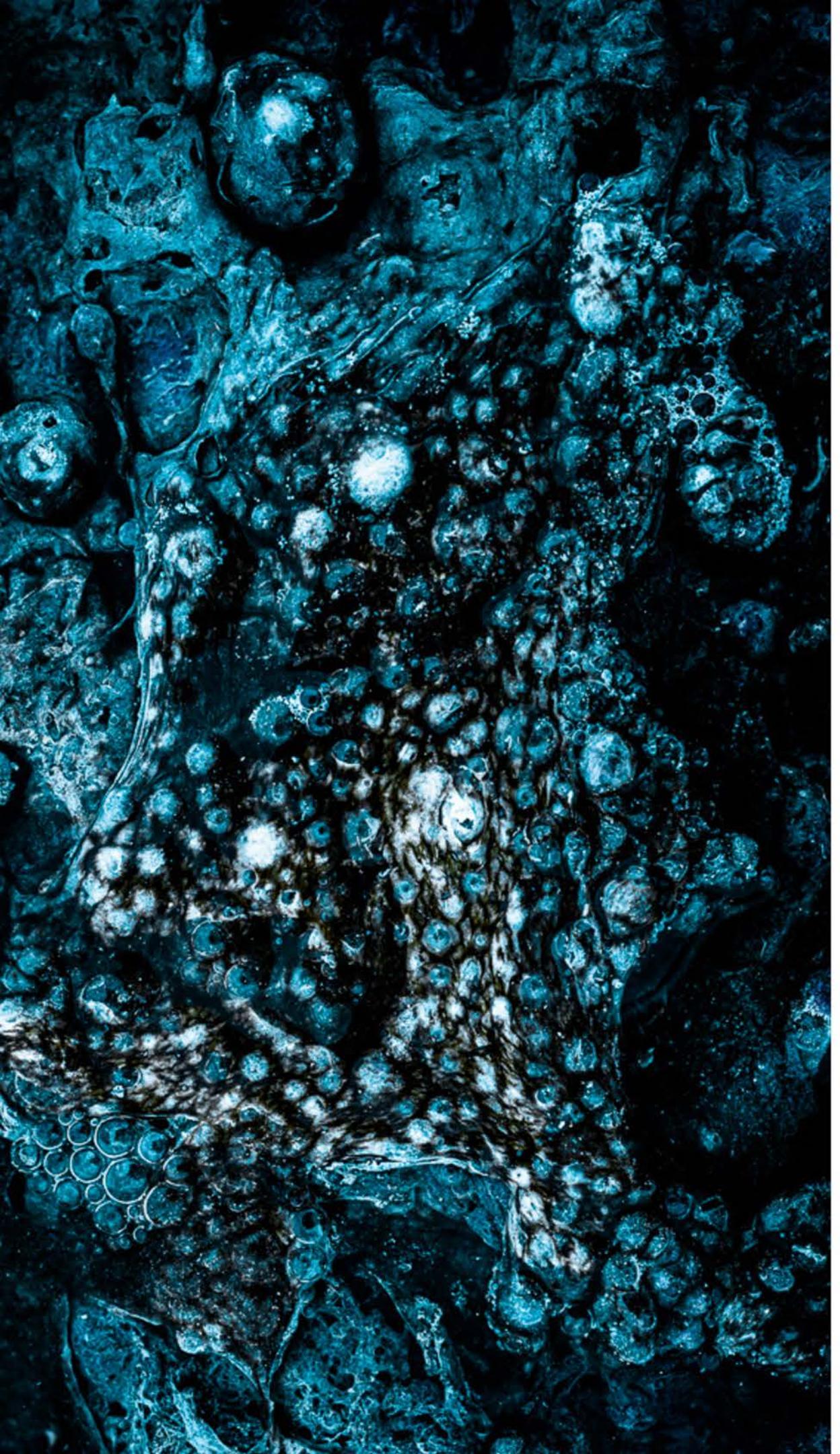


PLACES TO OBSERVE

THE EXTREMOPHILE CAMPAIGN:
IN YOUR HOME



Not sure where to look for extremophiles?

No problem! These slides will walk you through several places you can start exploring. We'll add to these ideas throughout the course of the project.



SHOWERHEADS

The constant wet/dry cycle of your showerhead is considered an extreme environment. If you have anything growing on/around or out of your showerhead, it's probably a microorganism!



TOILET TANKS

The back of your toilet tank is a dark place that sees and influx of water on and off throughout any given day. You may find growth on the tubes, screws, or other mechanisms in the tank.



AIR CONDITIONER

Air conditioners generally contain **drip trays** for catching condensation. These trays may be outside or in an attic or crawl space. Check to see if they contain any microbial life!



HOT WATER HEATERS

The inside of a hot water heater is an extreme environment indeed! When you drain your hot water heater as part of your annual home maintenance, check to see if any interesting material comes out of your hot water heater when you drain it.



FRIDGE/FREEZER DRIP LINE

Refrigerator/freezer/ice machine drip tray or drain tube lines are another extreme environment where microbes may be living. Drain tube lines are usually located in the back of your fridge and may require tool to access.

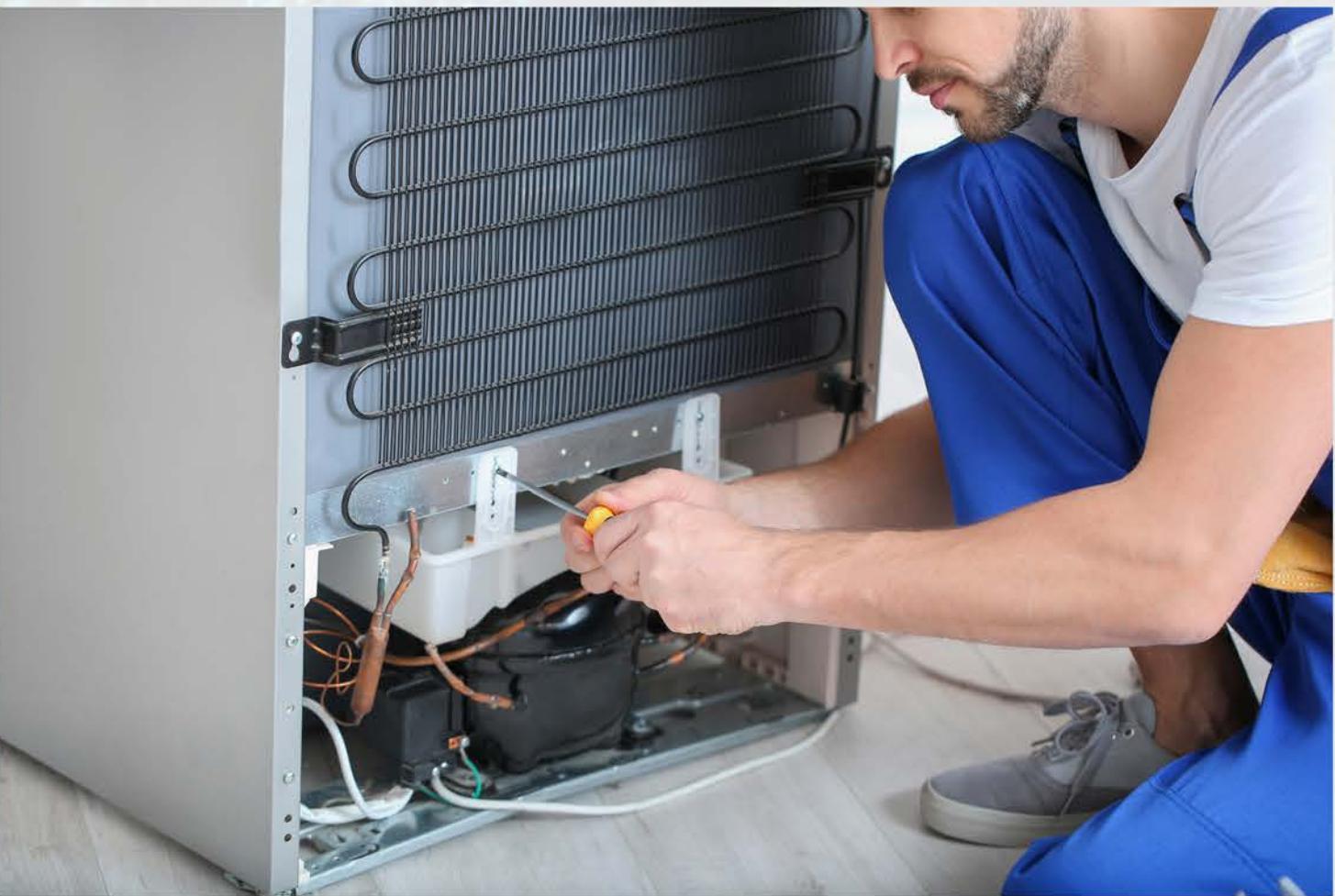




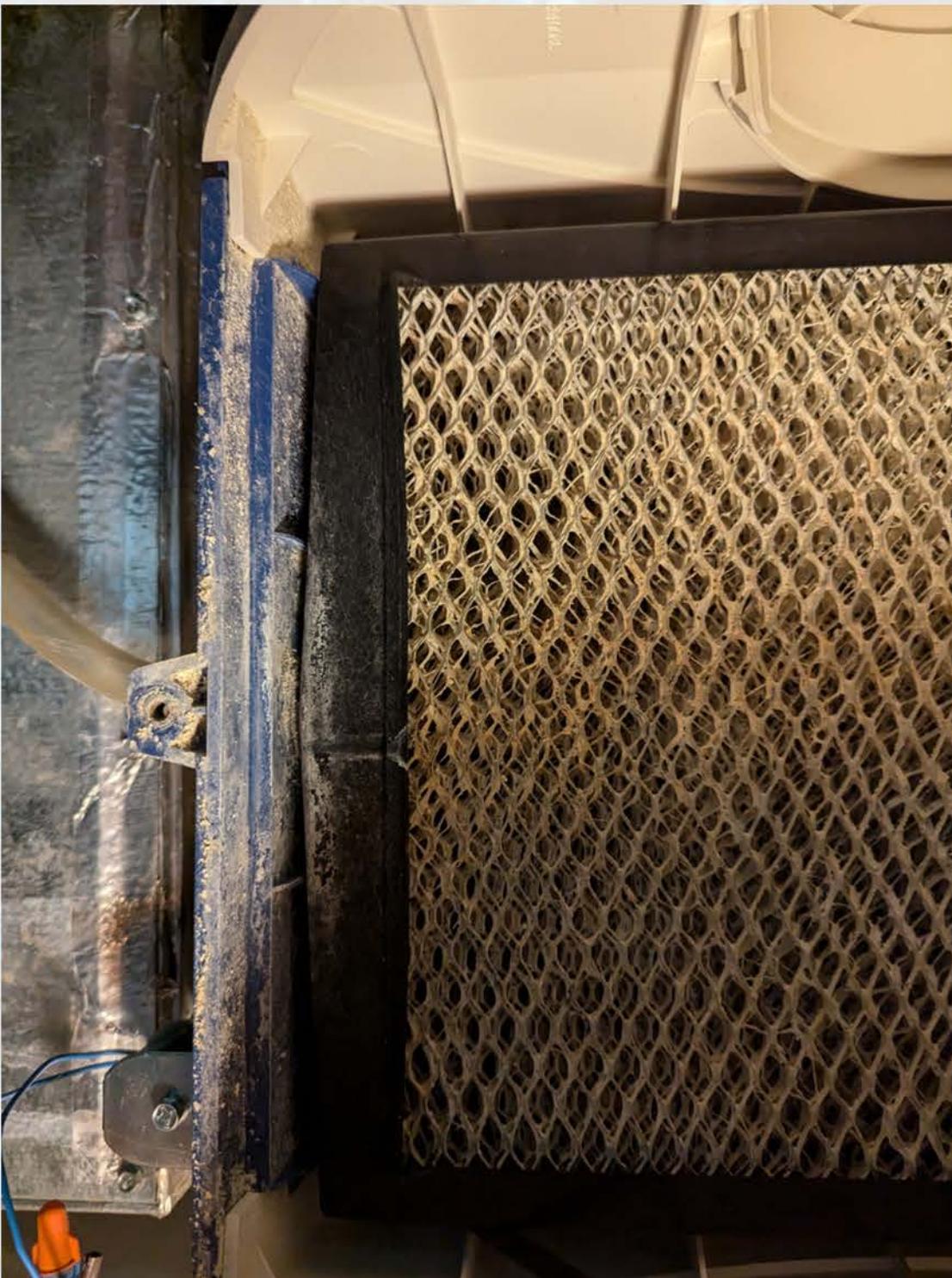
Photo courtesy of James Henricksen

HEATER TUBES

You may find microbial growth collecting along tubes coming in or out of your home's heating system, perhaps along the condensation tube or in the drip lines.

HUMIDIFIERS/ DEHUMIDIFIERS

Heaters, humidifiers, dehumidifiers, and other devices with air filters may be good growth environments for some types of microbes. Take photos of the filters in your home to see what's growing on them.





RAIN BARRELS

Rain barrels sometimes go through wet/dry cycles that may create the perfect environment for microbial growth. Check any lid you may have on top of the barrel or along the inside edge of the barrel.

BIRD BATHS

Bird baths are often subject to wet/dry cycles and different lighting environments. There may be microbial life waiting to be sampled in your bird bath! (No bird droppings though please!)





DISHWASHER

Extreme heat + wet/dry cycles make dishwashers a very extreme environment! Look in corners, crevices, and those hard to clean areas to see if you spot any microbial growth.

WASHING MACHINE

Washing machines experience a variety of hot/cold cycles as well as wet/dry cycles.

Agitators, soap dispensers, the area between the tub and the frame of the washing machine, are all places where microrganisms might grow.





MICROWAVE

The inside of a microwave is an extreme environment for many living things. While we aren't interested in samples of your leftovers, if you find organisms growing in or around the microwave surfaces, be sure to photograph them!

SOLAR PANELS

Solar panels are generally high radiation environments. They may contain microbial organisms that can withstand this extreme environment. Only examine solar panels if it is safe for you to do so.



Photo courtesy of James Henriksen



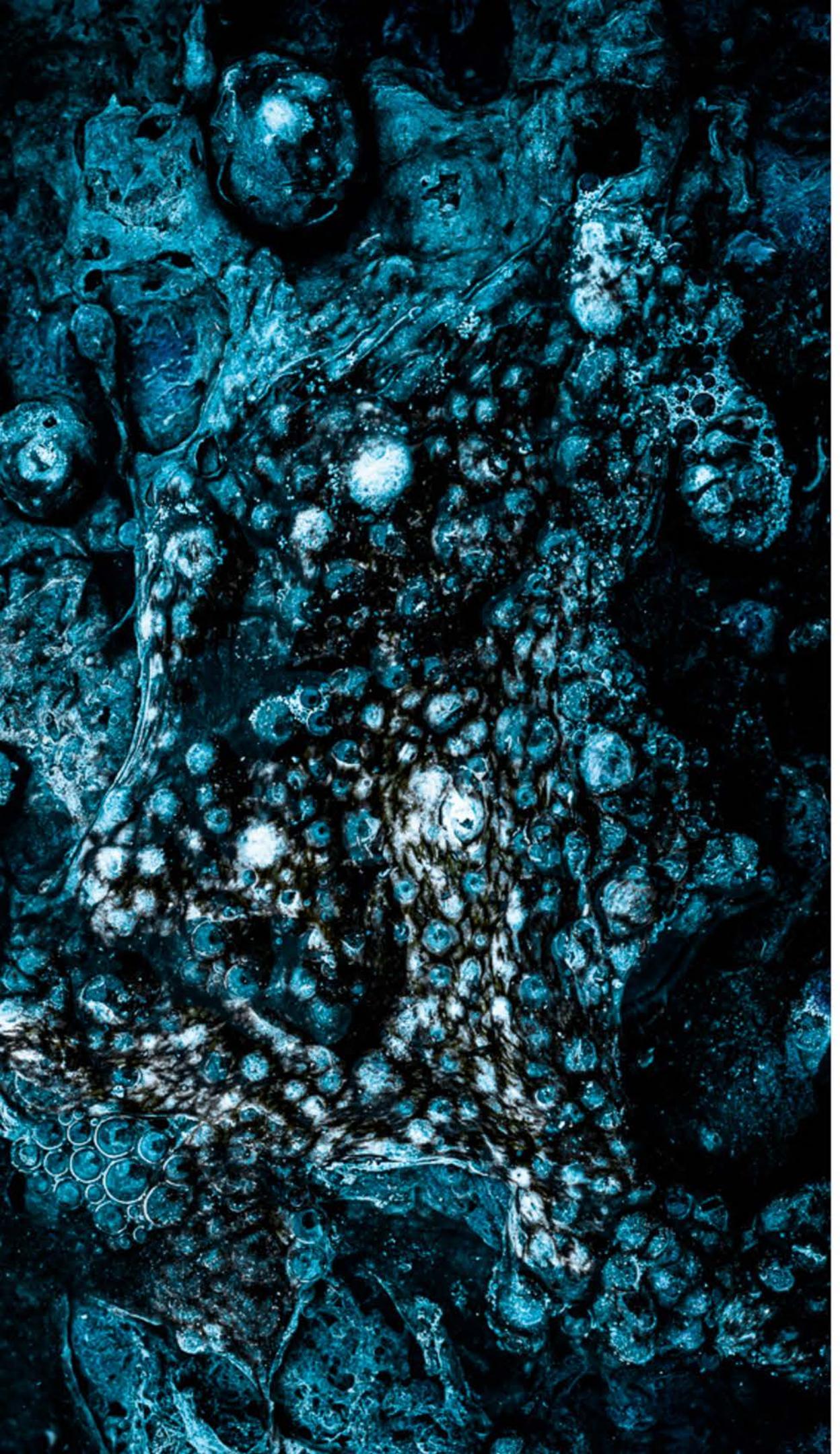
SWIMMING POOL FILTERS

Swimming pool filters collect a lot of interesting material. The wet environment is a great place for microbes to grow. Pull out your filter and send us a photo of what's growing in there.

OUTSIDE SURFACES

Over time, the wet/dry and hot/cold environments fences and other outdoor surfaces are exposed to can lead to the growth of fungi, lichen and microbes. Check to see if anything interesting is growing on an outside surface near you!





Go Explore!

These are just some of the places you may find microbial life in and around your home. You will probably find more! We look forward to seeing what you discover.

