

Response to climate change of montane herbaceous plants in the genus *Rhodiola* predicted by ecological niche modelling

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Supplementary Table S1 Average AUC values of the sub-models used to determine the weights for the ensemble models of *Rhodiola* species and species groups.

	ENSEMBLE	MAXENT	RF	MGCV	GBMSTEP	GLMSTEP	MGCVFIX	GBM	FDA	MAHAL	SVM	EARTH	GAM	GAMSTEP	DOMAIN	SVME	NNET	BIOCLIM	RPART	GLM
<i>R. alsia</i>	0.983	0.981	0.982	0.980	0.975	0.976	0.977	0.975	0.978	0.971	0.972	0.975	0.970	0.967	0.974	0.950	0.960	0.876	0.782	0.507
<i>R. bupleuroides</i>	0.984	0.983	0.981	0.980	0.974	0.973	0.973	0.968	0.980	0.972	0.959	0.962	0.961	0.959	0.948	0.946	0.948	0.937	0.861	0.977
<i>R. chrysanthemifolia</i>	0.991	0.990	0.991	0.990	0.985	0.990	0.986	0.985	0.985	0.988	0.968	0.986	0.974	0.973	0.973	0.935	0.931	0.908	0.901	0.529
<i>R. crenulata</i>	0.981	0.976	0.979	0.973	0.970	0.975	0.972	0.967	0.972	0.976	0.960	0.955	0.962	0.963	0.960	0.937	0.945	0.926	0.826	0.862
<i>R. dumulosa</i>	0.973	0.967	0.964	0.964	0.965	0.955	0.956	0.960	0.951	0.951	0.953	0.951	0.912	0.911	0.911	0.911	0.925	0.909	0.792	0.790
<i>R. fastigiata</i>	0.985	0.983	0.979	0.982	0.970	0.982	0.982	0.971	0.977	0.970	0.961	0.966	0.971	0.971	0.965	0.943	0.960	0.920	0.925	0.873
<i>R. forrestii</i>	0.994	0.993	0.991	0.993	0.989	0.991	0.987	0.987	0.992	0.991	0.957	0.905	0.981	0.982	0.990	0.906	0.930	0.850	0.846	0.604
<i>R. henryi</i>	0.995	0.995	0.991	0.995	0.986	0.994	0.990	0.987	0.984	0.991	0.991	0.956	0.964	0.963	0.984	0.952	0.956	0.928	0.945	0.900
<i>R. himalensis</i>	0.982	0.974	0.980	0.975	0.975	0.970	0.967	0.974	0.965	0.968	0.965	0.969	0.954	0.955	0.938	0.929	0.947	0.912	0.913	0.520
<i>R. kirilowii</i>	0.979	0.970	0.973	0.966	0.966	0.954	0.959	0.962	0.955	0.951	0.961	0.958	0.913	0.913	0.913	0.926	0.867	0.910	0.817	0.772
<i>R. quadrifida</i>	0.968	0.959	0.954	0.957	0.955	0.953	0.955	0.956	0.952	0.949	0.949	0.944	0.930	0.930	0.914	0.912	0.931	0.895	0.837	0.499
<i>R. sacra</i>	0.994	0.994	0.991	0.993	0.982	0.993	0.993	0.981	0.987	0.991	0.982	0.992	0.987	0.986	0.981	0.959	0.961	0.930	0.939	0.716
<i>R. wallichiana</i>	0.979	0.972	0.968	0.953	0.959	0.931	0.915	0.965	0.962	0.918	0.914	0.902	0.932	0.926	0.896	0.881	0.878	0.817	0.841	0.849
<i>R. yunnanensis</i>	0.991	0.990	0.988	0.989	0.985	0.990	0.989	0.982	0.988	0.990	0.987	0.862	0.972	0.972	0.983	0.977	0.959	0.947	0.900	0.989
G _{clade1}	0.986	0.984	0.975	0.980	0.972	0.979	0.976	0.973	0.980	0.971	0.944	0.972	0.954	0.955	0.959	0.953	0.945	0.942	0.917	0.761
G _{clade2}	0.970	0.964	0.972	0.966	0.969	0.966	0.967	0.961	0.957	0.955	0.961	0.960	0.915	0.915	0.897	0.950	0.943	0.919	0.916	0.905
G _{mon}	0.977	0.974	0.976	0.970	0.973	0.964	0.968	0.963	0.962	0.953	0.946	0.958	0.925	0.924	0.919	0.929	0.931	0.926	0.896	0.746
G _{dio}	0.973	0.968	0.973	0.970	0.972	0.970	0.971	0.967	0.964	0.957	0.967	0.963	0.922	0.922	0.906	0.954	0.933	0.925	0.934	0.970
G _{QTP}	0.977	0.974	0.978	0.973	0.977	0.972	0.974	0.975	0.969	0.965	0.970	0.969	0.950	0.950	0.941	0.959	0.949	0.944	0.948	0.973
G _{HM}	0.993	0.992	0.991	0.992	0.990	0.992	0.992	0.985	0.990	0.992	0.989	0.987	0.975	0.975	0.987	0.977	0.967	0.964	0.912	0.992
G _{wide}	0.975	0.971	0.971	0.969	0.966	0.965	0.966	0.957	0.956	0.955	0.959	0.956	0.927	0.926	0.927	0.935	0.921	0.922	0.874	0.744
G _{plain}	0.995	0.995	0.991	0.995	0.986	0.994	0.990	0.987	0.984	0.991	0.991	0.956	0.964	0.963	0.984	0.952	0.956	0.928	0.945	0.900
WHOLE	0.970	0.965	0.972	0.966	0.970	0.966	0.967	0.963	0.959	0.955	0.963	0.963	0.914	0.914	0.901	0.952	0.916	0.924	0.919	0.952
Average	0.982	0.979	0.979	0.977	0.974	0.974	0.973	0.972	0.972	0.968	0.964	0.955	0.949	0.948	0.946	0.940	0.937	0.916	0.886	0.797

Supplementary Table S2 Model evaluation metrics for Maxent: means test omission rates (OR) using the 10% training presence threshold, area under the receiver operating characteristic curve (AUC), true skill statistic (TSS) and test gains for all models of *Rhodiola* species.

	Threshold	OR	AUC	TSS	Test gain
<i>R. alsia</i>	0.378	0.116	0.979	0.956	2.675
<i>R. bupleuroides</i>	0.274	0.117	0.980	0.965	2.830
<i>R. chryanthemifolia</i>	0.378	0.109	0.988	0.982	3.333
<i>R. crenulata</i>	0.337	0.112	0.980	0.963	2.821
<i>R. dumulosa</i>	0.418	0.125	0.962	0.929	2.095
<i>R. fastigiata</i>	0.258	0.117	0.982	0.971	2.892
<i>R. forrestii</i>	0.456	0.148	0.993	0.985	3.639
<i>R. henryi</i>	0.292	0.121	0.991	0.989	3.550
<i>R. himalensis</i>	0.435	0.127	0.974	0.955	2.587
<i>R. kirilowii</i>	0.245	0.111	0.973	0.953	2.497
<i>R. quadrifida</i>	0.387	0.150	0.957	0.902	1.964
<i>R. sacra</i>	0.372	0.113	0.993	0.990	3.785
<i>R. wallichiana</i>	0.362	0.132	0.979	0.951	2.702
<i>R. yunnanensis</i>	0.298	0.117	0.989	0.985	3.322
G _{clade1}	0.291	0.114	0.982	0.978	2.958
G _{clade2}	0.288	0.103	0.929	0.923	1.621
G _{mon}	0.290	0.105	0.969	0.954	2.418
G _{dio}	0.292	0.102	0.932	0.927	1.677
G _{QTP}	0.276	0.099	0.948	0.941	1.962
G _{HM}	0.280	0.119	0.987	0.984	3.254
G _{wide}	0.287	0.114	0.966	0.949	2.314
G _{plain}	0.292	0.121	0.991	0.989	3.550
WHOLE	0.291	0.104	0.925	0.926	1.578

Supplementary Table S3 Percentage of variable contribution based on jackknife test. The highest contributions are presented in bold.

	Mean Diurnal Range (BIO2)	Isothermality (BIO3)	Mean Temperature of Wettest Quarter (BIO8)	Mean Temperature of Driest Quarter (BIO9)	Precipitation of Wettest Month (BIO13)	Precipitation of Driest Month (BIO14)	Precipitation Seasonality (BIO15)	Precipitation of Warmest Quarter (BIO18)	Precipitation of Coldest Quarter (BIO19)
<i>R. alsia</i>	0	26.7	35.9	18.2	0	0	0.8	11.7	6.7
<i>R. bupleuroides</i>	0.1	36.6	21.5	34.5	0.6	0.1	0.7	5.7	0.2
<i>R. chryanthemifolia</i>	0	43.8	3.1	49.6	0	0	0.8	0.7	2
<i>R. crenulata</i>	0.1	41	35.4	15	0.1	0	0	8.4	0.2
<i>R. dumulosa</i>	4.4	3.7	36.3	19.1	0.6	0.1	0.2	18.6	17.1
<i>R. fastigiata</i>	1.6	37.4	19.3	30.3	0.1	0	0.4	9.3	1.6
<i>R. forrestii</i>	0	33.8	5.2	44.9	0.4	0.2	0	13.5	2.1
<i>R. henryi</i>	17.8	0.2	6.2	45.4	0.3	0.8	4.8	20.2	4.4
<i>R. himalensis</i>	0.1	26.1	37.3	18.8	0	1.8	0	13.5	2.3
<i>R. kirilowii</i>	2.4	3.8	31.6	27.5	0.1	0.5	2.3	20.1	11.9
<i>R. quadrifida</i>	0	8.7	66.5	8.4	0.1	0.9	0.3	6.9	8.1
<i>R. sacra</i>	0.2	40.3	1	39	0	5.6	5.1	4.4	4.3
<i>R. wallichiana</i>	0.2	25.3	22.6	50.6	0	0.5	0	0.4	0.5
<i>R. yunnanensis</i>	3.8	16.3	11	37.3	1.2	0.3	0.6	26.4	3.3
G _{clade1}	0.5	38.9	15.4	38.7	0.1	0	3	3.2	0.3
G _{clade2}	2.4	18.9	19.7	36.6	0.6	0.3	1	19.5	1.1
G _{mon}	3	14	27.1	31.9	2.4	1.8	2.4	15.9	1.6
G _{dio}	2.1	21	18.6	37.2	0.3	0.1	1	18.7	1
G _{QTP}	0.6	40	26.2	23.3	0.1	0.1	0.2	9.3	0.3
G _{HM}	2.6	16.7	13.1	31.6	1.1	0.3	0.5	30.8	3.4
G _{wide}	3	6.1	30	23.2	0.2	0.4	2.4	22.7	12
G _{plain}	17.8	0.2	6.2	45.4	0.3	0.8	4.8	20.2	4.4
WHOLE	2	21.4	19.1	36.8	0.9	0.2	1	17.9	0.9

Supplementary Table S4 Factor loadings of bioclimatic variables for temperature principal components analysis axes (Temp1 and Temp2).

	Temp1	Temp2
BIO2	-0.505	0.743
BIO3	0.090	0.979
BIO8	0.796	-0.378
BIO9	0.971	0.128

Supplementary Table S5 Factor loadings of bioclimatic variables for principal components analysis axes (Prec1 and Prec 2).

	Prec1	Prec2
BIO13	0.212	0.973
BIO14	0.865	0.357
BIO15	-0.854	-0.091
BIO18	0.182	0.978
BIO19	0.879	0.157

Supplementary Table S6 Factor loadings of bioclimatic variables for canonical structure of discriminant functions (Function1, Function2 and Function3).

	Function1	Function2	Function3
Temp2	0.758	0.606	-0.076
Prec1	-0.503	0.448	-0.173
Temp1	-0.439	0.827	-0.227
Prec2	0.127	0.587	0.795

Supplementary Table S7 Predicted suitable area (km²) of *Rhodiola* species and species groups for each GCMs in LGM of ensemble models.

	CCSM4	MIROC-ESM	MPI-ESM-P	MIROC	min	mean	max
<i>R. alsia</i>	29544	28432	30038	28209	23545	29754	34474
<i>R. bupleuroides</i>	33452	34597	37638	35386	26580	34687	43697
<i>R. chryanthemifolia</i>	16634	16794	16135	19685	11379	16815	23083
<i>R. crenulata</i>	20372	26761	24529	27065	14863	24662	34292
<i>R. dumulosa</i>	11873	9461	11526	12007	5519	9319	17138
<i>R. fastigiata</i>	29258	27539	28151	28538	22160	28098	34764
<i>R. forrestii</i>	7167	7836	8418	8042	5004	7336	10741
<i>R. henryi</i>	10346	11540	11798	11749	8578	11019	13928
<i>R. himalensis</i>	30972	31250	29564	28619	22568	30835	37563
<i>R. kirilowii</i>	12289	9744	10937	10222	5464	9301	15965
<i>R. quadrifida</i>	25039	20546	21001	19933	12031	19659	31544
<i>R. sacra</i>	8222	9198	7393	7998	5814	7972	10602
<i>R. wallichiana</i>	5534	7691	6846	7069	3380	5744	10365
<i>R. yunnanensis</i>	21270	19045	19128	19066	14531	19182	24790
G _{clade1}	27505	29152	31660	31317	22304	28961	37852
G _{clade2}	106901	103180	101560	102393	86103	101676	120858
G _{mon}	45945	39545	43263	42009	32686	42180	53332
G _{dio}	99322	97966	94813	98149	83113	96342	112189
G _{QTP}	82479	81207	82265	80436	72517	81275	90553
G _{HM}	19106	17834	19286	18157	13956	18180	23265
G _{wide}	44223	41406	44621	41469	35885	42441	50313
G _{plain}	10346	11540	11798	11749	8578	11019	13928
WHOLE	126056	102697	103574	103947	90466	105768	126949

Supplementary Table S8 Predicted suitable area (km²) of *Rhodiola* species and species groups for each GCMs in 2050 RCP8.5 of ensemble models.

	ACCES S1-0	BCC- CSM1- 1	CCSM4	CNRM- CM5	GFDL- CM3	GISS- E2-R	HadGE M2-AO	HadGE M2-CC	HadGE M2-ES	INMC M4	IPSL- CM5A- LR	MIROC -ESM- CHEM	MIROC -ESM	MIROC 5	MPI- ESM- LR	MRI- CGCM 3	NorES M1-M	min	mean	max
<i>R. alsia</i>	29418	29656	28492	28898	28841	28099	30104	27855	28586	29339	27391	27552	29230	28908	28298	30579	29199	23614	29261	34670
<i>R. bupleuroides</i>	35812	34104	34035	35275	33066	42347	36106	35847	36853	35116	35641	31807	32316	34991	31800	34682	33365	28228	34554	41754
<i>R. chryanthemifolia</i>	18073	17177	16894	17672	14893	15924	17633	18161	18139	15985	17492	16718	14798	17956	16184	17117	17789	12266	17072	21784
<i>R. crenulata</i>	20633	24563	25895	21209	29605	27467	26844	28129	26511	22559	28567	24150	25682	28010	26552	27109	25075	15640	25781	35513
<i>R. dumulosa</i>	8121	9606	9059	9360	9807	9576	8398	7683	8779	9119	9785	9787	10454	9700	8744	9840	9468	5544	8183	13131
<i>R. fastigiata</i>	29561	29551	27429	28392	30788	37722	28811	26889	29258	27406	25936	27777	27038	27649	30540	30597	27685	22286	28843	35524
<i>R. forrestii</i>	8837	8379	8186	8367	7811	7710	8387	8957	9031	8810	8311	8776	7895	8179	8859	8103	7575	5751	8113	11028
<i>R. henryi</i>	11314	10442	12505	9978	10725	13046	10230	13030	10621	10304	10839	10617	12545	10647	11052	13339	12007	8780	11119	13856
<i>R. himalensis</i>	28041	30404	30255	31597	29897	28698	28789	27101	28443	30552	28239	31002	27523	32415	30919	33519	29966	21432	30171	38117
<i>R. kirilowii</i>	8846	9726	8763	8798	9857	9512	9138	7731	8853	9514	9431	9634	10317	9966	8999	10147	9159	5776	8666	12781
<i>R. quadrifida</i>	20705	21296	21411	21663	21408	22069	21264	23849	22929	18611	17468	22821	20942	22470	18680	21733	23702	13774	20056	29502
<i>R. sacra</i>	8520	8677	8493	8296	8057	8169	8382	8339	8425	8805	7780	8631	8577	8485	8521	8196	8489	6104	8260	10713
<i>R. wallichiana</i>	7747	6619	7098	7447	8226	8263	6716	6453	6770	7569	6527	6497	7275	6829	6792	7655	7506	3522	6680	11289
<i>R. yunnanensis</i>	19127	19042	18157	18733	17378	19157	18979	18541	18229	18966	19058	20103	18008	18426	17716	19395	18361	15282	18587	22106
G _{clade1}	25499	27717	27732	30525	26160	27270	27603	28568	28682	27369	26740	28553	26905	29758	27394	29421	25600	22301	27446	33391
G _{clade2}	103406	101271	100943	100699	107194	104742	102611	102612	102710	124392	104632	104340	104200	106627	99406	103111	98565	88541	103019	120278
G _{mon}	37023	39792	37941	40536	39777	39442	37753	37314	39219	39858	36923	41157	38666	41481	38904	40833	38713	31002	38612	47409
G _{dio}	95860	95227	94356	95489	103553	98217	95850	96888	97686	98238	98586	98469	98965	99850	95889	96678	92625	84451	96534	111009
G _{QTP}	81020	76746	80366	81563	88233	82078	80180	83867	83307	85228	83908	82261	84412	81269	80046	79807	78515	71219	82687	91663
G _{HM}	20094	19165	18276	18961	17590	19160	19286	19049	24080	19277	18414	19609	18386	18174	18692	18365	18021	15510	18794	22710
G _{wide}	43857	42808	42639	43470	43911	43196	43951	40978	42904	42111	41691	43167	42400	45335	40992	46232	42554	37469	42687	48867
G _{plain}	11314	10442	12505	9978	10725	13046	10230	13030	10621	10304	10839	10617	12545	10647	11052	13339	12007	8780	11119	13856
WHOLE	101585	101635	94261	102019	113063	109542	99224	120260	120009	110426	97775	96728	99321	106205	100330	102558	100329	88455	104059	120090

Supplementary Table S9 The range of distribution shift of *Rhodiola* species and species groups at each period (ΔS , %/year) for MEAN ENSEMBLE, MMM ENSEMBLE and Maxent calculated by equation (1). $\Delta S1$, $\Delta S2$ and $\Delta S3$ are the values at the period from LIG to LGM, LGM to current and current to future, respectively.

	MEAN ENSEMBLE			MMM ENSEMBLE			Maxent		
	$\Delta S1$	$\Delta S2$	$\Delta S3$	$\Delta S1$	$\Delta S2$	$\Delta S3$	$\Delta S1$	$\Delta S2$	$\Delta S3$
<i>R. alsia</i>	0.000002	-0.000001	0.000033	0.000000	0.000005	0.000715	0.000029	0.000006	-0.000022
<i>R. bupleuroides</i>	0.000000	0.000000	0.000067	0.000000	0.000000	0.000191	0.000003	0.000017	0.007481
<i>R. chryanthemifolia</i>	-0.000001	0.000004	-0.000904	-0.000002	0.000010	-0.000173	0.000028	0.000021	0.012870
<i>R. crenulata</i>	-0.000001	-0.000007	0.003249	-0.000005	0.000017	0.004461	0.000176	-0.000007	0.001148
<i>R. dumulosa</i>	-0.000002	0.000001	-0.001961	-0.000004	0.000017	0.000675	-0.000005	0.000017	-0.000833
<i>R. fastigiata</i>	0.000000	-0.000002	0.000854	-0.000001	0.000000	0.003008	0.000056	0.000015	0.005114
<i>R. forrestii</i>	0.000002	0.000005	0.000051	0.000003	0.000001	0.000782	0.000014	-0.000008	0.011645
<i>R. henryi</i>	-0.000003	-0.000003	0.000941	-0.000004	-0.000002	0.003132	0.000010	-0.000011	-0.011592
<i>R. himalensis</i>	0.000001	0.000001	-0.000679	0.000000	0.000008	0.000553	-0.000001	0.000019	0.002542
<i>R. kirilowii</i>	-0.000002	0.000000	-0.000920	-0.000003	0.000008	-0.000096	0.000003	0.000009	0.001541
<i>R. quadrifida</i>	0.000000	0.000008	-0.001805	-0.000004	0.000044	-0.000528	0.000004	-0.000006	-0.003235
<i>R. sacra</i>	-0.000001	0.000001	0.000177	-0.000002	0.000004	0.001812	0.000031	0.000070	0.016760
<i>R. wallichiana</i>	0.000000	0.000011	-0.000909	0.000000	0.000012	0.000988	0.000006	0.000002	0.003441
<i>R. yunnanensis</i>	0.000001	-0.000002	0.000034	0.000000	0.000002	0.000170	0.000007	-0.000004	0.000403
G _{clade1}	-0.000001	-0.000002	-0.000202	-0.000001	-0.000001	0.000398	-0.000001	0.000036	0.013119
G _{clade2}	-0.000001	0.000000	0.000301	-0.000001	0.000000	0.001947	0.000002	0.000013	0.001150
G _{mon}	0.000000	-0.000006	0.000653	-0.000001	-0.000004	0.001454	-0.000006	0.000026	0.009068
G _{dio}	-0.000001	0.000000	0.000124	-0.000001	0.000000	0.002484	0.000004	0.000011	0.001243
G _{QTP}	0.000000	-0.000001	0.000484	0.000000	0.000000	0.000695	0.000002	0.000022	0.002754
G _{HM}	0.000002	0.000001	0.000156	0.000002	-0.000001	0.001652	0.000013	-0.000006	0.000671
G _{wide}	0.000000	0.000000	-0.000058	0.000000	0.000001	0.000444	-0.000002	0.000012	0.002672
G _{plain}	-0.000003	-0.000003	0.000941	-0.000004	-0.000002	0.003132	0.000010	-0.000011	-0.011592
WHOLE	-0.000001	0.000001	-0.000455	-0.000002	0.000004	-0.000632	0.000002	0.000014	0.001322

Supplementary Table S10 Elevation variation rate of *Rhodiola* species and species groups for MEAN ENSEMBLE, MMM ENSEMBLE and Maxent at each period (u_{alt} , m/year) calculated by using equation (2). u_{alt1} , u_{alt2} and u_{alt3} are the values of elevation variation rate from LIG to LGM, LGM to current and current to future, respectively.

	MEAN ENSEMBLE			MMM ENSEMBLE			Maxent		
	u_{alt1}	u_{alt2}	u_{alt3}	u_{alt1}	u_{alt2}	u_{alt3}	u_{alt1}	u_{alt2}	u_{alt3}
<i>R. alsia</i>	-0.001	0.001	0.030	0.000	-0.002	0.697	0.000	0.024	3.320
<i>R. bupleuroides</i>	0.000	0.000	0.573	0.000	0.001	0.276	0.003	0.043	4.560
<i>R. chryanthemifolia</i>	0.000	0.000	-0.139	0.000	0.002	-0.276	-0.002	0.042	7.640
<i>R. crenulata</i>	0.001	0.002	0.169	0.002	-0.002	-0.075	-0.001	0.020	2.280
<i>R. dumulosa</i>	-0.001	-0.002	-1.869	-0.002	0.001	-0.348	-0.002	0.040	12.160
<i>R. fastigiata</i>	0.000	0.001	0.319	0.000	0.000	0.948	-0.001	0.029	5.267
<i>R. forrestii</i>	0.000	0.000	0.305	0.000	0.000	1.599	-0.002	0.035	8.560
<i>R. henryi</i>	0.002	0.000	-0.334	0.002	0.002	-1.648	0.005	0.016	22.067
<i>R. himalensis</i>	-0.001	0.001	0.015	-0.001	0.000	0.279	-0.003	0.023	3.053
<i>R. kirilowii</i>	-0.001	-0.001	-0.568	-0.002	0.004	-1.036	-0.003	0.034	12.240
<i>R. quadrifida</i>	0.001	0.000	-1.088	0.001	0.001	-0.494	0.002	0.018	2.693
<i>R. sacra</i>	-0.001	0.000	0.141	-0.001	0.000	0.127	0.007	0.019	5.587
<i>R. wallichiana</i>	0.000	-0.001	-0.008	0.000	-0.002	-0.509	0.003	0.053	2.960
<i>R. yunnanensis</i>	0.000	0.000	0.634	0.000	-0.001	0.107	-0.015	0.050	6.573
G _{clade1}	0.000	-0.002	0.436	0.000	-0.001	0.877	0.004	0.041	5.413
G _{clade2}	0.001	0.000	0.019	0.001	0.000	0.447	-0.009	0.047	6.787
G _{mon}	-0.001	0.002	-0.586	-0.001	0.001	-0.776	-0.012	0.054	7.347
G _{dio}	0.001	0.000	0.030	0.001	0.000	-3.460	-0.007	0.049	6.573
G _{QTP}	0.000	-0.002	0.708	0.000	-0.001	0.295	-0.005	0.029	3.147
G _{HM}	0.001	0.000	0.615	0.000	0.000	0.903	-0.017	0.052	6.760
G _{wide}	0.001	0.000	-0.214	0.001	-0.001	0.275	-0.003	0.034	12.133
G _{plain}	0.002	0.000	-0.334	0.002	0.002	-1.648	0.005	0.016	22.067
WHOLE	0.001	-0.001	0.230	0.000	0.001	-1.268	-0.009	0.048	6.413

Supplementary Table S11 The variation rate of longitude (u_{lon}) of distribution center of *Rhodiola* species and species groups at each period (%year) for MEAN ENSEMBLE, MMM ENSEMBLE and Maxent calculated by equation (2). u_{lon1} , u_{lon2} , and u_{lon3} are the values at the period from LIG to LGM, LGM to current, and current to future, respectively.

	MEAN ENSEMBLE			MMM ENSEMBLE			Maxent		
	u_{lon1}	u_{lon2}	u_{lon3}	u_{lon1}	u_{lon2}	u_{lon3}	u_{lon1}	u_{lon2}	u_{lon3}
<i>R. alsia</i>	0.000002	0.000001	-0.001101	0.000002	-0.000002	-0.005315	-0.000033	-0.000015	-0.010150
<i>R. bupleuroides</i>	-0.000001	-0.000024	0.002845	-0.000001	-0.000023	0.000022	-0.000004	-0.000084	-0.007880
<i>R. chryanthemifolia</i>	-0.000004	0.000004	0.002968	-0.000006	0.000012	-0.012894	-0.000028	-0.000096	-0.023154
<i>R. crenulata</i>	-0.000011	-0.000004	0.000324	-0.000026	0.000063	0.001765	-0.000057	-0.000031	-0.001310
<i>R. dumulosa</i>	0.000000	0.000008	0.009844	0.000005	-0.000016	0.000814	0.000015	-0.000174	-0.052299
<i>R. fastigiata</i>	0.000004	-0.000027	-0.000318	-0.000005	0.000013	-0.016515	-0.000023	-0.000119	-0.025147
<i>R. forrestii</i>	-0.000007	-0.000026	0.003383	-0.000014	0.000005	-0.000836	0.000001	-0.000034	-0.020692
<i>R. henryi</i>	0.000002	-0.000008	0.002082	0.000001	-0.000001	-0.000043	-0.000030	-0.000014	-0.283755
<i>R. himalensis</i>	0.000012	-0.000019	0.001572	0.000012	-0.000018	-0.002581	0.000012	-0.000104	-0.016271
<i>R. kirilowii</i>	0.000010	-0.000012	0.003803	0.000017	-0.000040	0.001625	0.000070	-0.000232	-0.040661
<i>R. quadrifida</i>	0.000001	-0.000014	0.004069	0.000007	-0.000041	-0.001850	-0.000027	0.000008	-0.002401
<i>R. sacra</i>	0.000003	0.000002	-0.002482	0.000000	0.000015	0.004611	-0.000073	-0.000050	-0.011320
<i>R. wallichiana</i>	0.000013	0.000081	-0.000349	0.000001	0.000133	0.008876	-0.000052	0.000059	-0.003034
<i>R. yunnanensis</i>	-0.000004	-0.000001	-0.001917	-0.000007	0.000012	-0.007157	0.000016	-0.000063	-0.033610
G _{clade1}	-0.000001	-0.000033	0.003973	-0.000007	-0.000004	0.001427	0.000012	-0.000121	-0.017659
G _{clade2}	-0.000008	0.000007	-0.000029	-0.000009	0.000013	-0.006934	0.000039	-0.000212	-0.037623
G _{mon}	0.000010	-0.000037	0.002038	0.000001	0.000003	-0.001269	0.000064	-0.000242	-0.044743
G _{dio}	-0.000006	0.000010	0.000537	-0.000006	0.000010	0.005014	0.000029	-0.000220	-0.029046
G _{QTP}	-0.000003	0.000030	-0.005221	-0.000003	0.000033	-0.006344	0.000008	-0.000152	-0.008153
G _{HM}	-0.000001	0.000037	-0.012430	0.000003	0.000019	-0.022213	0.000014	-0.000034	-0.030984
G _{wide}	-0.000006	0.000004	0.002028	-0.000006	0.000004	-0.005852	0.000105	-0.000269	-0.052864
G _{plain}	0.000002	-0.000008	0.002082	0.000001	-0.000001	-0.000043	-0.000030	-0.000014	-0.283755
WHOLE	-0.000006	0.000019	-0.002269	-0.000003	0.000007	-0.002762	0.000041	-0.000219	-0.030994

Supplementary Table S12 The variation rate of latitude (u_{lat}) of distribution center of *Rhodiola* species and species groups at each period (%year) for MEAN ENSEMBLE, MMM ENSEMBLE and Maxent calculated by equation (2). u_{lat1} , u_{lat2} , and u_{lat3} are the values at the period from LIG to LGM, LGM to current, and current to future, respectively.

	MEAN ENSEMBLE			MMM ENSEMBLE			Maxent		
	u_{lat1}	u_{lat2}	u_{lat3}	u_{lat1}	u_{lat2}	u_{lat3}	u_{lat1}	u_{lat2}	u_{lat3}
<i>R. alsia</i>	0.00001	0.00000	-0.00175	0.00001	0.00000	-0.00032	0.00002	0.00000	0.00674
<i>R. bupleuroides</i>	0.00000	-0.00001	-0.00055	0.00000	-0.00001	-0.00043	-0.00003	0.00004	0.01399
<i>R. chryanthemifolia</i>	0.00000	0.00000	-0.00068	0.00000	0.00000	-0.00063	0.00000	0.00005	0.01535
<i>R. crenulata</i>	0.00000	-0.00001	0.00078	0.00000	0.00001	0.00318	0.00002	0.00002	0.00637
<i>R. dumulosa</i>	0.00001	0.00000	0.00568	0.00001	0.00000	-0.00019	0.00001	0.00005	0.00323
<i>R. fastigiata</i>	0.00000	-0.00001	0.00024	0.00000	0.00000	-0.00035	0.00001	0.00003	0.00988
<i>R. forrestii</i>	0.00000	0.00000	0.00085	0.00000	0.00000	0.00371	0.00000	0.00006	0.01903
<i>R. henryi</i>	0.00000	0.00000	-0.00021	0.00000	-0.00002	0.00584	0.00001	0.00009	0.05217
<i>R. himalensis</i>	0.00000	-0.00001	-0.00047	0.00000	0.00000	-0.00128	0.00001	0.00002	0.00802
<i>R. kirilowii</i>	0.00000	0.00001	0.00105	0.00001	0.00000	0.00131	0.00002	-0.00002	0.01081
<i>R. quadrifida</i>	-0.00001	0.00001	0.00767	-0.00001	0.00001	0.00559	0.00001	-0.00004	-0.00057
<i>R. sacra</i>	0.00000	0.00000	-0.00016	0.00000	0.00000	-0.00104	0.00000	-0.00001	0.00925
<i>R. wallichiana</i>	0.00000	-0.00001	-0.00025	0.00000	-0.00001	0.00180	-0.00001	-0.00005	0.01361
<i>R. yunnanensis</i>	0.00000	-0.00001	-0.00057	0.00000	0.00000	-0.00191	0.00001	0.00004	0.01226
G _{clade1}	0.00000	-0.00001	-0.00151	0.00000	0.00000	-0.00139	-0.00004	0.00005	0.01706
G _{clade2}	0.00000	0.00000	-0.00012	0.00000	0.00001	0.00138	0.00001	0.00003	0.01223
G _{mon}	0.00000	-0.00002	0.00023	0.00000	-0.00001	0.00172	0.00000	-0.00002	0.01519
G _{dio}	0.00000	0.00000	0.00004	0.00000	0.00000	0.00916	0.00001	0.00296	-0.84653
G _{QTP}	0.00000	0.00000	0.00001	0.00000	0.00000	-0.00096	0.00000	0.00004	0.01206
G _{HM}	0.00001	-0.00001	0.00019	0.00000	0.00000	0.00060	0.00001	0.00003	0.01511
G _{wide}	0.00000	-0.00001	0.00221	-0.00001	0.00002	-0.00653	0.00002	-0.00003	0.01076
G _{plain}	0.00000	0.00000	-0.00021	0.00000	-0.00002	0.00584	0.00001	0.00009	0.05217
WHOLE	0.00000	0.00001	-0.00383	0.00000	0.00001	-0.00289	0.00001	0.00003	0.01129

Supplementary Table S13 The p -values in χ^2 tests for ΔS , u_{alt} and u_{lat} between three pairs of sister species, G_{clade1} and G_{clade2} , G_{mon} and G_{dio} , and each pair of G_{QTP} , G_{HM} , G_{plain} and G_{wide} from LGM to current and to future. “-” stands for the comparison has opposite sign symbol.

Comparison	MEAN ENSEMBLE			MMM ENSEMBLE			Maxent		
	ΔS	u_{alt}	u_{lat}	ΔS	u_{alt}	u_{lat}	ΔS	u_{alt}	u_{lat}
<i>R. alsia</i> vs <i>R. fastigiata</i>	0.999	0.627	-	0.996	-	1.000	-	0.584	< 0.001
<i>R. forrestii</i> vs <i>R. yunnanensis</i>	-	0.667	-	0.999	-	-	0.184	0.736	-
<i>R. henryi</i> vs <i>R. quadrifida</i>	-	0.192	-	-	-	-	0.007	0.018	-
G_{clade1} vs G_{clade2}	-	-	-	-	-	-	0.565	0.801	0.878
G_{mon} vs G_{dio}	-	-	-	-	< 0.001	-	0.684	0.906	-
G_{QTP} vs G_{HM}	-	-	-	-	-	-	-	0.383	-
G_{QTP} vs G_{wide}	-	-	-	1.000	0.975	0.991	0.765	0.118	0.108
G_{QTP} vs G_{plain}	0.999	-	-	-	-	-	-	0.027	0.001
G_{HM} vs G_{wide}	-	-	0.997	-	-	-	-	0.488	-
G_{HM} vs G_{plain}	-	-	-	0.998	-	-	-	0.18	-
G_{wide} vs G_{plain}	-	0.741	-	-	-	-	-	0.519	0.21

Supplementary Table S14 The 19 bioclimatic variables. Data collected from the WorldClim Dataset (www.worldclim.org/bioclیم).

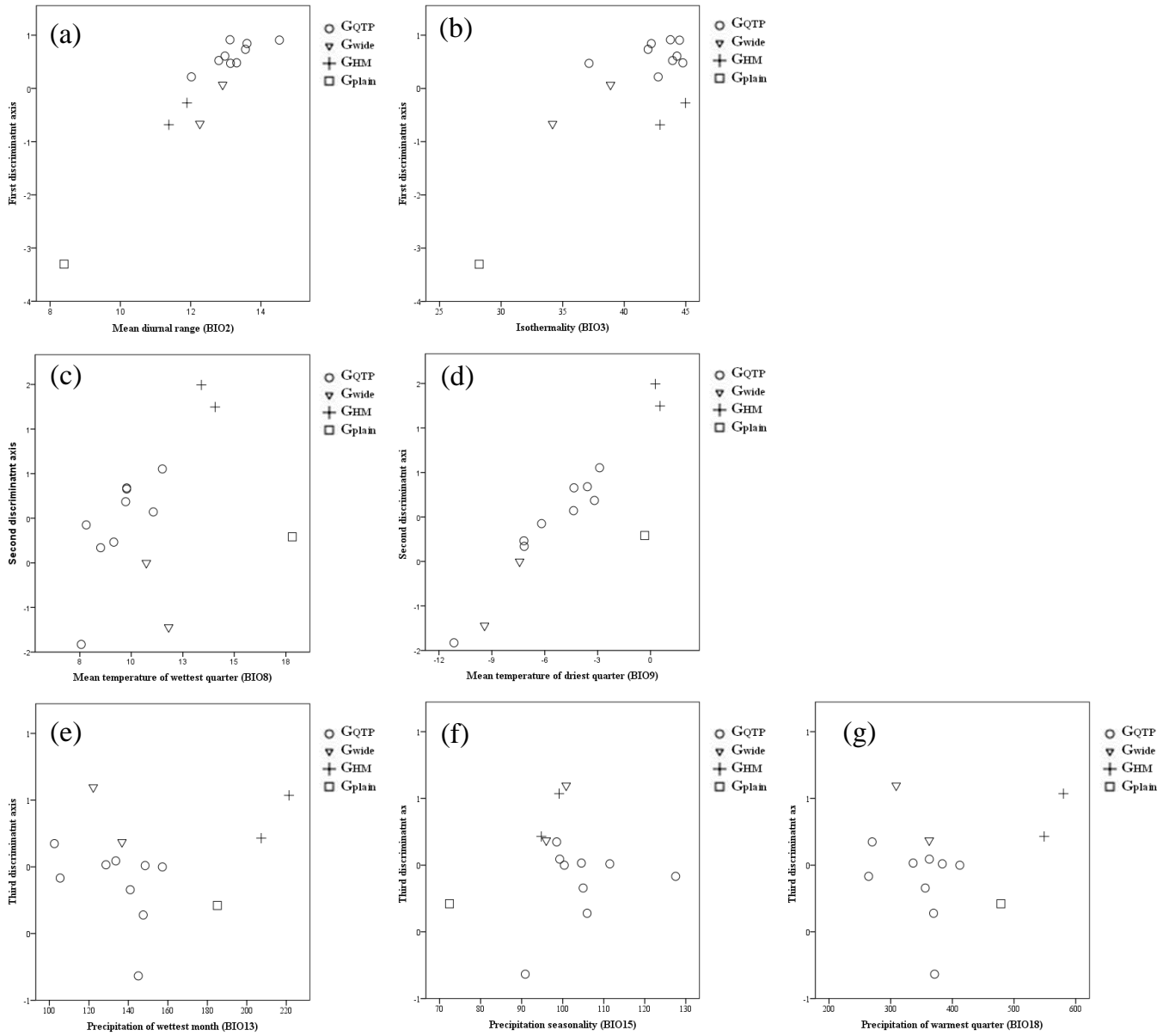
Code	Name of variable
BIO1	Annual Mean Temperature
BIO2	Mean Diurnal Range (Mean of monthly (max temp - min temp))
BIO3	Isothermality (BIO2/BIO7) (* 100)
BIO4	Temperature Seasonality (standard deviation *100)
BIO5	Max Temperature of Warmest Month
BIO6	Min Temperature of Coldest Month
BIO7	Temperature Annual Range (BIO5-BIO6)
BIO8	Mean Temperature of Wettest Quarter
BIO9	Mean Temperature of Driest Quarter
BIO10	Mean Temperature of Warmest Quarter
BIO11	Mean Temperature of Coldest Quarter
BIO12	Annual Precipitation
BIO13	Precipitation of Wettest Month
BIO14	Precipitation of Driest Month
BIO15	Precipitation Seasonality (Coefficient of Variation)
BIO16	Precipitation of Wettest Quarter
BIO17	Precipitation of Driest Quarter
BIO18	Precipitation of Warmest Quarter
BIO19	Precipitation of Coldest Quarter

Supplementary Table S15 The 9 bioclimatic variables with all the VIF values lower than 10 after ten test runs.

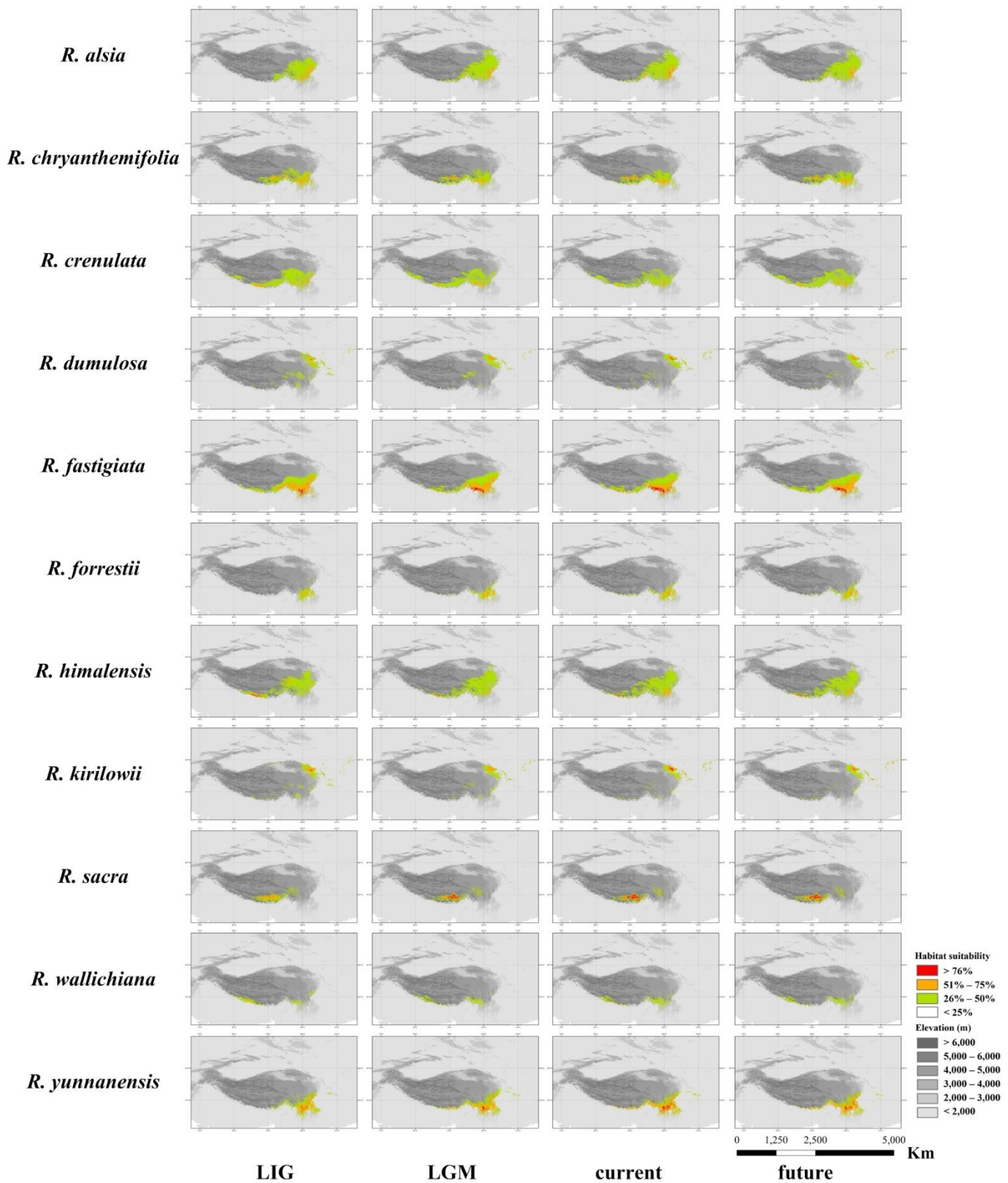
BIO5	BIO6	BIO7	BIO11	BIO4	BIO10	BIO1	BIO16	BIO13	BIO12	BIO17	BIO14	BIO3	BIO2	BIO9	BIO18	BIO8	BIO19	BIO15
Inf	Inf	Inf	8987.83	2700.59	1948.05	1431.19	273.84	140.18	112.98	62.29	49.58	29.76	28.09	18.14	17.63	8.83	7.37	4.47
	BIO11	BIO4	BIO10	BIO1	BIO6	BIO7	BIO16	BIO13	BIO12	BIO17	BIO14	BIO3	BIO2	BIO9	BIO18	BIO8	BIO19	BIO15
	8987.83	2700.59	1948.05	1431.19	1049.32	443.98	273.84	140.18	112.98	62.29	49.58	29.76	28.09	18.14	17.63	8.83	7.37	4.47
		BIO1	BIO10	BIO6	BIO4	BIO7	BIO16	BIO13	BIO12	BIO17	BIO14	BIO3	BIO2	BIO9	BIO18	BIO8	BIO19	BIO15
		1033.72	1026.10	920.03	522.74	443.97	272.80	140.17	112.22	62.24	49.31	28.04	27.75	18.07	17.57	8.68	7.26	4.30
			BIO6	BIO7	BIO10	BIO16	BIO4	BIO13	BIO12	BIO17	BIO14	BIO2	BIO3	BIO9	BIO18	BIO8	BIO19	BIO15
			889.67	443.44	282.43	271.44	240.53	137.61	112.19	61.22	47.43	26.18	25.71	18.05	17.11	8.17	7.20	4.20
				BIO16	BIO7	BIO4	BIO13	BIO12	BIO17	BIO14	BIO2	BIO3	BIO10	BIO9	BIO18	BIO8	BIO19	BIO15
				266.10	233.23	206.77	137.26	111.64	61.17	47.39	25.86	25.54	18.20	17.31	14.75	8.16	7.18	3.70
					BIO7	BIO4	BIO17	BIO12	BIO14	BIO13	BIO2	BIO3	BIO10	BIO9	BIO18	BIO8	BIO19	BIO15
					232.20	206.12	60.14	56.35	47.39	29.54	25.86	25.53	18.19	17.29	14.39	8.14	6.99	3.69
						BIO17	BIO12	BIO14	BIO13	BIO4	BIO3	BIO10	BIO9	BIO2	BIO18	BIO8	BIO19	BIO15
						59.96	52.31	47.39	28.92	27.12	23.98	18.14	17.28	9.90	9.11	8.10	6.87	3.69
							BIO12	BIO13	BIO4	BIO3	BIO10	BIO9	BIO2	BIO18	BIO8	BIO14	BIO19	BIO15
							52.07	28.85	27.10	23.89	17.88	17.27	9.85	9.06	7.78	6.78	5.97	3.60
								BIO4	BIO3	BIO10	BIO9	BIO2	BIO8	BIO13	BIO14	BIO18	BIO19	BIO15
								26.69	23.89	17.85	17.20	9.85	7.78	6.49	6.31	6.02	5.59	2.99
									BIO10	BIO9	BIO8	BIO13	BIO3	BIO14	BIO19	BIO18	BIO2	BIO15
									15.75	13.93	7.38	6.48	6.06	5.95	5.59	5.42	4.00	2.75
										BIO13	BIO14	BIO19	BIO18	BIO9	BIO2	BIO3	BIO15	BIO8
										6.43	5.92	5.57	5.42	3.44	3.22	3.20	2.73	1.92

Supplementary Table S16 Average weights for the ensemble models of *Rhodiola* species and species groups.

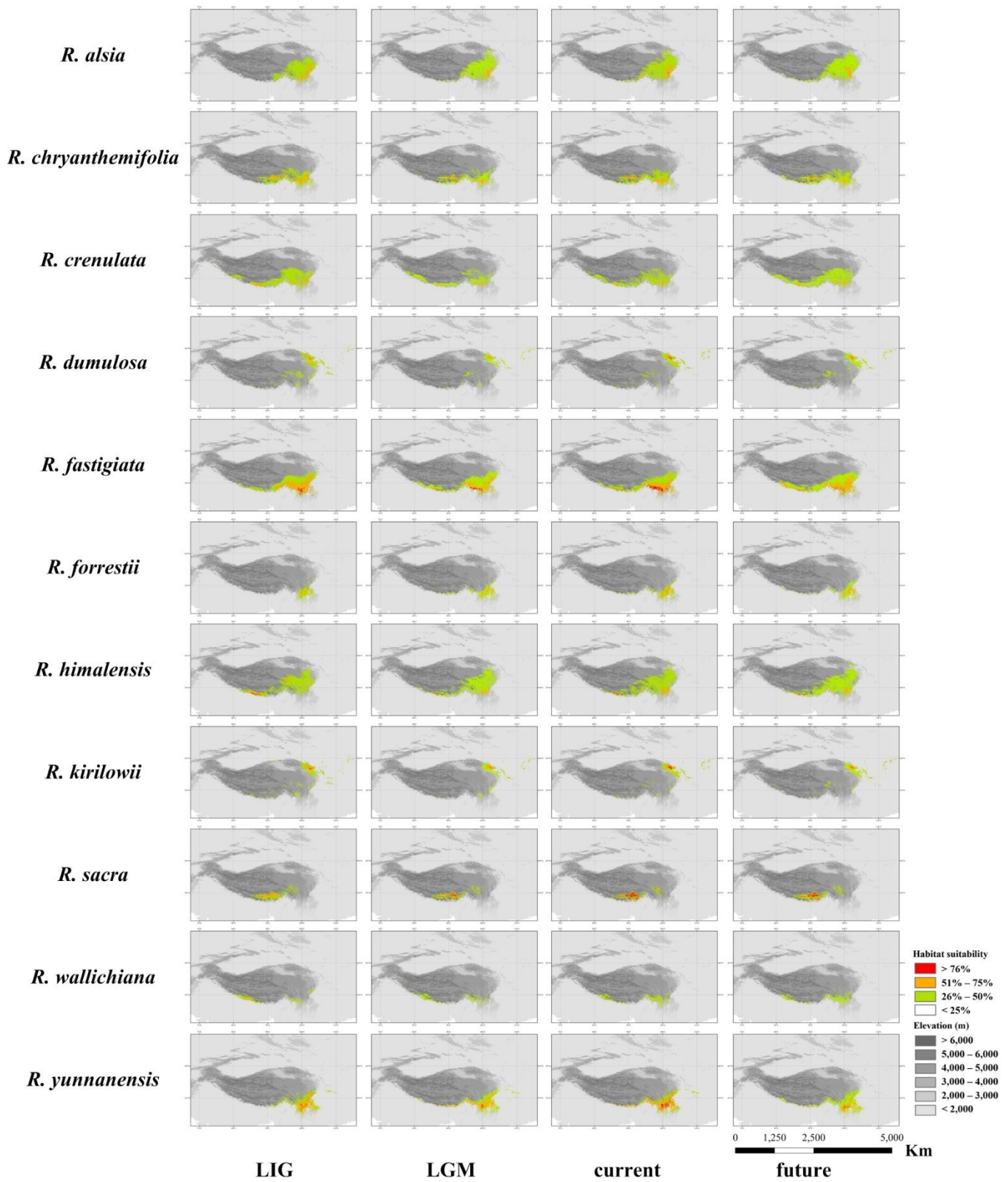
	MAXENT	MGCV	RF	GLMSTEP	GBMSTEP	MGCVFIX	GBM	GLM	MAHAL	FDA	EARTH	SVM	DOMAIN	GAM	GAMSTEP	NNET	RPART	SVME	BIOCLIM
<i>R. alsia</i>	0.143	0.107	0.143	0.071	0.071	0.072	0.071	0.000	0.071	0.107	0.071	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. bupleuroides</i>	0.124	0.124	0.123	0.057	0.123	0.090	0.090	0.123	0.000	0.091	0.000	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. chryanthemifolia</i>	0.130	0.130	0.129	0.130	0.065	0.096	0.065	0.000	0.097	0.065	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. crenulata</i>	0.141	0.112	0.143	0.141	0.000	0.112	0.101	0.111	0.141	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. dumulosa</i>	0.126	0.125	0.125	0.089	0.126	0.099	0.125	0.000	0.098	0.000	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. fastigiata</i>	0.126	0.126	0.124	0.126	0.067	0.126	0.102	0.090	0.056	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. forrestii</i>	0.129	0.129	0.097	0.097	0.097	0.065	0.097	0.000	0.129	0.097	0.000	0.000	0.065	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. henryi</i>	0.130	0.130	0.097	0.129	0.097	0.065	0.097	0.065	0.065	0.062	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. himalensis</i>	0.104	0.104	0.107	0.075	0.103	0.078	0.102	0.000	0.098	0.076	0.077	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. kirilowii</i>	0.135	0.101	0.134	0.096	0.102	0.069	0.101	0.000	0.067	0.000	0.097	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. quadrifida</i>	0.125	0.090	0.091	0.122	0.092	0.121	0.093	0.000	0.087	0.057	0.055	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. sacra</i>	0.104	0.138	0.104	0.138	0.069	0.104	0.103	0.000	0.103	0.000	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>R. wallichiana</i>	0.134	0.098	0.099	0.098	0.072	0.063	0.072	0.063	0.000	0.071	0.000	0.000	0.000	0.101	0.066	0.063	0.000	0.000	0.000
<i>R. yunnanensis</i>	0.117	0.116	0.115	0.116	0.056	0.083	0.056	0.083	0.117	0.083	0.000	0.000	0.060	0.000	0.000	0.000	0.000	0.000	0.000
G _{clade1}	0.129	0.128	0.085	0.127	0.120	0.000	0.101	0.062	0.000	0.127	0.121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{clade2}	0.097	0.129	0.130	0.129	0.129	0.129	0.096	0.097	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{mon}	0.121	0.119	0.121	0.087	0.122	0.117	0.087	0.064	0.000	0.053	0.055	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{dio}	0.119	0.120	0.120	0.120	0.120	0.120	0.054	0.120	0.000	0.053	0.000	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{QTP}	0.129	0.129	0.129	0.097	0.129	0.129	0.129	0.129	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{HM}	0.129	0.129	0.099	0.129	0.099	0.129	0.000	0.129	0.096	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{wide}	0.136	0.134	0.136	0.133	0.132	0.133	0.106	0.000	0.000	0.000	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G _{plain}	0.130	0.130	0.097	0.129	0.097	0.065	0.097	0.065	0.065	0.062	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WHOLE	0.129	0.129	0.130	0.129	0.129	0.129	0.064	0.097	0.000	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Average	0.125	0.121	0.116	0.111	0.096	0.095	0.087	0.056	0.056	0.049	0.041	0.029	0.005	0.004	0.003	0.003	0.000	0.000	0.000

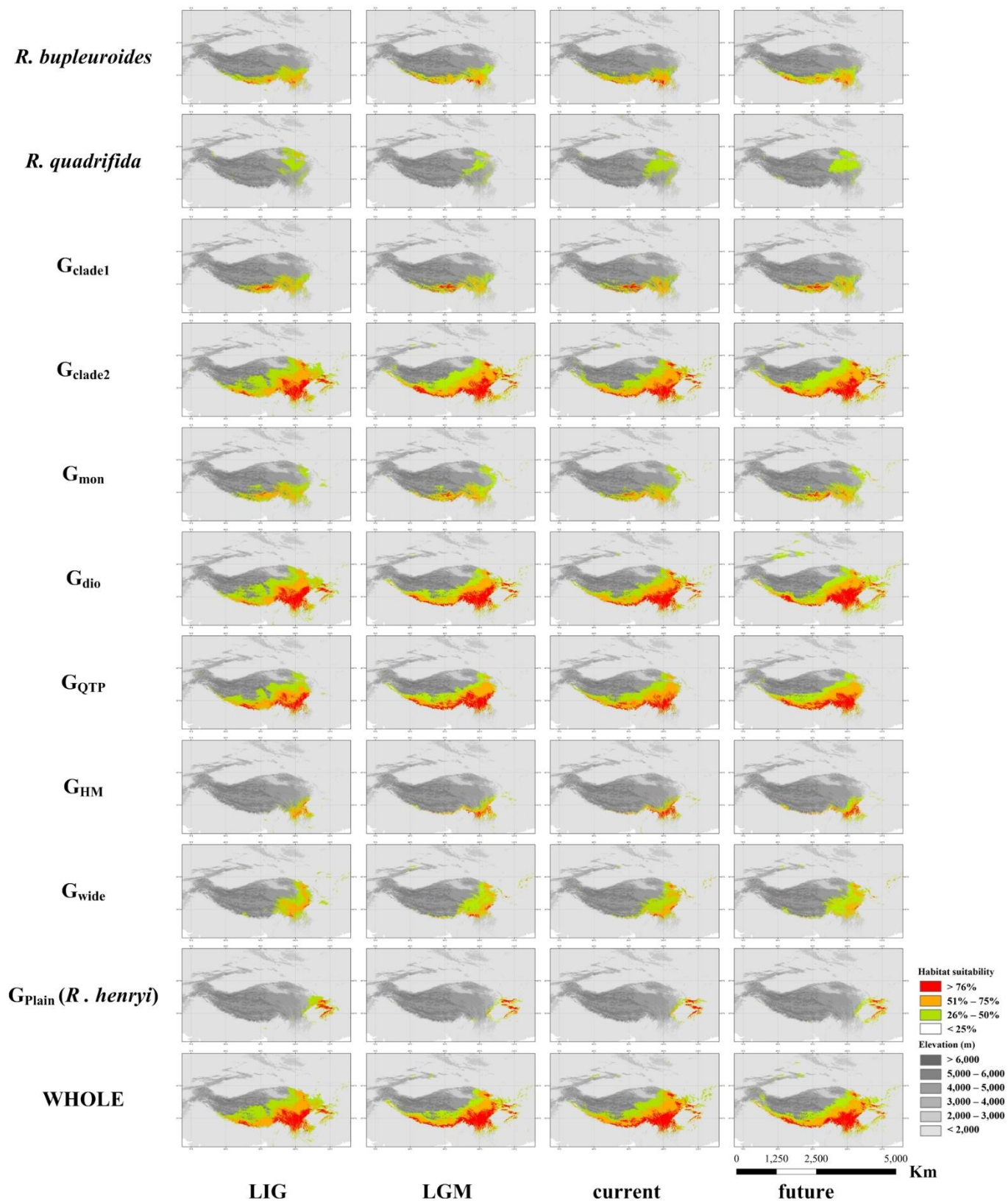


Supplementary Fig. S1. Mean species CDA scores versus bioclimatic variable plots. The relationship between (a) the first discriminant axis and mean diurnal range (BIO2), (b) the first discriminant axis and isothermality (BIO3), (c) the second discriminant axis and mean temperature of wettest quarter (BIO8), (d) the second discriminant axis and mean temperature of driest quarter (BIO9), (e) the third discriminant axis and precipitation of wettest month (BIO13), (f) the third discriminant axis and precipitation seasonality (BIO15), (g) the third discriminant axis and precipitation of warmest quarter (BIO18) for G_{QTP} (○), G_{wide} (▽), G_{HM} (⊕) and G_{plain} (□).

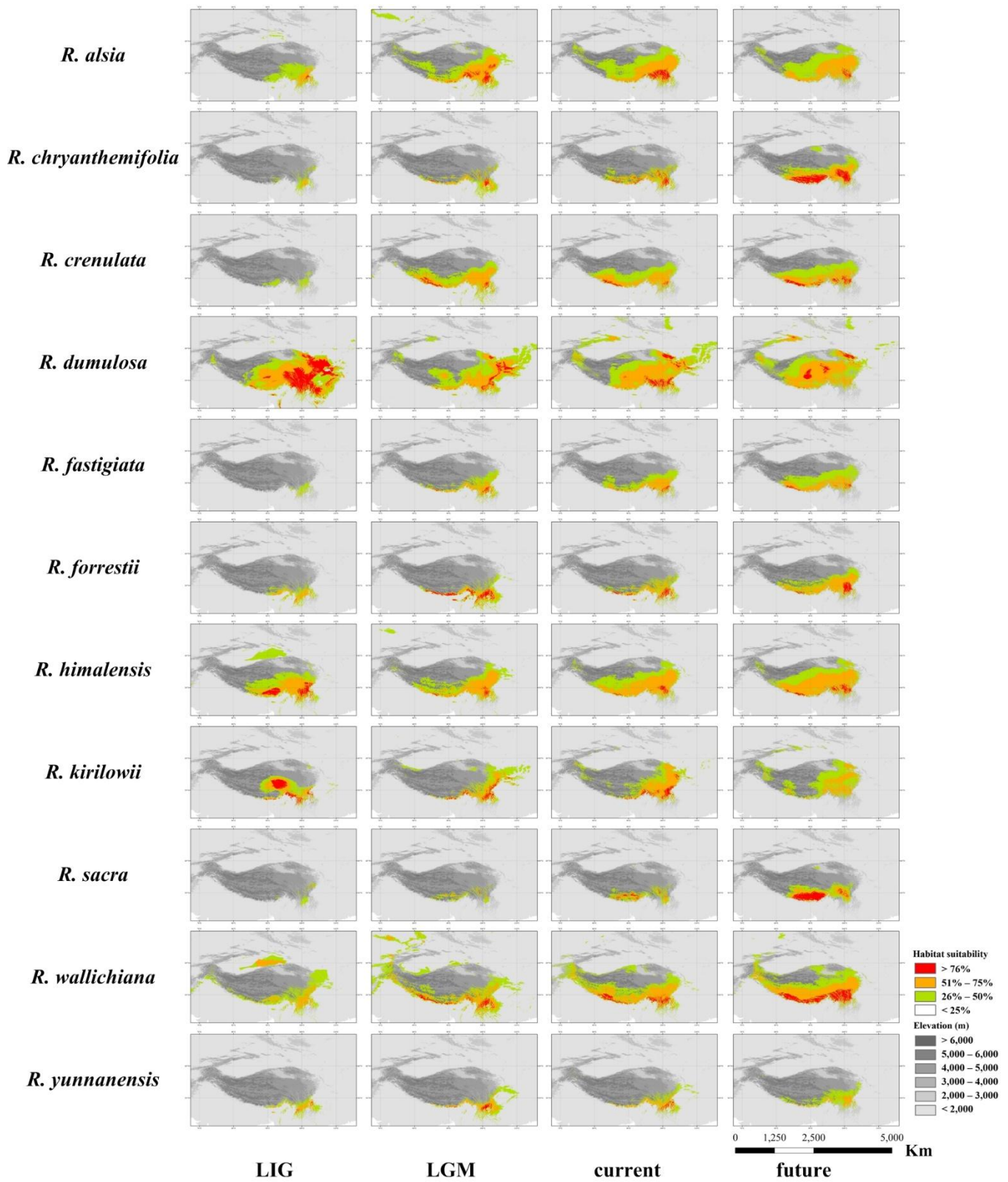


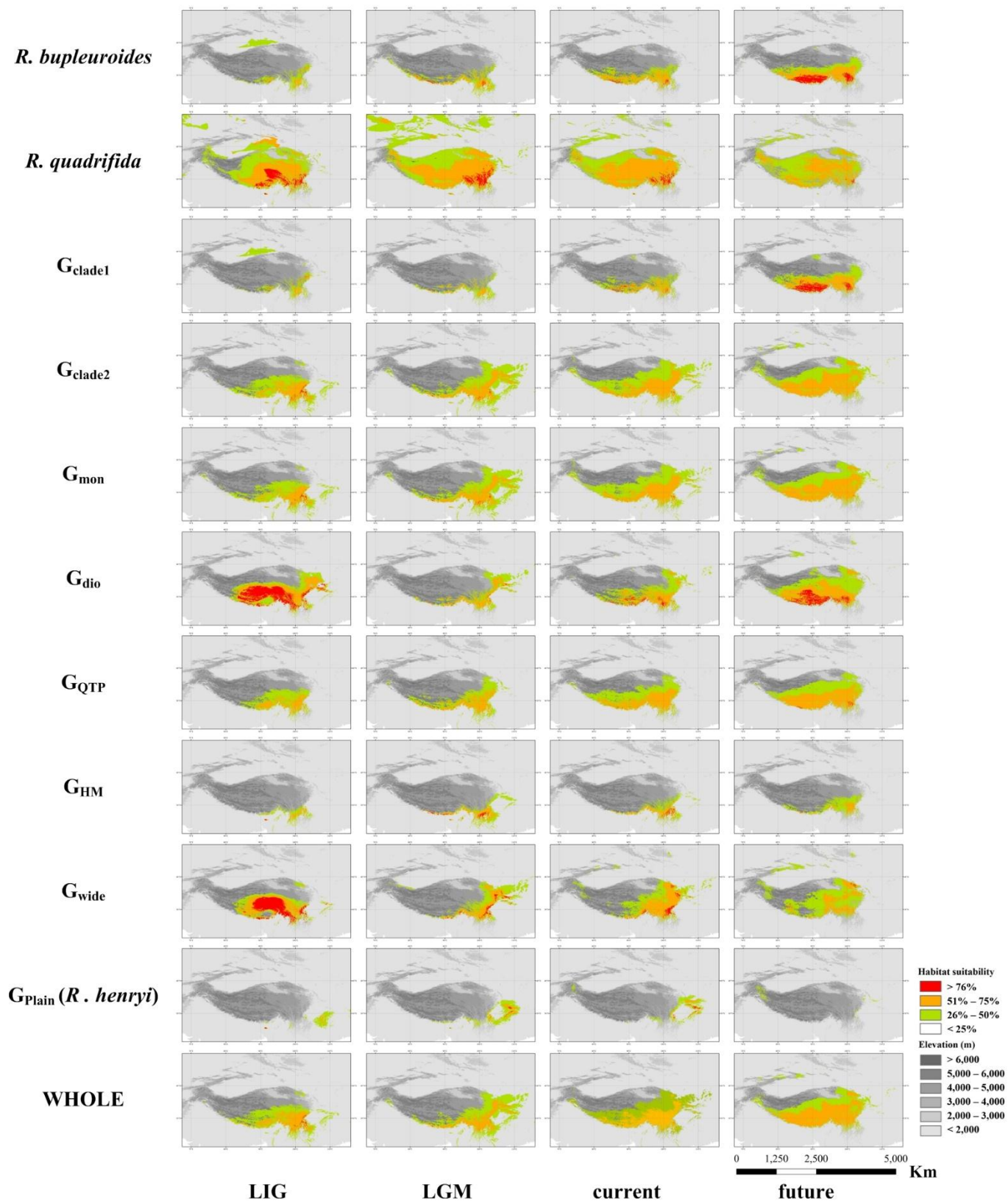
Supplementary Fig. S2 MEAN ENSEMBLE predicted maps for *Rhodiola* species and species group (except for those showed in Fig. 3) for the period LIG, LGM, current and future (2050). ENM predicted results were processed by ArcGIS ver 10.2 (ESRI, Redlands, California, USA) (<http://www.esri.com/>), and then integrated using Microsoft Office Visio 2013 (<http://office.microsoft.com/visio/>).



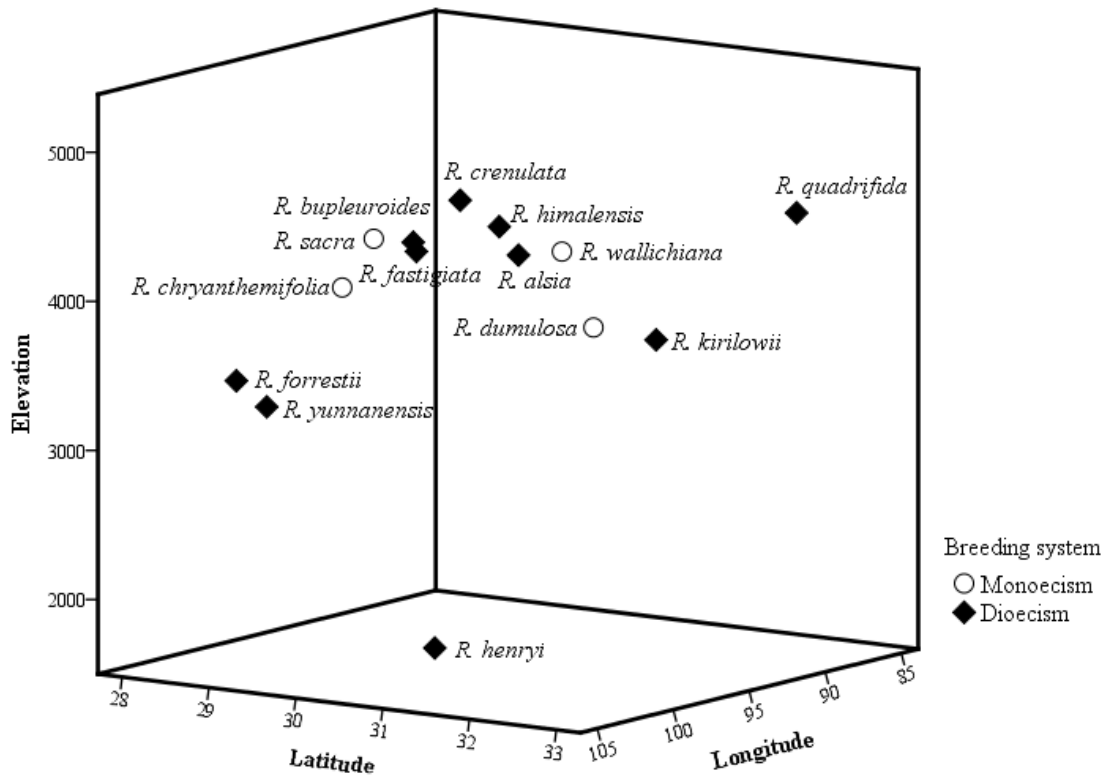


Supplementary Fig. S3 MMM ENSEMBLE predicted maps for each *Rhodiola* species and species group for the period LIG, LGM, current and future (2050). ENM predicted results were processed by ArcGIS ver 10.2 (ESRI, Redlands, California, USA) (<http://www.esri.com/>), and then integrated using Microsoft Office Visio 2013 (<http://office.microsoft.com/visio/>).

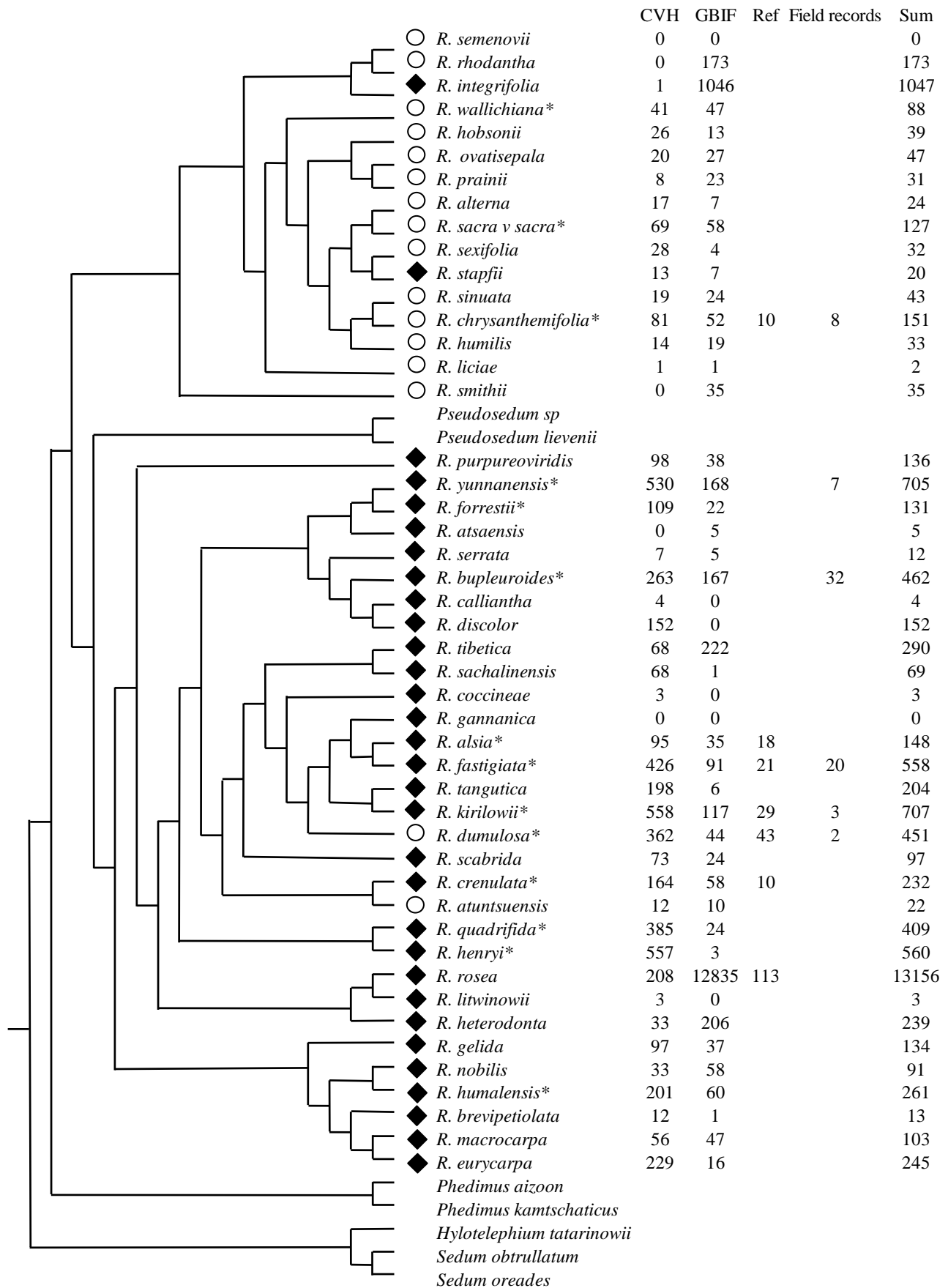




Supplementary Fig. S4 Maxent predicted maps for each *Rhodiola* species and species group for the period LIG, LGM, current and future (2050). ENM predicted results were processed by ArcGIS ver 10.2 (ESRI, Redlands, California, USA) (<http://www.esri.com/>), and then integrated using Microsoft Office Visio 2013 (<http://office.microsoft.com/visio/>).



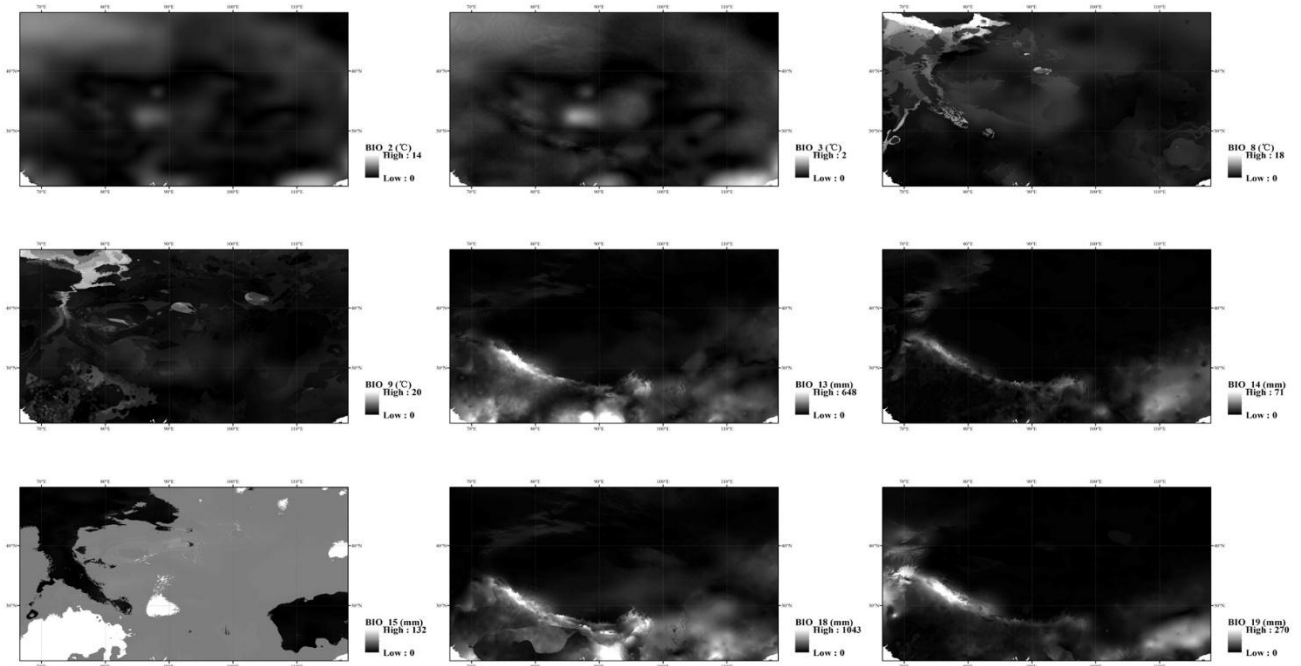
Supplementary Fig. S5. Mean elevation, latitude and longitude of 14 *Rhodiola* species that well modelled. “○” represents monoecism and “◆” represents dioecism.



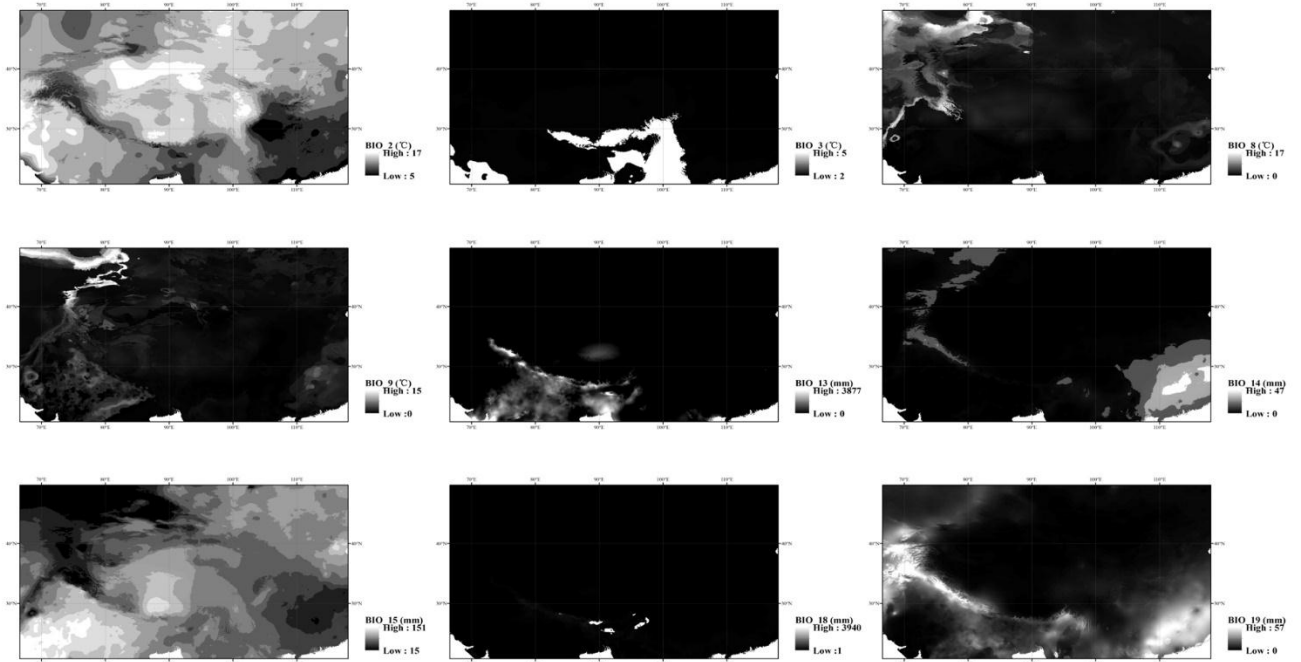
Supplementary Fig. S6. Phylogenetic tree of the genus *Rhodiola* modified from Zhang *et al.*¹ and the records of *Rhodiola* species. Including records from online herbarium, references and our field records. (*, the species used for ENM;

○, monoecism; ◆, dioecism)

Standard deviations of multi-GCMs in LGM:



Standard deviations of multi-GCMs in 2050:



Supplementary Fig. S7. Standard deviations of multi-GCMs in LGM and 2050 for 9 climate variables used in this study.

Supplementary Material1 *Rhodiola* records (Occurrence record data derived from our own field expeditions, from on-line herbarium databases (Global Biodiversity Information Facility Data Portal, GBIF: www.gbif.org; Chinese Virtual Herbarium Data Portal, CVH: www.cvh.org.cn) and from published research²⁻¹¹)

species	longitude	latitude
<i>R. alsia</i>	100.16	27.10
<i>R. alsia</i>	91.96	27.99
<i>R. alsia</i>	99.10	28.31
<i>R. alsia</i>	99.00	28.38
<i>R. alsia</i>	85.30	28.55
<i>R. alsia</i>	99.82	28.57
<i>R. alsia</i>	92.50	28.58
<i>R. alsia</i>	99.85	28.59
<i>R. alsia</i>	93.95	29.00
<i>R. alsia</i>	92.35	29.02
<i>R. alsia</i>	93.95	29.05
<i>R. alsia</i>	93.98	29.05
<i>R. alsia</i>	100.02	29.13
<i>R. alsia</i>	100.94	29.55
<i>R. alsia</i>	95.00	29.58
<i>R. alsia</i>	94.58	29.62
<i>R. alsia</i>	94.68	29.62
<i>R. alsia</i>	94.72	29.68
<i>R. alsia</i>	95.69	29.74
<i>R. alsia</i>	92.28	29.87
<i>R. alsia</i>	94.87	29.90
<i>R. alsia</i>	102.28	29.91
<i>R. alsia</i>	101.33	30.05
<i>R. alsia</i>	101.97	30.06
<i>R. alsia</i>	101.40	30.07
<i>R. alsia</i>	101.80	30.07
<i>R. alsia</i>	101.81	30.08
<i>R. alsia</i>	96.88	30.09
<i>R. alsia</i>	100.67	30.15
<i>R. alsia</i>	101.82	30.15
<i>R. alsia</i>	102.32	30.21
<i>R. alsia</i>	99.55	30.33
<i>R. alsia</i>	102.82	30.52
<i>R. alsia</i>	101.27	31.02
<i>R. alsia</i>	102.14	31.16
<i>R. alsia</i>	97.33	31.28
<i>R. alsia</i>	95.63	31.45
<i>R. alsia</i>	100.76	31.57
<i>R. alsia</i>	101.45	31.61
<i>R. alsia</i>	98.82	31.65
<i>R. alsia</i>	103.93	31.65
<i>R. alsia</i>	94.92	31.68
<i>R. alsia</i>	102.67	31.85
<i>R. alsia</i>	102.67	31.87
<i>R. alsia</i>	98.90	31.93

<i>R. alsia</i>	102.65	31.95
<i>R. alsia</i>	100.22	32.05
<i>R. alsia</i>	102.38	32.44
<i>R. alsia</i>	103.60	32.64
<i>R. alsia</i>	104.33	32.74
<i>R. alsia</i>	97.01	33.02
<i>R. alsia</i>	97.55	33.13
<i>R. alsia</i>	97.43	33.20
<i>R. alsia</i>	100.38	33.28
<i>R. alsia</i>	100.27	33.40
<i>R. alsia</i>	103.61	33.64
<i>R. alsia</i>	99.70	33.79
<i>R. alsia</i>	97.62	34.08
<i>R. alsia</i>	97.97	34.28
<i>R. alsia</i>	98.12	34.45
<i>R. alsia</i>	99.67	34.57
<i>R. alsia</i>	100.82	34.71
<i>R. alsia</i>	98.47	34.87
<i>R. alsia</i>	99.69	35.24
<i>R. alsia</i>	94.56	35.88
<i>R. alsia</i>	101.70	36.49
<i>R. alsia</i>	100.47	36.55
<i>R. alsia</i>	99.51	37.04
<i>R. alsia</i>	101.81	37.05
<i>R. alsia</i>	101.41	37.25
<i>R. alsia</i>	102.86	37.26
<i>R. bupleuroides</i>	102.91	26.24
<i>R. bupleuroides</i>	98.97	26.42
<i>R. bupleuroides</i>	99.02	26.59
<i>R. bupleuroides</i>	100.23	26.88
<i>R. bupleuroides</i>	99.05	27.03
<i>R. bupleuroides</i>	100.24	27.04
<i>R. bupleuroides</i>	100.22	27.11
<i>R. bupleuroides</i>	100.67	27.18
<i>R. bupleuroides</i>	98.69	27.20
<i>R. bupleuroides</i>	98.70	27.21
<i>R. bupleuroides</i>	98.72	27.21
<i>R. bupleuroides</i>	98.71	27.22
<i>R. bupleuroides</i>	100.13	27.37
<i>R. bupleuroides</i>	88.91	27.39
<i>R. bupleuroides</i>	88.93	27.42
<i>R. bupleuroides</i>	99.88	27.48
<i>R. bupleuroides</i>	88.98	27.51
<i>R. bupleuroides</i>	88.88	27.52
<i>R. bupleuroides</i>	100.67	27.55
<i>R. bupleuroides</i>	98.96	27.58
<i>R. bupleuroides</i>	99.78	27.60
<i>R. bupleuroides</i>	98.91	27.61
<i>R. bupleuroides</i>	99.81	27.62

<i>R. bupleuroides</i>	99.14	27.68
<i>R. bupleuroides</i>	88.75	27.72
<i>R. bupleuroides</i>	89.16	27.72
<i>R. bupleuroides</i>	100.05	27.74
<i>R. bupleuroides</i>	99.59	27.80
<i>R. bupleuroides</i>	86.77	27.83
<i>R. bupleuroides</i>	99.99	27.83
<i>R. bupleuroides</i>	91.79	27.88
<i>R. bupleuroides</i>	86.80	27.92
<i>R. bupleuroides</i>	88.59	27.93
<i>R. bupleuroides</i>	85.98	27.94
<i>R. bupleuroides</i>	86.61	27.94
<i>R. bupleuroides</i>	91.86	27.95
<i>R. bupleuroides</i>	87.13	27.98
<i>R. bupleuroides</i>	87.67	27.98
<i>R. bupleuroides</i>	99.62	27.98
<i>R. bupleuroides</i>	85.88	27.99
<i>R. bupleuroides</i>	85.99	27.99
<i>R. bupleuroides</i>	98.48	27.99
<i>R. bupleuroides</i>	87.68	28.01
<i>R. bupleuroides</i>	85.99	28.02
<i>R. bupleuroides</i>	87.68	28.02
<i>R. bupleuroides</i>	86.00	28.03
<i>R. bupleuroides</i>	85.44	28.04
<i>R. bupleuroides</i>	91.94	28.06
<i>R. bupleuroides</i>	101.31	28.06
<i>R. bupleuroides</i>	92.36	28.07
<i>R. bupleuroides</i>	89.04	28.11
<i>R. bupleuroides</i>	99.83	28.13
<i>R. bupleuroides</i>	86.85	28.15
<i>R. bupleuroides</i>	99.94	28.16
<i>R. bupleuroides</i>	86.84	28.17
<i>R. bupleuroides</i>	86.84	28.18
<i>R. bupleuroides</i>	87.19	28.18
<i>R. bupleuroides</i>	91.96	28.18
<i>R. bupleuroides</i>	86.82	28.20
<i>R. bupleuroides</i>	87.18	28.20
<i>R. bupleuroides</i>	85.57	28.22
<i>R. bupleuroides</i>	92.27	28.24
<i>R. bupleuroides</i>	86.82	28.25
<i>R. bupleuroides</i>	86.81	28.27
<i>R. bupleuroides</i>	86.82	28.29
<i>R. bupleuroides</i>	86.83	28.30
<i>R. bupleuroides</i>	99.15	28.31
<i>R. bupleuroides</i>	92.91	28.34
<i>R. bupleuroides</i>	98.99	28.34
<i>R. bupleuroides</i>	99.05	28.35
<i>R. bupleuroides</i>	85.36	28.39
<i>R. bupleuroides</i>	87.74	28.40

<i>R. bupleuroides</i>	98.96	28.40
<i>R. bupleuroides</i>	98.96	28.41
<i>R. bupleuroides</i>	98.94	28.42
<i>R. bupleuroides</i>	85.30	28.43
<i>R. bupleuroides</i>	92.89	28.53
<i>R. bupleuroides</i>	98.91	28.54
<i>R. bupleuroides</i>	99.85	28.59
<i>R. bupleuroides</i>	99.84	28.60
<i>R. bupleuroides</i>	98.90	28.61
<i>R. bupleuroides</i>	84.98	28.65
<i>R. bupleuroides</i>	87.19	28.65
<i>R. bupleuroides</i>	98.94	28.66
<i>R. bupleuroides</i>	83.98	28.68
<i>R. bupleuroides</i>	98.78	28.69
<i>R. bupleuroides</i>	83.67	28.72
<i>R. bupleuroides</i>	99.20	28.73
<i>R. bupleuroides</i>	97.37	28.74
<i>R. bupleuroides</i>	99.22	28.82
<i>R. bupleuroides</i>	85.42	28.90
<i>R. bupleuroides</i>	100.28	28.92
<i>R. bupleuroides</i>	83.78	28.93
<i>R. bupleuroides</i>	93.23	28.93
<i>R. bupleuroides</i>	99.76	28.93
<i>R. bupleuroides</i>	91.09	28.94
<i>R. bupleuroides</i>	99.75	28.95
<i>R. bupleuroides</i>	93.90	29.03
<i>R. bupleuroides</i>	87.53	29.04
<i>R. bupleuroides</i>	100.30	29.04
<i>R. bupleuroides</i>	87.56	29.07
<i>R. bupleuroides</i>	97.28	29.08
<i>R. bupleuroides</i>	100.25	29.08
<i>R. bupleuroides</i>	93.44	29.09
<i>R. bupleuroides</i>	100.00	29.12
<i>R. bupleuroides</i>	100.04	29.13
<i>R. bupleuroides</i>	97.21	29.17
<i>R. bupleuroides</i>	90.63	29.21
<i>R. bupleuroides</i>	100.14	29.21
<i>R. bupleuroides</i>	94.28	29.23
<i>R. bupleuroides</i>	97.10	29.23
<i>R. bupleuroides</i>	88.88	29.26
<i>R. bupleuroides</i>	100.08	29.27
<i>R. bupleuroides</i>	92.12	29.28
<i>R. bupleuroides</i>	91.74	29.30
<i>R. bupleuroides</i>	91.98	29.30
<i>R. bupleuroides</i>	88.92	29.31
<i>R. bupleuroides</i>	89.71	29.32
<i>R. bupleuroides</i>	98.13	29.36
<i>R. bupleuroides</i>	96.71	29.47
<i>R. bupleuroides</i>	86.40	29.48

<i>R. bupleuroides</i>	89.48	29.49
<i>R. bupleuroides</i>	94.92	29.58
<i>R. bupleuroides</i>	98.30	29.58
<i>R. bupleuroides</i>	81.00	29.61
<i>R. bupleuroides</i>	89.14	29.65
<i>R. bupleuroides</i>	91.14	29.65
<i>R. bupleuroides</i>	94.35	29.67
<i>R. bupleuroides</i>	98.52	29.68
<i>R. bupleuroides</i>	91.03	29.72
<i>R. bupleuroides</i>	98.45	29.72
<i>R. bupleuroides</i>	97.76	29.73
<i>R. bupleuroides</i>	91.90	29.77
<i>R. bupleuroides</i>	91.78	29.79
<i>R. bupleuroides</i>	91.57	29.81
<i>R. bupleuroides</i>	92.34	29.83
<i>R. bupleuroides</i>	84.18	29.88
<i>R. bupleuroides</i>	92.52	29.88
<i>R. bupleuroides</i>	93.26	29.88
<i>R. bupleuroides</i>	93.66	29.89
<i>R. bupleuroides</i>	93.16	29.93
<i>R. bupleuroides</i>	93.10	29.97
<i>R. bupleuroides</i>	102.01	29.99
<i>R. bupleuroides</i>	93.08	30.00
<i>R. bupleuroides</i>	100.86	30.00
<i>R. bupleuroides</i>	102.08	30.01
<i>R. bupleuroides</i>	84.00	30.02
<i>R. bupleuroides</i>	93.91	30.02
<i>R. bupleuroides</i>	100.89	30.04
<i>R. bupleuroides</i>	84.19	30.07
<i>R. bupleuroides</i>	91.78	30.09
<i>R. bupleuroides</i>	102.01	30.09
<i>R. bupleuroides</i>	80.83	30.10
<i>R. bupleuroides</i>	101.48	30.10
<i>R. bupleuroides</i>	92.13	30.12
<i>R. bupleuroides</i>	90.46	30.14
<i>R. bupleuroides</i>	101.82	30.15
<i>R. bupleuroides</i>	83.40	30.17
<i>R. bupleuroides</i>	99.99	30.18
<i>R. bupleuroides</i>	101.75	30.18
<i>R. bupleuroides</i>	80.28	30.25
<i>R. bupleuroides</i>	99.42	30.25
<i>R. bupleuroides</i>	99.28	30.30
<i>R. bupleuroides</i>	101.52	30.31
<i>R. bupleuroides</i>	99.55	30.33
<i>R. bupleuroides</i>	101.99	30.34
<i>R. bupleuroides</i>	79.83	30.42
<i>R. bupleuroides</i>	99.52	30.45
<i>R. bupleuroides</i>	99.50	30.47
<i>R. bupleuroides</i>	91.11	30.55

<i>R. bupleuroides</i>	91.26	30.59
<i>R. bupleuroides</i>	79.60	30.68
<i>R. bupleuroides</i>	91.50	30.72
<i>R. bupleuroides</i>	81.61	30.81
<i>R. bupleuroides</i>	100.69	30.82
<i>R. bupleuroides</i>	81.30	30.99
<i>R. bupleuroides</i>	82.45	31.04
<i>R. bupleuroides</i>	93.11	31.07
<i>R. bupleuroides</i>	97.52	31.29
<i>R. bupleuroides</i>	97.99	31.29
<i>R. bupleuroides</i>	97.52	31.38
<i>R. bupleuroides</i>	92.98	31.40
<i>R. bupleuroides</i>	93.70	31.48
<i>R. bupleuroides</i>	98.22	31.49
<i>R. bupleuroides</i>	98.20	31.51
<i>R. bupleuroides</i>	98.57	31.59
<i>R. bupleuroides</i>	85.17	31.62
<i>R. bupleuroides</i>	94.55	31.63
<i>R. bupleuroides</i>	85.03	31.72
<i>R. bupleuroides</i>	99.73	31.83
<i>R. bupleuroides</i>	100.73	31.88
<i>R. bupleuroides</i>	98.81	32.03
<i>R. bupleuroides</i>	77.13	32.17
<i>R. bupleuroides</i>	77.00	33.00
<i>R. bupleuroides</i>	76.28	33.02
<i>R. bupleuroides</i>	76.35	33.13
<i>R. bupleuroides</i>	75.33	34.00
<i>R. bupleuroides</i>	75.33	34.03
<i>R. bupleuroides</i>	75.23	34.15
<i>R. bupleuroides</i>	74.65	34.50
<i>R. chryanthemifolia</i>	100.09	25.68
<i>R. chryanthemifolia</i>	101.56	27.36
<i>R. chryanthemifolia</i>	98.38	27.73
<i>R. chryanthemifolia</i>	99.12	27.73
<i>R. chryanthemifolia</i>	89.00	27.75
<i>R. chryanthemifolia</i>	86.73	27.77
<i>R. chryanthemifolia</i>	99.60	27.80
<i>R. chryanthemifolia</i>	101.58	27.86
<i>R. chryanthemifolia</i>	98.96	28.07
<i>R. chryanthemifolia</i>	99.32	28.27
<i>R. chryanthemifolia</i>	99.17	28.30
<i>R. chryanthemifolia</i>	99.08	28.34
<i>R. chryanthemifolia</i>	99.11	28.34
<i>R. chryanthemifolia</i>	99.76	28.37
<i>R. chryanthemifolia</i>	99.01	28.42
<i>R. chryanthemifolia</i>	98.43	28.44
<i>R. chryanthemifolia</i>	98.88	28.45
<i>R. chryanthemifolia</i>	101.22	28.48
<i>R. chryanthemifolia</i>	98.48	28.50

<i>R. chryanthemifolia</i>	100.99	28.57
<i>R. chryanthemifolia</i>	98.63	28.69
<i>R. chryanthemifolia</i>	98.66	28.70
<i>R. chryanthemifolia</i>	99.87	28.77
<i>R. chryanthemifolia</i>	99.31	28.80
<i>R. chryanthemifolia</i>	99.78	28.93
<i>R. chryanthemifolia</i>	99.78	28.94
<i>R. chryanthemifolia</i>	90.47	28.98
<i>R. chryanthemifolia</i>	93.23	29.00
<i>R. chryanthemifolia</i>	99.75	29.01
<i>R. chryanthemifolia</i>	92.30	29.04
<i>R. chryanthemifolia</i>	87.56	29.07
<i>R. chryanthemifolia</i>	93.08	29.08
<i>R. chryanthemifolia</i>	99.63	29.10
<i>R. chryanthemifolia</i>	90.41	29.11
<i>R. chryanthemifolia</i>	92.52	29.12
<i>R. chryanthemifolia</i>	100.00	29.12
<i>R. chryanthemifolia</i>	101.40	29.14
<i>R. chryanthemifolia</i>	90.47	29.16
<i>R. chryanthemifolia</i>	90.51	29.16
<i>R. chryanthemifolia</i>	94.23	29.21
<i>R. chryanthemifolia</i>	92.09	29.24
<i>R. chryanthemifolia</i>	92.28	29.24
<i>R. chryanthemifolia</i>	90.62	29.25
<i>R. chryanthemifolia</i>	91.97	29.29
<i>R. chryanthemifolia</i>	90.72	29.30
<i>R. chryanthemifolia</i>	90.28	29.33
<i>R. chryanthemifolia</i>	90.88	29.35
<i>R. chryanthemifolia</i>	99.43	29.37
<i>R. chryanthemifolia</i>	99.42	29.39
<i>R. chryanthemifolia</i>	88.90	29.40
<i>R. chryanthemifolia</i>	88.86	29.43
<i>R. chryanthemifolia</i>	94.91	29.54
<i>R. chryanthemifolia</i>	91.05	29.65
<i>R. chryanthemifolia</i>	91.12	29.66
<i>R. chryanthemifolia</i>	101.90	29.66
<i>R. chryanthemifolia</i>	91.03	29.67
<i>R. chryanthemifolia</i>	91.05	29.67
<i>R. chryanthemifolia</i>	94.38	29.67
<i>R. chryanthemifolia</i>	94.40	29.67
<i>R. chryanthemifolia</i>	91.38	29.68
<i>R. chryanthemifolia</i>	93.26	29.88
<i>R. chryanthemifolia</i>	93.30	29.88
<i>R. chryanthemifolia</i>	92.85	29.97
<i>R. chryanthemifolia</i>	100.36	29.99
<i>R. chryanthemifolia</i>	101.31	30.04
<i>R. chryanthemifolia</i>	97.63	30.58
<i>R. chryanthemifolia</i>	97.26	30.69
<i>R. chryanthemifolia</i>	101.46	30.72

<i>R. chryanthemifolia</i>	97.26	31.16
<i>R. chryanthemifolia</i>	94.53	31.80
<i>R. chryanthemifolia</i>	103.90	33.15
<i>R. crenulata</i>	100.18	27.03
<i>R. crenulata</i>	100.19	27.06
<i>R. crenulata</i>	100.18	27.12
<i>R. crenulata</i>	100.16	27.18
<i>R. crenulata</i>	100.09	27.32
<i>R. crenulata</i>	99.76	27.69
<i>R. crenulata</i>	89.21	27.78
<i>R. crenulata</i>	88.70	27.83
<i>R. crenulata</i>	86.82	27.91
<i>R. crenulata</i>	86.84	27.91
<i>R. crenulata</i>	99.91	27.96
<i>R. crenulata</i>	88.77	27.97
<i>R. crenulata</i>	99.97	27.97
<i>R. crenulata</i>	87.05	27.98
<i>R. crenulata</i>	87.70	27.99
<i>R. crenulata</i>	87.03	28.00
<i>R. crenulata</i>	87.70	28.01
<i>R. crenulata</i>	99.90	28.11
<i>R. crenulata</i>	99.89	28.12
<i>R. crenulata</i>	86.01	28.16
<i>R. crenulata</i>	86.81	28.18
<i>R. crenulata</i>	86.77	28.19
<i>R. crenulata</i>	86.82	28.20
<i>R. crenulata</i>	85.42	28.24
<i>R. crenulata</i>	99.03	28.33
<i>R. crenulata</i>	92.47	28.46
<i>R. crenulata</i>	98.73	28.48
<i>R. crenulata</i>	90.55	28.50
<i>R. crenulata</i>	98.80	28.51
<i>R. crenulata</i>	85.76	28.56
<i>R. crenulata</i>	100.99	28.58
<i>R. crenulata</i>	99.85	28.59
<i>R. crenulata</i>	98.63	28.65
<i>R. crenulata</i>	97.43	28.70
<i>R. crenulata</i>	97.37	28.78
<i>R. crenulata</i>	99.74	28.82
<i>R. crenulata</i>	93.11	28.93
<i>R. crenulata</i>	97.49	28.96
<i>R. crenulata</i>	98.66	28.96
<i>R. crenulata</i>	87.64	29.08
<i>R. crenulata</i>	92.42	29.10
<i>R. crenulata</i>	100.04	29.13
<i>R. crenulata</i>	100.04	29.15
<i>R. crenulata</i>	101.44	29.15
<i>R. crenulata</i>	97.22	29.17
<i>R. crenulata</i>	98.98	29.24

<i>R. crenulata</i>	95.56	29.35
<i>R. crenulata</i>	101.98	29.51
<i>R. crenulata</i>	94.22	29.53
<i>R. crenulata</i>	90.76	29.58
<i>R. crenulata</i>	94.50	29.62
<i>R. crenulata</i>	94.68	29.62
<i>R. crenulata</i>	94.70	29.62
<i>R. crenulata</i>	94.41	29.64
<i>R. crenulata</i>	94.70	29.64
<i>R. crenulata</i>	101.98	29.67
<i>R. crenulata</i>	98.00	29.71
<i>R. crenulata</i>	92.31	29.79
<i>R. crenulata</i>	92.36	29.86
<i>R. crenulata</i>	92.32	29.92
<i>R. crenulata</i>	89.09	30.07
<i>R. crenulata</i>	101.82	30.10
<i>R. crenulata</i>	90.42	30.20
<i>R. crenulata</i>	80.25	30.30
<i>R. crenulata</i>	80.62	30.33
<i>R. crenulata</i>	101.76	30.41
<i>R. crenulata</i>	79.83	30.42
<i>R. crenulata</i>	84.01	30.42
<i>R. crenulata</i>	101.83	30.42
<i>R. crenulata</i>	81.29	30.50
<i>R. crenulata</i>	102.15	30.53
<i>R. crenulata</i>	93.49	30.59
<i>R. crenulata</i>	79.60	30.68
<i>R. crenulata</i>	81.64	30.87
<i>R. crenulata</i>	96.94	31.08
<i>R. crenulata</i>	99.66	31.08
<i>R. crenulata</i>	80.93	31.23
<i>R. crenulata</i>	98.57	31.81
<i>R. crenulata</i>	98.91	31.94
<i>R. crenulata</i>	94.13	31.95
<i>R. crenulata</i>	98.91	31.95
<i>R. crenulata</i>	102.22	31.95
<i>R. crenulata</i>	98.80	32.03
<i>R. crenulata</i>	95.62	32.28
<i>R. crenulata</i>	77.25	32.37
<i>R. crenulata</i>	93.73	32.46
<i>R. crenulata</i>	100.54	32.58
<i>R. crenulata</i>	98.05	32.66
<i>R. crenulata</i>	77.50	32.70
<i>R. crenulata</i>	97.92	32.78
<i>R. crenulata</i>	97.12	32.87
<i>R. crenulata</i>	98.07	32.98
<i>R. crenulata</i>	97.01	33.02
<i>R. crenulata</i>	77.59	33.03
<i>R. crenulata</i>	99.56	33.36

<i>R. crenulata</i>	99.33	34.32
<i>R. dumulosa</i>	100.14	26.99
<i>R. dumulosa</i>	91.90	28.12
<i>R. dumulosa</i>	86.84	28.16
<i>R. dumulosa</i>	98.79	28.36
<i>R. dumulosa</i>	90.58	28.43
<i>R. dumulosa</i>	92.23	28.47
<i>R. dumulosa</i>	90.63	28.50
<i>R. dumulosa</i>	85.40	28.93
<i>R. dumulosa</i>	99.80	28.93
<i>R. dumulosa</i>	93.98	29.05
<i>R. dumulosa</i>	92.28	29.87
<i>R. dumulosa</i>	102.23	29.91
<i>R. dumulosa</i>	101.96	30.06
<i>R. dumulosa</i>	90.58	30.32
<i>R. dumulosa</i>	90.55	30.35
<i>R. dumulosa</i>	110.26	31.45
<i>R. dumulosa</i>	95.33	31.50
<i>R. dumulosa</i>	94.92	31.68
<i>R. dumulosa</i>	94.52	31.70
<i>R. dumulosa</i>	102.66	31.84
<i>R. dumulosa</i>	98.92	31.93
<i>R. dumulosa</i>	97.07	32.08
<i>R. dumulosa</i>	97.27	32.09
<i>R. dumulosa</i>	97.27	32.12
<i>R. dumulosa</i>	97.05	32.15
<i>R. dumulosa</i>	103.83	32.59
<i>R. dumulosa</i>	97.01	33.02
<i>R. dumulosa</i>	101.13	33.43
<i>R. dumulosa</i>	91.20	33.47
<i>R. dumulosa</i>	107.60	33.72
<i>R. dumulosa</i>	107.77	33.95
<i>R. dumulosa</i>	107.79	33.96
<i>R. dumulosa</i>	107.25	33.98
<i>R. dumulosa</i>	107.81	34.00
<i>R. dumulosa</i>	103.75	34.93
<i>R. dumulosa</i>	106.05	35.56
<i>R. dumulosa</i>	103.20	35.59
<i>R. dumulosa</i>	102.48	35.68
<i>R. dumulosa</i>	103.95	35.75
<i>R. dumulosa</i>	104.11	35.84
<i>R. dumulosa</i>	94.57	35.87
<i>R. dumulosa</i>	101.79	35.87
<i>R. dumulosa</i>	103.76	36.08
<i>R. dumulosa</i>	102.72	36.11
<i>R. dumulosa</i>	102.72	36.12
<i>R. dumulosa</i>	102.44	36.51
<i>R. dumulosa</i>	102.39	36.66
<i>R. dumulosa</i>	102.38	36.67

<i>R. dumulosa</i>	102.37	36.72
<i>R. dumulosa</i>	103.26	36.74
<i>R. dumulosa</i>	102.53	36.77
<i>R. dumulosa</i>	102.28	36.79
<i>R. dumulosa</i>	102.66	36.79
<i>R. dumulosa</i>	102.48	36.82
<i>R. dumulosa</i>	102.27	36.84
<i>R. dumulosa</i>	102.15	36.85
<i>R. dumulosa</i>	101.70	36.93
<i>R. dumulosa</i>	103.14	36.97
<i>R. dumulosa</i>	101.76	37.03
<i>R. dumulosa</i>	101.57	37.14
<i>R. dumulosa</i>	101.57	37.16
<i>R. dumulosa</i>	101.91	37.16
<i>R. dumulosa</i>	102.67	37.23
<i>R. dumulosa</i>	101.54	37.24
<i>R. dumulosa</i>	102.01	37.28
<i>R. dumulosa</i>	102.01	37.29
<i>R. dumulosa</i>	101.76	37.50
<i>R. dumulosa</i>	111.49	37.90
<i>R. dumulosa</i>	111.52	37.90
<i>R. dumulosa</i>	100.25	38.13
<i>R. dumulosa</i>	99.67	38.63
<i>R. dumulosa</i>	111.84	38.72
<i>R. dumulosa</i>	111.87	38.73
<i>R. dumulosa</i>	111.89	38.73
<i>R. dumulosa</i>	111.93	38.73
<i>R. dumulosa</i>	111.93	38.74
<i>R. dumulosa</i>	111.93	38.75
<i>R. dumulosa</i>	105.94	38.84
<i>R. dumulosa</i>	105.69	38.85
<i>R. dumulosa</i>	105.94	38.85
<i>R. dumulosa</i>	113.55	39.00
<i>R. dumulosa</i>	113.60	39.01
<i>R. dumulosa</i>	113.49	39.04
<i>R. dumulosa</i>	113.53	39.05
<i>R. dumulosa</i>	113.57	39.08
<i>R. dumulosa</i>	114.97	39.91
<i>R. dumulosa</i>	115.05	39.94
<i>R. dumulosa</i>	115.06	39.95
<i>R. dumulosa</i>	115.49	40.01
<i>R. dumulosa</i>	115.48	40.03
<i>R. dumulosa</i>	115.50	40.03
<i>R. dumulosa</i>	115.47	40.04
<i>R. dumulosa</i>	111.26	40.84
<i>R. fastigiata</i>	100.11	25.65
<i>R. fastigiata</i>	100.10	25.66
<i>R. fastigiata</i>	100.09	25.67
<i>R. fastigiata</i>	102.91	26.15

<i>R. fastigiata</i>	102.96	26.15
<i>R. fastigiata</i>	102.85	26.16
<i>R. fastigiata</i>	100.24	26.89
<i>R. fastigiata</i>	99.67	26.91
<i>R. fastigiata</i>	100.21	27.09
<i>R. fastigiata</i>	100.17	27.13
<i>R. fastigiata</i>	100.17	27.15
<i>R. fastigiata</i>	103.06	27.17
<i>R. fastigiata</i>	102.43	27.27
<i>R. fastigiata</i>	98.81	27.75
<i>R. fastigiata</i>	99.58	27.77
<i>R. fastigiata</i>	98.75	27.79
<i>R. fastigiata</i>	99.60	27.79
<i>R. fastigiata</i>	98.75	27.81
<i>R. fastigiata</i>	99.71	27.82
<i>R. fastigiata</i>	99.72	27.83
<i>R. fastigiata</i>	99.52	27.88
<i>R. fastigiata</i>	101.60	27.88
<i>R. fastigiata</i>	86.71	27.91
<i>R. fastigiata</i>	99.70	27.91
<i>R. fastigiata</i>	101.30	27.93
<i>R. fastigiata</i>	87.05	27.98
<i>R. fastigiata</i>	101.17	27.99
<i>R. fastigiata</i>	101.34	27.99
<i>R. fastigiata</i>	101.34	28.01
<i>R. fastigiata</i>	92.00	28.03
<i>R. fastigiata</i>	85.99	28.07
<i>R. fastigiata</i>	98.60	28.10
<i>R. fastigiata</i>	85.95	28.14
<i>R. fastigiata</i>	99.81	28.15
<i>R. fastigiata</i>	85.92	28.16
<i>R. fastigiata</i>	86.85	28.16
<i>R. fastigiata</i>	103.22	28.27
<i>R. fastigiata</i>	98.75	28.31
<i>R. fastigiata</i>	87.05	28.33
<i>R. fastigiata</i>	99.11	28.36
<i>R. fastigiata</i>	98.65	28.39
<i>R. fastigiata</i>	98.77	28.40
<i>R. fastigiata</i>	92.05	28.41
<i>R. fastigiata</i>	99.08	28.43
<i>R. fastigiata</i>	98.74	28.44
<i>R. fastigiata</i>	99.06	28.45
<i>R. fastigiata</i>	103.22	28.46
<i>R. fastigiata</i>	98.89	28.49
<i>R. fastigiata</i>	98.95	28.49
<i>R. fastigiata</i>	98.91	28.54
<i>R. fastigiata</i>	99.86	28.59
<i>R. fastigiata</i>	87.19	28.60
<i>R. fastigiata</i>	99.84	28.60

<i>R. fastigiata</i>	98.62	28.65
<i>R. fastigiata</i>	98.66	28.65
<i>R. fastigiata</i>	83.98	28.68
<i>R. fastigiata</i>	102.40	28.70
<i>R. fastigiata</i>	97.36	28.71
<i>R. fastigiata</i>	99.87	28.73
<i>R. fastigiata</i>	102.37	28.74
<i>R. fastigiata</i>	97.55	28.79
<i>R. fastigiata</i>	93.07	28.91
<i>R. fastigiata</i>	101.51	29.00
<i>R. fastigiata</i>	92.35	29.04
<i>R. fastigiata</i>	100.30	29.04
<i>R. fastigiata</i>	92.32	29.05
<i>R. fastigiata</i>	100.89	29.07
<i>R. fastigiata</i>	102.19	29.07
<i>R. fastigiata</i>	93.42	29.09
<i>R. fastigiata</i>	100.02	29.10
<i>R. fastigiata</i>	99.94	29.14
<i>R. fastigiata</i>	92.38	29.17
<i>R. fastigiata</i>	94.25	29.19
<i>R. fastigiata</i>	94.23	29.21
<i>R. fastigiata</i>	94.16	29.24
<i>R. fastigiata</i>	95.75	29.33
<i>R. fastigiata</i>	95.55	29.36
<i>R. fastigiata</i>	95.52	29.39
<i>R. fastigiata</i>	95.71	29.39
<i>R. fastigiata</i>	100.98	29.40
<i>R. fastigiata</i>	96.86	29.42
<i>R. fastigiata</i>	94.86	29.46
<i>R. fastigiata</i>	94.85	29.49
<i>R. fastigiata</i>	97.68	29.53
<i>R. fastigiata</i>	97.48	29.54
<i>R. fastigiata</i>	94.59	29.57
<i>R. fastigiata</i>	94.59	29.59
<i>R. fastigiata</i>	100.90	29.59
<i>R. fastigiata</i>	94.63	29.60
<i>R. fastigiata</i>	94.65	29.61
<i>R. fastigiata</i>	94.71	29.61
<i>R. fastigiata</i>	94.65	29.63
<i>R. fastigiata</i>	94.32	29.64
<i>R. fastigiata</i>	87.53	29.65
<i>R. fastigiata</i>	94.44	29.65
<i>R. fastigiata</i>	94.68	29.65
<i>R. fastigiata</i>	94.69	29.66
<i>R. fastigiata</i>	96.04	29.71
<i>R. fastigiata</i>	91.02	29.72
<i>R. fastigiata</i>	97.75	29.74
<i>R. fastigiata</i>	97.23	29.79
<i>R. fastigiata</i>	94.56	29.80

<i>R. fastigiata</i>	97.16	29.81
<i>R. fastigiata</i>	95.29	29.91
<i>R. fastigiata</i>	85.73	29.93
<i>R. fastigiata</i>	84.33	29.94
<i>R. fastigiata</i>	94.72	29.94
<i>R. fastigiata</i>	95.44	29.96
<i>R. fastigiata</i>	101.99	29.98
<i>R. fastigiata</i>	101.97	29.99
<i>R. fastigiata</i>	102.01	29.99
<i>R. fastigiata</i>	100.27	30.00
<i>R. fastigiata</i>	100.87	30.02
<i>R. fastigiata</i>	101.96	30.06
<i>R. fastigiata</i>	101.80	30.11
<i>R. fastigiata</i>	101.87	30.14
<i>R. fastigiata</i>	101.86	30.15
<i>R. fastigiata</i>	102.52	30.16
<i>R. fastigiata</i>	101.76	30.17
<i>R. fastigiata</i>	81.29	30.20
<i>R. fastigiata</i>	99.56	30.26
<i>R. fastigiata</i>	99.54	30.29
<i>R. fastigiata</i>	102.39	30.40
<i>R. fastigiata</i>	97.60	30.44
<i>R. fastigiata</i>	97.65	30.44
<i>R. fastigiata</i>	97.61	30.46
<i>R. fastigiata</i>	102.80	30.47
<i>R. fastigiata</i>	81.29	30.51
<i>R. fastigiata</i>	97.27	30.69
<i>R. fastigiata</i>	100.37	30.75
<i>R. fastigiata</i>	102.98	31.10
<i>R. fastigiata</i>	102.51	31.13
<i>R. fastigiata</i>	102.14	31.33
<i>R. fastigiata</i>	93.75	31.39
<i>R. fastigiata</i>	85.56	31.47
<i>R. fastigiata</i>	102.20	31.48
<i>R. fastigiata</i>	95.29	31.53
<i>R. fastigiata</i>	102.27	31.54
<i>R. fastigiata</i>	95.43	31.57
<i>R. fastigiata</i>	101.69	31.79
<i>R. fastigiata</i>	101.80	31.81
<i>R. fastigiata</i>	79.92	31.84
<i>R. fastigiata</i>	102.19	31.87
<i>R. fastigiata</i>	102.19	31.89
<i>R. fastigiata</i>	102.22	31.90
<i>R. fastigiata</i>	84.73	31.92
<i>R. fastigiata</i>	101.02	31.94
<i>R. fastigiata</i>	98.80	32.02
<i>R. fastigiata</i>	102.65	32.04
<i>R. fastigiata</i>	102.78	32.13
<i>R. fastigiata</i>	103.60	32.66

<i>R. fastigiata</i>	103.75	32.75
<i>R. fastigiata</i>	100.54	32.89
<i>R. fastigiata</i>	100.77	32.96
<i>R. fastigiata</i>	79.62	33.31
<i>R. fastigiata</i>	102.54	35.17
<i>R. fastigiata</i>	93.08	35.22
<i>R. fastigiata</i>	93.09	35.24
<i>R. fastigiata</i>	102.03	37.28
<i>R. fastigiata</i>	97.29	37.75
<i>R. fastigiata</i>	101.26	37.75
<i>R. forrestii</i>	99.91	26.54
<i>R. forrestii</i>	100.18	26.56
<i>R. forrestii</i>	100.14	26.64
<i>R. forrestii</i>	102.71	26.65
<i>R. forrestii</i>	100.23	26.88
<i>R. forrestii</i>	100.19	27.01
<i>R. forrestii</i>	100.18	27.02
<i>R. forrestii</i>	100.18	27.03
<i>R. forrestii</i>	102.75	27.17
<i>R. forrestii</i>	99.29	27.18
<i>R. forrestii</i>	103.07	27.18
<i>R. forrestii</i>	100.10	27.36
<i>R. forrestii</i>	101.56	27.38
<i>R. forrestii</i>	102.79	27.61
<i>R. forrestii</i>	99.12	27.71
<i>R. forrestii</i>	99.81	27.79
<i>R. forrestii</i>	99.63	27.81
<i>R. forrestii</i>	99.71	27.82
<i>R. forrestii</i>	100.00	27.83
<i>R. forrestii</i>	101.61	27.87
<i>R. forrestii</i>	101.25	27.92
<i>R. forrestii</i>	103.39	27.93
<i>R. forrestii</i>	100.72	28.07
<i>R. forrestii</i>	101.21	28.12
<i>R. forrestii</i>	100.82	28.17
<i>R. forrestii</i>	103.52	28.31
<i>R. forrestii</i>	103.37	28.42
<i>R. forrestii</i>	100.99	28.54
<i>R. forrestii</i>	102.38	28.68
<i>R. forrestii</i>	101.48	28.98
<i>R. forrestii</i>	101.49	28.99
<i>R. forrestii</i>	101.50	29.00
<i>R. forrestii</i>	102.91	29.02
<i>R. forrestii</i>	101.77	29.57
<i>R. forrestii</i>	101.77	29.58
<i>R. forrestii</i>	101.99	29.68
<i>R. forrestii</i>	101.30	30.05
<i>R. forrestii</i>	102.01	31.34
<i>R. forrestii</i>	102.81	31.66

<i>R. forrestii</i>	103.87	31.68
<i>R. forrestii</i>	100.95	32.27
<i>R. henryi</i>	103.11	27.82
<i>R. henryi</i>	108.68	27.88
<i>R. henryi</i>	108.69	27.92
<i>R. henryi</i>	108.79	28.56
<i>R. henryi</i>	107.26	28.91
<i>R. henryi</i>	107.16	28.94
<i>R. henryi</i>	107.19	28.98
<i>R. henryi</i>	107.15	29.01
<i>R. henryi</i>	107.19	29.01
<i>R. henryi</i>	107.19	29.03
<i>R. henryi</i>	102.59	29.19
<i>R. henryi</i>	107.43	29.23
<i>R. henryi</i>	107.45	29.46
<i>R. henryi</i>	108.05	29.51
<i>R. henryi</i>	103.33	29.53
<i>R. henryi</i>	107.61	29.54
<i>R. henryi</i>	103.35	29.55
<i>R. henryi</i>	108.69	29.59
<i>R. henryi</i>	109.81	29.68
<i>R. henryi</i>	108.28	29.74
<i>R. henryi</i>	108.27	29.77
<i>R. henryi</i>	110.38	29.83
<i>R. henryi</i>	101.96	29.95
<i>R. henryi</i>	101.94	29.97
<i>R. henryi</i>	94.77	29.98
<i>R. henryi</i>	101.53	30.01
<i>R. henryi</i>	110.55	30.02
<i>R. henryi</i>	110.79	30.05
<i>R. henryi</i>	110.26	30.08
<i>R. henryi</i>	110.67	30.14
<i>R. henryi</i>	101.88	30.26
<i>R. henryi</i>	102.86	30.37
<i>R. henryi</i>	109.07	30.50
<i>R. henryi</i>	109.54	30.67
<i>R. henryi</i>	109.64	30.69
<i>R. henryi</i>	102.17	30.76
<i>R. henryi</i>	101.20	31.03
<i>R. henryi</i>	110.93	31.06
<i>R. henryi</i>	110.96	31.10
<i>R. henryi</i>	110.16	31.29
<i>R. henryi</i>	110.78	31.33
<i>R. henryi</i>	109.92	31.36
<i>R. henryi</i>	109.89	31.42
<i>R. henryi</i>	110.23	31.46
<i>R. henryi</i>	109.84	31.47
<i>R. henryi</i>	109.92	31.47
<i>R. henryi</i>	110.31	31.48

<i>R. henryi</i>	110.43	31.49
<i>R. henryi</i>	109.11	31.51
<i>R. henryi</i>	110.35	31.51
<i>R. henryi</i>	110.48	31.53
<i>R. henryi</i>	110.48	31.58
<i>R. henryi</i>	110.83	31.60
<i>R. henryi</i>	110.43	31.65
<i>R. henryi</i>	110.47	31.66
<i>R. henryi</i>	115.56	31.70
<i>R. henryi</i>	111.08	31.71
<i>R. henryi</i>	110.50	31.72
<i>R. henryi</i>	110.47	31.73
<i>R. henryi</i>	111.12	31.73
<i>R. henryi</i>	110.50	31.79
<i>R. henryi</i>	109.41	31.84
<i>R. henryi</i>	108.43	31.88
<i>R. henryi</i>	108.56	31.91
<i>R. henryi</i>	108.41	31.93
<i>R. henryi</i>	108.78	31.95
<i>R. henryi</i>	109.36	32.02
<i>R. henryi</i>	108.84	32.03
<i>R. henryi</i>	110.73	32.03
<i>R. henryi</i>	108.19	32.10
<i>R. henryi</i>	109.28	32.10
<i>R. henryi</i>	108.94	32.19
<i>R. henryi</i>	108.22	32.20
<i>R. henryi</i>	109.03	32.26
<i>R. henryi</i>	104.89	32.39
<i>R. henryi</i>	104.79	32.51
<i>R. henryi</i>	104.66	32.55
<i>R. henryi</i>	106.86	32.61
<i>R. henryi</i>	107.97	32.61
<i>R. henryi</i>	106.99	32.67
<i>R. henryi</i>	105.08	32.68
<i>R. henryi</i>	106.99	32.70
<i>R. henryi</i>	106.86	32.72
<i>R. henryi</i>	103.82	32.75
<i>R. henryi</i>	105.25	32.79
<i>R. henryi</i>	104.83	32.81
<i>R. henryi</i>	104.44	32.86
<i>R. henryi</i>	104.59	32.90
<i>R. henryi</i>	105.30	32.98
<i>R. henryi</i>	109.42	32.99
<i>R. henryi</i>	108.27	33.16
<i>R. henryi</i>	110.19	33.20
<i>R. henryi</i>	108.63	33.33
<i>R. henryi</i>	108.41	33.35
<i>R. henryi</i>	105.49	33.38
<i>R. henryi</i>	108.50	33.39

<i>R. henryi</i>	108.41	33.40
<i>R. henryi</i>	107.92	33.43
<i>R. henryi</i>	106.81	33.53
<i>R. henryi</i>	108.55	33.55
<i>R. henryi</i>	107.66	33.58
<i>R. henryi</i>	109.00	33.62
<i>R. henryi</i>	108.69	33.66
<i>R. henryi</i>	111.81	33.67
<i>R. henryi</i>	109.02	33.80
<i>R. henryi</i>	107.53	33.81
<i>R. henryi</i>	108.01	33.81
<i>R. henryi</i>	104.08	33.93
<i>R. henryi</i>	111.17	33.93
<i>R. henryi</i>	107.76	33.99
<i>R. henryi</i>	111.16	34.01
<i>R. henryi</i>	107.72	34.02
<i>R. henryi</i>	107.71	34.05
<i>R. henryi</i>	107.72	34.08
<i>R. henryi</i>	109.48	34.08
<i>R. henryi</i>	107.87	34.09
<i>R. henryi</i>	107.88	34.11
<i>R. henryi</i>	107.10	34.13
<i>R. henryi</i>	103.88	34.16
<i>R. henryi</i>	107.18	34.24
<i>R. henryi</i>	106.83	34.27
<i>R. henryi</i>	106.14	34.35
<i>R. henryi</i>	110.08	34.46
<i>R. henryi</i>	110.08	34.49
<i>R. henryi</i>	106.25	34.54
<i>R. himalensis</i>	88.84	27.40
<i>R. himalensis</i>	88.86	27.42
<i>R. himalensis</i>	87.99	27.43
<i>R. himalensis</i>	88.97	27.49
<i>R. himalensis</i>	86.47	27.52
<i>R. himalensis</i>	89.16	27.72
<i>R. himalensis</i>	86.43	27.73
<i>R. himalensis</i>	87.86	27.76
<i>R. himalensis</i>	86.72	27.91
<i>R. himalensis</i>	86.60	27.94
<i>R. himalensis</i>	86.60	27.96
<i>R. himalensis</i>	85.88	28.00
<i>R. himalensis</i>	87.69	28.01
<i>R. himalensis</i>	85.42	28.07
<i>R. himalensis</i>	85.57	28.10
<i>R. himalensis</i>	85.97	28.13
<i>R. himalensis</i>	90.90	28.35
<i>R. himalensis</i>	86.65	28.37
<i>R. himalensis</i>	85.31	28.38
<i>R. himalensis</i>	85.40	28.40

<i>R. himalensis</i>	98.91	28.49
<i>R. himalensis</i>	92.50	28.58
<i>R. himalensis</i>	92.53	28.60
<i>R. himalensis</i>	83.83	28.72
<i>R. himalensis</i>	99.91	28.77
<i>R. himalensis</i>	93.23	28.93
<i>R. himalensis</i>	93.43	29.10
<i>R. himalensis</i>	100.04	29.13
<i>R. himalensis</i>	100.08	29.16
<i>R. himalensis</i>	100.19	29.46
<i>R. himalensis</i>	94.93	29.49
<i>R. himalensis</i>	91.05	29.67
<i>R. himalensis</i>	91.07	29.67
<i>R. himalensis</i>	91.13	29.68
<i>R. himalensis</i>	95.70	29.75
<i>R. himalensis</i>	100.86	30.00
<i>R. himalensis</i>	101.39	30.05
<i>R. himalensis</i>	101.40	30.07
<i>R. himalensis</i>	101.78	30.07
<i>R. himalensis</i>	101.81	30.07
<i>R. himalensis</i>	92.13	30.12
<i>R. himalensis</i>	97.27	30.17
<i>R. himalensis</i>	81.30	30.19
<i>R. himalensis</i>	91.36	30.20
<i>R. himalensis</i>	90.62	30.30
<i>R. himalensis</i>	90.60	30.32
<i>R. himalensis</i>	96.97	31.08
<i>R. himalensis</i>	81.32	31.09
<i>R. himalensis</i>	103.71	31.30
<i>R. himalensis</i>	94.97	31.70
<i>R. himalensis</i>	101.71	31.77
<i>R. himalensis</i>	102.68	31.86
<i>R. himalensis</i>	99.12	31.87
<i>R. himalensis</i>	96.58	32.03
<i>R. himalensis</i>	96.53	32.07
<i>R. himalensis</i>	95.29	32.50
<i>R. himalensis</i>	100.46	32.58
<i>R. himalensis</i>	95.33	32.61
<i>R. himalensis</i>	95.61	32.78
<i>R. himalensis</i>	97.16	32.84
<i>R. himalensis</i>	95.15	32.87
<i>R. himalensis</i>	95.48	32.88
<i>R. himalensis</i>	95.61	32.98
<i>R. himalensis</i>	95.19	33.08
<i>R. himalensis</i>	97.13	33.36
<i>R. himalensis</i>	97.13	33.46
<i>R. himalensis</i>	100.93	33.53
<i>R. himalensis</i>	100.63	33.73
<i>R. himalensis</i>	101.05	33.77

<i>R. himalensis</i>	96.52	33.89
<i>R. himalensis</i>	99.45	34.00
<i>R. himalensis</i>	100.22	34.37
<i>R. himalensis</i>	100.21	34.48
<i>R. himalensis</i>	100.26	34.49
<i>R. himalensis</i>	99.97	34.52
<i>R. himalensis</i>	100.48	34.53
<i>R. himalensis</i>	100.46	34.54
<i>R. himalensis</i>	100.56	34.56
<i>R. himalensis</i>	101.34	34.58
<i>R. himalensis</i>	100.82	34.71
<i>R. himalensis</i>	100.70	34.77
<i>R. himalensis</i>	75.72	34.93
<i>R. himalensis</i>	75.47	34.97
<i>R. himalensis</i>	102.24	35.18
<i>R. himalensis</i>	101.91	35.88
<i>R. himalensis</i>	101.69	36.01
<i>R. himalensis</i>	101.62	36.28
<i>R. himalensis</i>	100.01	36.49
<i>R. himalensis</i>	99.80	36.50
<i>R. himalensis</i>	102.50	37.02
<i>R. himalensis</i>	101.58	37.11
<i>R. himalensis</i>	102.01	37.28
<i>R. kirilowii</i>	100.19	27.03
<i>R. kirilowii</i>	100.16	27.05
<i>R. kirilowii</i>	100.19	27.05
<i>R. kirilowii</i>	100.20	27.11
<i>R. kirilowii</i>	99.12	27.71
<i>R. kirilowii</i>	99.56	27.88
<i>R. kirilowii</i>	98.47	27.98
<i>R. kirilowii</i>	98.46	27.99
<i>R. kirilowii</i>	98.50	27.99
<i>R. kirilowii</i>	98.87	28.04
<i>R. kirilowii</i>	98.96	28.07
<i>R. kirilowii</i>	86.00	28.10
<i>R. kirilowii</i>	99.82	28.16
<i>R. kirilowii</i>	103.16	28.24
<i>R. kirilowii</i>	99.07	28.33
<i>R. kirilowii</i>	98.99	28.38
<i>R. kirilowii</i>	99.01	28.38
<i>R. kirilowii</i>	98.99	28.39
<i>R. kirilowii</i>	85.23	28.55
<i>R. kirilowii</i>	97.95	28.59
<i>R. kirilowii</i>	102.39	28.63
<i>R. kirilowii</i>	100.62	28.74
<i>R. kirilowii</i>	93.80	28.77
<i>R. kirilowii</i>	102.10	28.96
<i>R. kirilowii</i>	100.02	29.12
<i>R. kirilowii</i>	99.65	29.14

<i>R. kirilowii</i>	99.93	29.15
<i>R. kirilowii</i>	101.52	29.22
<i>R. kirilowii</i>	100.08	29.27
<i>R. kirilowii</i>	100.08	29.28
<i>R. kirilowii</i>	97.04	29.32
<i>R. kirilowii</i>	91.53	29.37
<i>R. kirilowii</i>	94.92	29.50
<i>R. kirilowii</i>	95.00	29.58
<i>R. kirilowii</i>	98.15	29.58
<i>R. kirilowii</i>	102.09	29.59
<i>R. kirilowii</i>	102.09	29.61
<i>R. kirilowii</i>	94.58	29.62
<i>R. kirilowii</i>	94.68	29.62
<i>R. kirilowii</i>	94.32	29.64
<i>R. kirilowii</i>	102.63	29.67
<i>R. kirilowii</i>	95.70	29.79
<i>R. kirilowii</i>	95.78	29.87
<i>R. kirilowii</i>	100.87	30.00
<i>R. kirilowii</i>	101.87	30.00
<i>R. kirilowii</i>	101.84	30.04
<i>R. kirilowii</i>	101.33	30.07
<i>R. kirilowii</i>	91.25	30.12
<i>R. kirilowii</i>	92.12	30.12
<i>R. kirilowii</i>	97.32	30.16
<i>R. kirilowii</i>	84.07	30.18
<i>R. kirilowii</i>	101.86	30.26
<i>R. kirilowii</i>	101.86	30.27
<i>R. kirilowii</i>	101.52	30.31
<i>R. kirilowii</i>	94.78	30.36
<i>R. kirilowii</i>	102.53	30.47
<i>R. kirilowii</i>	102.93	30.92
<i>R. kirilowii</i>	101.24	31.02
<i>R. kirilowii</i>	96.95	31.08
<i>R. kirilowii</i>	96.97	31.08
<i>R. kirilowii</i>	96.87	31.11
<i>R. kirilowii</i>	96.60	31.18
<i>R. kirilowii</i>	102.14	31.29
<i>R. kirilowii</i>	103.62	31.37
<i>R. kirilowii</i>	102.08	31.42
<i>R. kirilowii</i>	99.99	31.50
<i>R. kirilowii</i>	96.35	31.52
<i>R. kirilowii</i>	103.91	31.66
<i>R. kirilowii</i>	100.76	31.76
<i>R. kirilowii</i>	98.58	31.81
<i>R. kirilowii</i>	101.34	31.86
<i>R. kirilowii</i>	99.12	31.87
<i>R. kirilowii</i>	102.65	31.90
<i>R. kirilowii</i>	102.27	31.91
<i>R. kirilowii</i>	98.90	31.95

<i>R. kirilowii</i>	102.65	31.95
<i>R. kirilowii</i>	102.64	32.06
<i>R. kirilowii</i>	97.07	32.08
<i>R. kirilowii</i>	98.86	32.12
<i>R. kirilowii</i>	102.79	32.13
<i>R. kirilowii</i>	102.58	32.23
<i>R. kirilowii</i>	96.27	32.28
<i>R. kirilowii</i>	96.54	32.30
<i>R. kirilowii</i>	100.46	32.58
<i>R. kirilowii</i>	103.58	32.67
<i>R. kirilowii</i>	100.93	32.71
<i>R. kirilowii</i>	97.07	32.81
<i>R. kirilowii</i>	100.83	32.84
<i>R. kirilowii</i>	97.15	32.85
<i>R. kirilowii</i>	100.67	32.90
<i>R. kirilowii</i>	97.04	32.92
<i>R. kirilowii</i>	103.35	32.96
<i>R. kirilowii</i>	96.86	33.05
<i>R. kirilowii</i>	97.09	33.34
<i>R. kirilowii</i>	100.88	33.52
<i>R. kirilowii</i>	103.51	33.65
<i>R. kirilowii</i>	99.64	33.86
<i>R. kirilowii</i>	99.68	33.90
<i>R. kirilowii</i>	102.90	33.90
<i>R. kirilowii</i>	104.27	33.91
<i>R. kirilowii</i>	107.77	33.95
<i>R. kirilowii</i>	107.78	33.97
<i>R. kirilowii</i>	107.79	33.99
<i>R. kirilowii</i>	107.86	34.02
<i>R. kirilowii</i>	103.91	34.11
<i>R. kirilowii</i>	98.40	34.18
<i>R. kirilowii</i>	100.22	34.37
<i>R. kirilowii</i>	101.52	34.37
<i>R. kirilowii</i>	104.04	34.46
<i>R. kirilowii</i>	104.04	34.47
<i>R. kirilowii</i>	100.56	34.56
<i>R. kirilowii</i>	101.33	34.56
<i>R. kirilowii</i>	100.61	34.65
<i>R. kirilowii</i>	100.63	34.66
<i>R. kirilowii</i>	100.80	34.70
<i>R. kirilowii</i>	100.72	34.73
<i>R. kirilowii</i>	103.31	34.81
<i>R. kirilowii</i>	97.44	34.87
<i>R. kirilowii</i>	103.75	34.94
<i>R. kirilowii</i>	103.75	34.95
<i>R. kirilowii</i>	99.25	34.98
<i>R. kirilowii</i>	100.34	35.05
<i>R. kirilowii</i>	101.82	35.06
<i>R. kirilowii</i>	102.25	35.19

<i>R. kirilowii</i>	102.59	35.19
<i>R. kirilowii</i>	101.90	35.26
<i>R. kirilowii</i>	101.89	35.27
<i>R. kirilowii</i>	102.19	35.55
<i>R. kirilowii</i>	102.33	35.74
<i>R. kirilowii</i>	102.72	36.11
<i>R. kirilowii</i>	102.19	36.29
<i>R. kirilowii</i>	102.23	36.29
<i>R. kirilowii</i>	100.25	36.47
<i>R. kirilowii</i>	100.26	36.51
<i>R. kirilowii</i>	112.04	36.69
<i>R. kirilowii</i>	102.53	36.82
<i>R. kirilowii</i>	112.07	36.85
<i>R. kirilowii</i>	101.32	36.92
<i>R. kirilowii</i>	101.85	37.02
<i>R. kirilowii</i>	101.82	37.03
<i>R. kirilowii</i>	101.57	37.11
<i>R. kirilowii</i>	102.22	37.16
<i>R. kirilowii</i>	102.86	37.26
<i>R. kirilowii</i>	102.01	37.28
<i>R. kirilowii</i>	101.56	37.51
<i>R. kirilowii</i>	111.43	37.87
<i>R. kirilowii</i>	111.49	37.90
<i>R. kirilowii</i>	113.83	38.84
<i>R. kirilowii</i>	113.60	39.01
<i>R. kirilowii</i>	113.57	39.02
<i>R. kirilowii</i>	113.52	39.03
<i>R. kirilowii</i>	113.65	39.06
<i>R. kirilowii</i>	113.58	39.07
<i>R. kirilowii</i>	114.57	39.58
<i>R. kirilowii</i>	114.99	39.91
<i>R. kirilowii</i>	115.49	40.01
<i>R. kirilowii</i>	115.34	40.03
<i>R. kirilowii</i>	115.45	40.03
<i>R. kirilowii</i>	117.49	40.60
<i>R. kirilowii</i>	117.48	40.61
<i>R. kirilowii</i>	80.82	42.51
<i>R. kirilowii</i>	77.15	43.05
<i>R. kirilowii</i>	82.33	43.05
<i>R. kirilowii</i>	86.95	43.11
<i>R. kirilowii</i>	87.07	43.12
<i>R. kirilowii</i>	81.14	43.19
<i>R. kirilowii</i>	87.04	43.26
<i>R. kirilowii</i>	87.18	43.26
<i>R. kirilowii</i>	87.01	43.47
<i>R. kirilowii</i>	87.01	43.50
<i>R. kirilowii</i>	90.05	43.58
<i>R. kirilowii</i>	88.02	43.70
<i>R. kirilowii</i>	88.04	43.85

<i>R. kirilowii</i>	88.24	47.97
<i>R. quadrifida</i>	100.09	27.32
<i>R. quadrifida</i>	102.46	27.34
<i>R. quadrifida</i>	88.95	27.53
<i>R. quadrifida</i>	87.70	27.99
<i>R. quadrifida</i>	101.41	27.99
<i>R. quadrifida</i>	87.68	28.02
<i>R. quadrifida</i>	87.54	28.92
<i>R. quadrifida</i>	101.64	29.03
<i>R. quadrifida</i>	91.78	29.12
<i>R. quadrifida</i>	102.07	30.00
<i>R. quadrifida</i>	81.28	30.33
<i>R. quadrifida</i>	101.62	30.42
<i>R. quadrifida</i>	81.64	30.82
<i>R. quadrifida</i>	97.53	31.26
<i>R. quadrifida</i>	96.46	31.93
<i>R. quadrifida</i>	78.01	31.95
<i>R. quadrifida</i>	96.35	32.07
<i>R. quadrifida</i>	96.51	32.29
<i>R. quadrifida</i>	91.70	32.30
<i>R. quadrifida</i>	83.17	32.44
<i>R. quadrifida</i>	97.68	32.54
<i>R. quadrifida</i>	103.83	32.59
<i>R. quadrifida</i>	95.59	32.76
<i>R. quadrifida</i>	97.18	32.90
<i>R. quadrifida</i>	101.07	33.06
<i>R. quadrifida</i>	104.31	33.88
<i>R. quadrifida</i>	95.75	34.02
<i>R. quadrifida</i>	100.25	34.47
<i>R. quadrifida</i>	101.14	34.56
<i>R. quadrifida</i>	92.65	34.58
<i>R. quadrifida</i>	99.45	34.58
<i>R. quadrifida</i>	101.33	34.60
<i>R. quadrifida</i>	99.55	34.68
<i>R. quadrifida</i>	99.03	34.82
<i>R. quadrifida</i>	97.57	34.92
<i>R. quadrifida</i>	100.64	34.92
<i>R. quadrifida</i>	98.88	35.12
<i>R. quadrifida</i>	101.58	35.18
<i>R. quadrifida</i>	101.61	35.21
<i>R. quadrifida</i>	101.91	35.26
<i>R. quadrifida</i>	94.06	35.63
<i>R. quadrifida</i>	99.87	35.82
<i>R. quadrifida</i>	99.93	35.87
<i>R. quadrifida</i>	99.68	35.89
<i>R. quadrifida</i>	96.47	36.04
<i>R. quadrifida</i>	101.64	36.09
<i>R. quadrifida</i>	101.51	36.26
<i>R. quadrifida</i>	101.62	36.28

<i>R. quadrifida</i>	102.18	36.29
<i>R. quadrifida</i>	100.73	36.49
<i>R. quadrifida</i>	77.48	36.83
<i>R. quadrifida</i>	98.17	36.87
<i>R. quadrifida</i>	103.21	37.15
<i>R. quadrifida</i>	101.28	37.17
<i>R. quadrifida</i>	101.29	37.18
<i>R. quadrifida</i>	101.28	37.19
<i>R. quadrifida</i>	101.64	37.20
<i>R. quadrifida</i>	102.72	37.27
<i>R. quadrifida</i>	101.40	37.34
<i>R. quadrifida</i>	97.42	37.46
<i>R. quadrifida</i>	101.62	37.47
<i>R. quadrifida</i>	76.10	37.62
<i>R. quadrifida</i>	75.19	37.69
<i>R. quadrifida</i>	100.25	38.11
<i>R. quadrifida</i>	100.23	38.13
<i>R. quadrifida</i>	95.39	38.16
<i>R. quadrifida</i>	97.94	38.31
<i>R. quadrifida</i>	99.49	38.44
<i>R. quadrifida</i>	99.57	38.50
<i>R. quadrifida</i>	99.87	38.70
<i>R. quadrifida</i>	75.15	38.78
<i>R. quadrifida</i>	96.81	38.81
<i>R. quadrifida</i>	80.59	42.58
<i>R. quadrifida</i>	86.93	43.16
<i>R. quadrifida</i>	86.07	43.49
<i>R. quadrifida</i>	87.72	49.29
<i>R. quadrifida</i>	88.03	49.41
<i>R. quadrifida</i>	88.15	49.44
<i>R. sacra</i>	86.00	28.10
<i>R. sacra</i>	85.96	28.16
<i>R. sacra</i>	99.03	28.35
<i>R. sacra</i>	91.39	28.42
<i>R. sacra</i>	98.90	28.45
<i>R. sacra</i>	87.87	28.55
<i>R. sacra</i>	92.50	28.58
<i>R. sacra</i>	92.53	28.60
<i>R. sacra</i>	85.72	28.67
<i>R. sacra</i>	90.55	28.83
<i>R. sacra</i>	91.90	28.86
<i>R. sacra</i>	88.00	28.92
<i>R. sacra</i>	93.06	28.93
<i>R. sacra</i>	89.63	28.95
<i>R. sacra</i>	93.39	28.96
<i>R. sacra</i>	90.30	28.97
<i>R. sacra</i>	90.45	28.97
<i>R. sacra</i>	90.45	28.98
<i>R. sacra</i>	90.53	28.98

<i>R. sacra</i>	92.36	29.03
<i>R. sacra</i>	87.59	29.05
<i>R. sacra</i>	87.57	29.07
<i>R. sacra</i>	90.44	29.10
<i>R. sacra</i>	92.57	29.13
<i>R. sacra</i>	94.27	29.21
<i>R. sacra</i>	90.62	29.22
<i>R. sacra</i>	88.88	29.25
<i>R. sacra</i>	88.87	29.27
<i>R. sacra</i>	88.15	29.28
<i>R. sacra</i>	92.12	29.28
<i>R. sacra</i>	91.98	29.30
<i>R. sacra</i>	89.62	29.32
<i>R. sacra</i>	89.97	29.33
<i>R. sacra</i>	90.05	29.33
<i>R. sacra</i>	85.25	29.35
<i>R. sacra</i>	86.15	29.47
<i>R. sacra</i>	90.92	29.53
<i>R. sacra</i>	85.25	29.57
<i>R. sacra</i>	94.53	29.57
<i>R. sacra</i>	91.15	29.58
<i>R. sacra</i>	91.10	29.65
<i>R. sacra</i>	91.12	29.65
<i>R. sacra</i>	91.05	29.67
<i>R. sacra</i>	91.07	29.67
<i>R. sacra</i>	91.45	29.68
<i>R. sacra</i>	98.58	29.68
<i>R. sacra</i>	91.13	29.69
<i>R. sacra</i>	91.12	29.72
<i>R. sacra</i>	90.98	29.73
<i>R. sacra</i>	91.12	29.74
<i>R. sacra</i>	91.22	29.83
<i>R. sacra</i>	91.24	29.84
<i>R. sacra</i>	99.11	29.93
<i>R. sacra</i>	97.46	29.95
<i>R. sacra</i>	93.89	30.00
<i>R. sacra</i>	100.28	30.02
<i>R. sacra</i>	90.56	30.10
<i>R. sacra</i>	91.52	30.28
<i>R. sacra</i>	91.52	30.30
<i>R. sacra</i>	90.90	30.37
<i>R. sacra</i>	98.27	30.86
<i>R. sacra</i>	98.41	31.59
<i>R. sacra</i>	98.57	31.73
<i>R. sacra</i>	90.00	32.00
<i>R. sacra</i>	97.02	32.08
<i>R. sacra</i>	97.01	32.09
<i>R. sacra</i>	97.03	32.12
<i>R. sacra</i>	96.89	32.26

<i>R. sacra</i>	96.85	32.30
<i>R. wallichiana</i>	100.12	27.36
<i>R. wallichiana</i>	88.90	27.53
<i>R. wallichiana</i>	98.58	27.62
<i>R. wallichiana</i>	98.59	27.63
<i>R. wallichiana</i>	98.75	27.77
<i>R. wallichiana</i>	86.80	27.86
<i>R. wallichiana</i>	98.48	27.98
<i>R. wallichiana</i>	98.48	27.99
<i>R. wallichiana</i>	98.97	28.09
<i>R. wallichiana</i>	86.00	28.10
<i>R. wallichiana</i>	85.99	28.12
<i>R. wallichiana</i>	85.57	28.22
<i>R. wallichiana</i>	98.79	28.36
<i>R. wallichiana</i>	99.81	28.57
<i>R. wallichiana</i>	83.62	28.63
<i>R. wallichiana</i>	84.45	28.63
<i>R. wallichiana</i>	83.88	28.82
<i>R. wallichiana</i>	83.78	28.93
<i>R. wallichiana</i>	101.21	29.12
<i>R. wallichiana</i>	83.97	29.22
<i>R. wallichiana</i>	95.50	29.41
<i>R. wallichiana</i>	94.59	29.55
<i>R. wallichiana</i>	94.61	29.65
<i>R. wallichiana</i>	94.87	29.90
<i>R. wallichiana</i>	95.48	29.93
<i>R. wallichiana</i>	81.33	30.13
<i>R. wallichiana</i>	101.57	30.59
<i>R. wallichiana</i>	79.60	30.68
<i>R. wallichiana</i>	101.23	31.01
<i>R. wallichiana</i>	103.14	31.02
<i>R. wallichiana</i>	98.86	31.95
<i>R. wallichiana</i>	100.31	31.97
<i>R. wallichiana</i>	98.87	32.12
<i>R. wallichiana</i>	77.00	33.00
<i>R. wallichiana</i>	107.38	33.97
<i>R. wallichiana</i>	102.22	35.58
<i>R. wallichiana</i>	74.70	36.34
<i>R. wallichiana</i>	100.09	36.57
<i>R. wallichiana</i>	99.97	36.60
<i>R. yunnanensis</i>	100.13	25.63
<i>R. yunnanensis</i>	100.10	25.64
<i>R. yunnanensis</i>	100.12	25.66
<i>R. yunnanensis</i>	100.14	25.69
<i>R. yunnanensis</i>	100.05	25.70
<i>R. yunnanensis</i>	100.13	25.70
<i>R. yunnanensis</i>	100.04	25.73
<i>R. yunnanensis</i>	100.12	25.73
<i>R. yunnanensis</i>	100.10	25.74

<i>R. yunnanensis</i>	100.08	25.75
<i>R. yunnanensis</i>	100.35	25.97
<i>R. yunnanensis</i>	100.37	25.97
<i>R. yunnanensis</i>	102.80	26.01
<i>R. yunnanensis</i>	102.90	26.15
<i>R. yunnanensis</i>	100.71	26.21
<i>R. yunnanensis</i>	99.06	26.47
<i>R. yunnanensis</i>	98.70	26.50
<i>R. yunnanensis</i>	100.14	26.55
<i>R. yunnanensis</i>	98.80	26.58
<i>R. yunnanensis</i>	104.13	26.74
<i>R. yunnanensis</i>	98.94	26.90
<i>R. yunnanensis</i>	101.84	27.01
<i>R. yunnanensis</i>	100.18	27.02
<i>R. yunnanensis</i>	100.10	27.06
<i>R. yunnanensis</i>	99.10	27.08
<i>R. yunnanensis</i>	100.23	27.08
<i>R. yunnanensis</i>	100.25	27.11
<i>R. yunnanensis</i>	100.22	27.12
<i>R. yunnanensis</i>	100.29	27.12
<i>R. yunnanensis</i>	100.22	27.13
<i>R. yunnanensis</i>	101.30	27.13
<i>R. yunnanensis</i>	100.95	27.14
<i>R. yunnanensis</i>	100.22	27.16
<i>R. yunnanensis</i>	100.26	27.18
<i>R. yunnanensis</i>	99.36	27.21
<i>R. yunnanensis</i>	88.87	27.48
<i>R. yunnanensis</i>	99.70	27.48
<i>R. yunnanensis</i>	102.41	27.58
<i>R. yunnanensis</i>	91.90	27.59
<i>R. yunnanensis</i>	99.79	27.61
<i>R. yunnanensis</i>	101.60	27.69
<i>R. yunnanensis</i>	103.20	27.78
<i>R. yunnanensis</i>	102.77	27.80
<i>R. yunnanensis</i>	99.99	27.83
<i>R. yunnanensis</i>	108.68	27.88
<i>R. yunnanensis</i>	99.63	27.91
<i>R. yunnanensis</i>	99.95	27.91
<i>R. yunnanensis</i>	101.62	27.91
<i>R. yunnanensis</i>	108.69	27.92
<i>R. yunnanensis</i>	91.84	27.93
<i>R. yunnanensis</i>	101.29	27.94
<i>R. yunnanensis</i>	99.59	27.97
<i>R. yunnanensis</i>	101.29	27.98
<i>R. yunnanensis</i>	89.39	28.02
<i>R. yunnanensis</i>	99.72	28.02
<i>R. yunnanensis</i>	85.99	28.09
<i>R. yunnanensis</i>	99.87	28.13
<i>R. yunnanensis</i>	100.81	28.16

<i>R. yunnanensis</i>	101.18	28.22
<i>R. yunnanensis</i>	99.36	28.24
<i>R. yunnanensis</i>	98.49	28.27
<i>R. yunnanensis</i>	99.16	28.28
<i>R. yunnanensis</i>	103.56	28.30
<i>R. yunnanensis</i>	98.79	28.36
<i>R. yunnanensis</i>	98.80	28.39
<i>R. yunnanensis</i>	103.72	28.40
<i>R. yunnanensis</i>	103.25	28.41
<i>R. yunnanensis</i>	103.35	28.41
<i>R. yunnanensis</i>	98.96	28.42
<i>R. yunnanensis</i>	98.88	28.53
<i>R. yunnanensis</i>	98.78	28.56
<i>R. yunnanensis</i>	102.53	28.59
<i>R. yunnanensis</i>	101.21	28.60
<i>R. yunnanensis</i>	102.57	28.61
<i>R. yunnanensis</i>	99.82	28.62
<i>R. yunnanensis</i>	99.20	28.67
<i>R. yunnanensis</i>	94.00	28.75
<i>R. yunnanensis</i>	100.96	28.76
<i>R. yunnanensis</i>	102.50	28.85
<i>R. yunnanensis</i>	102.17	28.87
<i>R. yunnanensis</i>	102.12	28.90
<i>R. yunnanensis</i>	102.10	28.94
<i>R. yunnanensis</i>	102.10	28.96
<i>R. yunnanensis</i>	99.91	29.11
<i>R. yunnanensis</i>	101.54	29.21
<i>R. yunnanensis</i>	102.27	29.21
<i>R. yunnanensis</i>	101.52	29.22
<i>R. yunnanensis</i>	103.29	29.23
<i>R. yunnanensis</i>	103.31	29.46
<i>R. yunnanensis</i>	103.31	29.51
<i>R. yunnanensis</i>	103.33	29.55
<i>R. yunnanensis</i>	103.28	29.57
<i>R. yunnanensis</i>	103.35	29.57
<i>R. yunnanensis</i>	102.10	29.58
<i>R. yunnanensis</i>	102.83	29.59
<i>R. yunnanensis</i>	102.66	29.61
<i>R. yunnanensis</i>	102.66	29.67
<i>R. yunnanensis</i>	102.54	29.72
<i>R. yunnanensis</i>	102.24	29.86
<i>R. yunnanensis</i>	102.27	29.86
<i>R. yunnanensis</i>	95.61	29.92
<i>R. yunnanensis</i>	94.78	29.96
<i>R. yunnanensis</i>	100.94	29.99
<i>R. yunnanensis</i>	102.27	29.99
<i>R. yunnanensis</i>	100.93	30.00
<i>R. yunnanensis</i>	101.88	30.00
<i>R. yunnanensis</i>	101.98	30.00

<i>R. yunnanensis</i>	101.87	30.01
<i>R. yunnanensis</i>	101.96	30.04
<i>R. yunnanensis</i>	101.31	30.05
<i>R. yunnanensis</i>	101.82	30.05
<i>R. yunnanensis</i>	101.94	30.13
<i>R. yunnanensis</i>	101.82	30.15
<i>R. yunnanensis</i>	101.99	30.34
<i>R. yunnanensis</i>	102.79	30.37
<i>R. yunnanensis</i>	101.77	30.55
<i>R. yunnanensis</i>	102.12	30.59
<i>R. yunnanensis</i>	102.76	30.70
<i>R. yunnanensis</i>	102.17	30.76
<i>R. yunnanensis</i>	101.90	30.96
<i>R. yunnanensis</i>	102.35	30.98
<i>R. yunnanensis</i>	101.88	31.04
<i>R. yunnanensis</i>	103.17	31.04
<i>R. yunnanensis</i>	102.23	31.05
<i>R. yunnanensis</i>	109.93	31.37
<i>R. yunnanensis</i>	110.03	31.41
<i>R. yunnanensis</i>	103.54	31.50
<i>R. yunnanensis</i>	102.81	31.66
<i>R. yunnanensis</i>	103.80	31.67
<i>R. yunnanensis</i>	101.19	31.81
<i>R. yunnanensis</i>	102.26	31.88
<i>R. yunnanensis</i>	102.20	31.90
<i>R. yunnanensis</i>	101.05	31.95
<i>R. yunnanensis</i>	103.45	31.98

Supplementary Material2 Phtyon script

#Reclassify according to the threshold:

```
import arcpy
from arcpy import env
from arcpy.sa import *
# Check out the ArcGIS Spatial Analyst extension license
arcpy.CheckOutExtension("Spatial")
# Input path
InRasPath = "D:\\OriginalToTif\\"
env.workspace = InRasPath
# Output path
OutRaspath = "D:\\Reclassify\\"
arcpy.env.workspace = InRasPath
files = arcpy.ListFiles("*.tif")
print files
for file in files:
    input = arcpy.Raster(file)
    output = Con(input >0.286516667, 1, 0)
    output.save("D:\\Reclassify\\"+ file)
print "Good job!!!!"
```

#Convert to rectangular projection:

```
import arcpy
from arcpy import env
from arcpy.sa import *
# Check out the ArcGIS Spatial Analyst extension license
arcpy.CheckOutExtension("Spatial")
# Input path
InRasPath = "E:\\raster\\"
env.workspace = InRasPath
# Output path
OutRaspath = "E:\\sin\\"
arcpy.env.workspace = InRasPath
files = arcpy.ListFiles("*.tif")
print files
for file in files:
    arcpy.ProjectRaster_management(file, OutRaspath + "sin_" + file, \
    "PROJCS['SINUSOIDAL_Unspecified_Datum_Semi_major_axis_6371007_181000_Semi_minor_axis_0_0', \
    GEOGCS['', DATUM['D_unknown', SPHEROID['Unknown', 6371007.181, 0.0]], PRIMEM['Greenwich', 0.0], \
    UNIT['Degree', 0.0174532925199433]], PROJECTION['Sinusoidal'], PARAMETER['false_easting', 0.0], \
    PARAMETER['false_northing', 0.0], PARAMETER['central_meridian', 0.0], UNIT['Meter', 1.0]]", \
    "NEAREST", "1000", "WGS_1984_Major_Auxiliary_Sphere_To_WGS_1984", "", "GEOGCS['GCS_WGS_1984', \
    DATUM['D_WGS_1984', SPHEROID['WGS_1984', 6378137.0, 298.257223563]], PRIMEM['Greenwich', 0.0], \
    UNIT['Degree', 0.0174532925199433]]")
    print file + " done"
print "Good job!!!!"
```

#Calculate for suitable area:

```
import xlwt
```

```

import arcpy
arcpy.CheckOutExtension("spatial")
arcpy.env.overwriteOutput = True
inpath = "D:\\int\\"
arcpy.env.workspace = inpath
files = arcpy.ListFiles("*.tif")
outpath = "D:\\Cal_area\\"
wb = xlwt.Workbook()
ws = wb.add_sheet('area')
times = 1
ws.write(0, 0, "IMAGE")
ws.write(0, 1, "AREA")
for file in files:
    print file
    rows = arcpy.UpdateCursor(file)
    ws.write(times, 0, file)
    for row in rows:
        print row.VALUE
        if row.VALUE == 1:
            ws.write(times, 1, row.COUNT)
        else:
            print "nothing"
    times = times + 1
wb.save(outpath + "cal_area.xls")
print "Good job!!!!!"

```

#Calculate for mean elevation:

```

import xlwt
import arcpy
arcpy.CheckOutExtension("spatial")
arcpy.env.overwriteOutput = True
inpath = "D:\\int\\"
arcpy.env.workspace = inpath
files = arcpy.ListFiles("*.tif")
outpath = "D:\\Cal_mean_alt\\"
wb = xlwt.Workbook()
ws = wb.add_sheet('alt')
times = 1
ws.write(0, 0, "IMAGE")
ws.write(0, 1, "Mean Elevation")
elevation = "D:\\alt\\alt.tif"
for file in files:
    ws.write(times, 0, file)
    zs_table = inpath + "output_" + str(times)
    arcpy.gp.ZonalStatisticsAsTable_sa(file, "Value", elevation, zs_table, "DATA", "ALL")
    query_in_row = "Rowid"
    srows = arcpy.SearchCursor(zs_table, "")
    for srow in srows:
        mean = srow.MEAN

```

```

    if srow.VALUE == 1:
        ws.write(times, 1, round(mean))
    else:
        print "nothing"
del zs_table
times = times + 1
wb.save(outpath + "mean_alt.xls")
print "Good job!!!!!"

#Calculate for mean longitude and latitude:
import xlwt
import arcpy
arcpy.CheckOutExtension("spatial")
arcpy.env.overwriteOutput = True
inpath = "D:\\int\\"
arcpy.env.workspace = inpath
files = arcpy.ListFiles("*.tif")
outpath = "D:\\mean_lat_lon\\"
wb = xlwt.Workbook()
ws = wb.add_sheet('center')
times = 1
ws.write(0, 0, "IMAGE")
ws.write(0, 1, "Mean")
center = "D:\\XY\\y_cor.tif"
for file in files:
    ws.write(times, 0, file)
    zs_table = inpath + "output_" + str(times)
    arcpy.gp.ZonalStatisticsAsTable_sa(file, "Value", center, zs_table, "DATA", "ALL")
    query_in_row = "Rowid"
    srows = arcpy.SearchCursor(zs_table, "")
    for srow in srows:
        mean = srow.MEAN
        if srow.VALUE == 1:
            ws.write(times, 1, mean)
        else:
            print "nothing"
del zs_table
times = times + 1
wb.save(outpath + "mean_center.xls")
print "Good job!!!!!"

```

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