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植物诱变育种·农业生物技术

空间搭载贡氏圆尾鲖(*Nothobranchius guentheri*)受精卵的孵化与生长观察

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摘要： 神舟七号载人飞船搭载的贡氏圆尾鲖(*Nothobranchius guentheri*)受精卵经空间诱变后返回地面,与地面组进行孵化率、仔鱼畸形率、生长速度、个体大小、存活率的比较观察试验。结果表明:搭载组与地面组受精卵的孵化率分别为99.3%和97.2%,差异不显著;仔鱼畸形率分别为10.4%、16.8%,差异不显著;但搭载组雄性鱼的生长速度为0.094g/d,大于地面组的0.059g/d,差异显著;搭载组雄性鱼个体大于地面组雄性鱼,差异显著;搭载组鱼苗培育存活率为66.7%,高于地面组的47.9%,差异显著。试验初步观察结果标明:空间诱变的鲖鱼卵,孵化后鱼苗生长速度较快,抗逆性强,存活率较高。

关键词： 空间搭载 贡氏圆尾鲖 受精卵 孵化率 生长速率

HATCHING RATE AND GROWTH RATE OF *Nothobranchius guentheri* FERTILIZED EGGS AFTER SPACE FLIGHT

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Abstract: Hatching, abnormal, growth and survival rate of the fertilized eggs of *Nothobranchius guentheri* whitc were carried by Shenzhou 7 spacecraft were studied. The results indicated that the hatching and abnormal rate were no significant difference between the spaceflight group(99.3% and 16.8%) and ground group(97.2% and 10.4%);but the growth rate of male fish from spaceflight group was significant higher (0.094g/d) than that of ground group (0.059g/d), leading to the significant bigger of the male fish from spaceflight group. The survival rate of spaceflight group (66.7%) was higher than the ground group (47.9%). It was concluded that there was a higher growth and survival rate of *Nothobranchius guentheri* fertilized eggs after space flight.

Keywords: space flight *Nothobranchius guentheri* fertilized egg hatching rate growth rate

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