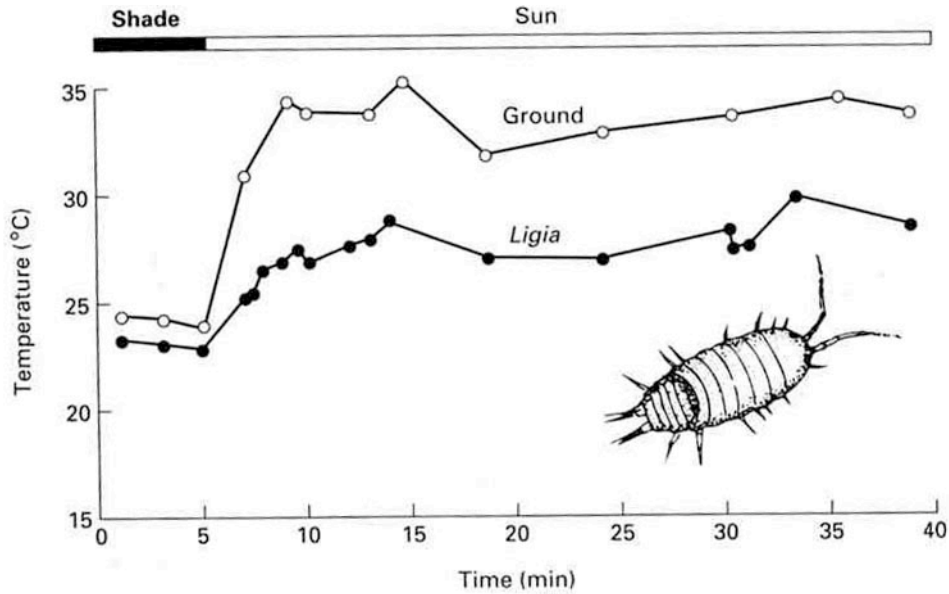


1. The figure below shows the difference between the body temperature of the isopod *Ligia oceanica* and the ground. These data were collected on isopods in exposed areas at 38% relative humidity. Use the figure below to discuss the probable mechanism by which *L. oceanica* maintains a body temperature lower than ambient. How does it work? Under what environmental conditions can this mechanism be used? When does it become dangerous to the isopod?



2. The figure below illustrates the effect of temperature on metabolism of an intertidal species of snail at two times during the year. *Focusing on the data from May*, discuss the biochemical adaptations of enzymes that could allow such temperature-independence in resting metabolism.

