

研究报告

利用17个微卫星标记分析鳊鱼的遗传多样性

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摘要 选用本实验室克隆的17个鳊鱼微卫星分子标记分析四川泸州和江西鄱阳湖的两个种群鳊鱼的遗传多样性及种质特性, 计算和统计了杂合度、多态信息含量(PIC)、有效等位基因数、等位基因频率、遗传距离、遗传相似系数、Hardy-Weinberg平衡偏离指数等方面内容。结果表明: 选择使用17个微卫星标记, 其中有4个为单态标记, 13个为多态标记。江西和四川鳊鱼群体每个微卫星位点的平均等位基因数分别为3.325及3.882, 平均有效等位基因数分别为3.531及2.676, 多态位点百分率分别为82.4及70.5, 17个微卫星标记共有等位基因71个, 多态微卫星位点的PIC在0.114~0.960之间变动, 平均为0.417, 两群体位点平均观测杂合度为0.385和0.452, 平均期望杂合度为0.360和0.422, 两个群体间的遗传相似系数为0.897, 群体间的遗传距离为0.109。

关键词 [微卫星标记](#), [鳊鱼](#), [遗传多样性](#), [等位基因频率](#)

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Analyzing the genetic diversity of *Aristichthys nobilis* in China with 17 microsatellite markers

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Abstract

Selected 17 microsatellite markers of *Aristichthys nobilis* prepared by our lab to analyze the genetic diversity and characteristic of two population of *Aristichthys nobilis* coming from Jiangxi and Sichuan, calculated and statistic heterozygosity, polymorphism information content(PIC)、valid allele number、allele frequency、genetic distance、genetic similarity coefficient、Hardy-Weinberg balance deflection index and so on. The results show that there have 4 monomorphism markers and 13 polymorphism markers among 17 selected microsatellite markers. The average of allele number in each microsatellite loci of Jiangxi population and Sichuan population is 3.325 and 3.882 separately, the average of valid allele number is 3.531 and 2.676 separately, and the number of total allele of these 17 microsatellite loci is 71. The PIC of polymorphism loci is changed between 0.114~0.960, and the average of PIC is 0.417. The average of Ho of two population is 0.385 and 0.452 separately, the He average is 0.360 and 0.422 separately. The genetic similarity coefficient of two populations of *Aristichthys nobilis* is 0.897 and the genetic distance of these populations is 0.109.

Key words [microsatellite marker](#) [Aristichthys nobilis](#) [genetic diversity](#) [allele frequency](#)

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