**Standard Operating Procedure – Tissue Drying**

1. *Sample Collection*
   1. **Whole Fish - Frozen**
      1. Record fresh wet weight of fish in field
      2. Place fish into prelabeled bag with a paper id tag inside bag
      3. Freeze fish
   2. **Partial Fish - Frozen**
      1. Record fresh wet weight of fish in field
      2. Place fish into prelabeled bag with a paper id tag inside bag
      3. Freeze fish
   3. **Frozen Tissue - Muscle**
      1. Record fresh wet weight of fish in field
      2. Fillet fish to obtain a clean piece of muscle tissue
         * No skin should be present on tissue sample
         * Minimize bones to make grinding tissue easier
      3. Place tissue sample into prelabeled bag with a paper id tag placed inside bag
         * Be sure to indicate that this is a muscle tissue sample
      4. Freeze Sample
   4. **Frozen Tissue - Gonad**
      1. Open body cavity
      2. Record Sex
      3. Remove one gonad
      4. Place tissue sample into prelabeled bag with a paper id tag placed inside bag
         * Be sure to indicate that this is a gonadal tissue sample
      5. Freeze Sample
2. *Sample Preparation*
   1. **Whole Fish - Frozen**
      1. Thaw fish in bag
      2. Record weight of whole fish after being thawed
      3. Fillet fish to obtain a clean piece of muscle tissue without any skin, and with minimal bones to make grinding tissue easier
      4. Record weight of prelabeled container which the muscle tissue will be placed into, tare scale
      5. Place muscle tissue into prelabeled container, record weight, tare scale
      6. Pin paper with the individual fish id into muscle sample, record combined weight
      7. Place tissue sample into drying oven set to 140°F
         * You can place samples into oven after preparation of each sample, or add them to the oven in batches
      8. Repeat for every sample
   2. **Partial Fish - Frozen**
      1. Thaw fish
      2. Fillet fish to obtain a clean piece of muscle tissue without any skin, and with minimal bones to make grinding tissue easier
      3. Record weight of prelabeled container which the muscle tissue will be placed into, tare scale
      4. Place muscle tissue into prelabeled container, record weight, tare scale
      5. Pin paper with the individual fish id into muscle sample, record combined weight
      6. Place tissue sample into drying oven set to 140°F
         * You can place samples into oven after preparation of each sample, or add them to the oven in batches
      7. Repeat for every sample
   3. **Frozen Tissue - Muscle**
      1. Record fresh wet weight of fish in field
      2. Fillet fish to obtain a clean piece of muscle tissue without any skin, and with minimal bones to make grinding tissue easier
      3. Place tissue sample into prelabeled bag with a paper id tag placed inside bag
         * Be sure to indicate that this is a muscle tissue sample
      4. Freeze Sample
      5. Record weight of prelabeled container which the muscle tissue will be placed into, tare scale
      6. Record weight of tissue sample while still inside bag
      7. Remove tissue sample, place tissue into prelabeled container, record weight, tare scale
      8. Pin paper with the individual fish id into muscle sample, record combined weight of the pin and paper
      9. Place tissue sample and bags into drying oven set to 140°F
         * You can place samples into oven after preparation of each sample, or add them to the oven in batches
      10. Repeat for every sample
   4. **Frozen Tissue - Gonad**
      1. Record weight of prelabeled container which the gonadal tissue will be placed into, tare scale
      2. Record weight of gonad sample while still inside bag
      3. Remove tissue sample, place tissue into prelabeled container, record weight, tare scale
      4. Pin paper with the individual fish id into gonad sample, record combined weight of the pin and paper
      5. Place sample and bags into drying oven set to 140°F
         * You can place samples into oven after preparation of each sample, or add them to the oven in batches
      6. Repeat for every sample
3. *Tissue Drying*
4. Record weights daily until a stable weight is reached
5. Once a stable weight is reached
   1. Record weight of everything together without removing anything from weigh dish
   2. Record weight of pin
   3. Record weight of paper
   4. If applicable, record the dry weight of the bag
6. Keep samples in drying oven set to 140°F until samples can be homogenized with a mortar and pestle
7. *Tissue Grinding*
8. Clean mortar, pestle and spatula by wiping down with acetone
9. Place tissue sample into clean mortar
10. Grind with pestle until tissue is homogenous
    1. Tissue should be ground to a fine consistency, like that of sawdust
11. Carefully scoop ground tissue with spatula into prelabeled 20ml glass scintillation vial
12. Label cap of scintillation vial with Sample ID and tissue type identifier
    1. M = Muscle
    2. G = Gonad
13. Wipe down mortar, pestle and spatula with dry kimwipe to remove ground tissue powder
14. Rinse mortar pestle and spatula with acetone, wipe dry