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THE MITOTIC CHROMOSOMES OF A MACROPOD  
HYBRID

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SUMMARY

A mitotic chromosome count of  $2n = 18$  was obtained for both progeny, ♂ and ♀, of *Wallabia agilis* (Gould), ( $2n = 16$ ) x *Megaleia rufa* (Desmarest), ( $2n = 20$ ).

In a yard at Hermitage Research Station, Warwick, a male agile wallaby (*Wallabia agilis* (Gould)) was observed mating with two female red kangaroos (*Megaleia rufa* (Desmarest)) and by late 1970 these females were carrying furred pouch young of phenotypic appearance intermediate between the species.

After eviction from the pouch both hybrids were extremely active in comparison with normal red kangaroo young and spent most of the time for some months suckling, attempting to suckle and generally clawing at the pouch opening. Under such continual harassment the mothers lost condition (see for example, as in Figure 1).

The mitotic chromosomes of parents and progeny were examined using the method of Tjio and Whang (1962).

Results are illustrated in Figures 2-5. Those for *W. agilis*  $2n = 16$  and *M. rufa*  $2n = 20$  are as previously recorded by Sharman (1961), while a count of  $2n = 18$  was obtained for both progeny (♂ and ♀).

A study of the pachytene and diplotene stages of meiosis in this cross was not practicable, as palpation of the scrotum of the male indicated that the testes were either absent or vestigial.

REFERENCES

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- TJIO, J. H., and WHANG, J. (1962).—Chromosome preparations of bone marrow cells without prior "in vitro" culture or "in vivo" colchicine administration. *Stain Technol.* 37:17-20

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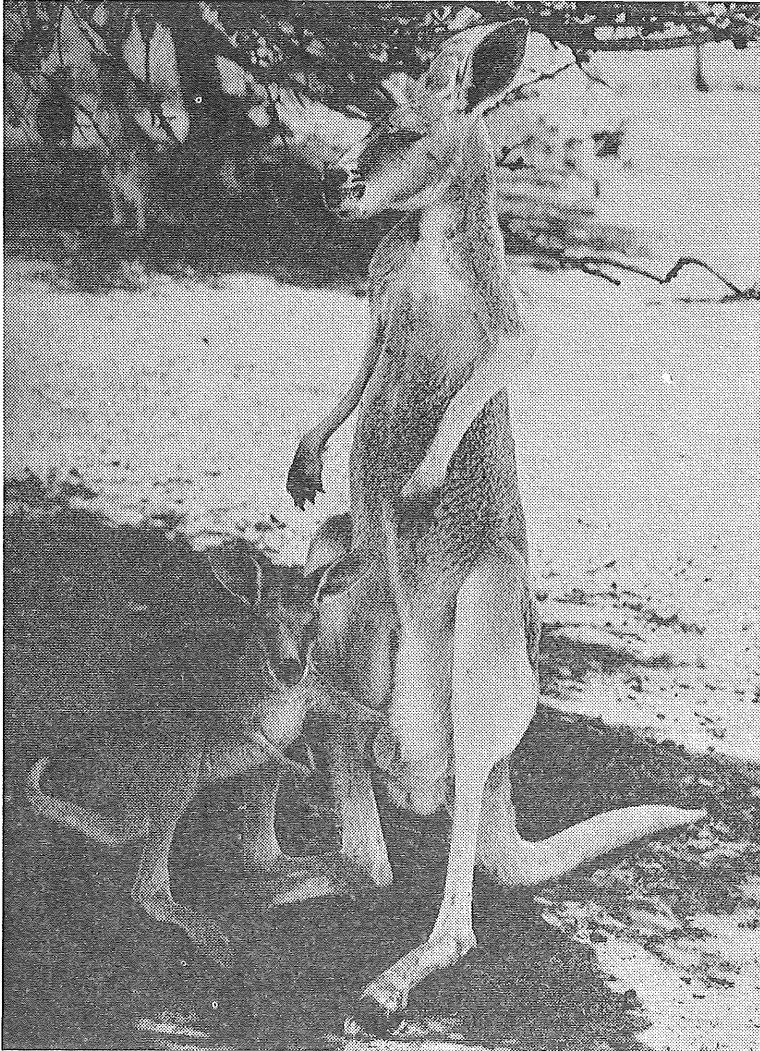


Fig. 1.—Red kangaroo and hybrid young (♂). Hermitage Research Station, Warwick, February 1971.

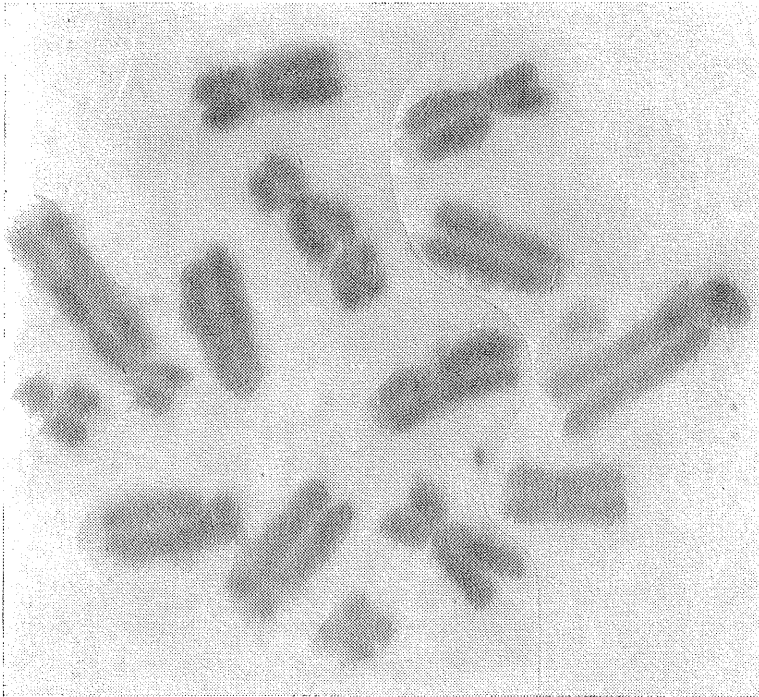


Fig. 2.—*Wallabia agilis* (Gould) ♂. Metaphase plate (x 2400).



Fig. 3.—*Megaleia rufa* (Desmarest) ♀. Metaphase plate (x 2360).

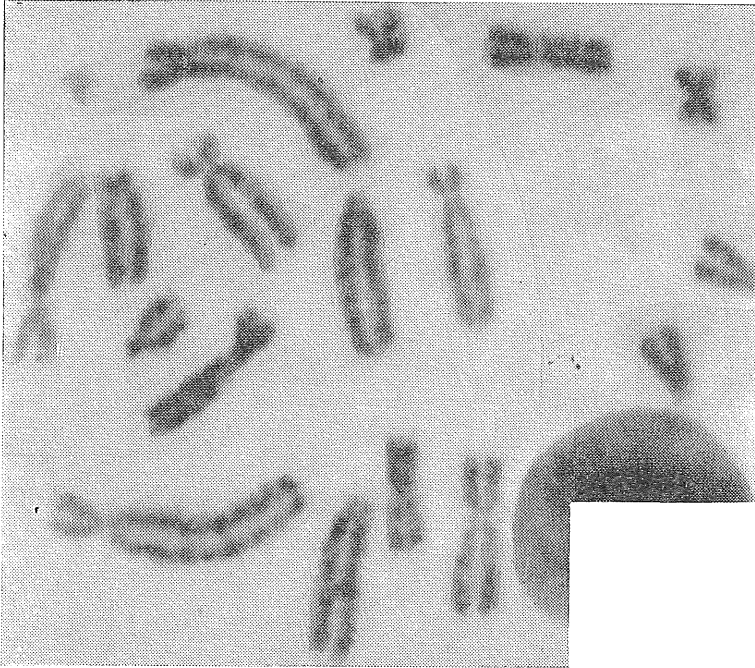


Fig. 4.—*Wallabia agilis* (Gould) x *Megaleia rufa* (Desmarest). Male hybrid. Metaphase plate (x 1600).

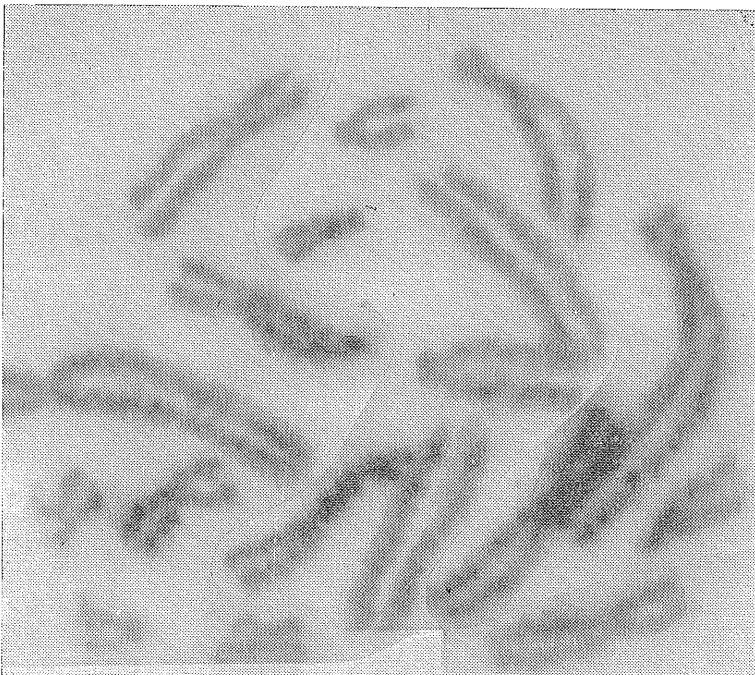


Fig. 5.—*Wallabia agilis* (Gould) x *Megaleia rufa* (Desmarest). Female hybrid. Metaphase plate (x 1800).