**Metadata**

**Native diversity contributes to composition heterogeneity of exotic floras**

Pengdong Chen1,2, Changchao Shen1,2, Jie Ren1,2, Wenchao Qin1,2, Jiahui Yi1,2, Shuping Guan1,2, Zhibin Tao1,3, Wei Huang1,3\*, Evan Siemann4

1 CAS Key Laboratory of Aquatic Botany and Watershed Ecology, Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan 430074, China

2 University of Chinese Academy of Sciences, Beijing 100049, China

3 Center of Conservation Biology, Core Botanical Garden, Chinese Academy of Sciences, Wuhan 430074, China

4 Department of Biosciences, Rice University, Houston 77005, USA

Corresponding author: Wei Huang, huangwei0519@wbgcas.cn (ORCID iD: 0000-0003-3760-6084)

|  |  |
| --- | --- |
| city | The cities where the sample area is located. |
| community | Community number.  We randomly selected three 15×15 m communities in each city. |
| plot | Plot number.  We set up nine 1×1 m plots in each community. |
| latitude | Latitude of sample area. |
| longitude | Longitude of sample area. |
| species | Species name. We recorded all the species in each plot. |
| native\_status | The origin of species.  We identified exotic species and native species based on the Invasive Alien Species of China (http://www.iplant.cn/ias/protlist) and the Scientific Database of China Plant Species (http://db.kib.ac.cn/). |
| abundance | Abundance of each species in each plot. |
| AMP | Annual precipitation of the city where the sample area is distributed.  The data were downloaded from the WorldClim data website (https://www.worldclim.org/data/index.html). |
| AMT | Mean annual temperature of the city where the sample area is distributed.  The data were downloaded from the WorldClim data website (https://www.worldclim.org/data/index.html). |
| maxT | Monthly maximum temperature of the city where the sample areas is distributed.  The data were downloaded from the WorldClim data website (https://www.worldclim.org/data/index.html). |
| minT | Monthly minimum temperature of the city where the quadrat is distributed.  The data were downloaded from the WorldClim data website (https://www.worldclim.org/data/index.html). |
| soil\_pH | Soil pH value in each plot. |
| soil\_C | Soil carbon content in each plot (g/kg). |
| soil\_N | Soil nitrogen content in each plot (g/kg). |
| soil\_P | Soil available phosphorus content in each plot (g/kg). |
| GDP | Gross domestic product of the city where the quadrat is distributed (hundred million).  The data were downloaded from the National Bureau of Statistics (http://www.stats.gov.cn/). |
| HPD | Human population density of the city where the quadrat is distributed (people per square kilometer).  The data were downloaded from the National Bureau of Statistics (http://www.stats.gov.cn/). |
| RD | Road density of the city where the quadrat is distributed (m2 / km2).  The data were downloaded from the National Bureau of Statistics (http://www.stats.gov.cn/). |