

HERU HANDIKA

E-mail: hhandi1@lsu.eduWebsite: <https://hhandika.com/>119 Foster Hall
Baton Rouge, LA 70803

EDUCATION

| | | |
|------------|---|-----------|
| PhD | Louisiana State University, Department of Biological Sciences Advisor: Dr. Jacob A. Esselstyn | 2018-now |
| MS | University of Melbourne, Department of Zoology Graduated with distinction Advisor: Dr. Kevin C. Rowe and Dr. Devi M. Stuart-Fox | 2015-2017 |
| BS | Andalas University, Department of Biology Advisor: Dr. Jabang Nurdin and Dr. Rizaldi | 2008-2013 |

UPCOMING MANUSCRIPTS

1. **Handika H.**, Moncrieff, A. E., Del-Rio G., Canton, R. , Hernández-Canchola, G., Babb-Biernacki, S. J. Chipps, A. S., Pérez-Amaya, N., Chornelia, A., Thom, G., Esselstyn, J. A. In prep. NAHPU: A field cataloging application for efficient, repeatable, and inclusive museum-based evolutionary studies.
2. **Handika, H.**, Rowe, K.C., Achmadi, A.S., Swanson, M. T., and Esselstyn, J.A. In prep. A new species of *Frateromys* from the Northern Peninsula of Sulawesi, Indonesia.
3. **Handika, H.**, and Esselstyn, J.A. In review. SEGUL/SEGUI: Ultrafast, memory-efficient, and mobile-friendly software for manipulating and summarizing phylogenomic datasets. *Molecular Ecology Resources*. Preprint: <https://doi.org/10.22541/au.165167823.30911834/v1>
4. Nations, J.A., Kohli, B.A., **Handika, H.** , Achmadi, A.S., Polito, M.J., Rowe, K.C. and Esselstyn, J.A., In review. Trait-specific patterns of community ecospace occupancy in an insular mammal radiation. *bioRxiv*, pp.2022-07. <https://doi.org/10.1101/2022.07.15.500274>.
5. Nations, J. A., **Handika, H.**, Mursyid, A., Butsa, R. D., Apandi, Achmadi, A. S. Esselstyn, J. A.. In review. Three new species of shrew (Soricidae: Crocidura) from West Sumatra, Indonesia: elevational and morphological divergence in syntopic, sister taxa.

PEER-REVIEWED PUBLICATIONS

1. Swanson, M. T., Henson, M. W., **Handika, H.**, Achmadi, A. S., Anita, S., Rowe, K. C., Esselstyn, J. A. 2023. Mycoplasmataceae dominate microbial community differences between gut regions in mammals with a simple gut architecture. *Journal of Mammalogy*. <https://doi.org/10.1093/jmammal/gyac098>

2. Esselstyn, J.A., Achmadi, A.S., **Handika, H.**, Swanson, M. T., Giarla, T.C. and Rowe, K.C., 2021. Fourteen new, endemic species of shrew (genus *Crocidura*) from Sulawesi reveal a spectacular island radiation. *Bulletin of the American Museum of Natural History*, 454(1), pp.1-108. <https://doi.org/10.1206/0003-0090.454.1.1>
3. **Handika, H.**, Achmadi, A.S., Esselstyn, J.A., and Rowe, K.C. 2021. Molecular and morphological systematics of the *Bunomys* division (Rodentia: Muridae), an endemic radiation on Sulawesi. *Zoologica Scripta* 50(2), pp. 141–154. <https://doi.org/10.1111/zsc.12460>
4. Nations, J.A., Mursyid, A., Busta, R.D., Adrian, S.P., **Handika, H.**, Achmadi, A.S. and Esselstyn, J.A., 2021. The first report of albinism in a Sundaland endemic rodent. *Mammalia*, 1 85(2), pp.168-172. <https://doi.org/10.1515/mammalia-2020-0047>
5. Winterhoff, M.L., Achmadi, A.S., Roycroft, E.J., **Handika, H.**, Putra, R.T.J., Rowe, K.M., Perkins, S.L. and Rowe, K.C., 2020. Native and Introduced Trypanosome Parasites in Endemic and Introduced Murine Rodents of Sulawesi. *The Journal of Parasitology*, 106(5), pp.523-536. <https://doi.org/10.1645/19-136>
6. Harapan, T.S., Agung, A.P., **Handika, H.**, Novarino, W., Tjong, D.H. and Tomlinson, K.W., 2020. New records and potential geographic distribution of Elongated Caecilian, *Ichthyophis elongatus* Taylor, 1965 (Amphibia, Gymnophiona, Ichthyophiidae), endemic to West Sumatra, Indonesia. *Check List*, 16(6), pp. 1695-1701. <https://doi.org/10.15560/16.6.1695>
7. Esselstyn, J.A., Achmadi, A.S., **Handika, H.**, Giarla, T.C. and Rowe, K.C., 2019. A new climbing shrew from Sulawesi highlights the tangled taxonomy of an endemic radiation. *Journal of Mammalogy*, 100(6), pp.1713-1725. <https://doi.org/10.1093/jmammal/gyz077>
8. Janra, M.N., Noske, R.A., Chornelia, A., **Handika, H.**, Mursyid, A., Agung, A. and Saputra, A., 2018. A second breeding record of Chestnut-naped Forktails *Enicurus ruficapillus* in Sumatra, and observations suggesting females alone incubate. *Kukila*, 21, pp.13-16.
9. Demos, T.C., Achmadi, A.S., **Handika, H.**, Rowe, K.C. and Esselstyn, J.A., 2017. A new species of shrew (Soricomorpha: *Crocidura*) from Java, Indonesia: possible character displacement despite interspecific gene flow. *Journal of Mammalogy*, 98(1), pp.183-193. <https://doi.org/10.1093/jmammal/gyw183>
10. Demos, T.C., Achmadi, A.S., Giarla, T.C., **Handika, H.**, Rowe, K.C. and Esselstyn, J.A. 2016. Local endemism and within-island diversification of shrews illustrate the importance of speciation in building Sundaland mammal diversity. *Molecular ecology*, 25(20), pp.5158-5173. <https://doi.org/10.1111/mec.13820>
11. Esselstyn, J.A., Achmadi, A.S., **Handika, H.** and Rowe, K.C., 2015. A hog-nosed shrew rat (Rodentia: Muridae) from Sulawesi Island, Indonesia. *Journal of Mammalogy*, 96(5), pp.895-907. <https://doi.org/10.1093/jmammal/gyv093>
12. **Handika, H.**, Nurdin, J. and Rizaldi. 2013. Small Terrestrial Mammals Community on Mount Singgalang, West Sumatra. *J. Bio. U. A* 2(2), pp.103-109.

HONORS AND AWARDS

| | |
|--|---------------|
| Graduate Student Association Award, Louisiana State University Awarded to attend a conference in Alaska, USA (USD400) | 2023 |
| Grants-in-Aid Provided by the American Society of Mammalogists (USD1,500) | 2021 |
| Graduate Student Research Award Provided by the Society of Systematic Biologists (USD3,000) | 2021 |
| Graduate Student Association Award, Louisiana State University Awarded to attend a conference in Washington D.C, USA (USD400) | 2019 |
| Biodiversity Information Fund for Asia Provided by the Global Biodiversity Information Facility Co-Principal Investigator Awarded twice (BIFA3_17 and BIFA4_23) (total amount ~EUR30,000) | 2019 |
| International Post Graduate Coursework Award, University of Melbourne Awarded to distinguished international students enrolling in a coursework program. Approximately 50 students across the university per year (50% tuition fee remission, ~AUD15,000) | 2015 |
| Indonesia Endowment Fund for Education Distributed by the Indonesian Ministry of Finance Awarded to study overseas. Covered tuition, monthly stipends, thesis research, and travel for a conference | 2015-2017 |
| Mohammed Bin Zayed Species Conservation Fund Awarded to conduct scientific research on Sumatra, Indonesia Awarded twice (total USD9,500) | 2014 and 2015 |
| Student Creativity Award on Research Provided by Indonesian Ministry of Research and Education Awarded to conduct scientific research (IDR10,000,000) | 2012 |

PROFESSIONAL EXPERIENCE

| |
|--|
| Louisiana State University Museum of Natural Sciences, Mammal Department Curatorial Assistant, August 2018-Fall 2020 Preparation and curation of mammal specimens and their associated data Training and mentoring undergraduate students on specimen curation |
| Museum Victoria, Melbourne, Australia Research student, 2015-2017 |

Participating in fieldwork and mammal diversity assessments across the state of Victoria, Australia
Involved in mammalian public exhibit showing mammalian specimen preparation for public visitors

Student Association of Indonesian Endowment Fund in Victoria, Australia

Member, 2015-2017

Writing guideline to study in Australia for Indonesian students

Participating in organizing student gathering and seminar for the group member

Student Association on Nature and Conservation

Permanent member, 2009-now

Training undergraduate student members on jungle survival, land navigation, search and rescue, and tropical forest ecology

Led and participating in mountain and cave expeditions across Sumatra, Indonesia

Led and participating in organizing conservation training and seminar for students, faculties, and public.

TEACHING EXPERIENCE

| | | |
|-----------|--|-------------|
| BIOL 4141 | Mammalogy, <i>Louisiana State University, USA</i> | Fall 2021 |
| BIOL 1209 | Introduction to Biology, <i>Louisiana State University, USA</i> | Spring 2021 |
| PAB125 | Computer Application for Biology, <i>Andalas University, Indonesia</i> | Fall 2012 |

WORKSHOP TAUGHT

-
1. Coding for Conservation: Integrating GitHub to Your Workflow, *Tambora Muda, RLadies Jakarta, and RLadies Bogor* April 2023
 2. Introduction to Phylogenetics, *Andalas University, Indonesia* Jan 2022

INVITED TALKS

Leveraging the Digital Revolution to Improve Data Acquisition in the Field, *Indonesian Research and Innovation Agency (BRIN)* April 2023

CONFERENCE TALKS

-
1. **Handika, H.**, Achmadi, A.S., Rowe, Swanson, M. T., K.C., and Esselstyn, J.A. 2021. In situ diversification of Murine Rodents on Sulawesi, Indonesia. Oral presentation. *100th Annual Meeting of the American Society of Mammalogists*, Virtual.
 2. **Handika, H.**, Achmadi, A.S., Esselstyn, J.A., and Rowe, K.C. 2019. In situ diversification of *Bunomys* (Muridae) on the isolated, topographically complex island of Sulawesi, Indonesia. Oral presentation. *99th Annual Meeting of the American Society of Mammalogists*, Washington D.C, USA.
 3. **Handika, H.**, Achmadi, A.S., Esselstyn, J.A., and Rowe, K.C. 2018. The geography of diversification among endemic island rodents on Sulawesi, Indonesia. Oral presentation. *LSU Museum of Natural Science Seminar*, Baton Rouge, USA.

4. **Handika, H.**, Achmadi, A.S., Esselstyn, J.A., and Rowe, K.C. 2017. Sulawesi after Wallace: multiple murine lineages support within island speciation across the northern peninsula of Sulawesi, Indonesia. Oral presentation. *12th International Mammalogical Congress*, Perth, Australia.
5. **Handika, H.** 2017. Cracking Sulawesi Biodiversity Enigma: Veering Indonesian Priorities. Oral presentation. *The 36th Indonesia Forum Postgraduate Roundtable*, Melbourne, Indonesia.
6. **Handika, H.**, Achmadi, A.S., Esselstyn, J.A., and Rowe, K.C. 2016. Biogeography and Phylogeny of the Two Most Diverse Murid Rodent Genera on Sulawesi, Indonesia. Oral presentation. *96th Annual Meeting of the American Society of Mammalogists*, Washington D.C, USA.

PEER REVIEWS

Journal of Ecology and Evolution (1), Journal of Mammalogy (1), The Raffles Bulletin of Zoology (1), Biodiversitas Journal of Biological Diversity (1)

FIELDWORK

| | |
|--|------------------------|
| 1. Mt. Gede, West Java, Indonesia | February-April 2023 |
| 2. Black Gap WMA, Texas, USA | April-May 2022 |
| 3. Davis Mountains, Texas, USA | May 2021 |
| 4. Mt. Murud, Sarawak, Malaysia | July-August 2019 |
| 5. Mt. Galang, Central Sulawesi, Indonesia | July 2018 |
| 6. Mt. Galang, Central Sulawesi, Indonesia | March-April 2018 |
| 7. Mt. Torompupu, Central Sulawesi, Indonesia | November-December 2017 |
| 8. Mt. Katopasa, Central Sulawesi, Indonesia | August-September 2017 |
| 9. Solok Selatan, West Sumatra, Indonesia | October 2017 |
| 10. Wilson Promontory National Park, Victoria, Australia | June 2017 |
| 11. Grampians National Park, Victoria, Australia | November 2016 |
| 12. Mt. Bawakaraeng, South Sulawesi, Indonesia | October-November 2016 |
| 13. Mt. Latimojong, South Sulawesi, Indonesia | July-August 2016 |
| 14. Mt. Ambang, North Sulawesi, Indonesia | February-March 2016 |
| 15. Grampians National Park, Victoria, Australia | November 2015 |
| 16. Mt. Talamau, West Sumatra, Indonesia | June 2015 |
| 17. Runtu, Central Kalimantan, Indonesia | December 2014 |
| 18. Mt. Tujuh and Mt. Masurai, Jambi, Indonesia | September-October 2014 |
| 19. Samar Island, The Philippines | June-July 2014 |
| 20. Cirebon, West Java, Indonesia | May 2014 |
| 21. Bangka Island, Indonesia | November-December 2013 |
| 22. Mt. Salak, Mt. Ijen, and Mt. Slamet, Java, Indonesia | September-October 2013 |
| 23. Kota Waringin Barat, Central Kalimantan, Indonesia | June-July 2013 |
| 24. Mt. Dako, Central Sulawesi, Indonesia | March 2013 |

| | |
|--|----------------|
| 25. Mt. Kerinci and Mt. Tujuh, Jambi, Indonesia | January 2013 |
| 26. Belitung Island, Indonesia | January 2013 |
| 27. Mt. Singgalang, West Sumatra, Indonesia | June-July 2012 |
| 28. Mt. Gandang Dewata, West Sulawesi, Indonesia | May-June 2012 |
| 29. Mt. Malintang, West Sumatra, Indonesia | April 2012 |
| 30. Marak Island, West Sumatra, Indonesia | October 2011 |
| 31. Siberut Island, West Sumatra, Indonesia | October 2010 |
| 32. Mt. Sago, West Sumatra, Indonesia | September 2010 |
| 33. Angkola, North Sumatra, Indonesia | July 2010 |
| 34. Mt. Merapi, West Sumatra, Indonesia | June 2009 |

SOFTWARE

Most familiar languages and framework: Rust, C++, C, Go, Dart, Flutter, Python, R, Shell, MAKE, CSS, and HTML.

GitHub profile: <https://github.com/hhandika>

Selected software:

1. NAHPU (A GUI field cataloging app written in Dart and Flutter)
2. SEGUI (A GUI phylogenomic app written in Dart, Flutter, and Rust)
3. SEGUL (A CLI phylogenomic app written in Rust)
4. YAP (A CLI phylogenomic pipeline written in Rust)

NEWS MEDIA PROFILES

1. The Indonesian Ministry of Finance Magazine, Media Keuangan, June 2017
2. DetikNews-ABC Australia Plus, 16 Januari 2017.

MEDIA INTERVIEWS

1. Science Next: "What Could Recovery Look Like for Blazing Australia?", 27 January 2020.
2. Kompas.Com-ABC Australia Plus: "Kisah Mahasiswa Indonesia Terlibat Penemuan Tikus Hidung Babi", 26 November 2015.

POPULAR ARTICLES

1. Republika-ABC AustraliaPlus: "Hal yang Perlu Dilakukan agar Kuliah S2 di Luar Negeri", 16 February 2017.
2. DetikNews-ABC AustraliaPlus: "Langkah-Langkah Kuliah ke Luar Negeri: Dari A-Z", 7 June 2016.
3. Republika-ABC AustraliaPlus: "Menentukan Topik Penelitian: Dilema Kecepatan Tamat dan Kualitas Penelitian", 10 May 2016.
4. TribunNews-ABC AustraliaPlus: "Pengalaman Heru Handika Menyikapi Kerja Sama Dengan Peneliti Asing", 8 May 2016.

5. DetikNews-ABC AustraliaPlus: "Jurus Kuliah ke Luar Negeri Berkat Jaringan Pertemanan", 15 April 2016.
6. Republika-ABC AustraliaPlus: "Kiat Meningkatkan TOEFL Melebihi 550", 7 March 2016.
7. DetikNews-ABC AustraliaPlus: "Mengenal LoA dan Cara Mendapatkan 'Surat Sakti' S2/S3 di Luar Negeri", 3 February 2016.
8. Republika-ABC AustraliaPlus: "Bagaimana Menulis Esai Untuk Mendapatkan Beasiswa LPDP", 11 January 2016.

OUTREACH

- | | |
|--|------------------|
| 1. Night at the Museum, LSU Museum of Natural History, USA | 14 November 2019 |
| 2. Night at the Museum, LSU Museum of Natural History, USA | 11 August 2018 |
| 3. Meet the Scientists, Museums Victoria, Australia | 22 August 2015 |

MEMBERSHIPS

1. IUCN SSC Small Mammal Specialist Group, 2017-Present
2. The Society of Systematic Biologists, 2020-Present
3. The American Society of Mammalogists, 2016-Present
4. KCA-LH Rafflesia FMIPA Unand, 2009-Present