

Table S1. Details of the five *Drosophila* species used for experiments. All species were kept in a $20\pm 1^\circ\text{C}$ room for at least a year before experiments. Table contains; Species name (abbreviation), country of origin, year of collection, species distribution profile, critical thermal minimum (CT_{min} , means \pm s.e.m.), the chill coma recovery time (CCRT, means \pm s.e.m.) along with the source where the flies have been kept since collection, before being brought to our lab (see methods).

Species (abbreviation)	Origin	Collection year	Distribution profile	CT_{min} ($^\circ\text{C}$)	CRRT (min)	Source laboratory
<i>D. birchii</i> (bir)	Australia	2008	Tropical	8.79 ± 0.19	62.5 ± 4.6	Hoffmann, AU
<i>D. equinoxialis</i> (equ)	Honduras	<1984	Tropical	7.25 ± 0.13	42.3 ± 2.0	DSSC, US
<i>D. melanogaster</i> (mel)	Denmark	2011	Widespread	3.46 ± 0.07	15.7 ± 0.9	Loeschcke, DK
<i>D. persimilis</i> (per)	Canada	Unknown	Temperate	0.38 ± 0.14	1.1 ± 0.2	DSSC, US
<i>D. montana</i> (mon)	Finland	2008	Temperate	-1.99 ± 0.05	1.8 ± 0.4	Hoikkala, FI



Fig. S1. Photo showing the placement of the electrodes. The reference electrode were inserted directly through the carapace (left) and glass electrode inserted into a flight muscle through a small window in the carapace cut with the tip of a syringe-needle (circled).