Appendix S1. List of studies that were used in meta-analysis and vote-counting.

ID	Title	Author(s) and Year	Location	Vegetation type	G or W	Type of livestock	Aridity index	Data source from studies	Data variability
1	Ecosystem service tradeoff between grazing intensity and other services - A case study in Karei-Deshe experimental cattle range in northern Israel	Divinsky et al. 2017	Karei Deshe, Israel	Mediterranean grassland	G	cattle	0.3192	Table 1	N
2	Comparative Assessment of Goods and Services Provided by Grazing Regulation and Reforestation in Degraded Mediterranean Rangelands	Papanastasis et al. 2017	Central Macedonia, North Greece	open shrubland	W	goats and sheep	0.4061	Table 2	Y
3	Moderate grazing sustains pl ant diversity in Afromontane grassland	Joubert et al. 2017-DBERG	South Africa	grassland	G	cattle	0.7437	Fig. 2	Y
4	Moderate grazing sustains pl ant diversity in Afromontane grassland	Joubert et al. 2017-MBELT	South Africa	grassland	G	cattle	0.7437	Fig. 2	Y
5	A conceptual model for changes in floristic diversity under grazing in semi-arid Patagonia using the State and Transition framework	Oliva et al. 2016	Patagonia, Argentina	Magellan steppe	G	sheep	0.2867	Table 3	N
6	Biodiversity and ecological long-term plots in Southern Patagonia to support sustainable land management: The case of PEBANPA network	Peri et al. 2016	Southern Patagonia	shrublands and grasslands	G, W	cattle and sheep	0.4405	Table 1	N

7	Grazing effects on soil characteristics and vegetation of grassland in northern China	Wang et al. 2016	Hebei, China	steppe	G	cattle and sheep	0.4430	Fig. 5	Y
8	Effects of cattle grazing on small mammal communities in the Hulunber meadow steppe	Cao et al. 2016	Inner Mongolia, China	meadow steppe	G	cattle	0.5923	Table 1	Y
9	Managing for species composition or diversity? Pastoral and free grazing systems in alkali steppes	Török et al. 2016	Hungry	alkali steppe	G	cattle and sheep	0.5935	Fig. 1	N
10	Flora and vegetation of dry grasslands of Northeastern Ukraine, and problems of diversity conservation	Ronkin and Savchenko 2016	Northeastern Ukraine	grassland	G	cattle	0.6870	Table 3	N
11	Soil properties and species composition under different grazing intensity in an alpine meadow on the eastern Tibetan Plateau, China	Yang et al. 2016	Eastern Tibetan, China	alpine meadow	G	yaks	0.7989	Fig. 3	Y
12	Impact of stocking rate on species diversity and composition of a subtropical grassland in Argentina	Pizzio et al. 2016	Argentina	subtropical grassland	G	cow	0.8453	Table S1	N
13	Traditional grazing regimes promote biodiversity and increase nectar production in Tibetan alpine meadows	Mu et al. 2016-site 1	Tibetan, China	alpine meadow	G	yaks	0.8477	Fig. 1	Y
14	Traditional grazing regimes promote biodiversity and increase nectar production in Tibetan alpine meadows	Mu et al. 2016-site 2	Tibetan, China	alpine meadow	G	yaks	0.8477	Fig. 1	Y

15	Traditional grazing regimes promote biodiversity and increase nectar production in Tibetan alpine meadows	Mu et al. 2016-site 3	Tibetan, China	alpine meadow	G	yaks	0.8477	Fig. 1	Y
16	Effects of Grazing Intensity on Soil and Vegetation Properties in a Mediterranean Rangeland	Akhzari et al. 2015	Nahavand, West Iran	mountainous grassland	G	sheep	0.2771	Table 2	N
17	Impacts of Differing Grazing Rates on Canopy Structure and Species Composition in Hulunber Meadow Steppe	Yan et al. 2015	Hulunber, China	meadow steppe	G	cattle	0.5046	Fig. 6	N
18	Moderate grazing promotes ecosystem carbon sequestration in an alpine meadow on the Qinghai-Tibet Plateau	Zou et al. 2015	Qinghai-Tibet Plateau, China	alpine meadow	G	yaks	0.8719	Table 1	N
19	Grazing intensity effects on the vegetation in desert rangelands of Southern Tunisia	Gamoun 2014	Southeastern Tunisia, North Africa	desert steppe	G	sheep and goats	0.0460	Fig. 3	Y
20	Response of Vegetation and Soil Carbon and Nitrogen Storage to Grazing Intensity in Semi-Arid Grasslands in the Agro-Pastoral Zone of Northern China	Xu et al. 2014	Northern China	grassland	G	goats, sheep and cattle	0.4725	Table 1	Y
21	Effects of different grazing intensity on the *Seriphidum transiliense* community structure	Xun et al. 2013	Xinjiang, China	desert steppe	G	sheep	0.2032	Table 3	Y
22	Effects of different grazing intensities on vegetation characteristics of desert steppe	Huang et al. 2013 (In Chinese)	Inner Mongolia, China	desert steppe	G	sheep	0.2536	Table 2	Y

23	Grassland responses to grazing disturbance: plant diversity changes with grazing intensity in a desert steppe	Deng et al. 2013	Shanxi, China	desert steppe	G	sheep and cattle	0.2810	Fig. 5	Y
24	Influences of long-term enclosure on the restoration of plant and AM fungal communities on grassland under different grazing intensities	Zhou et al. 2013	Inner Mongolia, China	sandy grassland	G	sheep	0.4130	Table 2	Y
25	Long-termvegetation responses to different goat grazing regimes in semi-natural ecosystems: a case study in Tenerife (Canary Islands)	Fernández-Lugo et al. 2013	Canary Islands, Spain	shrubland	W	goats	0.5495	Table 2	Y
26	Soil Properties and Plant Community Changes along a Goat Grazing Intensity Gradient in an Open Canopy Oak Forest	Lempesi et al. 2013	North-eastern Greece	open woodlands	W	goats	0.5826	Table 1	N
27	Grazing Impacts on the Diversity and Composition of Alpine Rangelands in Northwest Yunnan	Haynes et al. 2013	Yunnan, China	alpine meadow	G	yaks	0.8131	Fig. 4	N
28	Herbivore species and grazing intensity regulate community composition and an encroaching woody plant in semi-arid rangeland	Allred et al. 2012	Southern Great Plains, USA	semi-arid savanna	W	cattle, sheep and goats	0.3674	Table 2	Y
29	Effects of Grazing Intensity and Environmental Factors on Species Composition and Diversity in Typical Steppe of Inner Mongolia, China	Ren et al. 2012	Inner Mongolia, China	typical steppe	G	sheep	0.4041	Table 1	N

30	Predicting plant traits and functional types response to grazing in an alpine shrub meadow on the Qinghai-Tibet Plateau	Zhu et al. 2012	Qinghai-Tibet Plateau, China	alpine steppe	G	sheep	0.7118	Table 1	Y
31	Impact of rainfall variability and grazing pressure on plant diversity in Mongolian grasslands	Cheng et al. 2011-desert steppe	Bulgan, Mongolia	desert steppe	G	not clear (only livestock)	0.1190	Fig. 4	Y
32	Impact of rainfall variability and grazing pressure on plant diversity in Mongolian grasslands	Cheng et al. 2011-steppe	Baiyan Unjuul, Mongolia	steppe	G	not clear (only livestock)	0.2415	Fig. 4	Y
33	Changes in plant species composition and diversity along a grazing gradient from livestock watering point in Allaidege rangeland of North-eastern Ethiopia rangelands	Tegegn et al. 2011	Northeastern Ethiopia	grassland	G	cattle, sheep, camel, and goats	0.2770	Table 4	N
34	Plant diversity partitioning in grazed Mediterranean grassland at multiple spatial and temporal scales	Golodets et al. 2011	Karei Deshe, Israel	Mediterranean grassland	G	cattle	0.3192	Table 1	N
35	Effects of sheep grazing and precipitation patterns on sandy grassland vegetation in Inner Mongolia, China	Zhao et al. 2011	Inner Mongolia, China	sandy grassland	G	sheep	0.4130	Fig. 2	Y
36	Effects of grazing on the soil properties and C and N storage in relation to biomass allocation in an alpine meadow	Li et al. 2011	Tibet Plateau, China	alpine meadow	G	sheep	0.7718	Table 2	Y

37	Effects of yak grazing intensity on quantitative characteristics of plant community in a two-seasonal rotation pasture in *Kobresia Parva* meadow	Dong et al. 2011-warm season	Qinghai Tibet, China	alpine meadow	G	yaks	0.7920	Table 7	N
38	Effects of yak grazing intensity on quantitative characteristics of plant community in a two-seasonal rotation pasture in *Kobresia Parva* meadow	Dong et al. 2011-cold season	Qinghai Tibet, China	alpine meadow	G	yaks	0.7920	Table 7	N
39	How does grazing intensity affect different vegetation types in arid Succulent Karoo, South Africa? Implications for conservation management	Haarmeyer et al. 2010-quartz	South Africa	succulent Karoo	W	sheep and goats	0.1216	Table 3	Y
40	How does grazing intensity affect different vegetation types in arid Succulent Karoo, South Africa? Implications for conservation management	Haarmeyer et al. 2010-non-quartz	South Africa	succulent Karoo	W	sheep and goats	0.1216	Table 3	Y
41	Correlations between plant phylogenetic and functional diversity in a high altitude cold salt desert depend on sheep grazing season: Implications for range recovery	Campbell et al. 2010-winter-spring	Southwest Utah, USA	cold salt desert	W	sheep	0.1714	Table 1	N
42	Correlations between plant phylogenetic and functional diversity in a high altitude cold salt desert depend on sheep grazing season: Implications for range recovery	Campbell et al. 2010-spring	Southwest Utah, USA	cold salt desert	W	sheep	0.1714	Table 1	N

43	The effect of grazing pressure on species richness, composition and productivity in North Adriatic Karst pastures	Škornik et al. 2010	North Adriatic Karst, Slovenia	montane grassland	G	sheep	1.6624	Fig. 1	Y
44	Effects of grazing intensity on the biodiversity and productivity of meadow steppe	Wang et al. 2010 (In Chinese)	Xilinguole, China	meadow steppe	G	not clear	0.4750	Table 2	N
45	Vegetation patterns and diversity along an altitudinal and a grazing gradient in the Jabal al Akhdar mountain range of northern Oman	Brinkmann et al. 2009	Arabian Peninsula	open woodlands	W	goats and sheep	0.2666	Table 2	N
46	Grazing Intensity on Vegetation Dynamics of a Typical Steppe in Northeast Inner Mongolia	Liang et al. 2009	Inner Mongolia, China	typical steppe	G	sheep and cattle	0.4233	Table 2	N
47	Grazing Disturbances Mediate Species Composition of Alpine Meadow Based on Seed Size	Wu et al. 2009	Eastern Qinghai-Tibetan Plateau, China	alpine meadow	G	sheep and yaks	0.7718	Table 1	Y
48	How does grazing intensity influence the diversity of plants and insects in a species-rich upland grassland on basalt soils?	Dumont et al. 2009	Central France	grassland	G	cattle	1.1472	Fig. 1	Y
49	Grazing effects on the species-area relationship: Variation along a climatic gradient in NE Spain	De Bello et al. 2007-Cas.	Northeastern Spain	Mediterranean grassland	W	sheep	0.3417	Fig. 2	Y
50	Grazing effects on the species-area relationship: Variation along a climatic gradient in NE Spain	De Bello et al. 2007-Vil.	Northeastern Spain	Mediterranean grassland	W	sheep	0.3809	Fig. 2	Y

51	Grazing effects on the species-area relationship: Variation along a climatic gradient in NE Spain	De Bello et al. 2007-Mon.	Northeastern Spain	Mediterranean grassland	W	sheep	0.3958	Fig. 2	Y
52	Grazing effects on the species-area relationship: Variation along a climatic gradient in NE Spain	De Bello et al. 2007-Boi.	Northeastern Spain	Mediterranean grassland	W	sheep	0.5100	Fig. 2	Y
53	Grazing effects on the species-area relationship: Variation along a climatic gradient in NE Spain	De Bello et al. 2007-Ali.	Northeastern Spain	Mediterranean grassland	W	sheep	0.5241	Fig. 2	Y
54	From plant neighbourhood to landscape scales: how grazing modifies native and exotic plantspecies richness in grassland	Dorrough et al. 2007	Southern Australia	grassland	G	sheep	0.6334	Fig. 4	N
55	Is the analysis of plant community structure better than common species-diversity indices for assessing the effects of livestock grazing on a Mediterranean arid ecosystem?	Pueyo et al. 2006	Southern Spain	Mediterranean shrubland	W	sheep and goats	0.2533	Table 2	N
56	The response of a shrub-invaded grassland on the Inner Mongolia steppe to long-term grazing by sheep	Liu et al. 2006	Inner Mongolia, China	steppe	G	sheep	0.4122	Table 3	N
57	Long-term grazing alters species composition and biomass of a shrub meadow on the Qinghai-Tibet Plateau	Zhou et al. 2006	Qinghai-Tibetan Plateau, China	shrub alpine meadow	W	sheep	0.7394	Table 2	Y

58	Short- and long-term effects of changes in reindeer grazing pressure on tundra heath vegetation	Olofsson 2006-Raisduoddar	northern Norway	Tundra	G	reindeer	1.2450	Table 3	Y
59	Short- and long-term effects of changes in reindeer grazing pressure on tundra heath vegetation	Olofsson 2006-Lagisduoddar	northern Norway	Tundra	G	reindeer	1.5517	Table 3	Y
60	Plant traits and functional types in response to reduced disturbance in a seminatural grassland	Louault et al. 2005	Theix, France	grassland	G	not clear	0.9900	Table 3	N
61	Change in plant spatial patterns and diversity along the successional gradient of Mediterranean grazing ecosystems	Alados et al. 2004-Scrubland	Cabo de Gata, Spain	scrubland	W	sheep and goats	0.2274	Table 1	Y
62	Riparian vegetation response to different intensities and seasons of grazing	Lucas et al. 2004	western New Mexico, USA	riparian	G	cattle	0.3524	Fig. 4	Y
63	Change in plant spatial patterns and diversity along the successional gradient of Mediterranean grazing ecosystems	Alados et al. 2004-open grasslands	Middle Atlas, Morocco, North Africa	Mediterranean grassland	W	sheep and goats	0.3994	Table 1	Y
64	Change in plant spatial patterns and diversity along the successional gradient of Mediterranean grazing ecosystems	Alados et al. 2004-Shrubland	Sithonia Peninsula, Greece	shrubland (Mediterranean)	W	sheep and goats	0.4328	Table 1	Y
65	Grazing management effects on plant species diversity in tallgrass prairie	Hickman et al. 2004	Kansas, USA	tallgrass prairie	G	cattle	0.7597	Fig. 1, 2	Y

66	The relative importance of cattle grazing in subtropical grasslands: does it reduce or enhance plant biodiversity?	McIntyre et al. 2003	Queensland, Australia	grassy woodland	W	cattle	0.6358	Fig. 2	N
67	Spatial heterogeneity of vegetation under different grazing intensities in the Northwest Heilongjiang Steppe of China	Wang et al. 2002	Heilongjiang, China	steppe	G	cattle, sheep and goats	0.5151	Table 1	N
68	Impact of Grazing on Plant Species Richness, Plant Biomass, Plant Attribute, and Soil Physical and Hydrological Properties of Vertisol in East African Highlands	Taddese et al. 2002- 0-4%	East African	grassland	G	mainly cattle species and small ruminants	1.0000	Fig. 4	Y
69	Impact of Grazing on Plant Species Richness, Plant Biomass, Plant Attribute, and Soil Physical and Hydrological Properties of Vertisol in East African Highlands	Taddese et al. 2002- 4-8%	East African	grassland	G	same above	1.0000	Fig. 4	Y
70	Plant biodiversity on shortgrass steppe after 55 years of zero, light, moderate, or heavy cattle grazing	Hart 2001	Colorado, USA	shortgrass steppe	G	cattle	0.3036	Table 2	N
71	Differences in species richness and life-history traits between grazed and abandoned grasslands in southern Sweden	Dupre and Diekmann 2001	southern Sweden	coastal meadow	G	cattle	0.9241	Fig. 2	N
72	Testing a non-equilibrium model of rangeland vegetation dynamics in Mongolia	Fernandez-Gimenez and Allen-Diaz 1999-desert steppe	Mongolia	desert steppe	G	sheep, camel, horse, cattle, goats	0.1385	Fig. 4	Y

73	Testing a non-equilibrium model of rangeland vegetation dynamics in Mongolia	Fernandez-Gimenez and Allen-Diaz-steppe 1999	Mongolia	steppe	G	sheep, camel, horse, cattle, goats	0.3773	Fig. 4	Y
74	Testing a non-equilibrium model of rangeland vegetation dynamics in Mongolia	Fernandez-Gimenez and Allen-Diaz 1999-mountain steppe	Mongolia	mountain steppe	G	sheep, camel, horse, cattle, goats	0.4252	Fig. 4	Y
75	How season of grazing and herbivore selectivity influence monsoon tall-grass communities of northern Australia	Ash et al. 1998	North Australia	monsoon grassland	G	cattle	0.4666	Table 6	N
76	The grassy vegetation of the darling downs, south-eastern Queensland, Australia. Floristics and grazing effects	Fensham 1998-grassland	Queensland, Australia	grassland	G	cattle	0.6966	Table 4	Y
77	The grassy vegetation of the darling downs, south-eastern Queensland, Australia. Floristics and grazing effects	Fensham 1998-polar box woodland	Queensland, Australia	woodland	W	cattle	0.6966	Table 4	Y
78	The grassy vegetation of the darling downs, south-eastern Queensland, Australia. Floristics and grazing effects	Fensham 1998-hill woodland	Queensland, Australia	hill woodland	W	cattle	0.6966	Table 4	Y
79	Effects of grazing on a Leymus chinensis grassland on the Songnen plain of north-eastern China	Wang and Earle 1997	Northeastern China	steppe	G	cattle, horses and sheep	0.5000	Fig. 1	N
80	vegetation response to cattle grazing in the Ethiopian highlands	Mwendera et al. 1996-0-4%	Ethiopia	grassland	G	cattle	0.5294	Table 5	N

81	vegetation response to cattle grazing in the Ethiopian highlands	Mwendera et al. 1996-4-8%	Ethiopia	grassland	G	cattle	0.5294	Table 5	N
82	Influence of grazing on sand field vegetation in the Negev Desert	Olsvig-Whittaker et al. 1993	Negev, Israel	desert grassland	G	sheep and goats	0.0955	Table 2	N
83	The Effect of Grazing Intensity on Plant Composition, Vigor, and Growth of Pine-Bunchgrass Ranges in Central Colorado	Johnson 1956	Central Colorado, USA	open grassland	W	cattle	0.4990	Table 2	N

Note: G: grassland; W: woodland. Y means that studies reported data variability; N means no data variability.

Appendix S2. Supporting figures

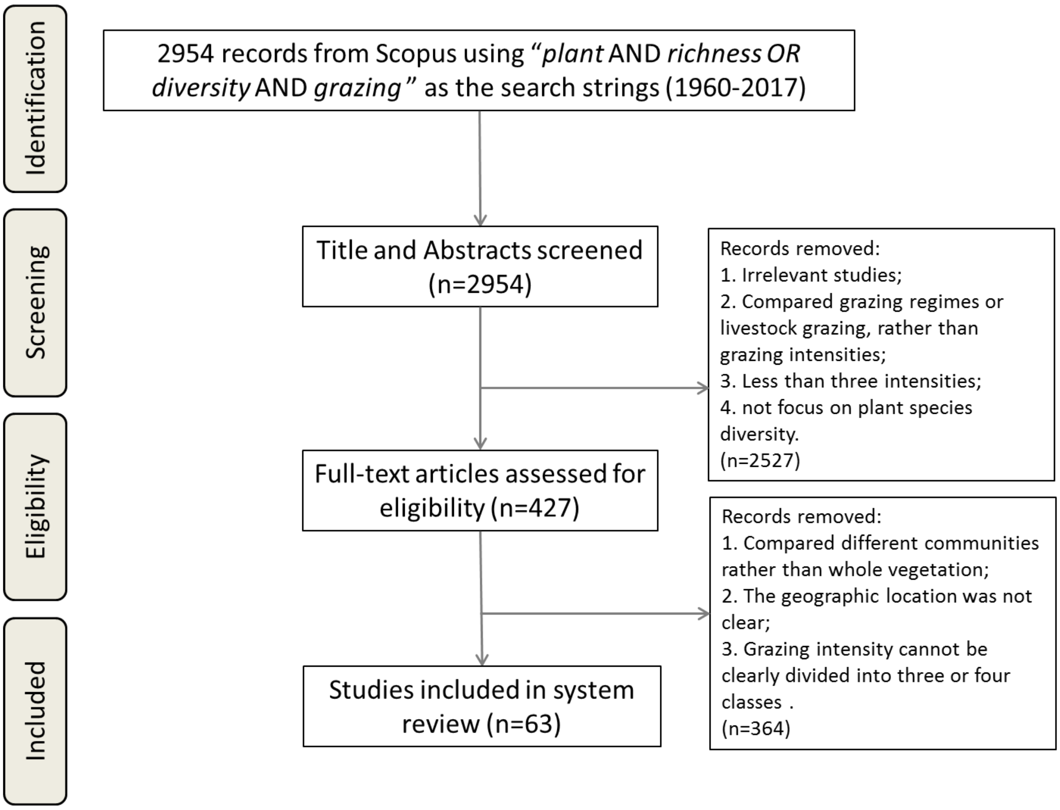
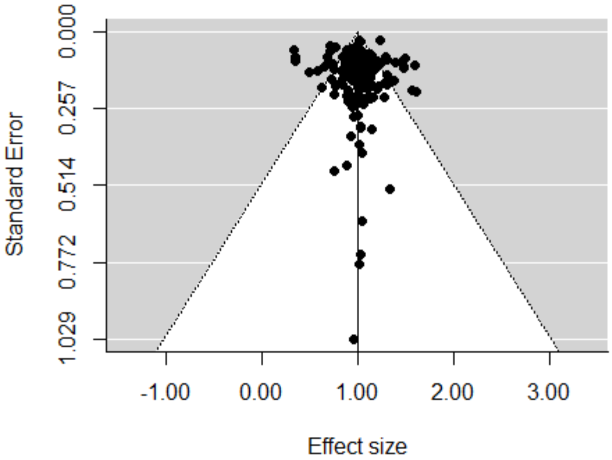


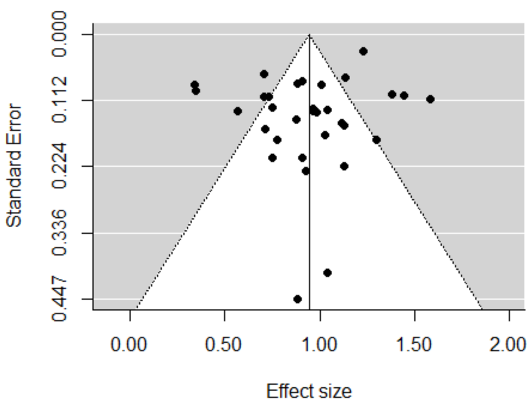
Figure S1. PRISMA flow diagram showing the procedures used for selecting studies for the meta-analysis. The two boxes in the far-right end of the figure show the main reasons why certain studies were excluded from the analysis at each stage.

Evaluation of publication bias

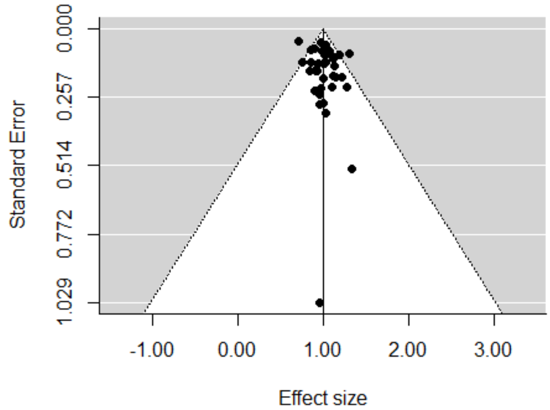
In order to test the bias in study selection, we constructed funnel plots of effect sizes on standard errors for each grazing intensity subgroup (Sterne & Egger 2001). All rank correlation tests for asymmetry were insignificant (see Fig. S2-S4).



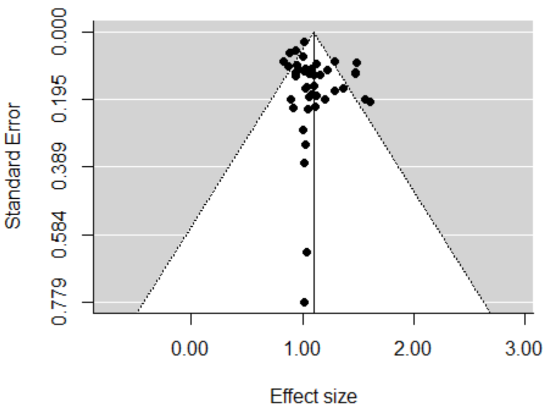
a. All studies with NO, LOW, MOD and HIGH grazing together: Kendall's tau =0.0263, p = 0.6221



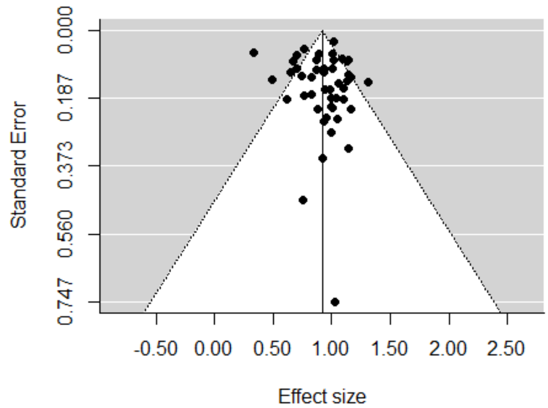
b. NO: Kendall's tau = 0.1129, p = 0.3754



c. LOW: Kendall's tau = -0.0202, p = 0.8664

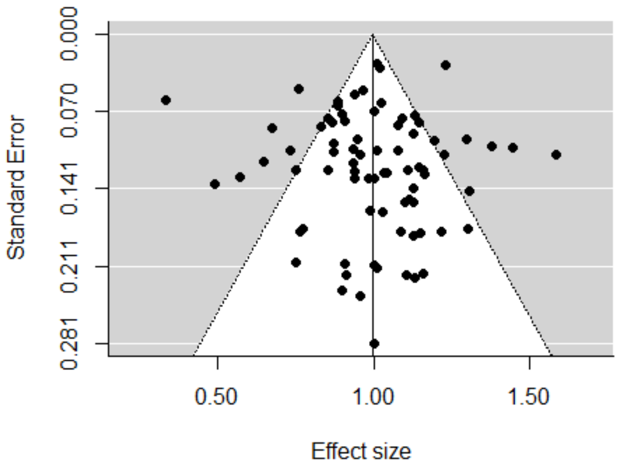


d. MOD: Kendall's tau = 0.1405, p = 0.1947

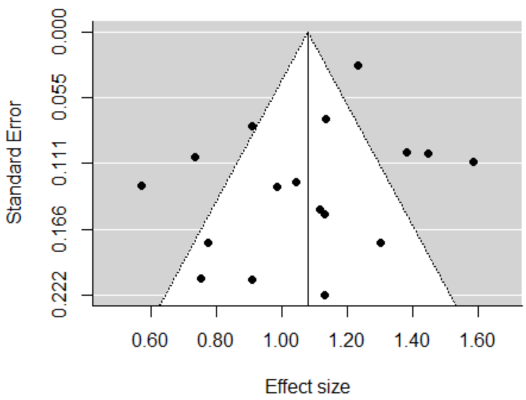


e. HIGH: Kendall's tau = -0.0250, p = 0.8126

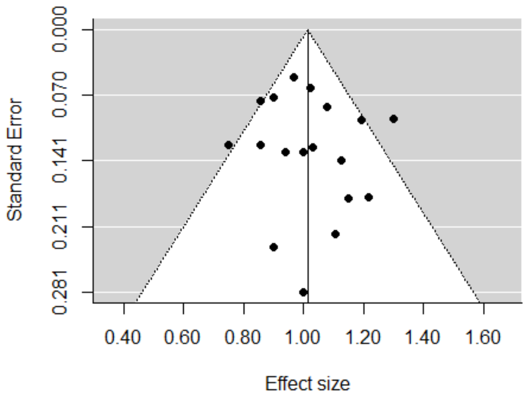
Figure S2. Funnel plots and rank correlation test for asymmetry in grazing intensity subgroups at a global scale.



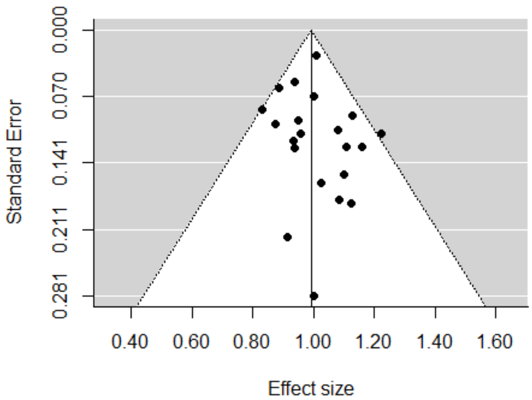
a. All studies in dry areas with NO, LOW, MOD and HIGH grazing together: Kendall's tau = 0.0565, p = 0.4613



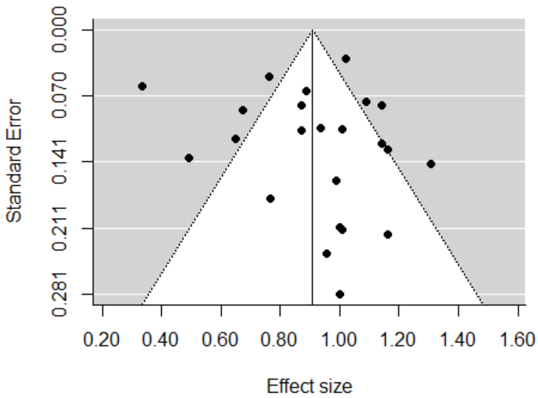
b. NO: Kendall's tau = -0.0882, p = 0.6553



c. LOW: Kendall's tau = 0.1111, p = 0.5498

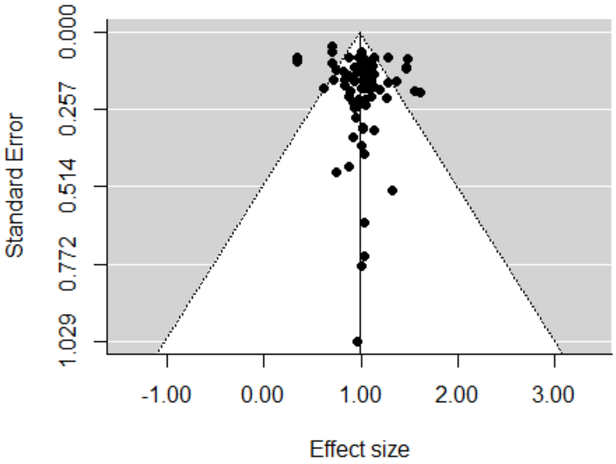


d. MOD: Kendall's tau = 0.1333, p = 0.4196

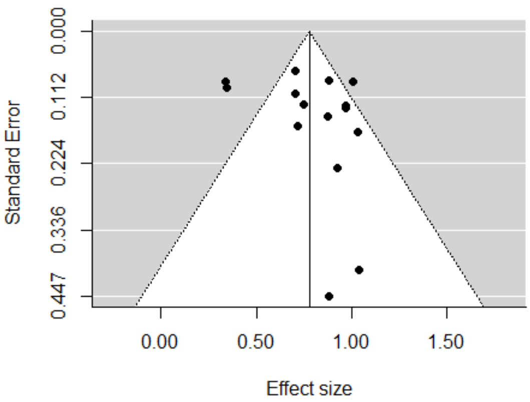


e. HIGH: Kendall's tau = 0.0435, p = 0.7940

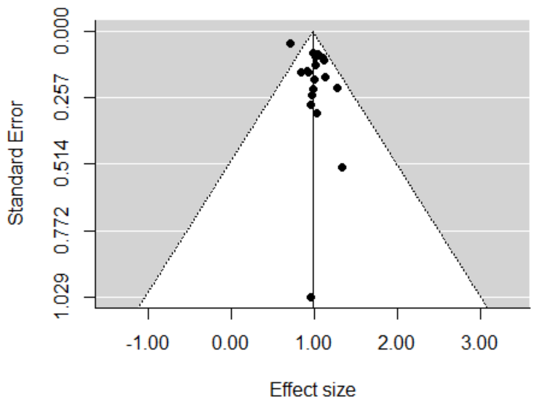
Figure S3. Funnel plots and rank correlation test for asymmetry in grazing intensity subgroups in dry areas.



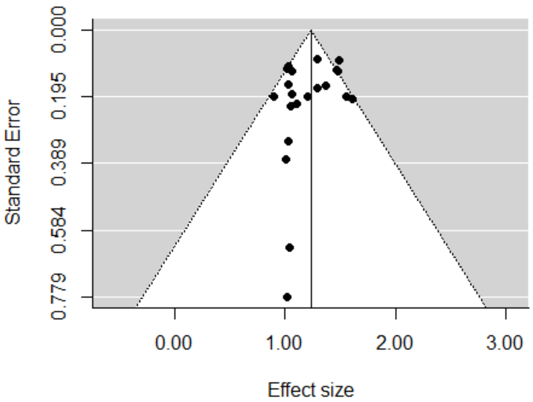
a. All studies in wet areas with NO, LOW, MOD and HIGH grazing together: Kendall's tau = -0.0398, p = 0.5988



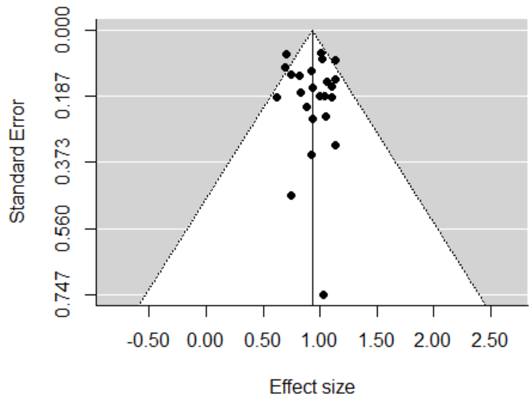
b. NO: Kendall's tau = 0.0857, p = 0.6972



c. LOW: Kendall's tau = -0.1429, p = 0.3858

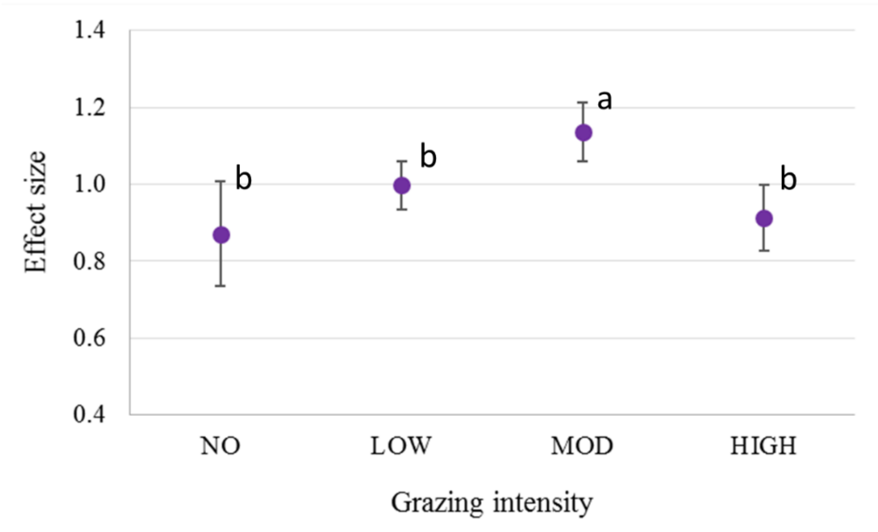


d. MOD: Kendall's tau = -0.0095, p = 0.9762

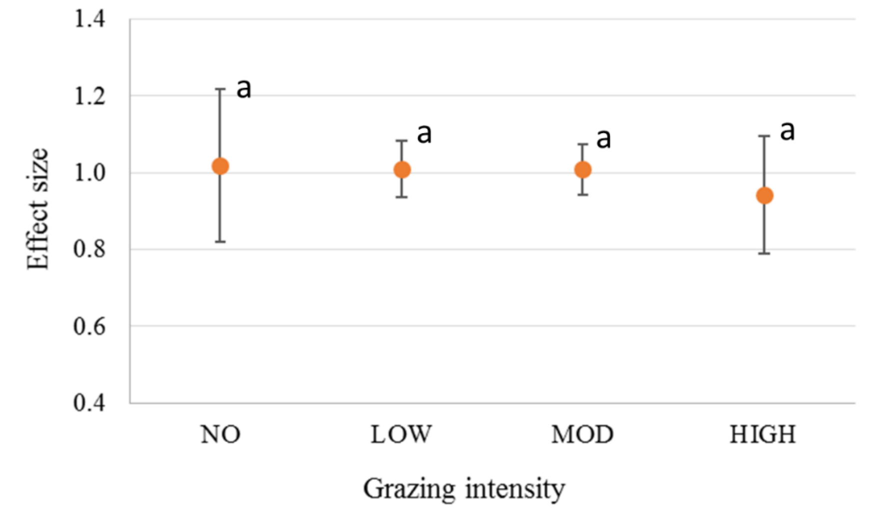


e. HIGH: Kendall's tau = -0.0725, p = 0.6410

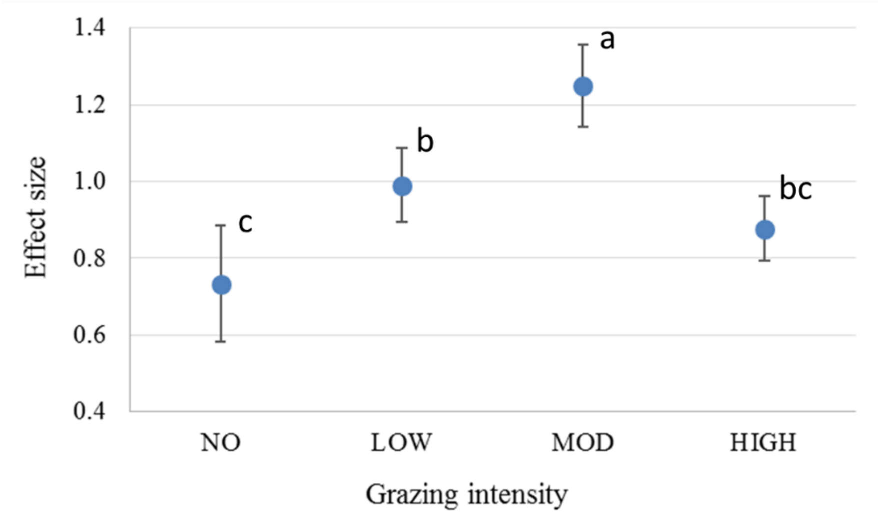
Figure S4. Funnel plots and rank correlation test for asymmetry in grazing intensity subgroups in wet areas.



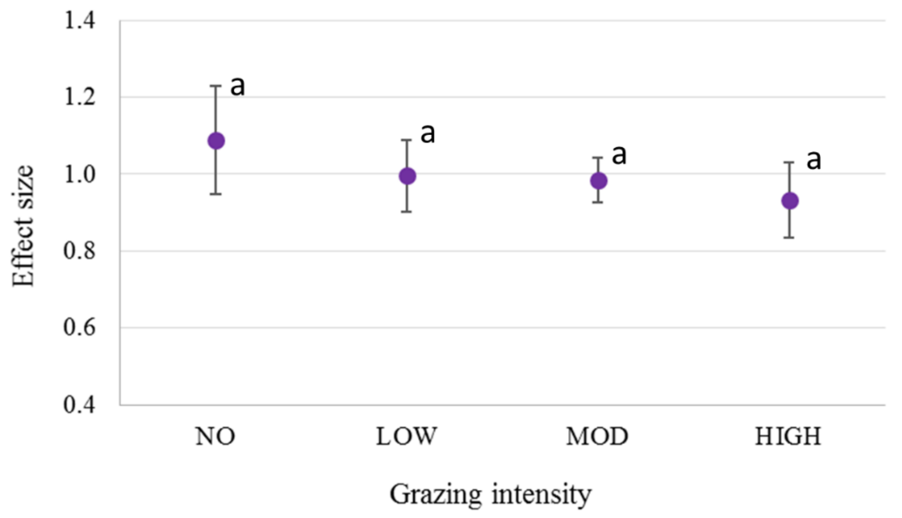
(a) All grasslands, n_{NO}=21, n_{LOW}=28, n_{MOD}=33, n_{HIGH}=32.



(b) Dry grasslands, n_{NO}=9, n_{LOW}=12, n_{MOD}=14, n_{HIGH}=13.



(c) Wet grasslands, n_{NO}=12, n_{LOW}=16, n_{MOD}=19, n_{HIGH}=19.



(d) All woodlands, n_{NO}=11, n_{LOW}=11, n_{MOD}=9, n_{HIGH}=15.

Figure S5. Effect sizes (± 95% confidence intervals) of grazing intensity on species richness for all grasslands, dry grasslands, wet grasslands and all woodlands. Black bars indicate confidence intervals of effect sizes. Values not sharing the same letters are significantly different at $P < 0.05$.

Appendix S3: Effect sizes

We chose random-effects model (RE Model) and used the method in Yeboah and Chen (2016) to calculate effect size. Effect size > 1 means a positive effect of grazing intensity on species richness; effect size < 1 means a negative effect. To estimate the intermediate disturbance hypothesis and aridity-dependent response hypothesis, we conducted subgroup analysis for NO, LOW, MOD, and HIGH grazing intensities from whole regions, dry and wet regions, respectively (Table S1-S3).

Table S1. Effect sizes for studies from whole areas

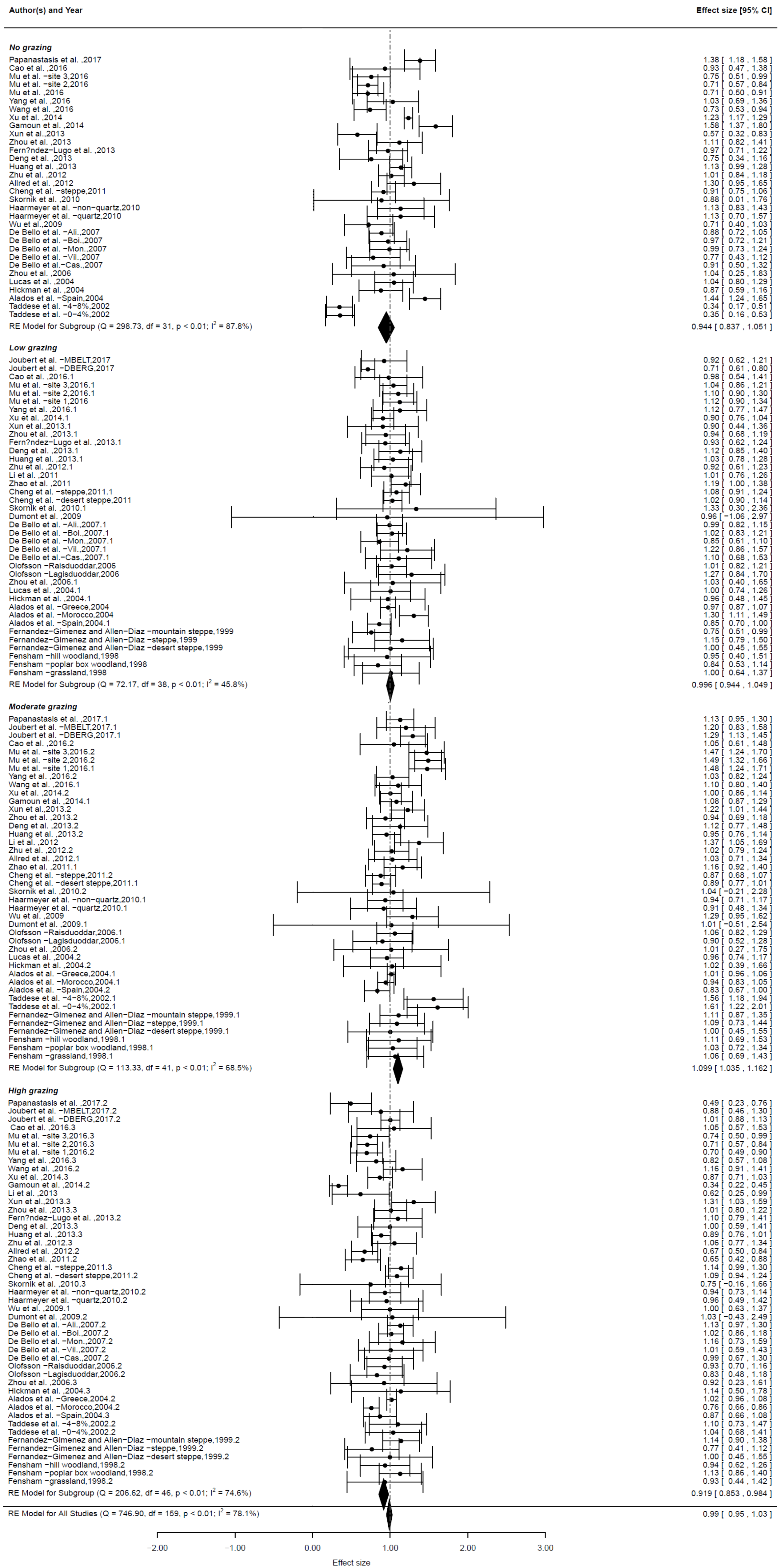


Table S2. Effect sizes for studies from dry areas

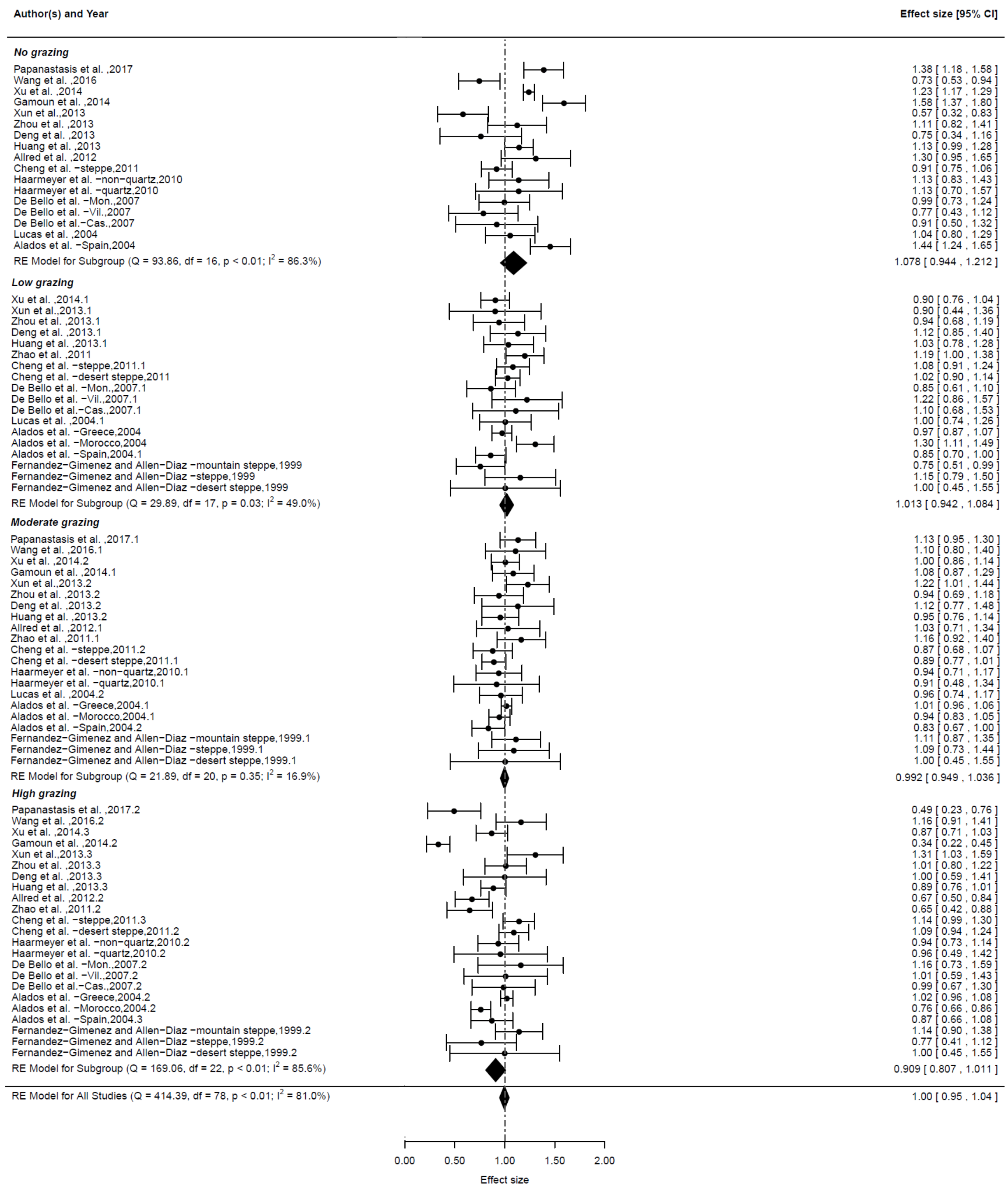


Table S3. Effect sizes for studies from wet areas

Author(s) and Year	Effect size [95% CI]
No grazing	
Cao et al. ,2016	0.93 [0.47 , 1.38]
Mu et al. −site 3,2016	0.75 [0.51 , 0.99]
Mu et al. −site 2,2016	0.71 [0.57 , 0.84]
Mu et al. −site 1,2016	0.71 [0.50 , 0.91]
Yang et al. ,2016	1.03 [0.69 , 1.36]
Fern?ndez−Lugo et al. ,2013	0.97 [0.71 , 1.22]
Zhu et al. ,2012	1.01 [0.84 , 1.18]
Skornik et al. ,2010	0.88 [0.01 , 1.76]
Wu et al.,2009	0.71 [0.40 , 1.03]
De Bello et al. −Ali.,2007	0.88 [0.72 , 1.05]
De Bello et al. −Boi.,2007	0.97 [0.72 , 1.21]
Zhou et al. ,2006	1.04 [0.25 , 1.83]
Hickman et al. ,2004	0.87 [0.59 , 1.16]
Taddese et al. −4−8%,2002	0.34 [0.17 , 0.51]
Taddese et al. −0−4%,2002	0.35 [0.16 , 0.53]
RE Model for Subgroup (Q = 63.55, df = 14, p < 0.01; I^2 = 76.3%)	0.778 [0.650 , 0.906]
Low grazing	
Joubert et al. −MBELT,2017	0.92 [0.62 , 1.21]
Joubert et al. −DBERG,2017	0.71 [0.61 , 0.80]
Cao et al. ,2016.1	0.98 [0.54 , 1.41]
Mu et al. −site 3,2016.1	1.04 [0.86 , 1.21]
Mu et al. −site 2,2016.1	1.10 [0.90 , 1.30]
Mu et al. −site 1,2016.1	1.12 [0.90 , 1.34]
Yang et al. ,2016.1	1.12 [0.77 , 1.47]
Fern?ndez−Lugo et al. ,2013.1	0.93 [0.62 , 1.24]
Zhu et al. ,2012.1	0.92 [0.61 , 1.23]
Li et al. ,2011	1.01 [0.76 , 1.26]
Skornik et al. ,2010.1	1.33 [0.30 , 2.36]
Dumont et al. ,2009	0.96 [−1.06 , 2.97]
De Bello et al. −Ali.,2007.1	0.99 [0.82 , 1.15]
De Bello et al. −Boi.,2007.1	1.02 [0.83 , 1.21]
Olofsson −Raisduoddar,2006	1.01 [0.82 , 1.21]
Olofsson −Lagisduoddar,2006	1.27 [0.84 , 1.70]
Zhou et al. ,2006.1	1.03 [0.40 , 1.65]
Hickman et al. ,2004.1	0.96 [0.48 , 1.45]
Fensham −hill woodland,1998	0.95 [0.40 , 1.51]
Fensham −poplar box woodland,1998	0.84 [0.53 , 1.14]
Fensham −grassland,1998	1.00 [0.64 , 1.37]
RE Model for Subgroup (Q = 36.84, df = 20, p = 0.01; I^2 = 40.3%)	0.978 [0.901 , 1.055]
Moderate grazing	
Joubert et al. −MBELT,2017.1	1.20 [0.83 , 1.58]
Joubert et al. −DBERG,2017.1	1.29 [1.13 , 1.45]
Cao et al. ,2016.2	1.05 [0.61 , 1.48]
Mu et al. −site 3,2016.2	1.47 [1.24 , 1.70]
Mu et al. −site 2,2016.2	1.49 [1.32 , 1.66]
Mu et al. −site 1,2016.2	1.48 [1.24 , 1.71]
Yang et al. ,2016.2	1.03 [0.82 , 1.24]
Li et al. ,2012	1.37 [1.05 , 1.69]
Zhu et al. ,2012.2	1.02 [0.79 , 1.24]
Skornik et al. ,2010.2	1.04 [−0.21 , 2.28]
Wu et al. ,2009	1.29 [0.95 , 1.62]
Dumont et al. ,2009.1	1.01 [−0.51 , 2.54]
Olofsson −Raisduoddar,2006.1	1.06 [0.82 , 1.29]
Olofsson −Lagisduoddar,2006.1	0.90 [0.52 , 1.28]
Zhou et al. ,2006.2	1.01 [0.27 , 1.75]
Hickman et al. ,2004.2	1.02 [0.39 , 1.66]
Taddese et al. −4−8%,2002.1	1.56 [1.18 , 1.94]
Taddese et al. −0−4%,2002.1	1.61 [1.22 , 2.01]
Fensham −hill woodland,1998.1	1.11 [0.69 , 1.53]
Fensham −poplar box woodland,1998.1	1.03 [0.72 , 1.34]
Fensham −grassland,1998.1	1.06 [0.69 , 1.43]
RE Model for Subgroup (Q = 40.83, df = 20, p < 0.01; I^2 = 53.1%)	1.233 [1.131 , 1.335]
High grazing	
Joubert et al. −MBELT,2017.2	0.88 [0.46 , 1.30]
Joubert et al. −DBERG,2017.2	1.01 [0.88 , 1.13]
Cao et al. ,2016.3	1.05 [0.57 , 1.53]
Mu et al. −site 3,2016.3	0.74 [0.50 , 0.99]
Mu et al. −site 2,2016.3	0.71 [0.57 , 0.84]
Mu et al. −site 1,2016.3	0.70 [0.49 , 0.90]
Yang et al. ,2016.3	0.82 [0.57 , 1.08]
Li et al. ,2013	0.62 [0.25 , 0.99]
Fern?ndez−Lugo et al. ,2013.2	1.10 [0.79 , 1.41]
Zhu et al. ,2012.3	1.06 [0.77 , 1.34]
Skornik et al. ,2010.3	0.75 [−0.16 , 1.66]
Wu et al. ,2009.1	1.00 [0.63 , 1.37]
Dumont et al. ,2009.2	1.03 [−0.43 , 2.49]
De Bello et al. −Ali.,2007.2	1.13 [0.97 , 1.30]
De Bello et al. −Boi.,2007.2	1.02 [0.86 , 1.18]
Olofsson −Raisduoddar,2006.2	0.93 [0.70 , 1.16]
Olofsson −Lagisduoddar,2006.2	0.83 [0.48 , 1.18]
Zhou et al. ,2006.3	0.92 [0.23 , 1.61]
Hickman et al. ,2004.3	1.14 [0.50 , 1.78]
Taddese et al. −4−8%,2002.2	1.10 [0.73 , 1.47]
Taddese et al. −0−4%,2002.2	1.04 [0.68 , 1.41]
Fensham −hill woodland,1998.2	0.94 [0.62 , 1.26]
Fensham −poplar box woodland,1998.2	1.13 [0.86 , 1.40]
Fensham −grassland,1998.2	0.93 [0.44 , 1.42]
RE Model for Subgroup (Q = 36.55, df = 23, p = 0.04; I^2 = 42.1%)	0.933 [0.856 , 1.009]
RE Model for All Studies (Q = 320.91, df = 80, p < 0.01; I^2 = 72.1%)	0.99 [0.93 , 1.05]