鹿属(Cervus)染色体组型的进化

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摘要 鹿属共9个种,除去已绝灭的熊氏鹿(Cervus shomburgki)外,现存者8个种。作者对其中的6个种的染色体组型用外周血培养方法进行了研究。加上文献中已报道的材料,对鹿属中染色体组型已进行分析的共有7个种、13个亚种。对这些材料所进行的分析表明,鹿属动物在进化过程中,X染色体是很保守的,而常染色体的变化,无论是种间还是种内,全是2n数每增加1条,中部或亚中部着丝点染色体数就减少1条,而端着丝点染色体数就增加2条,反之亦然。结合对鹿属古生物学资料和现代各个种的地理分布的分析,作者认为,鹿属染色体进化的主要机制是罗伯逊断裂,即一条中部(亚中部)着丝点染色体在着丝点部位断裂成为两条端着丝点染色体。

关键词

分类号

Evolution of Karyotype of the Genus Cervus

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Abstract

There are nine species in the genus Cervus. One of them (C.shomburgki) is extinct, while the other 8 species are still alive. Karyotype of the six of them was analysed by means of hemoculture. Together with the published data in literature, there are totally seven species (13 subspecies), which have been analysed karyotyplcally. The analysis of these data shows that in the process of evolution the X chromosomes are as conservative as those in other mammals and the intraspecific and interspecific changes of autosomes follow such a rule: the increase of one chromosome in 2n number is always accompanied by the increase of two acrocentrics and the decrease of one metacentric or submetacentric, and vice versa. Referring to the palaeontological data and the geographical distribution of existing species, the authors come to the conclusion that the main mechanism of chromosome evolution of Cervus is the Robertsonian fission, a metacentric or submetacentric fission in the centric region into two acrocentrics.

Key words

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