a field-captured inseminated female of *D. grimshawi* continued to produce fertile eggs for almost a year without additional insemination. This example emphasizes the abundance of sperm that can be stored and remain fertile for many months in the spermathecae and ventral receptacle of this species, as well as the enormous numbers of eggs produced per female over her long reproductive life. At any point in time, a mature female of *D. grimshawi* can potentially carry an egg load of 100 or so mature eggs in her ovaries (Craddock and Kambysellis, 1997). For comparative purposes, the egg load parameter (the number of ovarioles per fly times the number of mature eggs per ovariole) provides only a rough measure of potential female fecundity, given the asynchronous nature of ovariole function in these Hawaiian picture wing species and the lack of solid data on reproductive longevities. Of course, realized fecundity is typically less than potential fecundity. By all measures, however, the potential lifetime fecundity of *D. grimshawi* far exceeds that of non-Hawaiian species and in particular, that of *D. melanogaster* and the other ten *Drosophila* species with complete genome sequences. The availability of these sequence data now provides the chance to address many important questions about the molecular basis of evolutionary differences in longevity, reproductive, developmental, and other traits within the genus *Drosophila*.

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**Drosophila suzukii** has been found in tropical Atlantic Rainforest in southeastern Brazil.

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*Drosophila suzukii* (Matsumura, 1931) belongs to the *Drosophila melanogaster* species group, probably native to the southeastern Palaearctic region (Bächli, 2013). Its ability to feed and breed in healthy fruits led it to become an agricultural pest. *D. suzukii* is an invasive species, being recorded in North America...
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(Oxidative stress and longevity: Evidence from a long-lived strain of Drosophila melanogaster.

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Oxidative stress is one of the inescapable outcomes of the cellular processes. Reactive oxygen species (ROS) is one such contributor to the oxidative stress. Oxidative stress is implicated in aging and