Estimating discomfort in a fat-tailed gerbil by ultrasonic joint-calls

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Aim: to estimate vocal discomfort of pups in the fat-tailed gerbil *Pachyuromys duprasi*

Two-stage test trial:

35 pups
589 test trials at 15 age-classes, one test per pup per age-class

Analysis of 73 test trials with ultrasonic calls at both Isolation and Handling stages

Isolation stage

Handling stage

FFT-length 1024;

frame 50%, overlap 0%,

Hamming window

73 trials

146 joint-calls

3955 ultrasonic calls

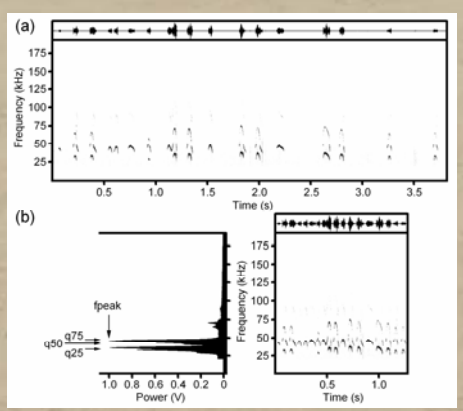
Acoustic analysis

4 power variables:

peak frequency

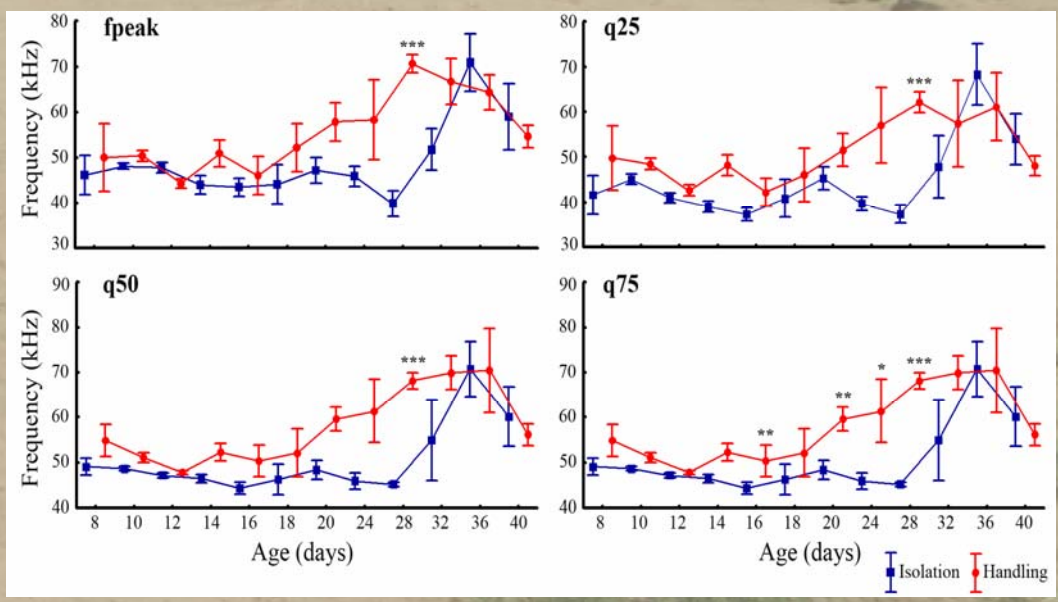
25, 50 and 75% quartiles

A joint call is created of the total amount of calls within a test trial by cut-of all intercall intervals



repeated-measures ANOVA,

***p*<0.001 for all comparisons**



fpeak
q25
q50
q75

<

fpeak
q25
q50
q75

Discomfort increase

Power variables might encode discomfort in ultrasonic calls as in audible calls of mammals.

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