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Areas of high conservation value at risk by plant invaders in Georgia under climate change

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Supporting Information

Table S1 List of Georgian endemic plant species. Only the georeferenced ones were used for defining areas with high plant endemism.

Family	Scientific name	Georeferenced	Number of occurences
Amaryllidaceae	*Allium albovianum*	no	
Amaryllidaceae	*Allium chevsuricum*	yes	1
Amaryllidaceae	*Allium gracilescens*	no	
Amaryllidaceae	*Allium otschiauriae*	no	
Amaryllidaceae	*Galanthus kemulariae*	yes	
Amaryllidaceae	*Galanthus ketzkhovelii*	yes	8
Amaryllidaceae	*Galanthus schaoricus*	no	
Apiaceae	*Angelica adzharica*	no	
Apiaceae	*Astrantia colchica*	no	
Apiaceae	*Bupleurum abchasicum*	no	
Apiaceae	*Carum grossheimii*	yes	11
Apiaceae	*Chymsydia colchica*	yes	1
Apiaceae	*Cnidium grossheimii*	no	
Apiaceae	*Cnidium mandenovae*	yes	1
Apiaceae	*Cnidium pauciradiatum*	yes	1
Apiaceae	*Cryptotaenia flahaultii*	no	
Apiaceae	*Heracleum egrissicum*	no	
Apiaceae	*Heracleum grossheimii*	no	
Apiaceae	*Heracleum ossethicum*	yes	11
Apiaceae	*Heracleum sommieri*	yes	7
Apiaceae	*Pimpinella schatilensis*	yes	1
Apiaceae	*Polylophium panjutinii*	yes	1
Asparagaceae	*Muscari alpanicum*	yes	1
Asparagaceae	*Ornithogalum imereticum*	yes	1
Asparagaceae	*Scilla otschiauriae*	no	
Aspleniaceae	*Asplenium hermanii-christii*	yes	2
Asteraceae	*Achillea sedelmeyeriana*	yes	2
Asteraceae	*Anthemis emiliae*	yes	3
Asteraceae	*Anthemis saguramica*	no	
Asteraceae	*Anthemis schischkiniana*	yes	5
Asteraceae	*Centaurea bagadensis*	no	
Asteraceae	*Centaurea bella subsp. nathadzeae*	no	
Asteraceae	*Centaurea transcaucasica subsp. georgica*	no	

Family	Scientific name	Georeferenced	Number of occurences
Asteraceae	*Cirsium albowianum*	no	
Asteraceae	*Cirsium fominii*	no	
Asteraceae	*Cirsium imereticum*	yes	14
Asteraceae	*Cirsium kemulariae*	no	
Asteraceae	*Cirsium oblongifolium*	no	
Asteraceae	*Cirsium sosnowskyi*	yes	19
Asteraceae	*Echinops foliosus*	no	
Asteraceae	*Echinops galaticus subsp. ossicus*	no	
Asteraceae	*Echinops sphaerocephalus subsp. cirsifolius*	no	
Asteraceae	*Galatella eldarica*	no	
Asteraceae	*Hieracium abakurae*	no	
Asteraceae	*Hieracium brittatense*	no	
Asteraceae	*Hieracium chromolepium*	no	
Asteraceae	*Hieracium concinnidens*	no	
Asteraceae	*Hieracium haematoglossum*	no	
Asteraceae	*Hieracium laetevirens*	no	
Asteraceae	*Hieracium macrolygodes*	no	
Asteraceae	*Hieracium retroversilobatum*	no	
Asteraceae	*Hieracium subsimplex*	no	
Asteraceae	*Hieracium turfosum*	no	
Asteraceae	*Jurinea exuberans*	no	
Asteraceae	*Kemulariella tugana*	yes	8
Asteraceae	*Petasites georgicus*	yes	6
Asteraceae	*Podospermum grigoraschvilii*	no	
Asteraceae	*Podospermum idae*	yes	2
Asteraceae	*Psephellus adjaricus*	yes	1
Asteraceae	*Psephellus kacheticus*	yes	2
Asteraceae	*Psephellus kolakovskii*	yes	4
Asteraceae	*Pyrethrum marionii*	no	
Asteraceae	*Scorzonera ketzkhowelii*	yes	1
Asteraceae	*Scorzonera kozlowskyi*	no	
Asteraceae	*Senecio similiflorus*	no	
Asteraceae	*Solidago turfosa*	yes	6
Asteraceae	*Tragopogon colchicus*	yes	4
Asteraceae	*Tragopogon ketzkhovelii*	yes	4

Family	Scientific name	Georeferenced	Number of occurences
Asteraceae	*Tragopogon makaschwilii*	yes	1
Asteraceae	*Tragopogon meskheticus*	yes	2
Asteraceae	*Tragopogon otschiaurii*	no	
Asteraceae	*Tripleurospermum szowitzii*	yes	16
Berberidaceae	*Gymnospermium smirnovii*	yes	2
Betulaceae	*Betula megrelica*	no	
Betulaceae	*Corylus abchasica*	no	
Betulaceae	*Corylus colchica*	yes	10
Betulaceae	*Corylus egrissiensis*	no	
Betulaceae	*Corylus imeretica*	no	
Betulaceae	*Corylus kachetica*	yes	6
Boraginaceae	*Omphalodes kusnetzovii*	no	
Boraginaceae	*Paracynoglossum imeretinum*	yes	16
Brassicaceae	*Arabis colchica*	yes	4
Brassicaceae	*Arabis kazbegi*	yes	3
Brassicaceae	*Barbarea ketzkhovelii*	yes	4
Brassicaceae	*Callothlaspi abchasicum*	yes	1
Brassicaceae	*Draba meskhetica*	yes	1
Brassicaceae	*Draba mingrelica*	yes	7
Brassicaceae	*Erysimum caucasicum*	yes	21
Brassicaceae	*Erysimum contractum*	no	
Brassicaceae	*Erysimum subnivale*	yes	1
Campanulaceae	*Campanula armazica*	yes	1
Campanulaceae	*Campanula bzybica*	yes	5
Campanulaceae	*Campanula calcarea*	yes	5
Campanulaceae	*Campanula dzaaku*	no	
Campanulaceae	*Campanula engurensis*	no	
Campanulaceae	*Campanula fonderwisii*	no	
Campanulaceae	*Campanula hieracioides*	no	
Campanulaceae	*Campanula imeretina*	yes	7
Campanulaceae	*Campanula irinae*	yes	2
Campanulaceae	*Campanula jadvigae*	no	
Campanulaceae	*Campanula kachetica*	no	
Campanulaceae	*Campanula kantschavelii*	no	
Campanulaceae	*Campanula kemulariae*	no	
Campanulaceae	*Campanula kolakovskyi*	yes	4

Family	Scientific name	Georeferenced	Number of occurences
Campanulaceae	*Campanula letschchumensis*	yes	7
Campanulaceae	*Campanula makaschvilii*	yes	6
Campanulaceae	*Campanula megrelica*	yes	4
Campanulaceae	*Campanula mirabilis*	no	
Campanulaceae	*Campanula panjutinii*	yes	1
Campanulaceae	*Campanula paradoxa*	no	
Campanulaceae	*Campanula radchensis*	yes	
Campanulaceae	*Campanula raddeana*	no	
Campanulaceae	*Campanula schistosa*	yes	8
Campanulaceae	*Campanula suanetica*	no	
Campanulaceae	*Campanula symphytifolia*	no	
Campanulaceae	*Symphyandra antiqua*	no	
Caprifoliaceae	*Cephalaria sosnowskyi*	yes	4
Caprifoliaceae	*Scabiosa adzharica*	yes	3
Caprifoliaceae	*Scabiosa colchica*	yes	18
Caprifoliaceae	*Scabiosa imeretica*	yes	10
Caryophyllaceae	*Cerastium argenteum*	yes	34
Caryophyllaceae	*Cerastium svanicum*	no	
Caryophyllaceae	*Dianthus abchasicus*	yes	6
Caryophyllaceae	*Dianthus azkurensis*	no	
Caryophyllaceae	*Dianthus charadzeae*	yes	6
Caryophyllaceae	*Minuartia subuniflora*	yes	8
Caryophyllaceae	*Silene alexeji*	no	
Caryophyllaceae	*Silene boissieri*	yes	1
Cistaceae	*Helianthemum georgicum*	no	
Cornaceae	*Swida armasica*	no	
Crassulaceae	*Sempervivum charadzeae*	no	
Crassulaceae	*Sempervivum ermanicum*	no	
Crassulaceae	*Sempervivum sosnowskyi*	yes	2
Cyperaceae	*Rhynchospora caucasica*	no	
Fabaceae	*Astragalus argillosus*	no	
Fabaceae	*Astragalus aspindzicus*	yes	1
Fabaceae	*Astragalus atenicus*	yes	5
Fabaceae	*Astragalus cyri*	yes	1
Fabaceae	*Astragalus doluchanovii*	no	
Fabaceae	*Astragalus hirtulus*	yes	9

Family	Scientific name	Georeferenced	Number of occurences
Fabaceae	*Astragalus kemulariae*	yes	28
Fabaceae	*Astragalus kozlovskyi*	yes	1
Fabaceae	*Astragalus leonidae*	yes	4
Fabaceae	*Astragalus magnificus*	no	
Fabaceae	*Astragalus meskheticus*	no	
Fabaceae	*Astragalus raddeanus*	yes	24
Fabaceae	*Astragalus schischkinii*	yes	1
Fabaceae	*Astragalus vardziae*	no	
Fabaceae	*Cicer caucasicum*	yes	1
Fabaceae	*Genista adzharica*	no	
Fabaceae	*Genista mingrelica*	no	
Fabaceae	*Genista sachokiana*	no	
Fabaceae	*Onobrychis angustifolia*	no	
Fabaceae	*Onobrychis grossheimii*	no	
Fabaceae	*Onobrychis kachetica*	yes	13
Fabaceae	*Onobrychis kemulariae*	no	
Fabaceae	*Onobrychis meschetica*	yes	23
Fagaceae	*Quercus imeretina*	no	
Gentianaceae	*Gentiana kolakovskyi*	no	
Gentianaceae	*Gentiana rhodocalyx*	no	
Hypericaceae	*Hypericum nordmannii*	no	
Iridaceae	*Crocus autranii*	yes	1
Iridaceae	*Iris winogradowii*	no	
Lamiaceae	*Galeopsis nana*	no	
Lamiaceae	*Nepeta iberica*	no	
Lamiaceae	*Salvia compar*	yes	6
Lamiaceae	*Satureja bzybica*	no	
Lamiaceae	*Scutellaria helenae*	no	
Lamiaceae	*Thymus ladjanuricus*	no	
Lamiaceae	*Thymus sosnowskyi*	no	
Lamiaceae	*Ziziphora borzhomica*	no	
Lythraceae	*Trapa colchica*	yes	1
Lythraceae	*Trapa maleevii*	no	
Malvaceae	*Alcea abchasica*	no	
Malvaceae	*Alcea transcaucasica*	no	
Malvaceae	*Hibiscus ponticus*	yes	1

Family	Scientific name	Georeferenced	Number of occurences
Orobanchaceae	*Euphrasia adenocaulon*	yes	2
Orobanchaceae	*Euphrasia grossheimii*	no	
Orobanchaceae	*Euphrasia kemulariae*	no	
Orobanchaceae	*Euphrasia svanica*	no	
Orobanchaceae	*Euphrasia woronowii*	no	
Orobanchaceae	*Melampyrum alboffianum*	no	
Orobanchaceae	*Orobanche quadrifida*	no	
Orobanchaceae	*Pedicularis elisabethae*	no	
Paeoniaceae	*Paeonia carthalinica*	yes	2
Paeoniaceae	*Paeonia lagodechiana*	yes	3
Paeoniaceae	*Paeonia majko*	no	
Paeoniaceae	*Paeonia ruprechtiana*	no	
Paeoniaceae	*Paeonia steveniana*	no	
Papaveraceae	*Corydalis vittae*	no	
Plantaginaceae	*Veronica colchica*	no	
Plantaginaceae	*Veronica tumadzhanovii*	no	
Poaceae	*Alopecurus longifolius*	no	
Poaceae	*Bromopsis divaricata*	no	
Poaceae	*Calamagrostis dmitrievae*	no	
Poaceae	*Poa alexeenkoi*	no	
Poaceae	*Triticum carthlicum*	no	
Poaceae	*Triticum macha*	no	
Poaceae	*Triticum palaeo-colchicum*	no	
Poaceae	*Triticum timopheevi*	no	
Poaceae	*Triticum zhukovskyi*	yes	1
Polygalaceae	*Polygala albowii*	no	
Primulaceae	*Cyclamen colchicum*	no	
Primulaceae	*Primula saguramica*	no	
Ranunculaceae	*Aquilegia colchica*	no	
Ranunculaceae	*Aquilegia gegica*	no	
Ranunculaceae	*Delphinium elisabethae*	no	
Ranunculaceae	*Delphinium ironorum*	no	
Ranunculaceae	*Delphinium osseticum*	no	
Ranunculaceae	*Delphinium thamarae*	no	
Ranunculaceae	*Ficaria varia*	no	
Ranunculaceae	*Pulsatilla georgica*	yes	5

Family	Scientific name	Georeferenced	Number of occurences
Ranunculaceae	*Ranunculus migaricus*	no	
Rhamnaceae	*Rhamnus cordata*	no	
Rosaceae	*Alchemilla adelodictya*	no	
Rosaceae	*Alchemilla alexandri*	no	
Rosaceae	*Alchemilla aurata*	no	
Rosaceae	*Alchemilla bakurianica*	no	
Rosaceae	*Alchemilla capillacea*	no	
Rosaceae	*Alchemilla cartalinica*	no	
Rosaceae	*Alchemilla erectilis*	no	
Rosaceae	*Alchemilla grandidens*	no	
Rosaceae	*Alchemilla hypochlora*	no	
Rosaceae	*Alchemilla hypotricha*	no	
Rosaceae	*Alchemilla impolita*	no	
Rosaceae	*Alchemilla indurata*	no	
Rosaceae	*Alchemilla insignis*	no	
Rosaceae	*Alchemilla microdictya*	no	
Rosaceae	*Alchemilla obtegens*	no	
Rosaceae	*Alchemilla pascualis*	no	
Rosaceae	*Alchemilla subcrenatiformis*	no	
Rosaceae	*Alchemilla suberectipila*	no	
Rosaceae	*Alchemilla subsplendens*	no	
Rosaceae	*Alchemilla woronowii*	no	
Rosaceae	*Amygdalus georgica*	no	
Rosaceae	*Potentilla imerethica*	no	
Rosaceae	*Potentilla kemulariae*	no	
Rosaceae	*Potentilla sommieri*	no	
Rosaceae	*Potentilla sosnowskyi*	no	
Rosaceae	*Rosa doluchanovii*	no	
Rosaceae	*Rosa ermanica*	no	
Rosaceae	*Rosa irysthonica*	no	
Rosaceae	*Rosa transcaucasica*	no	
Rosaceae	*Rubus abchaziensis*	no	
Rosaceae	*Rubus adscharicus*	no	
Rosaceae	*Rubus caucasigenus*	no	
Rosaceae	*Rubus charadzeae*	no	
Rosaceae	*Rubus cyri*	no	

Family	Scientific name	Georeferenced	Number of occurences
Rosaceae	*Rubus discernendus*	no	
Rosaceae	*Rubus juzepczukii*	no	
Rosaceae	*Rubus kachethicus*	no	
Rosaceae	*Rubus ketzkhovelii*	no	
Rosaceae	*Rubus kudagorensis*	no	
Rosaceae	*Rubus lepidulus*	no	
Rosaceae	*Rubus leptostemon*	no	
Rosaceae	*Rubus longipetiolatus*	no	
Rosaceae	*Rubus miszczenkoi*	no	
Rosaceae	*Rubus moschus*	no	
Rosaceae	*Rubus nakeralicus*	no	
Rosaceae	*Rubus ochthodes*	no	
Rosaceae	*Rubus ossicus*	no	
Rosaceae	*Rubus platyphylloides*	no	
Rosaceae	*Rubus ponticus*	no	
Rosaceae	*Rubus woronowii*	no	
Rubiaceae	*Galium praemontanum*	no	
Santalaceae	*Thesium laxiflorum*	no	
Sapindaceae	*Acer sosnowskyi*	no	
Saxifragaceae	*Chrysosplenium albowianum*	no	
Saxifragaceae	*Saxifraga abchasica*	no	
Saxifragaceae	*Saxifraga kusnezowiana*	yes	2
Saxifragaceae	*Saxifraga trautvetteri*	no	
Scrophulariaceae	*Scrophularia imerethica*	no	
Scrophulariaceae	*Verbascum adzharicum*	no	
Scrophulariaceae	*Verbascum sessiliflorum*	no	
Tamaricaceae	*Reaumuria kuznetzovii*	yes	2
Ulmaceae	*Ulmus georgica*	no	
Urticaceae	*Parietaria kemulariae*	no	
Violaceae	*Viola orthoceras*	yes	10

Table S2 Georeferenced Caucasian endemic plant species, used for defining areas with high plant endemism, in addition to the Georgian endemics.

Family	Scientific name	Number of occurrences
Apiaceae	*Heracleum sphondylium subsp. cyclocarpum*	12
Apiaceae	*Laserpitium affine*	3
Apiaceae	*Peucedanum adae*	6
Apiaceae	*Seseli petraeum*	6
Apiaceae	*Seseli saxicolum*	2
Asteraceae	*Achillea latiloba*	7
Asteraceae	*Cirsium pugnax*	16
Asteraceae	*Kemulariella abchasica*	8
Asteraceae	*Kemulariella colchica*	9
Asteraceae	*Prenanthes abietina*	17
Asteraceae	*Psephellus abchasicus*	8
Asteraceae	*Psephellus carthalinicus*	18
Asteraceae	*Psephellus meskheticus*	11
Asteraceae	*Pyrethrum peucedanifolium*	4
Asteraceae	*Senecio pandurifolius*	11
Asteraceae	*Tanacetum punctatum*	14
Berberidaceae	*Epimedium colchicum*	12
Betulaceae	*Betula medwediewii*	6
Betulaceae	*Betula raddeana*	11
Boraginaceae	*Symphytum ibericum*	15
Brassicaceae	*Draba imeretica*	9
Campanulaceae	*Campanula dzyschrica*	3
Dryopteridaceae	*Dryopteris liliana*	3
Ericaceae	*Epigaea gaultherioides*	4
Ericaceae	*Rhododendron ungernii*	10
Fabaceae	*Genista abchasica*	7

Table S3 Selected 27 invasive alien plants.

Family	Scientific name	Status	Occurences worldwide	Occurences in Georgia
Simaroubaceae	*Ailanthus altissima*	invasive	4301	47
Asteraceae	*Ambrosia artemisiifolia*	invasive	7879	120
Fabaceae	*Amorpha fruticosa*	naturalized	1432	9
Scrophulariaceae	*Buddleja davidii*	subspontaneous	20254	9
Amaranthaceae	*Chenopodium album*	naturalized	63157	88
Verbenaceae	*Clerodendrum bungei*	invasive	270	27
Commelinaceae	*Commelina communis*	naturalized	1173	76
Asteraceae	*Conyza canadensis*	naturalized	62350	51
Asteraceae	*Symphyotrichum graminifolium*	unknown	101	79
Asteraceae	*Crassocephalum crepidioides*	invasive	1223	23
Lamiaceae	*Elsholtzia ciliata*	naturalized	588	28
Asteraceae	*Galinsoga parviflora*	naturalized	14254	27
Fabaceae	*Gleditsia triacanthos*	naturalized	684	13
Apiaceae	*Hydrocotyle vulgaris*	naturalized	65376	12
Asteraceae	*Ixeridium dentatum*	adventive	800	18
Poaceae	*Miscanthus sinensis*	invasive	784	11
Poaceae	*Paspalum dilatatum*	invasive	6202	83
Bignoniaceae	*Paulownia tomentosa*	subspontaneous	943	10
Lamiaceae	*Perilla nankinensis*	invasive	709	51
Phytolaccaceae	*Phytolacca americana*	naturalized	2384	107
Polygonaceae	*Polygonum*	naturalized	498	40

Family	Scientific name	Status	Occurences worldwide	Occurences in Georgia
	thunbergii			
Fabaceae	*Pueraria montana var. lobata*	naturalized	843	9
Fabaceae	*Robinia pseudoacacia*	invasive	24916	54
Asteraceae	*Solidago canadensis*	naturalized	27052	13
Rosaceae	*Spiraea japonica*	invasive	645	11
Fabaceae	*Ulex europaea*	adventive	64780	36
Verbenaceae	*Vitex rotundifolia*	invasive	351	3

Table S4 Evaluation of the species distribution models evaluated using world occurrences. The table shows the mean and standard deviation of AUC, TSS and Sensitivity evaluators (see methods for more details). All species show good evaluations.

	AUC	**TSS**	**SENSITIVITY**
Ailanthus altissima	0.942 ± 0.014	0.770 ± 0.031	0.913 ± 0.027
Ambrosia artemisiifolia	0.944 ± 0.012	0.780 ± 0.028	0.915 ± 0.014
Amorpha fruticosa	0.899 ± 0.034	0.664 ± 0.069	0.853 ± 0.053
Buddleja davidii	0.981 ± 0.004	0.892 ± 0.010	0.948 ± 0.011
Chenopodium album	0.967 ± 0.007	0.823 ± 0.032	0.908 ± 0.025
Clerodendrum bungei	0.931 ± 0.028	0.798 ± 0.058	0.925 ± 0.041
Commelina communis	0.942 ± 0.024	0.803 ± 0.051	0.919 ± 0.031
Conyza canadensis	0.957 ± 0.010	0.776 ± 0.040	0.887 ± 0.040
Conyza graminifolia	0.849 ± 0.049	0.572 ± 0.090	0.776 ± 0.109
Crassocephalum crepidioides	0.882 ± 0.032	0.647 ± 0.053	0.810 ± 0.062
Elsholtzia ciliata	0.928 ± 0.032	0.770 ± 0.064	0.910 ± 0.049
Galinsoga parviflora	0.971 ± 0.006	0.830 ± 0.025	0.906 ± 0.024
Gleditsia triacanthos	0.929 ± 0.014	0.730 ± 0.033	0.886 ± 0.047
Hydrocotyle vulgaris	0.970 ± 0.005	0.892 ± 0.014	0.977 ± 0.007
Ixeridium dentatum	0.971 ± 0.025	0.902 ± 0.045	0.960 ± 0.022
Miscanthus sinensis	0.943 ± 0.017	0.773 ± 0.041	0.892 ± 0.039
Paspalum dilatatum	0.934 ± 0.019	0.753 ± 0.038	0.911 ± 0.024
Paulownia tomentosa	0.899 ± 0.021	0.693 ± 0.050	0.879 ± 0.060
Perilla nankinensis	0.939 ± 0.020	0.789 ± 0.041	0.917 ± 0.037
Phytolacca americana	0.934 ± 0.017	0.768 ± 0.039	0.927 ± 0.026
Polygonum thunbergii	0.953 ± 0.039	0.835 ± 0.089	0.919 ± 0.057
Pueraria lobata	0.928 ± 0.016	0.770 ± 0.035	0.908 ± 0.039
Robinia pseudoacacia	0.968 ± 0.008	0.842 ± 0.023	0.937 ± 0.016
Solidago canadensis	0.962 ± 0.009	0.813 ± 0.033	0.907 ± 0.021
Spiraea japonica	0.924 ± 0.018	0.770 ± 0.032	0.912 ± 0.032
Ulex europaeus	0.979 ± 0.010	0.890 ± 0.031	0.965 ± 0.010
Vitex rotundifolia	0.904 ± 0.067	0.736 ± 0.149	0.880 ± 0.101

Table S5 Evaluation of the species distribution models evaluated using Georgian occurrences only. The table shows the mean and standard deviation of AUC, TSS and Sensitivity evaluators (see methods for more details). Only species presenting more than 12 occurrences in Georgia were evaluated. Species with good evaluations are shown in bold.

	AUC	TSS	SENSITIVITY
Ailanthus altissima	**0.741 ± 0.083**	**0.571 ± 0.118**	**0.964 ± 0.032**
Ambrosia artemisiifolia	0.552 ± 0.038	0.222 ± 0.071	0.953 ± 0.093
Amorpha fruticosa	NA	NA	NA
Buddleja davidii	NA	NA	NA
Chenopodium album	0.540 ± 0.030	0.132 ± 0.071	0.775 ± 0.144
Clerodendrum bungei	NA	NA	NA
Commelina communis	**0.856 ± 0.066**	**0.643 ± 0.089**	**0.896 ± 0.054**
Conyza canadensis	0.623 ± 0.087	0.370 ± 0.115	0.959 ± 0.103
Conyza graminifolia	**0.941 ± 0.033**	**0.815 ± 0.057**	**0.940 ± 0.036**
Crassocephalum crepidioides	**0.933 ± 0.068**	**0.849 ± 0.103**	**0.982 ± 0.045**
Elsholtzia ciliata	0.616 ± 0.066	0.360 ± 0.096	0.597 ± 0.212
Galinsoga parviflora	0.650 ± 0.078	0.337 ± 0.111	0.636 ± 0.170
Gleditsia triacanthos	**0.704 ± 0.116**	**0.497 ± 0.194**	**0.932 ± 0.147**
Hydrocotyle vulgaris	**0.891 ± 0.110**	**0.736 ± 0.240**	**0.850 ± 0.232**
Ixeridium dentatum	**0.931 ± 0.039**	**0.803 ± 0.073**	**0.897 ± 0.079**
Miscanthus sinensis	NA	NA	NA
Paspalum dilatatum	**0.881 ± 0.062**	**0.750 ± 0.069**	**0.929 ± 0.046**
Paulownia tomentosa	NA	NA	NA
Perilla nankinensis	**0.929 ± 0.037**	**0.793 ± 0.071**	**0.943 ± 0.040**
Phytolacca americana	**0.859 ± 0.054**	**0.629 ± 0.079**	**0.875 ± 0.054**
Polygonum thunbergii	**0.863 ± 0.037**	**0.652 ± 0.061**	**0.815 ± 0.074**
Pueraria lobata	NA	NA	NA
Robinia pseudoacacia	0.633 ± 0.059	0.347 ± 0.083	0.957 ± 0.041
Solidago canadensis	0.652 ± 0.086	0.149 ± 0.167	0.803 ± 0.364
Spiraea japonica	NA	NA	NA
Ulex europaeus	**0.900 ± 0.132**	**0.764 ± 0.295**	**0.941 ± 0.192**
Vitex rotundifolia	NA	NA	NA

Table S6 Threat potential of the 27 invasive alien plants (IAPs) for the future in Georgia, area of high plant endemism (AHPE), protected areas (PAs) and area of high conservation values (i.e. AHPE and protected areas; AHCV). Values correspond to the percent of predicted surface occupied by the different ranges of invasive species richness (0, 1-9, 10-18 and 19-26 species). Future predictions are presented for three different climate change scenarios for the year 2050: RCP 4.5 HadGEM2-AO, RCP 4.5 IPSL-CM5A-LR and RCP 8.5 HadGEM2-AO.

RCP 4.5 HadGEM2-AO

IAPs richness	Georgia (%)	AHPE (%)	PAs (%)	AHCV (%)
0	7.61	0.31	17.57	5.67
1-9	36.31	17.40	33.07	22.37
10-18	45.45	66.00	36.31	57.31
19-26	10.62	16.29	13.04	14.64

RCP 4.5 IPSL-CM5A-LR

IAPs richness	Georgia (%)	AHPE (%)	PAs (%)	AHCV (%)
0	3.20	0.32	9.29	3.12
1-9	34.60	14.92	36.75	21.69
10-18	47.94	58.65	36.37	51.85
19-26	14.24	26.12	17.60	23.34

RCP 8.5 HadGEM2-AO

IAPs richness	Georgia (%)	AHPE (%)	PAs (%)	AHCV (%)
0	4.43	0.40	4.41	1.66
1-9	37.36	16.71	43.40	25.16
10-18	50.75	66.96	41.30	59.34
19-26	7.44	15.93	10.90	13.84

Figure S1 Occurrences (black points) of the endemic plant species in Georgia, and location of the areas of high plant endemism (black-rimmed frames) and PAs (grey-rimmed frames).

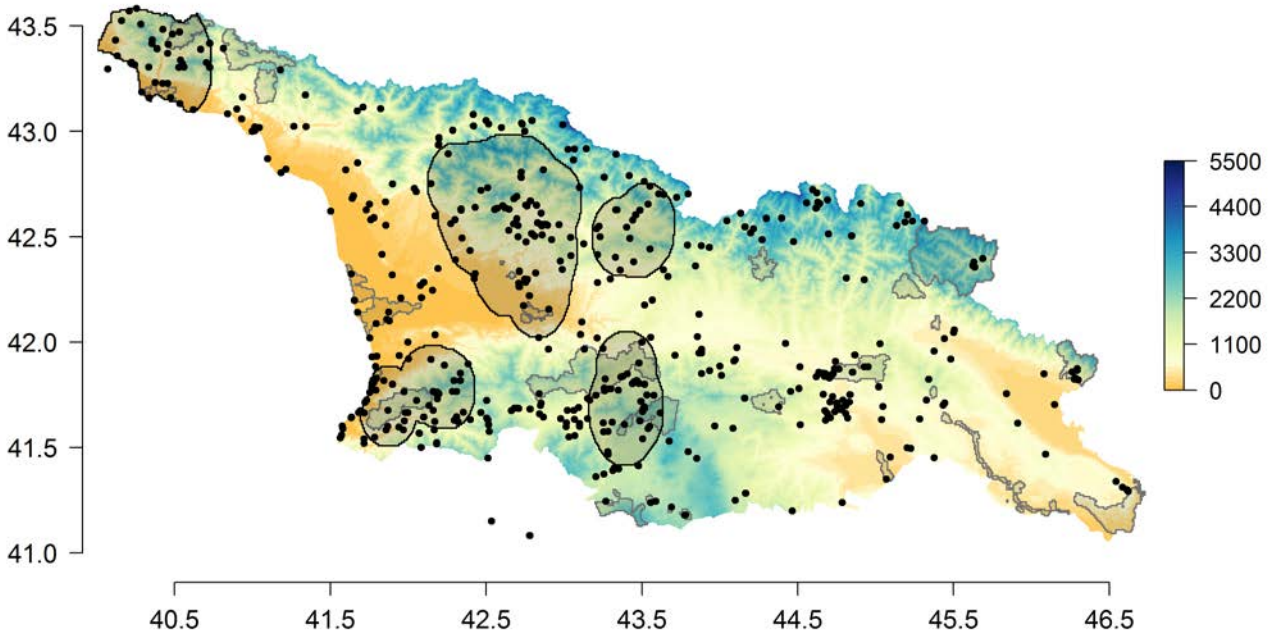

Figure S2 Occurrences (black points) of the endemic plant species in Georgia, and location of the areas of high plant endemism representing 20% of the total cover of Georgia (grey area; > 15 endemic species), 10% (yellow area; >= 18 endemic species), 5% (orange area; > 22 endemic species) and 1% (red area; > 26 endemic species).

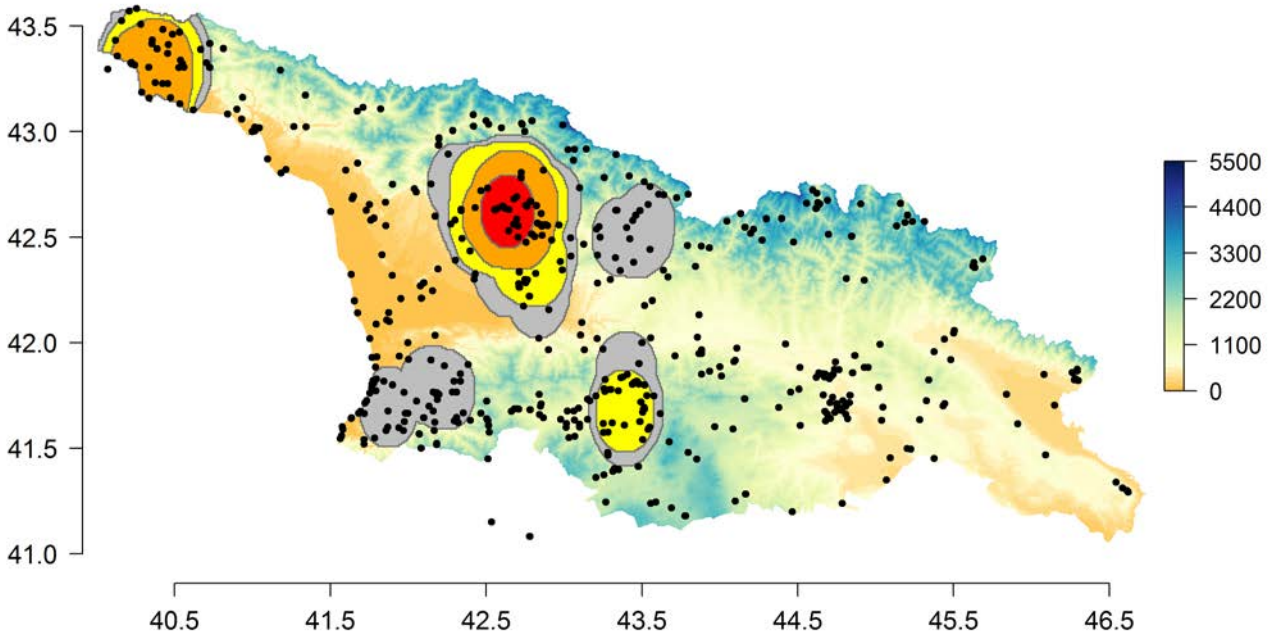

Figure S3 Distribution of the occurrences of the 27 invasive alien plant species (red points) in the world.

Figure S4 Occurrences (black points) of the 27 selected invasive alien plant species in Georgia, and location of the areas of high plant endemism (black-rimmed frames) and PAs (grey-rimmed frames).

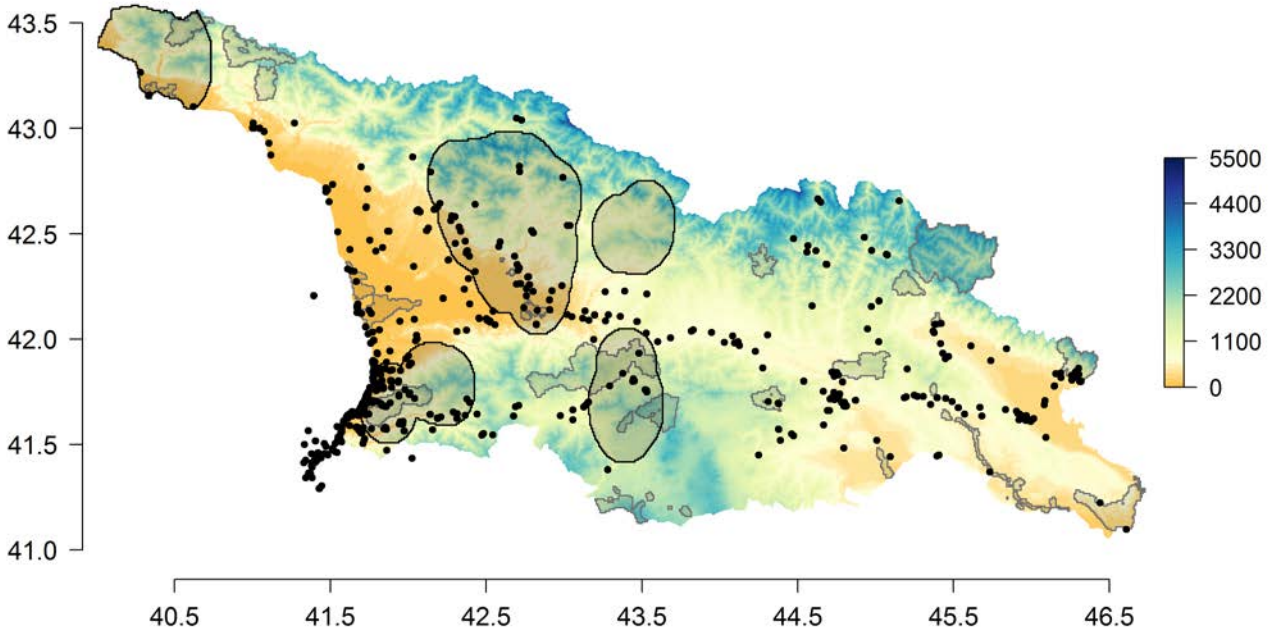

Figure S5 Summed species mean predictions of habitat suitability (mean of the 5 algorithms) for invasive alien plant species in Georgia for the (a) present climate and (b) future climate for the year 2050 (RCP 8.5 IPSL-CM5A-LR climate change scenario). The protected areas are shown as grey-shaded frames and areas of high plant endemism as black-rimmed frames. The colour scale represents the summed mean predictions of habitat suitability for invasive alien plant species in Georgia.

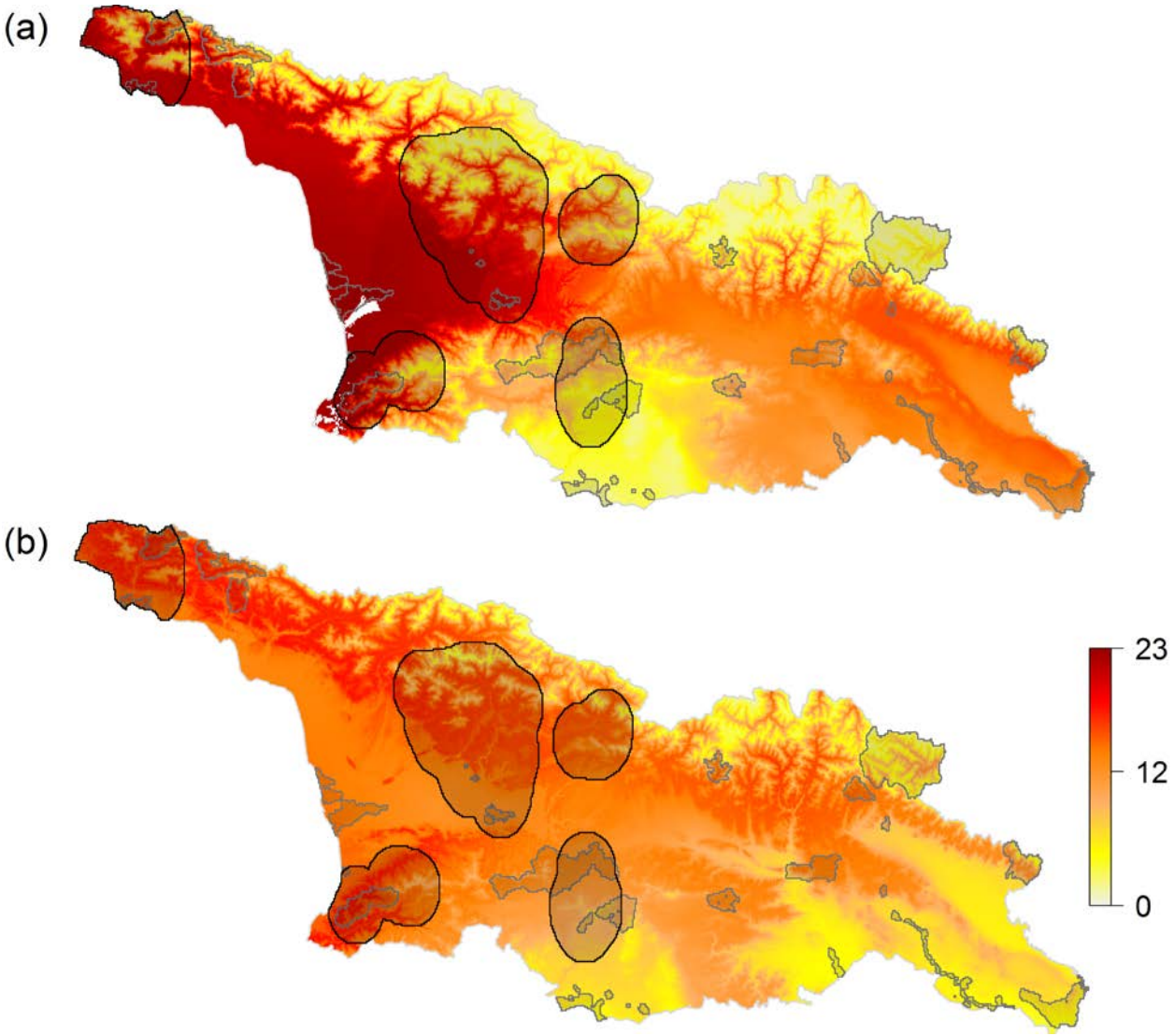

Figure S6 Species mean predictions of habitat suitability (mean of the 5 algorithms; green = high suitability; white=low suitability) for invasive alien plant species in Georgia with their occurrences in the country (black points).

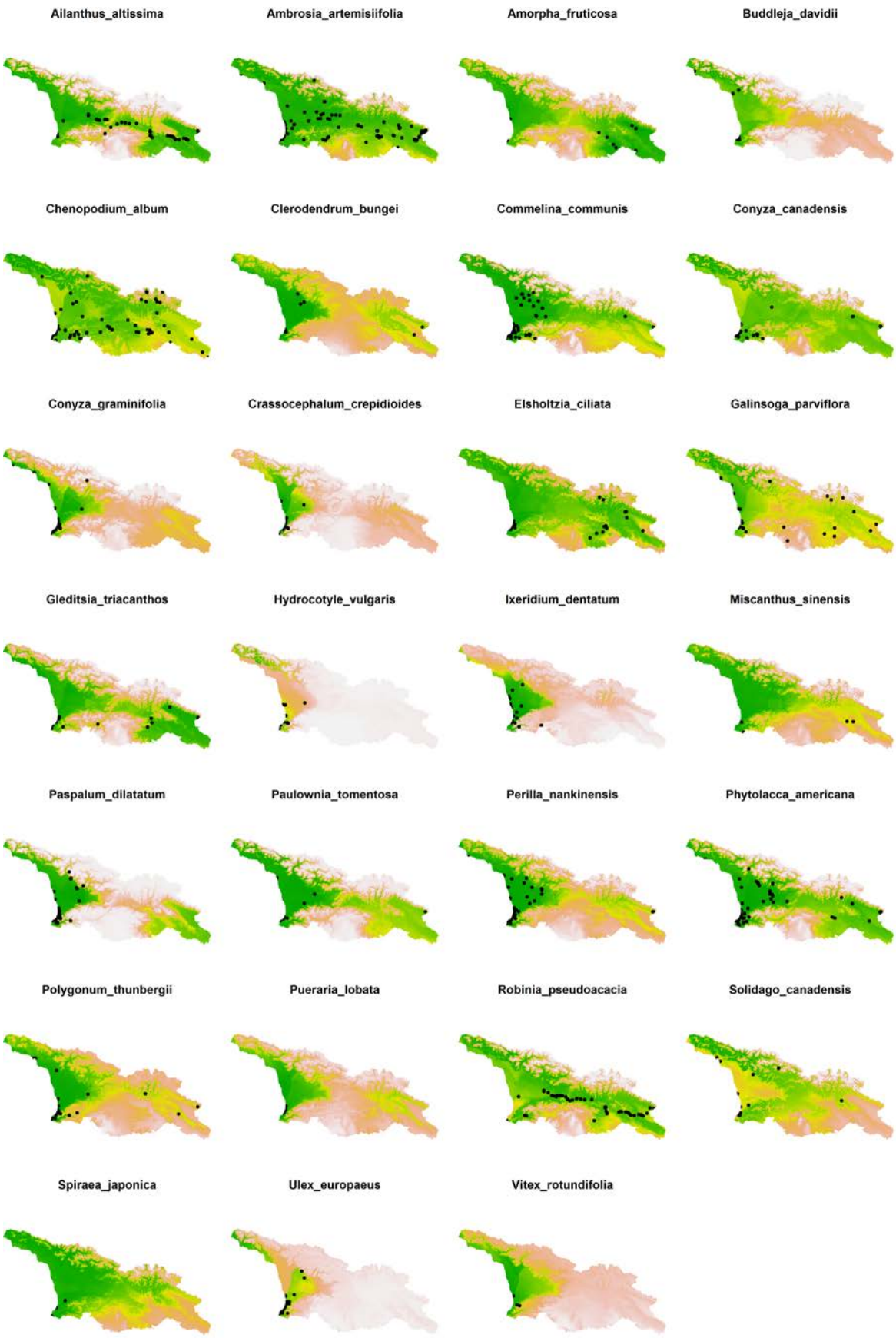

Figure S7 Predicted current distribution (green area) of invasive alien plant species in Georgia with their occurrences in the country (black points).

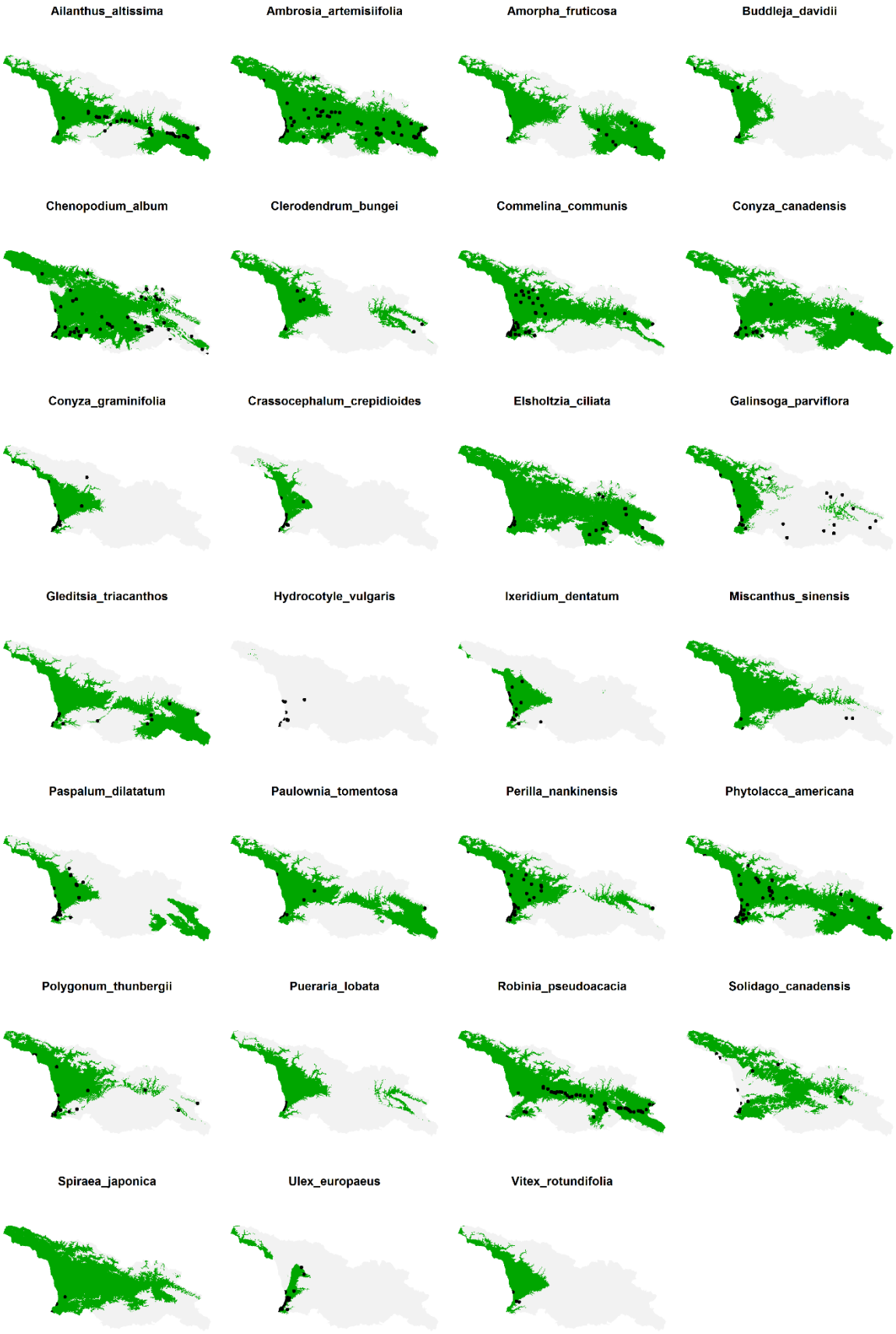

Figure S8 Invasive alien plant species richness in Georgia for future climate under three different climate change models for the year 2050: (a) RCP 4.5 HadGEM2-AO, (b) RCP 4.5 IPSL-CM5A-LR and (c) RCP 8.5 HadGEM2-AO.