

## Wolbachia Project Supplies: QuickList

(\* Obtain from *Wolbachia Project*)

### Lab 1: Arthropod Collection & Identification

- |  |   |
|--|---|
| <input type="checkbox"/> (2) Arthropod collection containers | <input type="checkbox"/> Paper towels                           |
| <input type="checkbox"/> (2) Student-collected arthropods    | <input type="checkbox"/> Computer or mobile device              |
| <input type="checkbox"/> (2) 1.5 ml tubes with ethanol       | <input type="checkbox"/> <i>Optional:</i> Macro lens            |
| <input type="checkbox"/> Rack for 1.5 ml tubes               | <input type="checkbox"/> <i>Optional:</i> Dissecting microscope |
| <input type="checkbox"/> Nitrile gloves                      | <input type="checkbox"/> <i>Optional:</i> Colored pencils       |
| <input type="checkbox"/> Safety goggles                      | <input type="checkbox"/> <i>Optional:</i> Field guides          |
| <input type="checkbox"/> Wash bottle with 70% ethanol        | <input type="checkbox"/> <i>Optional:</i> Lab tray              |
| <input type="checkbox"/> Dissection kit                      |   |

### Lab 2: DNA Extraction (QIAGEN DNeasy Kit)

#### Equipment

- |   |  |
|---|--|
| <input type="checkbox"/> Dry bath or water bath @ 56° C | <input type="checkbox"/> Mobile device with camera             |
| <input type="checkbox"/> Vortex mixer                   | <input type="checkbox"/> <i>Optional:</i> Computer w/ internet |
| <input type="checkbox"/> Centrifuge                     |  |

#### Materials

- |   |   |
|---|---|
| <input type="checkbox"/> Nitrile gloves                             | <input type="checkbox"/> 20 µl pipette & tips         |
| <input type="checkbox"/> Sharpie, fine-tipped                       | <input type="checkbox"/> 200 µl pipette & tips        |
| <input type="checkbox"/> Wash bottle with 70% ethanol               | <input type="checkbox"/> 1000 µl pipette & tips       |
| <input type="checkbox"/> Dissection kit                             | <input type="checkbox"/> Waste cup for solids         |
| <input type="checkbox"/> Wash bottle or transfer pipette with water | <input type="checkbox"/> Storage box for 1.5 ml tubes |
| <input type="checkbox"/> Rack for 1.5 ml tubes                      | <input type="checkbox"/> Colored lab tape             |
| <input type="checkbox"/> (4) Microtube pestles                      | <input type="checkbox"/> Paper towels                 |
| <input type="checkbox"/> (12) 1.5 ml tubes                          | <input type="checkbox"/> <i>Optional:</i> Lab tray    |

#### Reagents

- |   |   |
|---|---|
| <input type="checkbox"/> (2) Student-collected arthropods (Lab 1) | <input type="checkbox"/> Ethanol, molecular grade (>800 µl per group) |
| <input type="checkbox"/> (2) <i>Arthropod controls</i> *          |   |

#### QIAGEN DNeasy Kit (#69504) – recommend aliquots for each group:

- |  |  |
|--|--|
| <input type="checkbox"/> QIAGEN Buffer ATL   | <input type="checkbox"/> QIAGEN Buffer AW2           |
| <input type="checkbox"/> QIAGEN Proteinase K | <input type="checkbox"/> QIAGEN Buffer AE            |
| <input type="checkbox"/> QIAGEN Buffer AL    | <input type="checkbox"/> (4) QIAGEN spin columns     |
| <input type="checkbox"/> QIAGEN Buffer AW1   | <input type="checkbox"/> (4) QIAGEN collection tubes |

### Lab 3: PCR

#### Equipment

- Thermal cycler
- Vortex mixer
- Centrifuge
- Mobile device for thermal cycler
- Optional:* Computer w/ internet

#### Materials

- Nitrile gloves
- Wash bottle with 70% ethanol
- (12) 0.2 ml PCR tubes
- Rack for PCR tubes and storage
- (2) 1.5 ml tubes
- Rack for 1.5 ml tubes
- Waste cup for solids
- 20 µl pipette & tips
- 200 µl pipette & tips
- Sharpie, fine-tipped
- Paper towels
- Colored lab tape
- Optional:* Lab tray

#### Reagents

- (2) DNA from arthropods (Lab 2)
- (2) DNA from control arthropods (Lab 2)
- (+) DNA Control \*
- PCR (nuclease-free) water
- Taq Master Mix
- CO1F (Arthropod forward) primer\*
- CO1R (Arthropod reverse) primer \*
- WSpecF (*Wolbachia* forward) primer \*
- WSpecR (*Wolbachia* reverse) primer \*

### Lab 4: Gel Electrophoresis (MiniOne)

#### Equipment

- MiniOne Electrophoresis System
- Microwave
- Mobile device with camera
- Optional:* Computer w/ internet

#### Materials

- Nitrile gloves
- Wash bottle with 70% ethanol
- 250 ml graduated cylinder
- Rack for PCR tubes
- Rack for 1.5 ml tubes
- Waste cup for solids
- 20 µl pipette & tips
- Sharpie, fine-tipped
- Paper towels
- Optional:* Parafilm
- Optional:* Lab tray
- Optional:* 96-well plate (Sequencing)
- Optional:* Strip caps (Sequencing)

#### Reagents

- (2) GreenGel cups, 1% TBE
- Media bottle with TBE running buffer
- Distilled water
- (12) PCR products (Lab 3)
- DNA Ladder

### Lab 5: Bioinformatics

#### Equipment

- Computer with internet access