

EVAN P. ECONOMO, Ph.D.

Professor, Biodiversity and Biocomplexity Unit (<http://arilab.unit.oist.jp/>)
Dean of Faculty Affairs
Okinawa Institute of Science and Technology Graduate University

1919-1 Tancha
Onna-son
Okinawa, 904-0495
Japan

+81 (098) 982-3328 (JP)
evaneconom@gmail.com
Citizenship: USA, Canada

EDUCATION

2009 Ph.D. University of Texas at Austin. *Ecology, Evolution, & Behavior*.

2002 B.S. University of Arizona. *Ecology & Evolutionary Biology*.

APPOINTMENTS

Okinawa Institute of Science and Technology Graduate University

2023 - present Dean of Faculty Affairs
2019 - 2022 Associate Ombudsperson
2020 - present Professor, *Biodiversity and Biocomplexity Unit*
2012 - 2020 Assistant Professor, *Biodiversity and Biocomplexity Unit*
2011 - 2012 Visiting Assistant Professor

Harvard University

2021 - 2022 Mary I. Bunting Fellow, Radcliffe Institute for Advanced Study

University of Michigan

2012 - 2017 Visiting Assistant Prof., Dept. of Ecology and Evolutionary Bio., Museum of Zoology
2009 - 2012 Postdoctoral Fellow - Michigan Society of Fellows
Assistant Prof. (non tenure-track)- Dept. of Ecology and Evolutionary Biology

INSTITUTIONAL LEADERSHIP EXPERIENCE

OIST Dean of Faculty Affairs (2023-present)

I work closely with the President, the Provost, the Dean of Research, and the Dean of the Graduate School, to manage essential functions of the University and to support the well-being and success of 90 faculty and 480 research staff. As DFA I manage the Faculty Affairs Office to administer faculty tenure and promotion reviews, external reviews of research units, faculty recruitment, professional development, research misconduct investigations, salary and promotions for research staff, the library, and participate in overall university management and strategic planning.

OIST Associate Ombudsperson (2019-2022)

In my role as Associate Ombudsperson for the campus I assisted OIST members with conflict resolution issues including harassment complaints, employee issues, etc.

Principal, OIST/Onna Children's School of Science (2019-2022)

I was one of two Principals and the sole OIST faculty representative on the executive committee of the Children's School of Science, a yearly summer science program we run in partnership with the local community (Onna village) that has included over 800 grade-school children over the years. The operations of the school are run by the OIST community relations section.

OKEON Churamori Project & Environmental Research Support Section

Since 2015, I have led development of the Okinawa Environmental Observation Network (OKEON) Churamori Project. This project is designed to both further ecological science activities at OIST but also form partnerships with local communities in Okinawa. We established 24 long-term monitoring sites across the island, and in the process made partnerships with over 100 entities including high schools, local museums, local Universities, NGOs and government entities.

OIST Committees

2023- present | Executive Committee

This committee, chaired by the President, meets weekly to share key information, discuss issues, and support the President in deciding essential matters for the University.

2023- present | Faculty Awards Committee (Chair)

I recently formed this committee to promote and facilitate faculty to apply for and receive scholarly awards. Our main focus is to break down language and other understanding barriers for applying for awards in different countries, as well as proactively nominate and/or encourage underrepresented researchers to apply for awards.

2023- present | Space Allocation Committee (Chair)

This committee makes decisions regarding space allocation among all research and administrative units on campus. In addition, I am responsible for strategic planning of space on campus.

2023- present | Research Staff Appointments Committee (Chair)

This committee evaluates all non-faculty research staff for appointment, salary changes, promotions, and continuing (permanent) employment status.

2023- present | Core Facilities Steering Committee

This committee advises the Provost on operation all the core facilities including operations, policies, and strategic planning.

2022 | Appointments and Promotions Committee

This committee is positioned between hiring / promotion committees and executive leadership, to ensure that relevant procedures are followed and recommendations meet criteria.

2021 | Tenure Review Committee

Tenure review committee member for OIST faculty member.

2021-2022 | Conference and Workshop Committee

Responsible for selecting conferences and workshops to receive support from OIST and set policies for operations.

2020 | Working Group on Procurement

This is an *ad hoc* committee responsible for revising procurement regulations, particularly developing a response to some new regulations from the Japan Ministry of Finance.

2019-present | OKEON Steering Committee

Advise and manage OKEON project and Environmental Science Support section.

2019 | Working Group on Travel Regulations

This was an *ad hoc* committee responsible for revising travel regulations, I was asked by the faculty council to represent faculty concerns, and this led to substantial revision of travel rules.

2018 | Perspective Council

This was an *ad hoc* committee of extremely distinguished scientists (4 of the 6 Nobel laureates, chaired by Steven Chu (former Secretary of Energy, USA) tasked with planning the scientific direction of future growth / faculty hiring at OIST. I was one of 6 individuals chosen to represent the OIST faculty on this committee, where I particularly represented the fields of Ecology/Environment/Marine Science.

2016 | Task Force on Rank and Tenure

This was an *ad hoc* committee formed by the faculty to examine policies and procedures for tenure and promotion reviews. We made recommendations to the president which led to substantial policy changes.

2016-2019 | Curriculum and Examinations Committee

Standing committee responsible for curriculum and exam related issues for our PhD program, including setting policy, overseeing curriculum, overseeing proposal exams and final thesis defenses, approving granting of degrees, etc.

2015-2021 | Human Subjects Research Review Committee (IRB)

This committee oversees and approves all human subjects research at OIST. I was included on this committee particularly as a biostatistics expert.

2013, 2014, 2018, 2019 | Faculty Search Committees

I was a member of faculty search committees for Marine Science in 2013 and 2014, and for Ecology/Environment in 2018, and have been member of a target of opportunity search committee in 2019.

2013-2022 | Gender Equality and Diversity Committee

Promoting Gender Equality and Diversity on OIST campus, including promoting family-friendly environment, advising on tenure (e.g. stop-the-clock) policies, etc. I was a founding member of this committee.

2013-present | Information Technology Service and Support Committee

This committee oversees IT issues at OIST and advises the CIO, including email systems, phone systems, privacy and security policies, etc.

2013-2015 | Faculty Council

The main governance committee for OIST faculty, elected by faculty peers.

2012-2013 | Admissions Committee

Responsible for admissions to the OIST PhD program

PUBLICATIONS

Book

Sarnat, E., **Economio, E.P.** (2012) *The Ants of Fiji*. University of California Press.

Preprints

Aibekova, L.A, Keller, R.A, Allman, D.M., Hita Garcia, F., Labonte, D., Narendra, A., **Economio, E.P.** (2023) Parallel and divergent morphological adaptations underlying the evolution of jumping ability in ants. *bioRxiv*.

Ross, S.R.P.J., Friedman, N.R., Armitage, D.W., Dudley, K.L., Yoshida, T., Yoshimura, M., **Economio, E.P.**, Donohue, I. (2023) Spatial divergence in ecological responses to typhoons across a subtropical island. *bioRxiv*.

Kass, J.M., Yoshida, T., Yoshimura, M., Ogasawara, M., Suwabe, M., Hita Garcia, F., Fischer, G. Dudley, K.L., Donohue, I., **Economio, E.P.** (2023) Breakdown of ant community seasonal patterns over a land cover gradient. *bioRxiv*.

Nathan, P, **Economio, E.P.**, Guénard, B., Simonsen, A., Fredrickson, M.E. (2023) Generalized mutualisms promote range expansion in both plant and ant partners. *bioRxiv*.

- Warren, D.L., Kass, J.M., **Economo, E.P.** (2022) Randomization analyses in niche and distribution modeling. *EcoEvoRxiv*.
- Warren, D.L., Kass, J.M., Casadei-Ferreira, A., **Economo, E.P.** (2022) Incorporating sampling bias into permutation tests for niche and distribution models. *bioRxiv*.
- Luo, Y., Taylor, A., Weigelt, P., Guénard, B., **Economo, E.P.**, Nowak, A. Inderjit, Kreft, H. (2022) Ant richness and environment shape the global distributions of ant-associated plants. *bioRxiv*.
- Frank, E.T., Kesner, L., Liberti, J., Helleu, Q., LeBoeuf, A., Dascalu, A., Milutinovic, B., Azuma, F., **Economo, E.P.**, Waridel, P., Engel, P., Schmitt, T., Keller, L. (2022) Infection signaling and antimicrobial wound care in a predatory ant. *bioRxiv*.
- Toulkeridou, E., Gutierrez, C. E., Baum, D., Doya, K., **Economo, E.P.** (2021) Automated segmentation of insect anatomy from micro-CT images using deep learning. *bioRxiv*.

Published | In Press

122. French, C.M., Bertola, L.D., Carnaval, A.C., **Economo, E.P.**, Kass, J.M., Lohman, D.J., Marske, K.A., Meier, R., Overcast, I., Rominger, A.J., Staniczenko, P., Hickerson, M.J. (*In Press*) Global determinants of the distribution of insect genetic diversity. *Nature Communications*
121. Wang, C., Chung, F., Lin, C., Katzke, J., **Economo, E.P.**, Billen, J. (2023) Morphology of the metapleural gland and its associated novel atrial cone gland in *Strumigenys* ants. *Micron*. 171: 103463
120. Liu, D., Essl, F., Lenzner, B., Moser, D., Blackburn, T.M., Cassey, P., Biancolini, D., Capinha, C., Dawson, W., Dyer, E.E., Guénard, B., **Economo, E.P.**, Kreft, H., Pergl, J., Pyšek, P., van Kleunen, M., Nentwig, W., Rondinini, C., Seebens, H., Semenchuk, P., Weigelt, P., Winter, M., Dullinger, S. (2023) The impact of land use on alien species incidence and richness in local assemblages worldwide. *Nature Communications* 14: 2090.
119. Wong, M., **Economo, E.P.**, Guénard, B.G. (2023) The global spread and invasion capacities of alien ants. *Current Biology* 33: 566-571.
118. Liu, C., **Economo, E.P.**, Guénard, B.G. (2023) GABI-I: The global ant biodiversity informatics-island database. *Ecology*.
117. Richter, A., Boudinot, B., Hita Garcia, F., Billen, J., **Economo, E.P.**, Beutel, R.G. (2023) Wonderfully weird: The head anatomy of the armadillo ant *Tatuidris tatusia* (Formicidae: Agroecomyrmecinae). *Myrmecological News* 33: 35-75.
116. Wang, R., Kass, J.M., Galkowski, C., Garcia, F., Hamer, M.T., Radchenko, A., Salata, S.D., Schifani, E., Yusupov, Z.M., **Economo, E.P.**, Guénard, B. (2023) Geographic and climatic constraints on bioregionalization of European ants. *J. Biogeography* 503-514.
115. Overcast, I., Achaz, G., Aguilée, R., Andújar, C., Arribas, P., Creedy, T.J., **Economo E.P.**, Etienne, R., Gillespie, R., Jacquet, C., Jay, F., Kennedy, S., Krehenwinkel, H., Lambert A., Meramveliotakis E., Noguerales, V., Perez-Lamarque, B., Roderick, G., Rogers, H., Ruffley, M., Sanmartin, I., Vogler, A.P., Papadopoulou, A., Emerson, B.C., Morlon, H. (2022) Genetic Theory of Island Biogeography: Inferring Processes from Multi-Dimensional Community-Scale Data. *Global Ecology and Biogeography* 32: 4-23.

114. Emerson, B.C., Borges, P.A.V., Cardoso, P., Convey, P., deWaard, J.R., **Economo, E.P.**, Gillespie, R., Kennedy, S., Krehenwinkel, H., Meier, R., Roderick, G., Strasberg, D., Thébaud, C., Traveset, A., Creedy, T.J., Meramveliotakis, E., Nogueras, V., Overcast, I., Morlon, H., Papadopoulou, A., Vogler, A.P., Arribas, P., Andújar, C. (2022) Collective and harmonised high-throughput barcoding of insular arthropod biodiversity: toward a Genomic Observatories Network for islands. *Molecular Ecology*.
113. Liu, C., Fischer, G., Liu, Q., Peng, Y.Q., **Economo, E.P.**, Guénard, B. (2022) Updating the taxonomy of the ant genus *Myrmecina* (Hymenoptera, Formicidae) in China with descriptions of four new species. *Zootaxa* 5182: 152-164.
112. Wepfer, P., Nakajima, Y., **Economo, E.P.**[†], Mitarai, S.[†] (2022) The oceanographic isolation of the Ogasawara Islands and genetic divergence in a reef-building coral. *J. of Biogeography* 49: 1978-1990. [†]joint last authors
111. Wang, W., Soh, E.J.Y., Yong, G.W.J., Wong, M.K.L., Guénard, B.G., **Economo, E.P.**, Yamane, S. (2022) Remarkable diversity in a little red dot: a comprehensive checklist of known ant species in Singapore (Hymenoptera: Formicidae) with notes on ecology and taxonomy. *Asian Myrmecology* 15: 015006.
110. Kennedy, S., Calaor, J. Hans, J., Zurápit, Y., Yoshimura, M., Choo, J., Andersen, J., Callagan, J., Roderick, G.K., Krehenwinkel, H.[†], Rogers, H.[†], Gillespie[†], R.G., **Economo, E.P.**[†] (2022) Richness and resilience in the Pacific: DNA metabarcoding enables parallelized evaluation of biogeographic patterns. *Molecular Ecology*. [†]joint last authors
109. Kass, J.*., Guénard, B., Dudley, K., Jenkins, C.N., Azuma, F., Fisher, B.L., Parr, C.L., Gibb, H., Longino, J.T., Ward, P.S., Chao, A., Lubertazzi, D., Weiser, M., Jetz, W., Guralnick, R., Blatrix, R., Des Lauriers, J., Donoso, D., Georgiadis, C., Gomez, K., Hawkes, P., Johnson, R.A., Lattke, J., MacGown, J.A., Mackay, W., Robson, S., Sanders, N., Dunn, R.R., **Economo, E.P.*** (2022) The global distribution of known and undiscovered ant biodiversity. *Science Advances* 8: eabp9908. *corresponding
108. Arribas, P. Andújar, C., Bohmann, K., deWaard, J., **Economo, E.P.**, Elbrecht, V., Geisen, S., Goberna, M., Krehenwinkel, H., Novotny, V., Zinger, L., Creedy, T.J., Emmanouil Meramveliotakis, E., Nogueras, V., Overcast, I., Morlon, H., Papadopoulou, A., Vogler, A.P., Emerson, B.C. (2022) Toward global integration of biodiversity big data: a harmonised metabarcode data generation module for terrestrial arthropods. *GigaScience* 11: 1-12.
107. Parker, E., Jones, C., **Economo, E.P.**, Zapfe, K.L. Federman, S., Near, T.J. Dornburg, A. (2022) Periodic environmental disturbance drives repeated ecomorphological diversification in an adaptive radiation of Antarctic fishes. *The American Naturalist*.
106. Khalife, A., Peeters, C., **Economo, E.P.** (2022) Minute workers and large soldiers in the subterranean ant *Carebara perpusilla*: functional consequences of muscle allometry in the thorax. *Arthropod Structure & Development* 69: 101188.
105. Andrade-Silva, J., Baccaro, F.B., Prado, L.P., Warren, D.L., Kass, J., Guenard, B., **Economo, E.P.**, Silva, R.R. (2022) A large-scale assessment of ant diversity across the Brazilian Amazon Basin: integrating geographic, ecological, and morphological drivers of sampling bias. *Ecography* 16: e0695.

104. Gómez, K., Kouakou, L., Fischer, G., Hita–Garcia, F., Katzke, J., **Economo, E.P.** (2022) *Pheidole klaman* sp. n.: A new addition from Ivory Coast to the Afrotropical *pulchella* species group (Hymenoptera: Formicidae: Myrmicinae). *Zookeys* 1104: 129-157.
103. Aibekova, L., Boudinot, B. E., Beutel, R.G., Richter, A., Keller, R.A., Hita Garcia, F., **Economo, E.P.** (2022) The skeletomuscular system of workers of the generalized ant genus *Formica* (Formicidae). *Insect Systematics and Diversity* 6: 2.
102. La Richeliere, F., Dunn, R., **Economo, E.P.**, Guénard, B., Sanders, N., Weiser, M., Abouheif, E., Lessard, J.P. (2022) Warm and arid regions of the world are hotspots of social complexity. *Proceedings of the Royal Society: B*. 289: 20211899.
101. Katzke, J. Puchenkov, P., Stark, H., **Economo, E.P.** (2022) A roadmap to reconstructing muscle architecture from CT data. *Integrative Organismal Biology* 4: obac001.
100. Takashina, N., Jenkins, C., Planck, M., **Economo, E.P.** (2022) Species-range size distributions: integrating the effects of speciation, transformation, and extinction. *Ecology and Evolution* 12: e8341.
99. Boudinot, B., Richter, A., Katzke, J., Keller, R., **Economo, E.P.**, Beutel, R., Yamamoto, S. (2022) Evidence for the evolution of eusociality in stem ants and a systematic revision of †*Gerontofornica* (Hymenoptera, Formicidae). *Zoological Journal of the Linnean Society* 195: 1355-1389.
98. Beutel, R., Friedrich, F., **Economo, E.P.** (2022) Patterns of morphological simplification and innovation in the megadiverse Holometabola (Insecta). *Cladistics* 38: 227-245.
97. Silva, R....(203 authors including **Economo, E.P.**)...Ribiero, M.A. (2021) ATLANTIC ANTS: a dataset of ants in Atlantic Forests of South America. *Ecology* 103: e03580.
96. Klunk, C.L., Argenta, M.A., Casadei-Ferreira, A., **Economo, E.P.**, Pie, M.R. (2021) Mandibular morphology, task specialization, and bite mechanics in *Pheidole* ants (Hymenoptera: Formicidae). *Journal of the Royal Society Interface* 18: 20210318.
95. Richter, A., Keller, R. A., Hita Garcia, F., Billen, J., Katzke, J., Boudinot, B. E., **Economo, E.P.***, Beutel, R.G.* (2021) Head anatomy of *Protanilla lini* (Leptanillinae, Formicidae, Hymenoptera) and a hypothesis of their mandibular movement. *Myrmecological News* 31: 85-114. **joint supervision*
94. Casadei-Ferreira, A., Friedman, N.R., **Economo, E.P.**, Pie, M.R., Feitosa, R.M. (2021) Head and mandible shapes are highly integrated yet represent two distinct modules within and among worker sub-castes of the ant genus *Pheidole*. *Ecology & Evolution* 11: 6104-6118.
93. Booher, D., Gibson, J., Liu, C., Longino, J.T., Fisher, B.L., Janda, M., Narula, N., Toulkeridou, E., Mikheyev, A.S., Suarez, A., **Economo, E.P.** (2021) Functional innovation promotes diversification of form in the evolution of an ultrafast trap-jaw mechanism in ants. *PLoS Biology* 19: e3001031.
92. Suzuki, Y., **Economo, E.P.** (2021) Dispersal network topology and spatial environmental autocorrelation mediate the balance of species sorting and mass effects in metacommunities. *Ecography* 44: 1-12.

91. Rosas-Mejia, M. Guénard, B. Aguilar-Méndez, M.J., Ghilardi, A., Vásquez-Bolaños, M., **Economo, E.P.**, Janda, M. (2021) Introduced ants (Formicidae: Hymenoptera) in Mexico – the first database of records. *Biological Invasions* 23: 1669-1680.
90. Ross, S.R.P.-J., Friedman, N.R., Yoshimura, M., Yoshida, T., Donohue, I., **Economo, E.P.** (2021) Utility of acoustic indices for ecological monitoring in complex sonic environments. *Ecological Indicators* 121: 107114.
89. Takashina, N., **Economo, E.P.** (2020) Developing generalized sampling schemes with known error properties: the case of a moving observer. *Ecography* 43: 1-14.
88. Casadei-Ferreira, A., **Economo, E.P.**, Feitosa, R.M. (2020) Revisions to the *Pheidole* (Hymenoptera, Formicidae) fauna of the Brazilian southern grasslands. *Revista Brasileira de Entomologia* 64: e20200068.
87. Peeters, C., Keller, R.A., Fischer, G., Khalife, A., **Economo, E.P.** (2020) The evolutionary loss of flight enabled the remarkable strength of ant workers. *Frontiers in Zoology* 17: 33.
86. Liu, C., Fischer, G., Hita Garcia, F., Yamane, S., Liu, Q., Peng, Y.Q., **Economo, E.P.**, Guénard, B., Pierce, N. E. (2020) Ants of the Hengduan mountains: a new altitudinal survey and updated checklist for Yunnan Province highlight an understudied insect biodiversity hotspot. *ZooKeys* 978: 1-171.
85. Dias, R.K.S., Guénard, B., **Economo, E.P.**, Akbar, S.A., Udayakantha, W.S., Wachkoo, A.A.A. (2020). The Ants (Hymenoptera: Formicidae) of Sri Lanka: A taxonomic research summary and updated checklist. *ZooKeys* 967: 1-142.
84. Dinets, V., Friedman, N., Yoshimura, M., Ogasawara, M., **Economo, E.P.** (2020) Acoustic detection of an unknown bat species in Okinawa. *Mammal Study* 45: 1-4.
83. Casadei-Ferreira, A., Fischer, G., **Economo, E.P.** (2020) Evidence for a thoracic crop in the workers of some *Pheidole* species (Formicidae: Myrmicinae). *Arthropod Structure & Development* 59: 100977.
82. Fischer, G., Friedman, N.R., Huang, J.P., Knowles, L.L., Mikheyev, A.S., Fisher, B.L., **Economo, E.P.** (2020) Socially parasitic ants evolve a mosaic of host-matching and parasitic morphological traits. *Current Biology* 30: 1-8.
81. Wepfer, P., Nakajima, Y., Radice, V., Toonen, R., Richards, Z., Ang, P., Sutthacheep, M., Chen, A., Sudek, M., Fujimura, A., Mikheyev, A.S., **Economo, E.P.***, Mitarai, S.* (2020) Evolutionary biogeography of the coral genus *Galaxea* across the Indo-Pacific ocean. *Molecular Phylogenetics and Evolution* 151: 106905. *co-last author
80. Friedman, N.R., Lecroq-Bennett, B., Fischer, G., Sarnat, E.M., Huang, J.P., Knowles, L.L., **Economo, E.P.** (2020) Macroevolutionary integration and modularity of phenotypes within and across ant worker castes. *Ecology and Evolution* 10: 9371-9383.
79. Aoyama, Y., Yoshimura, M., Ogasawara, M., Suwabe M., **Economo E.P.** (2020) Potential economic impacts of invasion of the red imported fire ant in Okinawa, Japan. *Japanese Journal of Ecology* 70: 3-14. DOI: https://doi.org/10.18960/seitai.70.1_3 [in Japanese, original citation: 青山 夕貴子, 吉村 正志, 小笠原 昌子, 諏訪部 真友子, エコノモ P. エヴァン (2020) 沖縄県におけるヒアリの侵入・蔓延時に推定される経済的損失. 日本生態学会誌 70: 3-14.]

78. Miao, B.G., Peng, Y.Q., Yang, D.R., Kubota, Y., **Economo, E.P.**, Liu, C. (2020) Climate and land-use interactively shape butterfly diversity in tropical rainforest and savanna ecosystems of southwestern China. *Insect Science*.
77. Richter, A., Keller, R.A., Hita Garcia, F., Billen, J., **Economo, E.P.***, Beutel, R.G.* (2020) Comparative analysis of worker head anatomy of *Formica* and *Brachyponera* (Formicidae, Hymenoptera, Insecta). *Arthropod Systematics and Phylogeny* 78: 133-170. *co-last author
76. Beutel, R.G., Richter, A., Keller, R., Hita Garcia, F., Matsumura, Y., **Economo, E.P.**, Gorb, S.N. (2020). Distal leg structures of the Aculeata (Hymenoptera): a comparative evolutionary study of *Sceliphron* (Sphecidae) and *Formica* (Formicidae). *Journal of Morphology* 281: 737-753.
75. Liu, C., Sarnat, E.M., Friedman, N., Hita Garcia, F., Booher, D., Mikheyev, A., **Economo, E.P.** (2020). Colonize, radiate, decline: unraveling the dynamics of island community assembly with Fijian trap-jaw ants. *Evolution* 74: 1082-1097.
74. Yoshimura, M., Suwabe, M., Ikeda, T., Ogasawara, M., **Economo, E.P.** (2020) Development and Implementation of a workshop on alien species and Red Imported Fire Ants (RIFA) for elementary school students. *Japanese Journal of Science Communication* 26: 39-56. (in Japanese, original citation: 吉村正志, 諏訪部真友子, 池田貴子, 小笠原昌子, エヴァン・エコノモ (2020) 小学生向け外来種&ヒアリ学習ワークショップの開発と実践. 科学技術コミュニケーション, 26: 39-56.)
73. Cicconardi, F., Gamisch, A., Krapf, P., Wagner, H. C., Nguyen, A. D., **Economo, E.P.**, Mikheyev, A. S., Guénard, B., Arthofer, W., Steiner, F.M., Schlick-Steiner, B.C. (2020) Strong diversifying and relaxed purifying selection are shifting the evolutionary equilibrium of the alpine ant *Tetramorium alpestre* (Insecta: Hymenoptera) genome. *Molecular Biology and Evolution* 37: 2211-2227.
72. Mao, Y., Qian, H., Shi, J., **Economo, E.P.** (2020) TREEasy: an automated workflow for the inference of gene trees, species trees, and phylonetworks from molecular sequences. *Molecular Ecology Resources* 20: 832-840.
71. Darwell, C., Fischer, G., Sarnat, E.M., Friedman, N., Liu, C., Baiao, G., Mikheyev, A.S., **Economo, E.P.** (2020) Genomic and phenomic analysis of island ant community assembly. *Molecular Ecology* 29: 1611-1627.
70. Guo, F., Guénard, B., **Economo, E.P.**, Deutsch, C., Bonebrake, T. (2020) Activity niches outperform thermal physiological limits in predicting global ant distributions. *Journal of Biogeography* 47: 829-842.
69. Wepfer, P., Nakajima, S., Hui, F., Mitarai, S.*, **Economo, E.P.*** (2020) The metacommunity ecology of coral-hosted symbionts (*Symbiodinaceae*). *Marine Ecology Progress Series* 633: 71-87. *joint last author
68. Choo, J., Gill, B., Zuur, A., Zent, E., **Economo, E.P.** (2020) Impacts of an indigenous settlement on taxonomic and functional dung beetle diversity in the Venezuelan Amazon. *Biodiversity and Conservation* 29: 207-228.
67. Friedman, N.R., Miller, E., Ball, J., Kasuga, H., Remeš, V.*, **Economo, E.P.*** (2019) Evolution of a multifunctional trait: shared effects of foraging ecology and thermoregulation on beak

- morphology, with consequences for song evolution. *Proceedings of the Royal Society: Series B* 286: 20192474. *joint last author
66. Hita Garcia, F., Lieberman, Z., Audisio, T., Liu, C., **Economo, E.P.** (2019) Revision of the cryptic and highly specialized ant genus *Discothyrea* (Hymenoptera: Formicidae) in the s with X-Ray microtomography and 3D cybertaxonomy. *Insect Systematics and Diversity* 3: 5.
 65. Sarnat, E. M., Liu, C., Hita Garcia, F., Dudley, K., **Economo, E.P.** (2019) Ready Species One: exploring the use of augmented reality for biodiversity discovery with a technology-enhanced revision of Fijian *Strumigenys*. *Insect Systematics and Diversity* 3: 6.
 64. Sharaf, M.R., Aldawood, A.S., **Economo, E.P.**, Wachkoo, A.A., Hita Garcia, F. (2019) Taxonomy of Arabian *Temnothorax* Mayr (Formicidae: Myrmicinae) with description of a new species enhanced by micro-CT next-generation morphology. *Scientific Reports* 9: 11009.
 63. Friedman, N.R., Remes, V.R., **Economo, E.P.** (2019) A morphological integration perspective on the evolution of dimorphism in sexes and social insect castes. *Integrative and Comparative Biology* 59: 410-419.
 62. Ross, S.R. Friedman, N.R., Janicki, J., **Economo, E.P.** (2019) A test of trophic and functional theories of island biogeography using the avifauna of a continental archipelago. *Journal of Animal Ecology* 88: 1392-1405.
 61. Richter, A., Keller, R., Rosumek, F.B., **Economo, E.P.**, Hita Garcia, F., Beutel, R.G. (2019) The cephalic anatomy of the *Wasmannia affinis* (Formicidae, Hymenoptera, Insecta) worker caste and its evolutionary implications. *Arthropod Structure and Development* 49: 26-39.
 60. **Economo, E.P.**, Huang, J.P., Fischer, G., Sarnat, E.M. Janda, M., Narula, N., Guénard, B., Longino, J., Knowles, L.L. (2019) Evolution of the latitudinal diversity gradient in the hyperdiverse ant genus *Pheidole*. *Global Ecology and Biogeography* 28: 456-470.
 59. Takashina, N., Kusumoto, B., Kubota, Y., **Economo, E.P.** (2019) A geometric approach to scaling individual distributions to macroecological patterns. *Journal of Theoretical Biology* 461: 170-188.
 58. Agavekar, G., Agashe, D., **Economo, E.P.** (2019) Dimensions of ant biodiversity on a tropical island. *Insect Conservation and Diversity* 12: 161-171.
 57. Mao, Y. *, **Economo, E.P.** *, Satoh, N. * (2018) The roles of introgression and climate change in the diversification and rise to dominance of *Acropora* corals. *Current Biology* 28: 3373-3382. *corresponding
 56. Moser, D., Lenzer, B., Weigelt, P., Dawson, W., Kreft, H., Pergl, J., Pysek, P., van Kleunen, M., Winter, M., Capinha, C., Cassey, P., Dullinger, S., **Economo, E.P.**, Garcia-Diaz, P., Guénard, B., Maurel, N., Seebens, H., Stein, A., Essl, F. (2018) Remoteness promotes biological invasions on islands worldwide. *Proceedings of the National Academy of Sciences* 115: 9270-9275.
 55. Khalife, A., Keller, R.A., Billen, J., Hita Garcia, F., **Economo, E.P.**, Peeters, C. (2018) Skeletomuscular adaptations of head and legs of *Melissotarsus* ants for tunneling through living wood. *Frontiers in Zoology* 15: 30.
 54. Barlow, J., Franca, F., Gardner, T.A., Hicks, C., Lennox, G., Berenguer, E., Castello, L., **Economo, E.P.**, Ferreira, J., Guénard, B., Leal, C.G., Isaac, V., Lees, A., Parr, C., Wilson, S.,

- Young, P., Graham, N. (2018) The future of hyperdiverse tropical ecosystems. *Nature* 559: 517-526.
53. Iglesias, T.L., Warren, D.L., Dornburg, A., Wainwright, P.C., Schmitz, L., **Economo, E.P.** (2018) Eyes wide shut: The impact of dim-light vision on neural investment in marine teleosts. *Journal of Evolutionary Biology* 31: 1082-1092.
52. Staab, M., Hita Garcia, F., Liu, C., Xu, Z.H., **Economo, E.P.** (2018) Systematics of the ant genus *Proceratium* Roger (Hymenoptera, Formicidae, Proceratiinae) in China - with descriptions of three new species based on micro-CT enhanced next-generation morphology. *Zookeys* 770: 137-192.
51. **Economo, E.P.***, Narula, N., Friedman, N., Weiser, M., Guénard, B.* (2018) Macroecology and macroevolution of the latitudinal diversity gradient in ants. *Nature Communications* 9: 1778. *equal contribution
50. Matos-Maravi, P. Clouse, R. M., Sarnat, E. M., **Economo, E. P.**, LaPolla, J. S., Borovanska, M., Rabeling, C., Czekanski-Moir, J., Latumahina, F., Wilson, E. O., Janda, M. (2018) An ant genus-group (*Prenolepis*) illuminates the drivers of insect diversification in the Indo-Pacific. *Molecular Phylogenetics and Evolution* 123:16-25.
49. Seebens, H. ..48 authors including **Economo, E.P.**...Essl, F. (2018) Historical dynamics of emerging alien species, secondary invasions, and the pool of potential new alien species. *Proceedings of the National Academy of Sciences* 115: E2264-E2273.
48. Liu, C., Dudley, K., Xu, Z., **Economo, E.P.** (2018) Mountain metacommunities: climate and spatial connectivity shape ant diversity in a complex landscape. *Ecography* 41: 101-112.
47. Ross, S., Friedman, N.R., Dudley, K., Yoshimura, M., **Economo, E.P.** (2018) Listening to ecosystems: data-rich acoustic monitoring through landscape-scale sensor networks. *Ecological Research* 33: 135-147.
46. Agavekar, G., Hita Garcia, F., **Economo, E.P.** (2017) Taxonomic overview of the hyperdiverse ant genus *Tetramorium* Mayr (Hymenoptera, Formicidae) in India with descriptions and X-ray microtomography of two new species from the Andaman Islands *PeerJ* 5: e3800
45. Hita Garcia, F., Fischer, G., Liu, C., Audisio, T., **Economo, E.P.** (2017) Next-generation morphological character discovery and evaluation: an X-ray micro-CT enhanced revision of the ant genus *Zasphinctus* Wheeler (Hymenoptera, Formicidae, Dorylinae) in the Afrotropics. *ZooKeys* 693: 33-93.
44. Sarnat, E.M., Friedman, N.R., Fischer, G., Lecroq, B., **Economo, E.P.** (2017) Rise of the spiny ants: diversification, ecology, and function of extreme traits in the hyperdiverse genus *Pheidole*. *Biological Journal of the Linnean Society* 122: 514-538.
43. Friedman, N., Harmáčková, L., **Economo, E.P.**, Remeš, V. (2017) Smaller beaks for colder winters: thermoregulation drives beak size evolution in Australian songbirds. *Evolution* 71: 2120-2129.
42. Dawson, W., Moser, D., van Kleunen, M., Kreft, H., Pergl, J., Pysek, P., Weigelt, P., Winter, M., Lenzer, B., Blackburn, T., Dyer, E., Cassey, P., Scrivens, S., **Economo, E.P.**, Guénard, B., Capinha, C., Seebens, H., Nentwig, W., Berthou, E., Casal, C., Essl, F. (2017) Global hotspots

- and correlates of alien species richness across taxonomic groups. *Nature Ecology and Evolution* 1: 0186.
41. Choo, J., Carasco, C., Alvarez-Loayza, P., Simpson, B., **Economo, E.P.** (2017) Life history traits influence the strength of distance- and density-dependence at different life stages of two Amazonian palms. *Annals of Botany* 120: 147-158.
 40. Hita Garcia, F., Fischer, G., Liu, C., Audisio, T.L., Alpert, G.D., Fisher, B.L., **Economo, E.P.** (2017) X-ray microtomography for ant taxonomy: an exploration and case study of two new *Terataner* (Hymenoptera, Formicidae, Myrmicinae) species from Madagascar. *PLoS ONE* 12(3): e0172641.
 39. Guénard, B., Weiser, M., Gomez, K., Narula, N., **Economo, E.P.** (2017) The Global Ant Biodiversity Informatics (GABI) database: a synthesis of ant species geographic distributions. *Myrmecological News* 24: 83-89.
 38. **Economo, E.P.**, Janda, M., Guénard, B., Sarnat, E.M. (2017) Assembling a species-area curve through colonization, speciation, and human-mediated introduction. *Journal of Biogeography* 44: 1088-1097.
 37. Lasky, J., Keitt, T.H., Weeks, B., **Economo, E.P.*** (2017) A hierarchical model of whole-assembly island biogeography. *Ecography* 39: 982-990. *corresponding
 36. Jaitrong, W., Guénard, B., **Economo, E.P.**, Buddhakala, N., Yamane, S. (2016) A checklist of known ant species of Laos (Hymenoptera: Formicidae). *Asian Myrmecology* 8: 1-32.
 35. Fischer, G., Sarnat, E.M., **Economo, E.P.** (2016) Revision and microtomography of the *Pheidole knowlesi* group, an endemic ant radiation from Fiji (Hymenoptera, Formicidae, Myrmicinae). *PLoS ONE* 11(7): e0158544.
 34. Sarnat, E.M., Fischer, G., **Economo, E.P.** (2016) Inordinate spinescence: taxonomic revision and microtomography of the *Pheidole cervicornis* group (Hymenoptera: Formicidae). *PLoS ONE* 11(7): e0156709.
 33. Sukumaran, J., **Economo, E. P.**, Knowles, L.L. (2016) Machine learning biogeographic processes from biotic pattern: a trait-driven dispersal and diversification model with model-choice by simulation-trained discriminant analysis of Principal Components Classification. *Systematic Biology* 65: 525-545.
 32. Wepfer, P., Guénard, B., **Economo, E.P.** (2016) Influences of climate and historical land connectivity on ant beta diversity in East Asia. *Journal of Biogeography* 43: 2311-2321.
 31. Liu, C., Guénard, B., Blanchard, B., Peng, Y., **Economo, E.P.** (2016) Reorganization of taxonomic, functional, and phylogenetic ant biodiversity patterns after conversion to rubber plantation. *Ecological Monographs* 86: 215-227.
 30. **Economo, E.P.**, Hong, L., Page, S.E.* (2016) Social structure, endogenous diversity, and collective accuracy. *Journal of Economic Behavior and Organization* 125: 212-231. (*corresponding)
 29. Janicki, J., Narula, N., Ziegler, M., Guénard, B. **Economo, E.P.*** (2016) Visualizing and interacting with large-volume biodiversity data using client-server web-mapping applications: The design and implementation of antmaps.org. *Ecological Informatics* 32: 185-193. *corresponding

28. Bharti, H., Guénard, B., Bharti, M., **Economo, E.P.** (2016) An updated checklist of the ants (Hymenoptera: Formicidae) of India with their specific distributions in Indian states. *ZooKeys* 551: 1-83.
27. Sarnat, E.M., Fischer, G., Guénard, B., **Economo, E.P.** (2015) Introduced *Pheidole* of the world: taxonomy, distribution, and biology. *ZooKeys* 543: 1-109.
26. Liu, C., Fischer, G., **Economo, E.P.** (2015) A rare ant on Samoa: first record of the cryptic subfamily Proceratiinae (Hymenoptera, Formicidae) and description of a new *Proceratium* Roger species. *Journal of Hymenoptera Research*, 46: 35-44.
25. Guénard, B., & **Economo, E.P.** (2015) Additions to the checklist of the ants (Hymenoptera: Formicidae) of Peru. *Zootaxa* 4040 (2): 225-235.
24. Fischer, G., Azorsa, F., Hita Garcia, F., Mikheyev, A.S., **Economo, E.P.** (2015) Two new phragmotic ant species from Africa: morphology and next-generation sequencing solve a caste association problem in the genus *Carebara* Westwood. *ZooKeys* 525: 77-105.
23. Guénard, B., Perrichiot, V., **Economo, E.P.** (2015) Integration of global fossil and modern biodiversity data reveals dynamism and stasis in ant macroecological patterns. *Journal of Biogeography*. 42: 2302-2312.
22. **Economo, E.P.**, Sarnat, E.M., Janda, M., Clouse, R., Klimov, P., Fischer, G., Blanchard, B.D., Ramirez, L.N., Andersen, A., Berman, M., Guénard, B., Lucky, A., Rabeling, C., Wilson, E.O., Knowles, L.L. (2015) Breaking out of biogeographic modules: range expansion and taxon cycles in Indo-Pacific *Pheidole*. *Journal of Biogeography* 42: 2289-2301.
21. Triantis, K.* **Economo, E.P.***, Guilhammon, F., Ricklefs, R. (2015) Diversity regulation at the macro-scales: the case of Oceanic archipelagoes. *Global Ecology & Biogeography* 24: 594-605. *equally contributing corresponding authors
20. Liu, C., Hita Garcia, F., Peng, Y., **Economo, E.P.** (2015) *Aenictus yangi* sp. n. – a new species of the *A. ceylonicus* species group (Hymenoptera: Formicidae: Dorylinae) from Yunnan, China. *Journal of Hymenoptera Research*. 42: 33-45.
19. Liu, C., Guénard, B., Hita Garcia, F., Yamane, S., Blanchard, B., Yang, D.R., **Economo, E.P.** (2015) New records of ant species from Yunnan, China. *ZooKeys* 477: 17-78.
18. Hita Garcia, F., Sarnat, E.M., **Economo, E.P.** (2015) Revision of the ant genus *Proceratium* Roger (Hymenoptera, Proceratiinae) in Fiji. *ZooKeys* 475: 97-112.
17. **Economo, E.P.**, Klimov, P., Sarnat, E., Guénard, B., Weiser, M.D., Lecroq, B., Knowles, L.L. (2015) Global phylogenetic structure of the hyperdiverse ant genus *Pheidole* reveals the repeated evolution of macroecological patterns. *Proceedings of the Royal Society of London Series B: Biological Sciences* 282: 20141416.
16. Clouse, R. M., Janda, M., Blanchard, B., Sharma, P., Hoffmann, B.D., Andersen, A.N., Czekanski-Moir, J.E., Krushelnycky, P., Rabeling, C., Wilson, E.O., **Economo, E.P.**, Sarnat, E.M., General, D.M., Alpert, G.D., Wheeler, W.C. (2015) Molecular phylogeny of Indo-Pacific carpenter ants (Hymenoptera: Formicidae, *Camponotus*) reveals waves of dispersal and colonization from diverse source areas. *Cladistics*. 31(4): 424–437

15. Sarnat, E.M., Rabeling, C. **Economo, E.P.**, Wilson, E.O. (2014) First record of a species from the New World *Pheidole flavens*-complex (Hymenoptera: Formicidae) introduced to the southwestern Pacific. *BioInvasions Records*. 3: 301-307.
14. Tin, M.Y., **Economo, E.P.**, Mikheyev, A.S. (2014) Sequencing degraded DNA from non-destructively sampled museum specimens for RAD-tagging and low-coverage shotgun phylogenetics. *PLoS ONE* 9(5): e96793.
13. Guénard, B., Blanchard, B.D., Liu, C., Yang, D., **Economo, E.P.** (2013) Rediscovery of the rare ant genus *Bannapone* (Hymenoptera: Formicidae: Amblyoponinae) and description of the worker caste. *Zootaxa* 3734: 371-379.
12. Sarnat, E.M., **Economo, E.P.** (2013) *Pristomyrmex tsujii* sp. n. and *P. mandibularis* Mann (Hymenoptera: Formicidae). *ZooKeys* (340): 43-61.
10. Sarnat, E.M., Blanchard, B.D., Guénard, Fasi, J., **Economo, E.P.** (2013) Checklist of the ants (Hymenoptera: Formicidae) of the Solomon Islands with new records from Makira Island. *ZooKeys* 257: 47-88.
9. **Economo, E.P.**, & Sarnat, E.M. (2012) Revisiting the ants of Melanesia and the taxon cycle: historical and human mediated invasions of a tropical archipelago. *The American Naturalist* 180 : E1-E16. (*Presidential award from ASN for best paper of 2012 in Am. Nat.*)
8. **Economo, E.P.** (2011) Biodiversity conservation in metacommunity networks: linking pattern and persistence. *The American Naturalist* 177: E167-180. (*highlighted by Faculty of 1000*)
7. Leibold, M., **Economo, E.P.**, Peres-Neto, P. (2010) Metacommunity Phylogenetics: Separating the roles of environmental filters and historical biogeography. *Ecology Letters* 13: 1290-1299.
6. **Economo, E. P.**, & Keitt, T.H. (2010) Network isolation and local diversity in neutral metacommunities. *Oikos* 119: 1355-1363.
5. Cowperthwaite, M., **Economo, E.P.**, Harcombe W., Miller, E., Meyers, L.A. (2008) The ascent of the abundant: How mutational networks constrain evolution. *PLoS Computational Biology* 4: e1000110.
4. **Economo, E. P.**, & Keitt, T.H. (2008) Species diversity in neutral metacommunities: a network approach. *Ecology Letters* 11: 52-62.
3. Enquist, B. J., Kerkhoff, A.J., Huxman, T.E., and **Economo, E.P.** (2007) Adaptive differences in plant physiology and ecosystem paradoxes: insights from metabolic scaling theory. *Global Change Biology* 13: 591-609.
2. **Economo, E.P.**, Andrew J. Kerkhoff, Brian J. Enquist. (2005) Allometric growth, life history invariants, and population energetics. *Ecology Letters* 8: 353-360.
1. Enquist, B.J., **Economo, E.P.**, Huxman, T.E., Allen, A.P., Ignace, D.D., Gillooly, J. (2003) Scaling metabolism from organisms to ecosystems. *Nature* 423: 639-642.

Non-Peer Reviewed:

- Economo, E.P.** (2016) Understanding western academia: Advice for job-seekers and recommendation letter-writers [published in Japanese]. *Japanese Journal of Ecology* 66, 735-742.

Website:

antmaps.org. **Economu, E.P.**, Guénard, B., Janicki, J., Ziegler, M., Narula, N. Published online July, 2015.

EXTERNAL ACADEMIC SERVICE

Society Memberships

Ecological Society of America
Entomological Society of America
Ecological Society of Japan
Society for the Study of Evolution
American Society of Naturalists

Society of Systematic Biology
Society of Integrative & Comparative Biology
International Biogeography Society
Japan Society of Mathematical Biology
Inter. Union for the Study of Soc. Insects

Subject/Associate Editor

The American Naturalist (2021-present)
Current Research in Insect Science (2020-present)
Journal of Biogeography (2019-present)
Myrmecological News (2017-present)

Peer Reviewer

American Journal of Botany
Aquatic Ecology
The American Naturalist
Biodiversity Conservation
Biological Invasions
Biological Reviews
Biology Letters
Bulletin of Math. Biology
Conservation Letters
Current Biology
Diversity and Distributions

Ecology
Ecology Letters
Ecography
Functional Ecology
Global Ecol. & Biogeogr.
Journal of Biogeography
Journal of Ecology
J. of Environmental Manag.
J. of Theoretical Biology
Landscape Ecology
Myrmecological News

Nat. Science Found. (USA)
Nature Communications
Oikos
PLoS Biology
PLoS ONE
PLoS Comp. Biology
PNAS
Proc. Roy. Soc. B.
Science Advances
Swiss Nat. Science Found.

Symposia, Conferences, and Workshops Organized

- 2024 (upcoming): International Congress of Entomology (ICE 2024), Kyoto, General Affairs Committee
- 2023 (upcoming): OIST Workshop on the Evolutionary Analysis of Morphology, primary organizer
- 2020: OIST Mini-symposium: Ant Biodiversity Data Synthesis- Present and Future
- 2019: SWARM2019: The 3rd International Symposium on Swarm Behavior and Bio-Inspired Robotics, co-lead organizer and local host (200 participants)

- 2018 OIST mini-symposium “Advances in imaging, quantifying, and understanding the evolution of ant phenotypes”
 - 2017 OKEON Chura-Mori Project Symposium
 - 2017 Ecological Society of Japan Meeting Symposium, “Big Data in Ecology and Evolution”
 - 2015 East Asia Joint Symposium (EAJS) (co-organizer)
 - 2014 Ecological Society of Japan, “Island Biogeography: Integrating Ecological and Evolutionary Perspectives”
 - 2014 IUSSI “Island Biology of Social Insects.”
-

PRESENTATIONS

Invited Talks

2022 International Union Study of Social Insects Congress (symposium)
 2022 Concordia University, Department of Biology
 2022 McGill University, Department of Biology
 2022 Texas A&M University, Department of Entomology
 2022 University of Texas at Austin, Section of Integrative Biology
 2021 City College of New York, Department of Biology
 2021 UMass Lowell, Department of Biology
 2021 Yale University, Department of Ecology and Evolutionary Biology
 2021 EU-IUSSI annual meeting (Symposium)
 2019 Sorbonne University, Institute of Ecology and Environmental Sciences
 2019 University of Lausanne, Department of Ecology and Evolutionary Biology
 2019 Ecological Society of Japan (Symposium)
 2018 Taiwan Entomological Society (Keynote)
 2018 UC-Berkeley, Department of Environmental Science, Policy, and Management
 2017 Kyoto University, Asia Research Node Symposium
 2016 International Colloquium on Soil Zoology (Plenary)
 2016 International Congress of Entomology (Symposium)
 2016 Ludwig Maximilian University Munich (Ants 2016 Symposium)
 2015 University of Cambridge, Department of Zoology
 2015 Society of Population Ecology Meeting (Symposium)
 2014 Kyoto University, Evolutionary Community Ecology Symposium
 2013 Kyoto University, Symposium in honor of E.O. Wilson and the Kyoto Prize
 2013 University of the Ryukyus, Japan
 2012 Ecological Society of Japan Meeting (Symposium)
 2011 Society of Population Ecology Meeting (Symposium)
 2011 University of Alabama
 2011 Okinawa Institute of Science and Technology
 2011 University of Queensland
 2011 International Biogeography Society Meeting (Symposium)
 2010 University of British Columbia
 2010 Field Museum of Natural History
 2010 UM/SFI Complex Systems Symposium

GRANTS AND FELLOWSHIPS

- 2022- Research Grant Council Hong Kong. “A stage- and trait-based approach to understand global ant invasion patterns and invasion mechanisms” (PI: B. Guénard, Co-I: E. Economo)
- 2021-2024 Strategic Environmental Research and Development Program (\$2.9 million total) “Next Generation Biosecurity Monitoring of Invasive Alien Arthropod Species.” (~\$2.9 million total, (PI: G. Roderick, co-PI: Economo, E.)
- 2021-2022 Radcliffe Fellowship, Radcliffe Institute of Advanced Study, Harvard University
- 2019-2022 Japan Ministry of Environment Grant (~\$1 million), “Developing Countermeasures for Invasive Alien Species”
- 2016-2019 Okinawa Prefectural Government Grant (~\$1.2 million), “Developing a system for fire ant surveillance, prevention, and control in Okinawa”.
- 2017-2019 Japanese Society for the Promotion of Science, Grant-in-Aid of Research (Kakenhi, ~\$50K)
- 2012-2017 National Science Foundation (DEB 1141989), Phylogenetic Systematics Economo, E. (PI), L. Knowles (co-PI). \$378,522. "Evolving hyperdiversity in phenotypic, ecological, and geographic networks: testing the taxon cycle and alternatives in Indo-Pacific *Pheidole*"
- 2009-2012 Michigan Society of Fellows Postdoctoral Fellowship
- 2009 Marion Elizabeth Eason Scholarship, University of Texas
- 2005-2009 National Science Foundation Graduate Research Fellowship
- 2004-2005 NSF IGERT Graduate Training Fellowship in Computational Phylogenetics
- 2004 Santa Fe Institute Complex Systems Summer School
- 2007 EEB Research Fellowship
- 2006 EEB Research Fellowship
- 2005 EEB Research Fellowship
- 2003 University of Texas Dean's Excellence Preemptive Fellowship
- 2004 NSF Graduate Research Fellowship Honorable Mention
- 2001 Honors College Undergraduate Research Grant, U. of Arizona
- 2001 Research Training Grant in the Analysis of Diversification, U. of Arizona

AWARDS AND HONORS

- 2019 Ecological Research Award (for one of top papers in *Ecological Research* in 2018)
 - 2017 Top ten new species for *Pheidole drogon* (given by ESF-SUNY)
 - 2016 Biodiversity Action Award (to OKEON project)
 - 2013 Presidential Award from American Society of Naturalists (For best paper published in *The American Naturalist* in 2012)
 - 2009 Nominated for Distinguished Dissertation Award, University of Texas
 - 2004 Teaching Award, School of Biological Sciences, University of Texas
-

CLASSROOM TEACHING

- 2019 B16 “Ecology & Evolution” Primary instructor, OIST, 9 students
- 2018 B16 “Ecology & Evolution” Primary instructor, OIST, 8 students
- 2018 A406, “Independent Study”, OIST, 1 student
- 2017 B16 “Ecology & Evolution” Primary instructor, OIST. 6 students
- 2016 B16 “Ecology & Evolution” Primary instructor, OIST, 5 students
- 2015 B16 “Ecology & Evolution” Primary instructor, OIST, 6 students
- 2014 A406 “Independent Study”, OIST, 1 student
- 2014 B16 “Ecology & Evolution” Primary instructor, OIST, 2 students
- 2013 A302 “Ecology & Evolution” Primary instructor, OIST, 5 students
- 2011 “EEB Senior Capstone”, primary instructor. U. of Michigan.
- 2011 “Insect Ecology & Evolution” (graduate seminar) primary instructor. U. of Michigan.
- 2010 “General Ecology”, primary instructor, U. of Michigan
- 2009 TA for “Ecology”, 2 guest lectures. U. of Texas at Austin.
- 2004 TA for “Ecology, Evolution and Society”, 3 guest lectures. U. of Texas at Austin. Won graduate teaching award from the School of Biological Sciences.

Summer School:

- 2013 Co-organized “OIST Integrative Biology Course: Big Data in Biology”
(<https://groups.oist.jp/oibc>)

MENTORSHIP

OIST Postdoctoral Fellows & Staff Scientists

2012-2014 Benoit Guénard	2017-2020 Nao Takashina (JSPS Fellow)
2012-2014 Beatrice Lecroq-Bennett	2018-2021 Susan Kennedy
2013-2018 Masashi Yoshimura	2019-present Jamie Kass (JSPS fellow)
2015-2018 Clive Darwell	2021-present Larisa Kiselva
2014-2020 Georg Fischer	2021-2022 Nurit Eliash
2015-2020 Nicholas Friedman	2022 Joshua Gibson (JSPS fellow)
2016-present Francisco Hita Garcia	2023-present Riou Mizuno

OIST PhD Student Thesis Supervision

2012-2018 Cong Liu	2017-present Julian Katzke
2013-2019 Patricia Wepfer (co-supervised)	2017-present Yazmin Zurita Gutierrez
2014-2019 Yafei Mao (co-supervised)	2018-present Gaurav Agavekar
2015-2021 Yuka Suzuki	2018-present Lazzat Aibekova
2016-2021 Evropi Toulkeridou (co-supervised)	2018-present Shubham Gautam

OIST PhD Rotation Students

2012 Keita Ikegami	2014 Yafei Mao
2012 Cong Liu	2014 Yuna Hattori
2013 Han Yan	2014 Matti Krueger
2013 Sandrine Burriel	2014 Margaret Brisbin

2015 Jason Ball
2015 Yuka Suzuki
2016 Menglin Wang
2016 Christopher Campbell
2017 Julian Katzke
2017 Otis Brunner
2018 Yazmin Zurita Gutierrez

2018 Shubham Gautam
2018 Lazzat Aibekova
2018 Gaurav Agavekar
2019 Mohamed Boubakour
2019 Michael Izumiyama
2020 Kota Ishikawa
2020 Masato Hirota

OIST Research Interns and Visiting Research Students

2012 Sandrine Burriel
2013 Patricia Wepfer
2013 Benjamin Blanchard
2013 Guilherme Baiao
2014 Juliette Martin
2015 Brett Morgan
2015 Julia Janicki
2015 Natalie Greenhalgh
2015 Matt Ziegler
2016 Haruka Kasuga
2016 Aina Urano
2016 Kotaro Fujiyoshi
2016 Victoria McGruer
2016 Gaurav Agavekar
2016 Sam Ross

2017 Adam Khalife
2017 Tracy Audisio
2018 Zachary Lieberman
2018 Fumika Azuma
2018 Alexandre Ferreira
2019 Kelvin Chen
2019 Adrian Richter
2019 April Lamb
2022 Lily Tashiro
2023 Azumi Kudaka
2023 Arthur Matte
2023 Jordan Drapin
2023 Karen Kohama
2023 Minsoo Dong

OIST PhD Student Mentor

(advisory, not thesis supervisor)

Tomohito Wauke
Maki Kohata Thomas
Christine Guzman
Miles Desforges

Jekaterina Stemmere
Tracy Audisio
Stefano Pascarelli

OIST PhD Thesis Committee Membership

(not including my own PhD students, see above)

Qiong Huang
Tadashi Kazuno
Robert Campbell
Agneesh Barua

Menglin Wang
Otis Brunner
Alexsandra Blizina
Tracy Audisio

OIST-Supported Affiliated Researchers

(Off-site researchers who have worked with our lab with OIST funding support)

2012-2020 Eli Sarnat
2018 Roberto Keller

OIST Research Technicians

2012 Adam Lazarus

2013-2014 John Deyrup

2013-2014 Nitish Narula

2015-2017 Julia Janicki

2014-2020 Kenneth Dudley

2018-present Fumika Azuma

2019-2022 Kosmas Deligkaris

2021-present Miyuki Suenaga

2023-present Dimitris Petsoupoulos

University of Michigan (2009-2012)

Supervised eleven undergraduate research projects (6 students) for independent study credit or work study (through UROP).

University of Texas at Austin (2003-2009)

Supervised 6 undergraduate students on undergraduate research

OTHER EMPLOYMENT

2002-2003 Research Technician, University of Arizona, Department of Ecology & Evolutionary Biology, lab of Brian J. Enquist.
