Dear Editor,

Please consider our manuscript entitled **“Novel genetic control of migratory diapause in Australian Monarch Butterflies”** for publication in *Molecular Ecology*.

This manuscript describes the first investigation of the genetic underpinnings of the recent re-acquisition of migratory behavior in introduced monarch butterflies in Australia. This is of particular interest because non-migratory monarchs reached Australia following repeated bottlenecks and with correspondingly low genetic diversity but within about 50 years were observed to have display migratory behavior. We here show a previously unobserved genetic association with diapause induction, a critical migratory phenotype. **Our work therefore advances our understanding of not only migration in monarch butterflies, but also of the evolution of migration as a whole.**

We feel that this makes this paper an excellent fit for *Molecular Ecology*, and we expect it to be widely useful to the monarch butterfly community and to migratory ecologists in general. The impact of this paper will be amplified by the recent decision to list migratory monarch butterflies in North America as endangered. Understanding the mechanisms that enable migration in monarch butterflies is therefore particularly timely and important for the general conservation community. Several relevant papers discussing monarchs in the Pacific and Australia and/or the control of migration in the species have been published in *Molecular Ecology* previously, such as our previous paper “*Population genetics of a recent range expansion and subsequent loss of migration in monarch butterflies*” (Hemstrom et al. 2022) and “*Monarch butterflies use an environmentally sensitive, internal timer to control overwintering dynamics”* (Green and Kronforst 2019). We therefore feel that *Molecular Ecology* is the natural place to continue the discussion of monarch migration in Australia.

We declare no conflicts of interest and confirm that this research has not been submitted concurrently to any other journals for publication. A previous version of this text was submitted in partial fulfillment of a Ph.D. dissertation by WH, currently under long-term embargo with ProQuest and not publicly available. Copywrite was not released during that process.

Thank you for your time, and we look forward to your response.

Sincerely,

Will Hemstrom, Micah Freedman, and coauthors