

HUNG, TIN HANG (HENRY) BSC CUHK, DPHIL OXFORD

Tel +44 (0)1865 275097 Email tin-hang.hung@biology.ox.ac.uk

Web <http://hung.bio> X @tinhanghung



EDUCATION

- 2017.09–22.03 **University of Oxford, United Kingdom**
Doctor of Philosophy (DPhil) in Interdisciplinary Bioscience – Plant Sciences
- 2013.09–17.07 **The Chinese University of Hong Kong, Hong Kong**
Bachelor of Science (BSc) in Biology, First Class Honours
Triple-minoring in Music, German & Environmental Science

ACADEMIC APPOINTMENTS

- 2025.04– **Department of Biology, University of Oxford** Croucher Fellow
- 2024.12– **Museum of Climate Change, The Chinese University of Hong Kong** MoCC Scholar
- 2023.10– **Somerville College, University of Oxford** Fulford Junior Research Fellow
- 2023.10– **St Hilda's College, University of Oxford** Stipendiary Lecturer in Biology
- 2022.10– **Magdalen College, University of Oxford** Retained Lecturer in Biology
- 2022.03–25.03 **Department of Biology, University of Oxford** Postdoctoral Researcher in Forest Science

PROFESSIONAL SERVICES

- 2023.09– **Zytca Limited** Scientific Advisor
- 2019.07– **British Ecological Society** Co-Chair of Ecological Genetics Group (2022.07–); Events Committee (2019.07–)
- 2019.06– **Oxford University Hong Kong Scholars Association** President (2021.06–22.06); Events Officer (2020.06–21.06); Academic Officer (2019.06–20.06)
- 2020.06– **IUCN Species Survival Commission** Seed Conservation Specialist
- 2019.07– **IUCN Commission on Ecosystem Management** Forest Ecosystem Specialist
- 2018.09– **Zoological Society of London** Fellow
- 2018.05– **The Linnean Society of London** Associate (2018.05–); Fellow (2023.07–)

MAJOR AWARDS

- 2025 **Forbes**
Forbes 30 Under 30 Europe – Science & Healthcare
- 2024–27 **Croucher Foundation**
Croucher Fellowship: ~GBP 135,250 (**Croucher Fellow**)
- 2024 **The Linnean Society of London**
Irene Manton Prize (for the best doctoral thesis in botany of the year): GBP 1,000
- 2021 **IALE-North America 2021 Annual Meeting**
Best Student Presentation: USD 300
- 2017–21 **University of Oxford**
Radcliffe Scholarship in Interdisciplinary Bioscience: ~GBP 148,000 (**Radcliffe Scholar**)
- 2017–21 **The Government of The Hong Kong Special Administrative Region**

CURRICULUM VITAE OF HUNG, TIN HANG

Hong Kong Scholarship for Excellence: HKD 1,200,000 (**Hong Kong Scholar**)

2015–17 **John Swire & Sons (H.K.) Ltd. & The Chinese University of Hong Kong**

Swire Scholarship: HKD 126,300

MAJOR GRANTS

2025–28 **BBSRC Standard Research Grant: 2024 Round 3**

“Long-lasting defence priming to protect against forest insect pests and crop microbial diseases” (**RcL, result pending**): GBP 1,799,057.00

2025–27 **Darwin Initiative Round 31 – Capability and Capacity**

“Strengthening disease diagnostics and welfare management in Bornean orangutan rehabilitation” (**Col, result pending**): GBP 125,480.00

2024–25 **Oxford University Press John Fell Fund**

“Extreme gene copy number and defence in conifer gigagenomes” (**PI**): GBP 9,936.00

2023–24 **Oxford University Press John Fell Fund**

“Genome analysis and population structure of Wytham oaks” (**RCol**): GBP 9,999.60

2023–24 **NEOF Early Career Researchers Pilot Project Grant**

“Emergence of somatic mutation in ancient pedunculate oaks” (**PI**): GBP 12,023.16

2023 **Innovate UK Transformative Technologies**

“Developing a rapid, adaptable point-of-care diagnostic pipeline and device for the fast-mutating PRRSV” (**CoPI**): GBP 49,921.00

2023–24 **Google Cloud Research Credit**

“Genomic underpinning of drought adaptation in critically endangered Siamese rosewood for conservation and restoration” (**PI**): GBP 4,040.75

2022–24 **National Geographic Society Level I Grant**

“Genomic underpinning of drought adaptation in critically endangered Siamese rosewood for conservation and restoration” (**PI**): USD 19,948.00

2022–25 **Leverhulme Trust**

“Gene number variation as a driver of local adaptation in conifer defences” (**RCol**): GBP 291,005

2020–21 **Google Cloud Research Credit**

“First *de novo* genomic assembly of rosewood *Dalbergia cochinchinensis*” (**PI**): GBP 4,014.75

2019–20 **Scholarship Grant Award, Oxford & Cambridge Society of Hong Kong**

“First *de novo* transcriptomic assemblies of six rosewood *Dalbergia* species” (**PI**): HKD 20,000

TEACHING QUALIFICATIONS

2020 **SEDA PDF Supporting Learning Award** (equivalent to AFHEA)

2020 **University of Oxford** Developing Learning and Teaching

2019 **University of Oxford** Preparing for Learning and Teaching at Oxford

 PROFESSIONAL OUTPUTS

Book chapter

1. **Hung, T. H.**, Buggs, R. & MacKay, J.J. (forthcoming). Oaks on the British Islands and their investigation using genomics. *The Oak Genome*. Taylor and Francis Group.
2. Warrier, R. R., Thammavong, B., So, T., Theilade, I., Harvtig, I., **Hung, T. H.**[^] ... Jalonen, R. (in production). Effective conservation of Asian Rosewoods and their genetic resources requires regional collaboration. *Dalbergias of Asia*. Springer Nature.

Referred articles *corresponding authors ^ co-first authors

1. **Hung, T. H.**[^], Chang, H.[^], Li, B., Kong, B. L. H., Tsai, M.-S., Deng, D. & Cui, Z. (under review). Evaluation and clinical validation of pan- and clade-specific diagnostic real-PCR time assays for human mpox virus. *The Lancet Discovery Science – eBioMedicine*. [\[preprint\]](#)
2. Csilléry, K.*, Yang, H., **Hung, T. H.**, Rodríguez-Rodríguez, P.[^], Miller, J., Mantovani, V., Chauvier-Mendes, Y. & Nobis, M. (under review). GenDivRange: A global database of geo-referenced population genetic diversity across species ranges. *Scientific Data*.
3. Wu, E. T. Y.*, **Hung, T. H.**, Erbilgin, N., Ullah, A., Jansons, Ā., Ali, H. A., Clegg, S. M. & MacKay, J.J. (under review). Variation in the molecular phenotype of an insect defense-related beta-glucosidase gene (*Bglu1*) in two transcontinental *Picea* species. *Molecular Ecology*. [\[preprint\]](#)
4. **Hung, T. H.***, Formaggia, E., Morley, L., Salguero-Gómez, R., Sheldon, B. C. & MacKay, J.J.* (under review). Genetic diversity and population structure of pedunculate oaks (*Quercus robur*) in Wytham Woods. *Plants, People, Planet*. [\[preprint\]](#)
5. **Hung, T. H.**^{.*^}, Tsai, M.-S.[^], Newman, C., Macdonald, D. & Buesching, C. (under review). Pre-implantation genome-wide methylation enables environmental adaptation in a social meso-carnivore. *Molecular Ecology*. [\[preprint\]](#)
6. **Hung, T. H.**[^], Ramadan, I. S.[^], Kano, F., Inoue-Murayama, M.* & Biro, D. (under review). Associations between genetic polymorphisms and personality, stress response and navigational performance in homing pigeons (*Columba livia*). *Proceedings of the Royal Society B: Biological Sciences*.
7. **Hung, T. H.*** & Chen, P.-H. (2025). Fair enough or not: Scientific and historic perspectives of sex controversies in Paris 2024 Olympics. *East Asian Science, Technology and Society: An International Journal*. [\[doi\]](#)
8. Rizzuto, G.*, Wang, D., Chen, J., **Hung, T. H.**, Fitzky, A., Flashman, E. & MacKay, J.J.* (2024). Contrasted NCED gene expression across conifers with Rising and Peaking abscisic acid responses to drought. *Plant Stress*, 14, 100574. [\[doi\]](#)
9. Bellissimo, G., Altamirano, M.*, Muñoz, A. R., De la Rosa, J., **Hung, T. H.**, Rizzuto, G., Vizzini, S., Tomasello, A. (2024). First record of the invasive seaweed *Rugulopteryx okamurae* (Dictyotales, Ochrophyta) in Italy. *Bioinvasions Records*, 13(2), 385–401. [\[doi\]](#)
10. Woudstra, Y., Tumas, H., van Ghelder, C., **Hung, T. H.**, Ilska, J. J., Girardi, S., A'Hara, S., McLean, P., Cottrell, J., Bohlmann, J., Bousquet, J., Birol, I., Woolliams, J. A., MacKay, J.J.* (2024). Conifers concentrate large numbers of NLR immune receptor genes on one chromosome. *Genome Biology and Evolution*, 16(6), evae113. [\[doi\]](#)

CURRICULUM VITAE OF HUNG, TIN HANG

11. **Hung, T. H.***, Wu, E. T. Y., Zeltinš, P., Jansons, Ā., Ullah, A., Erbilgin, N., Bohlmann, J., Bousquet, J., Birol, I., Clegg, S. M. & MacKay, J.J.* (2024). Long-insert sequence capture detects high copy numbers in a defence-related beta-glucosidase gene *βglu-1* with large variations in white spruce but not Norway spruce. *BMC Genomics*, 25, 118. [\[doi\]](#)
12. **Hung, T. H.***, So, T., Thammavong, B., Chamchumroon, V., Theilade, I., Phourin, C., Bouamanivong, S., Hartvig, I., Gaisberger, H., Jalonen, R., Boshier, D. H. & MacKay, J.J. (2023). Range-wide differential adaptation and genomic vulnerability in critically endangered Asian rosewoods. *Proceedings of the National Academy of Sciences*, 120(33), e2301603120. [\[doi\]](#) **[special mention in front section "In this Issue"]** **[news feature 1]** **[news feature 2]**
13. Dun, H. F.* **Hung, T. H.**, Green, S. & MacKay, J.J.* (2023). Comparative transcriptomic responses of European and Japanese larches to infection by *Phytophthora ramorum*. *BMC Plant Biology*, 22, 480. [\[doi\]](#)
14. Barstow, M., Boshier, D., Bounithiphonh, C., Changtragoon, S., Gaisberger, H., Hartvig, I., **Hung, T. H.** ... Zheng, Y. 2022. *Dalbergia cochinchinensis*. *The IUCN Red List of Threatened Species 2022: e.T215342548A2822125*. [\[doi\]](#)
15. Barstow, M., Boshier, D., Bounithiphonh, C., Changtragoon, S., Gaisberger, H., Hartvig, I., **Hung, T. H.** ... Zheng, Y. 2022. *Dalbergia oliveri*. *The IUCN Red List of Threatened Species 2022: e.T215341339A2813403*. [\[doi\]](#)
16. Gaisberger, H.* **Hung, T. H.**, So, T., Thammavong, B., Bounithiphonh, C., Hoa, T. T., Yongqi, Z. ... **Hung, T. H.** ... Jalonen, R. (2022). Range-wide priority setting for the conservation and restoration of Asian rosewoods accounting for multiple threats and ecogeographic diversity. *Biological Conservation*, 270, 1909560. [\[doi\]](#)
17. **Hung, T. H.***, So, T., Sreng, S., Thammavong, B., Bounithiphonh, C., Boshier, D. H. & MacKay, J.J.* (2020). Reference transcriptomes and comparative analyses of six species in the threatened rosewood genus *Dalbergia*. *Scientific Reports*, 10, 17749. [\[doi\]](#)
18. **Hung, T. H.***, Gooda, R., Rizzuto, G., So, T., Thammavong, B., Tran, H. T., Boshier, D. H. & MacKay, J.J.* (2020). Physiological responses of rosewoods *Dalbergia cochinchinensis* and *D. oliveri* under drought and heat stresses. *Ecology and Evolution*, 10(19), 10872–10885. [\[doi\]](#)

Patents

1. **Hung, T. H.***, Kong, B. L. H., Tsai, M.-S. & Chang, H. (2025, pending). Enrichment of target RNA in a sample by negative selection of host RNA. PC933919GB.

Softwares

1. **Hung, T. H.***. (2023). *seeder*: Genomics-guided assisted migration prediction for Asian rosewoods *Dalbergia cochinchinensis* and *D. oliveri*. <https://github.com/hung-th/seeder>
2. Csilléry, K.*, Yang, H., **Hung, T. H.**, Rodríguez-Rodríguez, P. ^, Miller, J., Mantovani, V., Chauvier-Mendes, Y. & Nobis, M. (2021). GenDivRange: A global database of geo-referenced population genetic diversity across species ranges. <https://www.GenDivRange.org>

Conference presentations

1. Woudstra, Y.*, Tumas, H., van Ghelder, C., **Hung, T. H.** & MacKay, J. (2025, Jul 26–30). Conifers concentrate

CURRICULUM VITAE OF HUNG, TIN HANG

large numbers of NLR immune receptor genes on one chromosome. *Botany 2025 – Botany without Barriers*. Palm Springs, California, USA.

2. Wu, E. T. Y., **Hung, T. H.**, Erbilgin, N., Ullah, A., Jansons, Å., Clegg, S. & MacKay, J. J. (2024). Range-wide pattern in transcription level of an insect defense gene, *βglu1*, detected in *Picea glauca* (white spruce) but not in *Picea abies* (Norway spruce). *North American Forest Genetics Society 2024*. Oaxaca, Mexico. [🏆 **Awarded Best Student Poster**]
3. **Hung, T. H.***, Wu, E. T. Y., Zeltinš, P., Jansons, Å., Ullah, A., Erbilgin, N., Bohlmann, J., Bousquet, J., Birol, I., Clegg, S. & MacKay, J. J.* (2023). Long-insert sequence capture detects high copy numbers in a defence-related beta-glucosidase gene *βglu-1* with large variations in white spruce but not Norway spruce. *British Ecological Society Annual Meeting 2023*. Belfast, UK.
4. Tsai, M.-S., **Hung, T. H.**, Newman, C., Macdonald, D. & Buesching, C. (2023). Genome-wide methylation patterns in European badgers (*Meles meles*) are associated with pre-natal weather conditions and early-life weight and reveal adaptive hotspots in 47S rDNA. *Ecological Genetics Group Annual Meeting 2023*. Oxford, UK.
5. **Hung, T. H.**, So, T., Thammavong, B., Chamchumroon, V., Theilade, I., Phourin, C., Bouamanivong, S., Hartvig, I., Gaisberger, H., Jalonen, R., Boshier, D. H., MacKay, J. J.* (2023). Range-wide differential adaptation and genomic offset in critically endangered Asian rosewoods. *Ecological Genetics Group Annual Meeting 2023*. Oxford, UK.
6. Wu, E. T. Y., **Hung, T. H.**, Mun, H. M., Ali, H. A., Clegg, S., Erbilgin, N., Jansons, Å., MacKay, J. J. (2023). Molecular evolution of insect defence traits in forest tree populations. *Ecological Genetics Group Annual Meeting 2023*. Oxford, UK.
7. Aquino, J. D. C., **Hung, T. H.**, Bach-Pages, M. & Preston, G. M. (2023). Comparative transcriptomic analysis of *S-adenosylmethionine synthase 4* and *DEAD-box ATP-dependent RNA helicase 11* mutants infiltrated with bacterial elicitor-Flg22 inducing PAMP-triggered immunity. *The National Academy of Science and Technology*. Philippines.
8. MacKay, J. J., Parent, G., **Hung, T. H.**, Wu, E. T. Y. & Giguère, I. (2022, Sep 12–17). Copy number variation in defence against spruce budworm. *7th IUFRO International Workshop on the Genetics of Tree-Parasite Interactions in Forestry*. Pontevedra, Spain.
9. **Hung, T. H.**, Yang, H., Rodríguez Rodríguez, P., Miller, J., Mantovani, V., Nobis, M. & Csilléry, K. (2022, Aug 14–19). A global database of genetic diversity (*GenDivRange*) and a test of the central-marginal hypothesis. *Congress of the European Society for Evolutionary Biology*. Prague, Czech.
10. **Hung, T. H.**, So, T., Thammavong, B., Tran, H. T., Chamchumroon, V., Theilade, I., Hartvig, I., Boyle, B., Gaisberger, H., Jalonen, R., Boshier, D. H. & MacKay, J. J. (2021, Dec 12–15). Fantastic seeds and where to plant them: Ecological genomics and adaptation of endangered rosewoods *Dalbergia cochinchinensis* and *D. oliveri* in the Greater Mekong Subregion. *British Ecological Society & French Society for Ecology and Evolution: Ecology Across Borders 2021*. Liverpool, UK.
11. **Hung, T. H.**, Rodríguez Rodríguez, P., Thompson, K., Mantovani, V., Miller, J. I., Nobis, M., Videvall, E., Csilléry, K. (2021, Apr 12–16). *GenDivRange*: A novel database of population genetic diversity and dispersal distance across a wide range of taxa to test the evolutionary determinants of species range limits. *IALE-North America 2021 Annual Meeting*. Online. [🏆 **Awarded Best Student Presentation**]

CURRICULUM VITAE OF HUNG, TIN HANG

12. Rizzuto, G., MacKay, J., **Hung, T. H.**, Dun, H., Tumas, H., Sayyed I. & Richardson, D. (2020, Dec 14 – 18). Don't sweat it: a genetic switch for abscisic acid in conifers. *British Ecological Society Annual Meeting 2020*. Virtual.
13. **Hung, T. H.**, Rodríguez-Rodríguez, P., Thompson, K. M., Mantovani, V., Miller, J. I., V, E. & Csilléry, K. (2020, Apr 29). Can species range limits be predicted by environmental heterogeneity and genetic diversity? A meta-analysis of empirical findings. *Landscape Genetics Distributed Graduate Seminar 2020*.
14. **Hung, T. H.** (2020, Mar 31–Apr 1). Landscape genomics of *Dalbergia cochinchinensis* and *D. oliveri*. *Oxford Interdisciplinary Bioscience Annual Symposium 2020*. Mathematical Institute, Oxford, UK.
15. **Hung, T. H.**, Gaisberger, H., Callagher, C., So, T., Thammavong, B., Tran, H. T., Theilade, I., Hartvig, I., Boshier, D. H. & MacKay, J. J. (2019, Dec 10–13). Ensuring genetic diversity and adaptability of rosewoods *Dalbergia cochinchinensis* and *D. oliveri* in the Greater Mekong Subregion. *British Ecological Society Annual Meeting 2019*. Belfast, UK.

Research dissertation supervisions

1. **Amelia Bryan** (2024–25). Differential gene expression in defence priming in Sitka spruce. MBIol Biology, University of Oxford.
2. **Elias Formaggia** (2023–24). Genetic variation in phenology-related genes of pedunculate oaks in Wytham Woods. MBIol Biology, University of Oxford.
3. **Kalyani Lenton** (2022–23). Phenotypic adaptation of endangered rosewood *Dalbergia cochinchinensis* under drought stress. MBIol Biology, University of Oxford.
4. **Rosemary Gooda** (2019–20). Physiological responses of rosewoods *Dalbergia cochinchinensis* and *D. oliveri* under drought and heat stresses. BA Biology, University of Oxford.

Guest visits, lectures, and seminars

1. Hung, T. H. (2023, September 28). *The race to save the world's most trafficked wild species*. National Taiwan University, Taiwan.
2. Hung, T. H. (2023, September 22). *The race to save the world's most trafficked wild species*. The University of Hong Kong, Hong Kong.
3. Hung, T. H. (2023, September 19). *The Becoming of a Forest Scientist in this Concrete Jungle: Curiosity, Compassion, and Commitment*. Faculty of Science, The Chinese University of Hong Kong, Hong Kong.
4. Hung, T. H. (2023, September 18). *The Humanities' Keepers: What If There are None of Us but Trees Left in Hong Kong*. Caritas Institute of Higher Education, Hong Kong. **[St Francis Scholar Seminar]**
5. Hung, T. H. (2020, January 5). *OxHKScholars PhD Symposium 2020: Triumphs and Struggles beyond PhD*. University of Hong Kong, Hong Kong.
6. Hung, T. H. (2019, September 6). *Inhale slow, Exhale fast: Global forests in a changing climate*. Jockey Club Museum of Climate Change, Hong Kong.
7. Hung, T. H. (2019, Feb 9). *As you sow, so shall you not reap: forest management and conservation under climate change*. *OxHKScholars Academic Symposium 2019*. Christ Church, Oxford, UK.

Conference organising

CURRICULUM VITAE OF HUNG, TIN HANG

BES2020 (session chair), BES2021 (session chair), BES2023 (programming committee), EGG2023 (conference chair), EGG2024 (conference chair), OxHKForum2020 (conference chair), OxHKForum2021 (conference chair)