

### Staining Protocol using the Regressive Acetocarmine approach

Before starting, wipe down dishes with water and a chem wipe (not paper towels) to remove fibers/hairs so that they don't get stuck to your specimens.

#### Staining:

- 1) Place specimen in dish with 2 squirts of acetocarmine stain. Leave for 15-30 mins (depending on the thickness of the worm) (**\*\*always transfer from liquid to liquid!**)
- 2) Using a paintbrush, gently transfer worm to dish containing 70% ethanol (add approx 2 pipette squirts of ETOH into the dish)
- 3) De-stain using HCl (2-8 drops) until desired effect
  - Swirl dish as you add HCl **slowly**
  - Look for faint white outline around exterior
- 4) Transfer worm to new 70% ETOH

#### Dehydration:

- 1) Begin in 70% ETOH for 1 hour
- 2) Transfer to 85, 90, 95, and 100% each for 1 hour
- 3) Place in 100% a second time, again for 1 hour

#### Clearing:

- 1) Transfer worm to  $\frac{1}{4}$  xylene +  $\frac{3}{4}$  100% EtOH, leave for 30 min
- 2) Transfer to  $\frac{1}{2}$  xylene +  $\frac{1}{2}$  100% EtOH, then  $\frac{3}{4}$  xylene +  $\frac{1}{4}$  100% EtOH, and then full xylene, each for 30 min.

#### Mounting:

- 1) Combine Permount/Canada balsam and xylene to desired consistency in a vial (not runny, but easily distributed).
- 2) Clean glass slides and cover slip in 70% EtOH.
- 3) Label slides (with pencil) indicate the specimen ID, date, etc
- 4) Place 1-2 drops of Permount/xylene onto center of the slide.
- 5) Using a paint brush place the worm, suckers facing up, onto the slides. Use brush to adjust worm.
- 6) Carefully place the cover slip onto the worm.
- 7) Slowly pipette more Permount/xylene underneath the coverslip, add slowly to avoid bubbles
- 8) Place slide on the slide warmer.
- 9) If bubbles have formed, leave the slide on the warmer for a few days to allow the bubbles to move to the edges of the coverslip, then bubbles can be removed using xylene on a paintbrush and filled in with more Permount.