Impact of subsampling, detector performance & ambient noise levels on biological inferences

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Motivation

data collection
data analyses

# calls/t

time
What influences PAM data interpretation?

Multiple biases $\rightarrow$ misinterpretation of vocal behavior?!

- subsampling
- ambient noise
- detection threshold

![Graph showing the number of calls over time](#)
What influences PAM data interpretation?

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Does duty cycle affect acoustic presence & call rate?

# calls/t vs. time

true pattern?
estimated pattern
What influences PAM data interpretation?

Multiple biases → misinterpretation of vocal behavior?!

- subsampling
- ambient noise
- detection threshold

Impact of seasonal variability of noise on call rate & hence presence estimates?

# calls/t vs. time

true pattern?
estimated pattern
What influences PAM data interpretation?

Multiple biases → misinterpretation of vocal behavior?!

- subsampling
- ambient noise
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Do high detection thresholds allow reliable acoustic presence assessments?

# calls/t vs. time

- true pattern?
- estimated pattern