

番鸭、连城鸭及其属间杂种的体细胞染色体比较

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摘要 采用胚胎组织细胞和外周血白细胞短期培养法, 分析了番鸭、连城鸭及其属间杂种F1的体细胞染色体核型。番鸭的染色体 $2n=78$, 连城鸭 $2n=78\pm$ 。它们的第1、2对常染色体分别为亚中或中间着丝点, 其余均为近端着丝点; 性染色体ZZ-ZW按大小顺序排列, Z为4, W为7-8。番鸭的Z和W染色体均属近端着丝点; 连城鸭的Z染色体具明显短臂, 属亚端着丝点, W染色体不具短臂, 属近端着丝点, 杂种F1与亲本比较, 染色体数目相同, 但总臂数不同; 第1、2对常染色体着丝点指数和臂比介于两亲本之间, 其两个同源姐妹染色体的臂比分别偏向于父本和母本; 性染色体着丝点位置具备两亲本的特点。可作为鉴定属间杂种真实性的依据。

关键词

分类号

A Comparative Study on Chromosomes of Muscovy Duck, Liancheng Duck and Their Intergeneric Hybrid

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Abstract

This paper reports the investigation of the chromosomes of hybrid F1 by Muscovy duck ♂ (*Cairina moschata* L.) × Liancheng duck ♀ (*Anas platyrhynchos* var. *domestica*) and their parents. Chromosomal preparations were made from cultured embryonic cells and peripheral blood leucocytes. Some interesting facts have been found in our experiment:

1. The diploid chromosome numbers of two species and their intergeneric hybrid are the same ($2n=78$). But their total numbers of chromosome arms are different [N.F.: Muscovy duck-82; Liancheng duck-84 (♂) or 83 (♀); F1-83 (♂) or 82 (♀)].
2. Both the centromeric index and arm ratio of the 1st and 2nd pair of chromosomes in hybrid show that they are the intermediate type of their parents.
3. One of the Z-chromosome of the male hybrid is a subtelocentric chromosome with an obviously short arm, while the other is an acrocentric one without a short arm. It is evidently shown that they are descendants from different parents. This contributes much to confirm the Mendel's law of segregation by means of the characteristic variance of centromeric position of sexual chromosome and rectify the authenticity of hybrid of descendant from different species.

Key words

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