

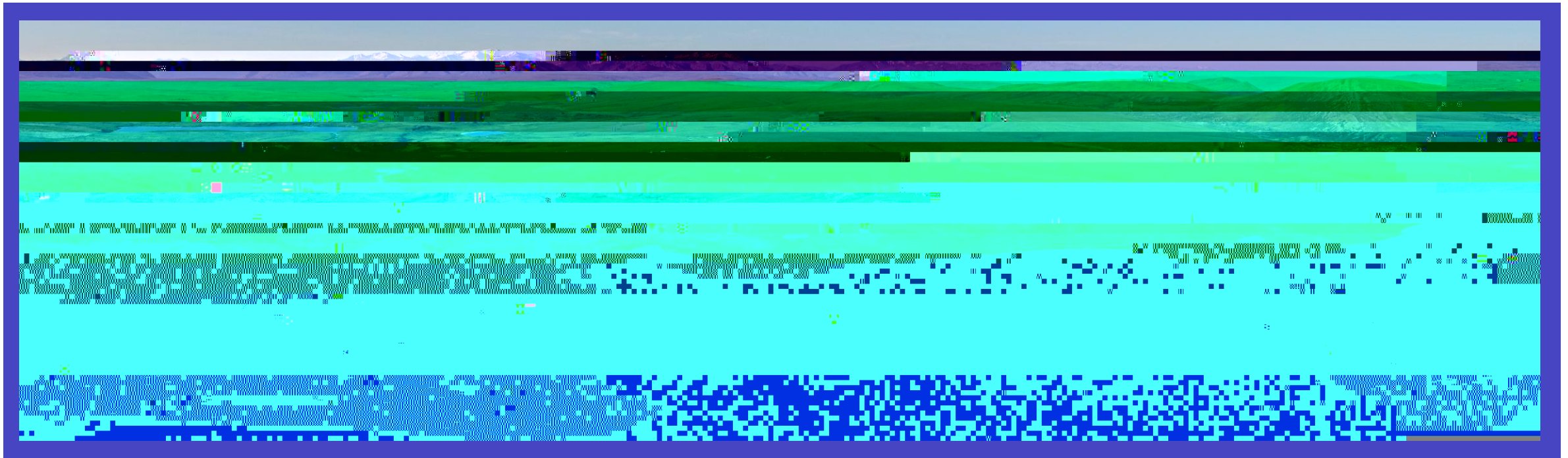
SEDCC REPORT

OCT 1, 2018 - SEPT 30, 2019 REPORT

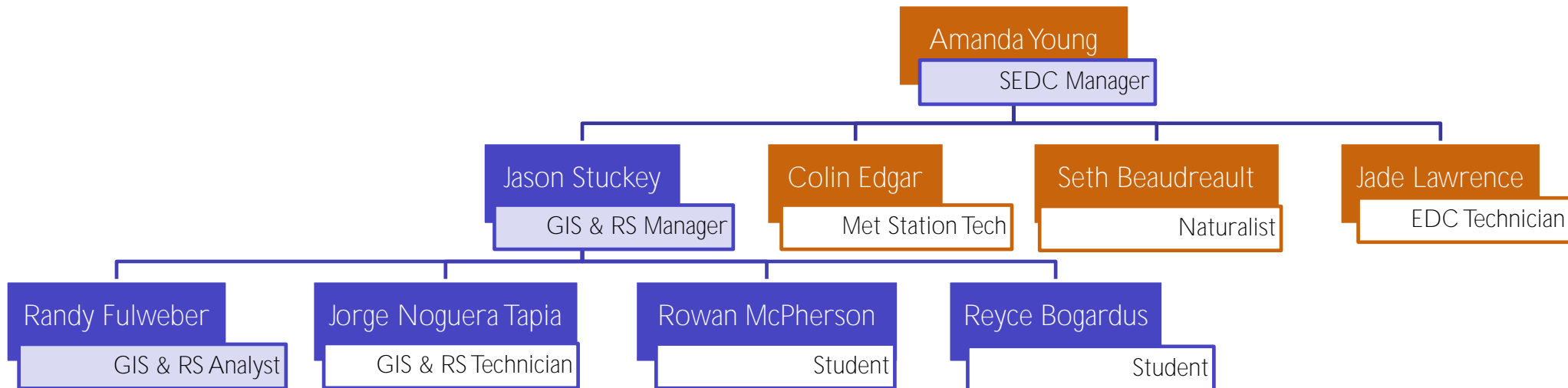
2020 SPATIAL AND ENVIRONMENTAL DATA CENTER REPORT



AMANDA B. YOUNG



STAFFING UPDATE



2020 EDC Technician position will be posted soon

URSA Ì Undergraduate Research & Scholarly Activity

GIS summer student 2020?



EDC MISSION STATEMENT

Collect and manage baseline environmental data

Maintain suite of common-use lab and field equipment

Fieldwork assistance

Outreach

- Make EDC data available to the public

- Collaboration to provide project metadata for current and historical projects at Toolik Field Station



EDC WEBSITE

New

Fish Guide

Atmospheric Monitoring

Updates

Other data sources | Aurora forecast and Borehole data

Warning if Current Weather Data goes down

Time Lapse Imagery

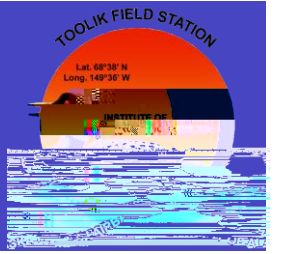
Naturalist Journal

CLIMATE SUMMARY TOOL



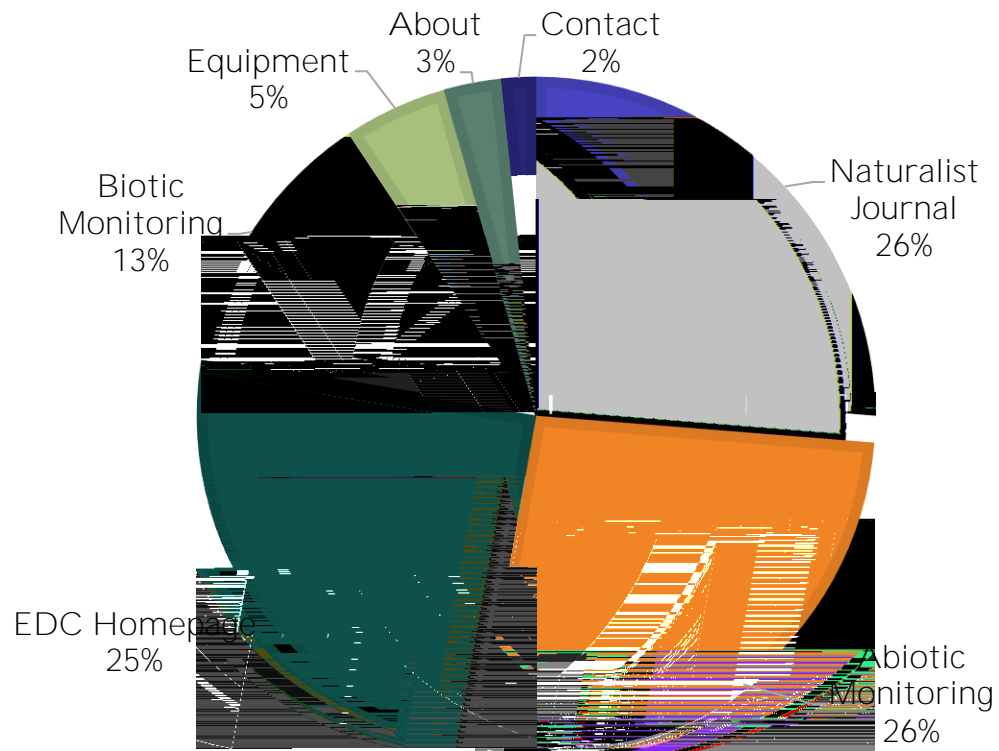


CLIMATE SUMMARY TOOL

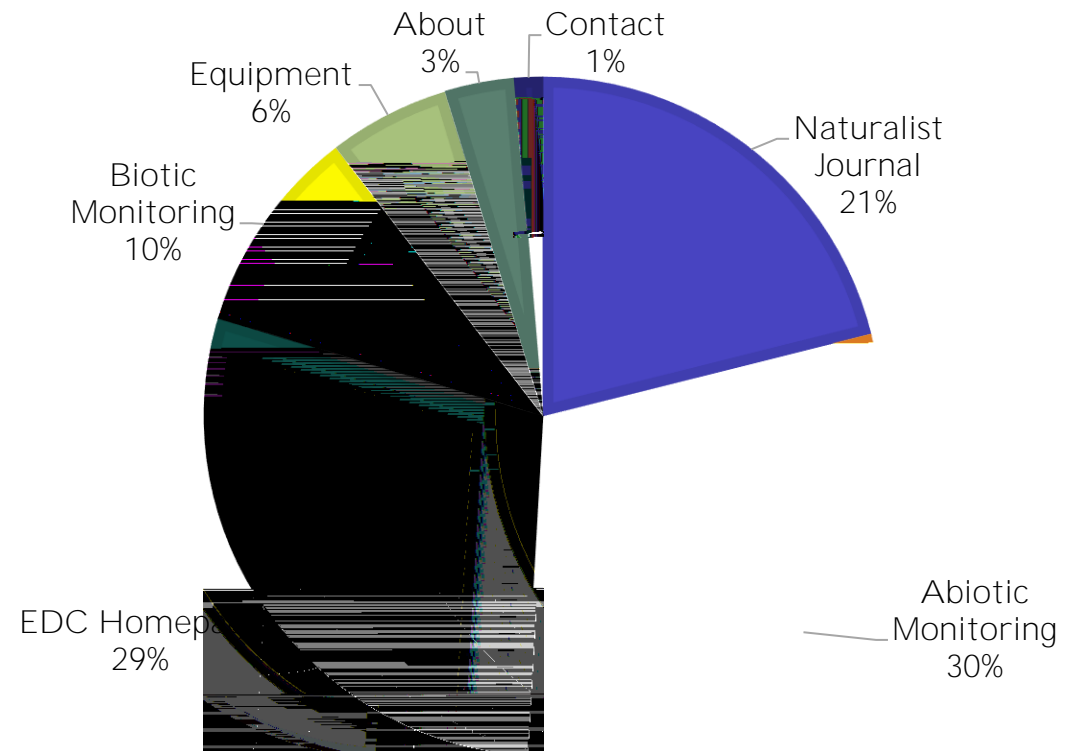


PAGEVIEWS (OCT 1-SEPT 30)

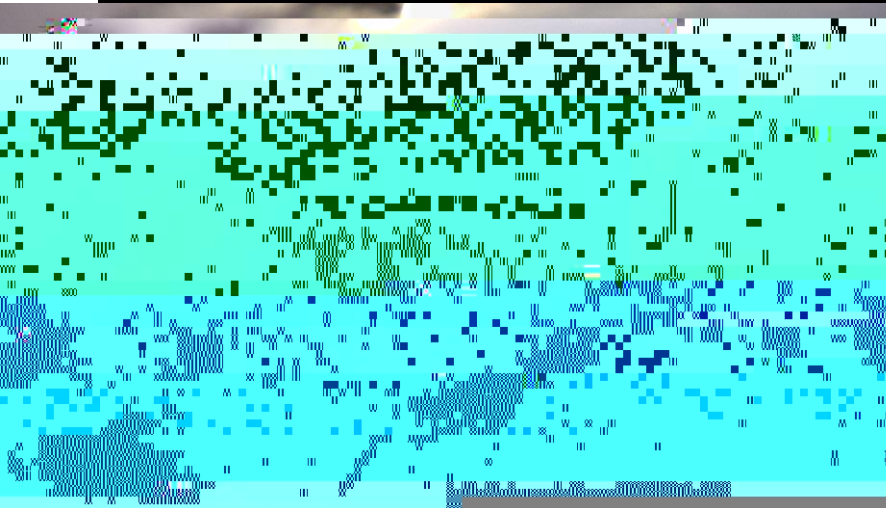
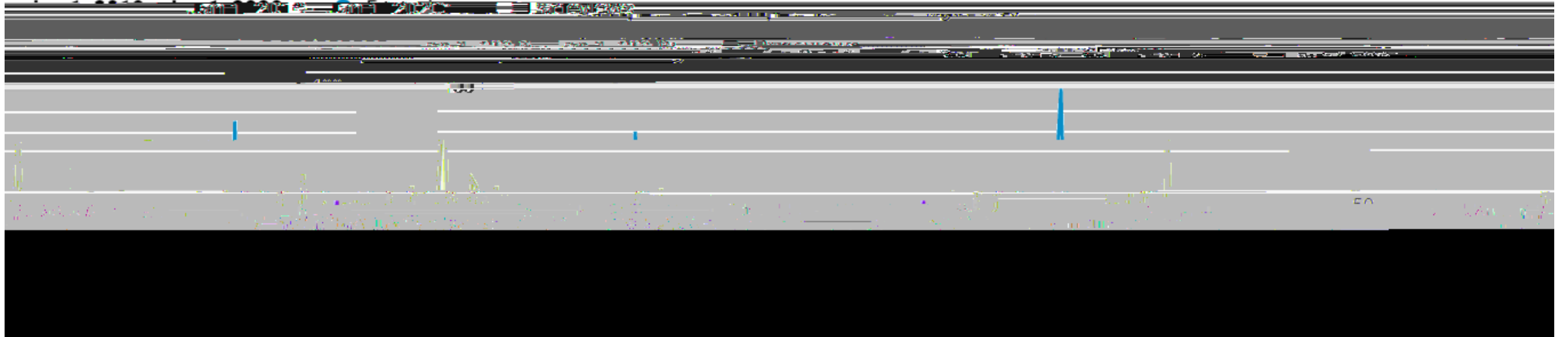
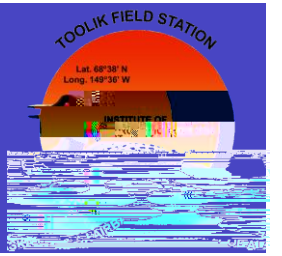
2019 | 26,817 pageviews



2018 | 25,216 pageviews



NATURALIST JOURNAL



DATA USAGE

EDC Webpage

Met station data requests # 273 by 63 👤

Phenology data requests # 41 by 15 👤

Bird Point count requests # 1 by 1 👤

NDVI requests # 4 by 4 👤

Direct Request

Met station data #23 by 18 👤

Arctic Data Center (data has DOI)

Phenology 44 📄 362 👁

Bird Point Counts 228 📄 512 👁

Met Station data 59 📄 179 👁



NSF

Data Science Training for Arctic Researchers
October 2019

Naturalist Journal

Birds

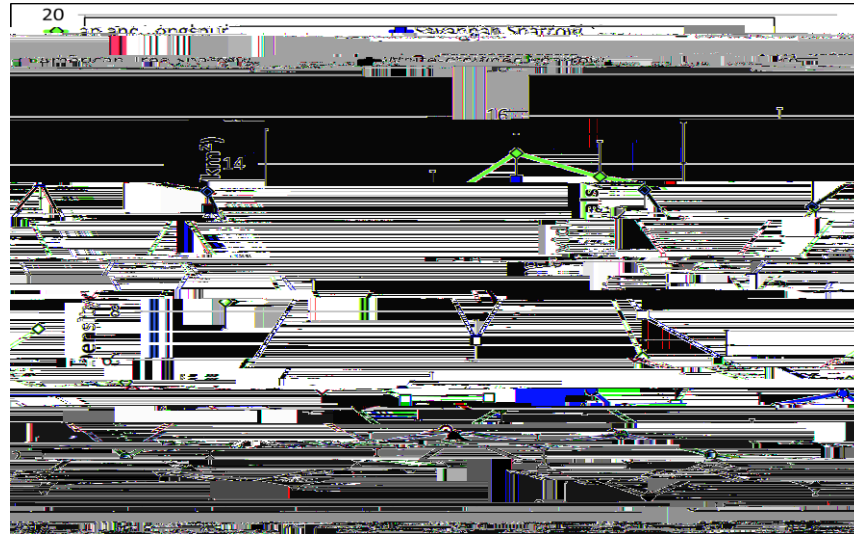
Mammals

Insects

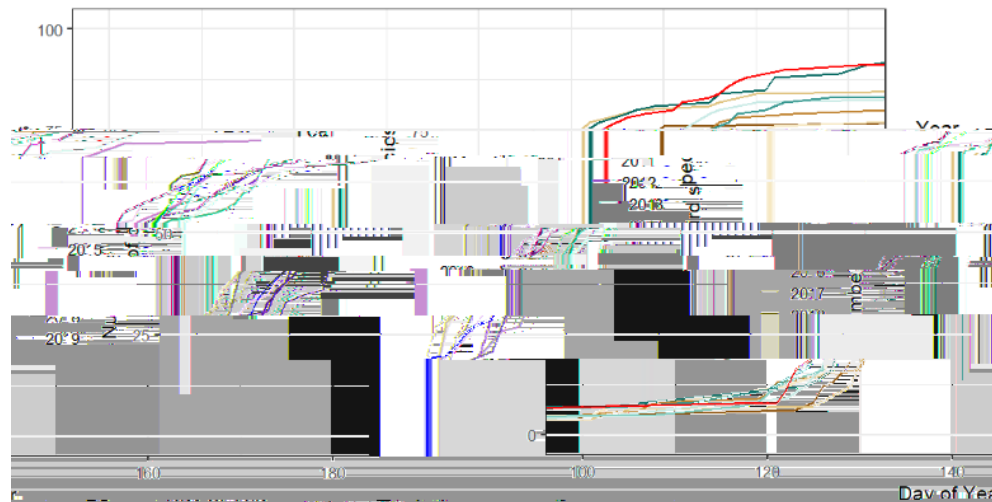
Abiotic conditions

BASELINE MONITORING BIOLOGICAL MONITORING

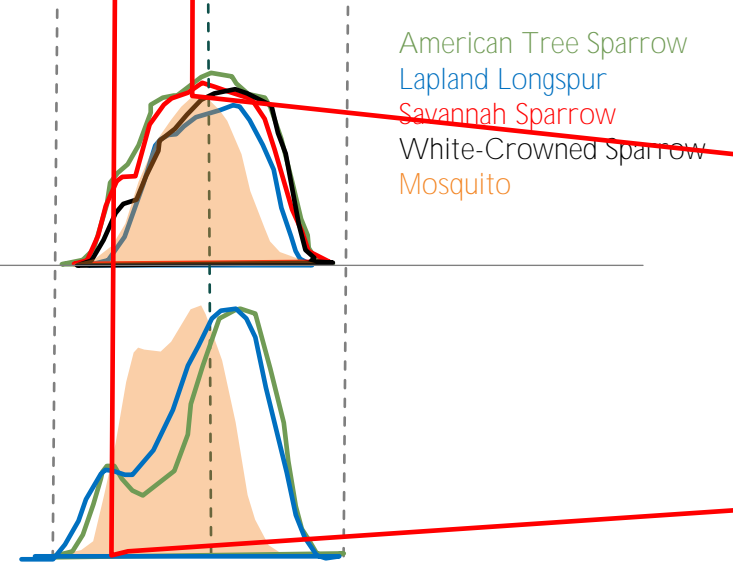
Avian point counts



Naturalist Journal
Daily observations



2008-2019



BASELINE MONITORING TIME LAPSE IMAGERY

Cameras up-to-date online

Two webcams

Daily update to website

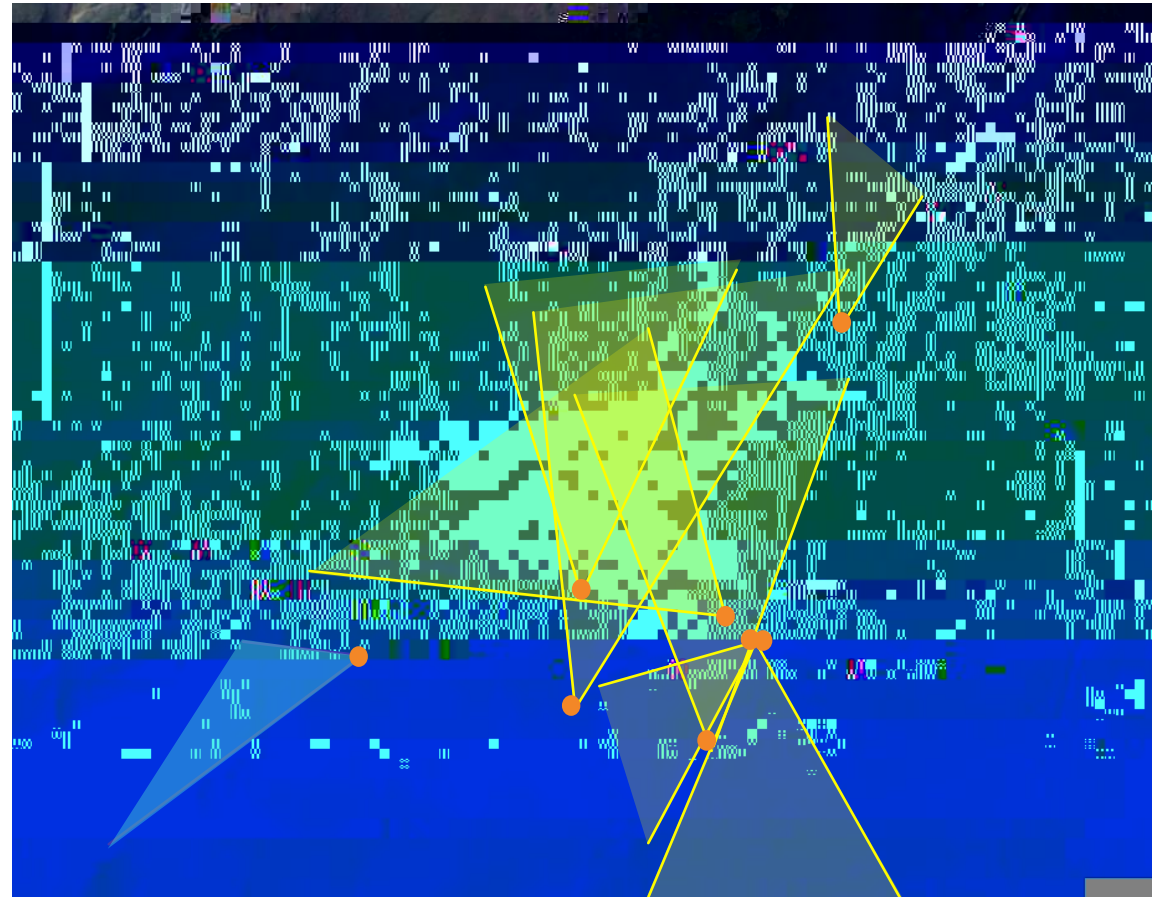
Five Buckeye cams

Upgrading cameras

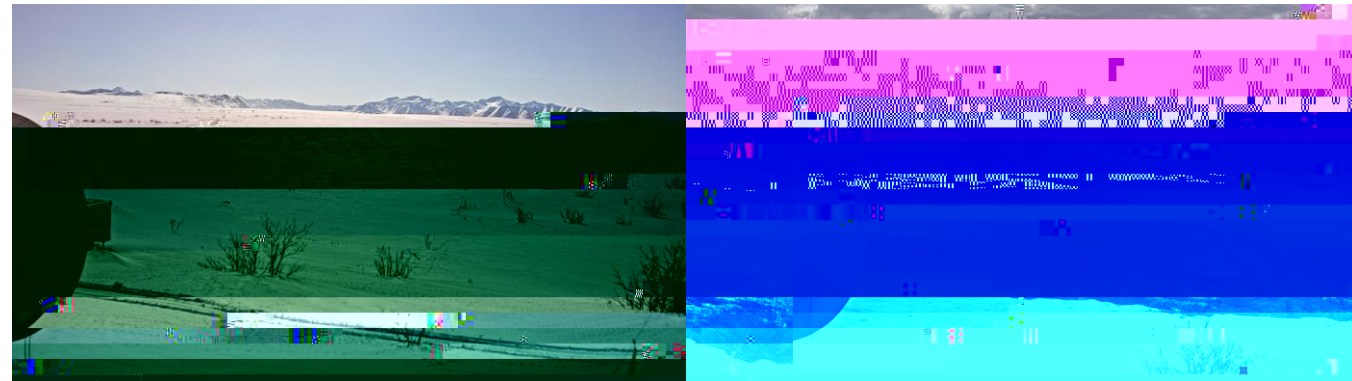
Redeploy week of Jan 14th

Daily update to website

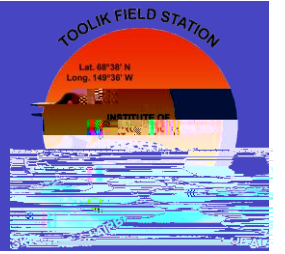
Future cameras?



BASELINE MONITORING SNOW COVER ANALYSIS



BASELINE MONITORING ATMOSPHERIC MONITORING



Monitoring

Ozone Monitoring | 2009 to Present

National Atmospheric Deposition program (NADP) | 2017 to Present

National Trends Network

Mercury Deposition Network

Ammonia Monitoring Network

Inter-agency Monitoring of Protected Visual Environments (IMPROVE) | 2018 to Present

Funded by the BLM

Purple Air | June 2019 to Present

Particulate matter sampling

Mercury Passive Air Sampler | January 2020

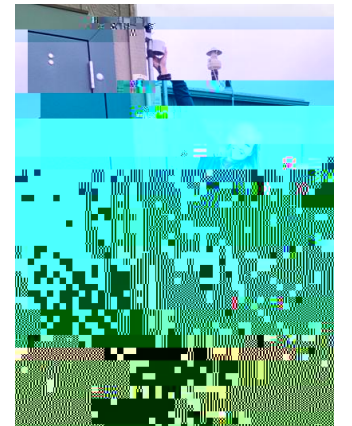
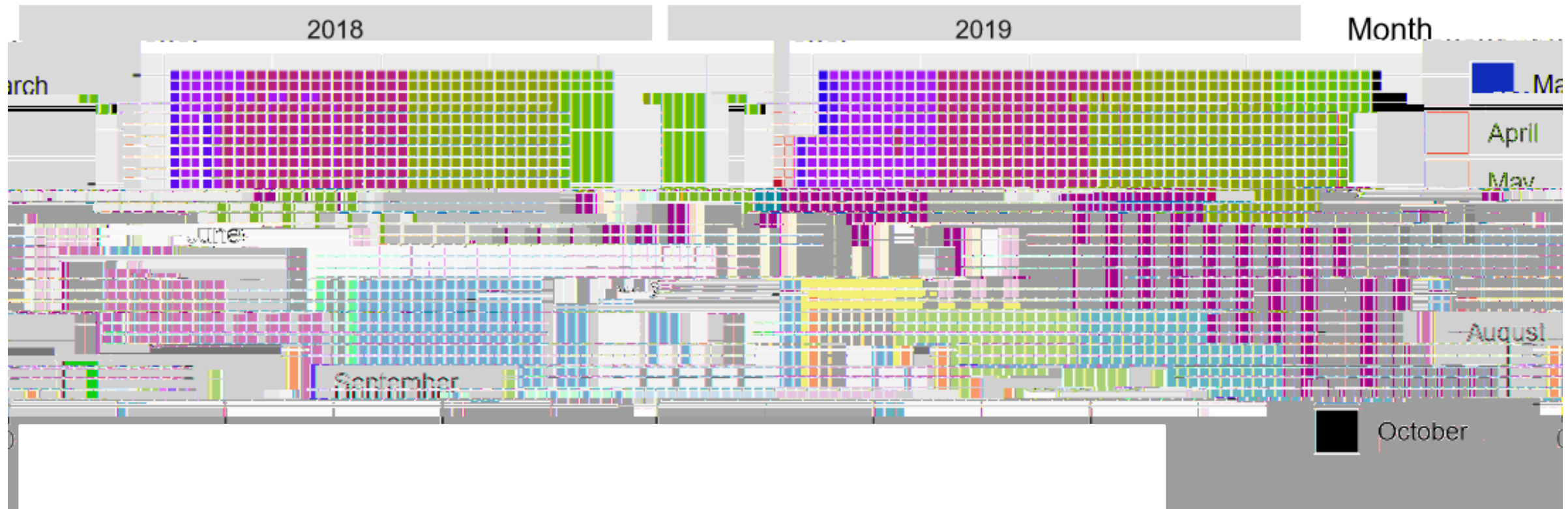


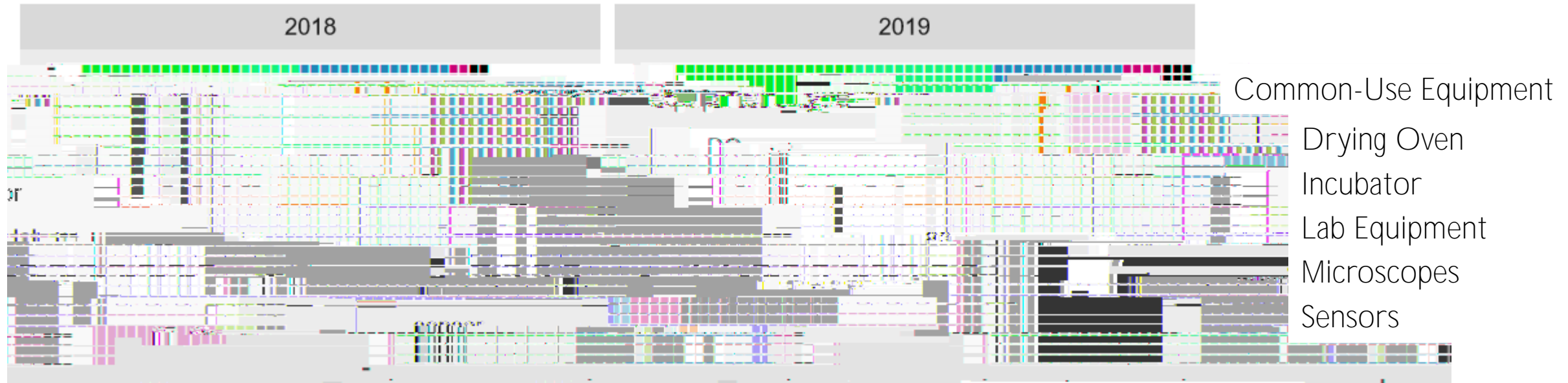
Photo by Sarah King

EQUIPMENT USAGE BY MONTH



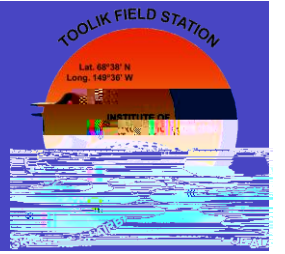
□ = day of usage

EQUIPMENT USAGE BY TYPE



□ = day of usage

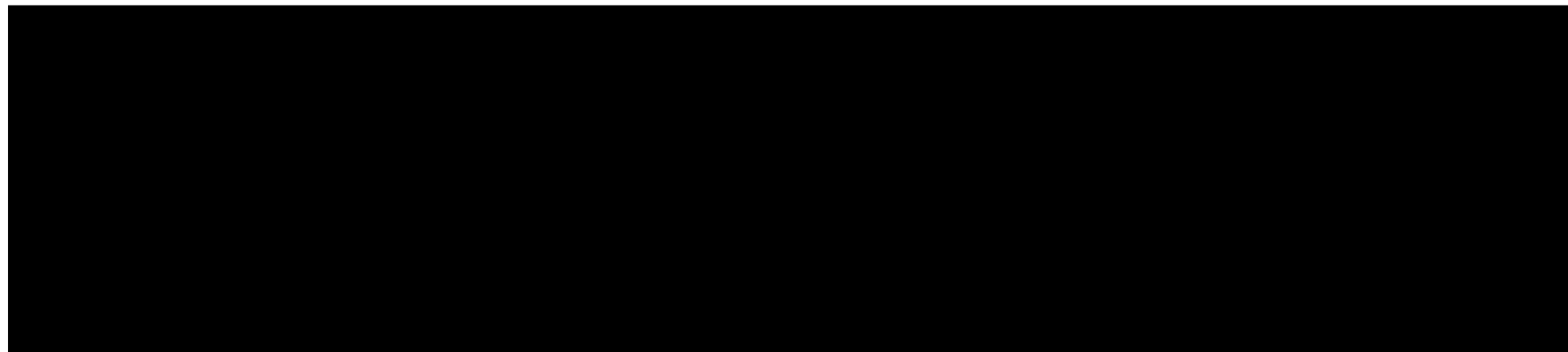
EQUIPMENT USAGE BY TYPE AND MONTH



2018



2019



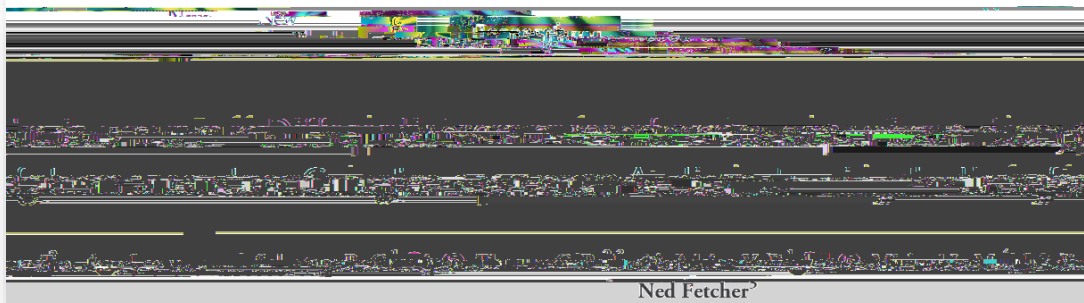
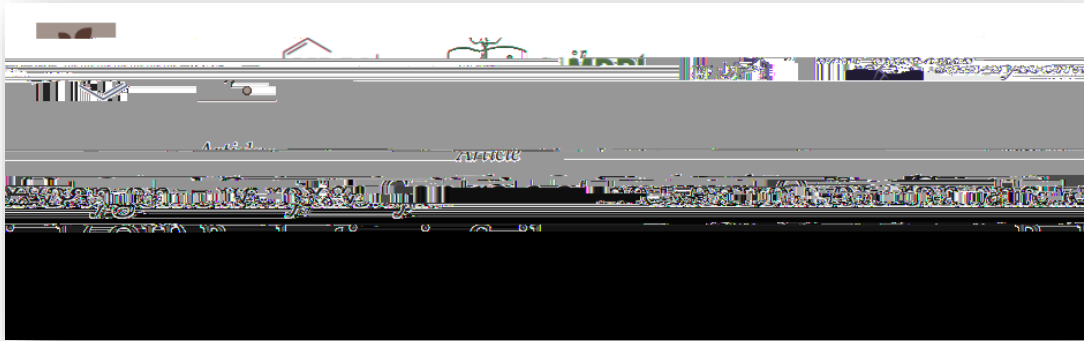
Common-Use Equipment

- Drying Oven
- Incubator
- Lab Equipment
- Microscopes
- Sensors

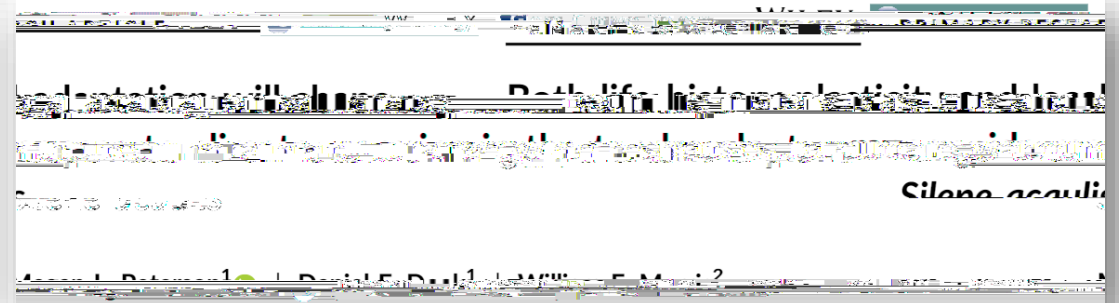
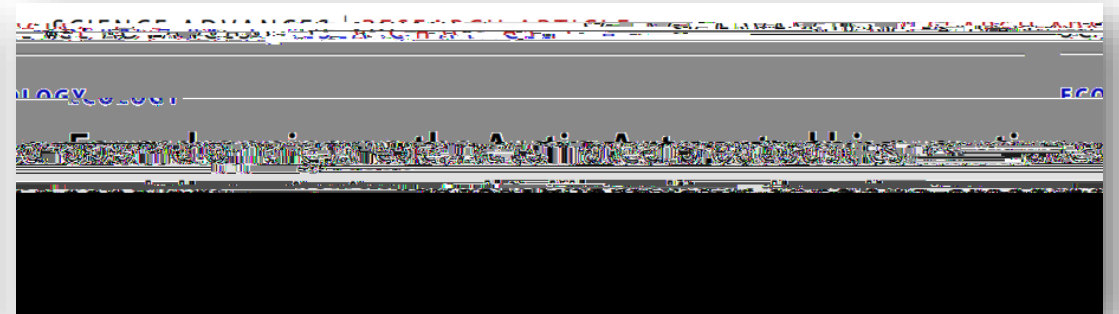
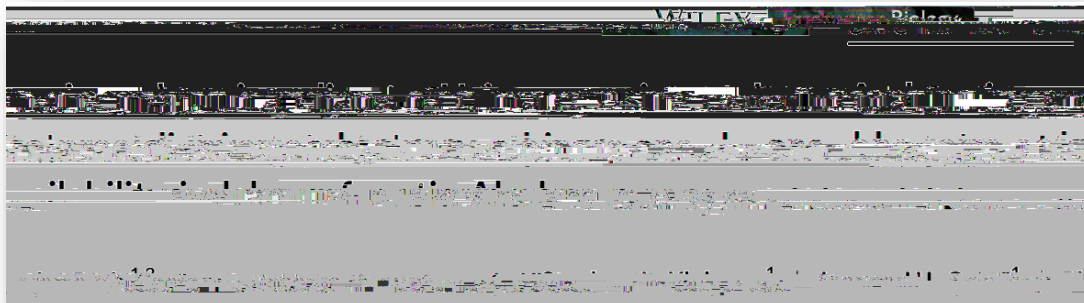
□ = day of usage



DATA AND EQUIPMENT USAGE IN PUBLICATIONS



Ned Fletcher⁹



Silene acutia

FIELD WORK ASSISTANCE

2017: 170 hours of assistance to 14 projects for 14 different researchers.

2018: 179 hours of assistance to 15 projects for 14 different researchers.

2019: 242 hours of assistance to 18 projects for 29 different researchers.

Examples of Assistance (Not exhaustive):

- Hydrolab Casts on Toolik Lake

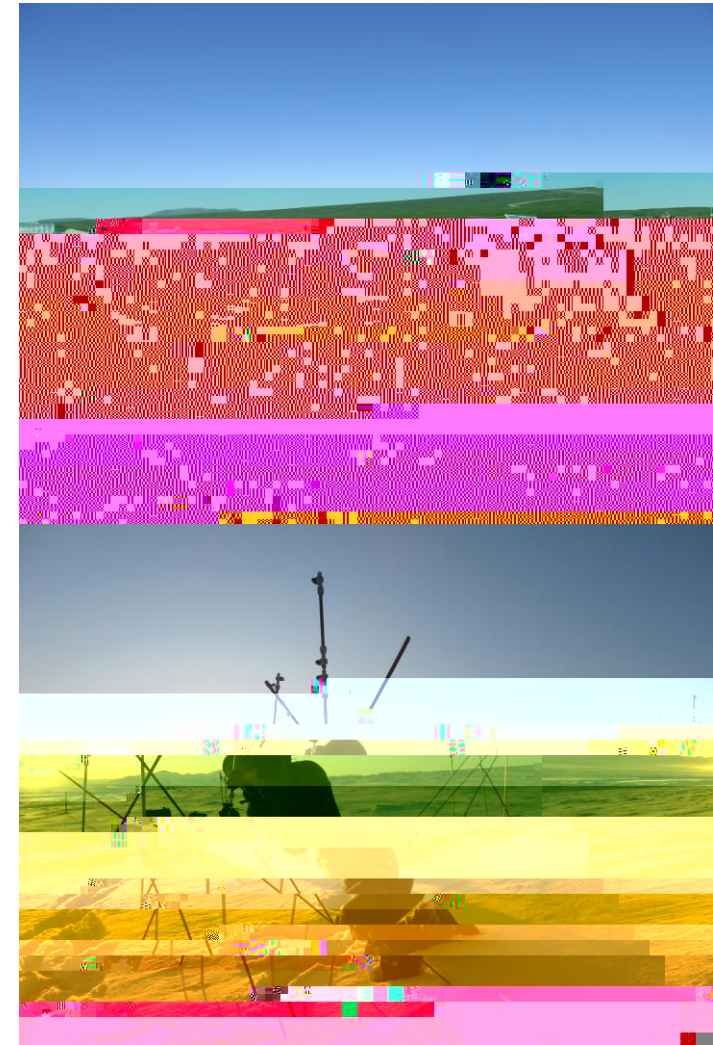
- Deploying/ Take down of Aquatic equipment (May/ late September)

- Nitrogen Fixation of Alders at Sagwon

- Vegetation surveys (% vegetation cover, point-frame counts)

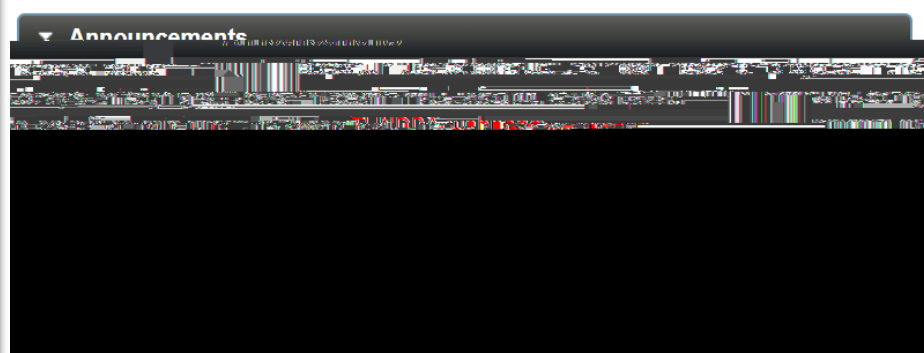
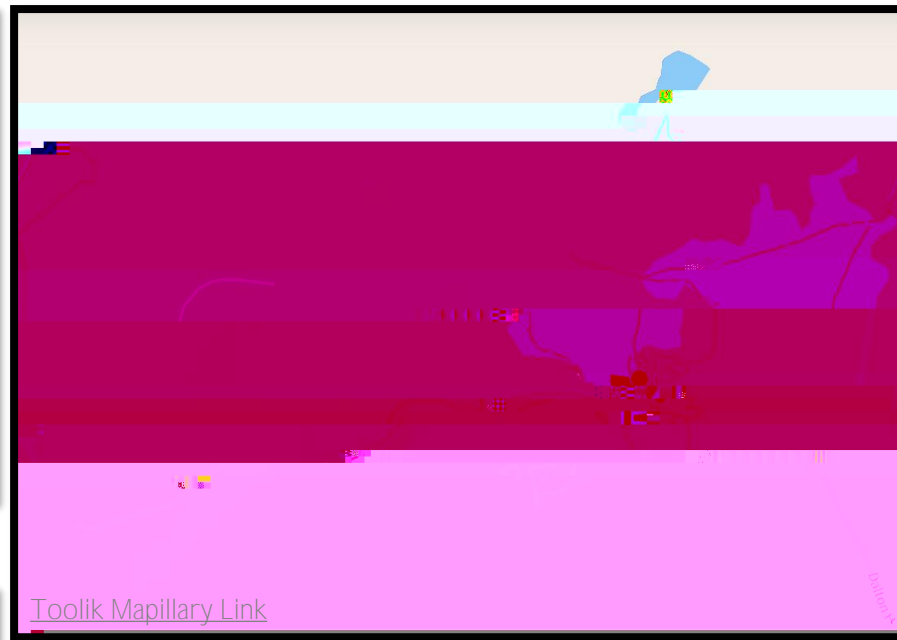
- Tussock plucking

- Setup and take down of Greenhouses



NEW IN 2019

MAPPILARY İ TAKE A TOUR AROUND THE STATION





NEW IN 2019 - DISCOVERIES

July 11th

THANK YOU!

QUESTIONS?