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Egg-to-adult viability assay

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We are still developing and optimizing this collection

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Keywords: Drosophila, egg counting, survival, Fiji, Raspberry Pi, adult viability assay egg, count egg, eggs in polypropylene vial, useful in drosophila study, drosophila study, standard fly media with blue food dye, egg, mutant marker, using mutant marker, blue food dye, standard fly media, reproductive output, organismal fitness, measure of organismal fitness, account reproductive output, polypropylene vial, process image, raspberry pi camera

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Abstract

Egg-to-adult viability is a measure of organismal fitness that takes into account reproductive output as well as survivorship across life stages. It is especially useful in Drosophila studies when using mutant markers that are visible only in adults. Here, we present 3 protocols that can be used to count eggs in a way that also enables quantification of the number of adults. These protocols describe how to (A) make standard fly media with blue food dye for taking high contrast photos, (B) use a Raspberry Pi camera to directly photograph eggs in polypropylene vials where they are laid, and (C) process images and count eggs using a point-and-click approach in Fiji.

Files

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Protocol

NAME

Standard Cornmeal Fly Food: 2 Liter Batch

VERSION 1

CREATED BY



Laurie Stevison
Auburn University

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Protocol

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Image capture with Raspberry Pi

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Auburn University

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Image processing and egg quantification using Fiji

VERSION 1

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Auburn University

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