

resulting adult mass, etc.) should be affected in a similar fashion. Results from Bono and Markow (2009) showed that *D. mojavensis* individuals collected from organ pipe had faster emergence times when eggs were oviposited on their host cactus versus the novel cactus, cina. As well, transcriptional differences are also evident and have revealed candidate genes in the adaptation process (Matzkin, 2002 a,b), such as *adh* and *GstDI*.

Taste is one plausible explanation for how *Drosophila* larvae may develop a host preference. The ratio of gustatory to odorant receptors in larvae is larger than in adults, suggesting that taste is more important during the larval stages (Voshall and Stocker, 2007). This may result from the limited mobility of larvae to disperse effectively from their oviposition site (Schoonhoven, 2005). Furthermore, the toxins present in the necrotic tissues of cacti vary greatly (Kircher, 1982), which should force fly species to specialize on one cactus and develop mechanisms, such as a taste preference, to determine their host efficiently. Future taste studies on *Drosophila* prove to be interesting as tests reveal that some flies may share a more similar taste profile to human-preferred sweeteners than some mammals (Gold *et al.*, 2008).

In conclusion, further exploration of the larval feeding rates and taste preferences in *D. mojavensis* is needed. The species has become an important model system for speciation studies (Bono and Markow, 2009), and a better understanding of the ecology is fundamental to enhancing research. I propose that a complete reciprocal study of the feeding rates exhibited by the four subspecies on their cacti hosts will yield promising results in understanding the ecological divergence and adaptation of organisms.

Acknowledgments: I would like to thank Therese Markow for her mentorship during the study and writing process, and Luciano Matzkin for his guidance in the research process. This work was supported by NSF grant OISE 0852575 and the Eng Wilderness Endowment.

References: Bono, J.M., and T.A. Markow 2009, *J. Evol. Biol.* 22: 1387-1395; Green, C., *et al.*, 1983, *J. Anim. Behav.* 31: 282-291; Gordesky-Gold, B., *et al.*, 2008, *Chem. Senses* 30: 301-309; Heed, W.B., 1978, *Ecological Genetics: the Interface* (Brussard, P.F., ed.), pp. 109–126, Springer-Verlag; Heed, W.B., 1982, *Ecological Genetics and Evolution: the Cactus-Yeast-Drosophila Model System* (Barker, J.S.F., and W.T. Starmer, eds.), pp. 65–80. Academic Press, NY; Kircher, H.W., 1982, *Ecological Genetics and Evolution: the Cactus-Yeast-Drosophila Model System* (Barker, J.S.F., and W.T. Starmer, eds.), pp. 143–158. Academic Press, NY; Matzkin, L.M., 2002, *Genetics* 178: 1073-1083; Matzkin, L.M., 2002b, *Mol. Biol. Evol.* 21: 276-285; Matzkin, L.M., *et al.*, 2006, *Mol. Ecol.* 15: 4635-4643; Pefeiler, E., *et al.*, 2009, *J. Nat. Hist.* 43: 923-938; Schoonhoven, L.M., *et al.*, 2005, *Insect-Plant Biology*, pp. 169-208, Oxford; Voshall, L.B., and R.F. Stocker 2007, *Annu. Rev. Neurosci.* 30: 505-533.

VII Symposium on Ecology, Genetics and Evolution of *Drosophila*

The Symposium on Ecology, Genetics and Evolution of *Drosophila* has been organized every two years since 1999 and traditionally brings together the Brazilian community of Drosophilidae researchers, as well as researchers of other countries, dealing with a broad range of issues. The event was initially idealized by Dr. Jean David from the National Center of Scientific Research (CNRS) in France, and the first edition was held in Rio de Janeiro, Brazil, in 1999, organized by Dr. Blanche Christine Bitner-Mathé. Since then, the Symposium on Ecology, Genetics and Evolution of *Drosophila* has been attended also by researchers from other countries of South America, North America, and Europe.

The subsequent events also occurred in Brazil:

II- 2001 – São José do Rio Preto, São Paulo State, under the coordination of Dr. Hermione E.M.C. Bicudo, Dr. Marlene K. Kobayashi, and Dr. Lilian M. Ravazzi.

III- 2003 – Porto Alegre, Rio Grande do Sul State, under the coordination of Dr. Vera L.S. Valente.

IV- 2005 – Campinas, São Paulo State, under the coordination of Dr. Louis Bernard Klaczko.

V- 2007 – Ribeirão Preto, São Paulo State, under the coordination of Dr. Fábio M. Sene and Dr. Maura H. Manfrin.

VI- 2009 – Florianópolis, Santa Catarina State, under the coordination of Dr. Paulo R.P. Hofmann.

These meetings become an excellent opportunity for discussion of new data and challenges, aiming at the development of *Drosophila* research, such as Population and Ecological Genetics, Chromosomal and Molecular Evolution, Systematics Phylogenetics, Genomics, Ecology, and so forth; to summarize, Biodiversity. This is the result of intense research collaborations and the constant dialogue among the various scientific research groups.

The VII Symposium on Ecology, Genetics and Evolution of *Drosophila* will take place in Belém city, Pará State, in November, from the 8th to the 10th, 2011, under the coordination of Dr. Marlucia B. Martins. Notably, this event will be the first to happen in an Amazonian city, with an additional trip to an Amazon Forest Reserve scheduled after the symposium. The subscription will be opened in June, 2011. More information will be available in the symposium site that will be released in May, 2011. Any questions please send an email to: marlucia@museu-goeldi.br.

Guide to Authors

Drosophila Information Service prints short research, technique, and teaching articles, descriptions of new mutations, and other material of general interest to *Drosophila* researchers. The current publication schedule for regular issues is annually, with the official publication date being December. The annual issue will include material submitted during the calendar year. To help us meet this target date, we request that submissions be sent by 15 December, but articles are accepted at any time. A receipt deadline of 31 December is a firm deadline, due to printer submission schedules. Electronic submissions are encouraged, and may be required for lengthy or complex articles.

Manuscripts, orders, and inquiries concerning the regular annual DIS issue should be sent to James Thompson, Department of Zoology, University of Oklahoma, Norman, OK 73019. Telephone (405)-325-4821; email jthompson@ou.edu; FAX (405)-325-7560.

Submission: Articles should be submitted electronically, if possible. Alternatively, we ask that a diskette be included with an article mailed to us. MS Word or Rich Text Formats are preferred. To help minimize editorial costs, proofs will not be sent to authors unless there is some question that needs to be clarified or they are specifically requested by the authors at the time of submission. The editor reserves the right to make minor grammatical, spelling, and stylistic changes if necessary to conform to DIS format and good English usage. If the article contains tables, complex line figures, or half tones, we may ask that a printed copy be mailed to us after seeing the electronic version if we have questions about content or presentation. Color illustrations will appear black and white in the printed version but will be in color in the electronically-accessible version on our web site (www.ou.edu/journals/dis).

Citation of References: Citation should be by name and date in the text of an article (Smith, 1989; Jin and Brown, 1990; Waters *et al.*, 1990). At the end of the article, references should be listed **alphabetically** by senior author, listing all authors with initials, date, journal, volume and page numbers. Titles will not be included except for books, unpublished theses, and articles in press. An example format is:

Green, R.L., 1998, *Heredity* 121: 430-442.

Waters, R.L., J.T. Smith, and R.R. Brown 1990, *J. Genet.* 47: 123-134.