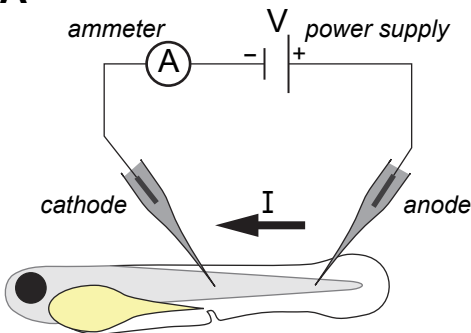
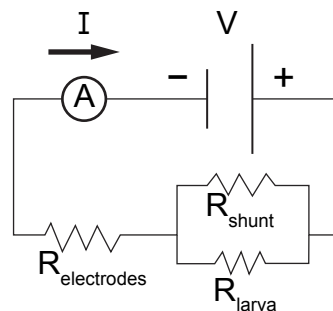
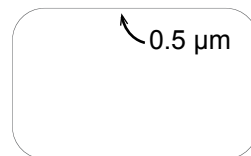
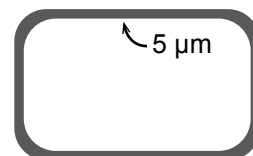
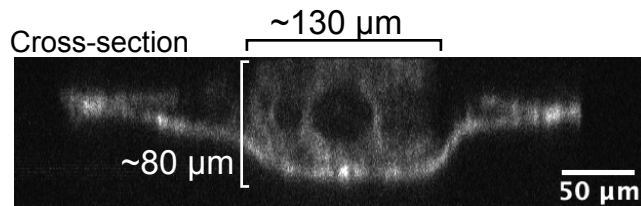
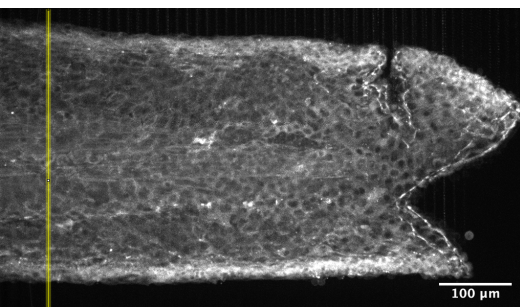


**A**

equiv. to



Directly measured	
V	0-55V
I	1 $\mu$ A
$R_{\text{electrodes}}$	18.5 M $\Omega$
Assumed	
$R_{\text{shunt}}$	$\infty$
Inferred	
$R_{\text{larva}}$	$\sim$ 11 M $\Omega$

**B**

Current flows through:	Full cross-section	5 $\mu$ m perimeter	0.5 $\mu$ m perimeter
Area:	$1 \times 10^{-4} \text{ cm}^2$	$0.2 \times 10^{-4} \text{ cm}^2$	$0.02 \times 10^{-4} \text{ cm}^2$
Current density (for 1 $\mu$ A):	10 mA/cm $^2$	50 mA/cm $^2$	500 mA/cm $^2$

**Figure 4 - figure supplement 1**