

What's in your pot?



INVASIVE AQUATIC PLANTS 'Spread the word not the problem'




PLANTLIFE
our plants our planet our future



What's the problem?

Some plants that are on sale in the UK can cause irreversible damage to wildlife if they get into the countryside. They spread quickly, taking over rivers and ponds and smothering wild plants and flowers.

Invasive plants can also block drainage systems and damage flood defences. The annual cost of all invasive species to the British economy is estimated at £2billion.

Gardeners, anglers and pond-keepers often unwittingly introduce invasive plants into the wild. A fragment as small as this  can start an invasion.

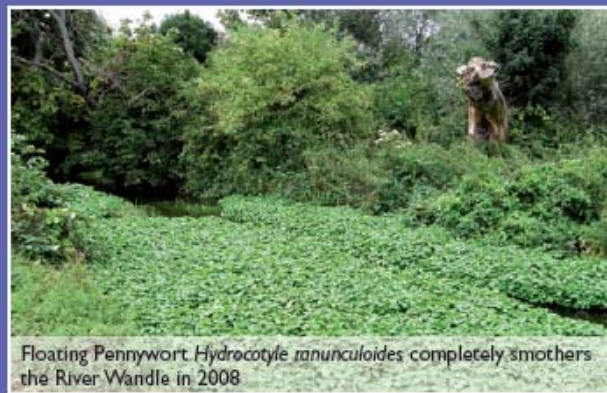
What's the Solution?

More than 60% of invasive plants damaging the environment originate from gardens. This means you are an incredibly important part of the solution and can make an enormous difference to the health of our wildlife by following a few simple steps.

This Plantlife leaflet shows you how.



With grateful thanks to the The John Ellerman Foundation and Esmée Fairbairn Foundation



Floating Pennywort *Hydrocotyle ranunculoides* completely smothers the River Wandle in 2008

Dispose of Invasive plants safely

DON'T

X Please don't dispose of ANY unwanted aquatic plants in local ponds, lakes, rivers, streams, canals or ditches or even in your normal bin.

X Please don't tip plant or pond water down land drains as it may contain fragments that will allow the plant to regenerate and result in blocking up waterways.

X Please don't give excess invasive plants to friends – they won't thank you in the end!



DO

✓ You can compost invasive aquatic plants on your compost heap or in council composting schemes. Hot heaps will best destroy plant fragments. For more information please visit the website: www.organicgardening.org.uk/composting

✓ You can also dispose of invasive plants safely via your garden waste bin if your council provides one.

✓ You can burn them if you are planning a bonfire.

Remember...

Invasive plants can re-grow from fragments as small as this - 

so it is vital that they are disposed of safely.

Know what you're buying

Some aquatic invasive plants are still on sale in garden centres, aquarists, pet shops and DIY stores.

Even the most careful gardener or pond-keeper cannot guarantee that invasive plants from their ponds won't get into the wild, as they are easily carried out by birds and other wildlife. That's why Plantlife believes it is better to avoid them altogether.

Invasive plant	Might be sold as
Parrot's Feather <i>Myriophyllum aquaticum</i>	'Oxygenator' Myriophyllum Brazilian Water-milfoil <i>Myriophyllum brasiliense</i> Myriophyllum <i>proserpinacoides</i>
New Zealand Pigmyweed <i>Crassula helmsii</i>	Australian Swamp-stonecrop <i>Tillaea recurva</i> <i>Tillaea helmsii</i> <i>Crassula recurva</i> 'Oxygenator'
Curly Waterweed <i>Lagarosiphon major</i>	<i>Elodea crisp</i> Pondweed Elodea 'Oxygenator' Curly Pondweed Curly Water-thyme
Nuttall's Waterweed <i>Elodea nuttallii</i>	Pondweed 'Oxygenator' Elodea
Canadian Waterweed <i>Elodea canadensis</i>	Pondweed 'Oxygenator' Elodea Canadian Pondweed
Creeping Water-primrose <i>Ludwigia peploides</i>	<i>Jussiaea grandiflora</i> <i>Ludwigia grandiflora</i> Water Primrose <i>Ludwigia uruguayensis</i>
Floating Pennywort <i>Hydrocotyle ranunculoides</i>	Pennywort
Water Fern <i>Azolla filiculoides</i>	Azolla Fairy Moss

Look for labelling

Aquatic plants are often poorly labelled - they may be sold in bunches labelled only as 'mixed oxygenators'. Only buy properly labelled plants and check the full Latin name. If in doubt, please don't buy.

Take heed of descriptions like 'vigorous' or 'fast growing'.

Water Forget-me not
Myosotis scorpioides

Positioning:
Edge of pond or in damp soil
Size:
Up to 70cm high,
slow spreading
Disposal:
Compost or garden waste
ONLY

GOOD LABEL

Common name and correct 2-part Latin name

Indication of the plant's growth habit, the size / spread it is expected to achieve, and where to place it.

Advice on disposal

Double check...

A 'Buy British' slogan does not necessarily mean that a plant is native to Britain. Plants may be branded as British if they have been cultivated here.

Plants labelled *Myriophyllum brasiliense*, *Myriophyllum proserpinacoides* or Brazilian Water-milfoil are the invasive plant Parrot's Feather *Myriophyllum aquaticum*.

The invasive Floating Pennywort *Hydrocotyle ranunculoides* has been sold as the native Marsh Pennywort *Hydrocotyle vulgaris*.

Be wary of Hitch-Hikers!



Before you buy any plants, check there is only one type of plant in the pot.

You may find a plant in your pond that you know you didn't buy. It is quite likely you may have unwittingly picked up a 'hitch-hiker' when you bought the plants you did want for your pond.

Aquatic plants on sale are often contaminated with other, sometimes invasive, plants or plant fragments. Water Fern *Azolla filiculoides* is a particularly rampant hitch-hiker, spreading to neighbouring plants in shop displays.

Before putting new aquatic plants in your pond, rinse them first over a bucket to flush out any fragments of invasive plants that may have contaminated them. Pour the water and washed off fragments on your compost heap or flowerbeds ... not down land drains.



Invasive oxygenators

Parrot's Feather

Myriophyllum aquaticum

It can choke ponds and waterways and is now surviving the average UK winter - a worry for the future as this will allow it to spread more widely.

Feathery, much branched leaves, in whorls of 4-6. Its leaves, supported by robust stems, are often emergent.



Bob Gibbons/Natural Image

New Zealand Pigmyweed

Crassula helmsii

Forms dense carpets to the exclusion of other plants. Spreads from pond to pond on the roots of other aquatic plants and can exploit damp ground.

Fleshy, opposite, small, thin green leaves, with tiny white flowers from late June to September.



Bob Gibbons/Natural Image

Waterweeds form dense masses in standing and slow-flowing waters, reducing other plant life and harming invertebrates as a result. They are difficult to tell apart and are often just sold as 'oxygenators'.

Curly Waterweed

Lagarosiphon major

Green, blunt leaves strongly curved back on themselves, arranged spirally up the stem.



Bob Gibbons/Natural Image



St. Cooper/Pantlle

Nuttall's Waterweed

Elodea nuttallii

Has dark green, narrow leaves that are twisted, pointed and may be strongly curved back on themselves.

Canadian Waterweed

Elodea canadensis

Has soft stems with green, blunt leaves usually arranged in whorls of 3. Leaves have minute teeth.

Invasive emergent, marginal and floating plants



Creeping Water-primrose

Ludwigia peploides

Forms dense mats which shade out other plants and in turn harms invertebrates. It can also block waterways and degrade water quality.

Bright yellow, five-petalled flowers and long, slender leaves. Has round/egg-shaped leaves when in its floating form (before flowering).



Alan Dutarte, Cemagref

Floating Pennywort

Hydrocotyle ranunculoides

Forms dense mats of floating vegetation, which reduce the amount of oxygen and light in the pond. This has grave consequences for native plants, fish and invertebrates. It chokes drainage systems and the apparently solid surface can be a danger to unsuspecting humans, pets and cattle.

Kidney-shaped, floating leaves that look almost circular. Up to 70mm across. Stalk at the edge disrupts the 'circle'.



Tim Parkhurst/Plantlife

Water Fern

Azolla filiculoides

Can invade a region rapidly excluding all competitors. It forms dense mats and out-competes native plants and animals. It can form apparently solid surfaces. It causes problems in drainage and water systems.

Similar to a large duckweed, but with tiny, overlapping leaves (up to 2.5mm), often with red tinge. Turning red in autumn.



Bob Gibbons/Natural Image

Selection of recommended aquatic plants

REMEMBER – your pond needs managing, just like a garden!

The same rules apply for all plants:

**NEVER DUMP THEM IN THE WILD;
DISPOSE OF THEM RESPONSIBLY**

Rigid Hornwort

Ceratophyllum demersum

- Oxygenator
- Native and hardy
- Shade tolerant
- Prefers quite nutrient rich water up to 1m deep
- Available from June - September



Bob Gibbons/Natural Image

Water Forget-me-not

Myosotis scorpioides

- Marginal
- Native, hardy perennial
- Good for insects
- Grows to 70cm tall
- Will grow in water up to 30cm deep and in partial shade



Bob Gibbons/Natural Image

Lesser Spearwort

Ranunculus flammula

- Marginal
- Native and hardy
- Growing to 50cm tall
- For acidic, nutrient poor ponds
- Likes the sun
- Will grow in shallow water less than 30cm deep



Bob Gibbons/Natural Image

Common Water-plantain

Alisma plantago-aquatica

- Marginal
- Native and hardy
- Growing to 1m tall
- Will grow in sun or partial shade
- Prefers nutrient rich water up to 50cm deep, on fine-grained substrates



Su Cooper/Plantlife

Cover picture Dominic Price/Plantlife • Design and layout by Andrew Evans

Managing your pond

Whatever aquatic plants you choose, your pond will need managing - just like a garden does. Pulling plants out at regular intervals will cause least disturbance to the rest of the pond.

Once plants have been removed leave them at the edge of the pond for a few hours or overnight to allow small pond creatures to get back into the water.

DISPOSE OF ALL PLANT WASTE RESPONSIBLY

Problem plant	Removal tip
Parrot's Feather <i>Myriophyllum aquaticum</i>	Uproot manually as soon as you notice it.
New Zealand Pigmyweed <i>Crassula helmsii</i>	Pull out as soon as you see it. Regular clearing will be required.
Curly Waterweed <i>Lagarosiphon major</i>	Cut in early spring and repeat regularly to weaken the plant.
Nuttall's Waterweed <i>Elodea nuttallii</i>	Thin during the height of summer.
Canadian Waterweed <i>Elodea canadensis</i>	Thinning by uprooting is best done in early spring.
Creeping Water-primrose <i>Ludwigia peploides</i>	Early removal is essential. Regular clearing may be required if fragments remain.
Floating Pennywort <i>Hydrocotyle ranunculoides</i>	Repeated cutting will be necessary.
Water Fern <i>Azolla filiculoides</i>	Remove with net before spores are released (spores are released at the beginning of winter or once dense mats have formed).

Some plants that are on sale in the UK can cause irreversible damage to wildlife if they get into the countryside.

By following the advice in this leaflet you can help make an enormous difference.

Know exactly what plants you are buying.

Never dump ANY kind of plant in the wild. Compost unwanted plants or dispose of them through a garden waste collection.

Don't give excess plants from your pond to friends.



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For more information and advice, please visit our websites:

www.plantlife.org.uk

www.rhs.org.uk

www.gca.org.uk

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