

Supplementary Table 7. Lists of top 5% (30 out of 586 species) original species using regional scores and mean local scores for each species across all the plots it occurred in. Trait-based originality unit relies on Gower distances calculated for species' pairwise trait differences, bounded between 0 and 1.

Regional trait-based originality (min=0.44, median=0.52, max=0.67)		Mean of all local trait-based originalities (min=0.36, median=0.48, max=0.71)	
		<i>Helictotrichon sempervirens</i> *	
<i>Exaculum pusillum</i>	0.67	(1)	0.71
<i>Antinoria agrostidea</i>	0.67	<i>Vulpia muralis</i> (1)	0.67
<i>Minuartia viscosa</i>	0.65	<i>Exaculum pusillum</i> (1)	0.67
<i>Bellis annua</i> *	0.65	<i>Trifolium pallidum</i> *(1)	0.67
<i>Erigeron sumatrensis</i> *	0.64	<i>Arctium nemorosum</i> (1)	0.65
<i>Potentilla montana</i>	0.64	<i>Antinoria agrostidea</i> (1)	0.65
<i>Phragmites australis</i>	0.63	<i>Veronica acinifolia</i> (1)	0.65
<i>Carex mairei</i>	0.63	<i>Minuartia viscosa</i> (1)	0.64
<i>Arctium nemorosum</i>	0.63	<i>Erigeron sumatrensis</i> * (76)	0.64
<i>Anagallis minima</i>	0.63	<i>Bellis annua</i> (2)	0.64
<i>Stellaria media</i>	0.63	<i>Triticum monococcum</i> * (1)	0.62
<i>Utricularia australis</i>	0.63	<i>Orobancha picridis</i> (11)	0.62
		<i>Heracleum mantegazzianum</i> *	
<i>Trifolium pallidum</i> *	0.62	(1)	0.62
<i>Triticum monococcum</i> *	0.62	<i>Petroselinum crispum</i> * (1)	0.62
<i>Helictotrichon sempervirens</i> *	0.62	<i>Centaurea debeauxii</i> (1)	0.61
<i>Amaranthus hybridus</i> *	0.62	<i>Artemisia verlotiorum</i> * (2)	0.61
<i>Vulpia muralis</i>	0.62	<i>Anagallis minima</i> (1)	0.61
<i>Poa annua</i>	0.62	<i>Impatiens balfourii</i> * (2)	0.61
<i>Veronica acinifolia</i>	0.62	<i>Potentilla montana</i> (5)	0.61
<i>Centaurea debeauxii</i>	0.61	<i>Beta vulgaris</i> * (2)	0.61
<i>Veronica agrestis</i>	0.61	<i>Catapodium rigidum</i> (8)	0.60
<i>Heracleum mantegazzianum</i> *	0.61	<i>Sison amomum</i> (2)	0.60
<i>Orobancha picridis</i>	0.61	<i>Bromus catharticus</i> * (4)	0.60
<i>Bromus diandrus</i>	0.61	<i>Crepis bursifolia</i> * (3)	0.59
<i>Arum italicum</i>	0.60	<i>Arum italicum</i> * (1)	0.59
<i>Lemna minor</i>	0.60	<i>Centaurea microptilon</i> (2)	0.59
<i>Amaranthus blitoides</i> *	0.60	<i>Persicaria amphibia</i> (6)	0.58
<i>Sison amomum</i>	0.60	<i>Phragmites australis</i> (2)	0.58
<i>Poa bulbosa</i>	0.60	<i>Poa annua</i> (319)	0.58
<i>Taraxacum sect. ruderalia</i>	0.60	<i>Clinopodium menthifolium</i> (5)	0.58

*non-native species

(n) number of a species frequency across all species plots it occurred in 10 years of sampling.