

Molecular variation in the phosphoglucose isomerase (Pgi) locus and metapopulation dynamics of the Glanville fritillary butterfly

Field and laboratory studies on the Glanville fritillary butterfly have documented strong and consistent association between molecular variation in the Pgi locus and variation in flight metabolic rate, dispersal rate in the field, body temperature in low ambient temperatures, egg clutch size, and lifespan. This raises questions about the molecular mechanisms, trade-offs that maintain polymorphism, and population dynamic consequences.