

(Daniel Rubinoff)
College of Tropical Agriculture and Human Resources
 (PEPS-Entomology)
 FTE Distribution: .30% I; .70% R; 0% E

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
Bachelors	Cornell University	Natural Resources
PhD	University of California, Berkeley	Environmental Science, Policy and Management

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Professor, Associate Professor, Assistant Professor	University of Hawai'i Manoa, Department of Plant and Environmental Protection Sciences-Entomology Graduate program	10/02-present
Director , University of Hawai'i Insect Museum	University of Hawai'i Manoa, Department of Plant and Environmental Protection Sciences-Entomology Graduate program	12/02-present
Elected faculty member of the Ecology, Evolution, and Conservation Biology Graduate Program	N/A	11/02-present

Courses Taught

Course Number and Title (credits)
Invasive Pest Species PEPS 350 (3)

Systematics and Phylogenetics PEPS 662 (3)

Entomology Seminars PEPS 690 (1-2 credits)

Publications (reverse chronological order)

Books

Will, K., Gross, J., Rubinoff, D. and Powell, J.A., 2020. *Field Guide to California Insects* (Vol. 111). California Natural History Guide. UC Press, Berkeley, CA.

Book Chapters

Lepczyk, C. A. and D. Rubinoff. 2018. Ecological Issues (of invasive species) in *Ecology and Management of Terrestrial Vertebrate Invasive Species in the United States*. W. C. Pitt, J. Beasley and G. W. Witmer, Eds. CRC Press, Taylor and Francis.

Refereed Journal Publications (last 6 years)

Rubinoff, D. and Gon III, S.M.O.Ō.A., 2023. The role of feral goats in Maui fires. *Science*, 381(6664), pp.1294-1294.

Doorenweerd, C., San Jose, M., Geib, S., Barr, N. and Rubinoff, D., 2023. Genomic data reveal new species and the limits of mtDNA barcode diagnostics to contain a global pest species complex (Diptera: Tephritidae: Dacinae). *Systematic Entomology*.

Austin, K.A. and Rubinoff, D., 2023. Seven New Species of Hawaiian Leaf-Roller Moths (Tortricidae). *The Journal of the Lepidopterists' Society*, 77(2), pp.73-89.

Doorenweerd, C., Austin, K.A. and Rubinoff, D., 2023. Five New Species of Hawaiian Endemic Fancy Case Caterpillars (Cosmopterigidae: *Hyposmocoma*) from a Recently Established Forest Reserve on Maui. *Proceedings of the Hawaiian Entomological Society*

Austin, K.A. and Rubinoff, D., 2023. In press. Rediscoveries and Presumed Extinctions of Hawaiian Leaf-roller Moths (Lepidoptera: Tortricidae). *Proceedings of the Hawaiian Entomological Society*

San Jose, M., Doorenweerd, C., Geib, S., Barr, N., Dupuis, J.R., Leblanc, L.,

Kauwe, A., Morris, K.Y. and Rubinoff, D., 2023. Interspecific gene flow obscures phylogenetic relationships in an important insect pest species complex. *Molecular Phylogenetics and Evolution*, p.107892.

Cognato, A.I., Taft, W., Osborn, R.K. and Rubinoff, D., 2023. Multi-gene phylogeny of North American clear-winged moths (Lepidoptera: Sesiidae): a foundation for future evolutionary study of a speciose mimicry complex. *Cladistics*, 39(1), pp.1-17.

San Jose, M., Doorenweerd, C. and Rubinoff, D., 2023. Genomics reveals widespread hybridization across insects with ramifications for species boundaries and invasive species. *Current Opinion in Insect Science*, p.101052. <https://doi.org/10.1016/j.cois.2023.101052>

Doorenweerd, C., San Jose, M., Geib, S., Dupuis, J., Leblanc, L., Barr, N., Fiegalan, E., Morris, K.Y. and Rubinoff, D., 2023. A phylogenomic approach to species delimitation in the mango fruit fly (*Bactrocera frauenfeldi*) complex: A new synonym of an important pest species with variable morphotypes (Diptera: Tephritidae). *Systematic Entomology*. <https://doi.org/10.1111/syen.12559>

Austin, K. A. and D. Rubinoff. 2022. Eleven New Records of Lepidoptera in the Hawaiian Islands including corrections to the Hawaiian Terrestrial Arthropod Checklist. *Bishop Museum Occasional Papers* 142:49-74.

Doorenweerd, C., San Jose, M., Leblanc, L. and Rubinoff, D. 2022. Inadequate molecular identification protocols for invasive pests threaten biosecurity. *Systematic Entomology*. <https://doi.org/10.1111/syen.12581>

Fumia, N., Rubinoff, D., Zenil-Ferguson, R., Khoury, C.K., Pironon, S., Gore, M.A. and Kantar, M.B., 2022. Interactions between breeding system and ploidy affect niche breadth in *Solanum*. *Royal Society Open Science*, 9(1), p.211862.

Fumia, N., Pironon, S., Rubinoff, D., Khoury, C.K., Gore, M.A. and Kantar, M.B., 2022. Wild relatives of potato may bolster its adaptation to new niches under future climate scenarios. *Food and Energy Security*, p.e360.

Elliot, C., Gillett, C.P.D.T., Parsons, E., Wright, M.G. and Rubinoff, D. 2021. Identifying key threats to a refugial population of an endangered Hawaiian moth. *Insect Conservation and Diversity* doi: 10.1111/icad.12553

Hembry, D.H., Bennett, G.M., Bess, E., Liebherr, J.K., Magnacca, K.N., Percy, D.M., Polhemus, D., Rubinoff, D., Shaw, K. and O'Grady, P.M., 2021. Insect Radiations on Islands: Biogeographic Pattern and Evolutionary Process in Hawaiian Insects. *The quarterly review of biology*, 96(4).

Elliott, C.H., Gillett, C.P., Parsons, E. and Rubinoff, D., 2021. Conservation conundrum: Endangered species persists on noxious weed. *Biotropica*, 53(5), pp.1265-1269.

Doorenweerd, C., Austin, K.A. and Rubinoff, D., 2021. First Confirmed Record of Leaf Mining in the Fruitworm Moths (Carposinidae): A New Species Feeding on an Endemic Hawaiian Clermontia (Campanulaceae). *Proceedings of the Hawaiian Entomological Society* **53**

Rubinoff, D., Doorenweerd, C., McElfresh, J.S. and Millar, J.G., 2021. Phylogeography of an endemic California silk moth genus suggests the importance of an unheralded central California province in generating regional endemic biodiversity. *Molecular Phylogenetics and Evolution*, p.107256.

Rubinoff, D., San Jose, M. and Hundsdoerfer, A.K., 2021. Cryptic diversity in a vagile Hawaiian moth group suggests complex factors drive diversification. *Molecular Phylogenetics and Evolution*, 155, p.107002.

Rubinoff, D., Longcore, T., Dupuis, J.R. and Osborne, K.H., 2021. Genomic Data Support the Elevation of the Federally Listed El Segundo Blue (*Euphilotes bernardino/battoides allyni*) to Species Status. *The Journal of the Lepidopterists' Society*, 75(2), pp.161-164.

Gillett, C., Honsberger, D., Bogner, K.K., Sprague, R.S., Matsunaga, J.N. and Rubinoff, D. 2020. First Record of the Coffee Berry Borer, *Hypothenemus hampei* (Ferrari, 1867), on the Hawaiian Island of Lanai (Coleoptera: Curculionidae: Scolytinae). *Proceedings of the Hawaiian Entomological Society* **52**:59-66

Doorenweerd, C., Ekayanti, A. and Rubinoff, D., 2020. The Dacini fruit fly fauna of Sulawesi fits Lydekker's line but also supports Wallacea as a biogeographic region (Diptera, Tephritidae). *ZooKeys*, 973, p.103.

Mawdsley, J.R., Simmons, T. and Rubinoff, D., 2020. Voluntary

conservation, not regulation, will be key to monarch butterfly recovery. *Wildlife Society Bulletin*, 44(3), pp.585-589.

Doorenweerd, C., Sievert, S., Rossi, W. and Rubinoff, D., 2020. The paradoxical rarity of a fruit fly fungus attacking a broad range of hosts. *Ecology and Evolution*, 10(16), pp.8871-8879. <https://doi.org/10.1002/ece3.6585>

Dupuis, J.R., Geib, S.M., Schmidt, C. and Rubinoff, D. 2020. Genomic wide sequencing reveals remarkable connection between widely disjunct populations of the internationally threatened bog buck moth. *Insect Conservation and Diversity*.

Gillett, C.P., Osborne, K.H., Reil, J.B. and Rubinoff, D. 2020. A new species of melolonthine chafer in the endemic Californian genus *Dinacoma* Casey (Coleoptera: Scarabaeidae). *Journal of Insect Biodiversity*, 17(2), pp.28-35.

Dupuis, J.R., Geib, S.M., Osborne, K.H. and Rubinoff, D., 2020. Genomics confirms surprising ecological divergence and isolation in an endangered butterfly. *Biodiversity and Conservation*, pp.1-25.

Gillett, C.P.T., Honsberger, D., Elliott, C. and Rubinoff, D., 2020. Two Endemic Species of Hawaiian Bark Beetles Newly Recorded from the Island of Moloka 'i (Coleoptera: Curculionidae: Scolytinae). *Transactions of the American Entomological Society*, 146(1), pp.251-257.

Gillett, C.P.D.T., F. Yousuf, and D. Rubinoff. 2020. First host plant record for the endemic Hawaiian ambrosia beetle *Xyleborus pleiades* Samuelson, 1981 (Coleoptera: Curculionidae: Scolytinae). *Proceedings of the Hawaiian Entomological Society*

Rubinoff, D., Reil, J.B., Osborne, K.H., Gregory, C.J., Geib, S.M. and Dupuis, J.R. 2020. Phylogenomics reveals conservation challenges and opportunities for cryptic endangered species in a rapidly disappearing desert ecosystem. *Biodiversity and Conservation*, 29, pp. 2185-2200. DOI: 10.1007/s10531-020-01968-w

Rubinoff, D. and Doorenweerd, C., 2020. Systematics and Biogeography Reciprocally Illuminate Taxonomic Revisions in the Silkmoth Genus *Saturnia* (Lepidoptera: Saturniidae). *The Journal of the Lepidopterists' Society*, 74(1), pp.1-6.

Gillespie, R.G., Bennett, G.M., De Meester, L., Feder, J.L., Fleischer, R.C., Harmon, L.J., Hendry, A.P., Knope, M.L., Mallet, J., Martin, C. and Parent, C.E., Patton, A. H., Pfennig, K. S., **Rubinoff, D.**, Schluter, D., Seehausen, O., Shaw K.L., Stacy, E., M. Stervander, Stroud, J.T., Wagner, C., and G. Wogan. 2020. Comparing adaptive radiations across space, time, and taxa. *Journal of Heredity*, **111**(1), pp.1-20. doi:10.1093/jhered/esz064

Doorenweerd, C., San Jose, M., Barr, N., Leblanc, L. and Rubinoff, D., 2020. Highly variable COI haplotype diversity between three species of invasive pest fruit fly reflects remarkably incongruent demographic histories. *Scientific Reports*, **10**(1), pp.1-10.

Rubinoff, D. and Doorenweerd, C. 2020. In and out of America: Ecological and species diversity in Holarctic giant silkmoths suggests unusual dispersal, defying the dogma of an Asian origin. *Journal of Biogeography*, **47**(4), pp.903-914.

Gillett, C.P., Elliott, C. and Rubinoff, D., 2019. Records of seven species of native and exotic bark beetles new to Pu'u Wa'awa'a Dry Forest Unit, Hawai'i Island (Coleoptera: Curculionidae, Scolytinae). *Fragmenta entomologica*, **51**(2), pp.233-240.

Gillett, C.P., Honsberger, D. and Rubinoff, D. 2019. Rediscovery of the Hawaiian endemic bark beetle *Xyleborus pleiades* Samuleson, 1981 on Moloka'i, with records of three new exotic bark beetles for the island (Coleoptera: Curculionidae: Scolytinae: Xyleborini). *Journal of Natural History*, **53**(23-24), pp.1481-1490.

Leblanc L, Hossain MA, Doorenweerd C, Khan SA, Momen M, San Jose M, Rubinoff D. 2019. Six years of fruit fly surveys in Bangladesh: a new species, 33 new country records and discovery of the highly invasive *Bactrocera carambolae* (Diptera, Tephritidae). *ZooKeys* 876: 87-109. <https://doi.org/10.3897/zookeys.876.38096>

Medeiros, M.J., Kirkpatrick, J., Elliott, C.H., Prestes, A., Eiben, J. and Rubinoff, D. 2019. Two new day-flying species of *Agrotis* Ochseneimer (Lepidoptera: Noctuidae) from the alpine summit of the Maunakea Volcano. *Zootaxa*, **4545**; 277-285.

Doorenweerd, C., Leblanc, L., Hsu, Y.F., Huang, C.L., Lin, Y.C., San Jose, M. and Rubinoff, D., 2019. Taiwan's Dacini Fruit Flies: Rare Endemics and Abundant Pests, along Altitudinal Gradients. *Pacific Science*, **73**; 35-60.

Reil, J.B., Doorenweerd, C., San Jose, M., Sim, S.B., Geib, S.M. and Rubinoff, D., 2018. Transpacific coalescent pathways of coconut rhinoceros beetle biotypes: Resistance to biological control catalyses resurgence of an old pest. *Molecular ecology*, **27**; 4459-4474.

Gillett, C.P., Pulakatu-Thodi, I. and Rubinoff, D., 2018. Rediscovery of an Enigmatic Bark Beetle (Coleoptera: Curculionidae: Scolytinae) Endemic to the Hawaiian Islands. *The Coleopterists Bulletin*, **72**(4), pp.811-816.

Dupuis, J.R., Peigler, R.S., Geib, S.M. and Rubinoff, D., 2018. Phylogenomics supports incongruence between ecological specialization and taxonomy in a charismatic clade of buck moths. *Molecular ecology*, **27**;4417-4429.

Leblanc, L., Doorenweerd, C., San Jose, M., Pham, H.T. and Rubinoff, D. 2018. Descriptions of four new species of *Bactrocera* and new country records highlight the high biodiversity of fruit flies in Vietnam (Diptera, Tephritidae, Dacinae). *ZooKeys*,**797**;87.

Leblanc, L., Doorenweerd, C., Michael San Jose, U.G.A.I., Hemachandra, K.S. and Rubinoff, D., 2018. Description of a new species of *Dacus* from Sri Lanka, and new country distribution records (Diptera, Tephritidae, Dacinae). *ZooKeys*,**795**;105.

Rubinoff, D. and B. Holland. 2018. The conservation status of two endangered Mariana butterflies, *Hypolimnas octocula marianensis* and *Vagrans egistina* (Nymphalidae). *Journal of the Lepidopterist's Society*. **72**(3) 218-226.

San Jose, M., Doorenweerd, C., Leblanc, L., Barr, N., Geib, S. and Rubinoff, D., 2018. Tracking the origins of fly invasions; using mitochondrial haplotype diversity to identify potential source populations in two genetically intertwined fruit fly species (*Bactrocera carambolae* and *Bactrocera dorsalis* [Diptera: Tephritidae]). *Journal of economic entomology*, **111**, pp.2914-2926.

Dupuis, J.R., Bremer, F.T., Kauwe, A., San Jose, M., Leblanc, L., Rubinoff, D. and Geib, S.M. 2018. HiMAP: robust phylogenomics from highly multiplexed amplicon sequencing. *Molecular ecology resources*.

Krushelnycky, P.D., Starr, F., Starr, K., Abran, M., Thorne, M., Leary, J., Fukada, M. and Rubinoff, D., 2018. Performance of the biocontrol agent *Secusio extensa* (Lepidoptera: Erebidae) on its target host, *Senecio madagascariensis* (Madagascar fireweed), on an alternate host, *Delairea*

odorata (Cape ivy), and on non-target plants, in Hawaii. *Biological Control*, **121**, pp.234-246.

Cognato, A.I., Jordal, B.H. and Rubinoff, D., 2018. Ancient “Wanderlust” Leads to Diversification of Endemic Hawaiian Xyleborus Species (Coleoptera: Curculionidae: Scolytinae). *Insect Systematics and Diversity*, **2(3)**, p.1.

Doorenweerd, C., Leblanc, L., Norrbom, A.L., San Jose, M. and Rubinoff, D. 2018. A global checklist of the 932 fruit fly species in the tribe Dacini (Diptera, Tephritidae). *ZooKeys*, **730**; p.19.

San Jose, M., Doorenweerd, C., Leblanc, L., Barr, N., Geib, S. and Rubinoff, D., 2018. Incongruence between molecules and morphology: A seven-gene phylogeny of Dacini fruit flies paves the way for reclassification (Diptera: Tephritidae). *Molecular phylogenetics and evolution*, **121**, pp.139-149.

Dupuis, J.R., Sim, S.B., San Jose, M., Leblanc, L., Hoassain, M.A., Rubinoff, D. and Geib, S.M., 2018. Population genomics and comparisons of selective signatures in two invasions of melon fly, *Bactrocera cucurbitae* (Diptera: Tephritidae). *Biological Invasions*, **20**: 1211-1228.

Gillette, C. and D. Rubinoff. 2017. A Second Adventive Species of Pinhole-borer on the Islands of Oahu and Hawaii. *Proceedings of the Hawaiian Entomological Society* **49**:51-57

Rubinoff, D. 2017. Hawaiian Lepidoptera represent remarkable diversity that is disappearing before it can be discovered. *News of the Lepidopterists' Society*. **59**: 202-204.

Medeiros, M.J., Haines, W.P., Carleton, M.A., & Rubinoff, D. 2017. Small survivors: unexpected endemic diversity of *Hyposmocoma* (Lepidoptera: Cosmopterigidae) moths on Kaho‘olawe, a degraded Hawaiian island. *Zoological Journal of the Linnean Society*.180: 570-592.

Elliot, C., S. E. Weber, J. B. Meyer and D. Rubinoff. 2017. Assessing rainfall accumulation and temperature as catalysts for *Pleocomma tularensis*. Leach, 1933 emergence in the central Sierra Nevada (Coleoptera: Pleocomidae) *Pan-Pacific Entomologist* 93:65-70.

Rubinoff, D. M. San Jose and R. Peigler. 2017. Multi-gene phylogeny of the *Hemileuca maia* complex (Saturniidae) across North America suggests complex phylogeography and rapid ecological diversification. *Systematic Entomology*.

Rubinoff, D., San Jose, M. and Powell, J.A., 2017. Sex-biased Secondary Contact Obscures Ancient Speciation onto Relictual Host Trees in Central California Moths (Syndemis: Tortricidae). *Molecular Phylogenetics and Evolution* **109**:388-403.

Creative Works (i.e., Extension Videos, Websites, Blogs, Creative Designs and Exhibitions, etc.)

Rubinoff, D. 2022. Here’s How Some Species Will Survive Climate Change *Scientific American*. Editorial.

<https://www.scientificamerican.com/article/here-s-how-some-species-will-survive-climate-change/>

Rubinoff, D. 2021. How the suburbs could help save biodiversity. *Scientific American*. Editorial. <https://www.scientificamerican.com/article/how-the-suburbs-could-help-save-biodiversity/>

Why are Insect Museums Important? 3 minute video done with CTAHR media staff: <https://www.youtube.com/watch?v=Rx-OJwGyKjc>

Rubinoff, D. 2018. Bees Gone Wild. *Scientific American*. Editorial. <https://blogs.scientificamerican.com/observations/bees-gone-wild/>

Leadership Roles (Committees, Boards, Advisory, etc.)

Director, University of Hawaii Insect Museum.
 Department Promotion and Tenure Committee (2018-2023)
 Chair, Entomology Section of PEPS

Graduate Students

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
Chair of Master’s Committees	0	7
Chair of PhD Committees	5	6
Member of Master’s Committees	0	7
Member of PhD Committees	11	21

Grant Support (last 5 years only 2017-2023)

For All listed grants D. Rubinoff is sole PI.

Development of Diagnostic Resources to Support Fruit Fly Exclusion and Eradication Phase 3
AGRICULTURE, DEPT-AGRI RSCH SVC-FED

120,880

8/1/22-7/31/23

Genomic approaches to fruit fly exclusion and pathway analysis (Year 1-3)
AGRICULTURE, DEPT-AGRI RSCH SVC-FED

\$280,543.00 + \$304,266.00 + \$303,000.00

9/1/15-9/30/20

The role of insect vectors in the spread of Rapid Ohia Death disease (*Ceratocystis fimbriata*)
LAND & NATURAL RES, DPT-FORST (DLNR)

\$85,000.00 + \$40,020.00

7/1/15-6/30/17

Confirming Molecular Methods for Fruit Fly Identification 2015
Agriculture, Dept - Animal and Plant Health Inspection Service

\$246,100.00 + \$298,199.00

9/30/15-9/29/17

Conservation Status of the El Segundo Blue Using a Genomics Approach
INTERIOR, DEPT-FISH & WILDLIFE SVC

\$60,000.00

5/11/16-5/14/19

additional funding:

\$63,357.00

continued until :6/29/22

Molecular ID of Bactrocera Interceptions and Domestic Captures
Agriculture, Dept - Animal and Plant Health Inspection Service

\$179,971.00

9/30/16-9/29/17

The Systematics, Taxonomy and Ecology of Native Hawaiian Bark Beetles (Xyleborus
Scolytinae
AGRICULTURE, DEPT-HI

\$190,300.00

8/1/19-5/31/22

Genomics of Casey's June Beetle
Dudek and Associates

\$20,993.00

2/2/17-2/1/19

Continuation: \$4,319.00

2/2/17- 12/31/21

Manduca Blackburni Population Assessment and Population Genetics
LAND & NATURAL RES, DPT-FORST (DLNR)

\$46,739.00

1/16/17-1/13/18

Molecular ID of *Bactrocera* Interceptions and Domestic Captures
Agriculture, Dept - Animal and Plant Health Inspection Service

\$198,000.00

9/30/16-9/29/18

\$242,205.00

9/30/22-9/29/2023

Confirming Molecular Methods for Fruit Fly Identification
Agriculture, Dept - Animal and Plant Health Inspection Service

\$260,000.00

9/30/17-9/29/18

Assessing the Conservation Status of the El Segundo Blue (*Euphilotes battoides allyni*) Using
Genomics
INTERIOR, DEPT-FISH & WILDLIFE SVC

\$76,000.00

6/29/17-9/30/20

Genomics of the Bog Buckmoth
INTERIOR, DEPT-FISH & WILDLIFE SVC

\$10,000.00

5/2/18-6/30/19

HI1818FB Resolving *Bactrocera* Spec Complexes V
Agriculture, Dept - Animal and Plant Health Inspection Service

\$205,765.00

9/30/18-9/29/19

Year 2: 10/1/19-9/29/20 \$276,761.00

Year 3: 9/1/20-1/27/22 \$208,029.00

\$255,334.00 expires 9/29/21

ID of Bactrocera Larvae

Agriculture, Dept - Animal and Plant Health Inspection Service

\$61,940.00

9/1/18-11/30/20

\$107,415

9/30/21-9/29/22

242,205

9/30/22-9/29/23

242,322

9/30/23-9/29/24

Collaborative Research: Digitization TCN: Digitizing Collections to Trace Parasite-Host Associations and Predict the Spread of Vector-Borne Disease
NATIONAL SCIENCE FOUNDATION

\$44,660.00

9/1/19-8/31/23

Budget and Proposal for DNA Sequencing of *Hyposmocoma* Moths from Kahikinui, Maui

LAND & NATURAL RES, DPT-FORST (DLNR)

\$2,503.18

2/1/20-1/31/21

Diagnostic Tools to Identify Exotic Tortricid moths

Agriculture, Dept - Animal and Plant Health Inspection Service

\$109,465.00

9/1/20-8/31/21

\$105,882

9/1/21-8/31/23

110,540

9/1/22-8/31/23

Expanding Coverage for complexes of *Bactrocera* Fruit Fly Pests

Agriculture, Dept - Animal and Plant Health Inspection Service

\$176,962

9/30/21-9/29/23

Integrative identification Methods for *Bactrocera* Fruit Fly Pests

210,046

9/30/22-9/29/23

Molecular diagnostics for Mango Fruit fly complex

Agriculture, Dept - Animal and Plant Health Inspection Service

154,198

9/30/22-9/29/23

\$211,333

9/30/23-9/29/24

Postharvest treatments

Agriculture, Dept - Animal and Plant Health Inspection Service

140,914

9/1/2022-12/31/2024

Lepidoptera surveys of Laupahoehoe experimental forest

LAND & NATURAL RES, DPT-FORST (DLNR)

\$47,822

5/15/23-12/31/23

Diagnostic Tools to Identify Exotic Noctuid moths

Agriculture, Dept - Animal and Plant Health Inspection Service

\$99,910

9/30/23-9/29/24

Presentations at Conferences

Title: The pace and patterns of unprecedented ecological novelty in Hawaii's most diverse adaptive radiation (*Hyposmocoma*). D. Rubinoff Invited speaker: Oregon State Department of Integrative Biology Speaker series. Oregon State University, Corvallis Oregon. May 2015 (travel costs covered).

Title: Cryptic diversity in Hawaii's charismatic endemic sphinx moths (*Hyles*). Symposium organizer and speaker. D. Rubinoff Pacific Entomology Conference, Honolulu Hawaii. April 2015.

Title: Conservation Status of two listed butterflies in the Mariana Islands. D. Rubinoff Pacific Branch of the Entomological Society of America meeting (100th anniversary). Honolulu, HI. Invited Symposium April 2016.

Title: Evolution of Carnivory in Hawaii's most diverse endemic radiation. Pacific Branch of the Entomological Society of America meeting (100th anniversary). D. Rubinoff Invited Symposium (Strategies underlying the Evolution of Herbivory). Honolulu, HI. April 2016.

Title: Phylogenetics of a Hyper-diverse Hawaiian moth radiation yield insight into

the timing and tempo of adaptation in speciation. D. Rubinoff International Island Biology Meeting. Invited Symposium Speaker in Invertebrate Evolution. Terciera, Azores, Portugal. July, 2016.

Title: The Systematics, Spatial Ecology and complex Taxonomy of *Bactrocera*. Invited speaker. D. Rubinoff Fruit Fly Diagnostics Meeting. Sacramento, CA February 2016.

Title: Phylogenetics of invasive fruit flies and native Hawaiian carnivorous moths reveal remarkable patterns of evolution and diversification. Invited speaker. D. Rubinoff USDA-ARS Hilo, Hawaii. June 2016.

Title: Phylogenomics of an endemic Hawaiian butterfly reveal complex patterns of divergence and isolation. D. Rubinoff Co-authors William Haines, Sheina Sim, and Scott Geib. International Congress of Entomology and National meeting of the Entomological Society of America , Orlando, Florida. September, 2016.

Title: Remarkable evolution in the carnivorous clades of Hawaiian Fancy Case caterpillars (*Hyposmocoma*: Cosmopterigidae). D. Rubinoff Invited Speakers in Gelechiodea Evolution. Podgora, Croatia. April, 2017.

Title: Sex-Biased secondary contact obscures ancient speciation onto relictual host trees in central California Moths (Syndemis, Tortricidae). D. Rubinoff Symposium honoring Jerry Powell. I was symposium organizer. Lepidopterist's Society National Meeting. Tuscon, AZ, July 2017.

Title: Does a genomic approach reveal genetic diversity suggested by ecological and morphological divergence in a Buckmoth (*Hemileuca maia*)? D. Rubinoff Co-authors Julian Dupuis, Richard Peigler. National meeting of the Entomological Society of America, Denver, Colorado. November, 2017.

Title: Phylogenomics reveals localized, Sporadic and incongruous ecological specialization across *Hemileuca maia* (Saturniidae). D. Rubinoff Co-authors Julian Dupuis, Richard Peigler and Scott Geib. National meeting of the Lepidopterist's Society, Ottawa, Ontario, Canada, July 2018.

Title: What do genomics reveal about the murky origins of Hawaii's most ecologically diverse adaptive radiation, the Fancy Case caterpillars (*Hyposmocoma*: Cosmopterigidae)? D. Rubinoff Invited speaker: American Genetics Association, international meeting. Hawaii Island, July 2018. (all travel and meeting costs covered).

Title: Genomic revelations regarding the origins of Hawaii's most ecologically

diverse adaptive radiation, the Fancy case Caterpillars (*Hyposmocoma*:
Cosmopterigidae). D. Rubinoff Co-authors, Julian Dupuis and Scott Geib.
National meeting of the Entomological Society of America, Vancouver, Canada,
November, 2018.

Title: A brief introduction to the Fancy Case Caterpillars (*Hyposmocoma* :
Cosmopterigidae), Hawaii's most diverse radiation (*Hyposmocoma*:
Cosmopterigidae). Featured Speaker. Entomological Society of Washington.
Remote. February 2021.

Title: From Hopeless to Harbinger: Conservation and invasive species in Hawaii
foretell a bleak future for the US Mainland
Plenary Speaker, Pacific Branch of the Entomological Society of America. April
2021. I was invited by the organizing committee to be the plenary speaker for the
three day conference.

Title: Nonsensical diversity *Hyposmocoma* is even more diverse than we thought.
Pacific Entomology Conference. Honolulu Hawaii, December 2023. **Symposium
Organizer, invited colleagues to speak in an all-day symposium, including
scientists from Uc Berkeley, Cornell University.**