

新疆三种雅罗鱼属鱼类mtDNA D-loop多态性及起源分化分析
Polymorphism and Original Analysis of mtDNA D-loop of Three Leuciscus Species in Xinjiang

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摘要 用PCR-RFLP技术, 对新疆分布的准噶尔雅罗鱼、贝加尔雅罗鱼和高体雅罗鱼的mtDNA D-loop高变区约827bp进行了扩增, 用ScaI、HinfI、AluI、DdeI 4种限制性内切核酸酶对56个样本的扩增产物酶切和RFLP分析, 共检测到6种单倍型。准噶尔雅罗鱼存在2种单倍型: BDAA和BDDBA; 贝加尔雅罗鱼存在3种: AAAA、ABAA和ACAA; 高体雅罗鱼只有1种。初步认为, 准噶尔雅罗鱼、贝加尔雅罗鱼存在较丰富的群体内变异。用6种单倍型及净遗传距离绘制的UPGMA分子系统树, 提示准噶尔雅罗鱼有可能是原始种, 贝加尔雅罗鱼和高体雅罗鱼是由准噶尔雅罗鱼进化而来。

Abstract: PCR-RFLP technique was employed to amplify about 827bp of mtDNA D-loop hypervariable region of Leuciscus baicalensis, L. merzbacheri and L. idus in Xinjiang. The PCR products of 56 samples with four restriction enzymes were digested: ScaI, HinfI, AluI, DdeI, and RFLP analysis was done then. The study indicates that all of L. species and populations have six haplotypes, L. merzbacheri has two haplotypes: BDAA, BDDBA; L. baicalensis has three: AAAA, ABAA, ACAA; L. idus has one: CAAA. It is primarily considered that L. merzbacheri and L. baicalensis have more intra-population mutations. The UPGMA trees with 6 haplotypes and net genetics distance pointed out that L. merzbacheri might be original species, L. baicalensis and L. idus are evolved from L. merzbacheri.

关键词 新疆三种雅罗鱼 mtDNA D-loop PCR-RFLP 多态性 进化 Key words three Leuciscus species in Xinjiang mtDNA D-loop PCR-RFLP polymorphism evolution

分类号

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