

Sampling of gill tissue analysis with the ATPase qPCR assay

- 1** When sampling package is received, cooling elements should be placed in the freezer until the samples are ready to be transported back to the lab.
Sampling tubes with storage solution should be kept at room temperature.
- 2** Equipment - Sampling package: Contains the registration form, a box with sampling tubes with storage solution, labels for the sampling tubes as well as the "express over night" return form for returning the samples to the lab.
Other equipment: Scalpel, tweezers and a container with water and a clean cloth to remove remaining blood and tissue from the scalpel and tweezers between samplings (recommended).
- 3** Preparations:
Preparing the sample station, label the sampling tubes with the numbers corresponding with the registration form. Use the labels in the sampling package and place them on the top half of the sampling tube. Smoltindex should be assessed in a well-lit area.
- 4** Removing fish from the tank:
The fish are to be randomly collected from each tank using a dip net. Make sure not to take fish from the centre or by the tank wall. Collect no more than 5-10 fish, directly from the culture tank into a small tank or bucket. Ensure that the volume of water in the bucket is appropriate for oxygen levels to remain reasonably high for the duration of sampling. It is important that the fish are not stressed unnecessarily or kept in the bucket too long before the gills are sampled. Anesthetics should not be used.
- 5** Sampling of gill tissue:

 - Stun the fish by a blow to the head.
 - Cut a 0.5 – 0.8 cm wide gill section from the tip of the second gill arch on the right side (the fish placed on its back with the head away from the sampler). Put the gill section in a labeled tube with the storage solution, make sure it is completely immersed in solution and place the tube back into the box.
 - Measure Smoltindex (parrmarks, silvering and fin color).
 - Place the fish aside and continue with the rest of the fish until the bucket is empty.
 - When the bucket is empty complete the registration of each fish (weight, length etc.) before new fish are removed from the culture tank.
 - When the sampling is complete, the box with the sampling tubes must be kept cold (4°C) until the samples are returned to the lab.
- 6** Returning the samples to the lab:

 - The box with the sampling tubes must be returned with the registration form, frozen cooling elements and any other equipment that came with the sampling package.
 - Return the sampling package to Eurofins avd. Sortland, Havnegata 19 B, 8400 Sortland using the "express over night" return form.