

SIXTH CONGRESS
of the
EUROPEAN SOCIETY
for
EVOLUTIONARY BIOLOGY

24 - 28 August 1997

Arnhem, The Netherlands

**PROGRAMME
ABSTRACTS**

ESEB

Developmental instability in haplodiploid spider mites.

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In mites, pattern and number of leg setae and solenidia are well defined and species-specific. These bilateral traits commonly show discrete (meristic) variations. Random deviations from a perfect bilateral symmetry i.e. fluctuating asymmetry (FA) is considered as a good indicator of developmental stability. In two-spotted spider mites (*Tetranychus urticae*) fertilized eggs give rise to diploid females and unfertilized eggs to haploid males. Fluctuating asymmetry of leg setae and solenidia was investigated in a laboratory strain and in two wild populations of *Tetranychus urticae*. In the laboratory strain, meristic variations of each trait were independent and their heritability was nil. The level of FA was higher in the laboratory strain than in the two wild populations and the variable traits differed from one population to another. In the 3 populations studied, haploid males consistently showed more fluctuating asymmetry than diploid females. The effects of the level of ploidy and heterozygosity on mites developmental stability will be discussed.