



Institute of Fisheries Management

Winter Guidance for Fisheries

Although we see the majority of problems with fisheries in the warmer months this doesn't mean that the winter is a time to put your feet up in front of the fire. There are lots of jobs that can be done and you still need to be keeping an eye out for problems, especially if it is a cold, hard winter.

Ice

This may not be as much of a problem as it used to be, and it is now quite rare for us to see fisheries covered in ice for days on end. However, with changing climatic conditions we can't discount another 'Big Freeze' as seen in 2010. The issue of managing ice on ponds is one that always generates lots of questions.

The first point we have to stress is to never walk out on to ice in order to cut holes. Yes, it may be strong enough to take your weight in the edge but it may be considerably thinner ten metres from the bank. It is not worth risking your life!

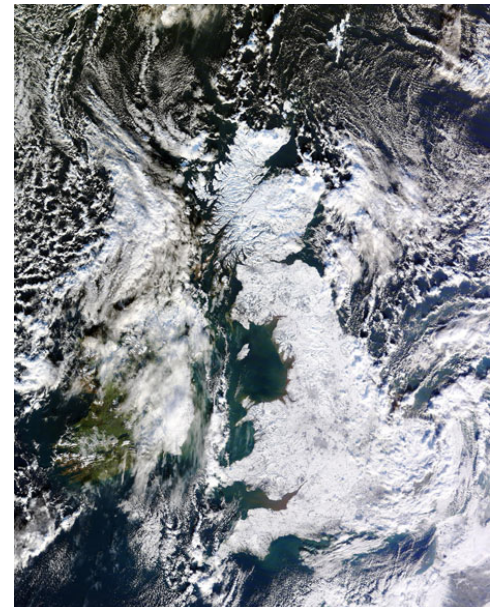
The main issue from ice is the build-up of noxious gases from the breakdown of organic materials and it is these that we need to try and get off at the service.

In a sensibly stocked water fish will be okay under the ice for three or four days, after this time gases can build-up and dissolved oxygen levels can fall leading to fish kills.

Problems with ice are compounded in shallow lakes <1.5m and where stocking levels are high and comprised mostly of carp. Carp have not evolved to survive in low water temperatures and suffer more ill effects compared to species such as roach, bream, perch etc

So, how do we manage ice? As with most problems, prevention is better than the cure. You should try to keep an area of water as ice free as possible, this can be achieved by using a small aerator to gently agitate the water and stop the ice from forming. You do not need to use the large paddlewheel types from the summer, if anything these can create further problems as they can super chill the water by fully mixing it. Getting ice in the motor will also lead to damage.

If you have an inlet drop the weir boards down by a couple of inches to create a bit of flow and break up ice sheets, you will need to be aware of water levels and ensure that you are





not depleting the downstream reach. Another option is to encourage the wind to work on the water by pruning or removing trees. This should be done before the end of February so as not to impact on nesting birds.

If the pond does freeze for a prolonged period than you need to look at ways of cutting holes in the ice. Percussive ice breaking e.g using weights on ropes etc is not great for fish as they are very sensitive to vibrations through the water, however if this is the only option then it is better than losing the stock. Electric or petrol driven pole saws can be used to cut a hole through the ice several metres from the bank. If you are making holes in the ice try and do it on the sunny side of the lake as this will help to minimise the cat ice forming on the water and leave it clear for a bit longer.

Don't walk on the ice with chainsaws!

Habitat

This is important. Yes, we may see predators on our waters all year round these days but they can have a serious impact through the winter when vegetation has died back, fish are less active and angler numbers drop. Research clearly shows that predator success is reduced when there is some structure in the water in which fish can hide. Okay, you may not be able to create a refuge for 20lb+ carp but you can provide marginal cover in the form of overhanging trees, reedbeds and even angling pegs in which they can hide.



Work parties are great but they can sometimes have a detrimental effect if not controlled as they can have a slash and burn mentality and remove anything that makes angling challenging! Fisheries are not meant to look pristine, leave some straggly areas and your fish will thank you for it. You are also reducing costs in the long run as you won't be throwing more money into stocking, plus there is a knock-on benefit to water quality.

There are some great videos from the EA on how to make quick, cheap fish refuges and these are well worth watching on YouTube (<https://youtu.be/h6QXnsibDZU>). There is also a glut of ready-made refuges at this time of year in the form of Christmas trees. A couple of these lashed together and weighted down make great refuges for small fish. If you have the dense non-drop Nordman fir trees it is worth cutting holes in it to help the fish get in. Try and put refuges together in groups so that there is a larger area. This makes them more of a stable habitat instead of just boltholes.



If you do have reedbeds these can also be improved to give greater coverage. Instead of cutting or pulling consider hinging them at the bottom and folding them over. Not only does this leave the stems in place for fish to hide amongst but you also create a dark shelter for fish to aggregate under. This can also be done with marginal trees if you want to create an even larger area.

If cormorants and goosanders are a particular problem in the winter you may want to consider giving over a corner of the pond as a semi-permanent refuge. This area can then be filled with brash, large branches, Christmas trees or any other suitable material to create one large area for fish to aggregate in during the day. You can even wire it off to prevent birds from gaining entry.

Wiring ponds is a good idea for smaller waters but again it needs to be done adequately. We see lots of waters that don't have sufficient wires over the ponds as they are worried about anglers being able to fish, as a result the wires are too high and not close enough to prevent the birds from getting underneath. Aim to get your wires as close to the water surface as you can, aim for 45 – 90cm if possible, this stops the birds from simply walking underneath.

If you are only getting a couple of members down during the week and only double figures on a weekend just leave a few pegs open and wire the rest. This may even improve the fishing as you concentrate the bait and thus the fish into a few areas.

The Angling Trust advisors have loads of great advice on protecting fisheries so why not get in touch with Richard and Jake if you have issues <https://anglingtrust.net/fma/>

Silt and algae

Silt is another area that fisheries often struggle with and would like to control. Applying microchalk, often referred to as Siltex, over the winter months can help to breakdown existing silt. It is important to point out that this is not a silver bullet and you will not gain metres of new water back in one dose. Results are definitely mixed which can be down to a number of factors including the organic content and pH of the silt, dosage and how it is applied and water conditions. Regular treatments are required to keep on top of the silt, and it is also important to manage the source of the organics in the first place by cutting back trees, managing aquatic plants and other inputs such as stock levels, bait, bird waste etc.

Controlling organic inputs will also benefit dissolved oxygen levels. The milder autumns and winters that we are experiencing are creating problems through prolonged bacterial breakdown of organic matter (BOD) as well as very late diatom blooms in some cases.

Managing inputs and continuing monitoring oxygen levels into December will help you to spot these issues before they cause serious problems.

There is lots of guidance on how to apply microchalk and your supplier will be able to help with dose rates and application timing.

If there is one problem where forward planning will definitely be advantageous that is algae control. If you have suffered this year with algae (and lots of fisheries have) then now is the time to start thinking about control in the spring. To get the best response from barley straw it needs to be in the water long before the algae starts to bloom, so the end of February or early March is the time to get it in, perhaps even earlier if the winter is mild.

Have your straw bales and netting ordered and use work parties or volunteers to build your bundles/sausages so you have them ready to go. Putting them in at this point ensures that they have begun to break down and release their algae controlling compounds before the algae gets going.



The key to using barley straw effectively is to ensure that you are using enough and that it is well aerated, hence the need to break bales down and use Christmas tree netting or onion sacks to add it to the water. Use long tubes and fit floats or fasten them to stakes to ensure they remain at the service so the weather and wave action can help to break it down. Remember to remove any used netting/sacks from the water once they have done their job. Initial dose rates range from 60kg – 250kg per hectare depending on water clarity and sediment load and continual treatments at lower rates are needed. For a full review on the control of algae with barley straw it is well worth downloading the CEH guidance document from <http://nora.nerc.ac.uk/id/eprint/19957/>

When considering habitat improvement works review what has happened on the water over the past year and identify any issues. Could these be mitigated by improving the environment over the winter?

Stock

The winter is the time to review your stock levels and crop or add stock as necessary. Before you dive in and purchase more fish it may be a better use of funds to have a survey of the existing stock done instead. A lot of problems in fisheries stem from blindly adding fish on top of fish on top of fish without any understanding of the current stock, their health status and whether or not the water can actually support them.

There have been a few coarse fisheries over the past few years that have stocked graded out rainbow trout from nearby fish farms as an additional winter fish. Please don't do this! These fish are ones that are not of good enough quality for proper trout fisheries and too small for the table. The farms don't want to over winter them so are keen to off load them. They may give a few bites to anglers during the winter, but as soon as



temperatures start to increase, and the other fish wake up and start feeding they will soon die. This will just add to the stress levels of the resident fish and it really isn't worth it. If you want to catch trout go to a trout fishery, I'm sure they would be only too happy to show you the ropes.

The IFM have produced a guide to stocking fish and it is worth reading this and taking it to committee meetings when members are shouting for more fish!

Supplementary feed

This is not necessary for most fisheries through the winter as the fish will do fine without having winterised pellets, wheat or other low protein diets fed to them. In the case of carp their metabolism is so low that they don't need the extra energy from the feed anyway. However, it won't do any harm if you feel as though your stock would benefit during warmer periods.

The time to have your supplementary feed ready is the spring. The fish will certainly benefit from a boost in nutrients as the temperature starts to increase, especially if we do have a hard winter. It may also be beneficial to have some medicated feed on hand to kick start their immune system after the winter shutdown.

See our earlier fishery maintenance advice for a full guide to supplementary feed.

Angler Management

Fishing is one sport that has benefited from the Coronavirus pandemic, and we have seen a 20% increase in rod licence sales this year and many clubs are full to capacity with long waiting lists. Although the majority of these may only be fair weather anglers a number may want to carry on through the winter and this is where a bit of advice may not go amiss.

If you have new anglers in your club why not put a winter fishing guide together and help them to get the most from the sport through the winter. I'm sure we have all seen anglers sat by ponds with the same rigs and baits that they used in July and wondering why the float hasn't moved. This also comes back to the earlier point about stocking and listening to anglers. Anglers are quick to moan when they are blanking in January and February when the problem could be easily rectified if they just changed their tactics. Sitting in the snow with 12lb line, a size 8 and half a tin of meat is not going to catch you many fish, however, fining down and fishing maggots on lighter lines and smaller hooks will get you a few bites from the silver fish that are often ignored. The fish are also not going to benefit from having kilos of high oil halibut and trout pellets thrown in as they don't need the energy and they find them hard to break down fully.

You may also want to consider the impacts on access points and footpaths at this time of year. Increase angler traffic will very quickly turn footpaths into muddy quagmires that make walking difficult, this is compounded by the mountains of tackle anglers seem to carry with them these days!

If you have the option it may be a good idea to rotate access routes and footpaths around the fishery to allow the ground to recover. The use of aggregates in high traffic areas may help to minimise the damage and improve safety.

All of the Institutes fishery guidance documents can be downloaded from our website, you will also find fish health guidance from the EA on the same page <https://ifm.org.uk/ifm-training/ifm-fishery-guidance/>

If you would like to spend the cold, dark, winter months learning a bit more about fish and fisheries management then why not take the IFM Certificate Course <https://ifm.org.uk/ifm-training/>

