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NOISE-DEPENDENT VOCAL PLASTICITY IN A NOCTURNAL PRIMATE?

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Noise from abiotic (e.g. wind, flowing water, rain) or biotic (e.g. other sound producing animals) sources is present in all natural habitats. This masking noise disturbs signal transmission and thereby impedes all acoustic communication. For vocal communication several noise-dependent changes in vocal production are described. In non-human primates these effects were studied only in two New World and two Old World monkey species. Studies on apes or prosimians are completely lacking. To explore whether nocturnal prosimians, living in noisy forest environments, show noise-dependent vocal plasticity, we studied the vocal behavior of male gray mouse lemurs (*Microcebus murinus*) in a male-female encounter situation under standardized conditions in captivity. We presented broadband white noise and narrowband noise around the fundamental frequency of long distance social calls with different noise levels and recorded the male calls from a defined distance. Call structure and amplitude were characterized by means of a multiparametric sound analysis. A comparison of parameters for calls emitted at different background noise levels will show whether and in which way a nocturnal prosimian primate shows vocal plasticity when confronted with noise.

Keywords: vocal communication, environmental noise, vocal plasticity, mouse lemur