National Education Nature Park

How to restore an existing wildlife pond

First of all, take some time to observe and understand both the pond and the area immediately around it before taking action. Make sure you identify and map the habitats of the pond and its surrounding environment. Do you see many different wetland plants (a sign of a healthy pond) or is it dominated by a single plant?

Why

Restored ponds support a richer pond biodiversity and have been shown to boost amphibian populations. Ponds are dynamic habitats and naturally become overgrown with trees over time, so it's important to regularly cut back scrub to maintain access to the pond. "Scrub" can include overgrown bushes, thorny shrubs like hawthorn or bramble thickets. However, maintaining some scrub and bramble creates dappled shade habitat that's valuable to many pond species.

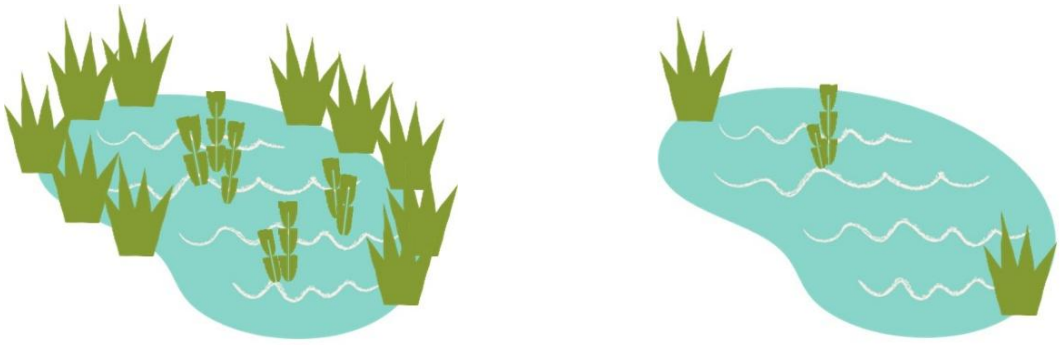
When

Restoration action will likely be needed every 3-10 years depending on pond size and the speed with which scrub returns. This action should be done during Autumn-Winter. If there is more than one pond on your site, manage them on rotation to keep scrub of different ages and promote variety in the landscape.

Removing pond plants

Pond vegetation includes "marginal plants" that grow at the water's edge and "emergent plants" that stick up from the water's surface.

- When removing plants**,** a good guideline is to **keep around 20% of pond vegetation overall** and not completely remove any single plant species.



Before (left) and after (right) restoration: keep around 20% of pond vegetation overall, both emergent and marginal plants

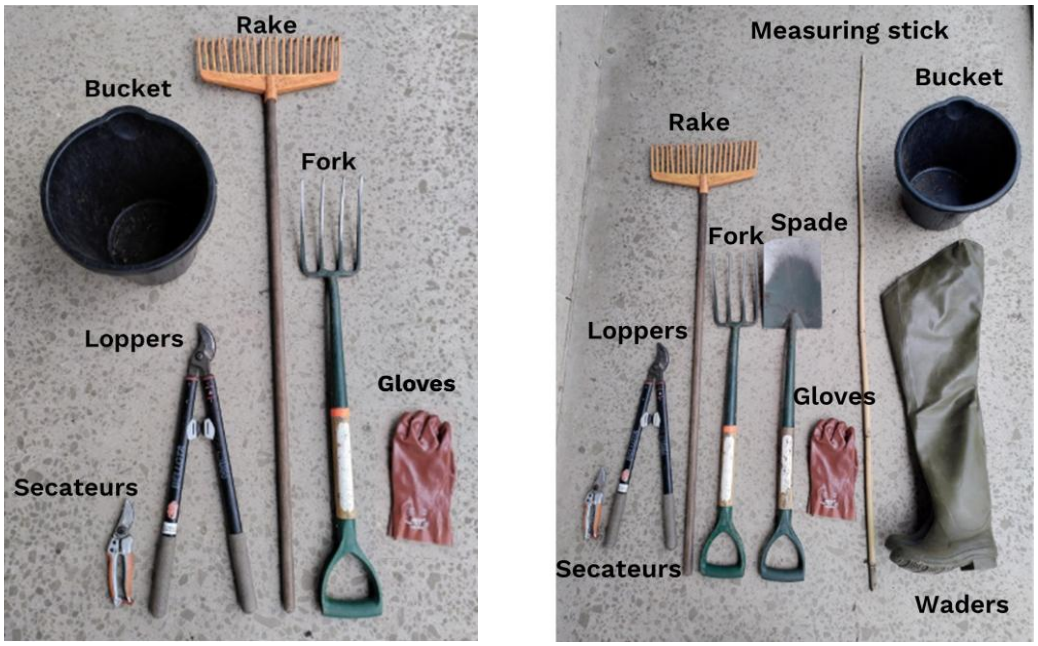
- For "emergent plants" only:
    - if the pond risks becoming overrun by a single dominant emergent species, such as bulrush, cut that plant back before it occupies more than 10% of the pond
    - if, on the other hand, different emergent plant species are mixed together, this is a very rich habitat, so wait until there is well over 50% emergent cover before removing any

Removing scrub

- Generally, removing young trees and scrub (under 50 years old) will be good for pond wildlife. Leave some at the edge to create dappled shade habitat.
- Mature trees and hedgerows (over 50 years old) should be kept.
- It is important to maintain a **variety of habitats** in the immediate area surrounding a pond, such as a structural mix of flower-rich grassy areas, hedges and some scrub. These habitats will create connectivity in the landscape and provide essential food and shelter for wildlife. You can also add microhabitats such as log piles or insect hotels.
- Make sure there is a clear path and safe access to the pond (such as a platform), for everyone to reach it for activities such as pond dipping.

Hand tools

Removing vegetation can be done with hand tools and involve young people. The key hand tools are:



Basic tools for simple restorations (left) and medium restorations (right)

Use the tools carefully to avoid piercing the pond liner. Leave cut vegetation by the edge of the pond for a day or so before removing it, so wildlife can find its way back to the pond.

For bigger restorations, vegetation can be cut or dredged with diggers, or specialist contractors can be brought in for pond liners, board walks or pond dipping platforms.

Ghost ponds

If you have a particularly large site, it's possible there could be "ghost ponds" (ponds which have been deliberately filled in), which may be visible as damp depressions in fields particularly during winter. Restoring ghost ponds can be an excellent opportunity to recover local heritage and improve biodiversity.

1. historic maps: ghost ponds can be easily located by overlaying recent maps with historic maps, using satellite imagery or aerial photography, many of which can be found online
2. for information on locating and excavating ghost ponds, see page 33 of this guide

Further guidance

To create a new pond, see the Make a big splash for nature guide (WWT) for a step-by-step process on how to make five different styles of pond.

This guidance has been put together by reviewing academic research and best practice for wildlife pond restoration, and making sure it is functional for educational settings.

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