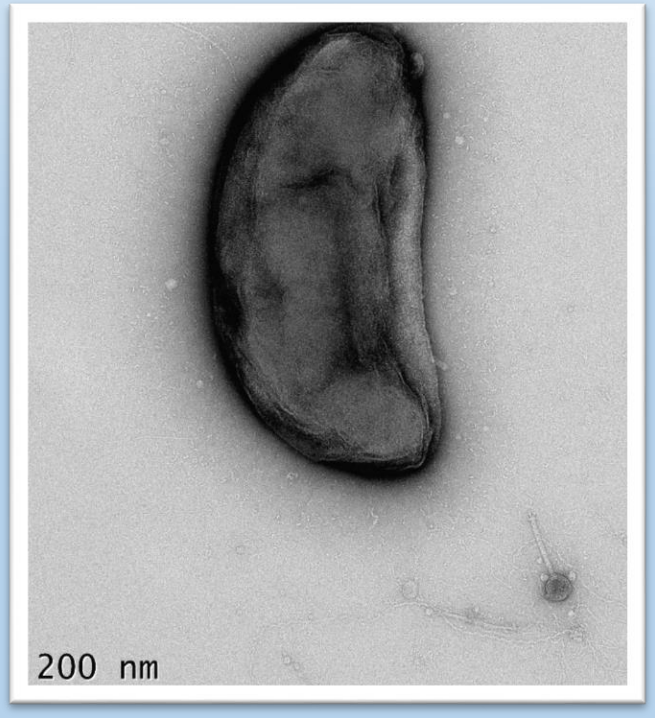
Look what we found in your pond!

Sample VH10001 – Gibbet Hill Pond

Thank you for taking part!

We took over one hundred pictures from your water sample, we can't include them all but here's some highlights.

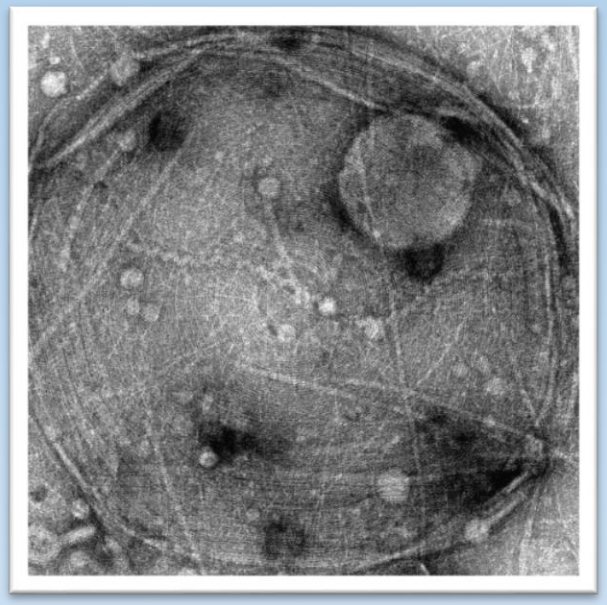


Bacteria

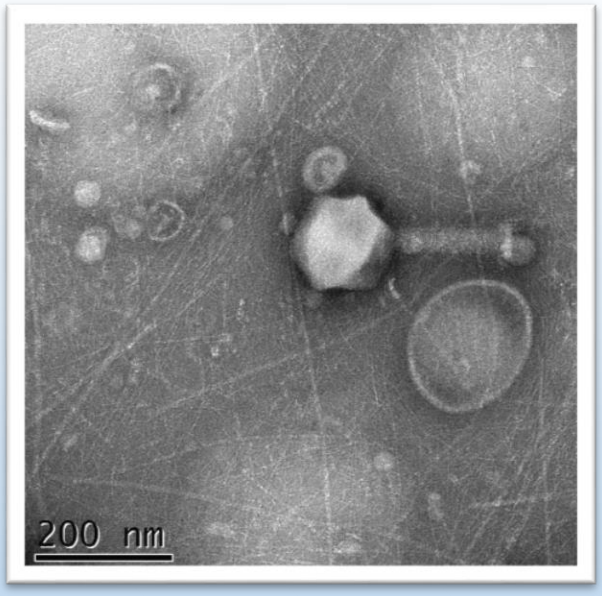
We try to filter them out but some always get through. They go wrinkly because we have to dry the sample out for the microscope. This one's been photo bombed by a virus in the bottom right corner.

A Thing!

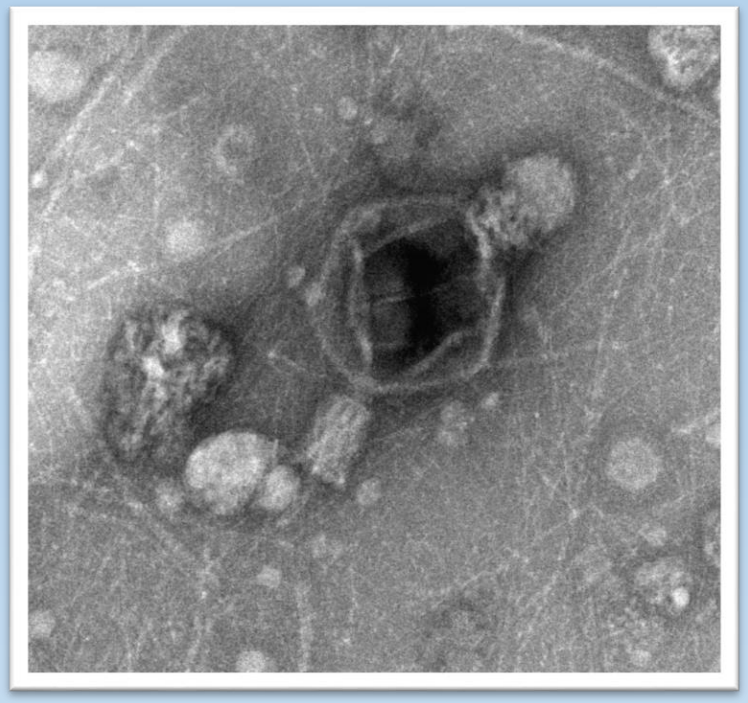
We have no idea! Concentric circles, maybe it's a really tiny vinyl record? We often find things we don't recognise, this probably fell off something bigger but we'll never know for sure.



Myoviruses

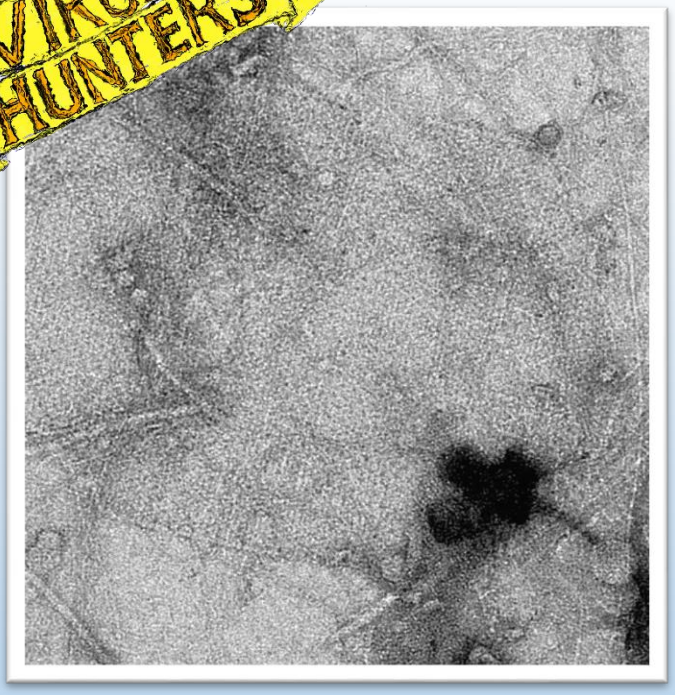


We found loads of myoviruses in your pond - they're the 'classic' bacteriophage. 'Myo' means muscle – because these guys can move – sort of. The tail has a base plate and legs that attach to a bacterial cell, once its attached the tail contracts and injects DNA into the cell just like a syringe. These are 200nm long.



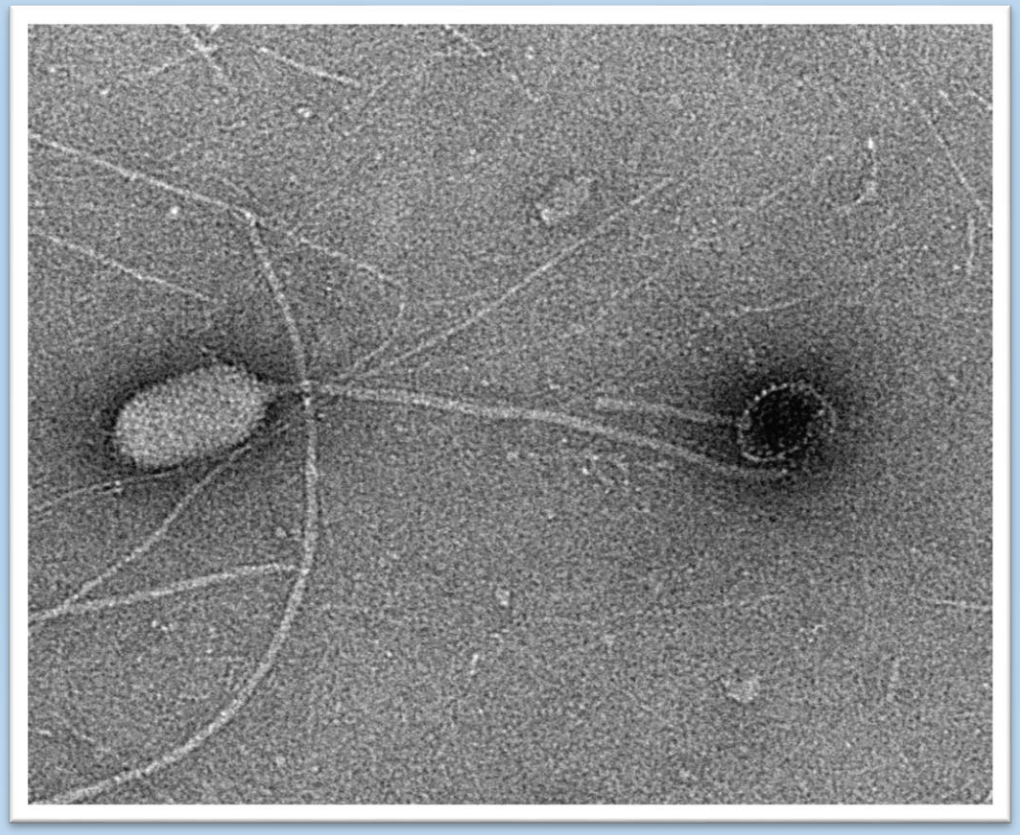
Here's one that's empty – the tail has contracted and the DNA has gone. The fuzzy bits nearby are soil fragments – dirt gets everywhere.

VIRUS HUNTERS



Bits of cells

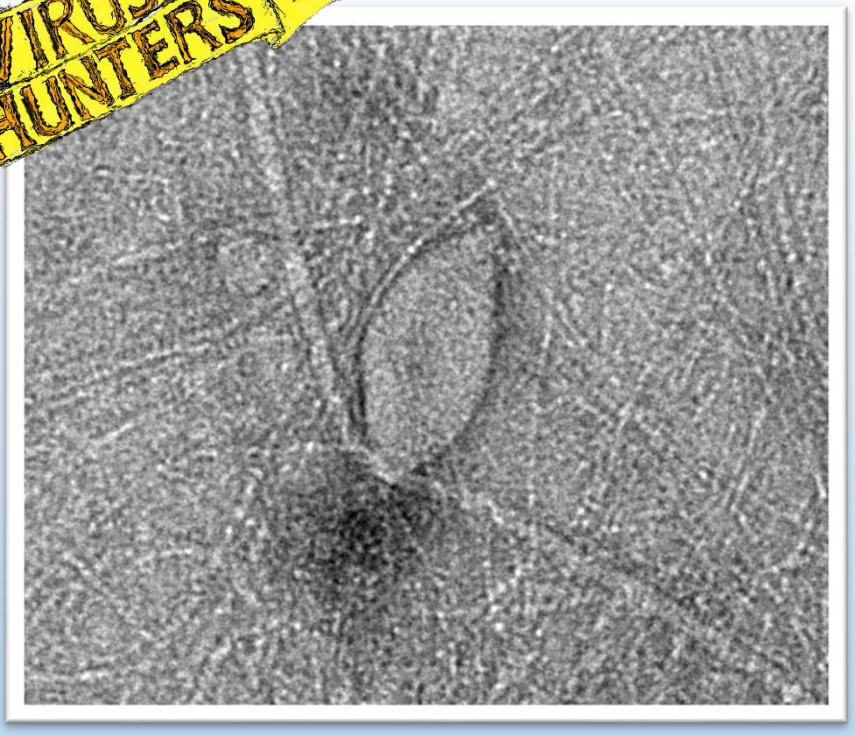
This chain mail sheet is the broken cell wall of an archean - single celled organisms that look a lot like bacteria but aren't. The cell wall is called the S-layer and although it's tough and resilient it didn't do this cell much good



Siphoviruses (left hand side)

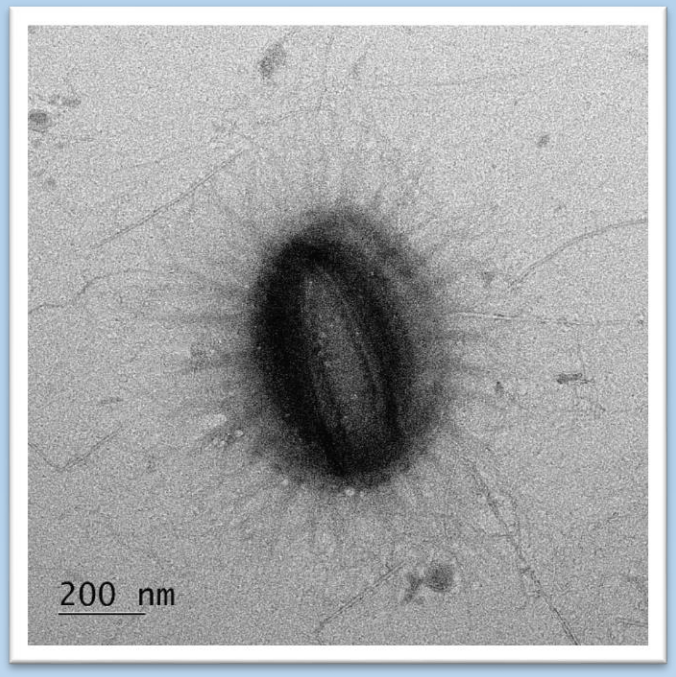
We found a few of these, they have long flexible tails and a head. Unlike myoviruses they don't contract when they attach to a bacterium - they dupe the cell into pulling the DNA inside by itself.

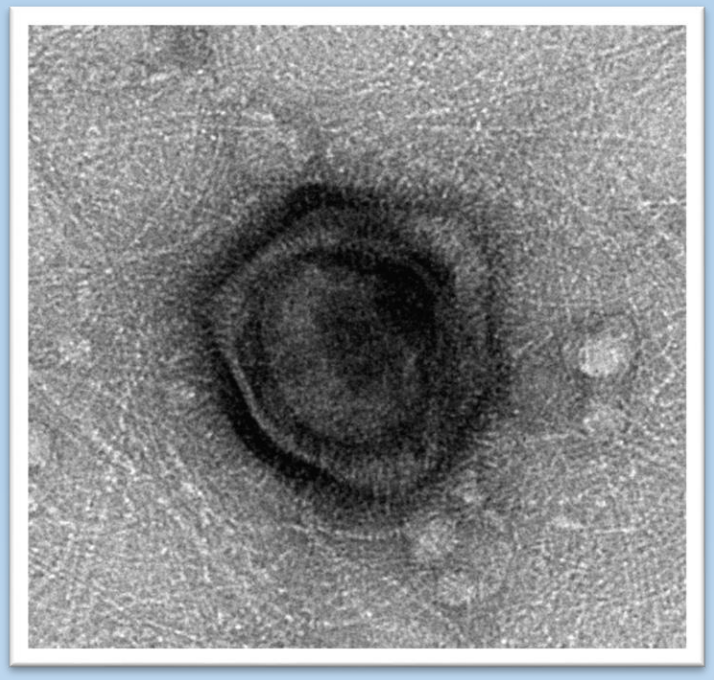
VIRUS HUNTERS



Lemon Shaped Virus

This was a surprise. These sort of virus only infect archaea and most of these viruses are found in salt water so we weren't expecting them in your pond water.





Giant Viruses!

We cheered when we found these ☺ Yes they're tiny but by virus standards they're massive. Giant viruses were only discovered in 1992 and now we're finding them all over the place. Most of the ones we know about infect amoebae but there are also some that infect bacteria and algae.