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Radish correlations and constraints

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Genetic correlations between two phenotypic traits can impose constraints on evolutionary change. Genetic correlation may be caused by pleiotropy, in which one genetic locus affects both traits, or by linkage disequilibrium, in which evolution maintains a non-random association between alleles at two distinct loci. In the November 28 *Nature* Jeffrey Conner from [Michigan State University](http://www.msu.edu) describes correlations and constraints that influence the evolution of floral traits (*Nature* 2002, **420**:407-410). Conner studied six traits in a natural population of wild radish, *Raphanus raphanistrum*, an obligate outcrosser. After nine generations of random mating (that is, nine episodes of recombination), there were no significant changes in the genetic correlations between floral traits, implying that pleiotropy is the underlying genetic mechanism responsible for the correlations.

References

1. *Nature*, [<http://www.nature.com>]
2. Michigan State University , [<http://www.msu.edu>]
3. Tests for major genes affecting quantitative traits in wild radish, *Raphanus raphanistrum*.