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**A PRELIMINARY REPORT IN ROBERTSONIAN
KARYOTYPE VARIATION IN LONG-TAILED HOUSE MICE
(*MUS MUSCULUS DOMESTICUS* RUTTY 1772)
FROM MADEIRA ISLANDS.**

By MARIA DA LUZ MATHIAS* & MARIA DA GRAÇA RAMALHINHO**

ABSTRACT. In the present note some preliminary results of chromosomal analyses on the House Mouse (*Mus musculus domesticus*) captured in three islands of the archipelago of Madeira - namely Madeira proper, Porto Santo and Deserta Grande - are presented.

It is for the first time that chromosomal alteration of Robertsonian changes are referred to in macaronesian populations.

RESUMO. RELATÓRIO PRELIMINAR DA VARIAÇÃO CARIOTÍPICA DE TIPO ROBERTSONIANA NO RATO DOMÉSTICO. Nesta nota são apresentados resultados preliminares de análises cromosómicas realizadas em ratos-caseiros (*Mus musculus domesticus*), capturados em três ilhas do arquipélago da Madeira: Madeira, Porto Santo e Deserta Grande. Pela primeira vez são referidas em populações da Macaronésia alterações cromosómicas do tipo Robertsoniano.

The standard somatic-cell karyotype of the Long-tailed House Mouse (*Mus musculus domesticus* RUTTY 1772) consists of 40 all - acrocentric chromosomes. However, since 1970, several karyotypically transformed chromosomal races have been described with reduced diploid numbers due to Robertsonian fusions (e.g. GROPP *et al.* 1970; CAPANNA & RISCASSI 1977; ADOLPH & KLEIN 1981; CAPANNA & CORTI 1982; WINKING *et al.* 1988).

* INIC, Centro de Fauna Portuguesa, Departamento de Zoologia, Faculdade de Ciências, Campo Grande, 1700 Lisboa, Portugal.

** Museu Bocage, Rua da Escola Politécnica, 1200 Lisboa, Portugal.

In this study we report the results of a karyotypic analysis performed in House Mice caught in the Madeira archipelago. Bonemarrow preparations were made from ten mice: seven from Madeira (3 males, 4 females), one from Porto Santo (1 female) and two from Deserta Grande (1 male, 1 female).

Table 1 summarizes the karyological details of these specimens. For the first time Long-tailed mice with metacentric chromosomes in their karyotypes are reported for Macaronesian islands.

In Madeira proper, each one of the analysed mice carried large biarmed chromosomes. However, of the seven tested mice only three were in a homozygote condition, one from Bom Sucesso ($2n=26$) and two from Santa Cruz ($2n=22$). In the remainder, one caught at Funchal ($2n=37$) and three more at the nearby locality of Bom Sucesso ($2n=23$), translocations were in a heterozygote state. Mice on the other islands all were of the standard karyotype. This evidence may suggest different origin or period of introduction, via boat traffic.

Island / Locality	Nr.mice	sex	2n	Nr.metacentric chromosomes
MADEIRA				
Funchal	1	male	37	3
Bom Sucesso	4	females	23,26	17,14
Santa Cruz	2	males	22	18
PORTO SANTO				
Serra de Dentro	1	female	40	-
DESERTA GRANDE	2	male, female	40	-

TABLE 1. Mice examined for Robertsonian translocations

In fact, up to quite recently mice were thought to have been living in the Madeira archipelago since the establishment of the first Portuguese settlers, in the 15th century (*e.g.* SILVA & MENESES, 1945; SARMENTO, 1948). However, subfossil remains found at Ponta de S.Lourenço in the Madeira island (PIEPER, 1981) seem to indicate that at least to this island mice arrived long before (MATHIAS & MIRA, 1992). Chromosomal differentiation among islands populations may also indicate little or no gene flow between them over a considerable period of time.

Further information on chromosomes of Long-tailed Madeiran mice will be included in a forthcoming paper.

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