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Comparative Cytogenetics and Molecular Systematics of Insects

Guest Editors:

Prof. Dr. Valentina G. Kuznetsova

Zoological Institute Russian Academy of Sciences, St. Petersburg, Russia

Dr. Nazar A. Shapoval

Zoological Institute Russian Academy of Sciences, St. Petersburg, Russia

Dr. Natalia V. Golub

Zoological Institute Russian Academy of Sciences, St. Petersburg, Russia

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Message from the Guest Editors

Comparative cytogenetics has been widely applied to many insect species through routine and banding chromosome staining methods, FISH, GISH, chromosomal painting, etc. These approaches permit identifying chromosomal homology, rearrangements, and breakpoints in addition to differentiating the parental genomes in hybrids. However, many pathways of karyotype evolution, mechanisms promoting fixation of chromosome changes, and the processes leading to divergence and speciation remain understudied. With the relatively recent advent of DNA-based approaches, DNA has become a major source of information for taxonomic and phylogenetic inference.

This Special Issue aims to bring together new cytogenetic and sequence data and highlight the role and prospects of their combined use for understanding chromosomal and molecular evolution in Insecta. All contributions related to evolutionary and comparative cytogenetics and molecular systematics of various insect lineages and taxa are of interest. We particularly welcome articles that identify general trends regarding the use of each type of data. For the Issue, original research articles, reviews, and opinion articles are welcome



