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Session: Advances in measurement of noise and noise effects on animals and humans in the environment

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Title: Environmental Noise – Is there any significant influence on animals?

Abstract:

It is stated that “there is no convincing evidence that animals are deterred by intense sounds (Heffner 2007).” Nevertheless, it must be thoroughly examined to what extent animals are impaired by specific environmental noise with regard to their orientation, communication, behaviour, etc. Such interferences would significantly influence the animals’ life.

Similar to the auditory sensitivity of animals, the human hearing system shows a high performance in amplitude, frequency and time resolution. It pays attention to more factors and noise features than only to absolute SPLs. Psychoacoustic parameters as well as further hearing related-parameters can capture such specific factors and features of noise, which allow to draw conclusions concerning noise annoyance or, respectively, the pleasantness of noise. The adequate measurement and use of such parameters resulting in an advanced analysis and description of environmental noise - beyond simple sound pressure level considerations - provide valuable information with respect to noise annoyance, stress-related reactions and interference of daily life activities of humans.

The presentation will highlight the relevance, the determination and interpretation of psychoacoustic and other hearing-related parameters in the context of environmental noise with respect to the hearing sensation of humans.