

用RAPD技术检测野生鲫鱼的四个金鱼代表品种的基因组DNA多态性 Detection of the Genomic DNA Polymorphisms in the Wild Crucian and Four Representative Varieties of Goldfish Using RAPD Technique

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收稿日期 修回日期 网络版发布日期 接受日期

摘要 利用随机扩增多态DNA技术检测了两个不同地区的野生鲫鱼(*Carassius auratus* L.)和4个金鱼(*Carassius auratus* Var.)代表品种的基因组DNA的多态性。用26个随机引物对各品种实验鱼的基因组DNA进行扩增, 平均每个品种观察到约134个标记, 单个引物获得的标记在1-16个之间。实验结果经统计学分析表明, 金鱼和鲫鱼的随机扩增多态DNA共享度高, 进一步证实了金鱼由野生鲫鱼演化而来, 聚类结果表明, 草金鱼形成后, 首先演化为文种鱼, 然后由文种再形成龙种和蛋种两个品系。

Abstract: Genomic DNA polymorphisms in the wild crucian from two different areas and in four representative varieties of goldfish were detected by using random amplified polymorphic DNA (RAPD) technique. The genomic DNA of each variety of fish was amplified with 26 primers. On average, about 134 RAPD markers were observed by each variety. The markers obtained by a single primer varied from 1 to 16. The statistical analysis of the experimental results indicated that random amplified polymorphic DNA of the goldfish and wild crucian have a high proportion of random amplified polymorphic DNA fragment shared. This further verified that goldfish is evolved from wild crucian. The cluster analysis suggested that after emerging, grass goldfish is evolved to wen goldfish, then through wen goldfish evolved to dragon eye goldfish and oval goldfish.

关键词 [鲫鱼](#) [金鱼](#) [RAPD](#) [系统演化](#) [Key words](#) [Wild crucian](#) [Goldfish](#) [RAPD](#) [Systematic evolution](#)

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