## Genetics and Population Genetics of Grasshoppers and Locusts—A Bibliography

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As biological entities, acridids have provided fascinating material for investigators of topics such as phase transformation, phenotypic plasticity, diapause, chromosomal evolution and neurophysiology. Unfortunately, few biologists have concerned themselves with the genetics of these insects of which certain species are considered among the most destructive pests in the world. The literature on acridid genetics and associated areas is not abundant but during the past 10 years there has been a noticeable increase in the number of publications devoted to the subject. Partly because references are scattered in a wide variety of journals and partly to kindle interest in the genetics of a very important group of insects, this bibliography has been compiled. Each reference is classified according to one or more of the following categories: (1) formal genetics studies in which crosses were made and Mendelian patterns demonstrated; (2) studies in which crosses were made but conclusions were unclear; (3) cases not involving crosses but in which inheritance is inferred; (4) studies involving maternal effects; (5) quantitative genetics studies; (6) population studies of genes with elucidated transmission patterns; (7) population studies of phenotypes for which the genetics is unclear or has not been investigated; (8) phenogenetics associated with already studied genetic markers; (9) molecular genetics studies; (10) genetic studies mentioned in review articles; and (11) studies involving morphological aberrations. No attempt is made to reproduce the prodigious cytological literature except for those articles concerned with the inheritance of chromosome behavior.

Library computer literature searches (AGRICOLA and BIOSIS PREVIEWS), bibliography lists in the journal Acrida, and the literature citations of accumulated articles provided sources for this bibliography.

## Bibliography

- ALICATA, P. e D. CARUSO. 1970. Prime osservazioni sul determinismo genetico del policromatismo in Eyprepocnemis plorans plorans (Char.). (Orthoptera, Acrididae). Boll. Sedute Accad. Gioena Sci. Nat. Catania 10:264-266.(1)
- ALBRECHT, F.O., M. VERDIER, and R.E. BLACKLITH. 1959. Maternal control of ovariole number in the progeny of the migratory locust. Nature (London) 184:103-104.(4)
- BARTON, N.H. and G.M. HEWITT. 1981. The genetic basis of hybrid inviability in the grasshopper <u>Podisma pedestris</u>. Heredity 47:367-383.(5,7)
- BLACKLITH, R.E. and R.M. BLACKLITH. 1969. Variation of shape and of discrete anatomical characters in the morabine grasshoppers. Aust. J. Zool. 17:697-718.(5)
- BLACKMAN, M.W. 1912. On a supernumerary median ocellus in Melanoplus femurrubrum. Psyche 19:92-96.(II)
- BOUTHIER, A. 1966. Modifications des pigments (ommochromes et pterines) en relation avec la mutation albinos chez <u>Locusta migratoria cinerascens</u> Fabr. (Orthoptères, Acrididae). C.R. Acad. Sc. Paris 262:1480-1483.(8)