

SPRING grant report – Sak Mitchell

My PhD project focuses on examining relationships between dragonfly physiology and ecological processes. My SPRING grant was used to fund microCT scans of dragonfly larvae abdomens. Dragonfly larvae swim using jet propulsion. Water is drawn in and out of a branchial chamber located in the abdomen of the larvae. The microCT scans carried out with this grant will allow me to accurately quantify the size and structure of the chamber in the abdomen. This data is an important part of a biomechanical analysis of jet propulsion in dragonfly larvae. The aim of this work is to investigate potential carry-over effects of investing in swimming musculature in larval dragonflies - i.e. if a larvae invests energy in larger swimming muscles, it will have less energy available to invest in flight musculature as an adult.

