

Invitation to the Seminar series in Evolutionary Biology

Thursday, 12. February 2026

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Signals, mate-finding and mate choice: the importance of spatial context

Abstract:

Male crickets and katydids use long-distance acoustic signals to attract conspecific females for mating. Their signals and signalling behaviours are shaped by the forces of natural selection, such as predation, and potentially by sexual selection, including female choice and male competition. Using cricket species as model systems, we examined the empirical evidence for female mate choice based on male song traits in natural spatial and acoustic contexts. Loudness emerged as a major feature affecting female approach and mating behaviour. Male tree crickets use Alternative Reproductive Tactics, or ARTs, as silent satellites, calling, or baffling, the latter involving the use of a self-made acoustic amplifier by cutting a hole in a leaf and singing from it. We expect that bafflers, with their amplified calls, will have the most mating benefits, followed by callers and silent males. The benefits of these ARTs, however, varied with spatial scale and context. Finally, we examined the relative predation costs of mate-finding via signalling versus silent searching in katydids and the role of bat predation as a potential driver of the evolution of a unique acoustic-vibratory duetting communication system in a rainforest katydid. All these examples illustrate how spatial scale and ecological context strongly influence the outcomes of signalling and mate search.

Host: Prof. Hanna Kokko

Please mind that this talk will take place on a THURSDAY at 12:15 in the BZ 1 lecture hall (HS 00.187). Talks are given in English. Everyone interested is welcome!