

YI-CHIN TSENG (SUNNY)

☎ +1 778-985-2258 • ✉ sunnyyctsen@gmail.com

EDUCATION

- **Master of Science, University of British Columbia** **Vancouver, Canada**
Department of Forest Resources Management *Sep.2017 – present*
Supervisor: Bianca N.I. Eskelson
Committee: Kathy Martin and Nicholas C. Coops

Course taken: Advanced Biometrics (A+), Technical Communication Skills (A+), Multiple Regression Methods (A+), Ornithology (A), Advanced Remote Sensing (A+)
- **Bachelor of Science, National Taiwan University** **Taipei, Taiwan**
School of Forestry and Resource Conservation & Department of Physics *Sep.2012 – July.2017*
Double Major Student
Supervisor: Biing T. Guan, Tzeng-Yih Lam, and Shi-Wei Chu

Forestry GPA: 3.96/4.0 (4.16/4.3 unconverted)
Physics GPA: 3.40/4.0 (3.48/4.3 unconverted)
Cumulative GPA: 3.65/4.0 (3.76/4.3 unconverted)

PUBLICATION

PEER-REVIEWED JOURNAL

- (In Preparation) Tseng, Y.-C., Eskelson, B.N.I., and Martin, K., LeMay V. **2019**. Automatic bird sound detection: Logistic occupancy model for audio recordings. *Avian Conservation and Ecology*.
- 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 JOURNAL

- (Under Review) Tseng, Y.-C. **2019**. Apply statistics on bird "listening". *Discovery*, 47(1). ([link](#))
- Tseng, Y.-C. **2018**. Can statistics help ornithologists "hear" birds? *BranchLines*, 29(3):11. ([link](#))

FIELD RECORDING

- **Xeno-Canto: World Wide Bird Sound Recordings Sharing Platform** **Xeno Canto**
Yi-Chin Tseng *Jul.2017 – present*
Total 234 recordings from 78 species are published. A recording of Siberian Crane was selected as homepage ([profile](#)).

CONFERENCE TALK

- **Canadian Wildlife Service Methods Seminar** **Vancouver, Canada**
Yi-Chin Tseng, Bianca N.I. Eskelson, and Kathy Martin *Oct.2018*
"Automatic bird sound detection: ARU data analysis"
- **International Ornithological Congress** **Vancouver, Canada**
Yi-Chin Tseng, Bianca N.I. Eskelson, and Kathy Martin *Aug.2018*
"Automatic bird sound detection: Logistic regression based acoustic occupancy model"

- **International Forestry Students' Symposium** **Manila, Philippines**
Aug.2015
Yi-Chin Tseng, Shi-Wei Chu
"Chlorophyll fluorescence: A powerful tool for photobiology research"

CONFERENCE POSTER.....

- **Annual meeting of Ecological Society of America** **Louisville, USA**
Aug.2019
Yi-Chin Tseng, Bianca Eskelson
"Relationships between successive forest fires: A case study in central interior BC, Canada"
- **Annual Meeting of Soundscape Association** **Taipei, Taiwan**
Jun.2018
Yi-Chin Tseng, Bianca Eskelson
"Automatic bird sound detection: Logistic regression based acoustic occupancy model"
- **Focus On Microscopy** **Bordeaux, France**
Apr.2017
Yi-Chin Tseng, Shi-Wei Chu
"High spatio-temporal-resolution detection of chlorophyll fluorescence from a single chloroplast with confocal imaging fluorometer"

ACADEMIC EXPERIENCE

- **Automatic Bird Sound Detection by Logistic Regression** **UBC**
Jan.2018 – present
Master Thesis (Funded by SAT)
Instructor: Valerie LeMay, Bianca N.I. Eskelson, Kathy Martin
- **Relationships between successive forest fires** **UBC**
Sep.2017 – present
Master Thesis (Funded by NSERC)
Instructor: Bianca N.I. Eskelson, Nicholas Coops, Kathy Martin
- **Seasonal Variation of Bird Sound in Sakha Republic** **Russian Academy of Science**
Apr.2017 – Aug.2017
Arctic Research Cooperation (Funded by TEEDF)
Instructor: Sergei Sleptsov
- **Correlation Analysis of Tree Ring Characteristics** **NTU**
Sep.2015 – Feb.2017
Undergraduate Research Project (Funded by MOST)
Instructor: Biing T. Guan
- **Detection of Chlorophyll Fluorescence Dynamics from a Single Chloroplast** **NTU**
Mar.2015 – Nov.2016
Undergraduate Research Project (Funded by MOST)
Instructor: Shi-Wei Chu
- **Bayesian Statistic Modeling** **Freie Universität Berlin**
Jul.2016 – Aug.2016
Short-Term Research Program
Instructor: Stavros Veresoglou
- **Der Mogel – Bird Song Identification System** **NTU**
Feb.2016 – Jun.2016
Bachelor Thesis
Instructor: Tzeng-Yih Lam

- * SAT: Soundscape Association of Taiwan
- * MOST: Ministry Of Science and Technology
- * NSERC: Natural Sciences and Engineering Research Council
- * TEEDF: Taiwan Ecological Engineering Development Foundation

- * UBC: University of British Columbia
- * NTU: National Taiwan University

AWARDS and SCHOLARSHIPS

<ul style="list-style-type: none"> Early Career Grant (Upcoming research project) 	National Geographic
<ul style="list-style-type: none"> 5,000 USD, A grant for leading sound recording fieldwork in Siberia Arctic tundra 	Jun.2020
<ul style="list-style-type: none"> 3 Minute Thesis Award 	UBC
<ul style="list-style-type: none"> 250 CAD, First place of 3MT competition in UBC Faculty of Forestry 	Feb.2019
<ul style="list-style-type: none"> VanDusen Graduate Fellowship in Forestry 	UBC
<ul style="list-style-type: none"> 500 CAD, Fellowship for conducting research in Forestry 	Feb.2019
<ul style="list-style-type: none"> Hugh Robert Duncan Chisholm Scholarship in Forestry 	UBC
<ul style="list-style-type: none"> 230 CAD, Scholarship for conducting research in Forestry 	Nov.2018
<ul style="list-style-type: none"> Werner and Hildegard HESSE Fellowship in Ornithology 	UBC
<ul style="list-style-type: none"> 13,500 CAD, Fellowship for conducting research in Ornithology 	Oct.2018
<ul style="list-style-type: none"> Pei-Huang Tung and Tan-Wen Tung Graduate Fellowship 	UBC
<ul style="list-style-type: none"> 2,500 CAD, Fellowship for Taiwanese students pursuing higher education in Canada 	Oct.2018
<ul style="list-style-type: none"> Mary and David Macaree Fellowship 	UBC
<ul style="list-style-type: none"> 2,700 CAD, Fellowship for students in Faculty of Forestry studying forest resource ecosystems 	Sep.2018
<ul style="list-style-type: none"> BA Blackwell & Associates Scholarship in Fire Science 	BA Blackwell & Associates
<ul style="list-style-type: none"> 1,000 CAD, Scholarship for students conducting research about forest fire ecology 	Aug.2018
<ul style="list-style-type: none"> Soundscape and Sound Research Scholarship 	SAT
<ul style="list-style-type: none"> 500 CAD, Scholarship for soundscape or sound associated research 	Feb.2018
<ul style="list-style-type: none"> Faculty of Forestry Strategic Recruitment Fellowships 	UBC
<ul style="list-style-type: none"> 12,000 CAD, Top 20% ranked student in each of the last two years of full time study 	Sep.2017
<ul style="list-style-type: none"> International Tuition Award 	UBC
<ul style="list-style-type: none"> 8,530 CAD, International graduate student registered full-time in research-oriented master's programs 	Sep.2017
<ul style="list-style-type: none"> College Student Research Creativity Award 	MOST
<ul style="list-style-type: none"> 1,000 CAD, Top 5% ranked research report 	Aug.2017
<ul style="list-style-type: none"> Arctic Research Cooperation Scholarship 	TEEDF
<ul style="list-style-type: none"> 6,500 CAD, Selected researcher for Arctic research project 	Apr.2017
<ul style="list-style-type: none"> MOST 	Excellent research proposal.
<ul style="list-style-type: none"> 1,000 CAD, College Student Research Scholarship 	Jun.2016
<ul style="list-style-type: none"> Outstanding Poster and Presentation Award 	NTU
<ul style="list-style-type: none"> 100 CAD, Ranked 1, out of 14 groups, in physics department poster competition 	Apr.2016
<ul style="list-style-type: none"> President Award 	NTU
<ul style="list-style-type: none"> 100 CAD, Top 5% ranked student in the semester 	Jan.2016
<ul style="list-style-type: none"> Alumnus scholarship in NTU Physics 	NTU
<ul style="list-style-type: none"> 3,000 CAD, 3 awardees per year for outstanding academic achievement 	Dec.2015

TEACHING ASSISTANT

- Descriptive Statistics and Probability for Data Science**

○ *Instructor: Vincenzo Coia*
Deliver guest lectures, attend labs with topics covering generalized linear models, mixture models, mixed effect models

Regression II

○ *Instructor: Vincenzo Coia*
Design assignments, deliver guest lectures, attend labs with topics covering generalized linear models, mixture models, mixed effect models

Feature and Model Selection

○ *Instructor: Mark Schmidt, Varada Kolhatkar*
Mark weekly labs on github platform, attend labs for supervised/unsupervised machine learning.

Descriptive Statistics and Probability for Data Science

○ *Instructor: Mike Gelbart*
Hold review sessions before exams, attend labs for probability theory

Advanced Biometrics

○ *Instructor: Bianca Eskelson*
Mark weekly assignments, attend labs

UBC
Sep.2019 – present

UBC
Feb.2019 – Aug.2019

UBC
Jan.2019 – Feb.2019

UBC
Sep.2018 – Oct.2018

UBC
Sep.2018 – Dec.2018

OTHER EXPERIENCE

FIELD EXPERIENCE.....

- Bander in Iona Island bird observatory**

○ *Volunteer activity for migration monitoring*

Leader in post-fire vegetation measurement

○ *PI: Bianca N.I. Eskelson. Measure post-fire vegetation for permanent plots*

Recordist in Siberian tundra research team

○ *PI: Sergei Sleptsov. Record bird songs and calls in Siberia Arctic tundra*

Richmond, Canada
Sep.2018 – present

Williams Lake, Canada
Jun.2018 – Aug.2018

Siberia, Russia
Jul.2017 – Aug.2017

VOLUNTEERS and MEMBERSHIPS.....

- Volunteer in UBC Beaty Biodiversity Museum**

○ *Specimen preparation for museum demonstration and research purpose*

Member of UBC Birding Club

○ *Participate events for birding*

Member of Christmas Bird Counting

○ *Collect avian population data for use in conservation biology*

Volunteer for Modules in Ecology and Evolution Development

○ *Deliver lectures for grade 3 students about scientific research topics*

Volunteer in NTU Herbarium

○ *Introduce herbarium to public on weekends*

Volunteer in ELIV Social Enterprise

○ *Help Cambodia local residents build houses, restrooms and provide health education.*

UBC
Sep.2018 – present

UBC
Dec.2017 – present

National Audubon Society
Dec.2017 – present

UBC
Mar.2019 – May.2019

NTU
Mar.2015 – Mar.2016

Cambodia
Aug. 2013

CREDENTIALS.....

- **Wilderness First Aid Certificate** Canadian Red Cross
- **Open Water Diving Certificate** PADI
- **CPR Certificate** The Red Cross Society of Taiwan
- **Lifeguard License** Chinese Taipei Water Life Saving Association