PENNYWORT ALERT
A GUIDE FOR THE PUBLIC
This guide is written for members of the public.

It contains advice on spotting, reporting and raising awareness of floating pennywort.

In addition to this, the RiverCare & BeachCare staff are available for support and to answer any queries you may have.

Thanks for being part of the solution!

**KEEP IN TOUCH**
Website: [www.rivercare.org.uk](http://www.rivercare.org.uk)
Email: [rivercare@keepbritaintidy.org](mailto:rivercare@keepbritaintidy.org)

**EDITION 1**

Please note: this handbook is available in a printed version and online in the 'resources' section of [www.rivercare.org.uk](http://www.rivercare.org.uk)

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Keep Britain Tidy is a registered charity. No. 1071737.
Thanks for your interest in becoming #PennywortAlert and caring for your local water courses!

Working across the Anglian region with volunteers, the Environment Agency, Anglian Water and the East Mercia Rivers Trust, the Pennywort Alert project aims to play a role in helping to effectively control the abundance and distribution of floating pennywort, an invasive aquatic non-native species.

Floating pennywort is a difficult plant to control and eradicate due to its fast growth and invasive nature.

Regular surveillance and removal is needed which is why Pennywort Alert aims to bring the whole community together to tackle its spread.

Pennywort Alert aims to support the public in confidently identifying and reporting the weed so that it can be surveyed and removed.

The more people and organisations we actively engage in floating pennywort surveillance the higher our chances of success.

YOU ARE PART OF A MOVEMENT FOR CHANGE. THANK YOU FOR COMING ABOARD!
WHAT IS FLOATING PENNYWORT?

- Floating pennywort (FP) is an invasive non-native species (INNS).
- FP is a native species of North and South America. It most likely spread into the wild in the UK from plants discarded from garden ponds.
- FP can grow up to 20cm per day forming large rafts in ponds, lakes and the slower margins of rivers and canals.
- It can quickly dominate a waterbody, forming thick mats and impeding water flow.

GB INNS

- Dense rafts of FP reduce light levels and take up space, which results in a reduction in the diversity of native plant species, and hampers the feeding patterns of surface feeding fish and birds.
- Large volumes of FP can reduce oxygen levels, negatively affecting fish, plants and aquatic insect species that require good water quality to survive.
- As growth occurs throughout spring and summer, watercourses can become choked and slow flowing, leading to increased levels of siltation in sensitive habitats, such as fish spawning areas.

GB INNS

- The presence of FP can hamper recreational activities such as angling, and can obstruct the navigation of watercourses by boat users.
- FP can accumulate at control structures along river systems such as sluice gates and weirs, blocking them and reducing their efficiency, increasing the risk of flooding.

British Canoeing
HOW CAN I GET INVOLVED?

1. Read this guide to get familiar with how pennywort looks.

If you are in the Anglian Water region, please report any sightings to the RiverCare & BeachCare Facebook page (www.facebook.com/RiverCare) sending a photograph if safe and possible.

2. If in another region please report sightings to the Environment Agency’s 24/7 hotline: 0800 80 70 60.

You can use the what3words app to be specific about the location (more information in this guide).

3. Follow RiverCare on Facebook and Twitter for the latest alerts advice and information.

4. If you do any activities around waterways such as canoeing or clean-ups, please use the Check-Clean-Dry process - in this guide.

5. Share our social posts about floating pennywort - or even better, spread the word with our draft social posts in this guide to raise awareness in the community.

Please don't forget to use the hashtag #PennywortAlert and tag us @rivercare and @keepbritaintidy.
IDENTIFYING FLOATING PENNYWORT

Leaf characteristics

- Measures up to 7cm across
- Leaf split into 3 to 7 lobes
- Kidney shaped, with crinkled edges
- Bright green colour
- Waxy surface which sheds water
- Deeply lobed at stem

Growth forms

There are two main growth forms for the species:

- Emergent leaves, where leaves are held on the stems several centimetres above the water's surface
- Floating leaves lying flat on the water's surface

Stems and roots

Stems are easy to see in the water. Stems have regular nodes where roots, a leaf and a new stem arises. Fragments of FP are usually found free floating, but when established can be rooted in the bank.

Fleshy, pale stems
Numerous, fine roots
If you’re on a boat and it is safe to do so, make sure to check river margins for fragments of FP caught in vegetation. It can often be found tucked away amongst willow branches or reeds where water is slowest.

Visit our YouTube channel to watch a handy video on how exactly to identify FP, and which other species it might be confused with: www.bit.ly/rivercareyoutube

Why are we asking you to report floating pennywort?

The species can quickly re-grow from thumb nail size fragments so constant monitoring is key to:

- Identify new outbreaks - in the early stages of growth before removal gets more difficult.
- Monitor areas which have previously been cleared, to ensure that any regrowth is caught early.

Spotting in the field

Surveying can be undertaken from the bank - large mats can easily be identified at a distance by eye. Binoculars are useful for smaller amounts.

Small mats or fragments tucked into the water’s edge or under vegetation are more easily seen from a boat on the river.

If you’re on a boat and it is safe to do so, make sure to check river margins for fragments of FP caught in vegetation. It can often be found tucked away amongst willow branches or reeds where water is slowest.

Rafts may be bigger than you think!

Rafts of FP are like icebergs – whilst they can emerge to a height of up to 40cm above the water, their stems and roots can spread up to 50cm deep below the water.

Once established, FP roots can grow into banks making it harder to remove and control.
If you have any questions, comments, concerns or good news please don't hesitate to get in touch!

KEEPING IN TOUCH

Social Media:
To keep track of what we're doing, and more importantly to see what other RiverCare & BeachCare groups are up to, follow us on social media. Please share your own photos and stories, and please tag us in so we can help spread the word!

FACEBOOK.COM/RIVERCARE @rivercare
TWITTER.COM/RIVER_CARE @river_care
INSTAGRAM.COM/RIVERBEACHCARE @riverbeachcare

To support our cause and spread awareness, feel free to use our suggested social media post wording:

I'm #PennywortAlert - are you? This invasive waterways weed can grow 20cm a day, affecting wildlife, waterwork systems and people who use waterways for leisure. Please report sightings to the RiverCare&BeachCare Facebook page inbox.

Floating pennywort is choking our waterways - get #PennywortAlert today by familiarising yourself with its appearance.
Keep reading for these additional guides:

- Using IRecord
- Check, clean, dry
- What3words
- We've spotted - useful contacts
What to do if you think you have seen floating pennywort...

1. Take a photo. If it is safe to do so, try to capture an image of what you’ve seen.

2. Make a note of its location, with reference to local landmarks. Consider using the what3words app if you are in a remote location (see page x4).

3. Record your sighting on the iRecord app, or via their website - you can upload your photo, the location and date of sighting.

4. Your record will be checked by an expert at the Environment Agency who will confirm identification, and send you feedback.

Visit our YouTube channel to watch our handy video on how exactly to upload your sighting to iRecord: www.bit.ly/rivercareyoutube

To record your sightings along the River Great Ouse visit: www.bit.ly/ousepennywort

To record your sightings along the River Witham visit: www.bit.ly/withampennywort
iRecord is a website and an app for sharing wildlife observations (biological records) and photographs to help ID – you can register quickly and for free.

The goal of iRecord is to make it easier for wildlife sightings to be collated, checked by experts, and made available to support research and decision-making at local and national levels.

Pennywort Alert uses iRecord to track and monitor floating pennywort along the rivers Witham and Great Ouse, so that removal can be undertaken before it spreads further afield.

Follow these easy steps to get started on iRecord:

1. Visit the iRecord homepage at: www.brc.ac.uk/irecord
2. Click on "create new account" on the home page.
3. Enter a user name, your e-mail address and your name.
4. Read and accept the Terms and Conditions.
5. You will be sent a verification e-mail. Follow the link to set up your account.
6. You will need to log in to carry out any of the activities described below.
Please follow these steps before and after activities to stop the spread of invasive non-native species.

1. **CHECK** equipment, gloves, boots and boats after events for mud, aquatic animals, or plant material. Remove anything you find and leave it at the site.

2. **CLEAN** thoroughly, paying attention to areas that are damp or hard to access. Use hot water if possible.

3. **DRY** for as long as possible before using elsewhere, as some invasive species can survive for many days in damp conditions.

For guidance and information, please visit [www.nonnativespecies.org](http://www.nonnativespecies.org)
WHAT3WORDS

WHAT IS WHAT3WORDS?

what3words (w3w) is an easy to use app that enables people around the world to identify and share any precise location, using just three words.

w3w gives everyone and everywhere a simple, accurate and reliable address.

w3w addresses are easier to remember than a postal address and can be shared more accurately than any other location reference system.

HOW DOES W3W WORK?

w3w has divided the globe into a grid of 3m x 3m squares, giving each square a unique address, made of three words.

For example, the summit of Mount Everest can be found at ///transpiring.foreign.punctures

HOW CAN WE USE W3W?

By utilising w3w, we can quickly and effectively relay specific locations. For example, it is helpful for letting us know exactly where you have been surveying or removing FP via www.bit.ly/pennywortalert as well as for use in contacting the emergency services.

HOW TO START USING W3W

Accessing w3w is very easy. The w3w app is free to download for both iOS and Android phones, or through your internet browser.

The app and online map allow you to both determine a location's w3w address, and input a w3w address to navigate to.
WE'VE SPOTTED
A QUICK REFERENCE GUIDE

SEWAGE
Toilet debris (toilet paper, period products, condoms), soap suds, milky, grey or foul smelling water.
Call Pollution Watch on 03457 145 145, 24 hours or in the Anglian region visit anglianwater.co.uk/pollution

POLLUTION
Discoloured, smelly or oily water. Fish kills.
In the Anglian region call Pollution Watch on 03457 145 145, or visit anglianwater.co.uk/pollution
Elsewhere you can call the Environment Agency on 0800 80 70 60. Both 24 hour.

FLY-TIPPING
Household, garden or industrial waste dumped illegally on public or private land, or in rivers. Please don’t touch - risk of asbestos or chemical pollution! Take photos and note the what3words location for reference.
Call your local council.

STRANDING
For stranded dolphins and whales, call British Divers Marine Life Rescue immediately on 01825 765546.

DEAD ANIMAL
In most cases if you are on public land, you should phone the local council, including for dead otters.
For dead dolphins and whales, call Cetacean Strandings Investigation Programme on 0800 6520333.

ANIMAL IN DISTRESS
If you encounter a sick or injured deer, seal, otter, badger, fox, snake, bird of prey, swan, goose, heron or gull, call the RSPCA on 0300 1234 999. If it is a small animal, such as a hedgehog, contact your closest vet or wildlife rehabilitation centre.

SNARES & TRAPS
Most animal traps are set legally to catch farmland pests, or towards the conservation of other more threatened species. If you find a trap that you believe to be unlawfully set or if you find that a snare or trap contains a trapped live animal please contact the police by telephone on 101.
Any nets or traps within the water that do not have an EA tag should be reported to the Environment Agency on 0800 80 70 60, 24 hours.

FLOOD RISK
Large debris such as fallen trees or accumulations of debris, or collapsed / damaged river banks which could cause flooding.
Environment Agency incident hotline, 0800 80 70 60, 24 hours.
Anglian Water has long recognised the responsibility the water industry has towards safeguarding the environment. In everything we do, and in every choice we make we must ensure we continue to protect the environment and support the communities we serve.

The RiverCare & BeachCare programme is a fantastic way in which we can support our communities while delivering great outcomes for the environment, whether through tackling litter, invasive species removal or river restoration activities.

Our long-term partnership with Keep Britain Tidy since 2001 is testament to the ongoing successes of the programme.
At Keep Britain Tidy we inspire and empower people to take action on their doorstep to create a clean and healthy environment, so that we can all love where we live. Voted the country’s most popular environmental charity, we support a network of thousands of volunteers and run campaigns and programmes that are making a difference to people and to our environment every day.

We work with government to lobby for change that we know will make a difference, like the plastic bag charge, the ban on plastic cotton buds and stirrers and the deposit return scheme for plastic bottles and aluminium cans.

We have hundreds of #LitterHeroes Ambassadors who lead litter picking activity in their communities in villages, towns and cities across the country.

We facilitate the Blue Flag and Green Flag Awards, celebrating the best of British beaches and green spaces.

The Great British Spring Clean is the country’s biggest ever mass-action environmental campaign with more than half a million #LitterHeroes taking part.

We provide campaigns, training and expertise to local authorities, helping them tackle the issues they face including littering, fly-tipping, waste and recycling.

More than half of the nurseries and schools in the UK are registered with our Eco-Schools programme, with young people leading the way in creating more sustainable schools.

We work with businesses, encouraging them to do the right thing and innovate to reduce the impact of their products on our environment.

Thanks for supporting us!
There you go – everything you need to know to start making a BIG difference. If you have any questions at all about the information in this handbook or any concerns, please just ask. Our team of RCBC staff are here to support you every step of the way.

Finally, one last big THANK YOU from everyone at Keep Britain Tidy for making a difference and thank you on behalf of our precious and beautiful environment – you’re doing something very important and very special.