$Naupho eta\ cinerea$	cockroach	5	149	0.00	Bell & Gorton (1978)
bell1978_dom_5	$Naupho eta\ cinerea$	cockroach	5	161	0.00	Bell & Gorton (1978)
bell1978 dom 6	$Naupho eta\ cinerea$	cockroach	5	75	0.10	Bell & Gorton (1978)
bell1978 dom 7	$Naupho eta\ cinerea$	cockroach	5	78	0.20	Bell & Gorton (1978)
bell1978 dom 8	$Naupho eta\ cinerea$	cockroach	5	144	0.00	Bell & Gorton (1978)
bell1978_dom_9	$Naupho eta\ cinerea$	cockroach	5	62	0.30	Bell & Gorton (1978)
bennett1939_dom_1	$Streptopelia\ risoria$	ring dove	5	58	0.10	M. A. Bennett (1939)
bennett1939 dom 2	$Streptopelia\ risoria$	ring dove	9	628	0.00	M. A. Bennett (1939)
bennett1939_dom_3	Streptopelia risoria	ring dove	5	492	0.00	M. A. Bennett (1939)
bennett1939_dom_4	Streptopelia risoria	ring dove	5	795	0.00	M. A. Bennett (1939)
bennett1939_dom_5	Streptopelia risoria	ring dove	5	1013	0.00	M. A. Bennett (1939)
bennett1939 dom 6	Streptopelia risoria	ring dove	5	560	0.00	M. A. Bennett (1939)
bennett1986 dom 1	Ovis canadensis	bighorn sheep	6	89	0.00	B. Bennett (1986)
bercovitch1993_dom_1	Macaca mulatta	rhesus macaque	9	77	0.25	Bercovitch (1993)
bergerud1974 dom 1	Rangifer tarandus	caribou	9	46	0.42	Bergerud (1974)
bergstrom2010 dom 1	Cebus capucinus	white-faced capuchin	5	24	0.00	Bergstrom & Fedigan (2010)
bergstrom2010_dom_2	Cebus capucinus	white-faced capuchin	7	117	0.05	Bergstrom & Fedigan (2010)
bergstrom2010_dom_3	Cebus capucinus	white-faced capuchin	10	155	0.20	Bergstrom & Fedigan (2010)
berman2004_dom_1	Macaca thibetana	Tibetan macaque	22	858	0.20	Berman et al. (2004)
berman2004_dom_1 berman2004_dom_2	Macaca thibetana	Tibetan macaque Tibetan macaque	22	871	0.21	Berman et al. (2004)
berman2004_dom_2 berman2004_dom_3	$Macaca\ thibetana$	Tibetan macaque Tibetan macaque	18	1521	0.28	Berman et al. (2004)
berryman1978_dom_1	Cavia porcellus	guinea pig	8	170	0.12	Berryman (1978)
birky2002_dom_01	Macaca cyclopis	Formosan macaque	6	109	0.21	Birky (2002)
birky2002_dom_01	Macaca cyclopis Macaca cyclopis	Formosan macaque Formosan macaque	6	61	0.07	Birky (2002) Birky (2002)
birky2002_dom_02	Macaca cyclopis Macaca cyclopis	•	5	107	0.00	Birky (2002) Birky (2002)
birky2002_dom_12	Macaca cyclopis Macaca cyclopis	Formosan macaque	9	256	0.00	Birky (2002)
blatrix2004_dom_1	Temnothorax ameri-	Formosan macaque ant	9 16	629	0.03	Blatrix & Herbers (2004)
blatrix2004_doin_1		ant	10	029	0.41	Blatrix & Herbers (2004)
blatrix2004 dom 2	canus $Temnothorax$ $ameri$	amt	8	46	0.43	Blatrix & Herbers (2004)
blattix2004_dolli_2	canus	ant	0	40	0.45	Blatfix & Herbers (2004)
blatrix2004 dom 5	Temnothorax $ameri-$	ant	6	53	0.33	Blatrix & Herbers (2004)
Diatrix2004_doin_5		ant	Ü	55	0.33	Blatfix & Herbers (2004)
hananni2007 dama 1	canus Estis sertos	domontic ont	19	260	0.28	Demanni et al. (2007)
bonanni2007_dom_1	Felis catus	domestic cat	13	360	0.28 0.37	Bonanni et al. (2007) Bonanni et al. (2007)
bonanni2007_dom_2	Felis catus	domestic cat	14	565		(/
bonanni2007_dom_3	Felis catus	domestic cat	14	307	0.44	Bonanni et al. (2007)
borries1991_dom_1	Semnopithecus entellus	Hanuman langur	11	149	0.09	Borries et al. (1991)
borries1991_dom_2	Semnopithecus entellus	Hanuman langur	11	166	0.20	Borries et al. (1991)
borries1991_dom_3	Semnopithecus entellus	Hanuman langur	11	171	0.09	Borries et al. (1991)
borries1991_dom_4	Semnopithecus entellus	Hanuman langur	13	437	0.06	Borries et al. (1991)
borries1991_dom_5	Semnopithecus entellus	Hanuman langur	13	520	0.08	Borries et al. (1991)
borries1991_dom_6	Semnopithecus entellus	Hanuman langur	13	420	0.05	Borries et al. (1991)
borries1991_dom_7	Semnopithecus entellus	Hanuman langur	12	296	0.08	Borries et al. (1991)
borries1991_dom_8	Semnopithecus entellus	Hanuman langur	12	521	0.00	Borries et al. (1991)
borries1991_dom_9	Semnopithecus entellus	Hanuman langur	12	260	0.06	Borries et al. (1991)
bromley1991_dom_1	Antilocapra americana	pronghorn	8	130	0.14	Bromley (1991)
brown1963_dom_01	$Cyanocitta\ stelleri$	Steller jay	18	600	0.29	Brown (1963)
brown1963_dom_02	$Cyanocitta\ stelleri$	Steller jay	5	64	0.10	Brown (1963)
brown1963_dom_03	Cyanocitta stelleri	Steller jay	5	48	0.00	Brown (1963)
brown1963_dom_04	$Cyanocitta\ stelleri$	Steller jay	5	48	0.20	Brown (1963)
brown1963_dom_06	$Cyanocitta\ stelleri$	Steller jay	5	39	0.20	Brown (1963)
brown1963_dom_07	Cyanocitta stelleri	Steller jay	5	63	0.00	Brown (1963)
brown1963_dom_08	$Cyanocitta\ stelleri$	Steller jay	5	25	0.00	Brown (1963)
brown1963_dom_11	$Cyanocitta\ stelleri$	Steller jay	20	453	0.45	Brown (1963)
$bruinzeel2006_dom_1$	$Hae matopus\ ostrale gus$	oystercatcher	6	183	0.27	Bruinzeel et al. (2006)
buck1998_dom_1	$Cercocebus\ atys$	sooty mangabey	5	104	0.00	Buck (1998)
buck1998_dom_2	Cercocebus atys	sooty mangabey	6	150	0.00	Buck (1998)
butovskaya1996_dom_1	Macaca fascicularis	longtailed macaque	8	322	0.04	Butovskaya et al. (1996)

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data set	species	common name	group size	interactions	sparseness	reference
butovskaya1996_dom_2	Macaca fascicularis	longtailed macaque	10	605	0.09	Butovskaya et al. (1996)
byrne1983_dom_1	$Cercopithecus\ diana$	Diana monkey	5	404	0.00	Byrne et al. (1983)
cafazzo2010_dom_1	Canis familiaris	dog	27	1815	0.23	Cafazzo et al. (2010)
$canali1986_dom_1$	Bos taurus	domestic cattle	9	746	0.17	Canali et al. (1986)
carlisle1986 dom 03	$Argya \ squamiceps$	Arabian babbler	8	87	0.36	Carlisle & Zahavi (1986)
carlisle1986 dom 06	Argya squamiceps	Arabian babbler	9	80	0.31	Carlisle & Zahavi (1986)
carlisle1986 dom 07	Argya squamiceps	Arabian babbler	9	86	0.25	Carlisle & Zahavi (1986)
carlisle1986_dom_11	Argya squamiceps	Arabian babbler	10	57	0.47	Carlisle & Zahavi (1986)
carlisle1986 dom 14	Argya squamiceps	Arabian babbler	5	105	0.00	Carlisle & Zahavi (1986)
carlisle1986 dom 15	Arqya squamiceps	Arabian babbler	6	35	0.20	Carlisle & Zahavi (1986)
carlisle1986 dom 16	Argya squamiceps	Arabian babbler	8	137	0.11	Carlisle & Zahavi (1986)
carlisle1986 dom 18	Argya squamiceps	Arabian babbler	5	43	0.20	Carlisle & Zahavi (1986)
carlisle1986 dom 19	Argya squamiceps	Arabian babbler	6	18	0.40	Carlisle & Zahavi (1986)
castles1997 dom 1	Papio anubis	olive baboon	25	1080	0.16	Castles (1997)
chacko2014 dom 1	$Macaca \ radiata$	bonnet macaque	11	354	0.04	Chacko (2014)
chacko2014_dom_2	$Macaca\ radiata$	bonnet macaque	11	511	0.07	Chacko (2014)
chancellor2009 dom 1	Lophocebus albiqena	gray-cheeked mangabey	7	115	0.14	Chancellor & Isbell (2009)
chancellor2009 dom 2	Lophocebus albiqena	gray-cheeked mangabey	5	65	0.00	Chancellor & Isbell (2009)
chancellor2009_dom_2	Lophocebus albiqena	gray-cheeked mangabey	5	98	0.00	Chancellor & Isbell (2009)
chancellor2009_dom_5	Lophocebus albigena	gray-cheeked mangabey	5	85	0.00	Chancellor & Isbell (2009)
chapais1985_dom_1	Macaca fuscata	Japanese macaque	10	97	0.40	Chapais (1985)
-	•	chacma baboon	12	617	0.40	- ` '
cheney1977_dom_1	Papio ursinus	chacma baboon	12	395		Cheney (1977) Cheney (1977)
cheney1977_dom_2	Papio ursinus		8	989	0.01	Cheney (1977) Cheney et al. (1981)
cheney1981_dom_1 cheney1981_dom_2		vervet monkey	o 7		0.00	2 ,
· — —		vervet monkey		644	0.00	Cheney et al. (1981)
cheney1981_dom_3		vervet monkey	8	766	0.00	Cheney et al. (1981)
chism1997_dom_1	Erythrocebus patas	patas monkey	5	26	0.40	Chism & Rogers (1997)
clark1974_dom_1	Saimiri sciureus	squirrel monkey	10	45	0.00	Clark & Dillon (1974)
clutton-brock1976_dom_1	$Equus\ caballus$	highland pony	17	761	0.05	Clutton-Brock et al. (1976)
coffin1979_dom_1		vervet	8	928	0.00	Coffin (1979)
coffin1979_dom_2 collias1950_dom_1	$Odo coileus\ virginianus$	vervet white-tailed deer	8 9	486 472	$0.04 \\ 0.00$	Coffin (1979) Collias (1950); Shizuka &
${\rm collias 1950_dom_2}$	$Tragelaphus\ angasii$	nyala	7	110	0.33	McDonald (2012) Collias (1950); Shizuka &
collias1951_dom_2	Phasianus colchicus	ring-necked pheasant	8	48	0.46	McDonald (2012) Collias & Taber (1951)
$collias1951_dom_3$	Phasianus colchicus	ring-necked pheasant	14	136	0.44	Collias & Taber (1951)
$cooper1999_dom_1$	$Macaca\ assamensis$	Assamese macaque	41	4767	0.19	Cooper (1999)
$cords2000_dom_5$	$Cercopithecus\ mitis$	blue monkey	19	356	0.28	Cords (2000)
$cords2002_dom_1$	$Cercopithecus\ mitis$	blue monkey	17	492	0.14	Cords (2002)
$cote2000_dom_1$	$Oreannos\ americanus$	mountain goat	38	760	0.41	Côté (2000)
$coutlee1967_dom_1$	Spinus tristis	American goldfinch	5	567	0.00	Coutlee (1967)
cui2014_dom_1	Rhinopithecus bieti	black-and-white snub- nosed monkey	7	717	0.00	Cui et al. (2014)
cui2014_dom_2	Rhinopithecus bieti	black-and-white snub- nosed monkey	7	300	0.00	Cui et al. (2014)
cui2014_dom_3	$Rhinopithecus\ bieti$	black-and-white snub- nosed monkey	14	7825	0.01	Cui et al. (2014)
david2003 dom 1	Galaxias argenteus	giant kokopu	7	35	0.43	David & Stoffels (2003)
dawson1991_dom_1	Parabuteo unicinctus	Harris' hawk	5	96	0.10	Dawson & Mannan (1991)
deng1987_dom_1	Macaca thibetana	Tibetan macaque	$\frac{3}{24}$	988	0.25	Deng & Zhao (1987)
devries1993 dom 1	Equus caballus	horse	9	155	0.14	de Vries et al. (1993)
devries1995_dom_1	Pongo pygmaeus	orang utan	7	65	0.38	Utami and Wich in de Vries (1995)
devries2006_dom_1	Pan paniscus	bonobo	7	456	0.14	JMG Stevens in: de Vries et al. (2006)
$dewaal1977_dom_1$	$Macaca\ fascicularis$	longtailed macaque	14	1231	0.06	de Waal (1977)
$dewaal1977_dom_2$	$Macaca\ fascicularis$	longtailed macaque	17	1084	0.12	de Waal (1977)
$dewaal1985_dom_1$	$Macaca\ mulatta$	rhesus macaque	24	1275	0.11	de Waal & Luttrell (1985)
diniz2019_dom_1	$Cacicus\ haemorrhous$	red-rumped cacique	10	224	0.13	Diniz et al. (2019)
dixson1977_dom_1	$Miopithecus\ talapoin$	talapoin monkey	8	1124	0.07	Dixson & Herbert (1977)
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dixson1977_dom_2	$Miopithecus\ talapoin$	talapoin monkey	8	1168	0.07	Dixson & Herbert (1977)

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	Tai	nie 1: Dominance interaction	ii network			
data set	species	common name	group size	interactions	sparseness	reference
duboscq2013_dom_1	Macaca nigra	crested macaque	15	561	0.04	Duboscq et al. (2013)
$duboscq2013_dom_2$	$Macaca \ nigra$	crested macaque	15	210	0.23	Duboscq et al. (2013)
$duboscq2013_dom_3$	$Macaca\ nigra$	crested macaque	15	407	0.10	Duboscq et al. (2013)
$duboscq2013_dom_4$	Macaca nigra	crested macaque	21	283	0.36	Duboscq et al. (2013)
duboscq2013_dom_5	$Macaca\ nigra$	crested macaque	21	732	0.11	Duboscq et al. (2013)
duboscq2013_dom_6	Macaca nigra	crested macaque	21	711	0.12	Duboscq et al. (2013)
dunford1970 dom 1	Tamias striatus	eastern chipmunk	11	316	0.44	Dunford (1970)
easley1989 dom 1	Papio anubis	anubis baboon	8	160	0.07	Easley et al. (1989)
easley1989_dom_2	Papio anubis	anubis baboon	8	253	0.04	Easley et al. (1989)
eckert1987_dom_1	Agelaius phoeniceus	red-winged blackbird	8	973	0.00	Eckert & Weatherhead (1987)
$eckert1987_dom_2$	Agelaius phoeniceus	red-winged blackbird	10	2760	0.00	Eckert & Weatherhead (1987)
$eckert1987_dom_3$	$Agelaius\ phoeniceus$	red-winged blackbird	10	3423	0.00	Eckert & Weatherhead (1987)
$ellard1989_dom_1$	$Equus\ caballus$	horse	12	626	0.00	Ellard & Crowell-Davis (1989)
ellsworth1999 dom 6	Megascops kennicottii	western screech-owl	5	114	0.00	Ellsworth & Belthoff (1999)
ellsworth1999 dom 7	Megascops kennicottii	western screech-owl	5	31	0.10	Ellsworth & Belthoff (1999)
ellsworth1999_dom_8	Megascops kennicottii	western screech-owl	5	58	0.00	Ellsworth & Belthoff (1999)
erlinge1977_dom_1	Mustela erminea	stout	6	30	0.27	Erlinge (1977)
espmark1974_dom_1	Capreolus capreolus	roe deer	6	473	0.00	Espmark (1974)
espmark1974_dom_1 espmark1974_dom_2	Capreolus capreolus	roe deer	6	399	0.00	Espmark (1974) Espmark (1974)
espmark1974_dom_3	Capreolus capreolus	roe deer	5	39	0.10	Espmark (1974) Espmark (1974)
espmark1974 dom 4	Capreolus capreolus	roe deer	11	145	0.10	Espmark (1974) Espmark (1974)
fairbanks1994 dom 1	Antilocapra americana	pronghorn	9	44	0.36	Fairbanks (1994)
fairbanks1994 dom 2	Antilocapra americana Antilocapra americana	pronghorn	12	123	0.38	Fairbanks (1994)
fairbanks1994_dom_2 fairbanks1994_dom_3	Antilocapra americana Antilocapra americana	pronghorn	9	123 167	0.38	Fairbanks (1994)
fairbanks1994_dom_5	Antilocapra americana Antilocapra americana	pronghorn	11	157	0.11	Fairbanks (1994)
	Sciurus aberti	tassel-eared squirrel	6	181	0.11	Farentinos (1972)
farentinos1972_dom_1 farentinos1972_dom_2	Sciurus aberti		8	245		` /
	Sciurus aberti	tassel-eared squirrel		324	0.29	Farentinos (1972)
farentinos1972_dom_4		tassel-eared squirrel	11 e	324 431	0.44	Farentinos (1972)
farentinos1972_dom_5	Sciurus aberti	tassel-eared squirrel	6		0.00	Farentinos (1972)
farentinos1972_dom_6	Sciurus aberti	tassel-eared squirrel	10	316	0.44	Farentinos (1972)
feh1998_dom_2	Equus przewalskii	Przewalski horse	5	63	0.00	Feb (1988)
fortunato2009_dom_1	Pan paniscus	bonobo	9	376	0.06	Fortunato (2009)
foster1981_dom_2	Chiroxiphia caudata	swallow-tailed manakin	5	125	0.30	Foster (1981)
freeman2013a_dom_1	Chlorocebus pygerythrus	vervet	14	439	0.15	Freeman (2012)
freeman2013a_dom_2	Chlorocebus pygerythrus	vervet	9	268	0.17	Freeman (2012)
fugle1984_dom_1	Zonotrichia leucophrys	white-crowned sparrow	8	446	0.00	Fugle et al. (1984)
fugle1984_dom_2	Zonotrichia leucophrys	white-crowned sparrow	8	418	0.00	Fugle et al. (1984)
fugle1984_dom_3	Zonotrichia leucophrys	white-crowned sparrow	8	157	0.04	Fugle et al. (1984)
fugle1984_dom_4	Zonotrichia leucophrys	white-crowned sparrow	9	547	0.00	Fugle et al. (1984)
fugle1984_dom_5	Zonotrichia leucophrys	white-crowned sparrow	10	449	0.00	Fugle et al. (1984)
fugle1984_dom_6	Zonotrichia leucophrys	white-crowned sparrow	10	434	0.00	Fugle et al. (1984)
fugle1984_dom_7	Zonotrichia leucophrys	white-crowned sparrow	10	514	0.00	Fugle et al. (1984)
fugle1984_dom_8	Zonotrichia leucophrys	white-crowned sparrow	11	472	0.00	Fugle et al. (1984)
funkhouser2018_dom_1	$Pan \ troglodytes$	chimpanzee	7	55	0.19	Funkhouser et al. (2018)
furuichi1997_dom_1	Pan paniscus	bonobo	9	75	0.33	Furuichi (1997)
$gemmill2007_dom_1$	$Lemur\ catta$	ringtailed lemur	6	320	0.00	Gemmill (2007)
$gemmill2007_dom_2$	$Lemur\ catta$	ringtailed lemur	6	245	0.00	Gemmill (2007)
$graf1985_dom_1$	$Lepus \ americanus$	snowshoe hare	5	242	0.00	Graf (1985)
greenberg-	$Capra\ nubiana$	Nubian ibex	13	414	0.05	Greenberg-Cohen et al.
$cohen1994_dom_1$						(1994)
$grunau2001_dom_1$	$Colobus\ guereza$	guereza	5	672	0.00	Grunau & Kuester (2001)
$gumert2000_dom_2$	$Macaca\ fascicularis$	longtailed macaque	7	51	0.00	Gumert (2000)
$gunnels1999_dom_1$	$Antilocapra\ americana$	pronghorn	17	223	0.48	Gunnels (1999)
$gunnels1999_dom_2$	$Antilocapra\ americana$	pronghorn	12	195	0.23	Gunnels (1999)
hall1983_dom_1	$Cervus\ elaphus$	red deer	6	153	0.00	Hall (1983)
hanya2008_dom_1	Macaca fuscata	Japanese macaque	9	96	0.08	Hanya et al. (2008)
hanya2008_dom_2	$Macaca\ fuscata$	Japanese macaque	7	22	0.38	Hanya et al. (2008)
harcourt1989_dom_2	$Gorilla\ gorilla$	gorilla	7	103	0.10	Harcourt & Stewart (1989)
harcourt1989_dom_3	$Gorilla\ gorilla$	gorilla	6	48	0.07	Harcourt & Stewart (1989)
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Table 1: Dominance interaction networks

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data set	species	common name	group size	interactions	sparseness	reference		
harcourt1989_dom_4	Gorilla gorilla	gorilla	5	37	0.00	Harcourt & Stewart (1989)		
$harding1986_dom_1$	$Erythrocebus\ patas$	patas monkey	6	152	0.27	Harding & Olson (1986)		
$hartzler1970_dom_1$	$Poecile\ atricapillus$	black-capped chickadee	7	138	0.10	Hartzler (1970)		
$hass1991a_dom_1$	$Ovis\ canadensis$	bighorn sheep	20	175	0.50	Hass (1991)		
hass1991a_dom_2	$Ovis\ canadensis$	bighorn sheep	24	459	0.38	Hass (1991)		
hass1991a_dom_3	Ovis canadensis	bighorn sheep	28	658	0.38	Hass (1991)		
hausfater1982_dom_1	Papio cynocephalus	yellow baboon	14	1704	0.00	Hausfater et al. (1982)		
hausfater1982_dom_2	Papio cynocephalus	yellow baboon	20	895	0.04	Hausfater et al. (1982)		
hauver2013_dom_2	Procyon lotor Rhinopithecus roxellana	raccoon	12	150	0.18	Hauver et al. (2013)		
he2013_dom_1	•	Sichuan snub-nosed mon- key	14	1415	0.19	He et al. (2013)		
hegner1985_dom_1	Cyanistes caeruleus	blue tit	5	77	0.00	Hegner (1985)		
hegner1985_dom_2	Cyanistes caeruleus	blue tit	5	69	0.00	Hegner (1985)		
hegner1985_dom_3	Cyanistes caeruleus	blue tit	5	95	0.00	Hegner (1985)		
hegner1985_dom_4	Cyanistes caeruleus	blue tit	5	82	0.00	Hegner (1985)		
heinze1990_dom_1	$Leptothorax \ Equus \ caballus$	ant Sorraia horse	8 11	$505 \\ 1724$	$0.00 \\ 0.00$	Heinze (1990) Heitor & Vicente (2010)		
$\begin{array}{cccc} heitor 2006_dom_1 \\ heitor 2010 & dom & 1 \end{array}$	Equus caballus	Sorraia horse	6	185	0.00	Heitor et al. (2006)		
hewitt2009 dom 2	Meles meles	European badger	14	122	0.44	Hewitt et al. (2009)		
hewitt2009_dom_2	Meles meles	European badger	7	164	0.00	Hewitt et al. (2009)		
hewitt2009_dom_4	Meles meles	European badger	7	118	0.24	Hewitt et al. (2009)		
hewitt2009 dom 5	Meles meles	European badger	9	198	0.22	Hewitt et al. (2009)		
hewitt2009_dom_6	Meles meles	European badger	5	37	0.10	Hewitt et al. (2009)		
hill1995 dom 1	Macaca fuscata	Japanese macaque	7	291	0.00	Hill & Okayasu (1995)		
hirotani1994_dom_1	Rangifer tarandus	reindeer	13	1557	0.09	Hirotani (1994)		
hogstad1987_dom_1	Poecile montanus	willow tit	6	130	0.00	Hogstad (1987)		
$hogstad1987_dom_2$	$Poecile\ montanus$	willow tit	6	43	0.27	Hogstad (1987)		
$holmes1991_dom_1$	$Didelphis\ virginiana$	Virginia opossum	5	22	0.00	Holmes (1991)		
$holmes1991_dom_3$	$Didelphis\ virginiana$	Virginia opossum	5	65	0.00	Holmes (1991)		
holmes1991_dom_4	$Didelphis\ virginiana$	Virginia opossum	5	198	0.00	Holmes (1991)		
holmes1991_dom_5	$Didelphis\ virginiana$	Virginia opossum	5	58	0.30	Holmes (1991)		
isbell1998_dom_1	F 4 7 4	vervet monkey	9	127	0.31	Isbell & Pruetz (1998)		
isbell1998_dom_2	Erythrocebus patas	patas monkey	17	192	0.49	Isbell & Pruetz (1998)		
ito1993_dom_1	Pachycondyla	ant	8 8	$312 \\ 325$	0.00	Ito (1993)		
ito1993_dom_2	Pachycondyla Pachycondyla	ant	8 15	502	$0.04 \\ 0.12$	Ito (1993) Ito (1993)		
ito1993_dom_3 ito1993_dom_4	Pachy condyla	ant	15	568	0.12	Ito (1993)		
ito1993_dom_4	Pachycondyla	ant	15	735	0.13	Ito (1993)		
ito1993 dom 7	Pachycondyla	ant	8	81	0.14	Ito (1993)		
izar2006_dom_1	Sapajus apella	brown capuchin	17	325	0.34	Izar et al. (2006)		
izawa1980_dom_1	Sapajus apella	black-capped capuchin	9	48	0.39	K. Izawa (1980)		
izawa2008_dom_1	Corvus macrorhynchos	jungle crow	14	441	0.00	EI. Izawa & Watanabe (2008)		
jacobus1981_dom_1	Erythrocebus patas	patas monkey	5	28	0.00	Jacobus & Loy (1981)		
jacobus1981_dom_2	Erythrocebus patas	patas monkey	5	42	0.00	Jacobus & Loy (1981)		
jacobus1981_dom_3	$Erythrocebus\ patas$	patas monkey	5	43	0.00	Jacobus & Loy (1981)		
$jaffe2010_dom_1$		vervet	8	39	0.46	Jaffe & Isbell (2010)		
$jaffe2010_dom_3$		vervet	7	53	0.19	Jaffe & Isbell (2010)		
$janson1985_dom_1$	Sapajus apella	brown capuchin	15	806	0.26	Janson (1985)		
jones1980_dom_1	$Alouatta \ palliata$	mantled howler monkey	18	591	0.14	Jones (1980)		
jones1980_dom_2	Alouatta palliata	mantled howler monkey	10	242	0.07	Jones (1980)		
jones1983_dom_1	Alouatta caraya	black howler monkey	5	287	0.00	Jones (1983)		
kaburu2012_dom_1	Macaca sylvanus	Barbary macaque	7	584	0.00	Kaburu et al. (2012)		
katano1985_dom_1	Nipponocypris tem- minckii	dark chub	9	2707	0.11	Katano (1985)		
kaufman1994_dom_01	Eulemur rufus	red-fronted lemur	7	44	0.43	Kaufman (1994)		
kaufman1994_dom_03	Eulemur rufus	red-fronted lemur	7	124	0.10	Kaufman (1994)		
kaufman1994_dom_05	Eulemur rufus	red-fronted lemur	5	40	0.20	Kaufman (1994)		
kaufman1994_dom_07	Eulemur collaris	collared brown lemur	7	233	0.10	Kaufman (1994)		
kaufman1994_dom_08 kaufman1994_dom_09	Eulemur collaris Eulemur rufus	collared brown lemur red-fronted lemur	7 10	71 841	0.19 0.00	Kaufman (1994) Kaufman (1994)		
kaufman1994_dom_09 kaufman1994_dom_10	Eulemur rujus Eulemur rufus	red-fronted lemur	10	237	0.00	Kaufman (1994) Kaufman (1994)		
kaufman1994_dom_10 kaufman1994_dom_11	Eulemur rufus	red-fronted lemur	5	232	0.09	Kaufman (1994) Kaufman (1994)		
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Table 1: Dominance interaction networks

data set	species	common name	group	interactions	sparseness	reference
kaufman1994_dom_12	Eulemur rufus	red-fronted lemur	5	58	0.10	Kaufman (1994)
keiper1988_dom_1	Equus przewalskii	Przewalski horse	9	972	0.25	Keiper (1988)
keiper1992_dom_1	Equus przewalskii	Przewalski horse	11	558	0.06	Keiper & Receveur (1992)
keiper1992_dom_2	Equus przewalskii	Przewalski horse	7	995	0.00	Keiper & Receveur (1992)
ketterson1979_dom_1	$Junco\ hyemalis$	dark-eyed junco	17	150	0.47	Ketterson (1979)
kikkawa1980_dom_1	Zosterops lateralis	silvereye	10	897	0.07	Kikkawa (1980)
king-bailey2019_dom_1	Cebus capucinus	white-faced capuchin	7	49	0.14	King-Bailey (2019)
king-bailey2019_dom_2	Cebus capucinus	white-faced capuchin	8	51	0.18	King-Bailey (2019)
king-bailey2019_dom_3	Cebus capucinus	white-faced capuchin	8	51	0.21	King-Bailey (2019)
kitchen1974 dom 2	Antilocapra americana	pronghorn	6	32	0.40	Kitchen (1974)
kitchen1974 dom 3	Antilocapra americana	pronghorn	7	48	0.33	Kitchen (1974)
kitchen1974_dom_6	Antilocapra americana	pronghorn	18	531	0.09	Kitchen (1974)
kitchen1974_dom_7	Antilocapra americana	pronghorn	15	217	0.15	Kitchen (1974)
knapton1973 dom 1	$Melospiza \ melodia$	song sparrow	24	1153	0.27	Knapton (1973)
knapton1973_dom_2	$Melospiza \ melodia$	song sparrow	13	170	0.32	Knapton (1973)
knapton1973_dom_3	$Melospiza \ melodia$	song sparrow	15	186	0.50	Knapton (1973)
knapton1973_dom_4	$Melospiza \ melodia$	song sparrow	10	174	0.29	Knapton (1973)
knapton1973_dom_5	$Melospiza \ melodia$	song sparrow	7	61	0.10	Knapton (1973)
knapton1973 dom 7	Melospiza melodia	song sparrow	9	42	0.42	Knapton (1973)
knox1991 dom 1	Saquinus imperator	emperor tamarin	9	272	0.11	Knox & Sade (1991)
knox1991 dom 2	Saguinus imperator	emperor tamarin	11	291	0.09	Knox & Sade (1991)
koenig2004 dom 2	Trachypithecus phayrei	Phayre's leaf monkey	7	68	0.05	Koenig et al. (2004)
kolodziejczyk2005 dom 1	Haliaeetus albicilla	white-tailed eagle	13	168	0.44	Kołodziejczyk et al. (2005)
korstjens2002_dom_1	Colobus polykomos	black-and-white colobus	9	126	0.11	Korstjens et al. (2002)
koutnik1981 dom 1	$Odocoileus\ hemionus$	mule deer	8	84	0.11	Koutnik (1981)
koutnik1981 dom 2	$Odocoileus\ hemionus$	mule deer	8	48	0.18	Koutnik (1981)
kurvers2009 dom 1	$Branta\ leucopsis$	barnacle goose	18	473	0.22	Kurvers et al. (2009)
lahti1994 dom 1	Poecile montanus	willow tit	6	495	0.00	Lahti et al. (1994)
lahti1994_dom_2	Poecile montanus	willow tit	5	112	0.00	Lahti et al. (1994)
lahti1994 dom 3	Poecile montanus	willow tit	8	335	0.07	Lahti et al. (1994)
langbein2004 dom 1	Capra hircus	dwarf goat	12	938	0.00	Langbein & Puppe (2004)
langbein2004_dom_2	Capra hircus	dwarf goat	12	782	0.01	Langbein & Puppe (2004)
langbein2004_dom_3	Sus scrofa domesticus	pig	10	263	0.04	Langbein & Puppe (2004)
langbein2004 dom 4	Sus scrofa domesticus	pig	9	47	0.36	Langbein & Puppe (2004)
lee1979_dom_1	Papio cynocephalus	vellow baboon	15	424	0.19	Lee & Oliver (1979)
lee1979 dom 2	Papio cynocephalus	yellow baboon	8	173	0.00	Lee & Oliver (1979)
$lemasson2006_dom_1$	$Cercopithecus\ campbelli$	Campbell's monkey	8	249	0.21	Lemasson et al. (2006)
lemasson2006 dom 2	$Cercopithecus\ campbelli$	Campbell's monkey	8	466	0.00	Lemasson et al. (2006)
locati1991 dom 1	Rupicapra pyrenaica	Apennine chamois	7	71	0.24	Locati & Lovari (1991)
lott1979 dom 1	Bison bison	American bison	26	897	0.32	Lott (1979)
lott1987_dom_1	Bison bison	American bison	11	129	0.26	Lott & Galland (1987)
loy1988 dom 1	Erythrocebus patas	patas monkey	8	372	0.00	Loy & Harnois (1988)
loy1988 dom 2	Erythrocebus patas	patas monkey	8	379	0.04	Loy & Harnois (1988)
loy1988_dom_3	Erythrocebus patas	patas monkey	6	185	0.00	Loy & Harnois (1988)
loy1988 dom 4	Erythrocebus patas	patas monkey	6	342	0.00	Loy & Harnois (1988)
loy1993_dom_1	Erythrocebus patas	patas monkey	6	34	0.27	Loy et al. (1993)
loy1993 dom 2	Erythrocebus patas	patas monkey	6	147	0.00	Loy et al. (1993)
lu2008_dom_1	Semnopithecus entellus	Hanuman langur	13	137	0.31	Lu et al. (2008)
lu2008 dom 2	Semnopithecus entellus	Hanuman langur	13	144	0.32	Lu et al. (2008)
lu2008_dom_3	Semnopithecus entellus	Hanuman langur	13	292	0.13	Lu et al. (2008)
lu2008 dom 4	Semnopithecus entellus	Hanuman langur	13	379	0.09	Lu et al. (2008)
lu2008 dom 5	Semnopithecus entellus	Hanuman langur	13	323	0.10	Lu et al. (2008)
lu2008_dom_6	Semnopithecus entellus	Hanuman langur	13	364	0.17	Lu et al. (2008)
marler1955 dom 2	Fringilla coelebs	chaffinch	8	197	0.00	Marler (1955)
marsden1968 dom 1	Macaca mulatta	rhesus macaque	8	602	0.07	Marsden (1968)
marsden1968 dom 2	Macaca mulatta	rhesus macaque	8	369	0.04	Marsden (1968)
marsden1968 dom 3	Macaca mulatta	rhesus macaque	8	328	0.04	Marsden (1968)
marsden1968_dom_4	Macaca mulatta	rhesus macaque	6	176	0.07	Marsden (1968)
marsden1968 dom 6	Macaca mulatta	rhesus macaque	8	201	0.04	Marsden (1968)
masure1934 dom 1	Columba livia	pigeon	7	731	0.00	Masure & Allee (1934b)
masure1934_dom_2	Columba livia	pigeon	7	767	0.00	Masure & Allee (1934b)
masure1934a_dom_1	Melopsittacus undulatus	shell parrakeet	7	445	0.00	Masure & Allee (1934a)
masure1934a_dom_1 masure1934a_dom_2	Melopsittacus undulatus	shell parrakeet	7	635	0.00	Masure & Allee (1934a)
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Table 1: Dominance interaction networks

data set	species	common name	group size	interactions	sparseness	reference
mather1985_dom_1	Eledone moschata	musky octopus	6	98	0.00	Mather (1985)
$matsumura1998_dom_1$	$Macaca\ maura$	moor macaque	10	112	0.29	Matsumura (1998)
mccann1981_dom_1	$Mirounga\ leonina$	southern elephant seal	10	1648	0.02	McCann (1981)
$mcmahan1984_dom_1$	$Papio\ anubis$	olive baboon	10	91	0.18	McMahan & Morris (1984)
$mehlman1988_dom_1$	$Macaca\ fuscata$	Japanese macaque	15	1202	0.10	Mehlman & Chapais (1988)
meyer1999_dom_1	Varecia rubra	red ruffed lemur	5	24	0.40	Meyer et al. (1999)
meyers1993_dom_1	$Propithecus\ tattersalli$	Tattersall's sifaka	8	269	0.07	Meyers (1993)
meyers1993_dom_2	Propithecus tattersalli	Tattersall's sifaka	7	279	0.14	Meyers (1993)
meyers1993_dom_3	Propithecus tattersalli	Tattersall's sifaka	7	268	0.00	Meyers (1993)
micheletta2011 dom 1	Macaca nigra	crested macaque	7	376	0.05	Micheletta (pers. comm.)
missakian1972_dom_1	$Macaca\ mulatta$	rhesus macaque	22	5159	0.00	Missakian (1972)
missakian1972 dom 2	$Macaca\ mulatta$	rhesus macaque	19	349	0.25	Missakian (1972)
missakian1972 dom 3	$Macaca\ mulatta$	rhesus macaque	16	210	0.28	Missakian (1972)
mitani1993 dom 1	Pan troglodytes	chimpanzee	7	128	0.14	Mitani & Nishida (1993)
moller1987_dom_1	Passer domesticus	house sparrows	13	429	0.31	Møller (1987)
moller1987_dom_2	Passer domesticus	house sparrows	10	690	0.04	Møller (1987)
moller1987_dom_3	Passer domesticus	house sparrows	14	578	0.40	Møller (1987)
monnin1999 dom 4	Dinoponera quadriceps	ant	6	33	0.33	Monnin & Peeters (1999)
montgomery1957_dom_1	Equus caballus	domestic horse	10	488	0.02	Montgomery (1957)
muller-	Rangifer tarandus	reindeer	8	208	0.04	Müller-Schwarze et al.
schwarze1979_dom_1	Transgiger varantaas	remacer	O	200	0.01	(1979)
muller- schwarze1979 dom 2	$Rangifer\ tarandus$	reindeer	8	324	0.25	Müller-Schwarze et al. (1979)
muller2004 dom 1	Pan troglodytes	chimpanzee	11	89	0.47	Muller & Wrangham (2004)
muller2004_dom_2	Pan troglodytes	chimpanzee	11	127	0.26	Muller & Wrangham (2004)
muma1987 dom 01	Agelaius phoeniceus	red-winged blackbird	7	922	0.20	Muma (1987)
	Agelaius phoeniceus Agelaius phoeniceus	red-winged blackbird	6	765		Muma (1987)
muma1987_dom_02	2		6	528	0.00	,
muma1987_dom_03	Agelaius phoeniceus	red-winged blackbird		667	0.00	Muma (1987)
muma1987_dom_04	Agelaius phoeniceus	red-winged blackbird	6		0.00	Muma (1987)
muma1987_dom_05	Agelaius phoeniceus	red-winged blackbird	9	996	0.06	Muma (1987)
muma1987_dom_06	Agelaius phoeniceus	red-winged blackbird	9	1141	0.00	Muma (1987)
muma1987_dom_07	Agelaius phoeniceus	red-winged blackbird	8	428	0.00	Muma (1987)
muma1987_dom_08	Agelaius phoeniceus	red-winged blackbird	8	859	0.04	Muma (1987)
muma1987_dom_09	Agelaius phoeniceus	red-winged blackbird	11	996	0.09	Muma (1987)
muma1987_dom_10	Agelaius phoeniceus	red-winged blackbird	11	2054	0.06	Muma (1987)
muma1987_dom_11	Agelaius phoeniceus	red-winged blackbird	9 9	699 1877	0.08	Muma (1987)
muma1987_dom_12	Agelaius phoeniceus	red-winged blackbird stumptailed macaque			0.00	Muma (1987) Murray (1984)
murray1984_dom_1	Macaca arctoides		28 19	1918	0.11	,
mwamende2009_dom_1	Cercocebus sanjei Stegastes partitus	Sanje mangabey		1662	0.14	Mwamende (2009)
myrberg1972_dom_1	J 1	bicolor damselfish	8	2362	0.00	Myrberg (1972)
myrberg1974_dom_1	Sphyrna tiburo	bonnethead shark	10	200	0.02	Myrberg & Gruber (1974)
nakagawa2008_dom_1	Erythrocebus patas	patas monkey	6	130	0.00	Nakagawa (2008)
nakagawa2008_dom_2	0 1 1	vervet monkey	8	67	0.36	Nakagawa (2008)
nakano1994_dom_1	Oncorhynchus masou	cherry salmon	11	1738	0.04	Nakano (1994)
nakano1995_dom_1	Salvelinus leucomaenis	white-spotted charr	14	265	0.22	Nakano (1995)
nakano1995_dom_2	Oncorhynchus masou	red-spotted masu salmon	5	99	0.00	Nakano (1995)
nelissen1985_dom_1	Melanochromis auratus	auratus cichlid	7	821	0.00	Nelissen (1985)
newton-fisher2004_dom_1	Pan troglodytes	chimpanzee	12	134	0.38	Newton-Fisher (2004)
newton-fisher2004_dom_2	$Pan \ troglodytes$	chimpanzee	12	120	0.33	Newton-Fisher (2004)
norscia2015_dom_01	$Lemur\ catta$	ringtailed lemur	10	90	0.11	Sclafani et al. (2012);
norscia2015_dom_02	Lemur catta	ringtailed lemur	13	290	0.24	Norscia & Palagi (2015) Sclafani et al. (2012);
$norscia 2015_dom_04$	Propithecus verreauxi	Verreaux's sifaka	6	41	0.20	Norscia & Palagi (2015) Palagi et al. (2008); Norscia & Palagi (2015)
$norscia 2015_dom_06$	$Lemur\ catta$	ringtailed lemur	10	429	0.02	Sclafani et al. (2012); Norscia & Palagi (2015)
$norscia 2015_dom_07$	$Lemur\ catta$	ringtailed lemur	13	209	0.20	Sclafani et al. (2012); Norscia & Palagi (2015)
$norscia 2015_dom_08$	Propithecus verreauxi	Verreaux's sifaka	10	159	0.36	Palagi et al. (2008); Norscia & Palagi (2015)
$norscia 2015_dom_09$	Propithecus verreauxi	Verreaux's sifaka	6	69	0.27	Palagi et al. (2008); Norscia & Palagi (2015)

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norscia2015_dom_10	Eulemur fulvus	brown lemur	11	92	0.31	Norscia & Palagi (2011); Norscia & Palagi (2015)
oi1988_dom_3	$Macaca\ fuscata$	Japanese macaque	10	85	0.27	Oi (1988)
oi1990_dom_1	$Macaca\ nemestrina$	pigtailed macaque	22	930	0.18	Oi (1990)
$ortius1995_dom_1$	Leptothorax	ant	6	131	0.00	Ortius & Heinze (1995)
$ortius1995_dom_2$	Leptothorax	ant	5	82	0.30	Ortius & Heinze (1995)
$oshea 1976_dom_1$	Xerus rutilus	African unstriped ground squirrel	10	244	0.18	O'Shea (1976)
$ostner1999_dom_1$		redfronted lemur	6	56	0.27	Ostner & Kappeler (1999)
$ostner1999_dom_2$		redfronted lemur	9	102	0.47	Ostner & Kappeler (1999)
overdorff2005_dom_1	Varecia variegata	black-and-white ruffed lemur	5	75	0.30	Overdorff et al. (2005)
$overdorff 2005_dom_2$	$Varecia\ variegata$	black-and-white ruffed lemur	5	32	0.30	Overdorff et al. (2005)
$owens1996_dom_1$	Parahyaena brunnea	brown hyaena	7	372	0.24	Owens & Owens (1996)
packer1969_dom_1	Setonix brachyurus	quokka	5	275	0.00	Packer (1969)
$paoli2008_dom_1$	$Pan\ paniscus$	bonobo	8	300	0.04	Paoli & Palagi (2008)
$paoli2008_dom_2$	$Pan\ paniscus$	bonobo	6	246	0.27	Paoli & Palagi (2008)
parsons1980_dom_1	Zonotrichia leucophrys	white-crowned sparrow	8	439	0.00	Parsons & Baptista (1980)
parsons1980_dom_2	Zonotrichia leucophrys	white-crowned sparrow	8	812	0.00	Parsons & Baptista (1980)
parsons1980_dom_3	Zonotrichia leucophrys	white-crowned sparrow	6	178	0.00	Parsons & Baptista (1980)
parsons1980_dom_4	Zonotrichia leucophrys	white-crowned sparrow	11	242	0.04	Parsons & Baptista (1980)
paul1989_dom_1	Macaca sylvanus	Barbary macaque	5	61	0.10	Paul (1989)
paul1989_dom_2	Macaca sylvanus Macaca sylvanus	Barbary macaque	5 5	12 26	0.40	Paul (1989)
paul1989_dom_3 paul1989_dom_4	Macaca sylvanus Macaca sylvanus	Barbary macaque Barbary macaque	5	39	$0.10 \\ 0.10$	Paul (1989) Paul (1989)
paul1989_dom_4 paul1989 dom 5	Macaca sylvanus Macaca sylvanus	Barbary macaque Barbary macaque	5	59 9	0.10	Paul (1989)
paul1989_dom_6	Macaca sylvanus	Barbary macaque Barbary macaque	5	20	0.40	Paul (1989)
paulo2014_dom_1	Capra hircus	Saanen goat	17	1472	0.03	Paulo (2014)
paulo2014 dom 2	Capra hircus	Saanen goat	14	1194	0.00	Paulo (2014)
payne2003_dom_1	Cercopithecus albogu- laris	samango monkey	9	90	0.08	Payne et al. (2003)
pereira1988 dom 1	Papio cynocephalus	yellow baboon	13	1631	0.13	Pereira (1988)
pereira1988_dom_2	Papio cynocephalus	yellow baboon	11	1095	0.18	Pereira (1988)
pereira2002_dom_1	$Lemur\ catta$	ringtailed lemur	11	1463	0.00	Pereira (2002)
$perry1996_dom_1$	$Cebus\ capucinus$	white-faced capuchin	6	50	0.07	Perry (1996)
$petit1992_dom_1$	$Macaca\ maura$	moor macaque	7	318	0.19	Petit & Thierry (1992)
$petit1992_dom_2$	$Macaca\ maura$	moor macaque	7	460	0.00	Petit & Thierry (1992)
pinha2007_dom_1	$Sapajus\ libidinosus$	bearded capuchin	7	50	0.38	Pinha (2007)
pintodesaalves2013_dom_1	Inia geoffrensis	boto	10	824	0.00	Pinto de Sá Alves et al. (2013)
piper1995_dom_1	Zonotrichia albicollis	white-throated sparrow	6	1341	0.00	Piper (1995)
piper1995_dom_2	Zonotrichia albicollis	white-throated sparrow	7	221	0.00	Piper (1995)
piper1995_dom_3	Zonotrichia albicollis	white-throated sparrow	7	391	0.00	Piper (1995)
piper1995_dom_4	Zonotrichia albicollis	white-throated sparrow	5	181	0.00	Piper (1995)
poisbleau2005_dom_1 poisbleau2005_dom_2	$Anas\ platyrhynchos$ $Anas\ acuta$	mallard pintail	8 6	455 88	0.04 0.13	Poisbleau et al. (2005) Poisbleau et al. (2005)
poisbleau2005_dom_2 poisbleau2005_dom_3	Mareca penelope	wigeon	7	303	0.13	Poisbleau et al. (2005)
poisbleau2006_dom_1	Anas platyrhynchos	mallard	16	1160	0.00	Poisbleau et al. (2006)
poisbleau2006_dom_2	Branta bernicla	brent goose	19	187	0.49	Poisbleau et al. (2006)
pollock1979 dom 1	$Indri\ indri$	indri	5	107	0.00	Pollock (1979)
post1992 dom 1	Quiscalus major	boat-tailed grackle	15	1163	0.09	Post (1992)
poston1997_dom_1	Quiscalus major	boat-tailed grackle	7	200	0.10	Poston (1997)
prieto1978_dom_1	$\tilde{S}auromalus~ater$	Arizona chuckwalla	18	3253	0.16	Prieto & Ryan (1978)
radesater1974_dom_1	$Branta\ canadensis$	Canada goose	5	60	0.00	Radesäter (1974)
$rades ater 1974_dom_2$	$Branta\ canadensis$	Canada goose	5	211	0.00	Radesäter (1974)
$rades ater 1974_dom_3$	$Branta\ canadensis$	Canada goose	5	159	0.00	Radesäter (1974)
$rades ater 1974_dom_4$	$Anser\ anser$	greylag goose	5	63	0.00	Radesäter (1974)
$radesater 1974_dom_5$	Anser anser	greylag goose	5	202	0.00	Radesäter (1974)
rajpurohit2005_dom_1	Semnopithecus entellus	Hanuman langur	6	52	0.13	Rajpurohit (2005)
rajpurohit2005_dom_2	$Semnopithecus\ entellus$	Hanuman langur	7	75	0.19	Rajpurohit (2005)
range2002_dom_1	Donata and I	sooty mangabey	24	922	0.14	Range & Noë (2002)
raveling1970_dom_1	Branta canadensis	Canada goose	5	144	0.00	Raveling (1970)

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data set	species	common name	group size	interactions	sparseness	reference
reason1988 dom 1	Addax nasomaculatus	addax	18	425	0.22	Reason & Laird (1988)
reed1997_dom_1	Macaca nigra	crested macaque	6	77	0.07	Reed et al. (1997)
$reese1982_dom_1$	$Pica\ hudsonia$	black-billed magpie	7	25	0.43	Reese (1982)
$rhine1972_dom_1$	$Macaca\ arctoides$	stumptailed macaque	5	166	0.00	Rhine (1972)
$rhine1972_dom_2$	$Macaca\ arctoides$	stumptailed macaque	5	221	0.00	Rhine (1972)
$rhine1972_dom_3$	$Macaca\ arctoides$	stumptailed macaque	5	245	0.00	Rhine (1972)
$rhine1972_dom_4$	$Macaca\ arctoides$	stumptailed macaque	5	379	0.00	Rhine (1972)
rhine1973_dom_1	$Macaca\ arctoides$	stumptailed macaque	5	122	0.00	Rhine (1973)
rhine1973_dom_2	Macaca arctoides	stumptailed macaque	5	255	0.00	Rhine (1973)
rhine1973_dom_3	Macaca arctoides	stumptailed macaque	5	74	0.00	Rhine (1973)
rhine1973_dom_4	Macaca arctoides	stumptailed macaque	5	221	0.10	Rhine (1973)
richter2007_dom_1	Macaca arctoides	stumptailed macaque	9	224	0.06	Richter (2007)
richter2009_dom_1	Macaca arctoides	stumptailed macaque	9	258	0.03	Richter et al. (2009)
rizaldi2010_dom_1	Macaca fuscata	Japanese macaque	9	412	0.00	Rizaldi & Watanabe (2010)
rizaldi2010_dom_2	Macaca fuscata	Japanese macaque	8	200	0.04	Rizaldi & Watanabe (2010)
rizaldi2010_dom_3	Macaca fuscata	Japanese macaque	5 8	123 157	0.00	Rizaldi & Watanabe (2010)
robbins2008_dom_1	Gorilla beringei Corvus monedula	gorilla	8 18	789	0.18 0.16	Robbins (2008)
roell1978_dom_1 rohwer1985 dom 1	Zonotrichia querula	jackdaw Harris's sparrow	15	530	0.10	Röell (1978) Rohwer (1985)
rohwer1985_dom_1	Zonotrichia querula	Harris's sparrow	12	304	0.00	Rohwer (1985)
rovero1999 dom 1	Emys orbicularis	European pond turtle	8	504 52	0.32	Rovero et al. (1999)
rovero1999_dom_1	Emys orbicularis Emys orbicularis	European pond turtle European pond turtle	12	75	0.36	Rovero et al. (1999)
russell1970_dom_1	Osphranter rufus	red kangaroo	11	143	0.30	Russell (1970)
russell1970 dom 2	Osphranter rufus	red kangaroo	13	154	0.31	Russell (1970)
sabine1949 dom 1	Junco hyemalis	slate-colored junco	14	149	0.36	Sabine (1949)
sabine1949 dom 2	Junco hyemalis	slate-colored junco	11	591	0.07	Sabine (1949)
sabine1949 dom 3	Spizella arborea	tree sparrow	6	313	0.07	Sabine (1949)
sabine1959 dom 1	Junco hyemalis	Oregon junco	27	2649	0.07	Sabine (1959)
sabine1959 dom 2	Junco hyemalis	Oregon junco	18	457	0.28	Sabine (1959)
sabine1959 dom 3	Junco hyemalis	Oregon junco	42	4338	0.16	Sabine (1959)
sabine1959 dom 4	Junco hyemalis	Oregon junco	26	2169	0.04	Sabine (1959)
sade1972_dom_1	$Macaca\ mulatta$	rhesus macaque	16	318	0.16	Sade (1972)
$samuels1987_dom_2$	Papio cynocephalus	yellow baboon	19	367	0.23	Samuels et al. (1987)
sapolsky1983_dom_1	$Papio\ anubis$	olive baboon	14	366	0.13	Sapolsky (1983)
$sapolsky1983_dom_2$	$Papio\ anubis$	olive baboon	14	422	0.08	Sapolsky (1983)
$satoh2008_dom_2$	$Vollenhovia\ nipponica$	ant	5	102	0.20	Satoh & Ohkawara (2008)
$satoh2008_dom_3$	$Vollenhovia\ nipponica$	ant	8	241	0.14	Satoh & Ohkawara (2008)
$satoh2008_dom_4$	$Vollenhovia\ nipponica$	ant	9	284	0.08	Satoh & Ohkawara (2008)
savin-williams1977_dom_1	$Homo\ sapiens$	human	6	214	0.00	Savin-Williams (1977)
savin-williams1980_dom_1	$Homo\ sapiens$	human	6	879	0.00	Savin-Williams (1980)
savin-williams1980_dom_2	Homo sapiens	human	5	705	0.00	Savin-Williams (1980)
scanlon1984_dom_1	Macaca mulatta	rhesus macaque	9	116	0.08	Scanlon (1984)
scharf1985_dom_01	Pica pica	black-billed magpie	5	37	0.20	Scharf (1985)
scharf1985_dom_02 scharf1985_dom_03	Pica pica	black-billed magpie	5	20	0.10	Scharf (1985)
scharf1985_dom_03 scharf1985_dom_04	Pica pica Pica pica	black-billed magpie black-billed magpie	5 5	57 30	$0.00 \\ 0.00$	Scharf (1985) Scharf (1985)
scharf1985_dom_04 scharf1985_dom_05	Pica pica	black-billed magpie	5	21	0.00	Scharf (1985)
scharf1985_dom_05	Pica pica	black-billed magpie	5 5	53	0.20	Scharf (1985)
scharf1985_dom_07	Pica pica	black-billed magpie	5	18	0.30	Scharf (1985)
scharf1985_dom_08	Pica pica	black-billed magpie	5	57	0.00	Scharf (1985)
scharf1985 dom 10	Pica pica	black-billed magpie	5	29	0.00	Scharf (1985)
scharf1985 dom 11	Pica pica	black-billed magpie	5	75	0.30	Scharf (1985)
scharf1985_dom_12	Pica pica	black-billed magpie	5	147	0.00	Scharf (1985)
scharf1985_dom_13	Pica pica	black-billed magpie	5	135	0.00	Scharf (1985)
scharf1985_dom_14	Pica pica	black-billed magpie	5	51	0.00	Scharf (1985)
scharf1985_dom_15	Pica pica	black-billed magpie	5	44	0.10	Scharf (1985)
scharf1985_dom_16	Pica pica	black-billed magpie	5	96	0.00	Scharf (1985)
scharf1985_dom_17	Pica pica	black-billed magpie	5	60	0.00	Scharf (1985)
scharf1985_dom_18	Pica pica	black-billed magpie	5	88	0.20	Scharf (1985)
scharf1985_dom_19	Pica pica	black-billed magpie	5	79	0.00	Scharf (1985)
$scharf1985_dom_20$	Pica pica	black-billed magpie	5	119	0.00	Scharf (1985)
$scharf1985_dom_21$	Pica pica	black-billed magpie	5	75	0.00	Scharf (1985)
scharf1985_dom_22	Pica pica	black-billed magpie	5	97	0.00	Scharf (1985)
Continued on next page						

Table 1: Dominance interaction networks

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scharf1985_dom_23	Pica pica	black-billed magpie	5	99	0.00	Scharf (1985)
$scharf1985_dom_24$	$Pica\ pica$	black-billed magpie	5	72	0.10	Scharf (1985)
$scharf1985_dom_25$	Pica pica	black-billed magpie	5	54	0.20	Scharf (1985)
$scharf1985_dom_26$	Pica pica	black-billed magpie	5	37	0.20	Scharf (1985)
$scharf1985_dom_27$	Pica pica	black-billed magpie	5	57	0.10	Scharf (1985)
schein1955_dom_1	Bos taurus	dairy cattle	28	495	0.46	Schein & Fohrman (1955)
schneider1984 dom 1	$Zonotrichia\ albicollis$	white-throated sparrow	10	473	0.00	Schneider (1984)
schusterman1968_dom_1	$Zalophus\ californianus$	sea lion	7	245	0.33	Schusterman & Dawson (1968)
$scott1999_dom_1$	$Gorilla\ qorilla$	gorilla	5	37	0.10	Scott & Lockard (1999)
scott1999 dom 2	Gorilla gorilla	gorilla	6	75	0.00	Scott & Lockard (1999)
scott1999 dom 3	Gorilla gorilla	gorilla	6	27	0.20	Scott & Lockard (1999)
searcy1979 dom 1	$Agelaius\ phoeniceus$	red-winged blackbird	6	245	0.00	Searcy (1979)
searcy1979 dom 2	Agelaius phoeniceus	red-winged blackbird	5	228	0.00	Searcy (1979)
searcy1979_dom_3	Agelaius phoeniceus	red-winged blackbird	5	258	0.00	Searcy (1979)
seibert2001_dom_1	Nymphicus hollandicus	cockatiels	12	579	0.04	Seibert & Crowell-Davis (2001)
setchell2001 dom 1	Mandrillus sphinx	mandrill	5	66	0.00	Setchell & Dixson (2001)
setchell2001 dom 2	Mandrillus sphinx	mandrill	5	58	0.00	Setchell & Dixson (2001)
setchell2001 dom 3	Mandrillus sphinx	mandrill	5	47	0.20	Setchell & Dixson (2001)
setchell2001_dom_4	Mandrillus sphinx	mandrill	5	17	0.20	Setchell & Dixson (2001)
setchell2005 dom 1	Mandrillus sphinx	mandrill	11	1488	0.20	Setchell & Wickings (2005)
setchell2005_dom_1 setchell2005_dom_2	Mandrillus sphinx	mandrill	8	982	0.00	Setchell & Wickings (2005)
seyfarth1976 dom 1	Papio ursinus	chacma baboon	8	982 98	0.00	Seyfarth (1976)
seyfarth1976_dom_2	Papio ursinus	chacma baboon	8	140	0.11	Seyfarth (1976) Seyfarth (1976)
seyfarth1976_dom_2 seyfarth1976_dom_3	Papio ursinus Papio ursinus	chacma baboon	8	121	0.11	Seyfarth (1976)
· — —	Papio ursinus		8	989		Seyfarth (1976) Sevfarth (1980)
seyfarth1980_dom_1		vervet	o 7	989 644	0.00	
seyfarth1980_dom_2		vervet	8	766	0.00	Seyfarth (1980)
seyfarth1980_dom_3	<i>a</i>	vervet			0.00	Seyfarth (1980)
shargal2008_dom_1	Capra nubiana	ibex	9	469	0.00	Shargal et al. (2008)
sharpe2013_dom_1	Helogale parvula	dwarf mongoose	18	297	0.28	Sharpe et al. (2013)
sharpe2013_dom_2	Helogale parvula	dwarf mongoose	12	177	0.18	Sharpe et al. (2013)
sharpe2013_dom_3	Helogale parvula	dwarf mongoose	18	434	0.24	Sharpe et al. (2013)
sharpe2013_dom_4	Helogale parvula	dwarf mongoose	13	280	0.19	Sharpe et al. (2013)
shier2007_dom_1	Dipodomys heermanni	Heermann's kangaroo rat	12	350	0.01	Shier & Randall (2007)
shier2007_dom_2	Dipodomys heermanni	Heermann's kangaroo rat	12	195	0.00	Shier & Randall (2007)
shoemaker1939_dom_1	Serinus canaria	canary	10	10642	0.00	Shoemaker (1939)
silk1981_dom_1	Macaca radiata	bonnet macaque	29	1413	0.25	Silk et al. (1981)
singh2003_dom_1	Macaca fuscata	Japanese macaque	10	897	0.00	Singh et al. (2003)
singh2011_dom_2	Macaca radiata	bonnet macaque	5	121	0.00	Singh et al. (2011)
slotow1993_dom_1	Zonotrichia leucophrys	white-crowned sparrow	10	1036	0.02	Slotow et al. (1993)
smith1976_dom_1	Poecile atricapillus	black-capped chickadee	7	113	0.05	S. M. Smith (1976)
smith1976_dom_2	Poecile atricapillus	black-capped chickadee	7	49	0.14	S. M. Smith (1976)
smith1977_dom_1		squirrel monkey	7	222	0.10	M. Smith et al. (1977)
smith1977_dom_2	M	squirrel monkey	8	907	0.04	M. Smith et al. (1977)
so2015_dom_1	Mus	lab mouse	12	82	0.42	So et al. (2015)
so2015_dom_2	Mus	lab mouse	12	166	0.21	So et al. (2015)
so2015_dom_3	Mus	lab mouse	12	244	0.18	So et al. (2015)
solberg1997_dom_1	Passer domesticus	house sparrow	9	433	0.03	Solberg & Ringsby (1997)
solberg1997_dom_2	Passer domesticus	house sparrow	9	271	0.08	Solberg & Ringsby (1997)
solberg1997_dom_3	Passer domesticus	house sparrow	9	186	0.22	Solberg & Ringsby (1997)
somers1998_dom_1	Potamonautes perlatus	Cape river crab	6	71	0.13	Somers & Nel (1998)
somers1998_dom_2	Potamonautes perlatus	Cape river crab	8	128	0.11	Somers & Nel (1998)
somers1998_dom_3	Potamonautes perlatus	Cape river crab	9	122	0.11	Somers & Nel (1998)
spratt2019_dom_1	Alcelaphus buselaphus	Jackson's hartebeest	10	886	0.07	Spratt et al. (2019)
stahl2000_dom_1	Macaca silenus	liontailed macaque	5	606	0.00	Stahl et al. (2000)
stammbach1978_dom_1	Papio hamadryas	hamadryas baboon	6	273	0.07	Stammbach (1978)
stammbach1978_dom_2	Papio hamadryas	hamadryas baboon	6	572	0.07	Stammbach (1978)
stammbach1982_dom_1	Papio hamadryas	hamadryas baboon	6	78	0.07	Stammbach & Kummer (1982)
stammbach1982_dom_2	Papio hamadryas	hamadryas baboon	6	93	0.13	Stammbach & Kummer (1982)
stamps1978_dom_1	Anolis aeneus	lizard	5	45	0.30	Stamps (1978)

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stamps1978 dom 2	Anolis aeneus	lizard	6	31	0.27	Stamps (1978)
sterck1997 dom 02	Macaca fascicularis	longtailed macaque	9	36	0.42	Sterck & Steenbeek (1997)
struhsaker1967_dom_1	J	vervet monkey	12	189	0.18	Struhsaker (1967)
struhsaker1967 dom 2		vervet monkey	12	80	0.41	Struhsaker (1967)
strum1982 dom 1	Papio anubis	olive baboon	7	1239	0.00	Strum (1982)
strum1982 dom 2	Papio anubis	olive baboon	7	110	0.14	Strum (1982)
strum1982 dom 3	Papio anubis	olive baboon	7	348	0.05	Strum (1982)
sullivan1981_dom_1	Phoca vitulina	harbor seal	5	18	0.20	Sullivan (1981)
sullivan1982_dom_1	Phoca vitulina	Pacific harbor seal	18	216	0.37	Sullivan (1982)
surbeck2013 dom 1	Pan paniscus	bonobo	21	868	0.24	Surbeck & Hohmann (2013)
tamm1977 dom 1	Corvus monedula	jackdaw	5	152	0.00	Tamm (1977)
tamm1977 dom 2	Corvus monedula	jackdaw	10	542	0.11	Tamm (1977)
tamura1988 dom 1	Callosciurus erythraeus	Formosan squirrel	15	205	0.28	Tamura et al. (1988)
tarvin1997 dom 1	Cyanocitta cristata	blue jay	16	553	0.29	Tarvin & Woolfenden (1997)
taub1980 dom 1	Macaca sylvanus	Barbary macaque	16	577	0.22	Taub (1980)
taylor1986_dom_1	Lemur catta	ringtailed lemur	5	2143	0.00	Taylor (1986)
thompson1960 dom 1	Haemorhous mexicanus	house finch	9	989	0.00	W. L. Thompson (1960)
thompson1960 dom 2	Haemorhous mexicanus	house finch	8	202	0.00	W. L. Thompson (1960)
thompson1960_dom_2 thompson1960_dom_3	Haemorhous mexicanus	house finch	8	101	0.00	W. L. Thompson (1960) W. L. Thompson (1960)
		house finch		101		W. L. Thompson (1960) W. L. Thompson (1960)
thompson1960_dom_4	Haemorhous mexicanus		8		0.07	
thompson1960_dom_5	Haemorhous mexicanus	house finch	8	117	0.00	W. L. Thompson (1960)
thompson1993_dom_1	Hippotragus niger	sable antelope	11	794	0.00	K. V. Thompson (1993)
thompson1993_dom_2	Hippotragus niger	sable antelope	6	174	0.00	K. V. Thompson (1993)
tilson1984_dom_1	Crocuta crocuta	spotted hyaena	8	234	0.32	Tilson & Hamilton (1984)
$tilson1988_dom_1$	$Equus\ przewalskii$	Przewalski horse	8	375	0.14	Tilson et al. (1988)
$tilson1988_dom_2$	$Equus\ przewalskii$	Przewalski horse	8	302	0.11	Tilson et al. (1988)
$tokuda1969_dom_1$	$Macaca\ nemestrina$	pigtailed macaque	16	537	0.12	Tokuda & Jensen (1969)
$torr1996_dom_2$	$Lampropholis\ guichenoti$	common garden skink	9	76	0.47	Torr & Shine (1996)
$trunzer1999_dom_1$	$Neoponera\ villosa$	ant	19	797	0.09	Trunzer et al. (1999)
$tully1975_dom_1$	$Macaca\ radiata$	bonnet macaque	8	247	0.00	Tully (1975)
$tully1975_dom_2$	$Macaca\ nemestrina$	pigtailed macaque	8	100	0.11	Tully (1975)
val-laillet2008_dom_1	Bos taurus	cow	12	339	0.03	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
$val\text{-}laillet 2008_dom_2$	Bos taurus	cow	12	438	0.06	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
$val\text{-}laillet 2008_dom_3$	Bos taurus	cow	12	324	0.01	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
$val\text{-}laillet 2008_dom_4$	Bos taurus	cow	12	196	0.11	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
$val\text{-}laillet 2008_dom_5$	Bos taurus	cow	12	226	0.14	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
val-laillet2008_dom_6	Bos taurus	cow	12	517	0.01	Val-Laillet et al. (2008); supplement to Douglas et al. (2017)
vanderborg2015_dom_1	Canis familiaris	domestic dog	10	552	0.09	van der Borg et al. (2015)
vanderborg2015_dom_2	Canis familiaris	domestic dog	10	249	0.16	van der Borg et al. (2015)
vanderborg2015 dom 3	Canis familiaris	domestic dog	10	317	0.22	van der Borg et al. (2015)
vandierendonck1995_dom_1	$Equus\ caballus$	Icelandic horse	21	569	0.03	van Dierendonck et al. (1995)
vanhooff1987_dom_1	$Canis\ lupus$	wolf	16	10405	0.01	van Hooff & Wensing (1987)
vervaecke2000_dom_1	Pan paniscus	bonobo	6	739	0.07	Vervaecke et al. (2000)
vervaecke2007 dom 1	$Equus\ caballus$	Icelandic horse	9	1039	0.00	Vervaecke et al. (2007)
vervaecke2007_dom_2	Equus caballus	Icelandic horse	9	745	0.00	Vervaecke et al. (2007)
vogel2004 dom 1	Cebus capucinus	white-faced capuchin	22	306	0.32	Vogel (2004)
vogel2004_dom_1 vogel2004_dom_2	Cebus capucinus	white-faced capuchin	21	217	0.42	Vogel (2004) Vogel (2004)
vogel2004_dom_3	Cebus capucinus	white-faced capuchin	23	532	0.42 0.27	Vogel (2004)
watson1970 dom 1	Passer domesticus	house sparrow	6	496	0.27	Watson (1970)
watson1970_dom_1 watson1970_dom_2	Passer domesticus	house sparrow	6	400	0.20	Watson (1970)
Continued on next page	1 45501 401110311043	nouse sparrow	U	100	0.01	11000011 (1010)

Table 1: Dominance interaction networks

data set	species	common namo	group	interactions	enarconoce	reference
	•	common name	group size	interactions	sparseness	
$watt1982_dom_1$	$Zonotrichia\ leucophrys$	white-crowned sparrow	10	150	0.07	Watt (1982)
$watt1982_dom_2$	$Zonotrichia\ leucophrys$	white-crowned sparrow	10	74	0.29	Watt (1982)
$watt1985_dom_2$	$Spinus\ tristis$	American goldfinch	6	57	0.27	Watt & Sadowski (1985)
$watt1985_dom_4$	$Spinus\ tristis$	American goldfinch	6	58	0.07	Watt & Sadowski (1985)
$watt1985_dom_5$	$Spinus\ tristis$	American goldfinch	10	153	0.22	Watt & Sadowski (1985)
$watt1986_dom_1$	$Zonotrichia\ querula$	Harris's sparrow	10	511	0.02	Watt (1986)
$watt1986_dom_2$	$Zonotrichia\ querula$	Harris's sparrow	10	437	0.02	Watt (1986)
$watt1986_dom_3$	$Zonotrichia\ querula$	Harris's sparrow	10	582	0.00	Watt (1986)
$watt1986_dom_4$	$Zonotrichia\ querula$	Harris's sparrow	10	576	0.00	Watt (1986)
$watt1986_dom_5$	$Zonotrichia\ querula$	Harris's sparrow	10	541	0.02	Watt (1986)
$watt1986_dom_6$	$Zonotrichia\ querula$	Harris's sparrow	26	1241	0.15	Watt (1986)
$watts1969_dom_1$	$Meleagris\ gallopavo$	turkey	12	508	0.08	C. Watts (1969)
$watts1985_dom_1$	$Gorilla\ beringei$	mountain gorilla	5	46	0.00	D. P. Watts (1985)
$watts1985_dom_2$	$Gorilla\ beringei$	mountain gorilla	5	19	0.00	D. P. Watts (1985)
$watts1985_dom_3$	$Gorilla\ beringei$	mountain gorilla	7	26	0.33	D. P. Watts (1985)
$watts1994_dom_1$	$Gorilla\ beringei$	mountain gorilla	11	112	0.07	D. P. Watts (1994)
$watts1994_dom_2$	$Gorilla\ beringei$	mountain gorilla	12	132	0.01	D. P. Watts (1994)
$watts1994_dom_3$	$Gorilla\ beringei$	mountain gorilla	7	33	0.00	D. P. Watts (1994)
$watts1994_dom_4$	$Gorilla\ beringei$	mountain gorilla	5	65	0.00	D. P. Watts (1994)
$watts1998_dom_1$	$Pan\ troglodytes$	chimpanzee	24	286	0.46	D. P. Watts (1998)
$weeks2000_dom_1$	$Equus\ caballus$	light horse	14	936	0.00	Weeks et al. (2000)
$weeks2000_dom_2$	$Equus\ caballus$	light horse	14	139	0.29	Weeks et al. (2000)
$weeks2000_dom_3$	$Equus\ caballus$	light horse	14	693	0.02	Weeks et al. (2000)
wells1979_dom_1	$Equus\ caballus$	Camargue horse	25	3428	0.05	Wells & von Goldschmidt- Rothschild (1979)
wessling2011 dom 1	Pan troglodytes	chimpanzee	8	218	0.21	Wessling (2011)
wheatley1978_dom_1	Macaca fascicularis	longtailed macaque	6	27	0.13	Wheatley (1978)
whitfield1985 dom 1	$Arenaria\ interpres$	turnstone	17	276	0.27	Whitfield (1985)
whitten1983_dom_1	Chlorocebus pygerythrus	vervet monkey	11	70	0.34	Whitten (1983)
whitten1983 dom 2	Chlorocebus pygerythrus	vervet monkey	10	63	0.38	Whitten (1983)
wickings1992 dom 2	Mandrillus sphinx	mandrill	6	329	0.27	Wickings & Dixson (1992)
wiedenmann1987_dom_2	Junco hyemalis	northern junco	6	204	0.00	Wiedenmann & Rabenold (1987)
wierenga1990_dom_1	Bos taurus	dairy cattle	17	3184	0.00	Wierenga (1990)
williams1972_dom_1	Zosterops lateralis	greybreasted silvereye	10	1482	0.02	W. T. Williams et al. (1972)
williams1982_dom_3	Anas platyrhynchos	mallard	13	297	0.28	D. M. Williams (1982)
williams1982_dom_4	Anas platyrhynchos	mallard	13	245	0.30	D. M. Williams (1982)
williams1982 dom 7	Anas platyrhynchos	mallard	14	303	0.26	D. M. Williams (1982)
williams1982 dom 8	Anas platyrhynchos	mallard	14	425	0.29	D. M. Williams (1982)
wirtz1967_dom_1	Callospermophilus later- alis	golden-mantled ground squirrel	8	110	0.29	Wirtz (1967)
$wirtz1967_dom_2$	Callospermophilus later- alis	golden-mantled ground squirrel	10	124	0.49	Wirtz (1967)
wittig2003 dom 1	Pan troglodytes	chimpanzee	15	2231	0.16	Wittig & Boesch (2003)
woolfenden1977_dom_1	Aphelocoma $coerulescens$	Florida scrub jay	6	63	0.27	Woolfenden & Fitzpatrick (1977)
$woolfenden 1977_dom_2$	Aphelocoma $coerulescens$	Florida scrub jay	6	25	0.47	Woolfenden & Fitzpatrick (1977)
yamaguchi2008 dom 1	Columba livia	pigeon	7	547	0.00	Yamaguchi et al. (2008)
yamaguchi2008_dom_2	Columba livia	pigeon	7	461	0.00	Yamaguchi et al. (2008)
vasukawa1983 dom 01	Junco hyemalis	dark-eyed junco	6	547	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 02	Junco hyemalis	dark-eyed junco	6	541	0.00	Yasukawa & Bick (1983)
yasukawa1983_dom_03	Junco hyemalis	dark-eyed junco	6	760	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 04	Junco hyemalis	dark-eyed junco	6	853	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 05	Junco hyemalis	dark-eyed junco	6	813	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 06	Junco hyemalis	dark-eyed junco	6	659	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 07	Junco hyemalis	dark-eyed junco	6	752	0.00	Yasukawa & Bick (1983)
yasukawa1983_dom_08	Junco hyemalis	dark-eyed junco	6	955	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 09	Junco hyemalis	dark-eyed junco	6	140	0.00	Yasukawa & Bick (1983)
yasukawa1983 dom 10	Junco hyemalis	dark-eyed junco	6	218	0.00	Yasukawa & Bick (1983)
yasukawa1983_dom_11	Junco hyemalis	dark-eyed junco	6	114	0.00	Yasukawa & Bick (1983)
yasukawa1983_dom_12	Junco hyemalis	dark-eyed junco	6	129	0.00	Yasukawa & Bick (1983)
yasukawa1983_dom_13	Junco hyemalis	dark-eyed junco	6	265	0.00	Yasukawa & Bick (1983)
Continued on part name	sanco nyemana	dark-cyca junco	U	200	0.00	Tabanawa & Dick (1900)

Table 1: Dominance interaction networks

data set	species	common name	group size	interactions	sparseness	reference
yasukawa1983_dom_14 yasukawa1983_dom_15 yasukawa1983_dom_16 zhang2018_dom_1 zine2000_dom_1	Junco hyemalis Junco hyemalis Junco hyemalis Macaca mulatta Ovis canadensis	dark-eyed junco dark-eyed junco dark-eyed junco rhesus macaque mountain sheep	6 6 6 8 12	116 259 164 195 381	0.00 0.00 0.00 0.00 0.00	Yasukawa & Bick (1983) Yasukawa & Bick (1983) Yasukawa & Bick (1983) Zhang et al. (2018) Zine & Krausman (2000)
zink1987_dom_1	$Junco\ hyemalis$	dark-eyed junco	30	1213	0.25	Zink & Watt (1987)

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