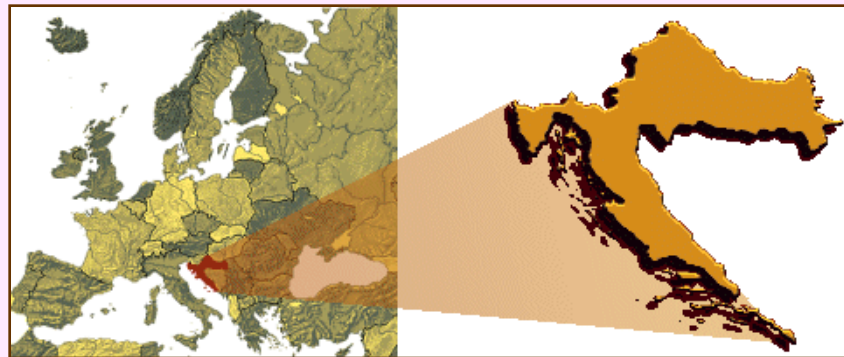




International seminar “Lists of IAS plants in the Balkans with an EPPO training course on the prioritization process for IAS plants, Belgrade, July 08-11, 2013

***Carpobrotus* spp. – PRIORITIZATION PROCESS ASSESMENT FOR CROATIA**



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Taxonomic position: Plantae, Caryophyllales,
Aizoaceae

C. acinaciformis (L.) L. Bol. (Syn: *Mesembryanthemum acinaciforme* L.)

C. edulis (L.) L. Bol. (Syn: *Mesembryanthemum edule* L.)



* hybrids?

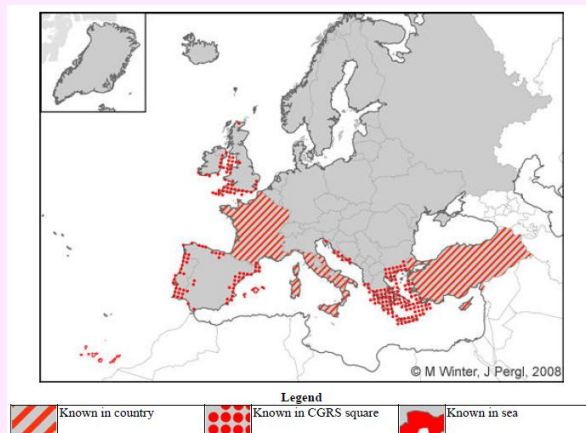


Taxonomically difficult!

The reasons for performing this assessments:

Both taxa are:

- Listed as alien/established in many European countries (DAISIE 2008)



C. edulis



C. acinaciformis

- Present on EPPO list of IAP
- Present on Croatian preliminary list of IAP (Boršić et al. 2008)

A.1. Is the plant species known to be alien in all, or a significant part, of the area under assessment?

Yes

Both species are native to southern Africa (Cape Region) (DAISIE 2006, Wisura & Glen 1993).

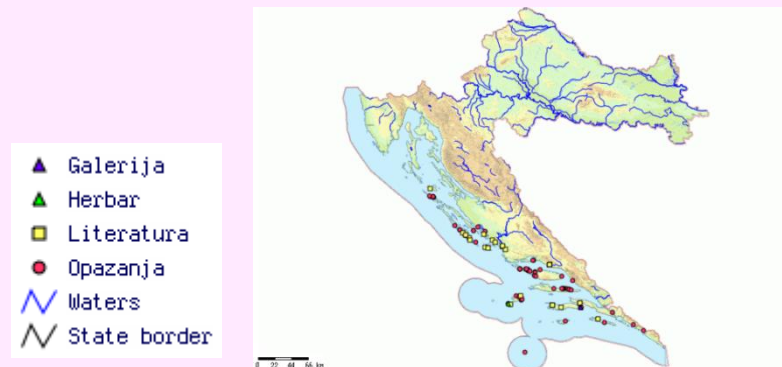
Both species are alien to Croatia:

- *Carpobrotus* was first recorded on the island of Biševo in 1951 (Nikolić 2013, as *C. edulis*)
- *C. acinaciformis* was first recorded in 1998, BUT probably overlooked in earlier periods and/or mixed with *C. edulis* (Nikolić 2013, personal data).

A.2. Is the plant species established in at least a part of the area under assessment?

Yes

Both species are established on many localities in the Mediterranean part of Croatia (Nikolić 2013).



Probably there are other infested sites, unrecorded in the Flora Croatica Database (Mitić & Vuković, pers. comm.)

The whole Mediterranean part of Croatia is the area of its potential establishment.

A.5.

How high is the spread potential of the plant in the area under assessment?

Spread potential: High

Level of uncertainty: Low

Vegetative sprouting: although not at considerable distances from the mother plant (stem elongation can be more than 1m per year), this mechanism is very successful.



Fleshy edible fruits readily consumed and dispersed by mammals (e.g. deer, rat, rabbits).



A.6.

How high is the potential negative impact of the plant on native species, habitats and ecosystems in the area under assessment?

Potential impact: High

Level of uncertainty: Low

Habitat occupied in Croatia (EUNIS): B1: Coastal dune and sand habitats , B2: Coastal shingle habitats, B3: Rock cliffs, ledges and shores

B1, B2: coastal sand and shingle beaches are rare and endangered habitats in Croatia, with many red-listed and legally protected species (Nikolić & Topić 2005).

B3: rocky shores in Croatia are generally inhabited by the ass. *Crithmo-Limonietum*, which often hosts locally endemic species (Bogdanović 2009).



Carpobrotus acinaciformis forming dense stands on Dugi otok (photo by: M. Milović)

A.6.

How high is the potential negative impact of the plant on agriculture, horticulture or forestry in the area under assessment?

The species can increase soil N and organic C and reduce the soil pH. In dune habitats they prevent sand movement, hindering the natural processes of the disturbance regime (DAISIE 2006). They form dense monostands and could be in competition for pollinators with some native species, as for example in Spain (Moragues & Traveset 2005).



C. acinaciformis on Korčula
(photo by: D. Šincek)



C. edulis on Dugi otok
(photo by: M. Milović)

A.7.

How high is the potential negative impact of the plant on agriculture, horticulture or forestry in the area under assessment?

Potential impact: Low

Level of uncertainty: Medium

The species are not agricultural weeds, and there are no documented effects on agriculture, horticulture or forestry.

A.8.

How high are the potential additional impacts (e.g. on animal and human health, on infrastructures, on recreational activities, other trade related impacts such as market losses)?

Potential impact: Medium

Level of uncertainty: Low

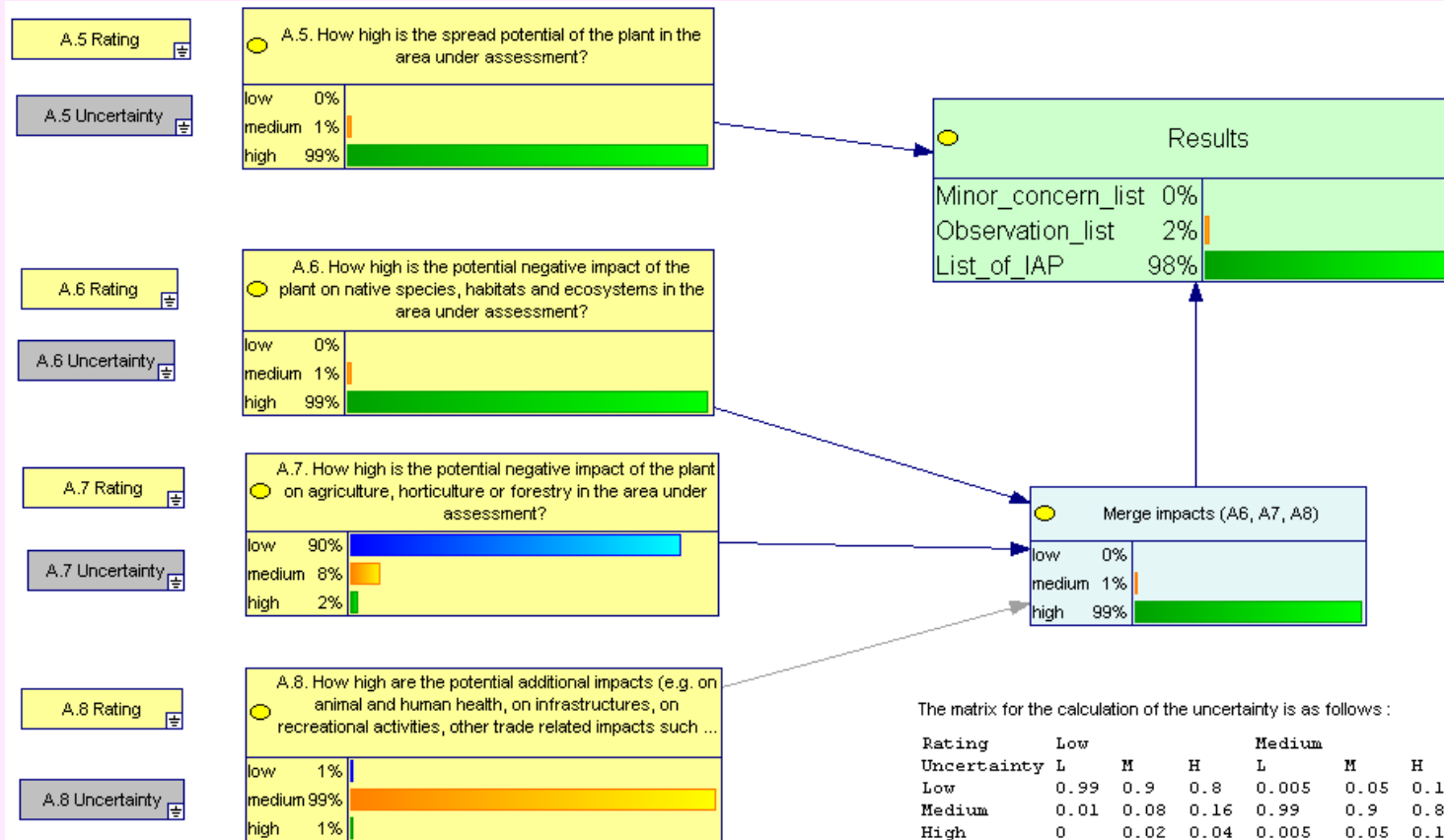
They could affect tourism (fast growing stands which vigorously spread over beaches – tourists prefer ‘vegetation-free’ beaches), which is one of the main parts of Croatian economy

Result of the 'listing' process:

Carpobrotus spp.



List of Invasive Alien Plants



B.1.

Is the plant species internationally traded or are there other existing or potential international pathways?

Yes - both species are traded as ornamental and landscaping plants (DAISIE 2006).

B.2.

Is the risk of introduction by these international pathways identified to be superior to natural spread?

Yes – both species are used as ornamentals and can be ordered from nurseries.

B.3.

Does the plant species still have a significant area suitable for further spread in the area under assessment?

Yes – both species can potentially inhabit the whole coastal area of Croatia.

Overall result:

?

Overall result:

Carpobrotus spp. in Croatia: High Priority for PRA



Thank you!







