David Tan Jian Xiong

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Education/Professional Preparation

- 2019 present: University of New Mexico, NM, USA PhD candidate at the Department of Biology
 - · Doctoral Advisor: Dr. Michael J. Andersen
 - Dissertation: The Systematics and Biogeography of the Old World Suboscine Genus Pitta
- 2010 2015: National University of Singapore, Singapore BSc (Hons) in Life Science, specialization in Environmental Biology; University Scholars Programme
 - Undergraduate Advisor: Dr. Frank E. Rheindt
 - Undergraduate Thesis: The Population Dynamics of the Striped Tit-Babbler in Singapore
- 2012 2013: Yale University, CT, USA Visiting International Student

Employment History/Research Experience

- Curatorial Assistant, Museum of Southwestern Biology (2024 present): Bird specimen preparation, accessioning, and outreach at the Division of Birds; specimen accessioning and loan processing at the Division of Genomic Resources.
- Graduate Teaching Assistant, University of New Mexico (2020 2023): Taught BIOL 1150 Biodiversity for five semesters, and BIOL 310C Principles of Ecology for one semester.
- Curatorial Assistant, Museum of Southwestern Biology (2019 2020): Specimen accessioning and loan processing at the Division of Genomic Resources (DGR).
- Research Assistant, Lee Kong Chian Natural History Museum (2018 2019): Phylogenomics and population genomics of the endemic land crabs of Christmas Island using ddRAD-Seq.
- Lead Content Consultant/Researcher, GSMprjct Singapore/Montreal (2018 2019): Scientific consultant for the design of the Mandai Bird Paradise in Singapore.
- Avian Field Technician, University of Cambridge (2018 2019): Bird surveyor for the BEFTA and RERTA projects (University of Cambridge) in Riau Province, Sumatra.
- Research Assistant, National University of Singapore (2017 2017): Hidden butterfly extinctions modelling project at the Theoretical Ecology and Modelling Lab.
- Research Assistant, National University of Singapore (2015 2017): Administrative assistant and bioinformatics technician at the Southeast Asian Biodiversity Genomics Centre.

Field Expeditions

- Ko Man Nai, Thailand (1 April 2023 4 May 2023): Bird ringing and blood sampling on Man Nai Island in the Gulf of Thailand, organised in collaboration with Assoc. Prof. Phillip Round and the Thailand Department of National Parks, Wildlife and Plant Conservation.
- Pulau Ubin, Singapore (22 May 2023 16 June 2023): Bird ringing and blood sampling on Ubin Island in the Straits of Johor, organised in collaboration with Assoc. Prof. Frank Rheindt and the National Parks Board, Singapore.

Peer Reviewed Papers

- Kwak ML, Lee L, **Tan DJX**, Rheindt FE, Nakao R. (2024). Nation-wide surveillance of ticks (Acari: Ixodidae) on birds in Singapore. *Acta Tropica*, 260, 107411.
- Tan DJX, Freymueller NA, Teo KM, Symes WS, Lum SKY, Rheindt FE. (2024). Disentangling the biotic and abiotic drivers of bird-building collision in a tropical Asian city with ecological niche modeling. *Conservation Biology*. DOI: 10.1111/cobi.14255.
- Chisholm RA, Kristensen NP, Rheindt FE, Chong KY, Ascher JS, Lim KKP, Ng PKL, Yeo DCJ, Meier R, Tan HH, ..., Tan DJX, ..., Sin KYC. (2023). Two centuries of biodiversity discovery and loss in Singapore. *Proceedings of the National Academy of Sciences*. 120(51). DOI: 10.1073/pnas.230903412.

- Tan DJX, Gyllenhaal EF, Andersen MJ. (2023). PleistoDist: A toolbox for visualising and quantifying the effects of Pleistocene sea-level change on island archipelagos. *Methods in Ecology and Evolution*. DOI: 10.1111/2041-210X.14024.
- Lee L, **Tan DJX**, Oboňa J, Ang Y, Meier T. (2022). Hitchhiking into the future on a fly: Toward a better understanding of phoresy and avian louse evolution (Phthiraptera) by screening bird carcasses for phoretic lice on hippoboscid flies (Diptera). *Systematic Entomology*, 47, 420-429.
- Theng M, Jusoh WFA, Jain A, Huertas B, **Tan DJX**, Tan HZ, ... Chisholm RA (2020). A comprehensive assessment of diversity loss in a well-documented tropical insect fauna: Almost half of Singapore's butterfly species extirpated in 160 years. *Biological Conservation*, 242, 108401.
- Luke SH, Advento AD, Aryawan AAK, Adhy DN, Ashton-Butt A, Barclay, H., ..., **Tan DJX**, ... Turner, E. C. (2020). Managing Oil Palm Plantations More Sustainably: Large-Scale Experiments Within the Biodiversity and Ecosystem Function in Tropical Agriculture (BEFTA) Programme. Frontiers in Forests and Global Change, 2.
- Tan DJX, Chattopadhyay B, Garg KM, Cros E, Ericson PGP, Irestedt M, Rheindt FE (2018) Novel genome and genome-wide SNPs reveal early fragmentation effects in an edge-tolerant songbird population across an urbanized tropical metropolis. *Scientific Reports*, 8, 12804.
- Tan DJX, Yong DL, Low BW, Owyong A, Chia A (2017) Anthropogenic sources of non-migratory avian mortalities in Singapore. *International Journal of Tropical Veterinary and Biomedical Research*, 2(2), 17-27
- Low BW, Yong DL, **Tan DJX**, Owyong A, Chia A (2017) Migratory bird collisions with man-made structures in South-East Asia: a case study from Singapore. *BirdingAsia*, 27, 107-111.
- Tan DJX (2016) A quantitative survey of avian population densities in a heterogeneous tropical urban landscape. *Raffles Bulletin of Zoology Supplement*, 32, 95–104.
- Sadanandan KR, **Tan DJX**, Schjølberg K, Round PD, Rheindt FE (2015) DNA reveals long-distance partial migratory behavior in a cryptic owl lineage. *Avian Research*, 6, 1-7.

Selected Conference Presentations

- British Ornithologists' Union 2016 Annual Conference, University of Leicester, UK, 5 7 April 2016: Population genomics of Mixornis gularis in a fragmented urban-dominated landscape, Poster presentation
- Biodiversity of Singapore Symposium IV, National University of Singapore, Singapore, 1 August 2015: How fragmented are Singapore's forests? Population dynamics of the Striped Tit-Babbler in Singapore, Talk
- International Max Planck Research School Selection Symposium 2017, Max Planck Institute for Ornithology, Germany, 26 - 30 March 2017: A Forest-dependent Passerine in a Tropical Metropolis: The Landscape Genetics of the Striped Tit-Babbler, Talk
- 27th International Ornithological Congress, Vancouver, Canada, 20 26 August 2018: Novel genome and genome-wide SNPs reveal early fragmentation effects in an edge-tolerant songbird population across an urbanized tropical metropolis, Poster presentation.
- **28th International Ornithological Congress,** Durban, South Africa, 14 20 August 2022 (online): Why do birds fall out of the sky? The biotic and abiotic drivers of bird-building collisions in Singapore, Talk.
- International Biogeography Society 11th Biennial Conference, Prague, Czech Republic, 7 11 January 2024: PleistoDist: A toolbox for visualising and quantifying the effects of Pleistocene sea-level change on island archipelagos, Poster presentation.
- **3**rd **Joint Congress on Evolutionary Biology**, Montreal, Canada, 26 30 July 2024: The origins and consequences of the blue-winged pitta range expansion in Southeast Asia, Talk.
- 142nd Annual Meeting of the American Ornithological Society, Estes Park, Colorado, 1 5 October 2024: The origins and consequences of the blue-winged pitta range expansion in Southeast Asia, Talk.

• 2nd Asian Ornithology Conference, Beijing, China, 14 – 17 November 2024: The impact of Bluewinged Pitta (*Pitta moluccensis*) range expansion on the conservation of the Mangrove Pitta (*Pitta megarhyncha*) in Singapore, Talk.

Awards and Honours

- Donald Caughran Memorial Scholarship (2019): \$1,500
- Alvin R. and Caroline G. Grove Summer Research Scholarship (2019): \$1,250
- Society of Systematic Biologists Graduate Student Research Awards (2020): \$2,790.40
- American Museum of Natural History Chapman Memorial Fund (2020): \$1,944
- Synthesys+ Transnational Access Call 3 (2021): \$2,601.19 for specimen morphometrics at the Naturalis Biodiversity Centre in the Netherlands
- Graduate Research Allocations Committee Travel Award (2022): \$160
- University of New Mexico Research Day Best Graduate Talk Award (2022): \$100
- Alvin R. and Caroline G. Grove Summer Research Scholarship (2023): \$2,500
- University of New Mexico Graduate and Professional Student Association Student Research Grant Award (2024): \$500
- Alvin R. and Caroline G. Grove Summer Research Scholarship (2024): \$1,500
- University of New Mexico Research Day Best Graduate Talk Award (2024): \$100
- American Ornithological Society Student Research Awards (2024): \$2,448
- UNM Doctoral Conference Presentation Award (2024): \$1,200
- Graduate Research Allocations Committee Research Award (2024): \$400

Service

- Wilson Ornithological Society Executive Council Member (2021 2024)
- Biology Graduate Student Association Graduate Research Allocations Committee Co-Chair (2023-2024)
- University of New Mexico Department of Biology Graduation Committee (2023)
- University of New Mexico Department of Biology Scholarship Committee (2022)
- National University of Singapore Cinnamon College/NUS College admissions interviewer (2019-2023)
- National University of Singapore Department of Biological Sciences research outreach talk (2015)

Courses Developed and Taught

- ULS2208 Biodiversity and Natural History in Singapore (Spring 2018), National University of Singapore, University Scholars Programme, Guest Lecturer (3 lectures on ornithology)
- **BIOL 1150 Biodiversity** (Fall 2020 Fall 2022), University of New Mexico, Department of Biology, Teaching Assistant.
- NHS2055 Curating Singapore (Spring 2023), National University of Singapore, NUS College, Guest Lecturer (3 lectures on the history of natural history museums and environmental management in Singapore)
- **BIOL 310C Principles of Ecology** (Fall 2023), University of New Mexico, Department of Biology, Teaching Assistant.

Peer Reviewing

Avian Conservation and Evolution (1), Evolution (1), Ibis (2), Journal of Asian Ornithology (1), Molecular Phylogenetics and Evolution (1), PeerJ (1), Raffles Bulletin of Zoology (4), Avian Research (1), Biological Conservation (1)

Public Outreach and Education

Citizen Science Projects

- Wildlife Reserves Singapore Biannual Biodiversity Surveys, 2014 2018
- Urban avian mortalities of Singapore, 2013 2020

Invited Talks

- Hong Kong Bird Watching Society Landbird Monitoring and Conservation Across East Asia Webinar, 7 Mar 2024, "The Drivers of Bird-Building Collisions in Singapore".
- East Carolina University Ornithology Symposium, 6 Dec 2021, "Disentangling the biotic and abiotic drivers of bird-building collisions in a tropical Asian city using ecological niche modelling".
- Nature Society (Singapore), 16 Oct 2021, "Why do birds fall out of the sky?".
- University of New Mexico Department of Architecture and Planning, 24 Oct 2019, "Greening the Garden City: Managing Singapore's Urban Biodiversity" (guest lecture).
- Singapore Institute of Landscape Architects, Singapore, 6 Sep 2017, "Designing Bird-Friendly Cities: An Ecological Perspective"
- Millenia Institute, Singapore, 23 Aug 2017, "Speaking for the Trees: Conservation and Development in Singapore"
- Meridian Junior College, Singapore, 21 Apr 2017, "Speaking for the Trees: Conservation and Development in Singapore"
- National University of Singapore Political Society, Singapore, 23 Aug 2016, "Singapore Got Wildlife, Meh?: The Biodiversity of Singapore's Forests"
- Each Blade of Grass, Each Shrub, Each Tree (Art Exhibition), The Substation, Singapore, 7 May 2016, "Why Do Birds Fall Out of the Sky?"
- Millenia Institute, Singapore, 1 Apr 2016, "Singapore Got Wildlife, Meh? The Biodiversity of Singapore's Forests"
- National Library, Singapore, 12 Mar 2016, "Singapore Got Wildlife, Meh? The Biodiversity of Singapore's Forests"
- Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, Singapore, 19
 Feb 2016, "Wildlife in Our Rainforests Threats and Opportunities"
- Dunman High School, Singapore, 5 Dec 2015, "Consider the Birds Ornithological Research in Singapore"
- Science Cafe Singapore, Singapore, 19 Nov 2015, "How Fragmented Are Singapore's Forests?"
- DHI Singapore, Singapore, 18 Nov 2015, "How Fragmented Are Singapore's Forests?"
- Tanjong Katong Girls' School, Singapore, 16 Oct 2015, "Singapore Got Wildlife, Meh? Adventures in Singapore's Wild Places"
- Cantik Lah Singapore, Orchard Library, Singapore, 19 Sept 2015, "(Mis)Representing the Natural World — The Ethics and Aesthetics of Nature Photography"
- National University of Singapore High School of Math and Science, Singapore, 13 Jul 2015, "Why Do Birds Fall Out of the Sky?"
- Tierra Design, Singapore, 2 Jul 2015, "How Fragmented Are Singapore's Forests?"
- Changi-Simei Community Centre, Singapore, 21 Jun 2014, "Whatever Happened to the Dinosaurs?"
- · Lee Kong Chian Natural History Museum, Singapore, 16 May 2014, "Guiding with Specimens"
- Victoria School, Singapore, 10 Mar 2014, "Speaking for the Trees Nature Advocacy in Singapore"
- Mayflower Primary School, Singapore, 28 Oct 2013, "Singapore Got Wildlife, Meh? Adventures in Singapore's Wild Places"

Other Outreach Activities

• Each Blade of Grass, Each Shrub, Each Tree (Art Exhibition), The Substation, Singapore, 5 - 15 May 2016, Art Exhibition/Installation featuring specimens from urban avian mortality collection

- Feather Forensics: Part of the Railtrack Songmaps Project, M1 Singapore Fringe Festival, Singapore, 13
 14 Jan 2016, Art Exhibition/Installation featuring imaged specimens from urban avian mortality collection
- Feather Forensics: Part of the Railtrack Songmaps Project, exhibited as part of the Three Tired Tigers event at the Jameel Arts Centre, Dubai, 2 Nov 2024 16 Mar 2025, Art Exhibition/Installation highlighting the sensory ecology of bird-window collisions in Singapore.

Media Appearances/Coverage

- "Birds likely to crash into buildings if they are near greenery: Study", Singapore Tonight, Channel NewsAsia (11 Apr 2024).
- Ang Q (2024) Springleaf, Tengah among potential hot spots for birds crashing into buildings: Study. The Straits Times.
- Tan A (2017) Skyscrapers pose fatal risk to migratory birds: Study. The Straits Times.
- Tan A (2015) Meet Singapore's own "bird man." The Straits Times, B14.
- Avian migration and urban avian mortality research featured on Discovery Channel Asia documentary "Man vs Birds" (2015)
- Urban avian mortality research featured on local documentary series "Secret Singapore" (2014)
- Feng Z (2013) Team flocks to collect dead birds for research. The Straits Times, 41.