Oxygen meter for the Kendal park pond

A lack of oxygen in a pond is a critical issue concerning the lives of the aquatic fauna species that reside there as a lack of oxygen will cause health issues and behavioural changes which will lead them to succumb to death.

Things to look out for that indicate a lack of oxygen

Fish behaviour

Piping or Gasping at the surface - fish that tend to stay at the surface and pipe (mouths break the surface of the water) is the most common way to identify a lack of oxygen.

Unusual activity - if there is a lack of oxygen in a pond then fish may seem restless due to stress and in extreme cases may even attempt to jump out of the water.

Environmental and water conditions

High algae presence - algae can produce oxygen in the day however, at night it consumes it so a dense algae bloom in the pond can lead to oxygen depletion.

Foul smell - if there is a foul sulfurous smell present at the pond site then that is an indication that anaerobic bacteria is present, these bacteria thrive in low-oxygen water conditions.

Gas bubbles - gas bubbles breaking the surface is a sign that there is decaying matter in the pond which releases ammonia which is toxic to any aquatic species.

Water temperature - if the water is warm then its ability to carry dissolved oxygen is reduced and in the summer months it increases the chances of oxygen depletion.

Aquatic oxygenating flora

Implementing aquatic oxygenating flora is the best way to increase oxygen level in a pond as it is cost efficient and is self sustaining unlike a lot of artificial methods. These flora will not only provide the pond with oxygen but will also provide a habitat for aquatic fauna species.

Good oxygenating plants for ponds

Water milfoil - water milfoil is a good choice as it produces high levels of oxygen and absorbs any extra nutrients that algae may feed off of. It’s feathery leaves provide aquatic fauna with a shelter to hide in.

Water crowfoot - water crowfoot is a good choice as it is another high oxygen producer that can also rapidly absorb excess nutrients that algae would eat meaning it’s a good choice for algae control as well.

Mare's tail - mare's tail is another good choice as it is also a high oxygen producer that also acts as a habitat for aquatic fauna. This plant species can also control the growth of algae in the pond. It can thrive in shallow water but can adapt to deeper waters.

Willow moss - willow moss is a good choice as it is another high oxygenator and is also highly versatile as it is a rootless plant meaning no planting is required and can instead just be left to float on the surface of the water or can be anchored to rocks. It's dense foliage can also provide fauna with an area to hide, especially fry, newts, tadpoles and dragonfly larvae.

Oxygen meters

Oxygen meters are good for ponds as they provide accurate measurements of dissolved oxygen which is very important for fish and other aquatic fauna. Oxygen is the most critical water quality parameter so being able to measure it is needed as if oxygen wasn't measured then it wouldn't be managed properly as we wouldn't know if the oxygen levels were optimal or low.

Here are some oxygen meters:

https://www.amazon.co.uk/Fyearfly-Dissolved-Oxygen-Meter-0-0-40-0mg/dp/B09TVZN8PW/ref=asc_df_B09TVZN8PW?mcid=d1b0244b1b2639ad87e93d0ed7ef67b4&tag=googshopuk-21&linkCode=df0&hvadid=780922606209&hvpos=&hvnetw=g&hvrand=17250615019649705512&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9210708&hvtargid=pla-1643248631970&psc=1&hvocijid=17250615019649705512-B09TVZN8PW-&hvexpln=0&gad_source=1

https://www.test-meter.co.uk/extech-do210-dissolved-oxygen-meter?utm_source=google_shopping&gad_source=1&gad_campaignid=22849381354&gclid=EAIaIQobChMIgJ2xysGGkwMVN5NQBh0T9A9WEAQYAyABEgKxu_D_BwE

https://www.reverseosmosisworld.co.uk/acatalog/Professional-Waterproof-Dissolved-Oxygen-and-BOD-Meter.html?gad_source=4&gad_campaignid=19749280225&gclid=EAIaIQobChMIyu_G7cGGkwMVOpRQBh30xBwFEAQYFyABEgJ9VvD_BwE

Conclusion

In conclusion, all of the points made are to make sure that oxygen depletion in the pond can be identified and prevented in order to ensure that the pond is able to be sustainable for both aquatic fauna and flora.