



New Zealand pigmyweed

(*Crassula helmsii*)

Elimination of New Zealand pigmyweed in a wetland in the Seine-et-Marne department

Seine-et-Marne departmental council

- Since 1991, the Seine-et-Marne department has run a policy to protect sensitive natural areas. In 2017, the department owned over 1 700 hectares of natural areas, of which two-thirds were open to the public (22 sites spread throughout the department). These areas are managed directly by the department.
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Intervention site

- The site was located at a place called Vallée du Bois Guyon in the town of La Genevraye. It consisted of a low, swampy area that at times was a large pool, colonised essentially by common reeds (*Phragmites australis*). The site was at one time the property of a quarry owner.
- The New Zealand pigmyweed was discovered in 2007 by a botanist from the Vallée du Loing and Fontainebleau naturalist group (ANVL).
- The pigmyweed was distributed over an area of approximately 200 square metres and had formed a dense mat over approximately one-half of the area. The site was half covered with water.

Disturbances and issues involved

- Pigmyweed can spread rapidly and block the flow of water in ditches and canals. It can also hinder the development of native plant species and disturb the ecological balance of the local environment.
- The site was close to the Épisy marshes, a Natura 2000 site (Basse vallée du Loing) placed on the green list of IUCN protected areas and consequently there was a risk of the plant spreading.

Intervention

- Meetings were held with the National botanical conservatory for the Paris region (CBNBP) to organise a quick and effective intervention.
- The objective was to eliminate the pigmyweed before it could disperse.



1. Map showing the site.

On-site work

- In the spring of 2007, a programme to manually uproot the plants was launched. The pigmyweed was removed manually as carefully as possible, using rakes, and placed in 100-litre garbage bags.
- To avoid the dispersal of the plants to the other sections of the pool, a tarp was set up vertically to partition the work site.
- The closed garbage bags were then stored on a concrete platform in the sun.
- The following fall, the bags were checked to make sure that the plants were dead and the contents were disposed of similar to any other green waste.
- In uprooting the *Crassula helmsii*, some reeds were also removed because it was difficult to separate the two. The stems of the reeds were gathered in a pile in the area most heavily colonised by the pigmyweed and burned.

Monitoring

- Following the work, the site was visited each month by two persons during the summer.
- Some further uprooting and collection were necessary, using a mason's trowel to scrape the surface and completely remove the few plants that had regrown. During the first two visits, one to two garbage bags were filled, then on the following visits, only a few plants were noted and removed.
- From the middle of the summer onward, no further regrowth was observed.
- The monthly monitoring visits continued until the fall, then three more visits were made in 2008 (April, June and August).

Results and assessment

■ Results

- During the initial uprooting work, a total of one cubic metre was collected, including pigmyweed, dirt and reed rhizomes that were difficult to disentangle.
- Following the summer of 2007, no regrowth was observed during the monitoring visits.
- In 2017, the site was again revisited and no pigmyweed was observed. However, the site had been modified. The low, wet area had been dug out and there was an island in the large pool.

■ Financial aspects

- The initial work occupied five people (two departmental technicians, two CBNBP technicians and one Onema technician) for one day.
- The monitoring work may be estimated to have taken a total of ten hours, not including the transport time.
- The project was paid for by each participating entity, in the form of work hours by the technicians.

Information on the project

- The work was done on private property and no information was made public.

Outlook

- The pigmyweed was eradicated and no further work is planned for the site.

Remark

- This management report does not contain all the information generally found in the reports drafted jointly since 2014 with a large number of managers in the framework of the IBMA work group.
- That is due in part to the fact that the operation took place ten years ago and was a success. The participants from the departmental council and the CBNBP did not require external assistance and, given that at that time the exchange network for IAS management was not yet functional, a report on the work was not immediately drafted, which would certainly have produced more information and additional photos.
- That being said, this report was deemed useful for those confronted with New Zealand pigmyweed, which explains why it is presented here.

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2. The Épisy marshes.
3. Pigmyweed seedlings in a wet area.
4, 5. The site in 2017.

This management report was drafted in January 2018 by the work group for biological invasions in aquatic environments, set up by the French biodiversity agency and IUCN France, in addition to those already presented in the second volume of the book titled "Invasive alien species in aquatic environments, Practical knowledge and management insights", in the Knowledge for action series published by the French biodiversity agency (<http://www.onema.fr/sites/default/files/EN/EN/ICat7a-EEE-vol2.html>).

