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HEARING IN PRIMITIVE MAMMALS, IV: BUSHBABY
(*Galago senegalensis*)

HENRY E. HEFFNER,[2], RICHARD J. RAVIZZA,[3] and BRUCE MASTERTON[2]
Department of Psychology, Vanderbilt University, Nashville

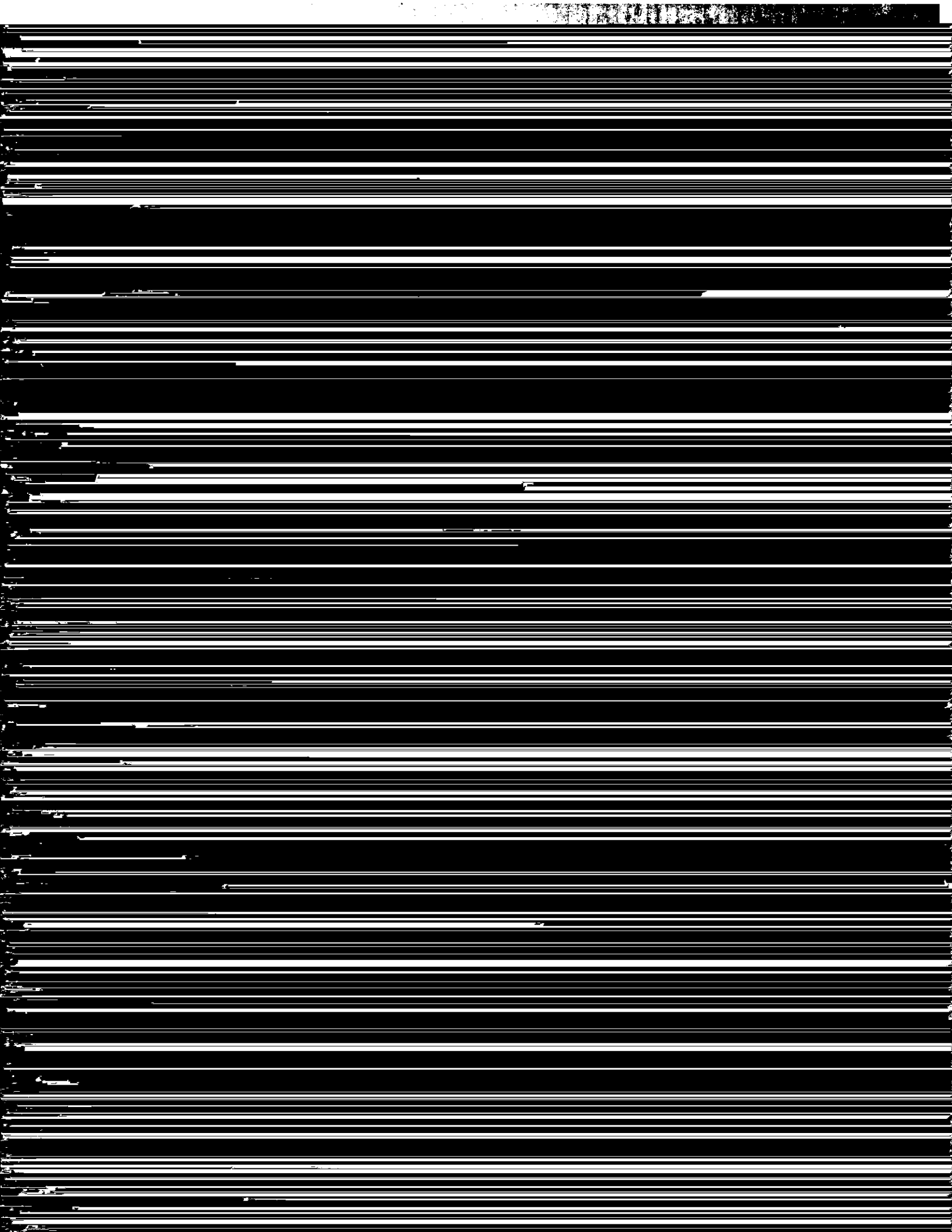
INTRODUCTION

This report is the fourth in a series concerned with the general question of the evolution of human hearing. The goal of the series and the equipment and procedures employed have already been described elsewhere (Ravizza, et al., 1969).

The bushbaby (Galago senegalensis) has been included in this series because it is a member of the most primitive suborder (Prosimii) of the order Primates (see, for example, Simpson 1945; Osman-Hill; 1953). Although the bushbaby is not the most primitive member of this suborder and, consequently, not the most primitive of Primates, it is little, if any, more advanced over the Lemurs which are the most primitive Primates, in either otological or neurological characteristics (Osman-Hill, 1953). Thus, for the purposes of tracing the phylogenetic history of human hearing by comparative inference from a phyletic sequence of extant mammals, the bushbaby ear and auditory system is

tone was presented for 10 sec and, at its offset, a mild shock was delivered to the animal's feet. After a few repetitions of the tone-shock pair, the bushbaby would stop licking

and man, have been shown *not* to hear frequencies above 32 kc/s. At least 17 other mammals, including the four in this series, have undergone tests that have included behavioral thresholds to tones of 32 kc/s or higher. In every case, sensitivity to frequencies above 32 kc/s has been persuasively demonstrated. Thus, even though the four mammals discussed here and the thirteen others in the literature are not a random selection of extant mammals, it can no longer be argued that high-frequency hearing is a rare occurrence. Apparently, the reverse is true: the *lack* of sensitivity to tones above 32 kc/s is a rare occurrence. Therefore, the 2 (chimps and men) out of 19 species that have low upper limits are more safely considered to be auditory anomalies than are the 17 or t



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