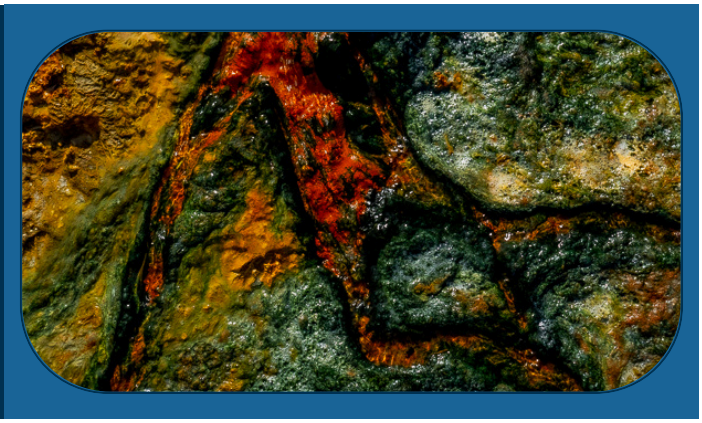
The Extremophile Campaign

In Your Home

Guidelines for exploring your home



Overview

We are trying to understand microorganisms in the home because the microbes that live in extreme environments – even those in your home – can address enormous problems facing society: for example, a microbe forming biofilm in cold, low nutrient water of a freezer drain line may have capabilities to fix carbon in melting permafrost, or organisms interacting with metals in an air conditioner drip tray in an attic may help remediate mining waste. For Phase 1 of the project, we're asking people around the country to send us information about and photos of the weird substances (like slimy or crusty growth) you might find growing in and around your home from time to time. Maybe it's a white crust growing near a floor drain in your basement, a red goo that showed up in your dishwasher, or a weird looking slime on your rooftop solar panels. This information will help inform us about what organisms might warrant further analysis during Phase Two of the project.

Guidelines for Exploration

Here's what we need you to do:

1. **Find a weird substance growing in your home.** Think like a detective! Remember, we're looking for extreme environments, like really hot or really cold or really dry or really high radiation environments where microorganisms might grow. Areas that are nutrient-rich (like your kitchen or bathroom sink) are not considered extreme environments - it's easy for microorganisms to grow there! A showerhead, on the other hand, is considered an extreme environment because it experiences a wet/dry cycle and it has little nutrients flowing through it.

2. **Safety First! Only search your home in places that are safe for you and other members of your household.** For example, we would love for some people to drain part of their hot water heaters to see if anything interesting comes out (besides sand or grit). BUT, if you don't know how to drain your hot water heater as part of your routine home maintenance or aren't comfortable doing so, DON'T. We cannot be held liable for any damage that occurs while looking for samples in your home.

3. **Type ONLY your ZIPCODE into the location search.** We do not need to know your personal address for the purpose of this project. Your zipcode is enough.

4. **Answer the questions** on the datasheet.

5. **Once you've submitted your observation, wait patiently.** Science is many things, but it isn't always fast. Our small team of scientists and students will look at all of the observation data that comes in, look for patterns, and try to discern what observations might make for an interesting sample. We'll send monthly communications about the project via our newsletter. Check out our Forum for questions and discussions with the team and project volunteers.

6. **NOTE: There are SOME kinds of observations we cannot use for this project.** Here's the short list (we may add to this over time):
   - aquariums of any kind
   - observations from nutrient-rich environments like bathroom or kitchen sink drains
   - human or animal waste
   - any animal parts or fluids, insects, or food

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https://citsci.org/projects/the-extremophile-campaign-in-your-home/