

This is an electronic appendix to the Biology Letter by Knowles et al. 2004 Exploring the consequences of postmating–prezygotic interactions between the sexes. *Proc. R. Soc. Lond. B* (Suppl.) **271**, S357–S359. (DOI 10.1098/rsbl.2004.0192.)

Electronic appendices are refereed with the text. However, no attempt has been made to impose a uniform editorial style on the electronic appendices.

Electronic Appendix A:

Distribution of *D. mojavensis* and *D. arizonae* indicating how the amount of desiccation stress varied among populations for which desiccation resistance was studied, as inferred from the average annual precipitation (cm) and temperature ($^{\circ}\text{C}$) at each locality compiled over the past ten years; climatic data available at <http://www.worldclimate.com>. However, it is difficult to translate average annual temperature and precipitation into a metric of desiccation stress. There is some unavoidable arbitrariness inherent to ranking the populations with these measures. While some populations may differ slightly in their annual temperature and/or precipitation, seasonal patterns of rainfall vary among the sites such that precipitation and temperature interact in different ways (e.g., some populations experience very hot temperatures with no rainfall whereas others are subjected to high temperatures and monsoons). Consequently, population differences in desiccation resistance of unmated females are used as an indicator of environmental stress rather than the annual temperature and precipitation data itself. There is a general correspondence between the desiccation resistance of unmated females and the average annual temperature and precipitation. The study's conclusions therefore seem to be robust to various ways in which environmental stress might be inferred.

Desiccation resistance was characterized for four *D. mojavensis* populations (AB = Anza Borrego, southern California; CI = Santa Catalina Island; GU = Guaymas, Sonora Mexico; EN = Ensenada de los Muertos, Cape region of Baja California), and two *D. arizonae* populations (EN; PE = Peralta Canyon, Arizona).

