**Intraspecific variation in responses to extreme and moderate temperature stress in the wild species, *Solanum carolinense* (Solanaceae)**

**5a) Topics selected from our subject list that best categorize your paper (please let us know if you think a topic needs to be added to our list). The topic list is accessed using the following link: https://academic.oup.com/aobpla/pages/topic\_list**

Ecology, Evolution, Global Change Biology, Stress

**5b) A 50-150-word statement that summarizes the key message(s) of your paper. This is not an abstract; it should be written clearly, concisely, compellingly and with minimal jargon, and be suitable for a general scientific audience.**

Climate change is rapidly altering local temperature regimes. How and in what ways are plant populations responding? We explored this question by examining the temperature tolerance of horsenettle (*Solanum carolinense*)plants from Texas (South) and Minnesota (North) in a two-part study. We first tested vegetative and pollen responses to extreme heat and cold. We found that northern plants were more stable in both temperature stressors, but southern plants may use avoidance strategies in extreme heat. The second experiment was on how reproduction is affected by moderate heat. We found that the size of floral structures and overall reproductive success were severely reduced. Yet, plants that originated from locations with warmer conditions (southern plants) were affected to a lesser extent. We conclude that populations of horsenettle have adapted ways to mitigate temperature stress, which may allow them to persist in the face of unprecedented global change.

**5c) A list of email addresses of colleagues to whom you would like us to send a PDF link to your paper once it is published in its final form.**

**5d) Any social media handles that you would like us to include when promoting your paper on social media (Twitter, Facebook, Mastodon). This would typically include your own personal and/or lab handles and those of any co-authors, and perhaps those of your department/institute/etc.**

Chandler: Twitter or X (@chandler2228)

**5e) The name of any Special Issue for which your paper is being prepared.**

none