

## Hsiang Ling Chen

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### EDUCATION

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- **Ph.D. in Natural Resources and the Environment, Wildlife and Fisheries Conservation and Management**, minor in Natural Resources Studies, University of Arizona, Tucson, AZ, USA. - August 2014 (Expected)  
Dissertation: Barrier effects of roads and traffic on forest dependent species  
Advisor: Dr. John L. Koprowski
- **M.S. in Life Science**, National Taiwan Normal University, Taipei, Taiwan- 2007  
Thesis: Hunting motivations and strategies of native people, Bunun, at Danda Wildlife Management Area. Advisor: Dr. Ying Wang
- **B.S. in Biology**, National Cheng Kung University, Tainan, Taiwan- 2004  
Senior thesis: Thermal tolerance of *Bufo melanostictus* and *Bufo bankorensis* tadpoles  
Advisor: Dr. Ping Chun Hou
- **Areas of interest:** Effects of human activities on wildlife, especially habitat use and movement, road ecology, urban ecology, wildlife management and conservation, and human-dimension of wildlife

### EMPLOYMENT/EXPERIENCE

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- **Graduate Teaching Fellowship** - *Wildlife Conservation Behavior*, School of Natural Resources and Environment, University of Arizona, Tucson, AZ, U.S.A. January 2014 – Present. Supervisor: Dr. John Koprowski. Responsibility: grading, provide a guest lecture
- **Graduate Research Assistant** - *Red Squirrel Monitoring Project*, Conservation Research Laboratory, University of Arizona, Tucson, AZ, U.S.A. August 2012 – Present. Supervisor: Dr. John Koprowski. Responsibility: radio-telemetry, data management, quarterly population censuses and survey of food availability
- **Research Assistant** - *River Flow and Reservoir Management - Environmental Flow Regimes*, Department of Bioenvironmental System Engineering, National Taiwan University, Taipei, Taiwan. 2009. Supervisor: Dr. Sau-wai Yam. Responsibility: collection, processing and classification of macro aquatic insects
- **Research Associate**- *Behavior Enrichment of Chinese Pangolin (*Capricornis crispus swinhoei*)*, Formosan Animal Area, Taipei Zoo, Taipei, Taiwan. 2008. Supervisor: Shi-jia Zheng. Responsibility: design feeding enrichment devices; record and analyze activity pattern before and after enrichment, report writing
- **Research Assistant** – *Promotion of wildlife-based ecotourism in native people communities*,

Department of Life Science, National Taiwan Normal University, Taipei, Taiwan. 2007. Supervisor: Dr. Ying Wang. Responsibility: design questionnaire; interview local communities; syntheses natural resources and potential guides for ecotourism, organize and participate trial of ecotourism; report writing

- **Graduate Research Assistant**- *Wildlife Monitoring and Aborigine Hunting at Danta Wildlife Management Area*, Department of Life Science, National Taiwan Normal University, Taipei, Taiwan. 2004-2007. Supervisor: Dr. Ying Wang. Responsibility: wildlife monitoring with trail and auto-camera survey; interview and record illegal hunting activities; organize meetings between local community, governmental agencies and academia; design hunting regulations for native people to meet needs of traditional ceremony, organize and participate workshops and the trial of hunting regulation, data analysis, synthesis and report writing
- **Survey Technician** - *Human-wildboar (*Sus scrofa taiwanus*) conflict in Taiwan: A wildlife conservation study*, Department of Life Science, National Taiwan Normal University, Taipei, Taiwan. 2005. Supervisor: Dr. Hsin Ju Wu. Responsibility: interview farmers about opinions of wildboar, possible controls for crop damage
- **Survey Technician** - *Present Status Investigation of Crop Damage by Formosan Wildboar and the Utilization, Rearing of Formosan Wildboar by Human*, Department of Life Science, National Taiwan Normal University, Taipei, Taiwan. 2004. Supervisor: Dr. Hsin Ju Wu. Responsibility: interview farmers about crop damage
- **Undergraduate Field Technician** - *Exotic Amphibians in the Pet Shops of Taiwan*, Department of Biology, National Cheng Kung University, Tainan, Taiwan. 2004. Supervisor: Dr. Ping Chun Hou. Responsibility: record exotic amphibian species in pet shops
- **Undergraduate Field Technician** - *Long-Term Ecological Research in Nanjenshan Forest*. Department of Biology, National Cheng Kung University, Tainan, Taiwan. 2003. Supervisor: Dr. Ping Chun Hou. Responsibility: participate amphibian field survey

## PUBLICATIONS

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### *Peer - reviewed publications:*

- Koprowski J.L., **H. Chen**, M. Merrick, and K. Munroe. 2013. Tree squirrels as indicators of change: the conservation biologist's canary. *Mammal Study*. (will submit in Jan. 2014)
- Debridge, J.D., E. Posthumus, **H. Chen**, and J.L. Koprowski. 2012. Solenodon paradoxus. *Mammalian Species* (Submitted)
- **Chen, H.** and J. L. Koprowski. 2012. Effects of roads on wildlife in Arizona: how far have we traveled? In: Gottfried, Gerald J.; Ffolliott, Peter F.; Gebow, Brooke S.; Eskew, Lane G.; Collins, Loa C. *Merging science and management in a rapidly changing world: Biodiversity and management of*

the Madrean Archipelago III and 7th Conference on Research and Resource Management in the Southwestern Deserts; 2012 May 1-5; Tucson, AZ. Proceedings. RMRS-P-67. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 434-438.

- **Chen, H.** and J. L. Koprowski. 2011. Book review: "Safe passages: highways, wildlife, and habitat connectivity" by Beckmann et al. *Journal of Mammalogy*, 92: 1136-1141.

*Published Technical Reports:*

- Wang Y., **H. Chen** and Y. P. Ling. 2007. Wildlife monitoring and aborigine hunting at Danta Wildlife Management Area (3). Technique Research of Forestry Bureau, Council of Agriculture Executive Yuan, Taiwan.
- Wang Y., **H. Chen** and Y. P. Ling. and C.C. Wang. 2006. Wildlife monitoring and aborigine hunting at Danta Wildlife Management Area (2). Technique Research of Forestry Bureau, Council of Agriculture Executive Yuan, Taiwan.
- Wang Y., C.C. Wang, **H. Chen** and Y. P. Ling. 2005. Wildlife monitoring and aborigine hunting at Danta Wildlife Management Area (1). Technique Research of Forestry Bureau, Council of Agriculture Executive Yuan, Taiwan.

*Manuscripts in Preparation:*

- **Chen, H.** and J. L. Koprowski. Barrier effects of roads on an endangered forest obligate: gap, edge, and traffic avoidance.
- **Chen, H.**, J. L. Koprowski. and Erin E. Posthumus. Use of drainage culvert as road crossing structure on Mt. Graham.

## SCHOLARLY PRESENTATIONS

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*International:*

- **Chen, H.** and J. L. Koprowski. 2013. Barrier effects of roads on an endangered forest obligate: role of forest structure (Poster). International Conference on Ecology and Transportation, AZ, USA.
- **Chen, H. L.** and J. L. Koprowski. 2012. Road and traffic effects on movements and space use of red squirrels (Oral Presentation). 6th International Colloquium on Arboreal Squirrels, Kyoto, Japan.
- **Chen, H. L.** and Y. Wang. 2008. Hunting motivation and behavior of Bunun hunter at Danda major Wildlife habitat in Taiwan. (Oral Presentation). 14th International Symposium on Society and Resource Management, Burlington, Vermont, USA.

*National:*

- **Chen, H.** and J. L. Koprowski. 2013. Barrier effects of roads on an endangered forest obligate: role of forest structure (Oral Presentation). 93rd annual meeting of American Society of Mammalogists, PA, USA.

- **Chen, H. L.** and J. L. Koprowski. 2011. Barrier effects of roads: boundary of home ranges of endangered Mt. Graham red squirrels. (Poster). The Wildlife Society's 18th Annual Conference, Waikoloa, HI, USA.
- **Chen, H. L.** and J. L. Koprowski. 2010. Effects of roads on small mammals: Are roads barriers to red squirrels? (Poster). The Wildlife Society's 17th Annual Conference, Snowbird, UT, USA.
- **Chen, H. L.** and C. C. Tsai. 2008. Estimating site occupancy of ungulates in mid-Taiwan and detection probability based on auto-sensing camera data. (Poster). 88th Annual Meeting of the American Society Mammalogists. Brookings, SD, USA.
- **Chen, H. L.** and P. C. Hou. 2004. Why *Bufo melanostictus* cannot disperse to high altitude area? (Poster) Annual Symposium on Biology, Stream, Behavior and Ecology, Taipei, Taiwan.

*Regional and university:*

- **Chen, H.** and J. L. Koprowski. 2013. Barrier effects of roads on an endangered forest obligate: role of forest structure. The University of Arizona Graduate and Professional Student Council Student Showcase.
- **Chen, H.** and J. L. Koprowski. 2013. Barrier effects of roads on an endangered forest obligate: role of forest structure. Graduate Student Environmental Research Blitz, The University of Arizona.
- **Chen, H.** and J. L. Koprowski. 2013. Barrier effects of roads on an endangered forest obligate: importance of canopy cover (Oral Presentation). 46th Joint Annual Meeting of The Arizona and New Mexico Chapters of The Wildlife Society, Albuquerque, NM, USA.
- **Chen, H.** and J. L. Koprowski. 2012. Barrier effects of roads: boundary of home ranges of endangered Mt. Graham red squirrels. Graduate Student Environmental Research Blitz, The University of Arizona.
- **Chen, H.** and J. L. Koprowski. 2012. Effects of roads on wildlife in Arizona: how far have we traveled? (Oral Presentation). 7th Conference on Research and Resource Management in the Southwestern Deserts, Tucson, AZ, USA.
- **Chen, H. L.** and J. L. Koprowski. 2011. Do roads serve as boundary of home ranges of Mt. Graham red squirrels? (Poster). 44th Joint Annual Meeting of The Arizona and New Mexico Chapters of The Wildlife Society, Pinetop, AZ, USA.
- **Chen, H. L.** and Y. Wang. 2010. Bunun hunting within Danda Major Wildlife Habitat in Taiwan (Poster). 43rd Joint Annual Meeting of The Arizona and New Mexico Chapters of The Wildlife Society, Flagstaff, AZ, USA.

## **HONORS AND AWARDS**

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- Arrington Memorial Scholarship Endowment (University of Arizona), 2013

- Graduate College Fellowship (University of Arizona), 2010
- Graduate College Fellowship (University of Arizona), 2009
- Study Abroad Fellowship (Ministry of Education, Taiwan), 2009-2011
- Customer-Children Scholarship (Cathay United Bank), 2007

### GRANTS RECEIVED

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- The American Society of Mammalogists, Grants-in-Aid of Research, 2013
- Graduate and Professional Student Council Travel Grant (University of Arizona), 2010, 2011, 2012, 2013
- Institute of the Environment Graduate Travel Award (University of Arizona), 2010, 2011, 2013
- T & E Inc. Grant for Conservation Biology Research, 2010

### SERVICE AND SELECTED EXTRACURRICULAR ACTIVITIES

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- **Speaker**, Conservation Café, Tucson, AZ, March 2014
- **Speaker**, The University of Arizona student chapter of the Wildlife Disease Association, 2013
- **Education and Graduate Students Committee**, The American Society of Mammalogists, 2013
- **Graduate Student Invited Speaker Seminar Planning Committee**, University of Arizona, 2013
- **Volunteer** in Biodiversity & Management of the Madrean Archipelago III, Tucson, 2012
- **Judge** for Graduate and Professional Student Council Travel Grant, University of Arizona, 2010
- **Reviewer**, Human- Wildlife Interactions, Department of Wildland Resources, Utah State University, December 2010.
- **Volunteer** in Black-tailed Prairie Dog Release and Monitoring, Arizona Game and Fish Department, October 2009, March 2013.
- **Planning Committee, Master of Ceremonies** in 7<sup>th</sup> China-Taiwan Cross-Strait Symposium on Ornithology, Taipei, Taiwan, December 2007

### TECHNICAL SKILLS

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#### *GIS and Remote Sensing Software:*

- ArcGIS 9.3, 10.x (ArcMap, Catalog, Toolbox, Spatial Analyst, Geostatistical Analyst)
- Geospatial Modelling Environment (Spatial Ecology LLC)
- LOAS (Location of a Signal, Ecological Software Solutions)
- ERDAS Imagine
- GeoDA

#### *Database Software:*

- Microsoft Access 2007 & 2010

- ArcGIS 9.3 Personal Geodatabase

*Statistical Software:*

- R 3.0, SPSS, JMP, Presence, MARK

## **PROFESSIONAL ORGANIZATIONS**

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- Animal Behavior Society
- Southwestern Association of Naturalists
- The American Society of Mammalogists
- The Ecological Society of America
- The Wildlife Society
- The International Association for Society & Natural Resources

## **REFERENCES**

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- Dr. John Koprowski, (Ph.D. adviser, Director of Red Squirrel Monitoring Project) 520-624-6439, [squirrel@ag.arizona.edu](mailto:squirrel@ag.arizona.edu)  
University of Arizona, School of Natural Resources,  
325 Biological Sciences East, Tucson, AZ 85721
- Dr. Robert J. Steidl, Ph.D., (Ph.D committee member)  
(520) 626-3164, [steidl@ag.arizona.edu](mailto:steidl@ag.arizona.edu)  
University of Arizona, School of Natural Resources,  
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- Dr. Randy Gimblett , (Ph.D committee member)  
520-621-6360, [gimblett@ag.arizona.edu](mailto:gimblett@ag.arizona.edu)  
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- Dr. Cecil Schwalbe, (Ph.D committee member)  
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University of Arizona, School of Natural Resources,  
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- Dr. Ying Wang, (MS. adviser)  
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