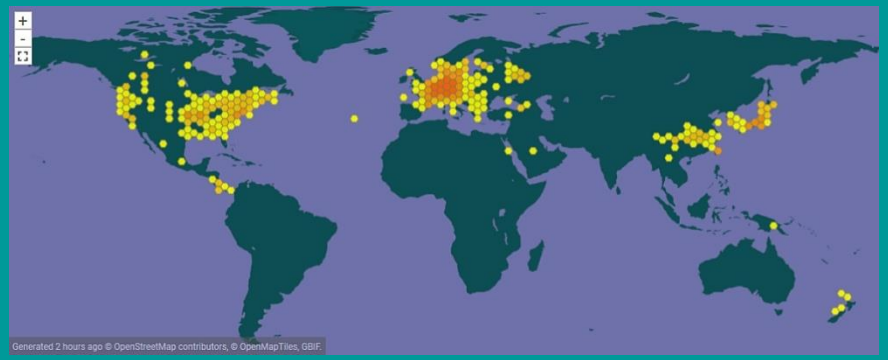
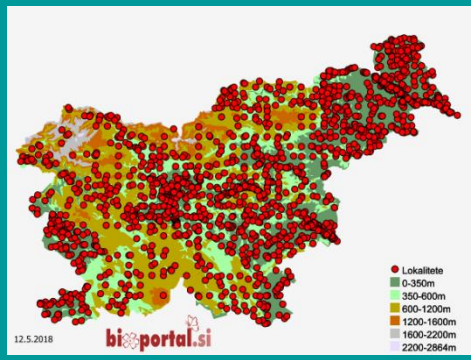
Tujerodne invazivne rastlinske vrste

… in planinci

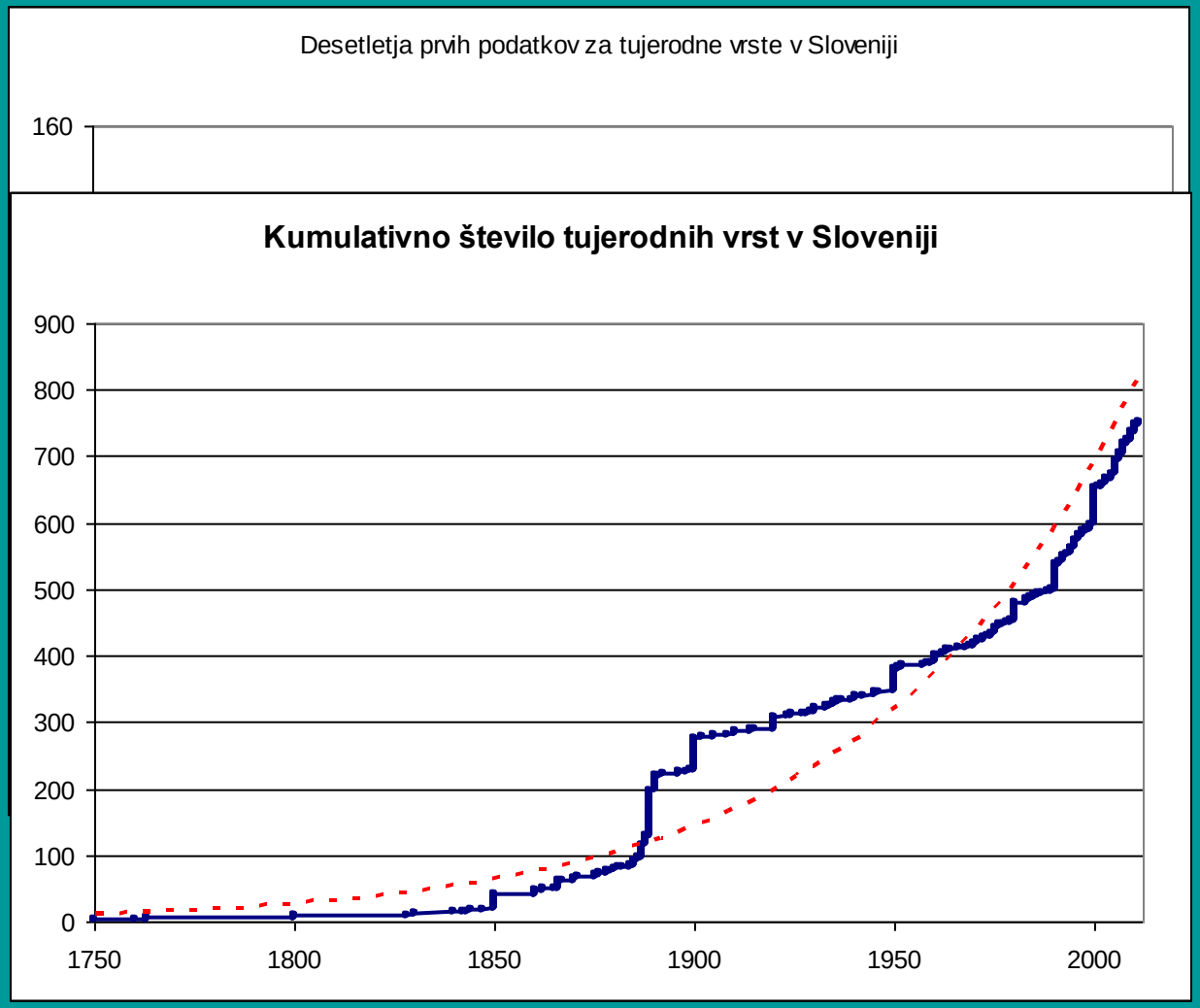




tečaj za Varuhe gorske narave,
12. in 13. 5. 2018 na Lisci

vse tujerodne vrste skupaj

- na videz nenavadna časovna pojavnost
- kumulativni prikaz bolj razločen
- trend (žal) jasen



(tujerodne) rastlinske vrste

- **primarni producenti** bistveni za delovanje ekosistemov
- **funkcija**: hrana specifičnim skupinam rastlinojedov, sezonskost, kompeticija, odpornost na zunanje vplive…
- **struktura**: oblikovanje različnih prostorskih niš, plastovitost vegetacije, homogenost rastlinske odeje…
- **invazivke** podrejo ravnotežje v naravnih ekosistemih

tujerodne rastlinske vrste

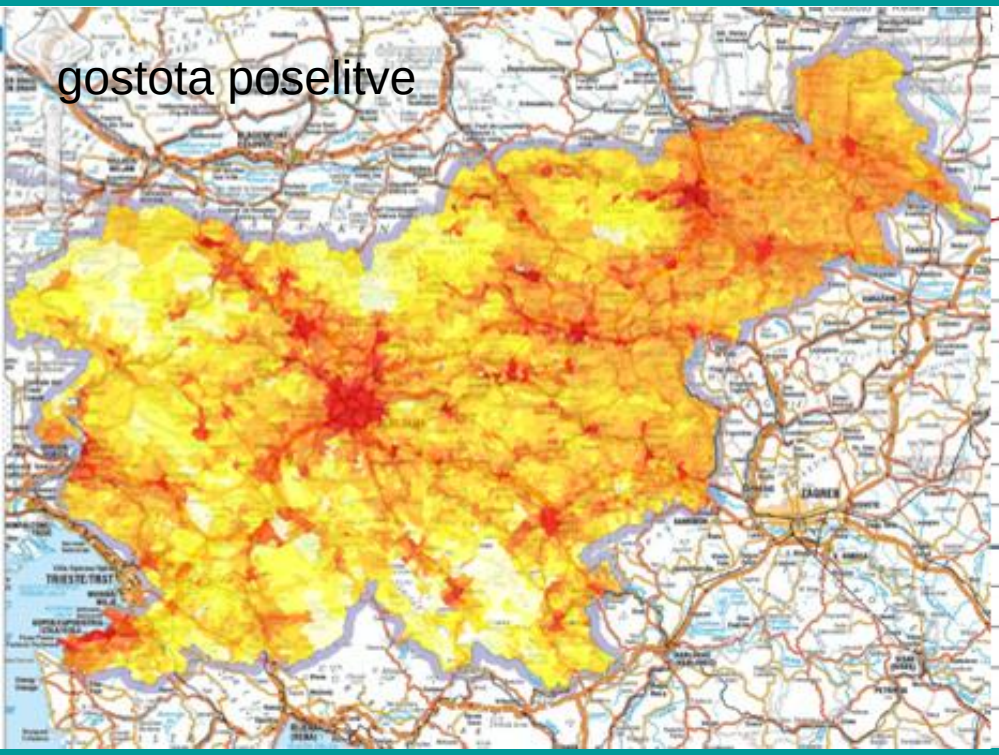
- najbolj preučene višje rastline (praprotnice in semenke)
- 32 vrst od 100 najhujših svetovnih **invazivk** (ISSG 2000)
- od teh 6 v naši flori, 2 invazivni, 2 avtohtoni
- naša flora najbolj ranljiva za vrste iz klimatsko podobnih predelov S poloble
- zavedanje problema v naravovarstvu pozno, Strategija (2002) invazivke komaj omenja

tujerodne rastlinske vrste

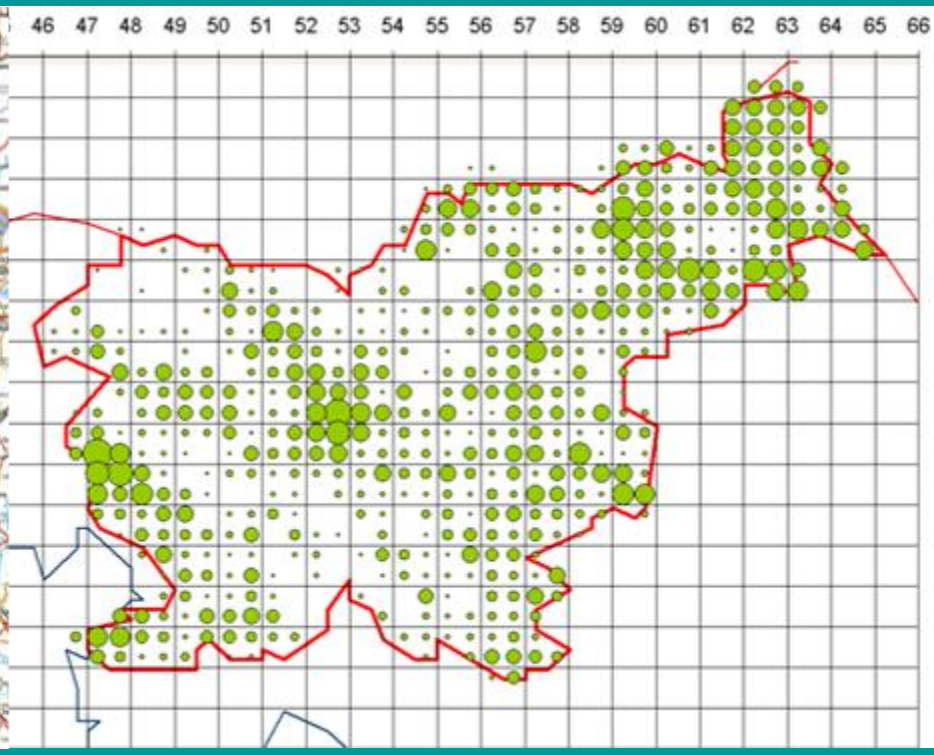
- težave v prepoznavanju **arheofitov** (naseljeni pred več kot 500 leti)
- navadno le posredno prepoznavni preko izključnega uspevanja v ruderalnih združbah
- arheofiti dejansko vklopljeni v avtohtono floro, večinoma prisotni več tisočletij
- nekatere med njimi (npr. redki žitni pleveli) naravovarstvo poskuša celo ohraniti
- med arheofiti nobene zanesljive invazivne vrste!

tujerodne rastline v Sloveniji

- vzorec pojavljanja arheofitov / neofitov



arheofiti: max 148



neofiti: max 54

kaj pa invazivke?

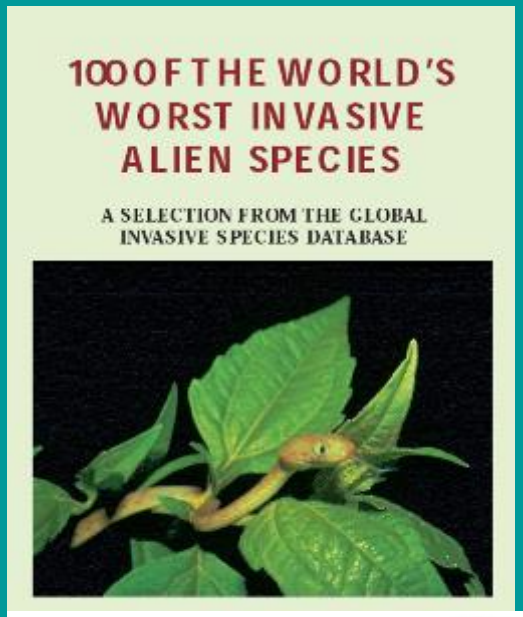
- **tujerodna invazivna vrsta** (TIV):
- **tujerodna vrsta, ki z vnosom in/ali širjenjem ogroža biotsko raznovrstnost [CBD, NOBANIS, Evropska strategija BK]**
- **tujerodna vrsta, ki ogroža ekosisteme, habitate ali vrste [CBD COP D VI/23]**
- **tujerodna vrsta, ki se udomači v naravnih ali pol-naravnih ekosistemih ali habitatnih tipih ter s tem spremeni in ogroža naravno biotsko raznovrstnost [IUCN 2000]**
- tujerodna vrsta, katere vnos (lahko) povzroča ekonomsko ali okoljsko škodo ali škoduje zdravju.[GISP, ZDA 1999]
- tujerodna vrsta, ki se lahko širi in s tem povzroča škodo okolju, gospodarstvu, zdravju ali ustaljenemu načinu življenja. [VB: NNSS 2008]

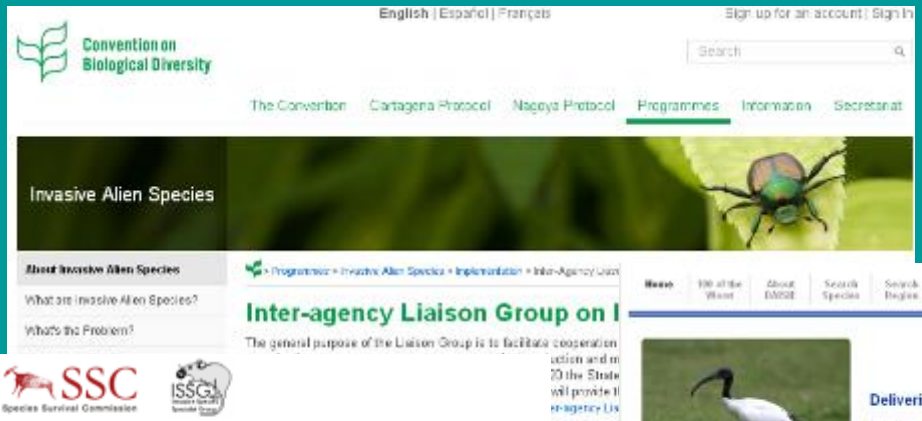
izločene vrste

- **pleveli** (epekofiti): trajno uspevajo le na stalno motenih rastiščih
- **prehodne** vrste (efemerofiti): pojavljajo se le kratek čas in kmalu odmrejo
- **domače invazivne** vrste: ki s hitrim širjenjem zarastejo predvsem opuščene površine
- **naturalizirane** vrste (agriofiti) z majhnim vplivom na njihova nova rastišča

[širina definicije “invazivka” je nekoliko variabilna!]

globalno


100 OF THE WORLD'S WORST INVASIVE ALIEN SPECIES
A SELECTION FROM THE GLOBAL INVASIVE SPECIES DATABASE


Convention on Biological Diversity
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Programmes
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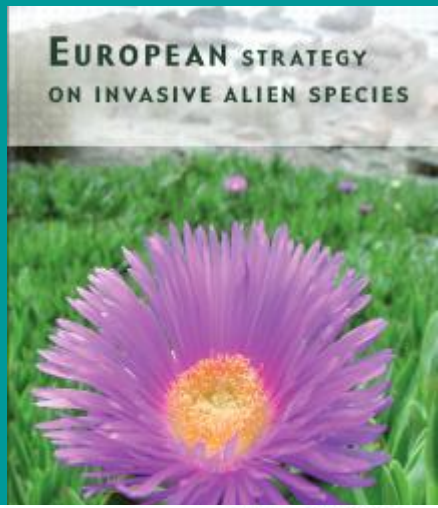
Secretariat
Invasive Alien Species
About Invasive Alien Species
What are Invasive Alien Species?
What's the Problem?
Inter-agency Liaison Group on I


EUROPEAN STRATEGY
ON INVASIVE ALIEN SPECIES


IUCN
SSC
Species Survival Commission
ISSG


Delivering Alien Invasive Species Inventories for Europe
Threskiornis aethiopicus
Delivering Alien Invasive Species Inventories for Europe
DAISIE Handbook of alien species in Europe available
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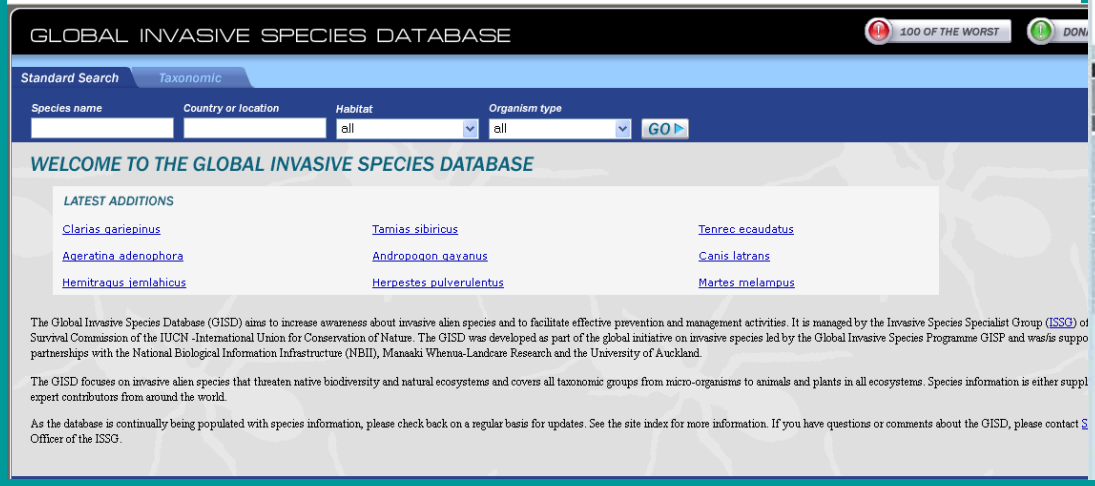
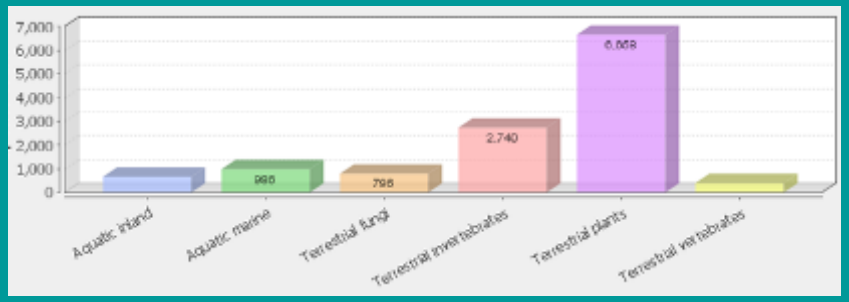
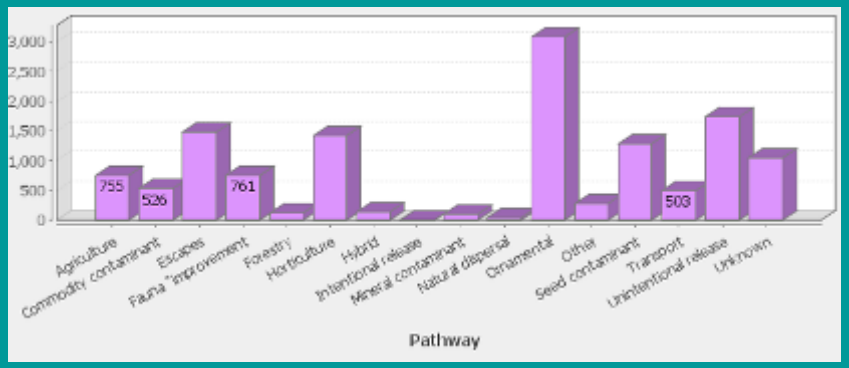
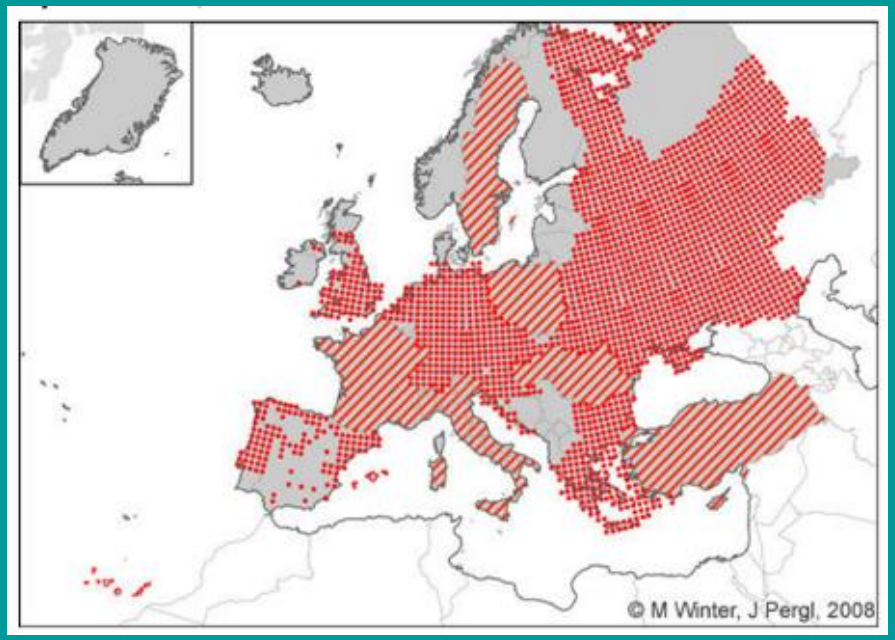

GLOBAL INVASIVE SPECIES DATABASE
100 OF THE WORST
Standard Search
Taxonomic
Species name
Country or location
Habitat
Organism type
all
all
GO
WELCOME TO THE GLOBAL INVASIVE SPECIES DATABASE
LATEST ADDITIONS
Clarias gariepinus
Tamias sibiricus
Tenrec ecaudatus
Ageratina adenophora
Andropogon gayanus
Canis latrans
Hemitragus jemlahicus
Herpestes pulverulentus
Martes melampus
The Global Invasive Species Database (GISD) aims to increase awareness about invasive alien species and to facilitate effective prevention and management activities. It is managed by the Invasive Species Specialist Group (ISSG) of
Survival Commission of the IUCN -International Union for Conservation of Nature. The GISD was developed as part of the global initiative on invasive species led by the Global Invasive Species Programme GISP and was/is suppo
partnerships with the National Biological Information Infrastructure (NBII), Manaaki Whenua-Landcare Research and the University of Auckland.
The GISD focuses on invasive alien species that threaten native biodiversity and natural ecosystems and covers all taxonomic groups from micro-organisms to animals and plants in all ecosystems. Species information is either suppl
expert contributors from around the world.
As the database is continually being populated with species information, please check back on a regular basis for updates. See the site index for more information. If you have questions or comments about the GISD, please contact S
Officer of the ISSG.

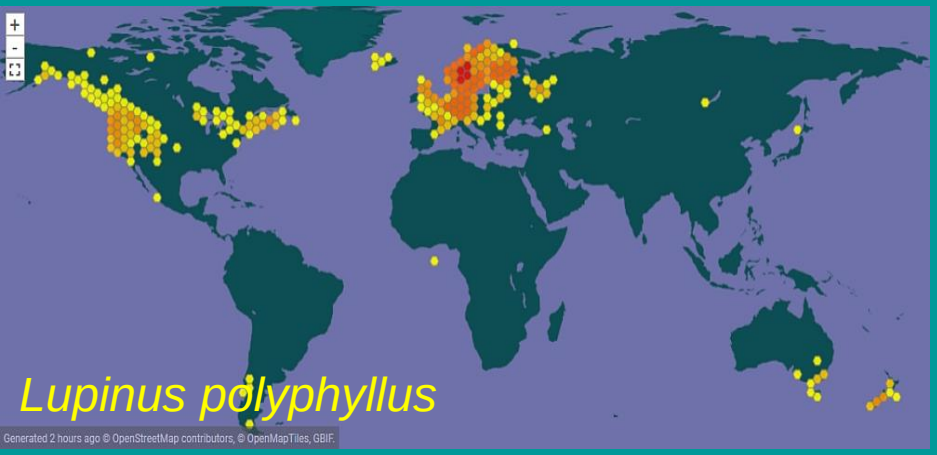

NOBANIS
European Network on Invasive Alien Species
The problem of invasive alien species

globalno: rastline









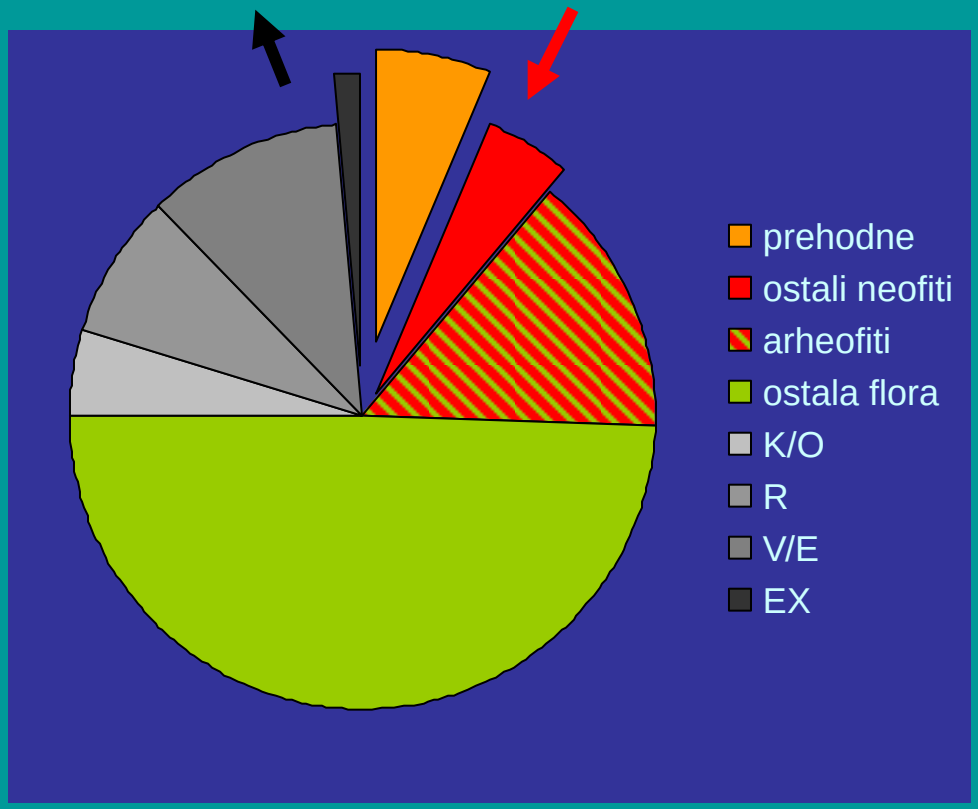
na območju Slovenije

spreminjanje flore in tujerodne / ogrožene

- ~ 3200 vrst
- ~ 800 tujerodnih
- ~ 350 neofitov
- ~ 50 invazivnih

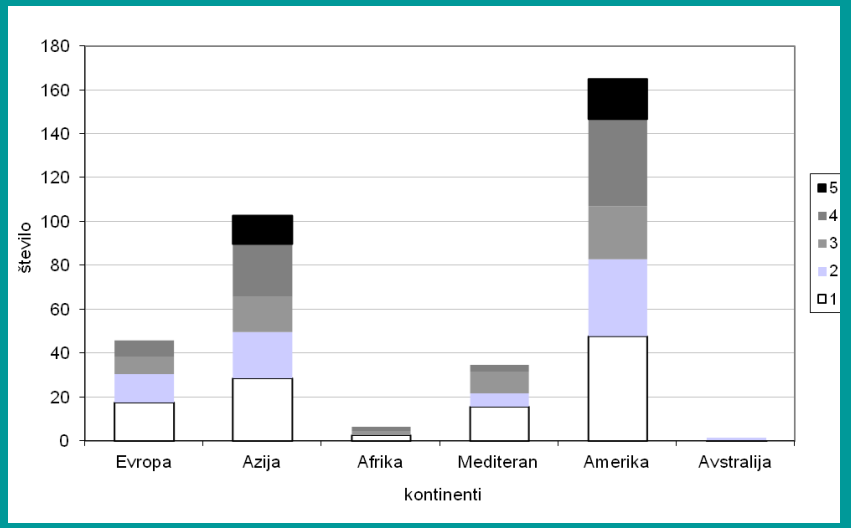
Rdeči seznam:

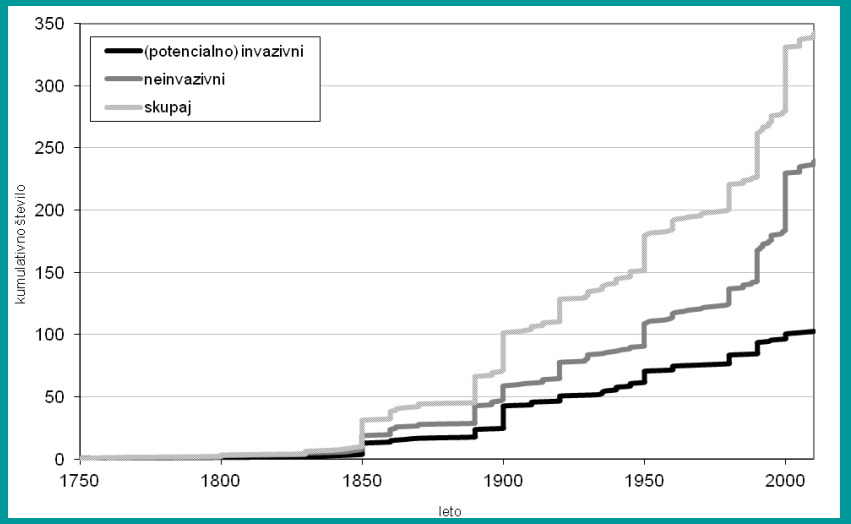
- Ex/Ex? 45
- Vu/En 334
- K/O 142
- R 257



na območju Slovenije

- iz klimatsko podobnih predelov
- hitro naraščanje števila v zadnjih desetletjih
- vse večja pozornost stroke in javnosti
- počasna odzivnost državnih organov





seznam najhujših invazivk

Acer negundo
Ailanthus altissima
Ambrosia artemisiifolia
Amorpha fruticosa
Artemisia verlotiorum
Aster spp. div.
Berberis thunbergii
Bidens frondosa
Broussonetia papyrifera
Buddleja davidii
Cuscuta campestris
Echinocystis lobata
Elodea canadensis
Erigeron annuus
Fallopia baldschuanica
Fallopia japonica agg.
Helianthus tuberosus
Heracleum mantegazzianum
Impatiens glandulifera
Lindernia dubia
Lonicera japonica
Lupinus polyphyllus
Parthenocissus quinquefolia agg.
Physocarpus opulifolius
Pistia stratiotes
Prunus serotina
Robinia pseudacacia
Rudbeckia laciniata
Solidago canadensis
Solidago gigantea
Spiraea japonica
Thuja orientalis

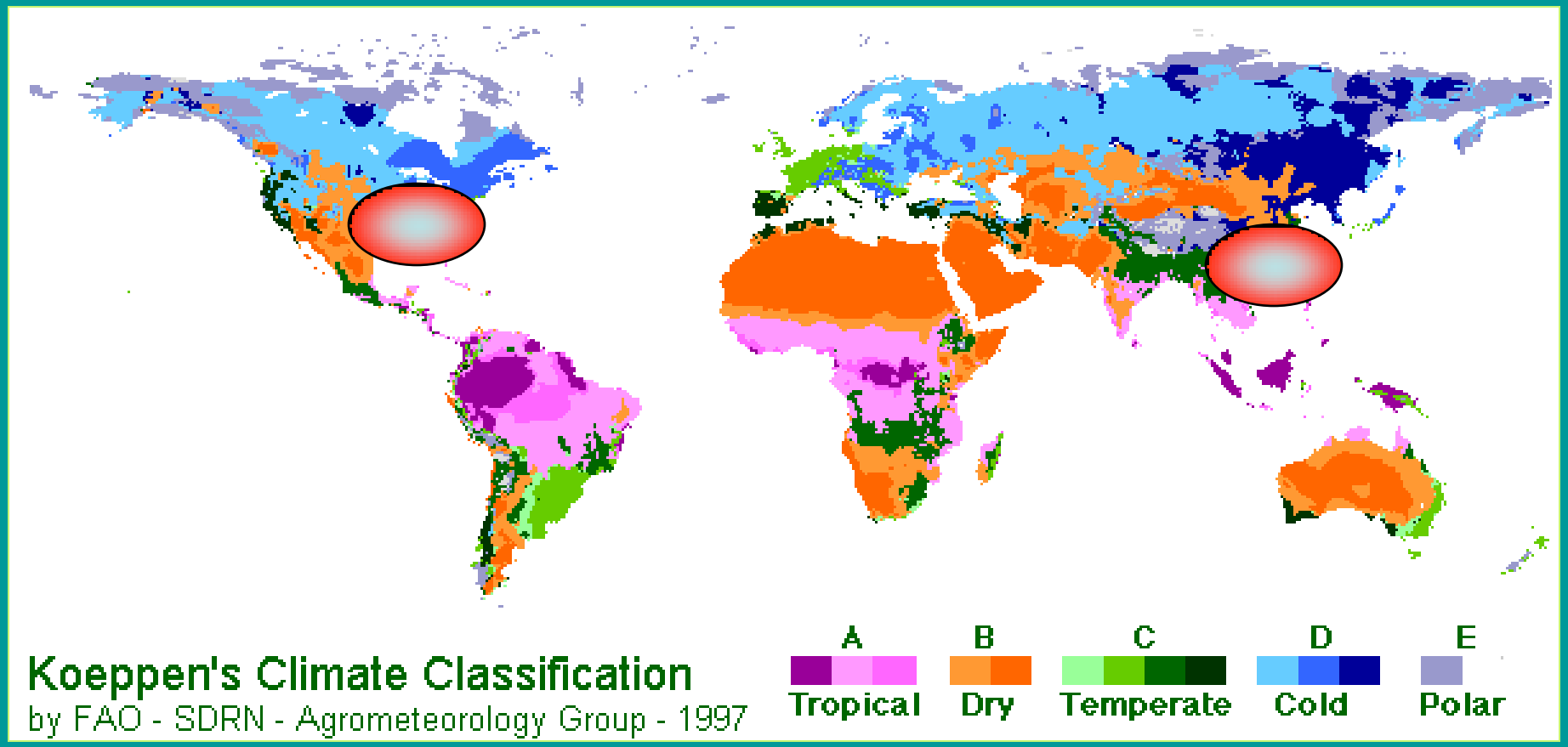
kako so prišle?

- večinoma pripeljane **namenoma**
- približno **1%** od vseh tujerodnih
- prevladujejo **okrasne** vrste, nekaj **dreves** (še veliko več nasajenih!)
- v novi “domovini” so se **dolgo prilagajale**
- **postopna naturalizacija**:

nasad → ruderalna rastišča → (pol)naravna

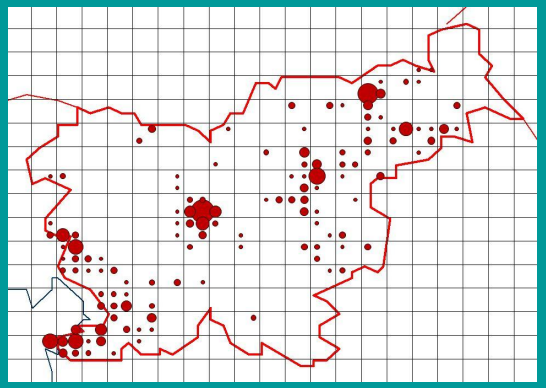
- “**invazivni potencial**” izražen na raznih koncih sveta
- nenamenska **selekcija**

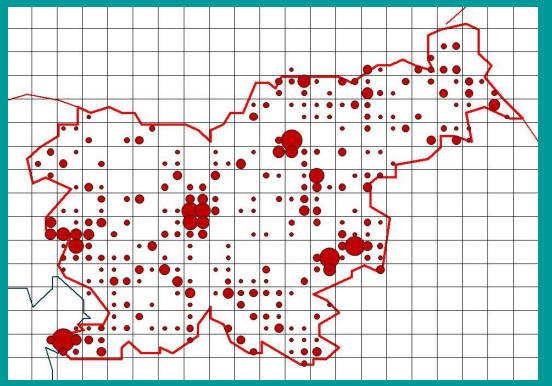
od kod so?

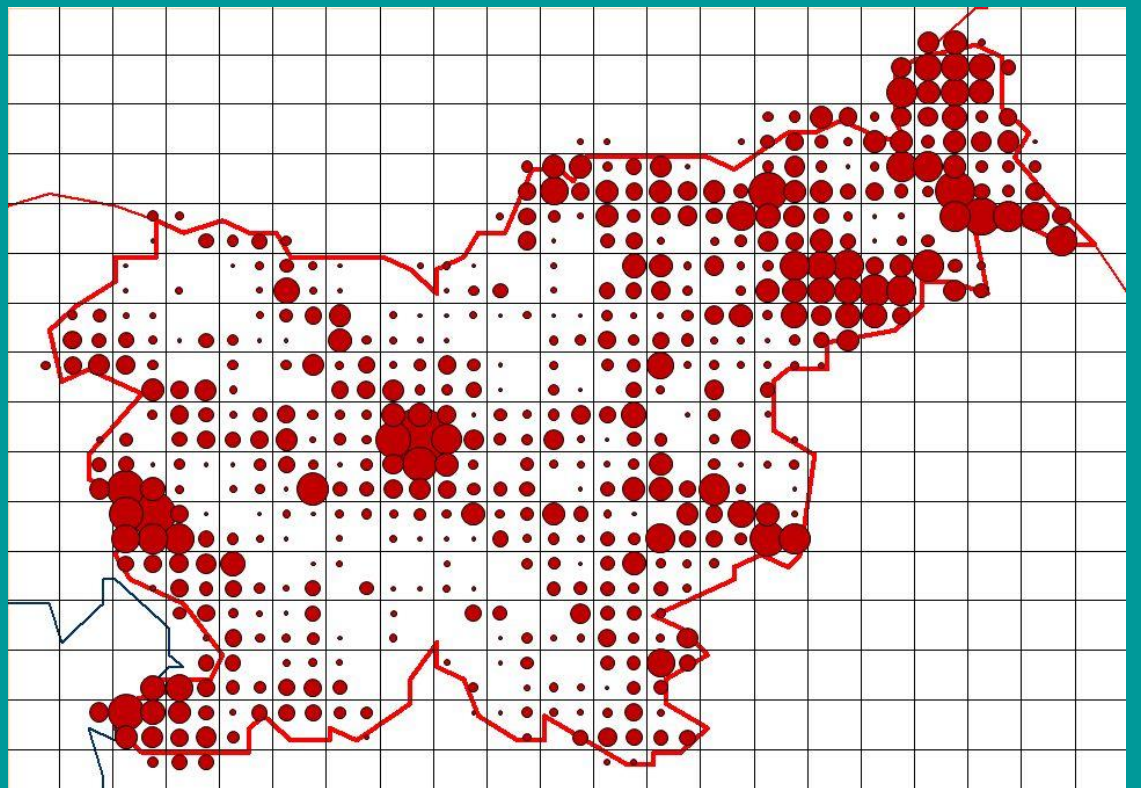

Koeppen's Climate Classification
by FAO - SDRN - Agrometeorology Group - 1997
A
Tropical
B
Dry
C
Temperate
D
Cold
E
Polar

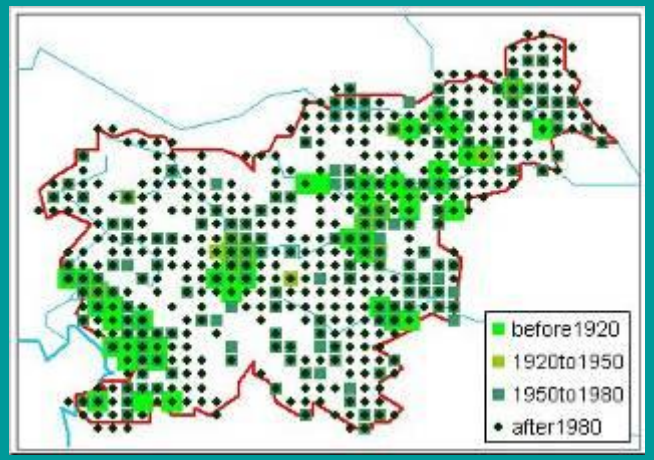
kdaj so prišle k nam?

- dinamika zbiranja podatkov
- pred 1950
- 1950 do 1980
- po 1980









vektorji vnosa in širjenja

vnos:

- vse večja ponudba tujerodnih vrtnih rastlin
- poskusi “lepšanja” narave zunaj urbanih območij
- frontalno širjenje po koridorjih iz soseščine
- ...

širjenje:

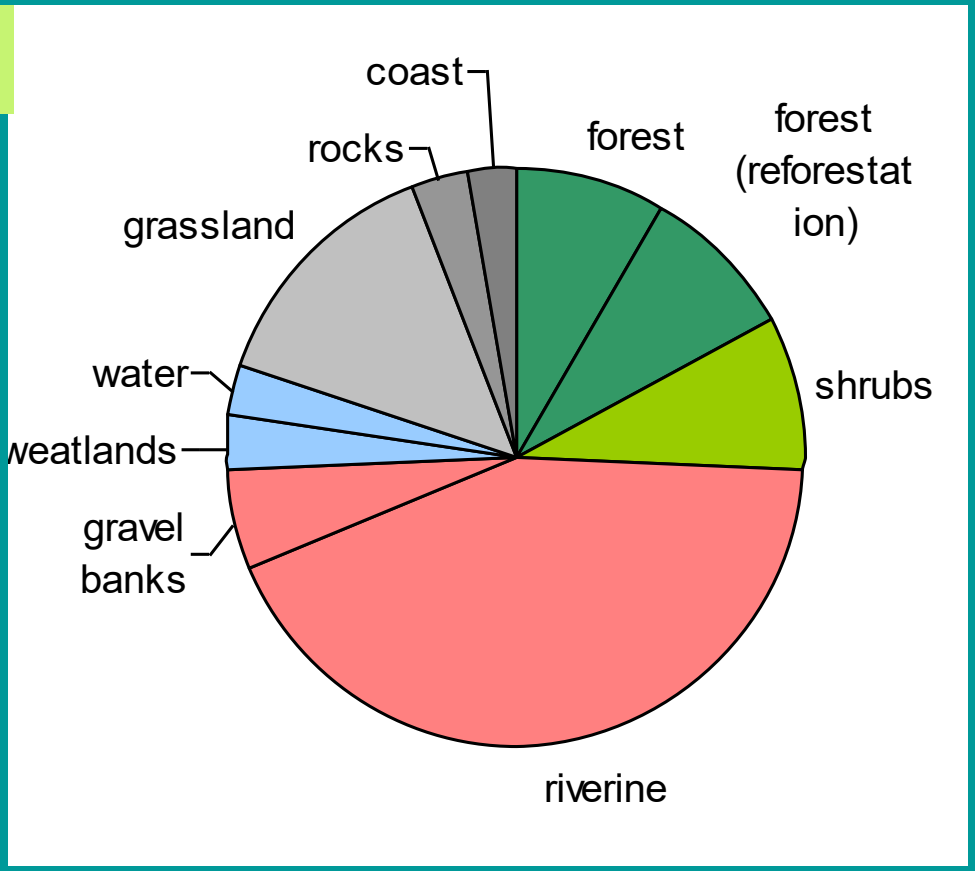
- umetno ustvarjena mreža koridorjev (žive meje…)
- selitve kmetijske in gradbene mehanizacije
- ceste in strojna košnja
- spontano (ptice, veter, voda…)
- ...

kako se širijo?

- navadno **več** učinkovitih **načinov širjenja** (vegetativno, s semeni)
- **razširjanje semen** raznoliko
- pomen **semenske banke** v prsti
- pogosto **sodelovanje človeka** zaradi pozitvnih lastnosti posamezne vrste
- **hitrost širjenja** posamezne populacije odvisna od načina širjenja

kje uspevajo?

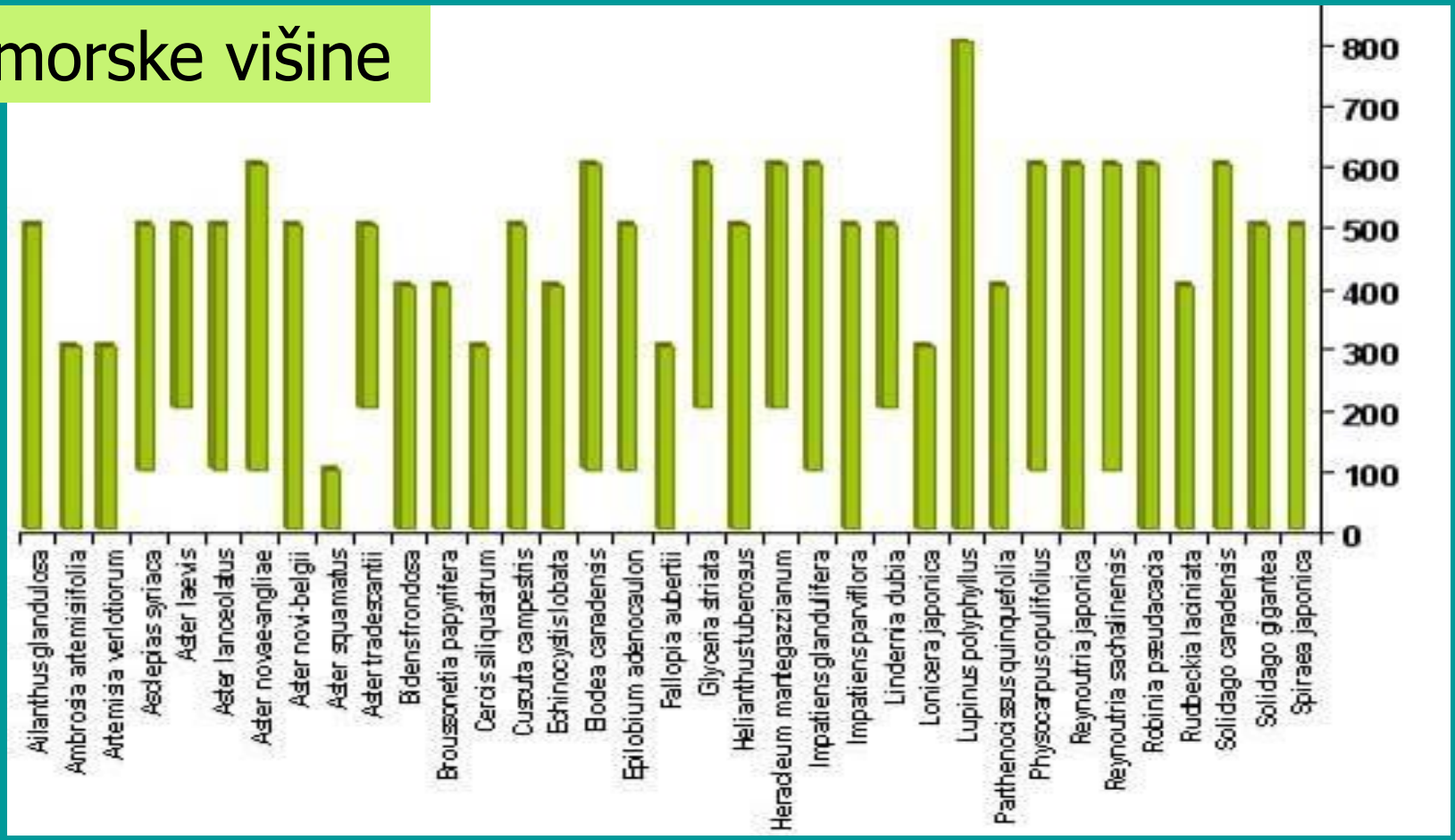
habitatni tipi



čisto običajna zapuščena zelenica…

kje uspevajo?

nadmorske višine

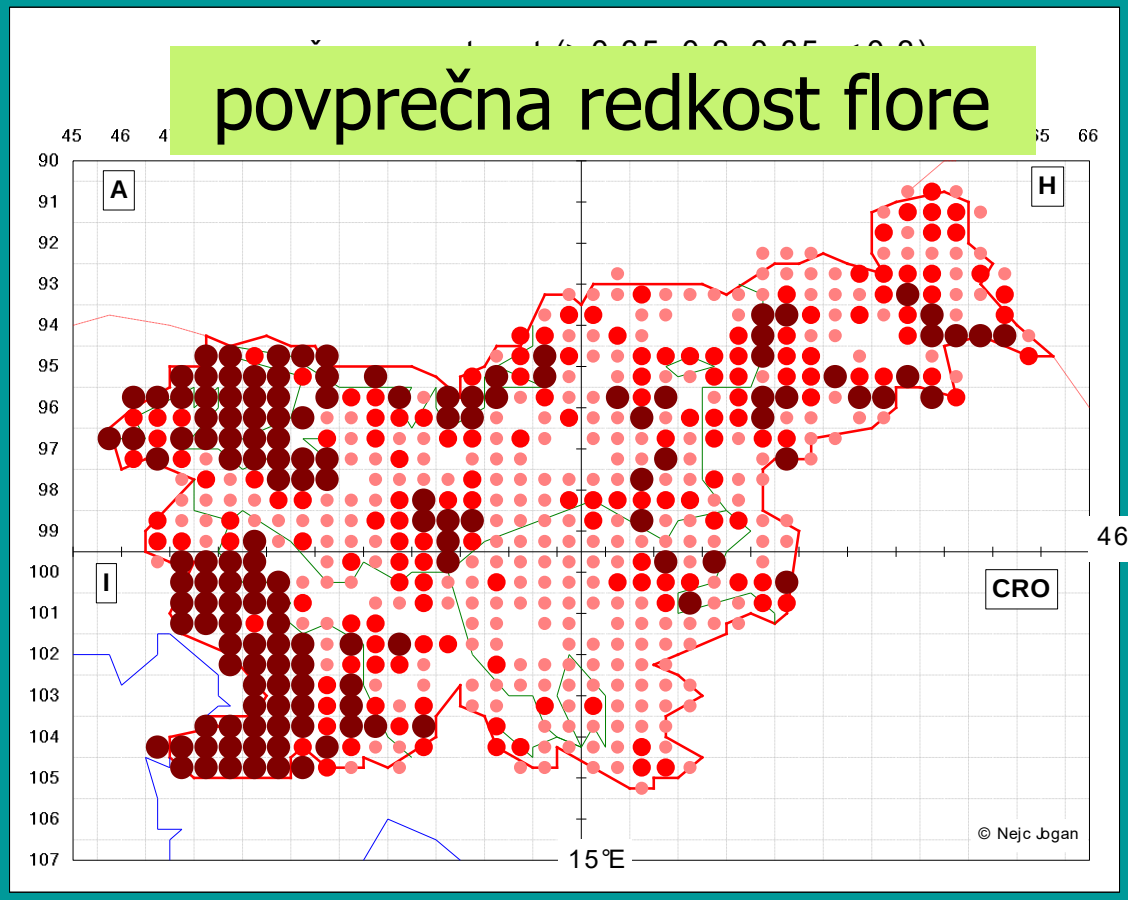


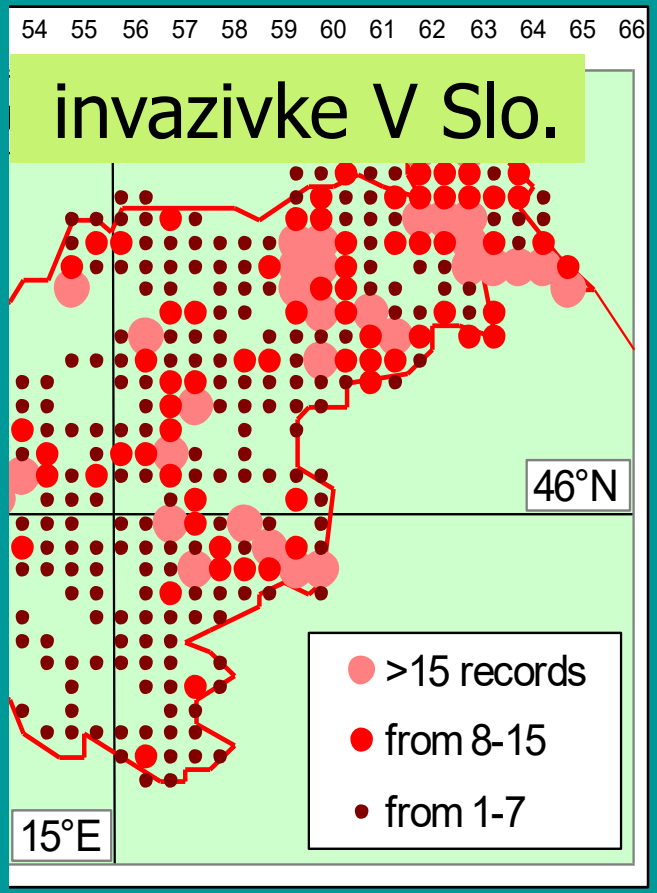
ogrožanje avtohtonih

ogroženost/izpodrivanje avtohtone flore

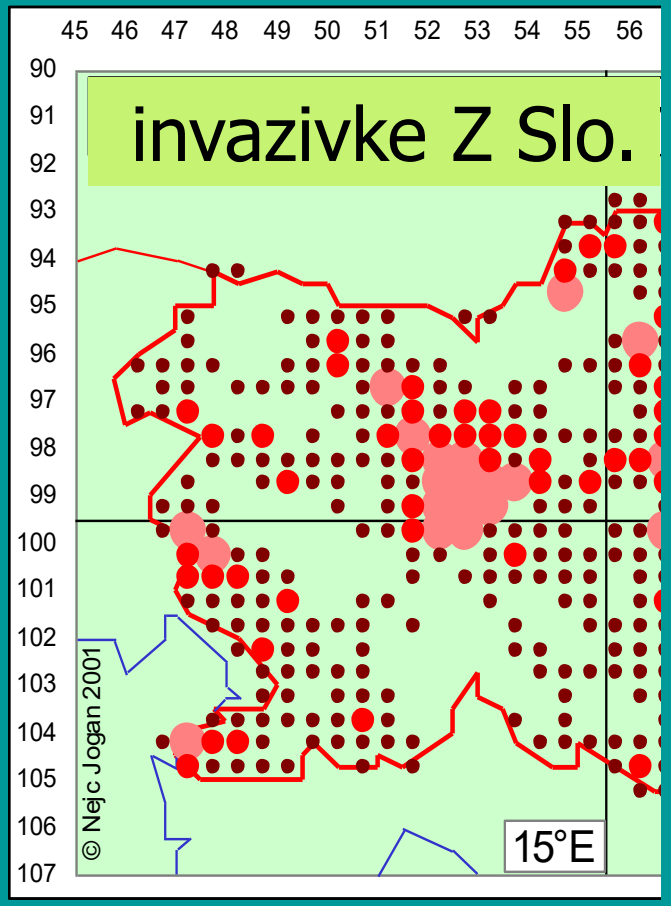
- zaradi nesistematičnega zbiranja podatkov malo znanih konkretnih primerov lokalnega izumiranja
- preko prednostnih habitatnih tipov, v katerih sobivajo
- primer: mrtvica Prilipe
- preko HT: obrečna vegetacija nižinskih rek
- naseljevanje tujerodnih vrst še teče, do pojava invazivnosti posamezne tujerodne vrste lahko minejo stoletja!

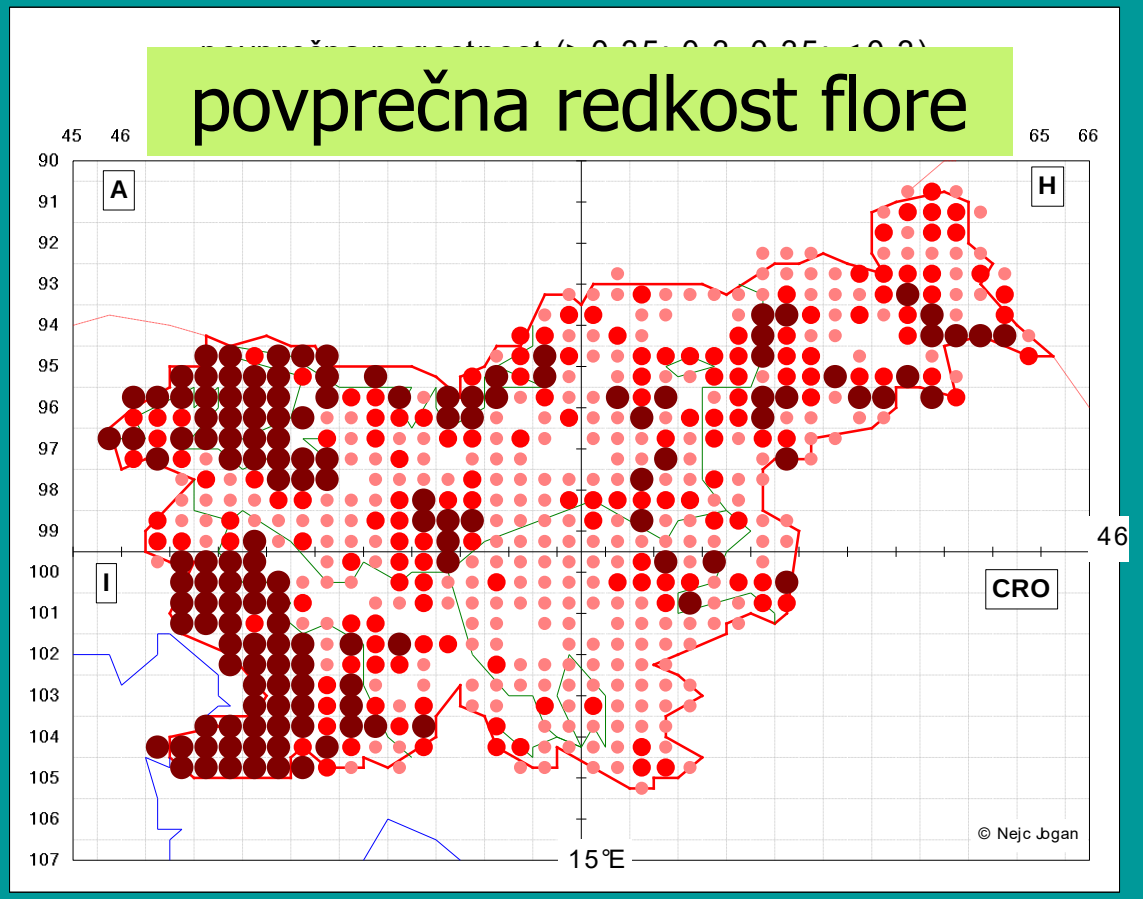
kaj ogrožajo?





kaj ogrožajo?





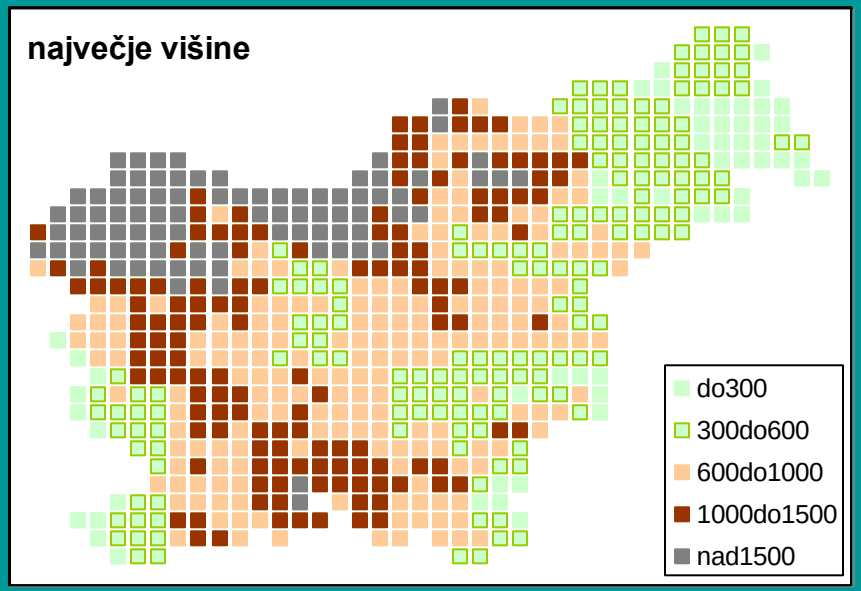
nadzor

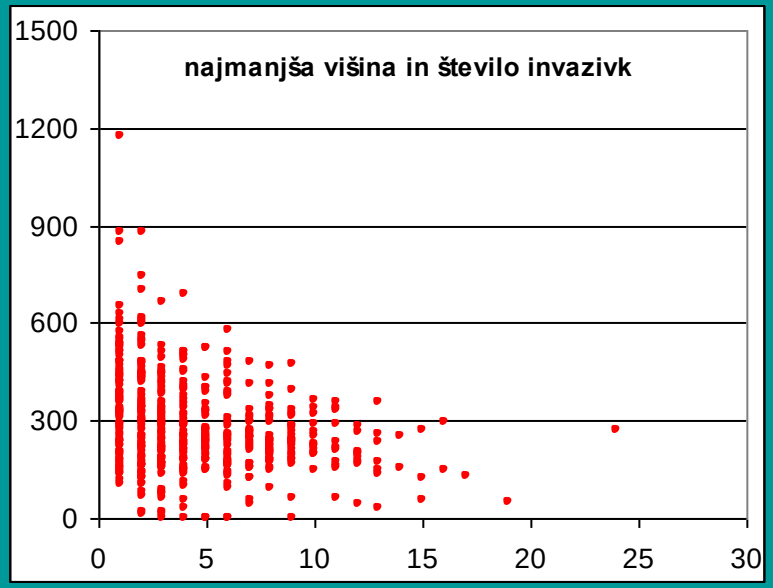
možnosti nadzora

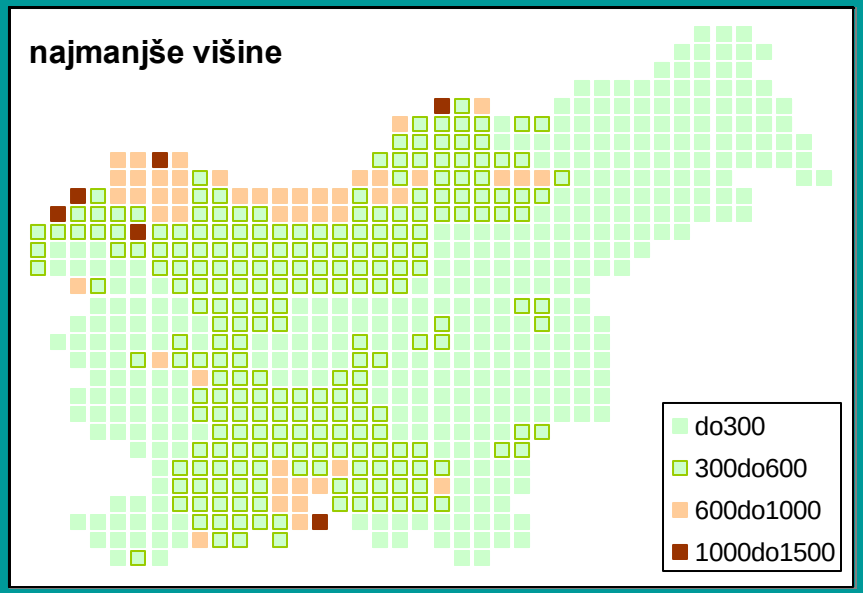
- skoraj le pri aktivni antropohoriji
- nadzor nad ponudbo v vrtnarijah/semenarnah
- strog nadzor nad selitvami gradbene mehanizacije in deponiranega materiala
- sistematično iztrebljanje potencialnih invazivk iz vrtov/nasadov
- nadzor nad vzdrževanjem cest
- nadzor nad kompostiranjem in kvaliteto komposta

kako visoko so prodrle?

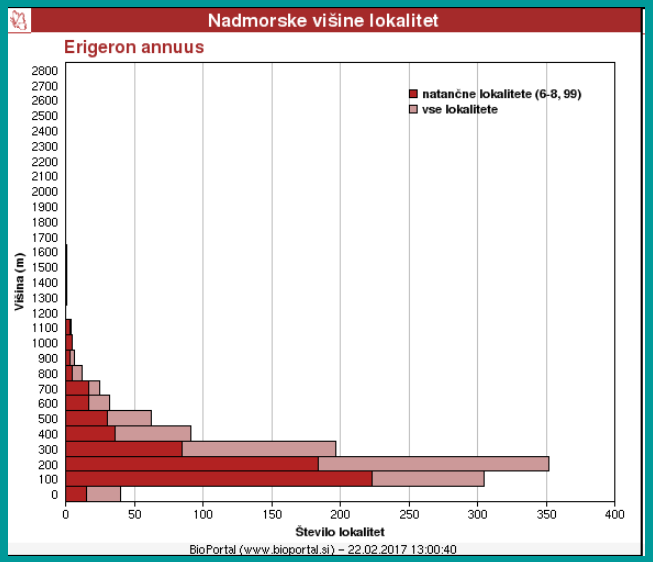
- montanski pas in više razmeroma neprizadet!
- nekaj vrstam vendarle že uspelo
- kandidatk še dovolj!

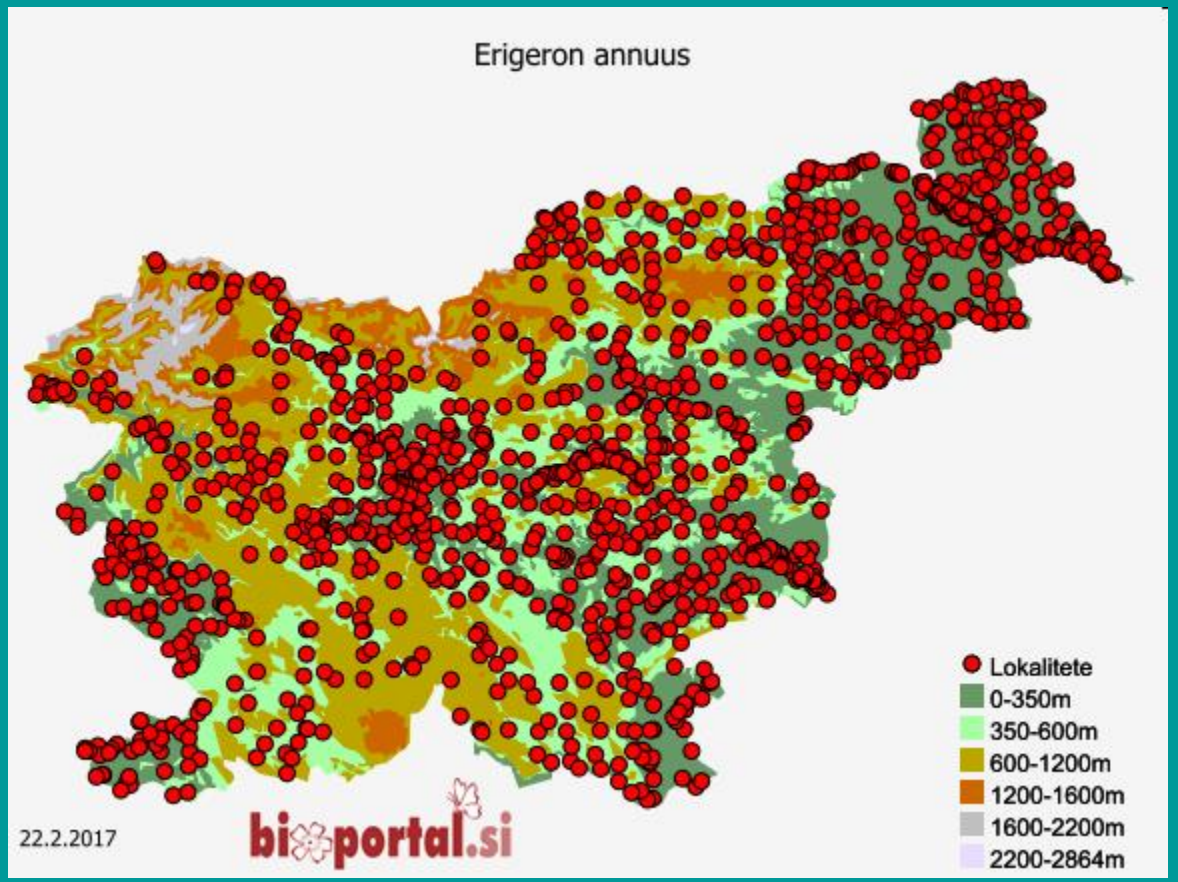




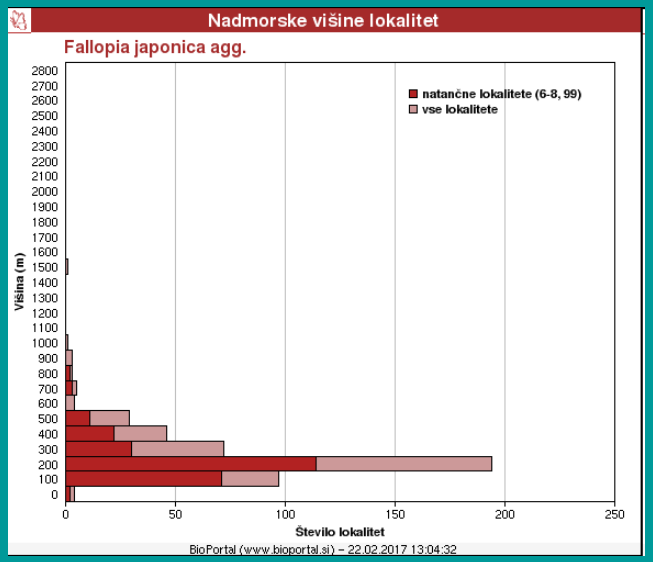


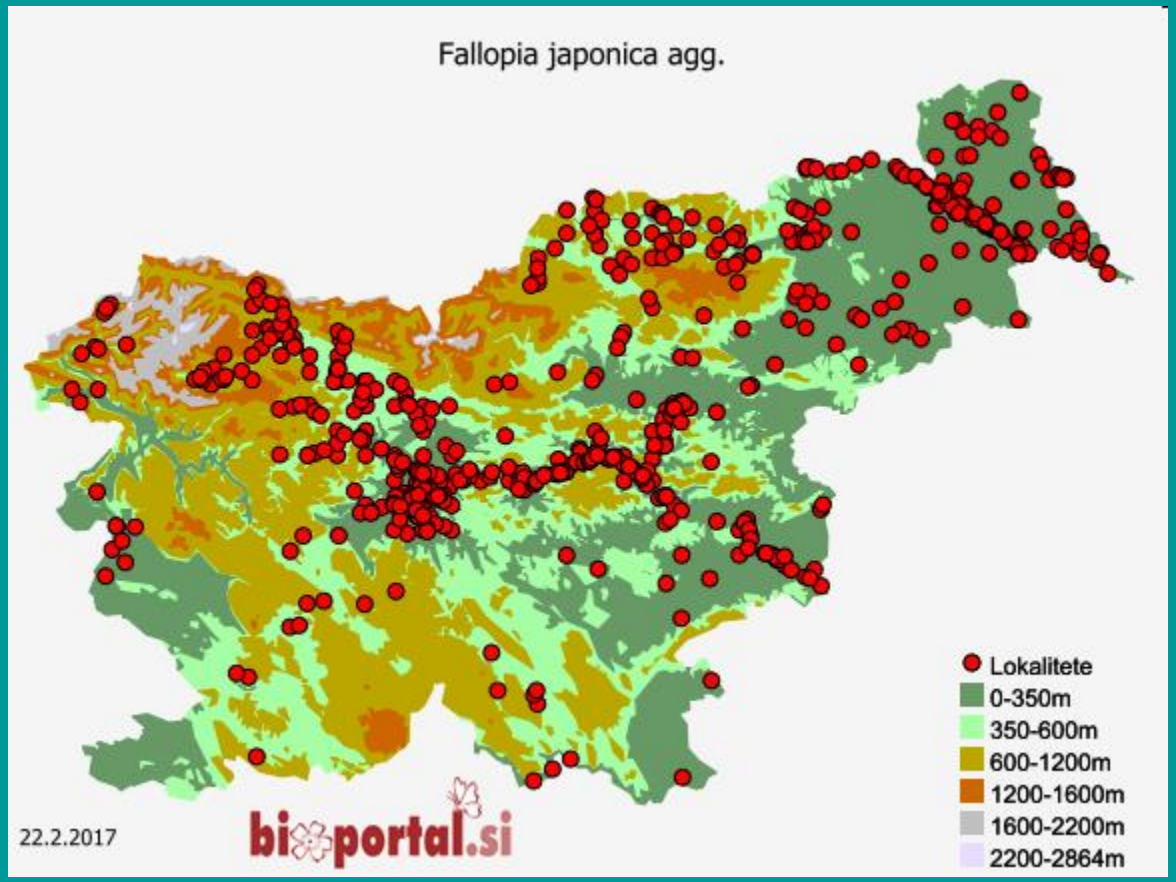
enoletna suholetnica



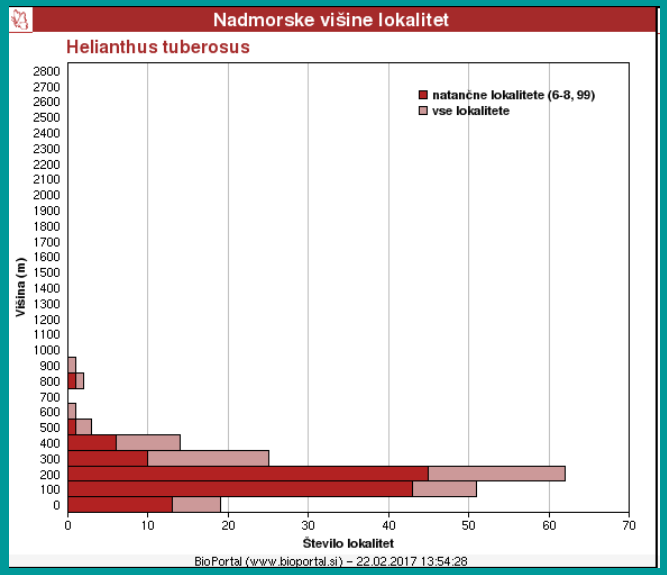


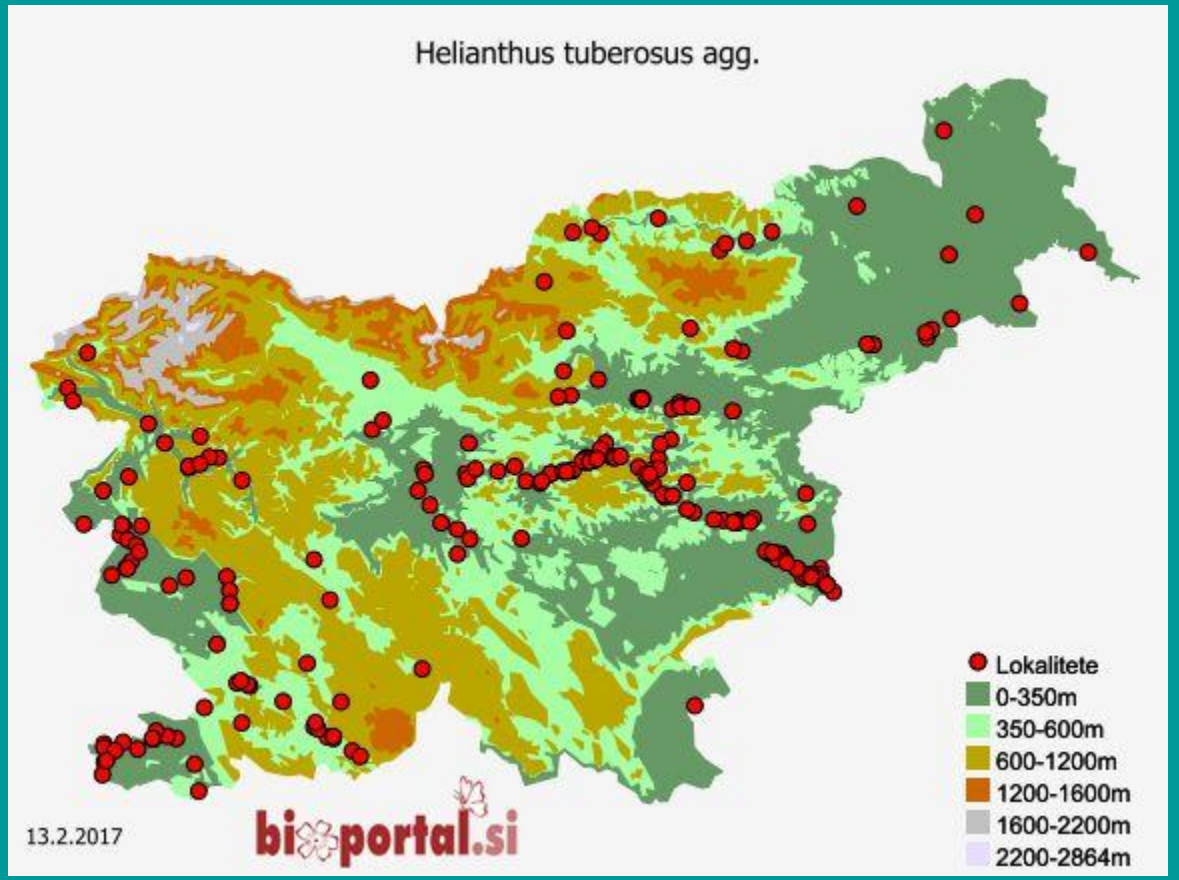
japonski dresnik (in sorodstvo)



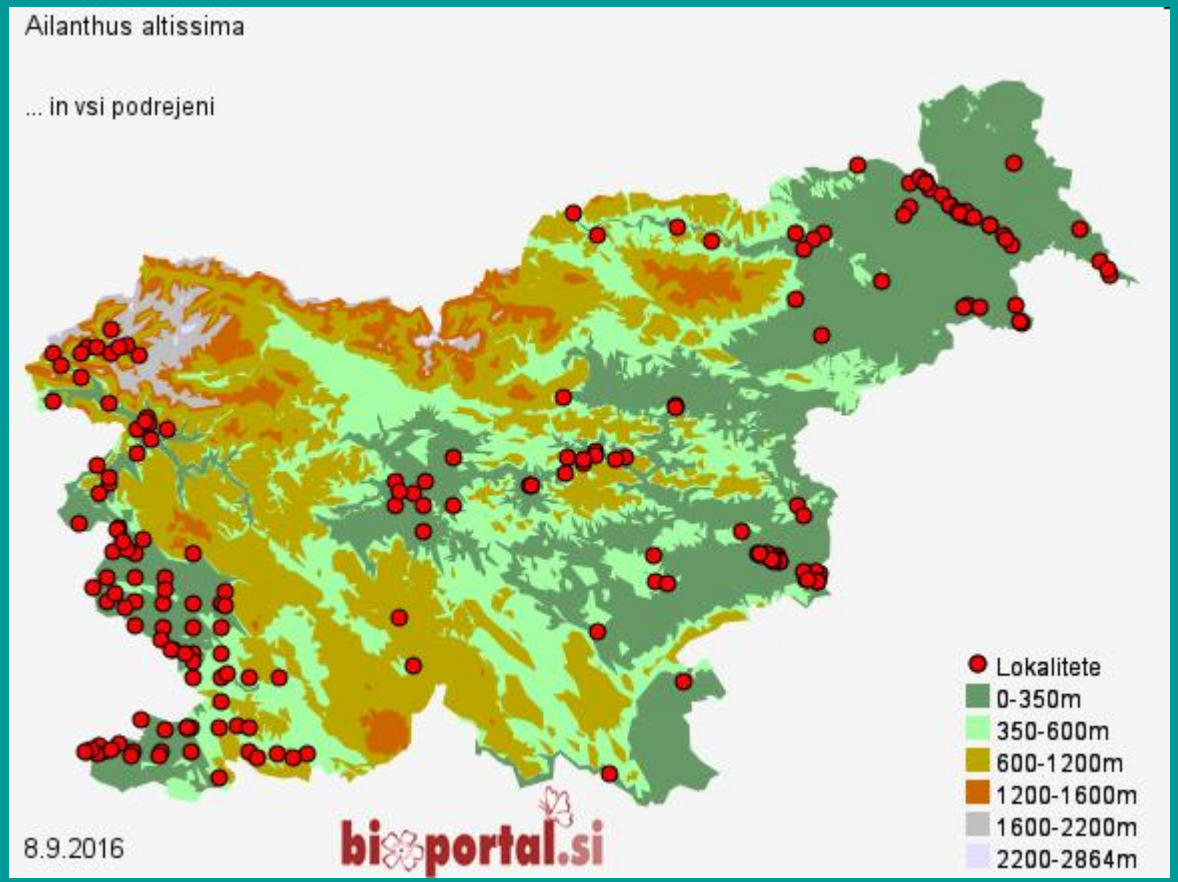


topinambur (*Helianthus tuberosus* agg.)

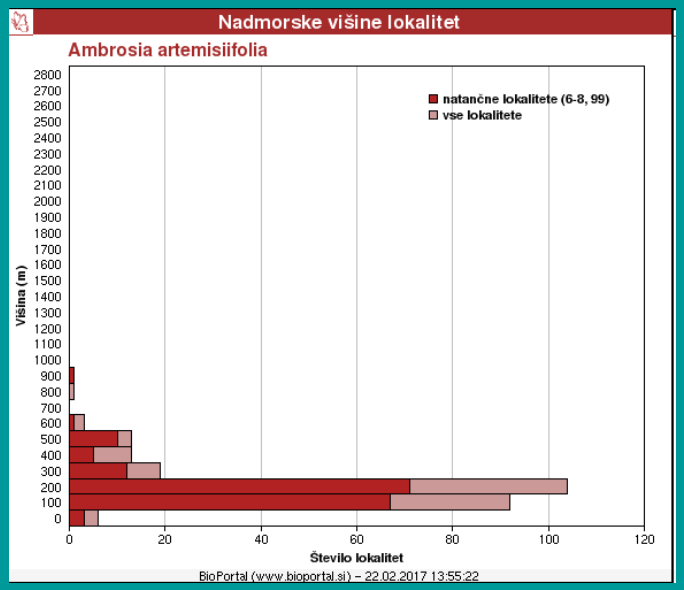


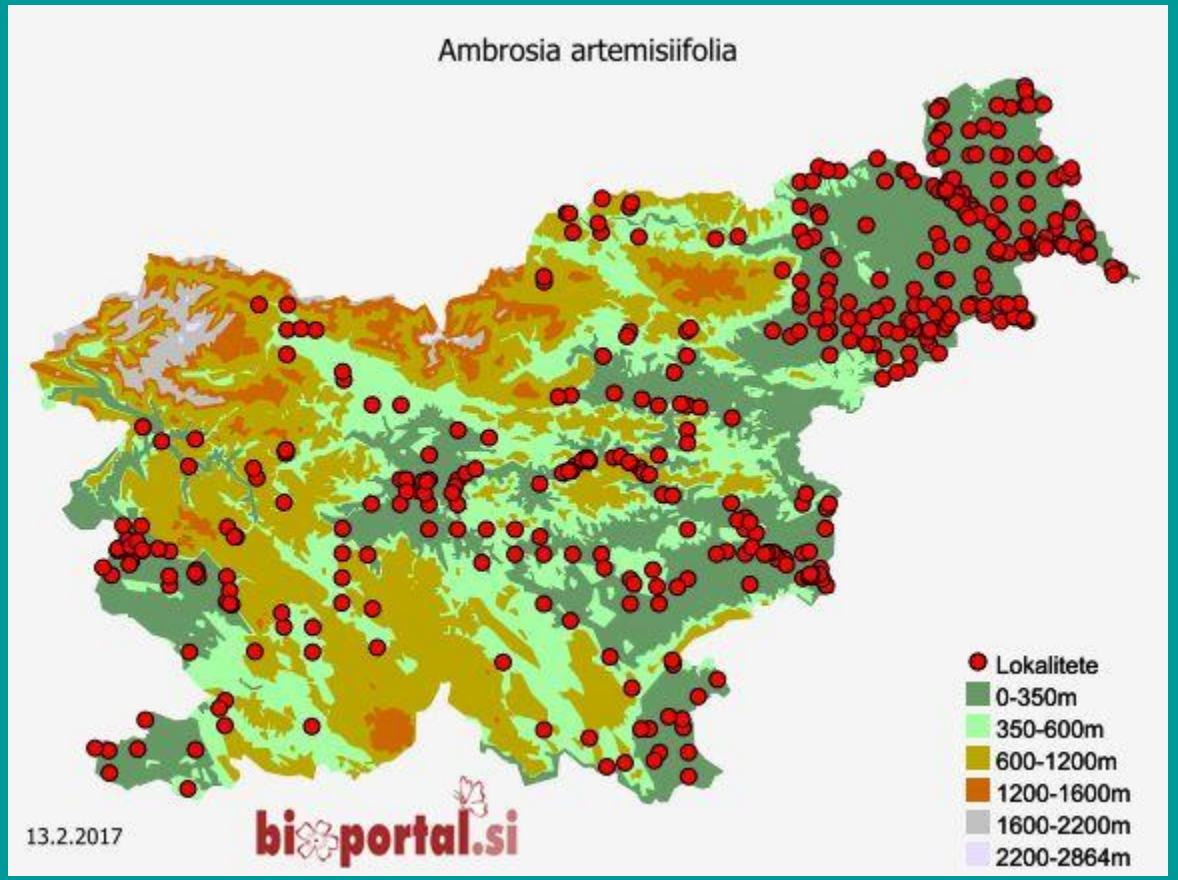


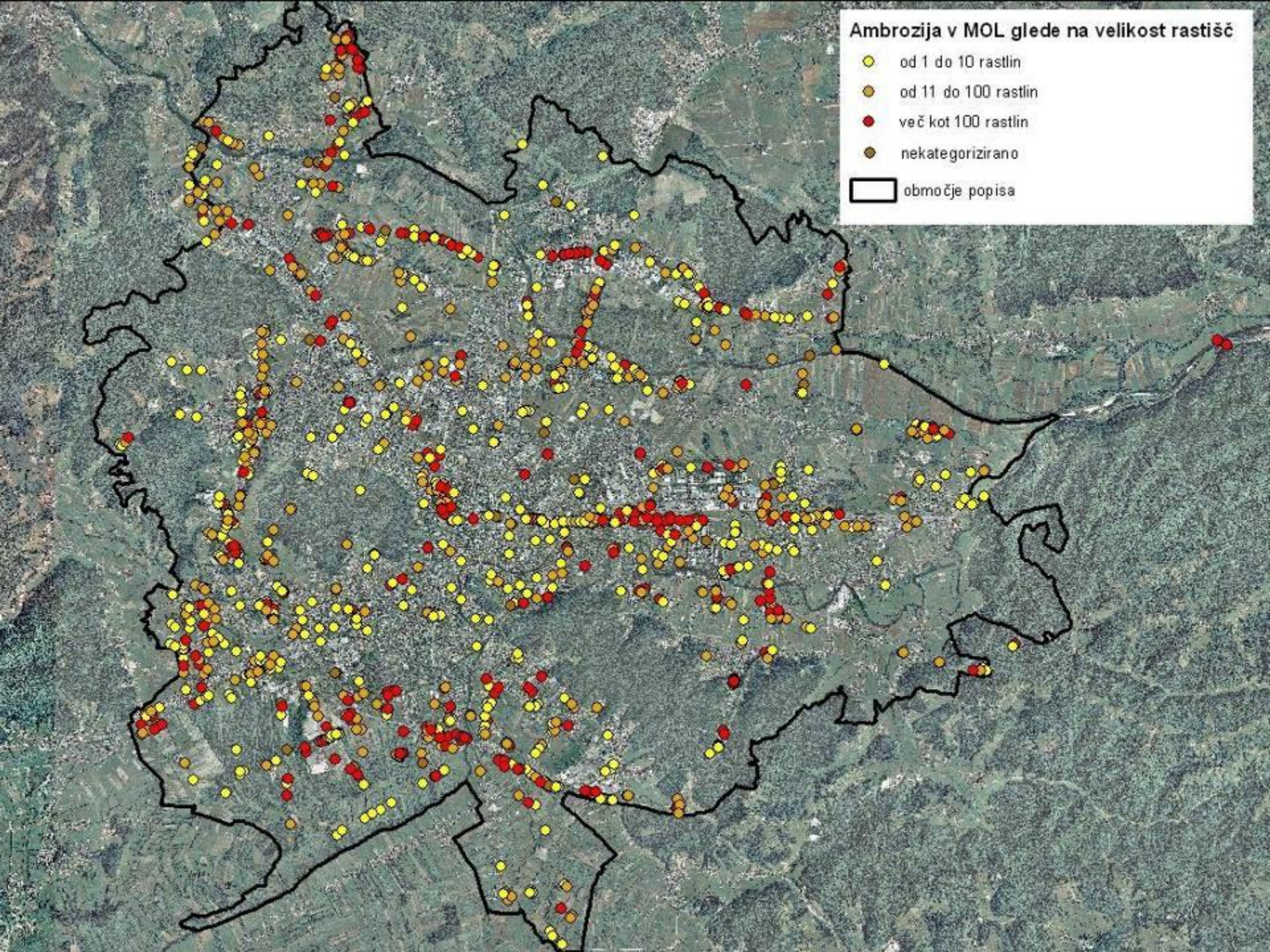
visoki pajesen (*Ailanthus altissima*)



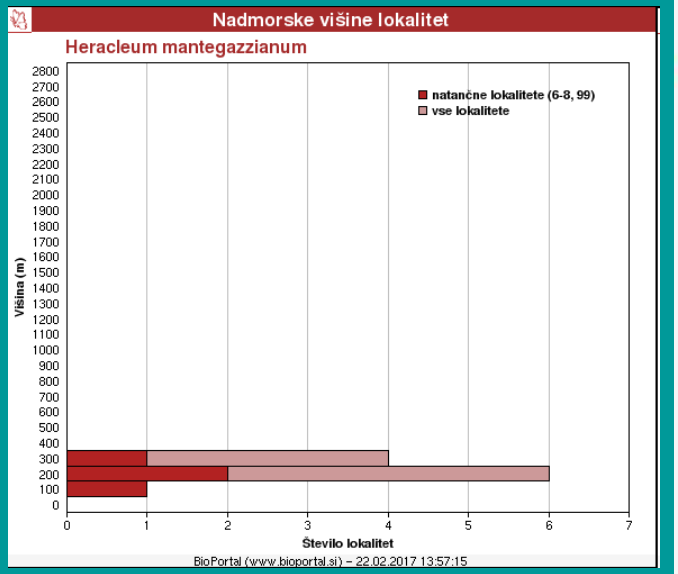
žvrklja (*Ambrosia artemisiifolia*)

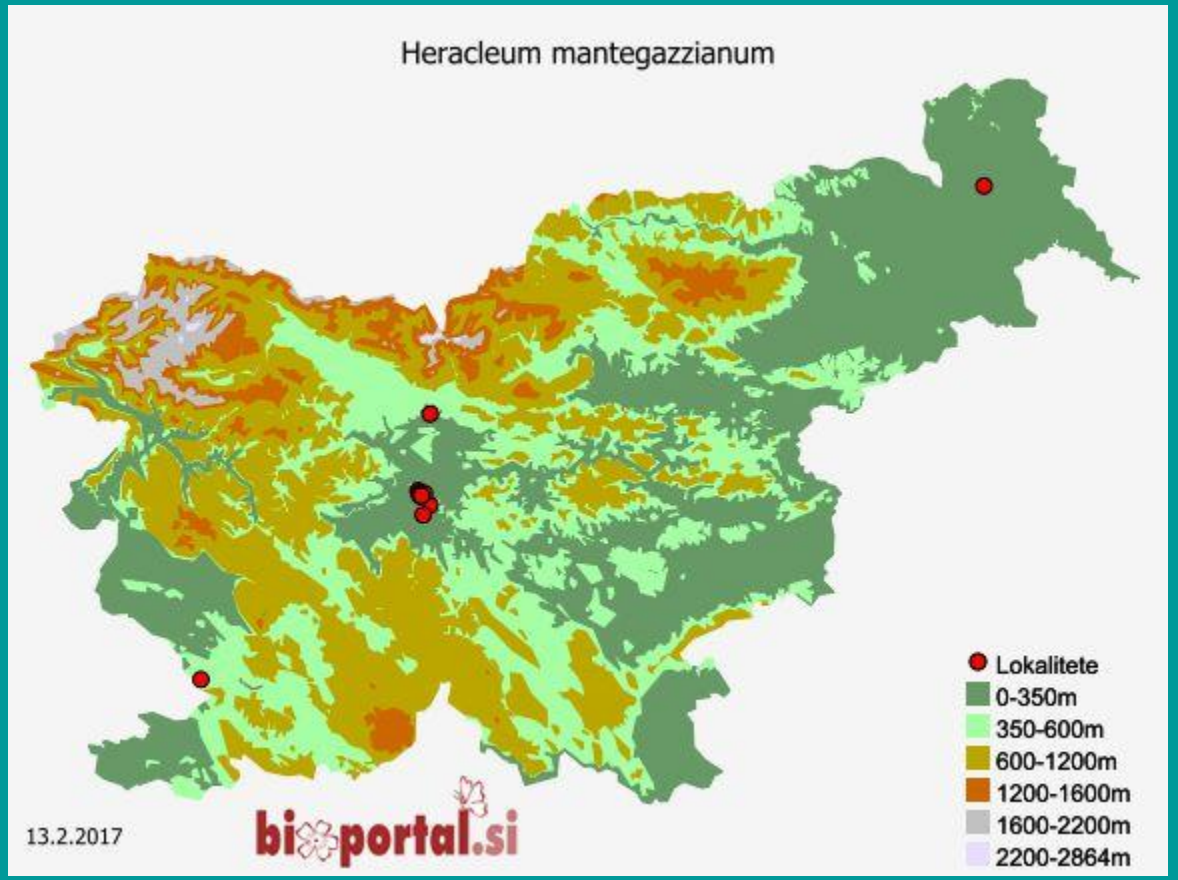




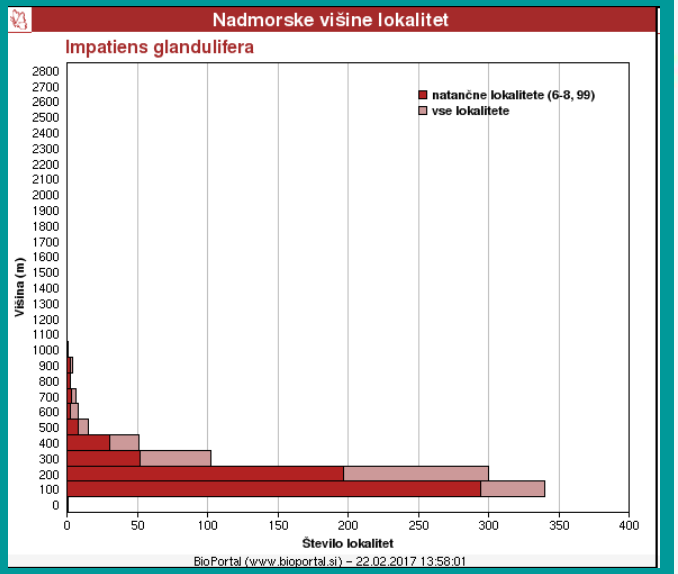

Ambrozija v MOL glede na velikost rastišč
od 1 do 10 rastlin
od 11 do 100 rastlin
več kot 100 rastlin
nekategorizirano
območje popisa

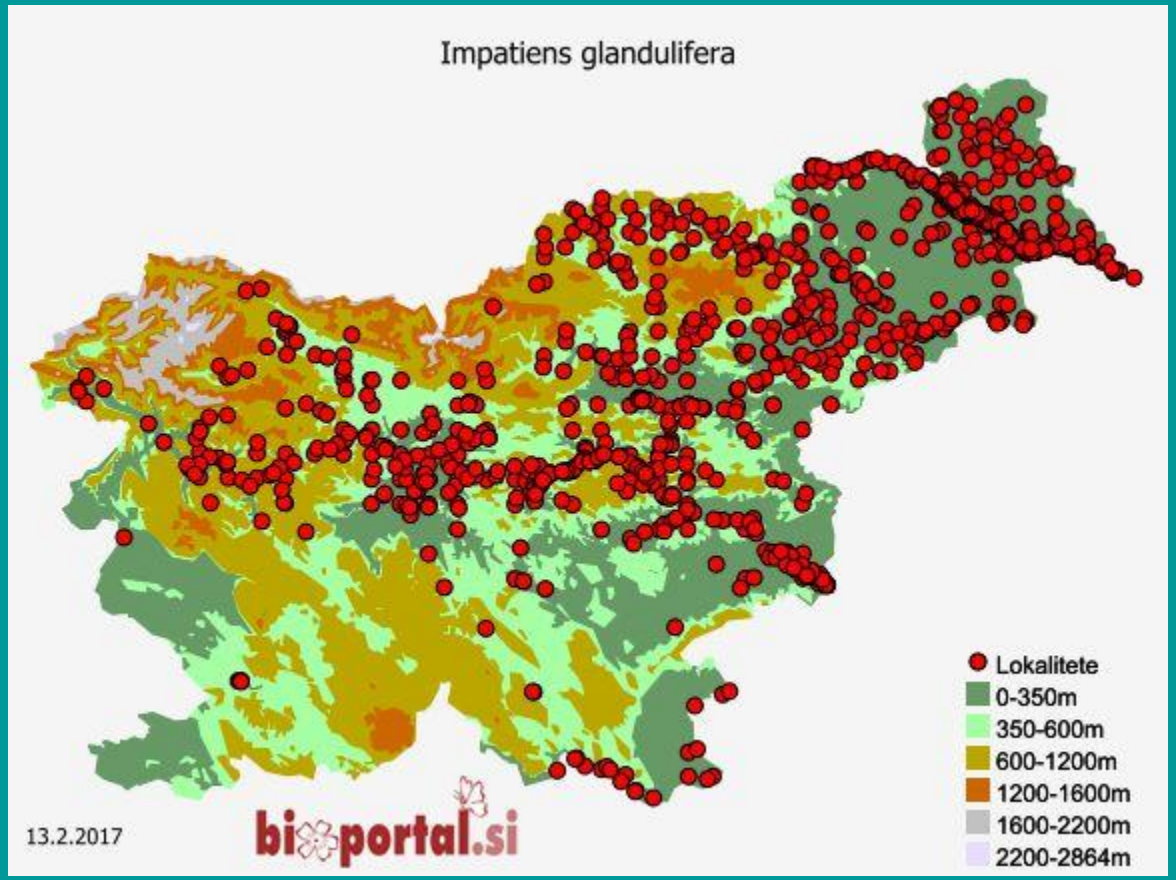
orjaški dežen (*Heracleum mantegazzianum*)



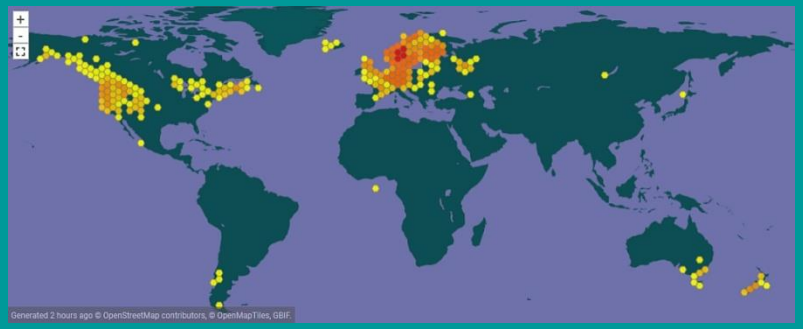


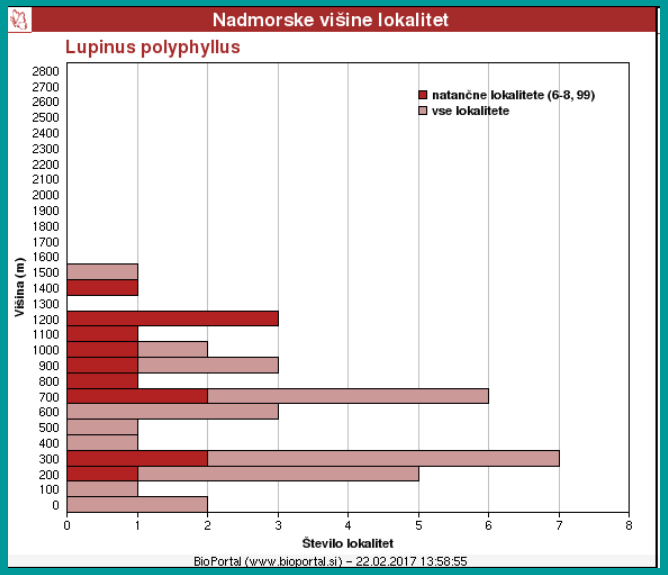
žlezava nedotika (*Impatiens glandulifera*)

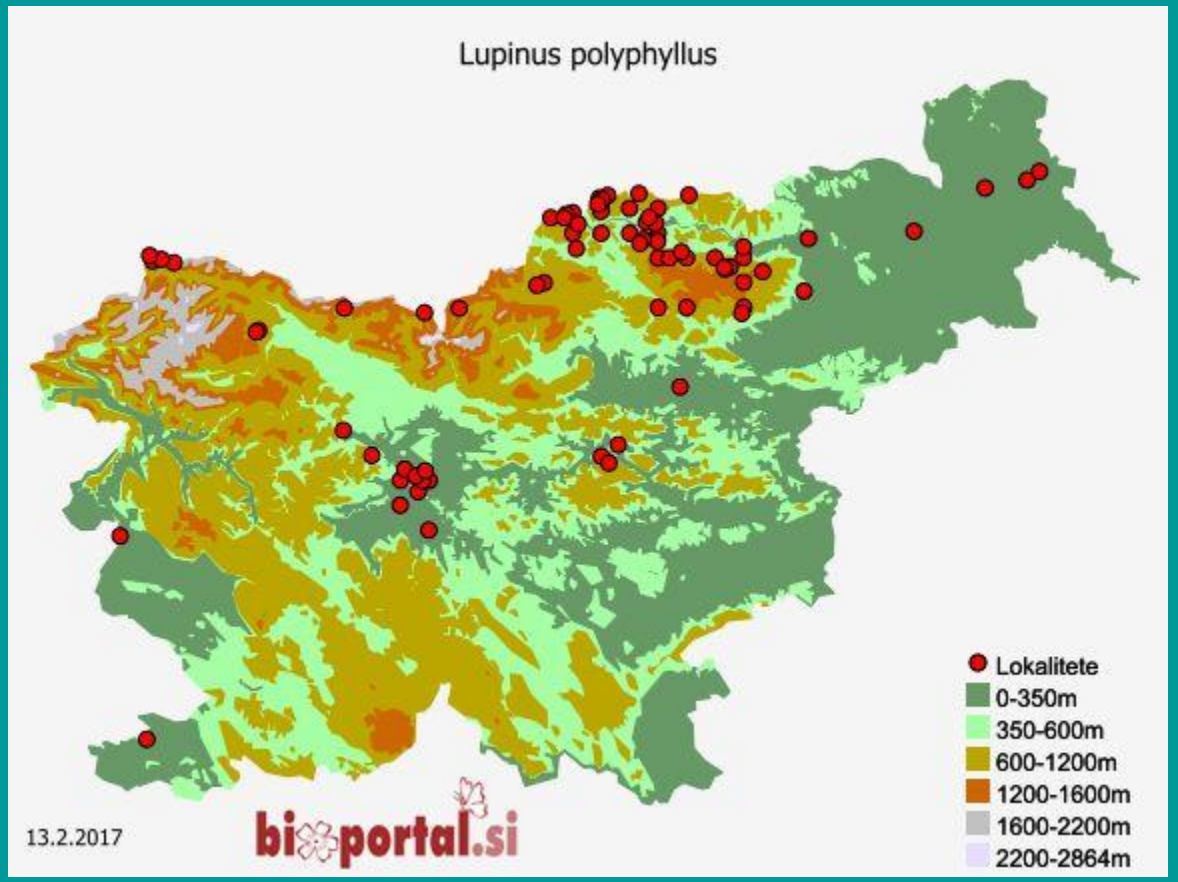




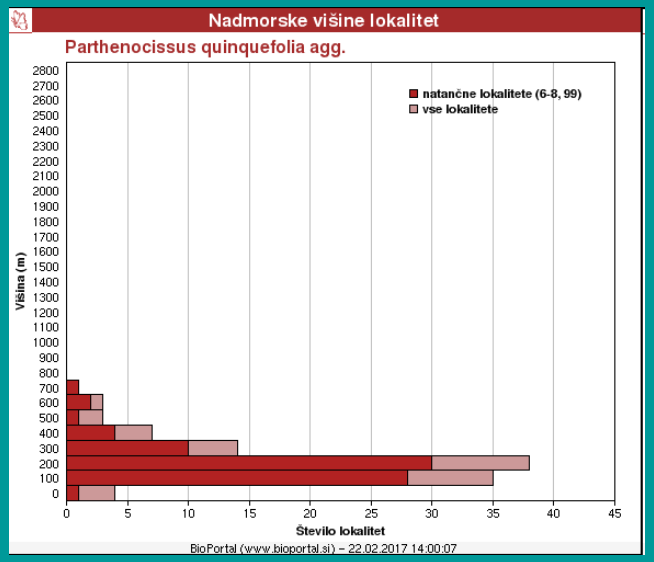
mnogolistni volčji bob (*Lupinus polyphyllus*)

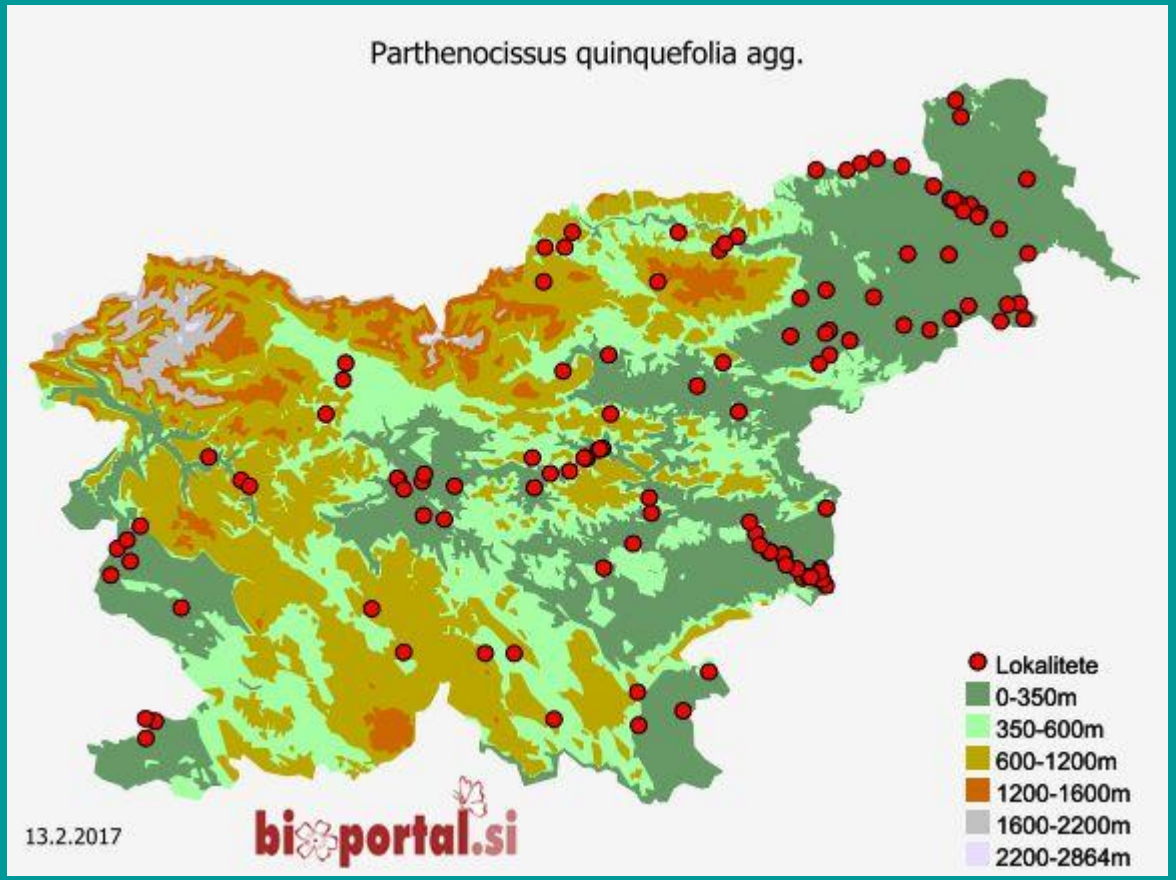




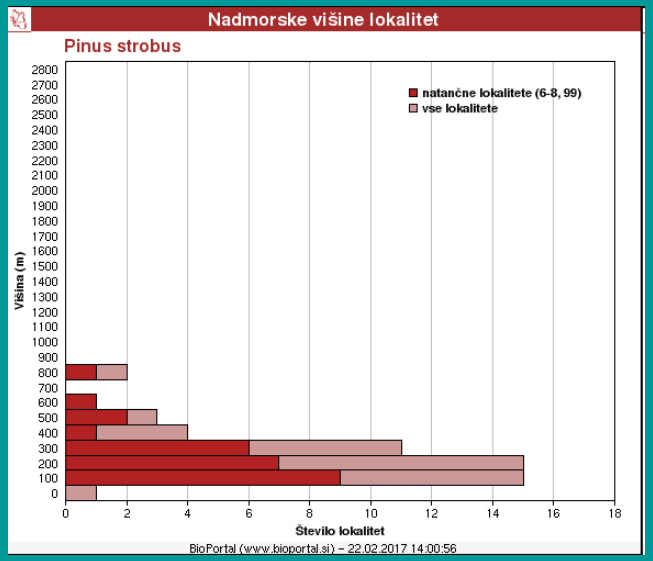


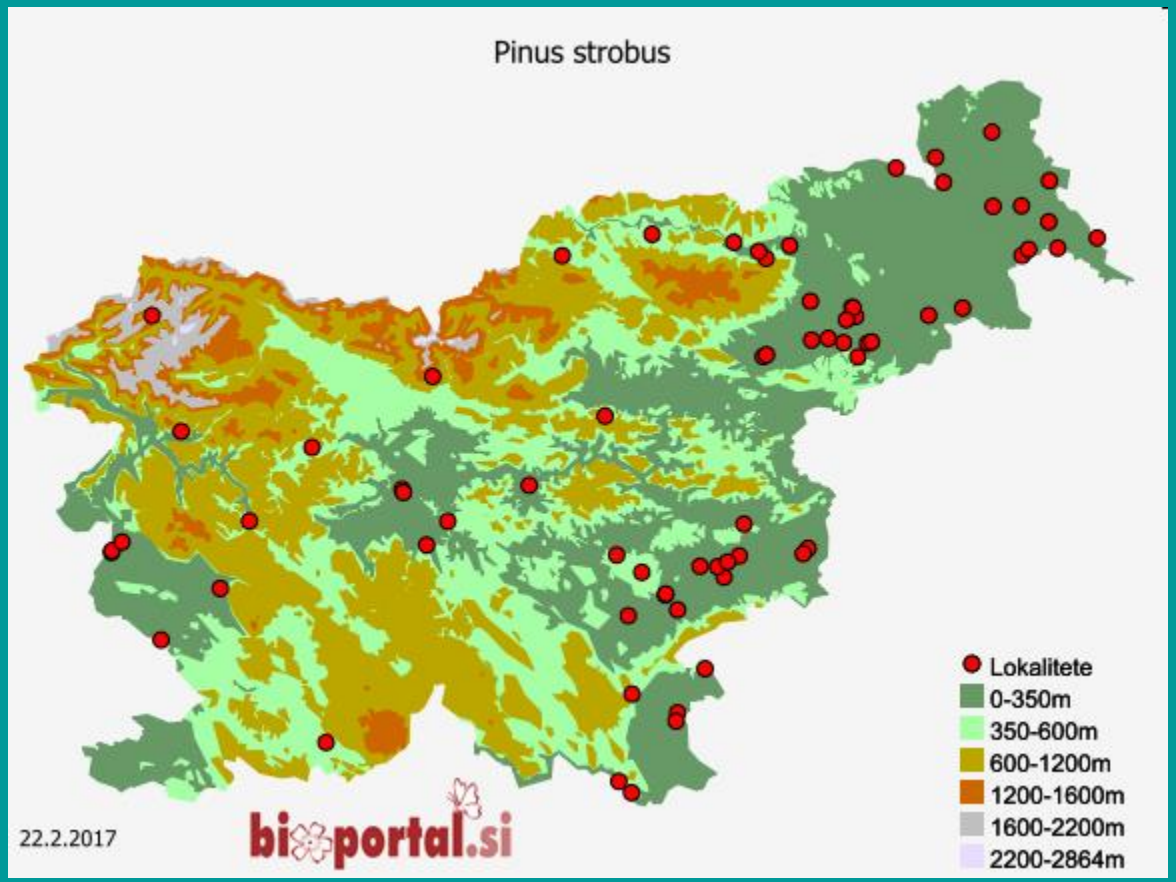
peterolistna vinika (*Parthenocissus quinquefolia*)



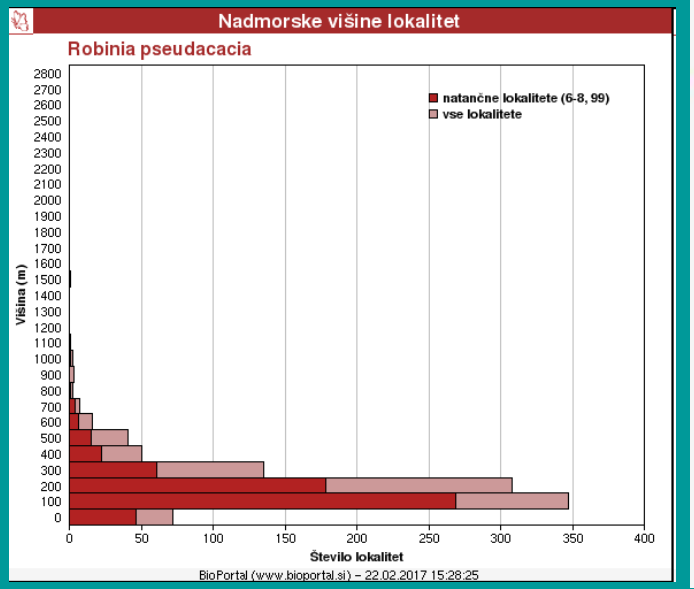


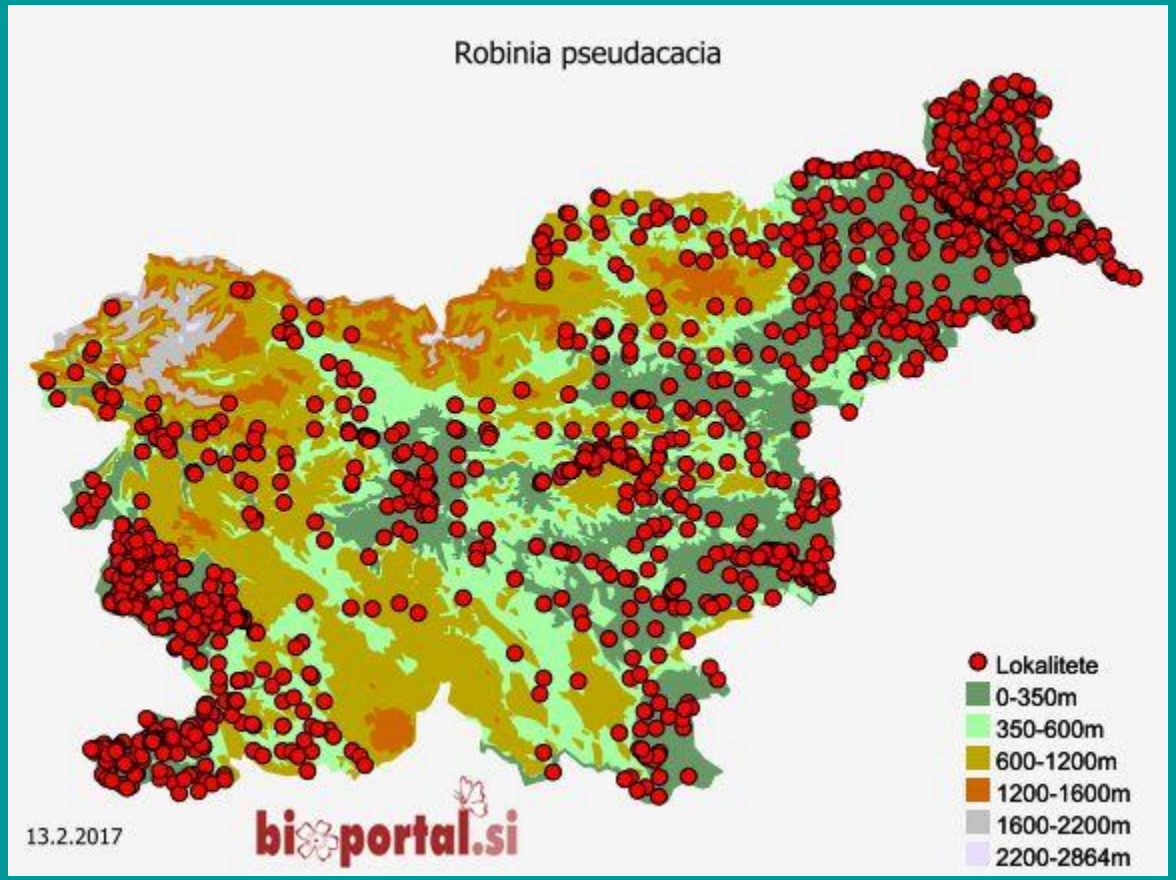
gladki bor (*Pinus strobus*)



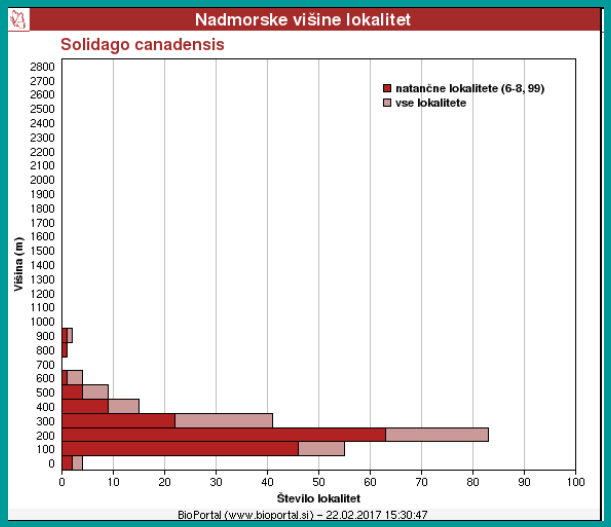


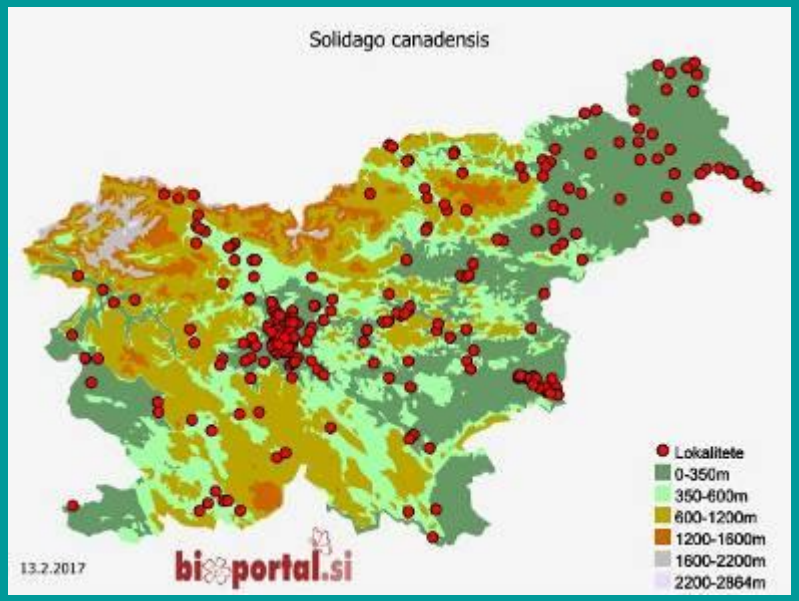
robinija (*Robinia pseudacacia*)

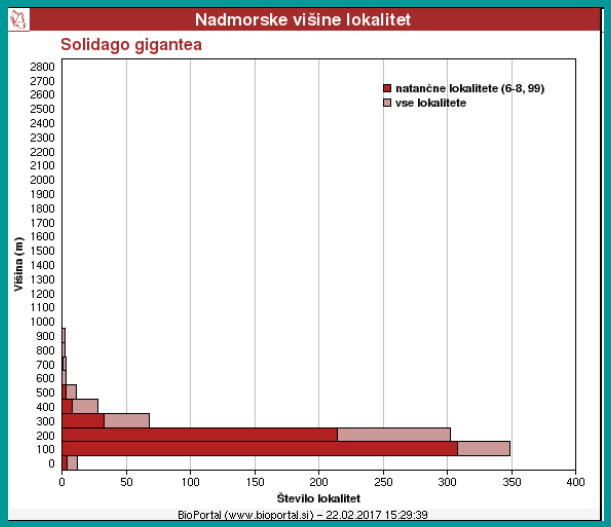


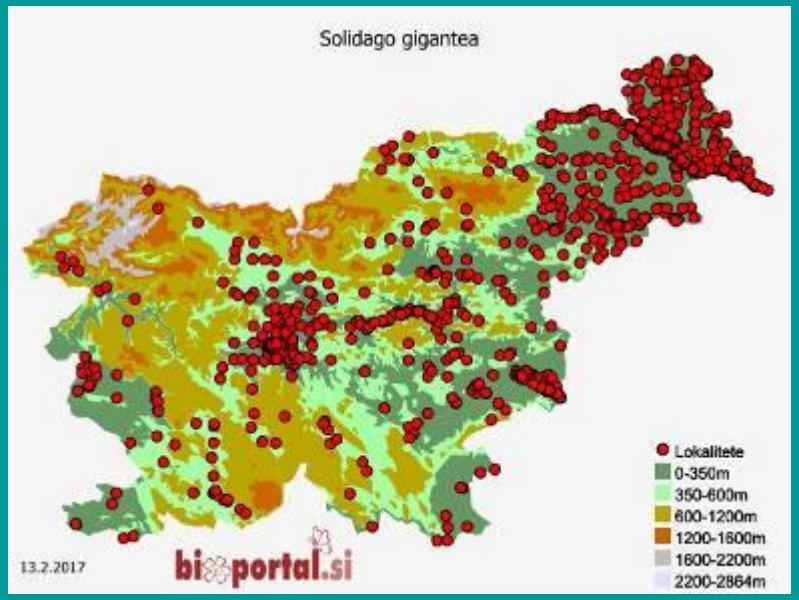


ameriški zlati rozgi (*Solidago* spp.)









vodna solata (*Pistia stratiotes*)

<u>vodne rastline prej</u>
(1992, 1997):

Berula erecta
Ceratophyllum demersum
Lemna minor
Myriophyllum spicatum
Najas marina
Potamogeton crispus
Potamogeton natans
Potamogeton trichoides
Trapa natans

<u>danes:</u>

Ceratophyllum demesum
Lemna gibba
Lemna minor
Pistia stratiotes

kaj vzeti v roke?


Hvala!