**Dawn Chorus start time variation of Olive-sided Flycatcher**

# Outline

Avian dawn chorus is a daily period of high song output during the breeding season. It is widely known that various environmental factors relate to the dawn chorus start time for different species, such as ambient temperature, precipitation, cloud cover, lunar phase, and existence of other species (cite).

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Flycatcher was important because…

Previous study were limited given the lack of examination method. In this study, we will apply the autonomous recording unites and the BirdNET neural networking algorithm to derive the data.

Find the relationship between the start time of Flycatcher dawn chorus and those factors.

**Keywords**: AudioMoth, BirdNET, avian biodiversity

# Objectives

* Find the monthly pattern of vocal density by cumulative BirdNET detections
* Provide the dawn chorus starting time of each bird species in the JPRF
* Determine the factors that related to the start time of dawn chorus from OSFL

# Method and materials

## Audio data

The audio data was collected in John Prince Research Forest (54° 27'N, 124° 10'W, 700 m a.s.l) in 2020 breeding season. A total of 41 recorders (AudioMoth; Open Acoustic Devices, 2020) were evenly distributed across the region (fig. of a map). Adjacent recorders were placed at least 2 km apart to ensue independent sampling. All recorders were under an identical recording schedule, repeating daily from four am to seven am, one minute on, followed by four minutes off. Recorders were deployed in the field beginning on X April 2021 (mean deployment date X April 2021; range X April 2021 – X May 2021; X±Y recorded/recorder). This resulted in 67,301 one-minute recordings collected. All recordings were formatted into a 48 kHz sampling rate and the mono pulse code modulation WAV.

## Starting time of OSFL dawn chorus

## Climate and biological predictors

***Modelling***

***Workflow***

Diagram

Description automatically generated