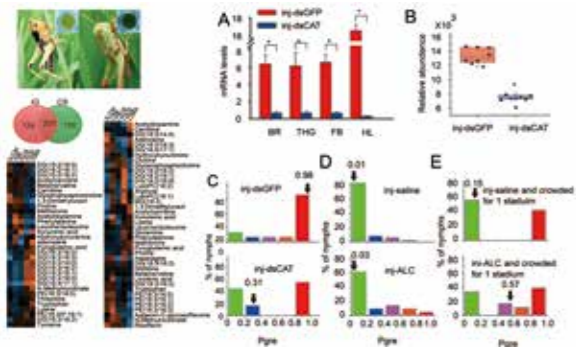


Kang Le, Institute of zoology, Chinese Academy of Sciences

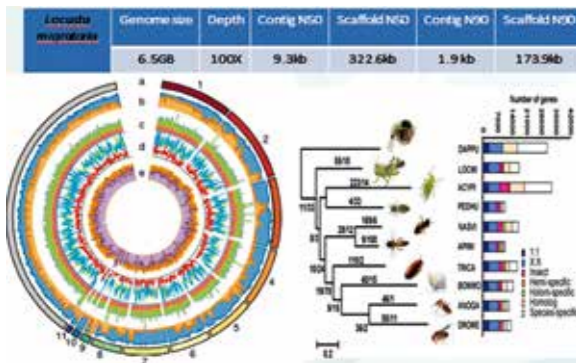


Dr. Le Kang is an internationally recognized pioneer in ecological genomics. He has been devoting himself to solve ecological and adaptive questions of insects by integrating multiple approaches from molecular, gene, genome to behavior. He has achieved outstanding accomplishments in mechanism of population outbreaks and regulation using the migratory locust as a model system. He and his colleagues decoded a 6.5 Gb whole genome sequence of the migratory locust, which is the largest animal genome sequenced so far, and revealed genetic myth of genome expansion, long-distance flight, phytophagy and swarming. In locust polyphenism, he discovered the key roles of olfactory genes and dopamine pathway in the initiation and maintenance of locust phase change, and revealed epigenetic regulatory mechanisms of locust phenotypic plasticity. He uncovered the origin and dispersal route of the migratory locust in the world, and revealed population genetics and adaptive differentiation linked with environmental changes. Moreover, Dr. Kang and his collaborators also revealed the secret of outbreaks of grasshoppers due to steppe degradation under heavy livestock grazing, which can significantly the nitrogen content of plants. These finding offers new insight into the biology and sustainable management of insect pests.

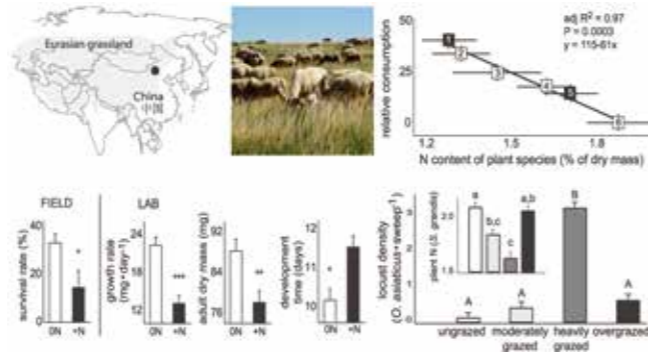
母代 miR-276 通过上调 brm 促进飞蝗后代卵一致性发育
miR-276 promotes egg hatching synchrony by upregulating brm in locusts



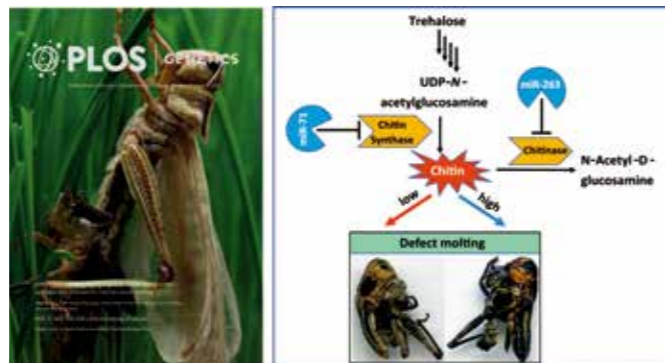
代谢组分析揭示肉碱类代谢物在飞蝗行为转变中的关键调控作用
Regulatory metabolites in phase transition of the locusts



飞蝗基因组揭示其食性及远距离迁飞的遗传基础
The locust genome provides insight into phytophagy and



重度放牧通过降低植物 N 含量促进亚洲小车蝗爆发
Transposable element-mediated balancing selection at



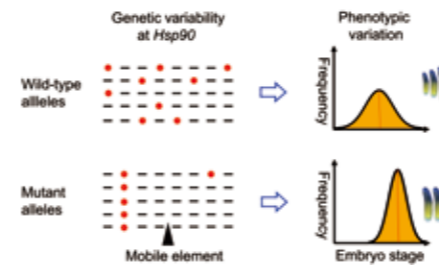
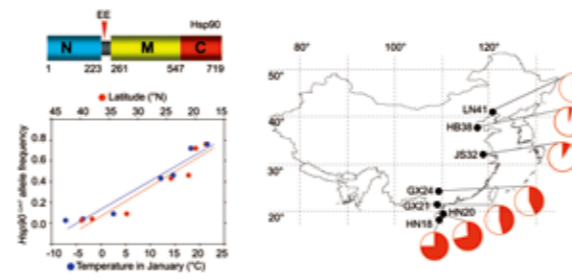
MiR-71 和 miR-263 共同调控飞蝗几丁质代谢和蜕皮
chitinase to control locust molting



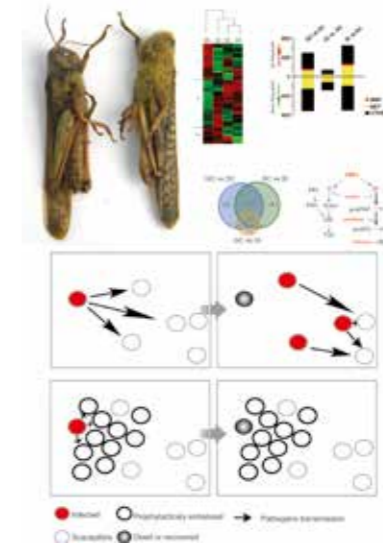
康乐
Kang Le

推荐单位：中国科学院动物研究所

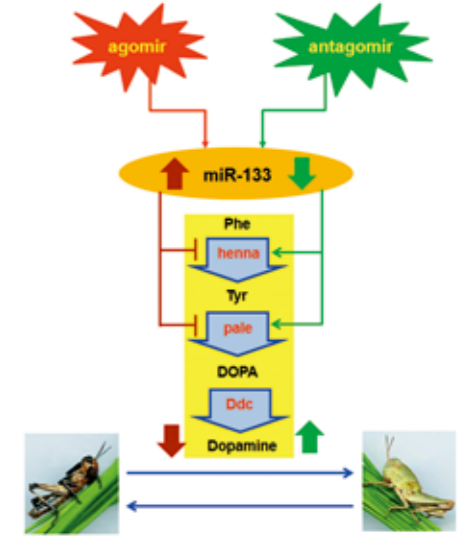
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转座因子介导的平衡选择作用于 Hsp90 控制飞蝗胚胎发育变异
Transposable element-mediated balancing selection at



飞蝗生态免疫分子机制研究
Molecular mechanisms of locust ecological immunology



miR-133 通过控制飞蝗多巴胺合成而抑制群聚行为
miR-133 inhibits behavioral aggregation by controlling dopamine synthesis in locusts