عنوان مقاله:

Evaluation of genetic differences in Litopenaeus vannamei shrimp of different generations by ۱۶S rRNA gene

محل انتشار:

ششمین کنگره بین المللی تحقیقات شیلات و آبزیان (سال: 1401)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

This study aimed to determine the genetic differences between different generations of Litopenaeus vannamei by the ۱۶s rRNA mitochondrial genome. The results indicated that out of ۴۸۶ identified sites, ۴۸۴ were protected. the monomorphic position was in the range of ۴۸۶-۴۸۲ and included two polymorphic and two transitional positions. Only two haplotypes were identified, with haplotypes and nucleotide diversity of ۰.۳۵۶ and ۰.۰۰۱۴۷, respectively, indicating the low diversity of haplotype and nucleotide in different generations of L. vannamei. Due to the high genetic identity of the different generations of shrimp and the decrease in the genetic distance between them, the genetic differentiation and gene flow between the different generations of the shrimp were -۰.۱۴۲ and -۲.۰۰, respectively, which may be due to the shrinkage of the effective population and drift. Since the mitochondrial genome is passed from the female broodstock to the post-larval, its diversity is likely to be affected by various factors, including genetic drift. Therefore, no genetic distinction between different generations of shrimp was observed due to the high protection of the mitochondria genome in the ۱۶s rRNA region.

کلمات کلیدی:

Litopenaeus vannamei, Mitochondrial genome, ۱۶s rRNA region, Genetic differentiation

لینک ثابت مقاله در پایگاه سیویلیکا: