

# *Anthriscus sylvestris* in Iceland

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## Invasive species

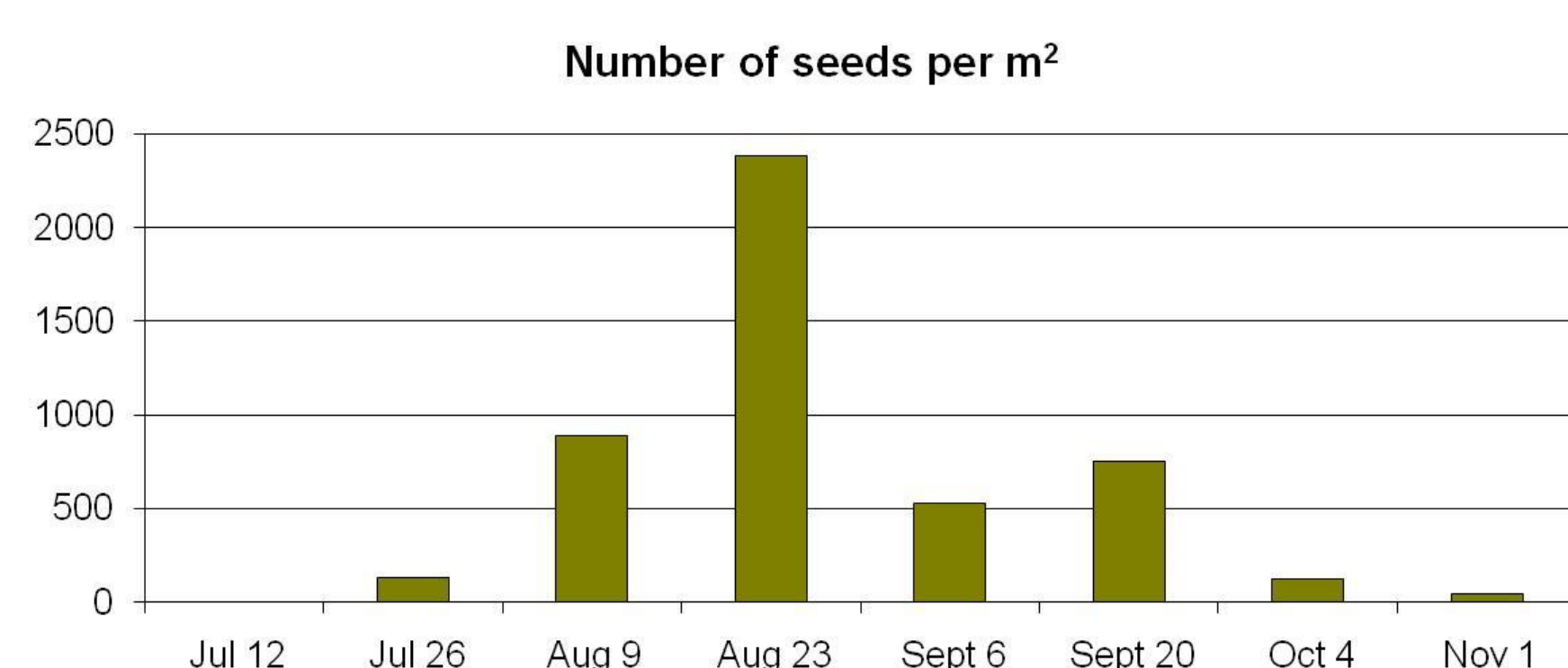
*Anthriscus sylvestris* or Cow parsley is native to Europe and temperate Asia. The species was introduced to Iceland shortly after year 1900 for ornamental purposes. Today, it has reached most parts of the country and is considered invasive. Declined livestock grazing over the last few decades along with warmer climate are the most likely reasons for the increased spread and abundance of Cow parsley.



The leaves are fern-like and inflorescence is a compound umbel with white flowers.

## Ecology

Cow parsley is a perennial monocarpic species that can reach height of 150 cm. The flowers are white and many in large umbels. Mature plants start flowering in early June and spread seeds in late July. Seed production of a single plant is in the range of 800 – 10,000. It reproduces mainly by seeds but also by root buds. Cow parsley is found in old pastures, hedgerows, by roads, river banks and old Nootka lupin patches (*Lupinus nootkatensis*).



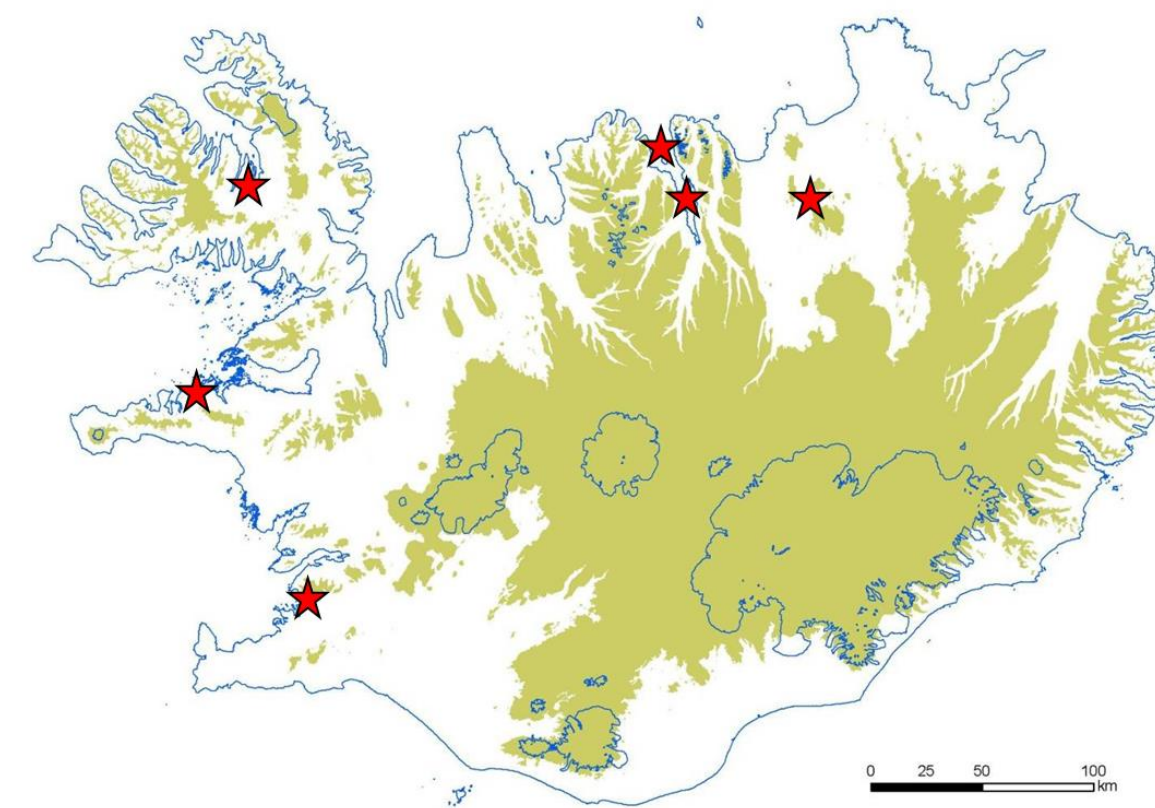
Number of seeds produced by Cow parsley in Reykjavík in 2010. Average from 10 plants.



Cow parsley patches in various environment in Iceland.

## Impact

Where Cow parsley establishes it usually form dense patches. It grows rapidly in spring, forms a dense canopy that shades out other lower growing species. Very few species are able to grow within the Cow parsley patches, it therefore affects native vegetation and the appearance of a site. In the last few years, some communities in Iceland have initiated management programs to eradicate and control the spread of Cow parsley.



Sites where management programs for Cow parsley have been implemented or are being planned.

## Management efforts

Methods that have been used to eradicate Cow parsley in Iceland are mainly cutting and herbicide application as well as pulling out individual plants. Grazing has not been used as a method. Success of the methods has not yet been assessed but there are indications of less cover in several places.



Before herbicide application in summer 2009 (left) and following two applications in fall 2010 (right) in Eyjafjörður.



Cow parsley removed close to lake Mývatn in 2010.



Unanswered are what kind of vegetation establishes following management. Species like Northern dock (*Rumex longifolius*) and dandelion (*Taraxacum* spp.) seem to appear shortly after herbicide application.