

1. *Definition of genetic load*: Genetic load of a population in CROW'S sense (CROW 1958) refers to the amount by which population fitness is decreased through natural selection acting on genotypic differences. It may either be expressed in terms of selective values or Malthusian parameters depending on whether the continuous or discrete model is used to describe generation time (cf. KIMURA 1958).

2. *Kinds of genetic load*: (i) *Mutational load* results from elimination of harmful mutations. (ii) *Segregational load* arises when heterotic genes (*overdominance load*) or a meiotic drive mechanism (*distortional load*) is involved.

(iii) *Dysmetric load*, term proposed by HALDANE (unpublished), refers to a load which may be created when there is a "division of labor" between genotypes.

(iv) *Internal vrs. external load*; The former refers to the decrease of fitness relative to the optimum genotype and thus relates to intragroup selection, while the latter refers to that relative to the optimum condition and therefore relates to intergroup selection. (v) *Substitutional (evolutional load)* is a cost of natural selection (cf. HALDANE, 1957) which is required in the process of substituting one allele by another through natural selection.

3. *Principle of minimum genetic load*: This is a hypothesis that in the course of evolution important genetic parameters tend to be adjusted in such direction that the total genetic load will be minimized. More specifically, the spontaneous mutation rate and degree of dominance of mutant genes may be adjusted such that the sum of the mutational and the segregational load