

YI-CHIN TSENG (SUNNY)

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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, S., Hodder, D., and Otter, K. **2024** Using Autonomous Recording Units for Vocal Individuality: Insights from Barred Owl Identification. *Avian Conservation and Ecology*. (In Press)
- 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.....

- **2024**. Why do we band birds at all? *Nature Conservation Quarterly*, 124. ([link](#))
- **2023**. Nest boxes for barn owl conservation. *Nature Conservation Quarterly*, 122. ([link](#))
- **2023**. When beaver dam collapses. *Nature Conservation Quarterly*, 121. ([link](#))
- **2023**. Listening to the whispers of the wings. *Discovery*, 50(1):85-90. ([link](#))
- **2022**. Hey, there are wild black bears in my backyard. *Nature Conservation Quarterly*, 117. ([link](#))
- **2021**. Avian field recordings (II). *Feathers*, 301:22-27. ([link](#))

- 2021. Avian field recordings (I). *Feathers*, 300:38-41. ([link](#))
- 2019. Apply statistics on bird "listening". *Discovery*, 47(1):21-22. ([link](#))
- 2018. Can statistics help ornithologists "hear" birds? *BranchLines*, 29(3):11. ([link](#))

CONFERENCE TALK.....

- **AFO SCO-SOC WOS Joint Meeting** **Peoria, USA**
Evaluation and application of BirdNET: identification of bird species by their sounds Aug.2024
- **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.....

- **International Ecoacoustic Congress** **Madrid, Spain**
Evaluation and application of BirdNET: identification of bird species by their sounds Jul.2024
- **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

WORK EXPERIENCE

INFOGRAPHIC DESIGNER.....

I have been contracted for several scientific research publications, focusing on wildlife conservation. See my [portfolio](#).

FIELD RECORDIST.....

- **Recordist for Xeno-Canto ([profile](#))** **Xeno-Canto**
Include around 300 species of birds around the world. Jul.2017 – present

DATA ANALYST.....

- **Birds Canada** **Langley, Canada**
Supervisor: David Bradley Jan.2024 – Mar.2024
- **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 and TEACHING ASSISTANT.....

- **Advanced Statistical Analyses for Natural Resource Sciences** **UNBC**
Instructor, Co-instructor: Lisa Koetke Sep.2023 – Dec.2023
- **Applied Analysis Hub** **UNBC**
TA, Instructor: Eduardo Martins, Heather Bryan Sep.2021 – present
- **Data Wrangling** **UBC**
TA, Instructor: Tiffany Timbers, Tomas Beuzen 2019 fall
- **Descriptive Statistics and Probability for Data Science** **UBC**
TA, Instructor: Mike Gelbart (2018), Vincenzo Coia (2019) 2018 fall, 2019 fall
- **Regression I, Regression II** **UBC**
TA, Instructor: Gabriela Cohen Freue (I), Vincenzo Coia (II) 2019 spring, 2019 fall
- **Feature and Model Selection** **UBC**
TA, Instructor: Mark Schmidt, Varada Kolhatkar 2019 spring
- **Advanced Biometrics** **UBC**
TA, Instructor: Bianca Eskelson 2018 fall

WORKSHOPS, TALKS and INTERVIEWS.....

- **Machine Learning Advances in Ornithology Research** **Nature Vancouver**
Host: Nature Vancouver Nov.2023
- **From Taiwan to Arctic Tundra - the bird as a bridge ([storytelling](#))** **AOS annual meeting**
Host: American Ornithology Society annual meeting storytelling event Aug.2023
- **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
- **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
- **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) <i>Host: Luna Fan</i>	Endemic Species Research Institute <i>Dec.2020 – Mar.2021</i>
○ Sharing the Sounds of Nature (interview) <i>Interview with a scholar in bioacoustics.</i>	National Education Radio <i>Aug. 2020</i>
○ Automatic bird sound detection: ARU data analysis <i>Host: Kathy Martin</i>	Canadian Wildlife Service <i>Oct.2018</i>
○ Statistical Analysis in Ecology (5 sessions) <i>Host: Trevor Gareth Jones</i>	UBC <i>Jan.2018 – Apr.2018</i>

RECOGNITIONS

SCHOLARSHIPS and RESEARCH GRANT.....

○ Hugh Hamilton Memorial Scholarship <i>For graduate student with outstanding academic & involvement with Nature Science.</i>	Narue Vancouver <i>May.2024</i>
○ rOpenSci Championship Program <i>Outstanding proposal for R package development.</i>	rOpenSci <i>Jan.2024</i>
○ Canada Graduate Scholarship - Doctorial (CGS-D) <i>Rewarding and retaining high-calibre doctoral students at Canadian institutions.</i>	NSERC <i>Apr.2023</i>
○ Susan Stevenson Memorial Award <i>Excellence academic performance</i>	UNBC <i>Nov.2022</i>
○ CUPE Local 3799 Annual Bursary <i>Excellence academic performance</i>	UNBC <i>Sep.2022</i>
○ Mitacs Accelerate Fellowship <i>A long-term funding and internship option for PhD students in Canada</i>	MITACS <i>Jun.2022</i>
○ Graduate Entrance Research Scholarship <i>High academic performance for new graduate student</i>	UNBC <i>Jan.2021</i>
○ Early Career Grant (Upcoming research project) <i>Leading a fieldwork in Siberia Arctic tundra for avian sound recordings</i>	National Geographic <i>Jun.2020</i>
○ Mary and David Macaree Fellowship <i>Conducting research in Forestry</i>	UBC <i>Sep.2019</i>
○ VanDusen Graduate Fellowship in Forestry <i>Faculty of Forestry student in forest resource ecosystems</i>	UBC <i>Feb.2019</i>
○ Hugh Robert Duncan Chisholm Scholarship in Forestry <i>Conducting research in Forestry</i>	UBC <i>Nov.2018</i>
○ Werner and Hildegard HESSE Fellowship in Ornithology <i>Conducting research in Ornithology</i>	UBC <i>Oct.2018</i>
○ Pei-Huang Tung and Tan-Wen Tung Graduate Fellowship <i>Taiwanese students pursuing higher education in Canada</i>	UBC <i>Oct.2018</i>
○ Mary and David Macaree Fellowship <i>Students in Faculty of Forestry studying forest resource ecosystems</i>	UBC <i>Sep.2018</i>
○ BA Blackwell & Associates Scholarship in Fire Science <i>Conducting research about forest fire ecology</i>	BA Blackwell & Associates <i>Aug.2018</i>
○ Soundscape and Sound Research Scholarship <i>Soundscape or sound associated research</i>	SAT <i>Feb.2018</i>

<ul style="list-style-type: none"> ○ Faculty of Forestry Strategic Recruitment Fellowships <i>Top 20% ranked student</i> 	UBC <i>Sep.2017</i>
<ul style="list-style-type: none"> ○ Arctic Research Cooperation Scholarship <i>Selected researcher for Arctic research project</i> 	TEEDF <i>Apr.2017</i>
<ul style="list-style-type: none"> ○ College Student Research Scholarship <i>Excellent research proposal</i> 	MOST <i>Jun.2016</i>
<ul style="list-style-type: none"> ○ Alumnus scholarship in NTU Physics <i>3 awardees per year for outstanding academic achievement</i> 	NTU <i>Dec.2015</i>
<ul style="list-style-type: none"> ○ Outstanding College Student Scholarship <i>Scholarship for outstanding female students</i> 	The international Women's Educational Foundation <i>Sep.2012</i>

AWARDS

<ul style="list-style-type: none"> ○ Best Student Presentation Award <i>Best student oral presentation in The Wildlife Society conference</i> 	BC & CAN TWS <i>Mar.2023</i>
<ul style="list-style-type: none"> ○ Student Travel Award <i>Outstanding proposal in The Wildlife Society conference</i> 	BC & CAN TWS <i>Mar.2023</i>
<ul style="list-style-type: none"> ○ 3 Minute Thesis Award <i>1st place & people's choice of UNBC 3MT competition</i> 	UNBC <i>Feb.2023</i>
<ul style="list-style-type: none"> ○ Teaching Excellence Award <i>Outstanding teaching performance as a teaching assistant</i> 	UNBC <i>Sep.2022</i>
<ul style="list-style-type: none"> ○ Outstanding Oral Presentation Award <i>Outstanding oral presentations in Congress of Animal Behavior and Ecology</i> 	CABE <i>Feb.2021</i>
<ul style="list-style-type: none"> ○ Master of Data Science TA Award <i>Best TAs in Master of Data Science program of the academic year</i> 	UBC <i>Jun.2019</i>
<ul style="list-style-type: none"> ○ 3 Minute Thesis Award <i>First place of 3MT competition in UBC Faculty of Forestry</i> 	UBC <i>Feb.2019</i>
<ul style="list-style-type: none"> ○ College Student Research Creativity Award <i>Top 5% ranked research report</i> 	MOST <i>Aug.2017</i>
<ul style="list-style-type: none"> ○ Outstanding Poster and Presentation Award <i>Ranked 1, out of 14 groups, in physics department poster competition</i> 	NTU <i>Apr.2016</i>
<ul style="list-style-type: none"> ○ President Award <i>Top 5% ranked student in the semester</i> 	NTU <i>Jan.2016</i>

OTHER EXPERIENCE

VOLUNTEERS and MEMBERSHIPS

<ul style="list-style-type: none"> ○ Intermediate Bird Bander <i>Mist net set up, bird extraction, banding, data describing</i> 	Iona Island Bird Observatory <i>Sep.2018 – present</i>
<ul style="list-style-type: none"> ○ Bird Specimen Preparation <i>Specimen preparation for museum demonstration and research purpose</i> 	Beaty Biodiversity Museum <i>Sep.2018 – present</i>
<ul style="list-style-type: none"> ○ Member <i>Give presentations, lead eco-walks, and attend various activities with the community</i> 	Nature Vancouver <i>Sep.2018 – present</i>

CREDENTIALS

- **Advanced Open Water Diving Certificate** PADI
- **Lifeguard License** Chinese Taipei Water Life Saving Association