Quick fish sampling guide for disease diagnostics

Wet mount sampling guide (for ectoparasites & fungi)



• Label slides: skin mucus smear, gill clip, fin clip, lesion/ulcer (if any).

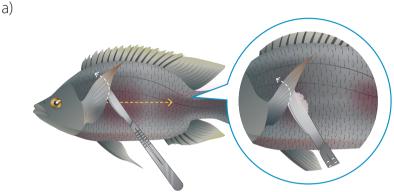


• Add 2–4 drops of water using a pipette.



• Place the euthanized fish on a clean surface.

Skin mucus or lesion/ulcer sampling

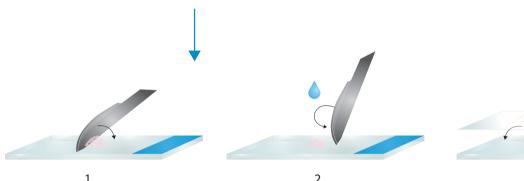


Skin mucus sampling

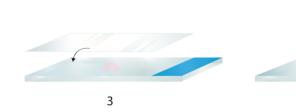
b)

Lesion/ulcer sampling

• Scrape some infected tissues from the lesion/ulcer.



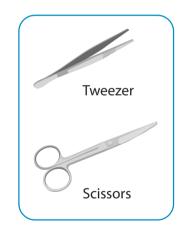
• Scrape mucus and epithelial cells behind the pectoral fins and along the belly.

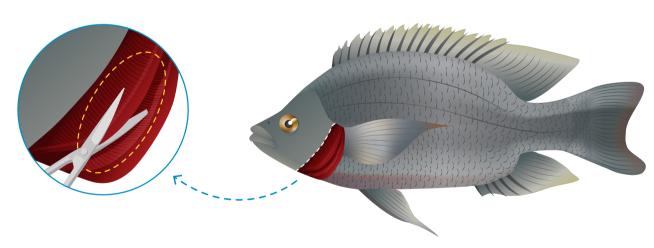




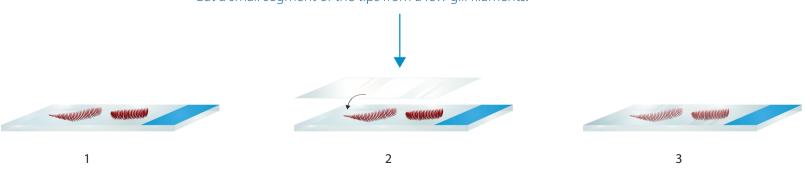
- Place the mucus/epithelial cells from the skin or lesion/ulcer onto the slide by rubbing it off in circular motion and then mix it with a few drops of water.
- Place a cover slip over the sample and the slide.

Gill clip sampling



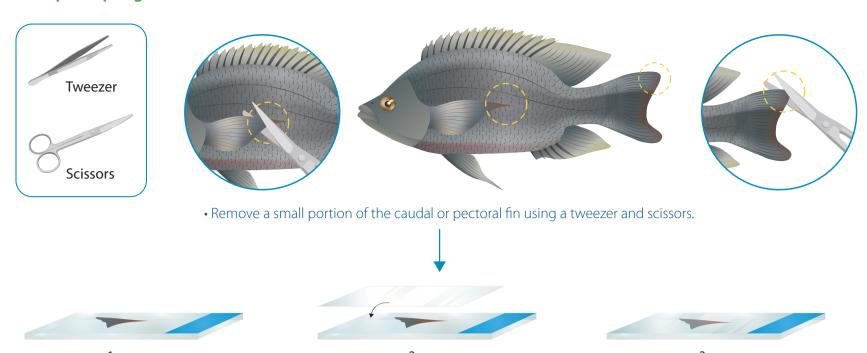


- Use a tweezer and scissors to remove the fish operculum and expose the gills.
- Cut a small segment of the tips from a few gill filaments.



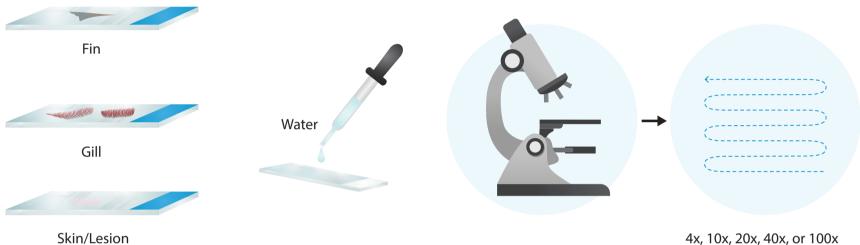
- Place the gill clippings onto the glass slide with a few drops of water. Spread out the gill filaments to minimize overlapping.
- Place a cover slip over the gill sample and the slide.

Fin clip sampling



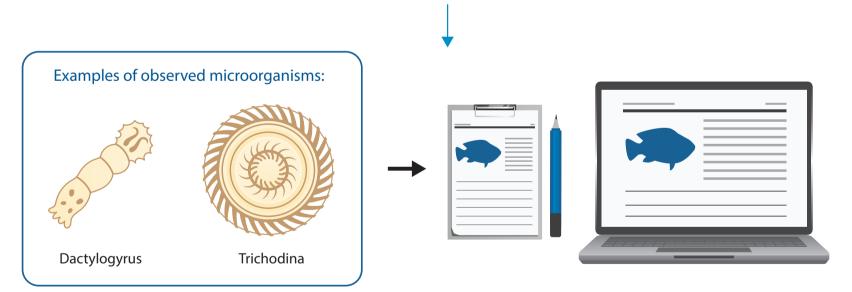
- Place the fin sample onto the glass slide. Spread out the fin rays out to minimize overlapping.
- Place a cover slip over the fin sample and slide.

Observations under a microscope



4x, 10x, 20x, 40x, or 100x

- Add a few drops of water to the edge of the cover slips to ensure samples do not dry out during microscopy.
- Observe under a light compound microscope with 4x, 10x, 20x, 40x or 100x objectives.
- Begin your observation from either the bottom right/left or top right/left of the cover slip.
- Move the field of vision in a continuous S-shape movement to cover the entire slide.



Take photos or videos

- Record all observations of parasites or fungi in the examination form or in a computer. Details include:
- fish/specimen number
- sample type (skin/gill/fin)
- type of microorganism observed
- density of the microorganism observed
- When necessary, increase the magnification to 40x or 100x to take pictures or videos of the microorganisms.





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