

YI-CHIN TSENG (SUNNY)

☎ +1 778-985-2258 • ✉ sunnyyctsen@gmail.com
🌐 <https://sunshineland.netlify.app/>

EDUCATION

- **Ph.D., University of Northern British Columbia** **Prince George, Canada**
Natural Resources & Environmental Studies *Jan.2021 – present*
Supervisor: Ken Otter
Committee: Heather Bryan, Joseph Shea, and Dexter Hodder
- **Master of Science, University of British Columbia** **Vancouver, Canada**
Department of Forest Resources Management *Sep.2017 – Nov.2019*
Supervisor: Bianca N.I. Eskelson
Committee: Kathy Martin and Nicholas C. Coops
Thesis: Innovative and conventional modelling for avian acoustic and fire severity analyses ([link](#))
UBC GPA: 4.33
- **Bachelor of Science, National Taiwan University** **Taipei, Taiwan**
School of Forestry and Resource Conservation & Department of Physics *Sep.2012 – Jun.2017*
Double Major Student
Supervisor: Biing T. Guan, Tzeng-Yih Lam, and Shi-Wei Chu
Forestry GPA: 3.96/4.0; Physics GPA: 3.40/4.0; Cumulative GPA: 3.65/4.0

PUBLICATION

JOURNAL ARTICLES.....

- Tseng, Y.-C., Ko, J.C.-J, Cheng, A.-Y., and Chen, W.-J. **2023** Modelling avian altitudinal migration using citizen science data. *Ornithological Application*. (In Preparation)
- Pelletier, F., Eskelson, B.N.I., Monleon, V.J., and Tseng, Y.-C. **2021** Using Landsat imagery to assess burn severity of National Forest Inventory plots. *Remote Sensing*, 12:10. ([link](#))
- Tseng, Y.-C., Eskelson, B.N.I., Martin, K., and LeMay, V. **2021**. Automatic bird sound detection: Logistic model based acoustic occupancy model. *Bioacoustics*, 30(3):324-340. ([link](#))
- Tseng, Y.-C., and Chu, S.-W. **2017**. High spatio-temporal-resolution detection of chlorophyll fluorescence dynamics from a single chloroplast with confocal imaging fluorometer. *Plant Methods*, 13:43. ([link](#))

NON-PEER REVIEWED ARTICLES.....

- Tseng, Y.-C. **2023**. Nest boxes for barn owl conservation. *Nature Conservation Quarterly*, 122. ([link](#))
- Tseng, Y.-C. **2023**. When beaver dam collapses. *Nature Conservation Quarterly*, 121. ([link](#))
- Tseng, Y.-C. **2023**. Listening to the whispers of the wings. *Discovery*, 50(1):85-90. ([link](#))
- Tseng, Y.-C. **2022**. Hey, there are wild black bears in my backyard. *Nature Conservation Quarterly*, 117. ([link](#))
- Tseng, Y.-C. and Hong, G.-C. **2021**. Avian field recordings (II). *Feathers*, 301:22-27. ([link](#))
- Tseng, Y.-C. and Hong, G.-C. **2021**. Avian field recordings (I). *Feathers*, 300:38-41. ([link](#))
- Tseng, Y.-C. **2019**. Apply statistics on bird "listening". *Discovery*, 47(1):21-22. ([link](#))

- Tseng, Y.-C. **2018**. Can statistics help ornithologists "hear" birds? *BranchLines*, 29(3):11. ([link](#))

CONFERENCE TALK.....

- **BC/Canada TWS Joint Conference** **Victoria, Canada**
Passive acoustic as a tool to monitor individual Barred Owls Mar.2023
- **UNBC Research Week** **Prince George, Canada**
Passive acoustic as a tool to monitor individual Barred Owls Feb.2023
- **International Ornithological Congress** **Virtual**
Modelling avian altitudinal migration using citizen science data Aug.2022
- **AOS-SCO Joint Conference** **Virtual**
seewave and tuneR: sound analysis in ornithology Aug.2021
- **Congress of Animal Behavior and Ecology** **Tainan, Taiwan**
Modelling avian annual cycle distribution in Taiwan using citizen science data Feb.2021
- **Congress of Animal Behavior and Ecology** **Penghu, Taiwan**
Automatic bird sound detection: ARU data analysis Jan.2020
- **Ecology & Evolution Retreat** **Squamish, Canada**
Automatic Bird Sound Detection: ARU data analysis Oct.2018
- **International Ornithological Congress** **Vancouver, Canada**
Automatic bird sound detection: Logistic regression based acoustic occupancy model Aug.2018
- **International Forestry Students' Symposium** **Manila, Philippines**
Chlorophyll fluorescence: A powerful tool for photobiology research Aug.2015

CONFERENCE POSTER.....

- **AOS-SCO Joint Conference** **London, Canada**
Large scale biodiversity assessment with bird sound Aug.2023
- **Annual meeting of Ecological Society of America** **Louisville, USA**
Relationships between successive forest fires: A case study in central interior BC, Canada Aug.2019
- **Annual Meeting of Soundscape Association** **Taipei, Taiwan**
Automatic bird sound detection: Logistic regression based acoustic occupancy model Jun.2018
- **Focus On Microscopy** **Bordeaux, France**
High spatio-temporal-resolution detection of chlorophyll fluorescence Apr.2017

SCIENCE OUTREACH & INTERVIEW.....

- **Recordist for Xeno-Canto ([profile](#))** **Xeno-Canto**
One of my recordings of [Siberian Crane](#) was featured on the homepage. Jul.2017 – present
- **A Person Who Collects Sounds ([interview](#))** **Fuyu Life**
Field recordist - a beautiful way to study Nature. Jan. 2022
- **Each Sound Recording Represents a Profound Story ([interview](#))** **Canopy Life**
Interview of a field recordist. Jun. 2021
- **The Siberian Crane: From Taiwan to Tundra ([interview](#))** **Bird Note**
A bird gets blown off course and inspires a young researcher to spread her own wings — in Siberia. May. 2021
- **Sharing the Sounds of Nature ([interview](#))** **National Education Radio**
Interview with a scholar in bioacoustics. Aug. 2020

RECOGNITIONS

SCHOLARSHIPS and RESEARCH GRANT

<ul style="list-style-type: none"> Canada Graduate Scholarship - Doctorial (CGS-D) Rewarding and retaining high-calibre doctoral students at Canadian institutions. 105,000 CAD 	NSERC Apr.2023
<ul style="list-style-type: none"> Susan Stevenson Memorial Award Excellence academic performance 1,500 CAD 	UNBC Nov.2022
<ul style="list-style-type: none"> CUPE Local 3799 Annual Bursary Excellence academic performance 1,000 CAD 	UNBC Sep.2022
<ul style="list-style-type: none"> Mitacs Accelerate Fellowship A long-term funding and internship option for PhD students in Canada 90,000 CAD 	MITACS Jun.2022
<ul style="list-style-type: none"> Graduate Entrance Research Scholarship High academic performance for new graduate student 25,000 CAD 	UNBC Jan.2021
<ul style="list-style-type: none"> Early Career Grant (Upcoming research project) Leading a fieldwork in Siberia Arctic tundra for avian sound recordings 5,700 CAD 	National Geographic Jun.2020
<ul style="list-style-type: none"> Mary and David Macaree Fellowship Conducting research in Forestry check 	UBC Sep.2019
<ul style="list-style-type: none"> VanDusen Graduate Fellowship in Forestry Faculty of Forestry student in forest resource ecosystems check 	UBC Feb.2019
<ul style="list-style-type: none"> Hugh Robert Duncan Chisholm Scholarship in Forestry Conducting research in Forestry 230 CAD 	UBC Nov.2018
<ul style="list-style-type: none"> Werner and Hildegard HESSE Fellowship in Ornithology Conducting research in Ornithology 13,500 CAD 	UBC Oct.2018
<ul style="list-style-type: none"> Pei-Huang Tung and Tan-Wen Tung Graduate Fellowship Taiwanese students pursuing higher education in Canada 2,500 CAD 	UBC Oct.2018
<ul style="list-style-type: none"> Mary and David Macaree Fellowship Students in Faculty of Forestry studying forest resource ecosystems 2,700 CAD 	UBC Sep.2018
<ul style="list-style-type: none"> BA Blackwell & Associates Scholarship in Fire Science Conducting research about forest fire ecology 1,000 CAD 	BA Blackwell & Associates Aug.2018
<ul style="list-style-type: none"> Soundscape and Sound Research Scholarship Soundscape or sound associated research 10,000 TWD 	SAT Feb.2018
<ul style="list-style-type: none"> Faculty of Forestry Strategic Recruitment Fellowships Top 20% ranked student 12,000 CAD 	UBC Sep.2017
<ul style="list-style-type: none"> Arctic Research Cooperation Scholarship Selected researcher for Arctic research project 100,000 TWD 	TEEDF Apr.2017

- **College Student Research Scholarship** **MOST**
Excellent research proposal Jun.2016
20,000 TWD
- **Alumnus scholarship in NTU Physics** **NTU**
3 awardees per year for outstanding academic achievement Dec.2015
1,000 TWD
- **Outstanding College Student Scholarship** **The international Women's Educational Foundation**
Scholarship for outstanding female students Sep.2012
80,000 TWD

AWARDS.....

- **Best Student Presentation Award** **BC & CAN TWS**
Best student oral presentation in The Wildlife Society conference Mar.2023
- **3 Minute Thesis Award** **UNBC**
1st place & people's choice of UNBC 3MT competition Feb.2023
- **Teaching Excellence Award** **UNBC**
Outstanding teaching performance as a teaching assistant Sep.2022
- **Outstanding Oral Presentation Award** **CABE**
Outstanding oral presentations in Congress of Animal Behavior and Ecology Feb.2021
- **Master of Data Science TA Award** **UBC**
Best TAs in Master of Data Science program of the academic year Jun.2019
- **3 Minute Thesis Award** **UBC**
First place of 3MT competition in UBC Faculty of Forestry Feb.2019
- **College Student Research Creativity Award** **MOST**
Top 5% ranked research report Aug.2017
- **Outstanding Poster and Presentation Award** **NTU**
Ranked 1, out of 14 groups, in physics department poster competition Apr.2016
- **President Award** **NTU**
Top 5% ranked student in the semester Jan.2016

WORK EXPERIENCE

DATA ANALYST.....

- **Endemic Species Research Institute** **Nantou, Taiwan**
Supervisor: Wan-Jyun Chen, Jerome Ko Apr.2020 – Jul.2021
- **Birds Canada** **Langley, Canada**
Supervisor: David Bradley Feb.2020 – Mar.2020

COURSE INSTRUCTOR.....

- **Advanced Statistical Analyses for Natural Resource Sciences** **UNBC**
Co-instructor: Lisa Koetke Sep.2023 - Dec.2023

TEACHING ASSISTANT.....

- **Applied Analysis Hub** **UNBC**
Instructor: Eduardo Martins, Heather Bryan Sep.2021 – present
- **Data Wrangling** **UBC**
Instructor: Tiffany Timbers, Tomas Beuzen 2019 fall

- **Descriptive Statistics and Probability for Data Science** **UBC**
Instructor: Mike Gelbart (2018), Vincenzo Coia (2019) 2018 fall, 2019 fall
- **Regression I, Regression II** **UBC**
Instructor: Gabriela Cohen Freue (I), Vincenzo Coia (II) 2019 spring, 2019 fall
- **Feature and Model Selection** **UBC**
Instructor: Mark Schmidt, Varada Kolhatkar 2019 spring
- **Advanced Biometrics** **UBC**
Instructor: Bianca Eskelson 2018 fall

WORKSHOP and TUTOR.....

- **Listen to the Whispers of Wings** **Mossom Creek**
Host: Mossom Creek BioBlitz Jun.2023
- **Qualitative Analysis using R** **Virtual**
Host: Jennifer Wigglesworth Mar.2023
- **Introduction to Git and Github** **Virtual**
Host: Applied Analysis Hub Nov.2022
- **Data Wrangling with R** **UNBC**
Host: Applied Analysis Hub Mar.2022
- **Data Wrangling with R (4 sessions)** **Endemic Species Research Institute**
Host: Jerome Ko May.2021 – Jul.2021
- **Recording Techniques for Breeding Birds Survey (6 sessions)** **Endemic Species Research Institute**
Host: Luna Fan Dec.2020 – Mar.2021
- **Automatic bird sound detection: ARU data analysis** **Canadian Wildlife Service**
Host: Kathy Martin Oct.2018
- **Statistical Analysis in Ecology (5 sessions)** **UBC**
Host: Trevor Gareth Jones Jan.2018 – Apr.2018

ACADEMIC EXPERIENCE

- **Avian Biodiversity Assessment with Passive Acoustic Monitoring** **UNBC**
PhD thesis Aug.2021 – present
Supervisor: Ken Otter
- **Predicting Avian Population Trends Using Citizen Science Data** **Endemic Species Research Institute**
Research Project Mar.2020 – Jul.2021
Principal Investigator: Wan-Jyun Chen, Jerome Ko
- **Automatic Bird Sound Detection by Logistic Regression** **UBC**
Master Thesis (Funded by SAT) Jan.2018 – Nov.2019
Supervisor: Valerie LeMay, Bianca N.I. Eskelson, Kathy Martin
- **Relationships Between Successive Forest Fires** **UBC**
Master Thesis (Funded by NSERC) Sep.2017 – Nov.2019
Supervisor: Bianca N.I. Eskelson, Nicholas Coops, Kathy Martin
- **Seasonal Variation of Bird Sound in Sakha Republic** **Russian Academy of Science**
Arctic Research Cooperation (Funded by TEEDF) Apr.2017 – Aug.2017
Instructor: Sergei Sleptsov

- **Correlation Analysis of Tree Ring Characteristics**
Undergraduate Research Project (Funded by MOST)
Instructor: Biing T. Guan
 - **Detection of Chlorophyll Fluorescence Dynamics from a Single Chloroplast**
Undergraduate Research Project (Funded by MOST)
Instructor: Shi-Wei Chu
 - **Bayesian Statistic Modeling**
Short-Term Research Program
Instructor: Stavros Veresoglou
 - **Der Mogel – Bird Song Identification System ([link](#))**
Bachelor Thesis
Instructor: Tzeng-Yih Lam

NTU
Sep.2015 – Feb.2017

NTU
Mar.2015 – Nov.2016

Freie Universität Berlin
Jul.2016 – Aug.2016

NTU
Feb.2016 – Jun.2016
- * NSERC: Natural Sciences and Engineering Research Council
 - * MOST: Ministry Of Science and Technology
 - * TEEDF: Taiwan Ecological Engineering Development Foundation

- * UBC: University of British Columbia
 - * NTU: National Taiwan University
 - * SAT: Soundscape Association of Taiwan

OTHER EXPERIENCE

FIELD EXPERIENCE

- **Bander in Iona Island Bird Observatory** **Richmond, Canada**
Volunteer activity for migration monitoring *Sep.2018 – present*
- **Leader in post-fire vegetation measurement** **Williams Lake, Canada**
PI: Bianca N.I. Eskelson. Measure post-fire vegetation for permanent plots *Jun.2018 – Aug.2018*
- **Recordist in Siberian tundra research team** **Siberia, Russia**
PI: Sergei Sleptsov. Record bird songs and calls in Siberia Arctic tundra *Jul.2017 – Aug.2017*

VOLUNTEERS and MEMBERSHIPS

- **Volunteer in UBC Beaty Biodiversity Museum** **UBC**
Specimen preparation for museum demonstration and research purpose *Sep.2018 – present*
- **Member of UBC Birding Club** **UBC**
Participate events for birding *Dec.2017 – Nov.2019*
- **Member of Christmas Bird Counting** **National Audubon Society**
Collect avian population data for use in conservation biology *Dec.2017 – Dec.2019*
- **Volunteer for Modules in Ecology and Evolution Development** **UBC**
Deliver lectures for grade 3 students about scientific research topics *Mar.2019 – May.2019*
- **Volunteer in NTU Herbarium** **NTU**
Introduce herbarium to public on weekends *Mar.2015 – Mar.2016*

CREDENTIALS

- **Advanced Open Water Diving Certificate PADI**
- **Lifeguard License** Chinese Taipei Water Life Saving Association
- **Wilderness First Aid Certificate** Canadian Red Cross
- **Standard First Aid CPR-C/AED Certificate** Canadian Red Cross