

understanding the genetic basis of local adaptation and the mechanistic nature of spatially varying selection.

An effective means of discriminating between adaptive and nonadaptive processes acting in populations involves comparing relative levels of between-population differentiation using neutral molecular markers (as measured by F

unbiased gene diversity (H_E) of these microsatellite loci were relatively uniform across the eight populations, and the inbreeding coefficient (F_{IS}) was not significantly different from zero in any population. Across all popu-

processes, such as vicariance events followed by secondary contact, founder events during population expansion and spatially structured populations with restricted gene flow (Vasemagi 2006). Therefore, evaluating the relative importance of neutral and adaptive processes as determinants of differentiation in quantitative traits among populations is a central theme of evolutionary biology (McKay & Latta 2002; Whitlock 2008).

traits in the F_2 population (Fig. 2d and Fig. S1C, Supporting information).

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