

SEXUAL DIMORPHISM AND SEXUAL SELECTION IN HAWAIIAN DROSOPHILA

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Many of the large picture-winged Drosophila species of the Hawaiian islands display striking sexual dimorphism. Although some characters appear to serve the male in territorial battles with other males, most appear to serve a type of sexual selection based on female choice among a field of variable males. In habitat, host plants, altitudinal range and female morphology a number of newly-evolved Big Island species resemble their close counterparts on the older Maui complex of islands. Males of the Big Island species, on the other hand, frequently show novel characters. Examples of these characters will be illustrated. The suggestion will be made that the mating system based on altered sexual selection and female choice is one of the first crucial changes to occur as new species are formed. Supported by NSF Grant DEB79-26692.