

Summary of EPPO Prioritization process¹ for: *Hygrophila polysperma*

In 2022/23, a number of species on the EPPO Observation List were re-prioritized with current information to assess if they should remain on the Observation List or be moved to another list. This is the prioritization summary for *Hygrophila polysperma* where the outcome is the species should remain on the Observation List.

Section A. Prioritization process scheme for the elaboration of different lists of invasive alien plants (pests or potential pests) for the area under assessment

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

Yes: *Hygrophila polysperma* is native to Asia (EPPO, 2017).

A.2 Is the plant species established in at least a part of the area under assessment? (if yes goto A5)

Yes, the species is established in the EPPO region. It has a limited distribution, present in thermal waters in Austria, Germany, Hungary and Poland (EPPO, 2017).

A. 3 Is the plant species known to be invasive outside the area under assessment?

A yes for question A.2 means this question is skipped.

A.4 Based on ecoclimatic conditions, could the species establish in the area under assessment?

A yes for question A.2 means this question is skipped.

A.5 How high is the spread potential of the plant in the area under assessment?

High spread potential with moderate uncertainty: *H. polysperma* predominantly spreads via plant fragments. It is reported as a fast-growing and fast-spreading invasive plant. High regeneration rates were found for small apical shoot but also stem fragments with nodes. Even single detached leaves are able to regrowth into new plants. Due to the absence of viable seed production in the invasive range, the likelihood of long-distance dispersal of seeds via waterfowls is low. *H. polysperma* is imported for aquarium purposes in large quantities into various EPPO members countries. The species could be spread by intended and/or unintended (recreational/boating equipment) release of *H. polysperma* plants by humans (EPPO, 2017).

A.6 How high is the potential negative impact of the plant on native species, habitats and ecosystems in the area under assessment?

Medium with a moderate uncertainty: Under favourable conditions, it grows forming dense stands, suppresses a native plant species, block sunlight, decrease oxygen levels in waters, having negative effects on fishes.

The establishment of the plant is limited by temperature because *H. polysperma* is a frost sensitive species. Very small areas of Turkey, Greece and Algeria are marginally suitable along the Mediterranean coastline. Thermal waters in other EPPO countries provide potential habitats for *H. polysperma*.

¹ EPPO (2012) EPPO Prioritization process for invasive alien plants. EPPO Bulletin 42, 463-474.

A.7 How high is the potential negative impact of the plant on agriculture, horticulture or forestry in the area under assessment?

Medium with a moderate uncertainty: The species is reported as a weed in rice fields in Asia. The species could have impact on agricultural production in Italy and some other areas of the EPPO region. It can also block drainage and irrigation systems.

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)?

Medium with a moderate uncertainty: As an aquatic species, *H. polysperma* has the potential to block irrigation channels and drain systems thereby impacting on infrastructure and also on recreational activities.

Outcome of Section A: *Hygrophila polysperma* is included on the EPPO Observation List

		A5 -Spread potential		
		Low	Medium	High
Adverse impacts (maximum rating from questions A6, A7 and A8.	Low	List of minor concern	List of minor concern	List of minor concern
	Medium	List of minor concern	Observation List	Observation List
	High	Observation List	Observation List	List of invasive alien plants

Hygrophila polysperma is not considered further. The assessment stops here.

B. Prioritization process scheme for the identification of invasive alien plants for which a PRA is needed

B.1 Is the plant species internationally traded or are there other existing or potential international pathways?

B.2 Is the risk of introduction by these international pathways identified to be superior to natural spread?

B.3 Does the plant species still have a significant area suitable for further spread in the area under assessment?

Outcome of section B: -

Selected references

EPPO (2017) Pest risk analysis for *Hygrophila polysperma*. Available at: file:///C:/Users/nenad.novak/Downloads/pr_a_exp_HYGPO.pdf

EPPO (2012) Mini data sheet on *Hygrophila polysperma* (Acanthaceae).

EPPO (2023) EPPO Global Database. Available at: <https://gd.eppo.int/taxon/HYGPO>

USDA (2015) Weed Risk Assessment for *Hygrophila polysperma* (Roxb.) T. Anderson (Acanthaceae) – Miramar weed.

Available at: https://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Hygrophila-polysperma.pdf