

## 果蝇亚群中六个种的求爱歌的研究——对ipi作用的研究

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**摘要** 据认为果蝇求爱歌的脉冲间隔 (ipi) 在种特异性配偶认识系统 (SMRS) 中起着重要的作用。果蝇 *D. takahashii* 亚群中各物种求爱歌的ipi值和种间亲缘关系的相关性如何? 迄今尚未见报道。我们测定了此亚群中能饲养存活的6个种的ipi, 并用O'Farrell双向电泳方法及杂交实验研究了它们之间的亲缘关系。在近缘种 *D. takahashii* 和 *D. lutescens* 之间, *D. takehashii* 和 *D. paralutea* 之间, *D. lutescens* 和 *D. paralutea* 之间, 其求爱歌的ipi值, 不论平均数或众数都相差甚远。而 *D. paralutea* 和 *D. prostipennis* 是2个亲缘关系较远的种, 两者不能杂交, 但其ipi的平均数在统计学上无差异, 众数亦很相近。本实验可导出这样的见解: ipi值在不同果蝇种群或亚群的SMRS中的作用可能并不相同。在 *D. takahashii* 亚群中ipi值对于杂交成败似乎不起支配性作用。

**关键词** [果蝇求爱歌的脉冲间隔 \(ipi\)](#), [种特异性配偶认识系统 \(SMRS\)](#), [D.takahashii亚群](#)

分类号

## Study on the Courtship Song of Six Species in *Drosophila takehashii* Species Subgroup

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### Abstract

It is said that the interpulse interval (ipi) plays an important role in the Specific Mate Recognition System (SMRS). So far, there has been no report about the relation between the ipi value and the interspecies relationship in *D. takahashii* species subgroup. We have measured the ipi values of six species in *D. takahashii* species subgroup, and studied the relationship between these species by O'Farrell two dimensional electrophoresis and hybridization experiments. Although *D. takehashii*, *D. lutescens*, *D. paralutea* can be experimentally intercrossed between them, the ipi values, mean or modal, are clearly different. On the contrary, *D. paralutea* and *D. prostipennis* are not significantly different in their mean or modal value, but they can not be intercrossed. According to the results of our experiments, we suggest that the function of ipi, key parameter of courtship song, is not the same in their mating behavior in different *Drosophila* species group or subgroups. It seems that the ipi values, mean or modal, of *D. takahashii* species subgroup are not a dominant factor in their mating behavior.

**Key words** [Interpulse interval \(ipi\)](#) [Specific Mate Recognition System \(SMRS\)](#) [D.takahashii species subgroup](#)

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