Protocol 3: Bacterial Isolation

Goal: To isolate individual bacteria into clonal colonies for further study.

During this lab you should learn to:

- Plate bacteria onto LB agar

Introduction:

The environments from which we have collected samples have a multitude of bacterial species present in each drop. In order to study individual species, we must isolate those species. LB agar is a gelatin that contains food for bacteria to consume and on which to grow. The goal is to only plate enough bacteria that a single cell will grow into a cohesive colony of clonal bacteria cells.

Protocol:

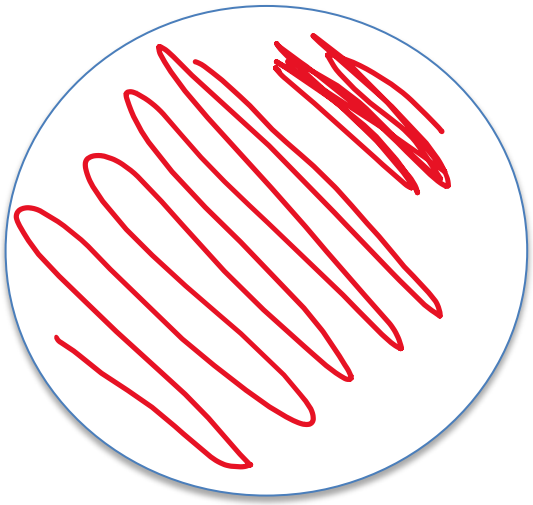
Materials needed:
Water samples
20 uL filter tips
LB Agar plates (100 mm dish with 8 mL LB agar)
Glass beads or sterile swabs

Option 1:

1. Add 20 uL (or 2 drops) of water sample to a plate along with 3-5 glass beads.
2. Shake the beads aggressively to spread the bacteria evenly around the plate.
3. Collect beads in a waste container specifically for beads.

Option 2:

1. Dip swab into water and streak the swab over the plate in a shape similar to this:



Label your plates with your initials.
Incubate your plates overnight in a dark warm location or an incubator at 30-37 degrees C.
Colonies should form on your plate. If not let them grow another 24 hours.