



Fig. S1. Metabolic rate (expressed as CO₂ emission rate; VCO₂) as a function of body mass in adult male grasshoppers exhibiting DGC. Log- transformed means for the three study species (grey) and five others (black; E. Gefen, unpublished) were used to build the regression line. Regression equation: $\log_{10} \text{VCO}_2 \text{ (mL h}^{-1}\text{)} = 0.969 \times \log_{10} \text{ body mass (g)} - 0.557$ (indicated by solid line, $n = 8$, $r^2=0.96$, $p<0.0001$; red dashed lines indicate 95% confidence intervals; green dashed lines indicate 95% prediction intervals). Species are numbered as follows: 1, *Pyrgomorphella granosa* (N=8; nw); 2, *Pyrgomorpha conica* (N=13; w); 3, *T. pulchripennis* (N=20; w); 4, *O. bethlemita* (N=16; nw); 5, *O. lividipes* (N=22; nw); 6, *Poecilocerus bufonius* (N=15; w); 7, *Schistocerca gregaria*-gregarious form (N=10; w); 8, *Schistocerca gregaria*-solitary form (N=11; w). w, winged; nw, non-winged.