Eradication of the Common milkweed stands in the Kiskunság National Park

The NeverEnding story

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Biological invasions by non-native or 'alien' species are one of the greatest threats to the ecological and economic well-being of the planet.

It’s all ok, it’s just more diversity!
It has already become a part of the ecosystem and generates income for local people as well.


Termelői Magyar Méz
Selyemfű méz
Marci bácsi méhészete
Alapítva: 1979
Termelői Magyar Méz
Nettó: 1,0 kg.
Termelői Magyar Méz
Selyemfű méz
Marci bácsi méhészete
Alapítva: 1979

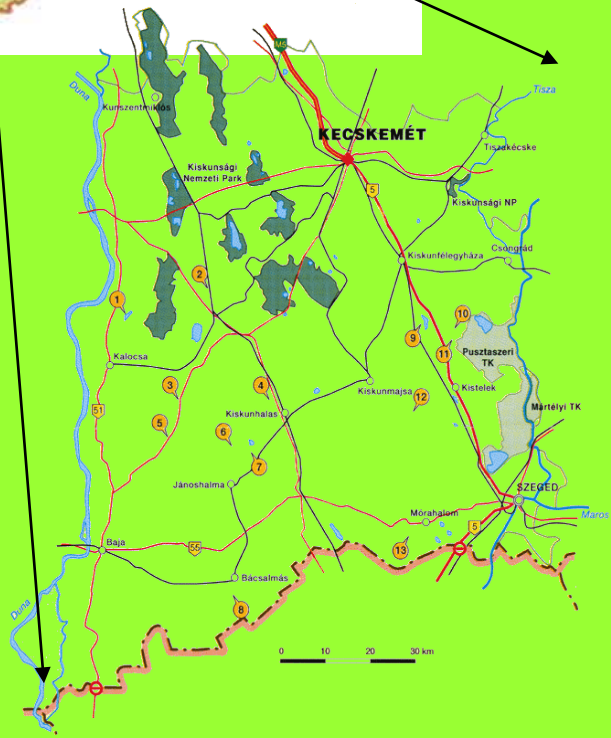
European Union spends 12 billion Euros/year to control alien species.

Since 1982 180 LIFE project were spent 38 million Euros to control invasive species in Natura 2000 sites.

The DAISIE (Delivering Alien Invasive Species Inventory for Europe) database contains details of over 12,000 alien species in Europe.

Species are being transported to new locations at up to 10,000 time's greater rate than by natural dispersal.

Hungary



Kiskunság National Park

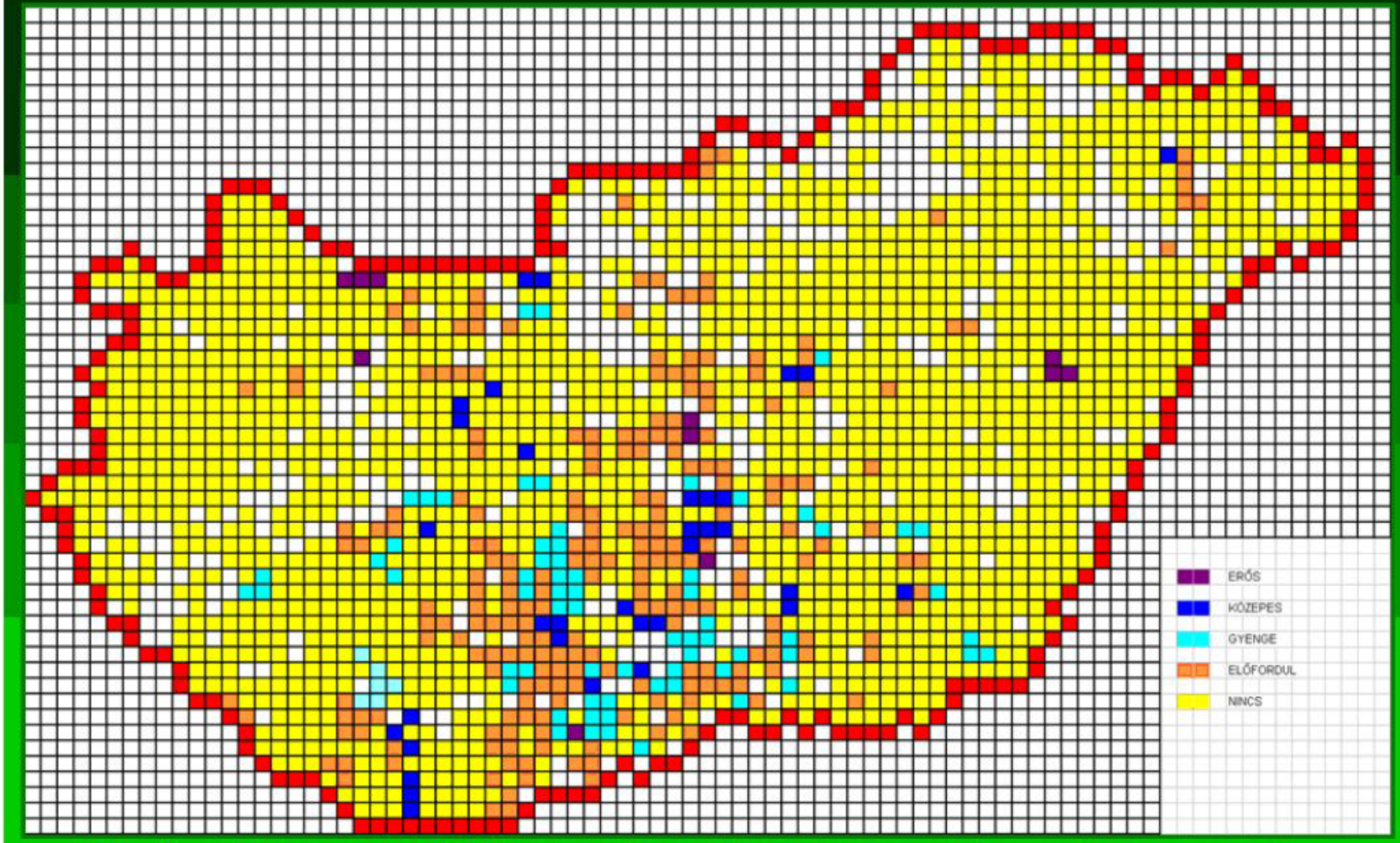
Common milkweed is an erect perennial that reproduces by seeds, underground stems, and roots. Seedlings and new shoots usually emerge in spring, but seeds may germinate throughout summer.

The sweet nectar attracts bees, wasps, and other flying insects and beekeepers aswell.

Fertilized flowers develop into follicles filled with seed. Seeds are dispersed by wind.

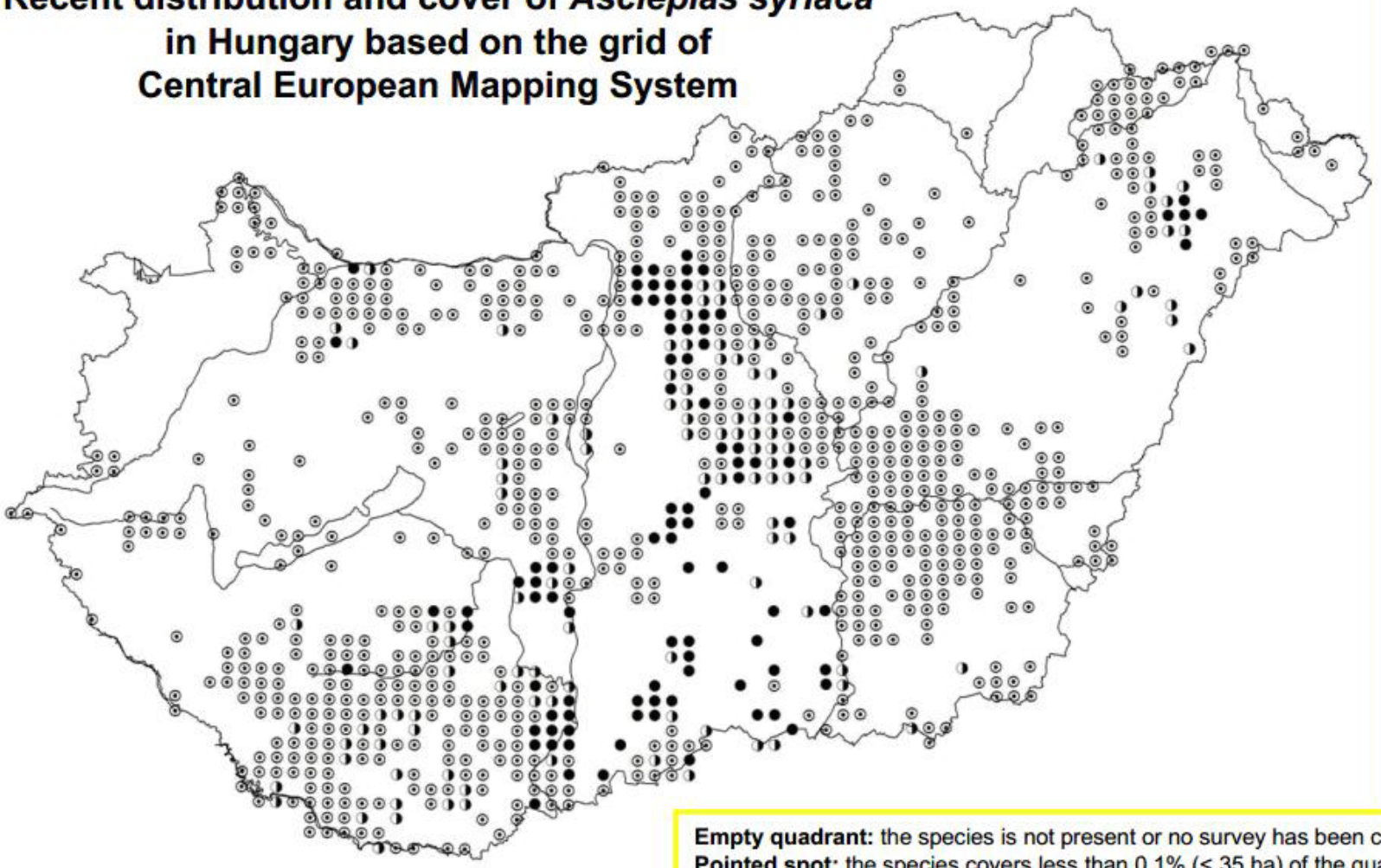
The Ministry of Agriculture in Hungary in 1871 decided to cultivate this plant. The plant became more and more widespread during the last centaury nowadays you can find everywhere in Hungary.

Distribution of *Asclepias syriaca* in Hungary from 1986 to 1990



Tóth, Á., Török, T. (eds.) (1990): Tizenkét jelentős kárral fenyegető gyomnövény országos felmérése (National survey of the twelve most important weeds). Földművelésügyi Minisztérium Növényegészségügyi és Földvédelmi Főosztály. pp. 116. [in Hungarian with English summary]

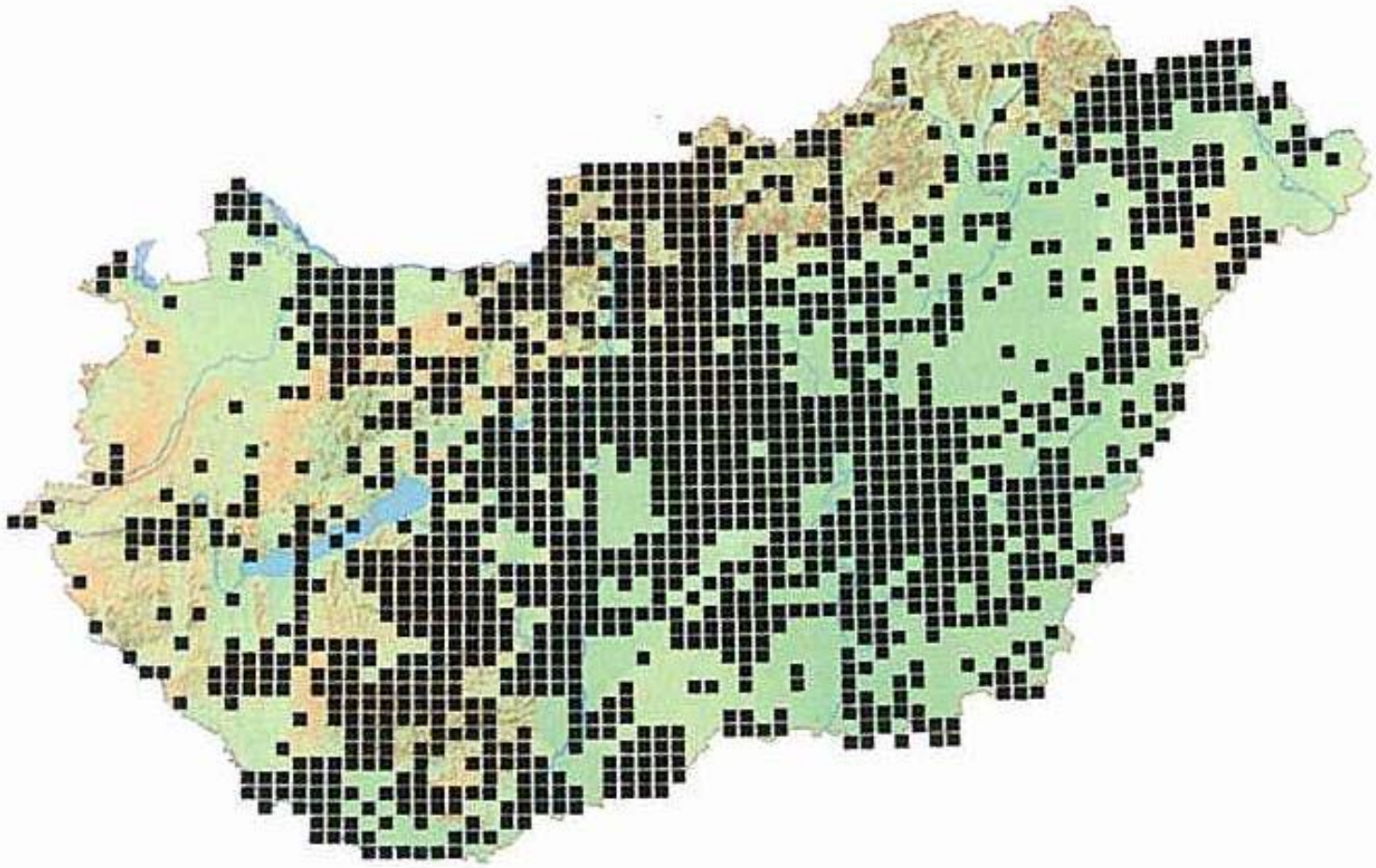
Recent distribution and cover of *Asclepias syriaca* in Hungary based on the grid of Central European Mapping System



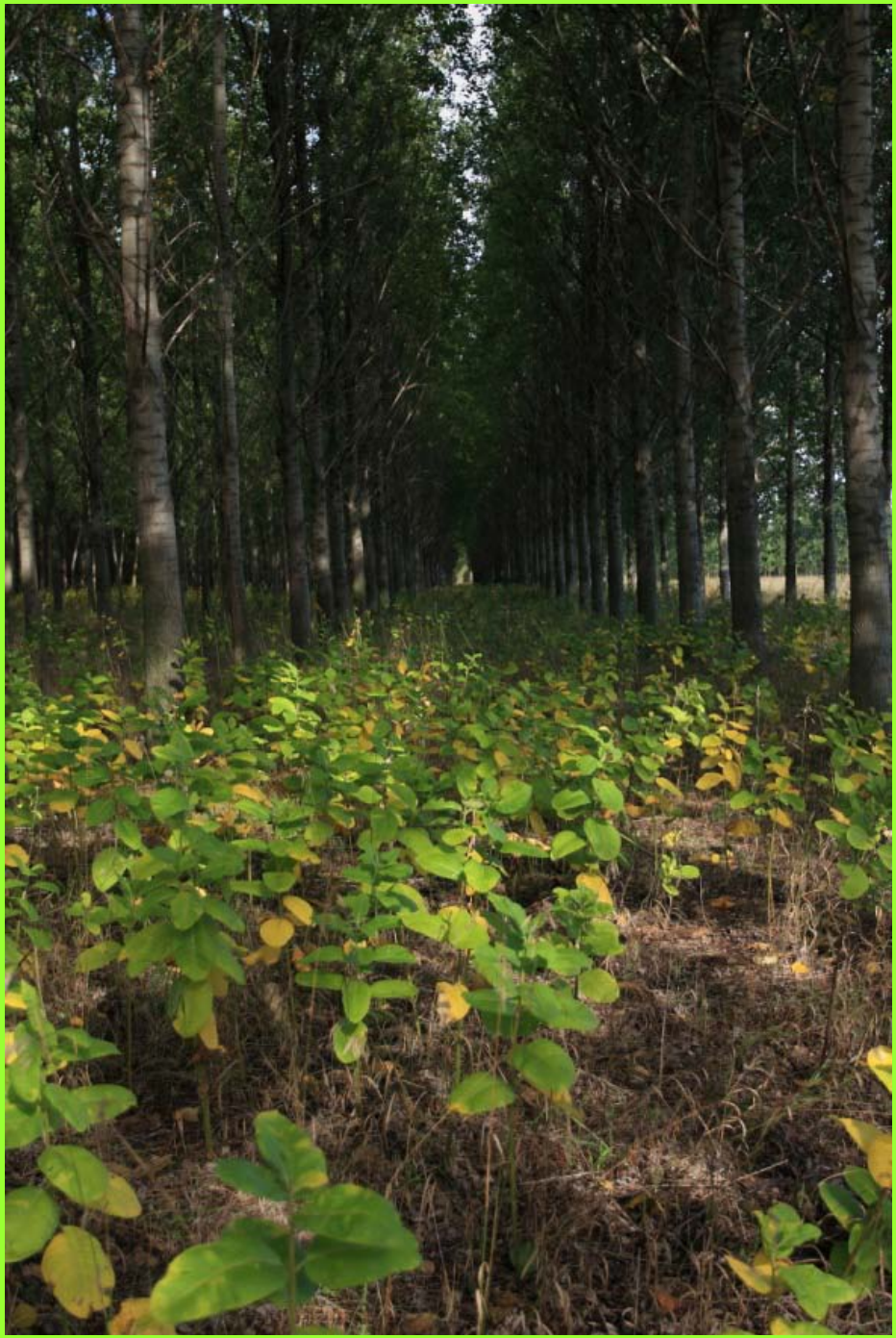
Empty quadrant: the species is not present or no survey has been carried out
Pointed spot: the species covers less than 0.1% (< 35 ha) of the quadrant
Half dark spot: the species covers 0.1–1 % (35–350 ha) of the quadrant
Dark spot: the species covers over 1 % (> 350 ha) of the quadrant

Balogh, L. Dancza, I., Király, G. (2008) Preliminary report on the grid-based mapping of invasive plants in Hungary. In: Rabitsch, W., F. Essl & F. Klingenstein (eds.): Biological Invasions – from Ecology to Conservation. NEOBIOTA 7 (2007): 105-114.

Distribution of Asclepias syriaca in Hungary 2012



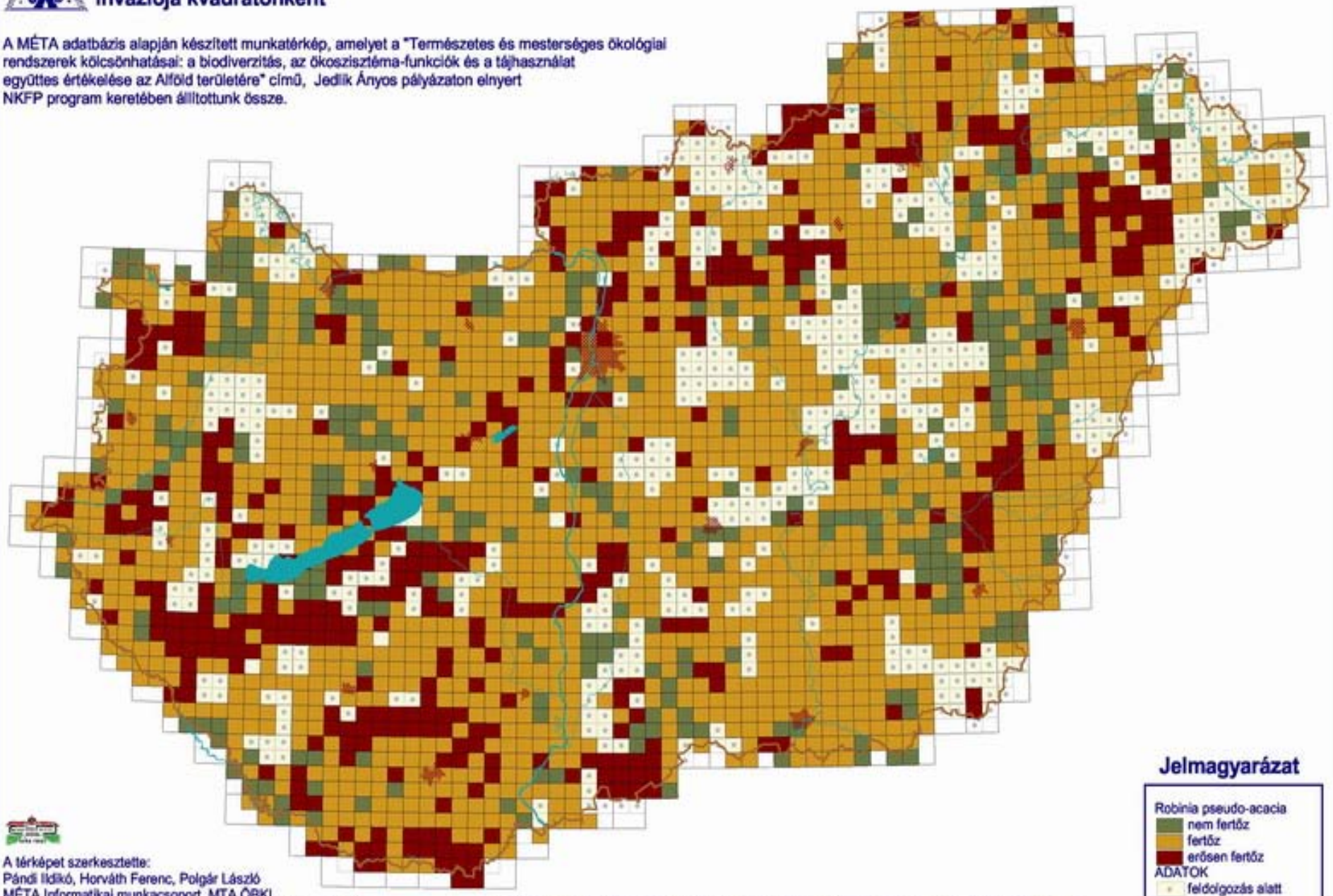
Csiszár, 2012



AZ AKÁC (ROBINIA PSEUDO-ACACIA)

inváziója kvadrátonként

A MÉTA adatbázis alapján készített munkatérkép, amelyet a "Természetes és mesterséges ökológiai rendszerek kölcsönhatásai: a biodiverzitás, az ökoszisztéma-funkciók és a tájhasználat együttes értékelése az Alföld területére" című, Jedlik Ányos pályázaton elnyert NKFP program keretében állítottunk össze.

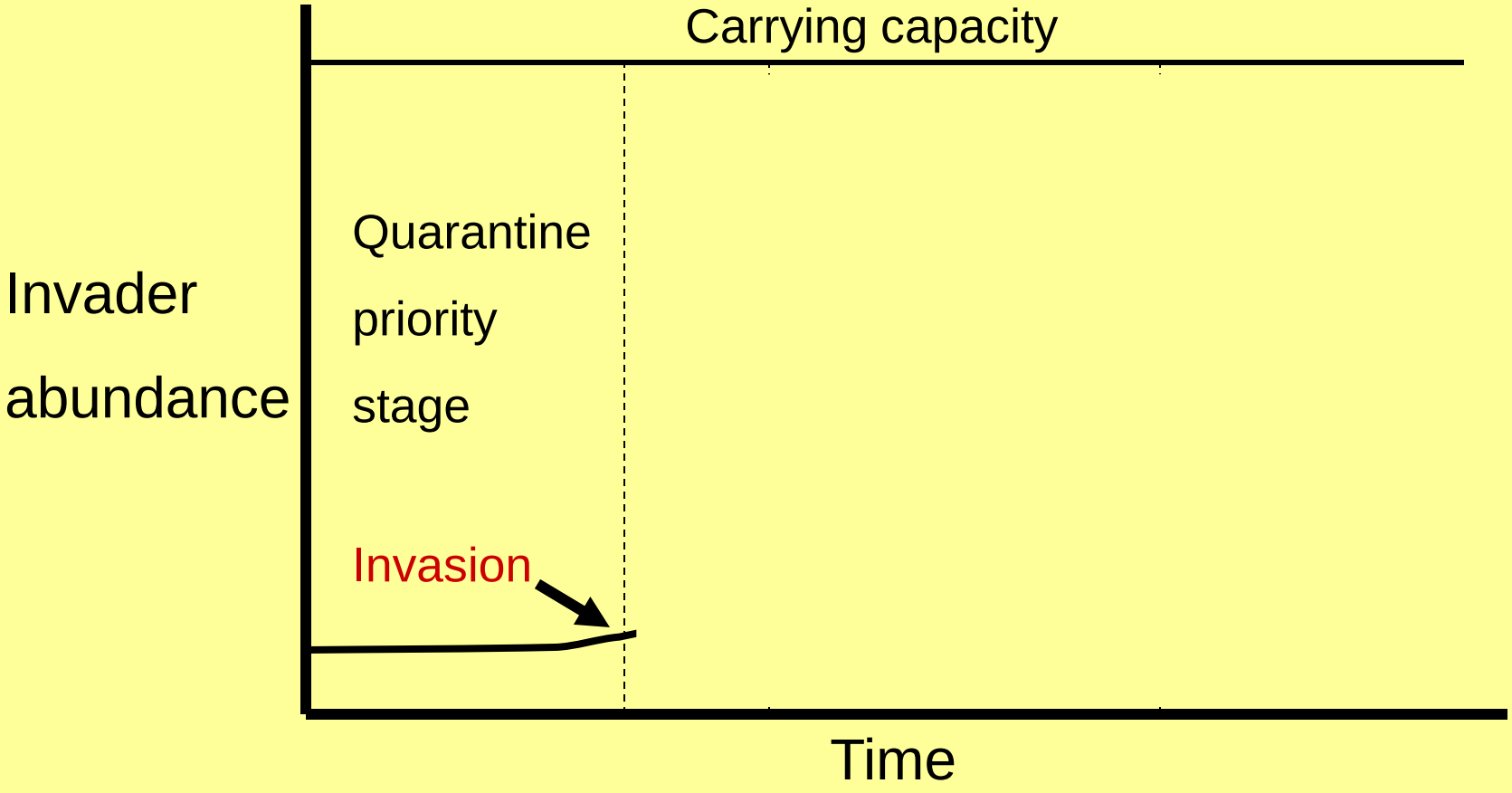


A térképet szerkesztette:
Pándi Ildikó, Horváth Ferenc, Polgár László
MÉTA Informatikai munkacsoport, MTA ÖBKI
dátum: 2006. augusztus 10., projects\meta\META-JAP-2006

hivatkozás: "a térkép címe", munkatérkép, kézirat. MÉTA adatbázis 1.0, MTA ÖBKI, Vácrátót, 2006

What can we do now?

Give it up or to do something?



Phases of weed invasion and priorities for action at each phase. Ease of treatment declines from left to right. (after Chippendale, 1991)

Prevention is ALWAYS the best strategy!

Early detection is the second best strategy

Why do so many invasive control efforts fail?

- unrealistic goals
- no size-up before starting
- ineffective method used

Establish conservation goals:

Preserving of the most valuable open sandy grasslands from the invasive species in the Kiskunsag National Park. Not al of them the most valuables!

Identify and prioritize species that threaten targets and goals:

Species-based Prioritization – Which do I go first?

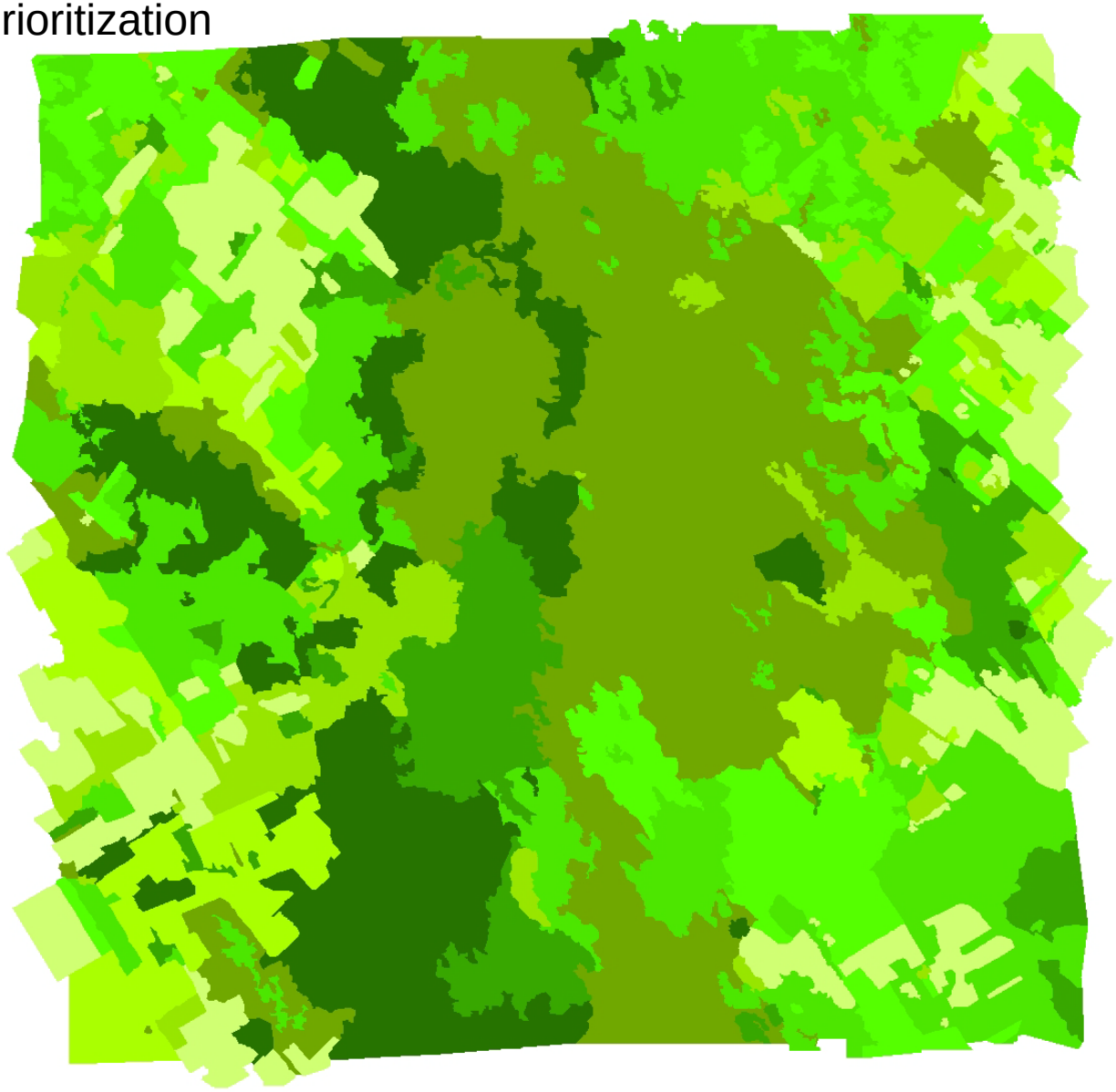
Asclepias syriaca!

Site-based Prioritization – Where do I go first?

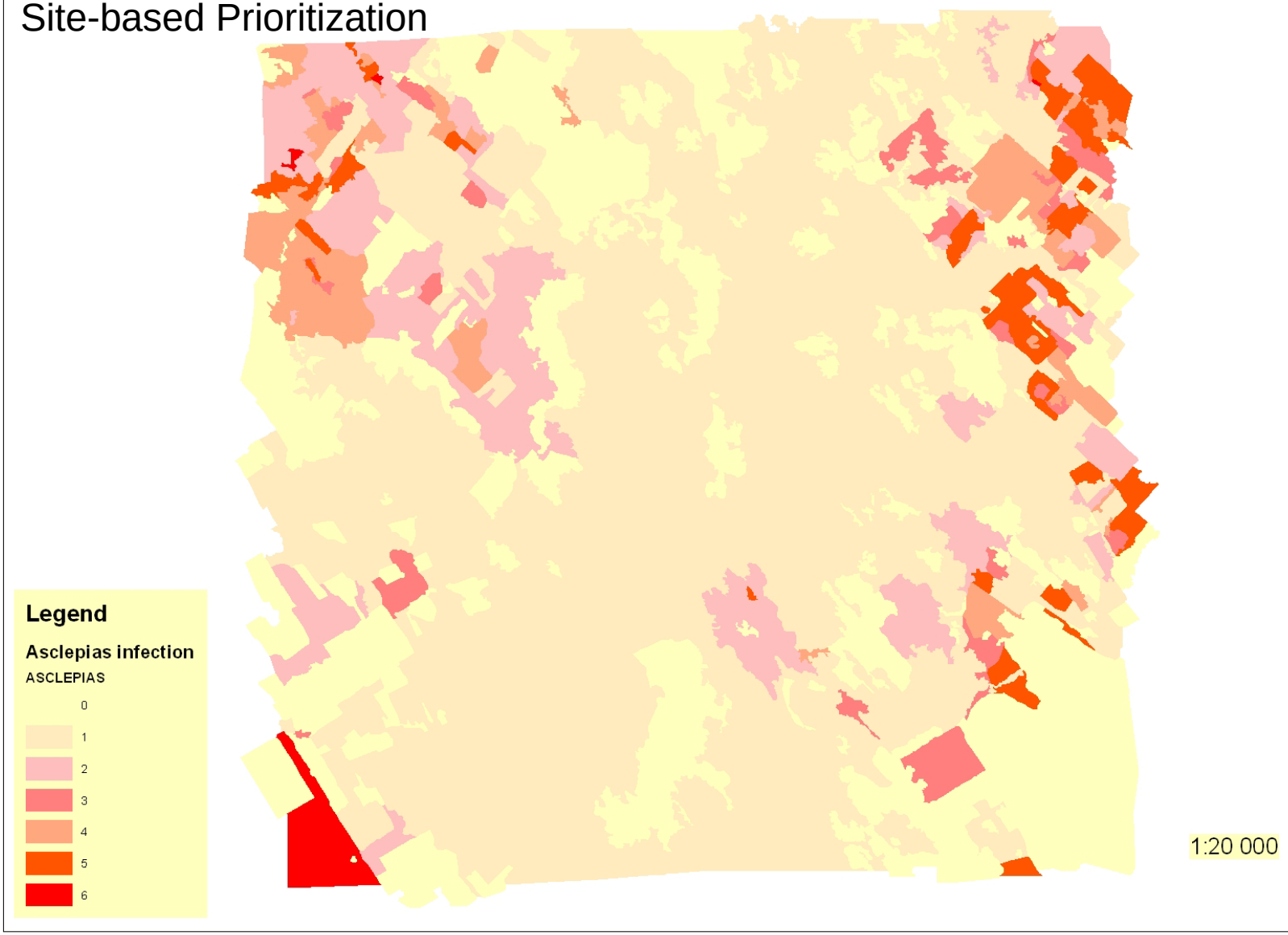
Identify and map invaded and un-invaded areas

Focus on large blocks of un-invaded areas

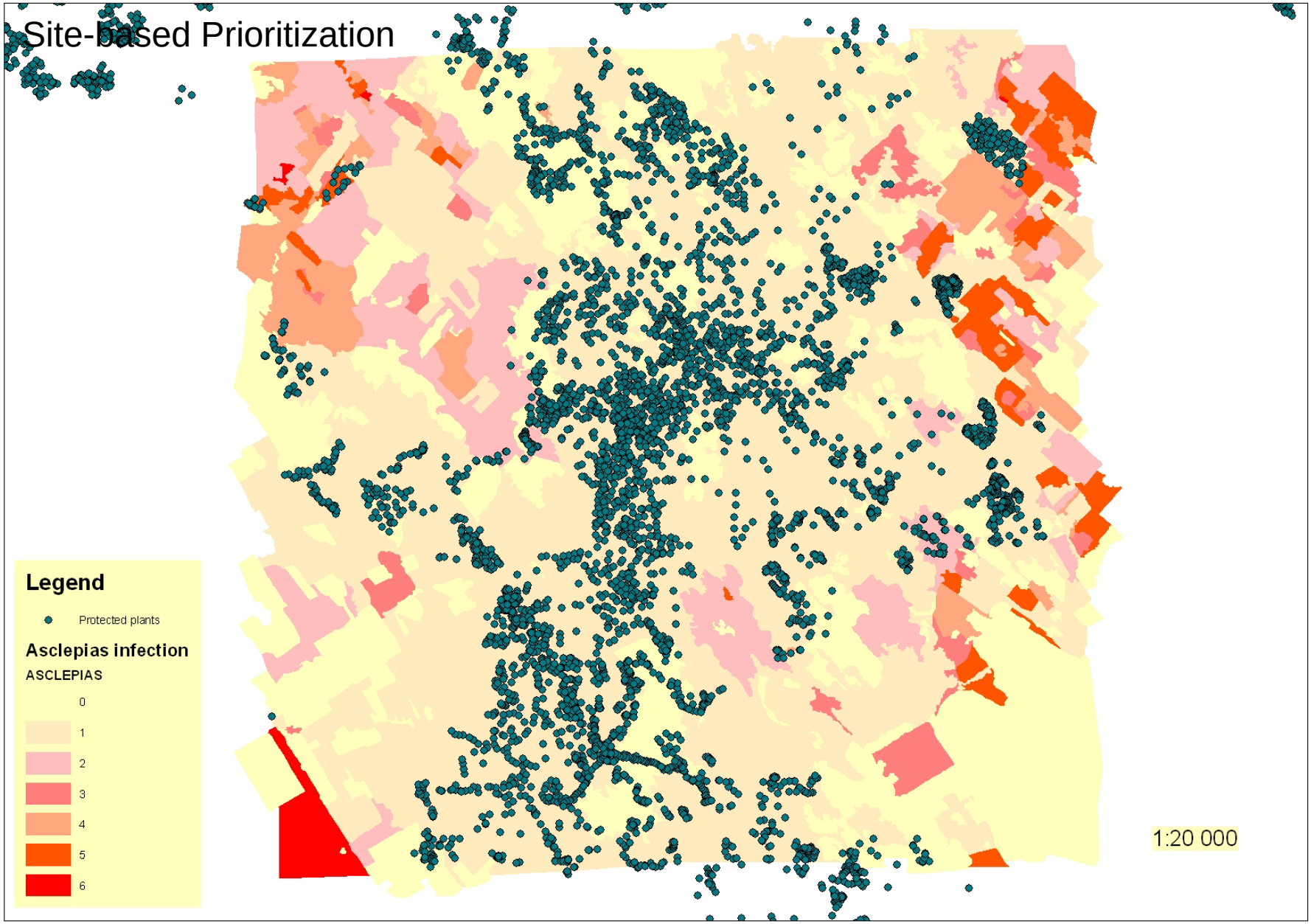
Site-based Prioritization



Site-based Prioritization



Site-based Prioritization



Difficulty of control.

The ‘right’ technique may be different for a 0.1 hectare of scattered milkweed vs. a 60 hectares area dominated by common milkweed.

Measurable Objectives and Goal

The common milkweed infestation is extensive in and around the national park, and cannot be eradicated with available technology.

Our objective is: Eradicate the pest in the middle of the area creating uninfested core area.

Control Options

The common milkweed infestation is extensive. Lesser-priority areas will have to be neglected. Highest priority will be given to reducing new outbreaks and to removing the plant from currently infested areas to create uninfested core areas.

Monitor and assess impact of management actions

Necessary to show whether treatments are effective or not

Review and modify

Change what isn’t working.
Change priorities as new species emerge.


New aliens, new challenges.

„Select your enemy very well if you would like to succeed in fight against invasive species.”

Thank you for your attention!