

The 'rare allele phenomenon' in a ribosomal spacer

Abstract

We describe the increased frequency of a particular length variant of the internal transcribed spacer 1 (ITS-1) of the ribosomal DNA in a hybrid zone of the land snail *Albinaria hippolyti*. The phenomenon that normally rare alleles or other markers can increase in frequency in the centre of hybrid zones is not new. Under the term 'hybrizyme' or 'rare allele' phenomenon it has been recorded in many organisms and different genetic markers. However, this is the first time that it has been found in a multicopy locus. On the one hand, the pattern fits well with the view that purifying selection in hybrid populations works on many loci across the genome and should thus have its effect on many independent molecular markers. On the other hand, the results are puzzling, given that the multiple copies of rDNA are not expected to respond in unison. We suggest two possible explanations for these conflicting observations.