Nectar guide fluctuating asymmetry does not relate to female fitness in Mimulus luteus

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Most studies assessing the importance of developmental instability of floral characters for pollinator visits and plant fitness have focused on the fluctuating asymmetry (FA) of the corolla phenotype. The importance of stability process for nectar guide characters that signal floral reward has not been considered in the literature. In principle, flowers with symmetrical guides should be more successful at attracting pollinators, therefore increasing their reproductive success in comparison to asymmetrical flowers. In this paper we test this hypothesis in a population of 171 individuals of the Andean monkey flower, Mimulus luteus in northern Chile. This species shows a conspicuous red spot in the landing yellow petal, which permits assessment of the functional relationship between nectar guide FA and female fitness. Our results did not reveal a significant linear nor nonlinear relationship between nectar guide FA and fitness. This result was consistent after controlling the level of FA