ACKNOWLEDGMENTS

This meeting was made possible due to generous contributions from the following individuals and organizations:

Unitas Malacologica
The American Malacological Society
The Western Society of Malacologists
David and Dixie Lindberg
California Academy of Sciences
The Company of Biologists.
The American Genetics Association.
The Malacological Society of London

The program committee:
Lynn Bonomo, Samantha Donohoo,
Kelly Larkin, Emily Otstott, Lisa Paggeot
Andrew Jepsen, Nick Colin
Robert Sussman, Allan Tina
Meg Burke, Katherine Piatek

The organizing committee: Pat Krug, David Lindberg,
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THE MALACOLOGICAL SOCIETY OF LONDON
SCHEDULE

SUNDAY 11 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

2:00-6:00 pm
Registration - Merrill Hall

10:30am-12:00 pm
Unitas Malacologica Council Meeting - Merrill Hall

1:30-3:30 pm
Western Society of Malacologists Council Meeting - Merrill Hall

3:30-5:30
American Malacological Society Council Meeting - Merrill Hall

MONDAY 12 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

7:30-8:30 am
Breakfast - Crocker Dining Hall

8:30-11:30
Registration - Merrill Hall

8:30 am
Welcome and Opening Session –Terry Gosliner - Merrill Hall

Plenary Session: The Future of Molluscan Research - Merrill Hall

9:00 am - Genomics and the Future of Tropical Marine Ecosystems - Mónica Medina, Pennsylvania State University

9:45 am - Our New Understanding of Dead-shell Assemblages: A Powerful Tool for Deciphering Human Impacts - Sue Kidwell, University of Chicago

10:30-10:45 am
Coffee Break - Merrill Hall
10:45 am - Evolution of Molluscan Shells and the Predatory Arms Race - Geerat Vermeij, University of California, Davis

11:30 am - Investigating Molluscan Venom From Evolution to Molecular Function: Discovery, Characterization, Optimization, and Delivery of Venom Peptides from Predatory Conoidean Marine Snails - Mandë Holford, Hunter College

12:00-1:30 pm Lunch - Crocker Dining Hall

1:30 pm - Comprehensive Review of Mollusca - David Lindberg, University of California, Berkeley

2:15 pm - Casting a Wide Net: Capturing Gene Regulatory States that Drive Morphogenesis in Slipper Shell Snails, and What They can tell us About Molluscan Evolution - Deirdre Lyons, SCRIPPS Institution of Oceanography, University of California, San Diego

3:00 pm - Shedding Light: Evolution of Photosymbiosis in Bivalves - Jingchun Li, University of Colorado

3:45-6:00 pm Poster Presentations and Reception - Merrill Hall

6:00-7:00 pm Dinner - Crocker Dining Hall

TUESDAY 13 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

7:30-8:30 am Breakfast - Crocker Dining Hall

8:30-11:00 Registration - Chapel Hall

Molluscs as Key Ecological Players Symposium - Chapel Hall

8:30-8:40 am - Introduction to the Symposium: Ecological Insights from Molluscs, from Mountaintops to the Deep Sea - Patrick Krug

8:40-9:00 am - The Role of Ecological Interactions in the Diversification of Galapagos’ Land Snails - Christine E. Parent
9:00-9:20 am - Crypsis and the Jack-of-all-Trades Hypothesis: Are Island or Mainland Snails Better at Camouflage? - Andrew C. Kraemer and Christine E. Parent


9:40-10:00 am - Assessing Aquatic Communities Using Stagnicola Elodes and its Assemblage of Trematode Parasites - Timothy Rawlings, Hanna J. MacLean, and Brooke A. McPhail

10:00-10:20 am - Empirical Test of Crab-Clam Predator-Prey Model Predictions: Storm-driven Phase Shift to a Low-density Steady State - Cassandra N. Glaspie, Rochelle D. Seitz, and Romuald N. Lipcius

Commercial and Restoration Aquaculture of Molluscs Session - Curlew Hall
9:00-9:20am - Catches, Yield, Bycatch and Discards in the Small-scale Cuttlefish Trap Fishery - Paulo Vasconcelos, Fábio Pereira, Ana Moreno, Miguel B. Gaspar

9:20-9:40 am - First Restocking Attempt of the Striped Venus (Chamelea gallina) Off Portimão (Southern Portugal) - Miguel B. Gaspar, Sandra Joaquim, Ana M. Matias, Cláudia Roque, Paulo Vasconcelos, Fábio Pereira1, Paula Moura, Marta Rufino, and Domitília Matias

9:40-10:00 am - EMPTY

10:00-10:20 am - The Effects of Land Subsidence and Uplift on Intertidal Mollusks Including Commercially Important Bivalves Following the 2011 Great East Japan Earthquake - Kenji Okoshi, Masahiro Suzuki, and Waka Sato-Okoshi

Systematics Session - Marlin Hall
Session Chair: Luiz Ricardo L Simone

8:20-8:40 am - Conservation Genomics of the Partulidae - Amanda E. Haponski, Cindy Bick, Taehwan Lee, and Diarmaid Ó Foighil

8:40-9:00 am - Molecular and Morphological Studies of Burnupia Walker, 1912 (Gastropoda Hygrophila) - Ximena Ovando, Dayse A. Silva, L. E. M. Lacerda, and Sonia B. Santos

9:00-9:20am - The Complete Mitochondrial Genome of the Endemic Philippine Land Snail Ryssota otaheitana Ferrusac, 1821 (Pulmonata: Chronidae) - Amor M. Damatac II and Ian Kendrick C. Fontanilla

9:40-10:00 am - Systematic Revision of the Predatory Snail Genus *Paciocinebrina* Houart, Vermeij & Wiedrick, 2019 (Muricidae: Ocenebrinae) Based on Molecular and Morphological Analyses - **Shawn Wiedrick** and D. J. Eernisse

10:00-10:20 am - Neogastropod Phylogeny: New Insights After a Study on Buccinoideans - **Luiz Ricardo L Simone**

**AMS Presidential Symposium on Molluscan Collections - Scripps Hall**

9:00-9:20am - Mollusk Collections – A 50-year Perspective: Where Have We Been and Where are We Going? - **Ellen E Strong**

9:20-9:40 am - A Brief History Of Computerization Of Mollusk Collections - **Gary Rosenberg**

9:40-10:00 am - Mobilizing the World’s Mollusk Collections - **Rüdiger Bieler**

10:00-10:20 am - Utility Of Molluscan Collections in Answering Ecological Questions and Climate Change - **Terry Gosliner**

10:20-10:40 am - Coffee Break - **Chapel Hall**

**Molluscs as Key Ecological Players Symposium - Chapel Hall**

10:40-11:00 am - Dipping Our Toes Into a Sea of Possibilities: Defining the Unknown Functions and Requirements of Olympia Oysters via Science-based Restoration - **Danielle Zacherl**


11:20-11:40 am - Loss Of Shell Coiling In Trochid Snail: Adaptation to Wave-swept Rock Surfaces and Symbiotic Life in Sea Urchin Pits - **Luna Yamamori** and Makoto Kato

11:40-12:00 pm - Pushing Boundaries: Investigating the Disturbance of the Pugnacious Nudibranch *Phidiana hiltoni* in Northern California - **Emily Otstott** and Terry Gosliner

**Physiology Session- Curlew Hall**
Session Chair:

10:40-11:00 am - Influence of Vitamin E on Shell Repair, Haemolymph Biochemical Parameters, Haemagglutination Potential and Ovo-tesist Activity of Giant African Land Snail (*Archachatina marginata*) After Shell Damage - **John Adesanya Abiona**, Abiola Blessing Okunlola, Nneka Sandra Obanya, and Muhammed Okanlawon Onagbesan

11:20-11:40 am - Subcritical Forces Fatigue and Fracture California Mussel Shells - **R.L. Crane** and M.W. Denny

11:40-12:00 pm - Are Bacteria Important in Chalk Formation In Oysters? - **Roxanne Marie Wolfe Banker**

Systematics Session - Marlin Hall
Session Chair: Marta deMaintenon

10:40-11:00 am - So What is *Mitrella* Anyway? - **Marta J. deMaintenon**


11:20-11:40 am - Australia’s First Monoplacophoran: Diving Deep Off Western Australia - **Nerida G. Wilson**

11:40-12:00 pm - Revolutionizing Biodiversity and Systematics Research on Aplacophora (Mollusca) and Training the Next Generation of Malacologists - **Kevin M. Kocot**

AMS Presidential Symposium on Molluscan Collections - Scripps Hall

10:40-11:00 am - Biv3D: Capturing Multiple Dimensions of Biodiversity By CT-Scanning the Shallow-Marine Bivalves of the World - **Katie S. Collins**, Stewart M. Edie, David Jablonski

11:00-11:20 am - Mollusca Types in Great Britain: A Union Database for the UK - **Andreia Salvador**, Anna Holmes, and Harriet Wood

11:20-11:40 am - Molluscan collections in South Africa - **Dr. Mary Louise Cole**

11:40-12:00 pm - The Tyranny of Remoteness: Contemporary Chances and Challenges for Collection-Based Malacological Research Down Under - **Frank Köhler**
12:00-1:00 pm   Lunch - Crocker Dining Hall

Molluscs as Key Ecological Players Symposium - Chapel Hall

1:00-1:20 pm - Reproductive Phenology in the Tropics: What Can Molluscs Tell Us? - Rachel Collin

1:20-1:40 pm - Ecological Insight Into the Origins of Photomutualism: How Sea Slugs Benefit From Kleptoplasty - Patrick Krug, Andre LaBuda, Holly V. Moeller

1:40-2:00 pm - Cryptic Coral Connoisseurs: Exploring the Hidden Diversity of Corallivorous Nudibranchs - Allison L. Fritts-Penniman, Paul H. Barber, and Terrence M. Gosliner

2:00-2:20 pm - Clues for the Evolution of Bivalved Gastropods Through Observations of Berthelina singaporensis (Mollusca: Gastropoda: Sacoglossa: Juliidae) - Nur Leena Wong W.S. and Julia D. Sigwart


Biogeography Session - Curlew Hall
Session Chair: Zenaida Baoanan

1:00-1:20 pm - Neogene Diversification of the Crown Helicostyline Land Snails (Gastropoda: Stylommatophora: Camaenidae) in the Philippines - Gizelle A. Batomalaque, Adnan Moussalli, and Gary Rosenberg

1:20-1:40 pm - Land Malacofaunal Surveys in Northern Luzon, Philippines: Status and Challenges - Zenaida G. Baoanan and Roscinto Lumbres

1:40-2:00 pm - Unravelling a Hidden Biodiversity: The Caudofoveata (Aplacophora) from the Southwestern Atlantic Ocean - Marcel Sabino Miranda, Carmen Regina Parissotto Guimarães, and Flávio Dias Passos

2:00-2:20 pm - Limited Growth and Hindered Reproduction Cause the Demise of Native Mollusks on the Israeli Mediterranean Shallow Shelf - Paolo G. Albano, Jan Steger, Zara Guifarro, Bella S. Galil, adn Martin Zuschin

2:20-2:40 pm - Biodiversity, Biogeography and Vulnerability of Hydrothermal Vents: A Case Study Using Bathymodioline Mussels - Kerry Walton, Bruce Marshall, and Ashley Rowden
Systematics Session - Marlin Hall
Session Chair: Yara Tibiriçá

1:00-1:20 pm - Factors Influencing Microevolutionary Processes in Taxonomically Challenging Land Snail Species of Trochulus (Gastropoda: Hygromiidae) - Małgorzata Proćków, Joanna R. Pieńkowska, Tomasz Strzała, Elżbieta Kuźnik-Kowalska, Jarosław Proćków, Paweł Błażej, and Paweł Mackiewicz

1:20-1:40 pm - A Phylogenetic Analysis of the Superfamily Acteonoidea (Gastropoda: Heterobranchia) - Kendall Feliciano and Ángel Valdés

1:40-2:00 pm - Redefining Pila scutata: A Pathway For Improving the Conservation of a Disappearing Species - Kelli Deleon, E. E. Strong, and K. A. Hayes


2:20-2:40 pm - How The Famous Nudibranch Hexabranchus sanguineus (Rüppell & Leuckart, 1830) Has Fooled Everyone – Preliminary Results - Yara Tibiriçá, Manuel António E. Malaquias, Marta Pola, Terrence M. Gosliner, and Juan Lucas Cervera

AMS Presidential Symposium on Molluscan Collections - Scripps Hall

1:00-1:20 pm - Red Listing Can Protect Deep Sea Biodiversity - Julia D. Sigwart, Chong Chen, Elin Thomas, Monika Bohm, and Mary Seddon

1:20-1:40 pm - Gut Microbiome Analysis of Museum Oreohelix strigosa Collections - Bridget Chalifour and Jingchun Li

1:40-2:00 pm - Threatened, Endangered, and Extinct Oh My! Growing and Using Natural History Collections in the Midst of a Biodiversity Crisis - Norine Yeung

2:00-2:20 pm - Sequencing Historical Collections to Unlock Systematic and Nomenclatural Issues - Nicolas Puillandre, Paul Zaharias, Jawad Abdelkrim, Yuri Kantor, and Alexander Fedosov

2:20-2:40 pm - Biodiversity Research on Marine Heterobranchia In Indonesia – In the Light of National and International Regulations, Collaborations and Networking - Heike Wägele, Nani Undap, Adelfia Papu, Dario Karmeinski, and Alexander Donath
2:40-3:00 pm  Coffee Break - Chapel Hall

Molluscs as Key Ecological Players Symposium - Chapel Hall

3:00-3:20 pm - Predicting Arm Loss Patterns From Life History Traits in Eight Northeastern Pacific Octopus Species - Kelley M. Voss and Rita S. Mehta

3:20-3:40 pm - Presence of Argonauta hians in Mexican Waters? - Miguel Angel del Río Portilla, Carmen E. Vargas-Peralta, and Carmen Alejo Plata

3:40-4:00 pm - In the Footsteps of Edmondson: Shipworm (Bivalvia, Teredinidae) Diversity, Biology, and Ecology in the Hawaiian Archipelago - Nancy C. Treneman, James T. Carlton, Regina Kawamoto, and J. Reuben Shipway

4:00-4:20 pm - Mollusks in Deep-sea Chemosynthetic Habitats: Hydrothermal Vents, Hydrocarbon, Seeps, Whale- and Wood-falls - Robert C. Vrijenhoek

4:20-4:40 pm - Diving in the Cold South: The Challenging Biology and Ecology of Antarctic Heterobranchs - Conxita Avila

4:40-5:00 pm - Pteropod Ecology - Nina Bednarsek

Biogeography Session - Curlew Hall
Session Chair: Anna Holmes

3:00-3:20 pm - Falcidens salvini-plawen, 1968 (Chaetodermatidae), a Genus of Aplacophora with a Great Taxonomical and Morphological Diversity in Brazilian Marine Deep Waters - Flávio Dias Passos, Marcel Sabino Miranda, Paulo Vinicius Ferraz Corrêa, and Paola Visnardi Fassina

3:20-3:40 pm - Updates on Giant Clam Status and Restocking Efforts in the Philippines - Sherry Lyn G. Sayco, Patrick C. Cabaitan, Cecilia Conaco, Lala Grace Calle, Jeremiah Noelle C. Requilme, Eymard John P. Sy, Roger G. Dolorosa, Elmer G. Villanueva, Niño Jess Mar F. Mecha, Krizia Meryl A. Ecube, Girley S. Gumanao, Christine Mae A. Edullantes, Tracy D. Tabalanza, and Rezelle B. Sobradil

3:40-4:00 pm - Trans-Atlantic Rafting – American Bivalves on British Shores - Anna M. Holmes

4:00-4:20 pm - Clash of the Chitons: How Morphology, DNA, and Distribution Differ in Three Nuttallina Species - Newton Z. Hood and Douglas J. Eernisse

**Systematics Session - Marlin Hall**  
Session Chair: Kathe Jensen

3:00-3:20 pm - Phylogenetic Systematics of the Genus, *Cyerce* Bergh 1871 (Sacoglossa, Caliphostylidae) Using Molecular and Morphological Data - **Karina Moreno**, Ángel Valdés, Terrence Gosliner, and Patrick Krug

3:20-3:40 pm - One or Two Black Species Of *Cyerce*? Bergh’s Footnotes and What Pease Did Not Mention - **Kathe R. Jensen**

3:40-4:00 pm - A Squadron of Species: An Analysis of the *Goniobranchus roboi* Species Complex - **Lynn J. Bonomo** and Terry Gosliner

4:00-4:20 pm - Dirty Dorid Disaster: An Analysis of the Biodiversity of Discodorididae Nudibranchs - **Samantha A. Donohoo** and Terry Gosliner

4:20-4:40 pm - Arminid Ambiguity: Establishing Significant Genetic and Morphological Markers to Assess Diversity in the Nudibranch Family Arminidae - **Kelly Larkin** and Terry Gosliner

4:40-5:00 pm - Slugs, Slugs, and More Slugs: New Aeolid Nudibranch Species From Western North America - **Brenna Green** and Terry Gosliner

**AMS Presidential Symposium on Molluscan Collections - Scripps Hall**

3:00-3:20 pm - Evolution, Revolution or Neither? Uses of Digitized Molluscan Specimen Records - **Robert Guralnick**

3:40-4:00 pm - Envisioning the 21st Century Museum - **Christopher Meyer**

4:00-4:20 pm - Museums at the Frontline in Archiving the Undocumented Species Diversity of the World - **Philippe Bouchet**

6:00-7:00 pm  
Dinner - *Crocker Dining Hall*
WEDNESDAY 14 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

7:30-8:30 am  Breakfast - Crocker Dining Hall
Everyone will have a box lunch on Wednesday
Pick up box lunches at Dining Hall at breakfast at 7:30 (6:30 for Fossil Field Trip)

7:00 am - Marine fossils of Capitola Beach with Peter Roopnarine - outside Social Hall

7:30 am - Whale watching on Monterey Bay (Please note: Check in at Discovery Whale Watch at Fisherman’s Wharf in Monterey at 8:30 am. Participants must provide their own transportation to Fisherman’s Wharf. Departs 9 am sharp!)

9:00 am - all other field trips depart - outside Social Hall
Following in the footsteps of Steinbeck & Ricketts with Alan Kabat
Big Sur Coastline
Wine tasting in Carmel Valley & Santa Lucia Mountains
Marine mammal viewing at Point Lobos & Elkhorn Slough with David Lindberg
Land snails and slugs of Monterey County with Tim Pearce & John Slapcinsky

6:00-7:00 pm  Dinner - Crocker Dining Hall

7:00 pm-9:00 pm  Student panel discussion by Jessica Goodheart - Nautilus

THURSDAY 15 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

7:30-8:30 am  Breakfast - Crocker Dining Hall

8:30-10:30  Registration - Chapel Hall

Evolution of Molluscan Weirdness Symposium - Chapel Hall

8:40-9:00 am  Weird is the New Normal - How Understanding Adaptations Informs Deep Molluscan Phylogeny - Julia D. Sigwart

9:00-9:20 am  Evolution of Yoyo Clams: Within-host Ecological Shifts Lead to Dramatic Morphological Changes - Ryutaro Goto, Teal A. Harrison, and Diarmaid Ó Foighil

9:20-9:40 am  Phylogeny of the Lower Heterobranchia Through an Expanded Taxon Sampling and Sanger Sequencing - Bastian Brenzinger, Tsuyoshi Takano, Michael Schrödl, and Yasunori Kano

9:40-10:00 am  Transcriptome Based Phylogeny of Gastropoda - Juan E. Uribe, Vanessa Gonzalez, Yasunori Kano, David Herbert, Ellen E. Strong, and M. G. Harasewych

10:00-10:20 am  Gain and Loses of the Operculum in Gastropod Evolution – Gerhard Haszprunar

Systematics and Biogeography of Continental Molluscs Symposium - Curlew Hall

8:20-8:40 am  A Fresh Look at Melanopsidae (Caenogastropoda: Cerithioidea): Evolutionary Systematics, Biogeography, and Conservation Genetics - Marco T. Neiber, Simone Cianfanelli, Fabrizio Bartolini, Thomas von Rintelen, and Matthias Glaubrecht

8:40-9:00 am  Phylogeny and Evolution of Genus Cremaconchus (Gastropoda: Littorinidae) from the Western Ghats, India - Aravind Neelavar Ananthram, Anushree Jadhav, and Nipu Kumar Das

9:00-9:20 am  Considering the Process of Speciation while Investigating Species Limits Suggests Reinforcement as a Driver of Speciation in Taildropper Slugs - Megan L. Smith and Bryan C. Carstens

9:40-10:00 am - Molecular Insights into Species Recognition within Southern Africa’s Endemic *Tricola* Radiation - **Tshifhiwa C. Nangammbi**, David G. Herbert, and Peter R. Teske

10:00-10:20 am - Diversification in a Rainforest Land Snail: The Genus *Corilla* Adams & Adams, 1858 - **Dinarzarde C. Raheem** and Thierry Backeljau

**Systematics Session - Marlin Hall**
Session Chair: Leila Carmona

8:20-8:40 am - Looks can be Deceiving: Galápagos Endemic Species of Chiton are Sisters, not Different Clades - **Douglas J. Eernisse** and Margarita Brandt

8:40-9:00 am - From Three to Ten Species: High Cryptic Diversity Among Hawaiian Tornatellininae - **Norine W. Yeung**, John Slapcinsky, Ellen E. Strong, and Kenneth A. Hayes

9:00-9:20 am - Update of Aeolidiidae systematics with particular reference to the genus *Aeolidiella* Bergh, 1867 (Gastropoda, Nudibranchia) - **Leila Carmona**, Marta Pola, Terrence M. Gosliner, and Juan Lucas Cervera

9:20-9:40 am - The Mitogenomic Phylogeny of West African Cone Snails (Gastropoda: Conidae) has Taxonomic and Conservation Implications - **Manuel J. Tenorio**, Samuel Abalde, Jose R. Pardos-Blas, Rafael Zardoya, and Carlos M. L. Afonso

9:40-10:00 am - How Many Micro-mollusks are There? A Case Study on Species Richness from Hawai‘i - **Bianca Campagnari** and Daniel L. Geiger

10:00-10:20 am - Investigating Species Diversity and Endemism in Hawaiian Microsnails (Stylommatophora: Achatinellidae: Pacificellinae) - **Tricia C. Goulding**, Norine W. Yeung, and Kenneth A. Hayes

**Molluscs in Citizen Science Symposium - Scripps Hall**

8:40-9:00 am - LiMPETS, a Citizen Science Program, Demonstrates the Effectiveness of California’s Marine Protected Areas in Allowing Owl Limpets (*Lottia gigantea*) to Grow Larger and more Abundant - **Hannah Sarver**, Rosemary Romero, and John Pearse

9:00-9:20 am - Molluscan Mycophagy - **Casey H. Richart**, BJ Stacey, Kathryn Turner, and Liam E. O’Brien

10:00-10:20 am - Sea Slugs of Southern Norway: An Example of Citizens Contributing to Science - **Cessa Rauch** and Manuel António E. Malaquias

10:20-10:40 am - Coffee Break - *Chapel Hall*

**Evolution of Molluscan Weirdness Symposium - Chapel Hall**


11:00-11:20 am - The Scaly-foot Snail Genome and the Ancient Origins of Biomineralized Armor - **Jin Sun**, Chong Chen, Norio Miyamoto, Julia D. Sigwart, and Pei-Yuan Qian

11:20-11:40 am - Sexual Differentiation in Somatic Growth within Two Species of Freshwater Mussels, *Lampsilis cardium* and *Lampsilis siliquoidea*, as a Function of Environmental Impacts - **Mariah Scott** and Rüdiger Bieler

11:40 am - 12:00 pm - Genomic Factors Involved in Sex Determination and Differentiation in a Protandrous Hermaphrodite Bivalve, the Pearl Oyster *Pinctada margaritifera* - *Vaihiti Teaniniuraitemoana*, Céline Reisser, Jérémie Vidal-Dupiol, and Gilles Le Moullac

**Systematics and Biogeography of Continental Molluscs Thematic Session - Curlew Hall**


11:00-11:20 am - New Species of *Uncancylus* Pilsbry, 1913 (Gastropoda: Hygrophila: Planorboidea: Ancylinae) from South America - **Sonia Barbosa dos Santos**, Ximena Maria Constanza Ovando, Luiz Eduardo Macedo de Lacerda, and Dayse Aparecida da Silva

11:20-11:40 am - Land Snail Diversity Across Habitat Gradients in Mount Banahaw Protected Landscape, Luzon Island, Philippines - **Kinsely Meg G. Perez**, Virginia C. Cuevas, Carmelita M. Rebancos, Emmanuel Ryan C. de Chavez, and Juan Carlos T. Gonzalez
11:40 am - 12:00 pm - Placing Peculiar Planorbids of the Pacific Northwest - David C. Campbell and Charles Lydeard

Systematics Session - Marlin Hall

10:40-11:00 am - Integrating Population Genetics and Genomics with Shell Shape Analyses on the Brooding Chiton Onithochiton neglectus (Polyplacophora:Chitonidae) - Priscila M. Salloum, Anna W. Santure, Pierre de Villemereuil, and Shane D. Lavery

11:00-11:20 am - Targeted Sequencing and Phylogenomics of the Critically Imperiled Pleuroceridae - Ellen E. Strong, Nathan V. Whelan, Nicole Garrison, Paul D Johnson, and Jeffrey T. Garner

11:20-11:40 am - Is the Flamed Tigersnail, Anguispira alternata, a Species Complex or Complex Species? - John Slapcinsky, Reham Fathey, Ryan Corlett, Timothy A. Pearce, and Kenneth H. Hayes

11:40 am - 12:00 pm - Population Genetics of European Populations of the Shining Ramshorn Snail, Segmentina nitida- or are They? - C.S. Hobbs, R. Vega, D.A. Dawson, G.J. Horsburgh, and C.D. Harvey

Molluscs in Citizen Science Symposium - Scripps Hall

10:40-11:00 am - Scaling Volunteer Biodiversity Documentation of Molluscs through Citizen Science Programs and Technology - Alison N. Young and Rebecca F. Johnson

11:00-11:20 am - The Gulick Effect: How Malacological Collecting, Observation, and a Prepared Mind Changed Evolutionary Theory - Carole S. Hickman

11:20-11:40 am - John Thomas Gulick in Japan - Paul Callomon

11:40 am - 12:00 pm - SLIME: Citizen Science Focused on the Terrestrial Malacolofauna of Southern California - Jann E. Vendetti

12:00-1:00 pm Lunch - Crocker Dining Hall

Utility of Molluscan Genomics Symposium - Chapel Hall

1:00-1:20 pm - Are we there yet? The Impact of NGS in Molluscan Phylogenetics - Gonzalo Giribet, Tauana Cunha, Vanessa L. González, Vanessa L. Knutson, Sarah
Lemer, and Juan Moles


1:40-2:00 pm - Genomic Analysis of Contagious Cancers of Clams - Michael J. Metzger

2:00-2:20 pm - The More, the Merrier: Expanding Taxon Sampling to Address Heterobranch Phylogeny in a Phylogenomic Context - Vanessa L. Knutson, Bastian Brenzinger, Yasunori Kano, Michael Schrödl, Nerida Wilson, and Gonzalo Giribet

2:20-2:40 pm - TBD - D.S. Rokhsar

Systematics and Biogeography of Continental Molluscs Thematic Session - Curlew Hall

1:00-1:20 pm - The Status of Tryonia porrecta (Mighels, 1845) in the Hawaiian Islands (Gastropoda: Cochliopidae) - Carl C. Christensen

1:20-1:40 pm - Modification of the Penial Twin Papillae System within the Tribe Otalini (Stylommatophora, Helicidae) - Jeannette Kneubühler and Eike Neubert

1:40-2:00 pm - Distribution Patterns and Genetic Differentiation of the Endangered Thick-shelled River Mussel Unio crassus Philipsson, 1788 in Southwest Germany - Ira Richling and Cornelia Krause

2:00-2:20 pm - A Mitochondrial Genome Phylogeny of Mytilidae (Bivalvia: Mytilida) - Yucheol Lee, Taeho Kim, and Joong-Ki Park


Novel Approaches to Managing Invasive and Pest Molluscs Symposium - Marlin Hall

1:00-1:20 pm - Phasmarhabditis spp and Invasive Gastropods in the US: Where are we in the Battle? - Irma Tandingan De Ley, Rory Mc Donnell, and Timothy Paine

1:40-2:00 pm - 3D Printed Traps, Detector Dogs, and Bees as Tools for Invasive Snail Detection in Florida - **Katrina L. Dickens** and Ariane McCorquodale

2:00-2:20 pm - Habitat Selection and Invasion Success of an Exotic Slug - **Érik L’Heureux** and Bernard Angers


**Evolution of Molluscan Weirdness Symposium - Scripps Hall**

1:00-1:20 pm - Snail of Many Parts – Anatomical Diversity and Ecological Disparity Among Deep-sea Abyssochrysoid Gastropods - **Chong Chen**, Katsuyuki Uematsu, Hiromi K. Watanabe, and Shannon B. Johnson

1:20-1:40 pm - Sexual Selection and Reciprocity in Euthyneuran Gastropod Mating Systems - **Janet L Leonard** and Chantal Stock

1:40-2:00 pm - Mating Behavior in Aeolids did not Complete so Quickly - **Yasuhiro Nakashima** and Keita Yokoi

2:00-2:20 pm - Signatures of Divergence, Invasiveness, and Terrestrialization Revealed by Four Apple Snail Genomes - **Jack C.H. Ip** and Jian-Wen Qiu

2:20-2:40 pm - A Rock-boring and Rock-ingesting Freshwater Bivalve (Shipworm) from the Philippines - **J. Reuben Shipway**, Daniel L. Distel, Gary Rosenberg, Gisela P. Concepcion, and Margo G. Haygood

2:40-3:00 pm - Coffee Break - *Chapel Hall*

**Utility of Molluscan Genomics Symposium - Chapel Hall**

3:00-3:20 pm - The Genome of the Chiton *Acanthopleura granulata*: An Aculiferan Perspective of Molluscan Biomineralization - **Rebecca M. Varney** and Kevin Kocot
3:20-3:40 pm - Discovery of New Light-sensing Proteins in the Scallop: Strategies to Best Utilize Large Datasets - Jeanne M. Serb, G. Dalton Smedley, and Davide Faggionato

3:40-4:00 pm - Setting the Foundations and Developing Tools for Studying the Regeneration of Complex Eyes in the Emerging Research Organism, *Pomacea canaliculata* (Gastropoda, Ampullariidae) - Alice Accorsi, Eric Ross, Melaina McClain, Timothy Corbin, and Alejandro Sánchez Alvarado

4:00-4:20 pm - Exon Capture Resolves a Recent Radiation and Uncovers Mitonuclear Discordance in Nudibranchs - Kara Layton, Jose I. Carvajal, and Nerida G. Wilson

4:20-4:40 pm - Transcriptome Based Phylogeny of Gastropoda - Juan E. Uribe, Vanessa L. Gonzalez, Yasunori Kano, David G. Herbert, Ellen E. Strong, and M. G. Harasewych

4:40-5:00 pm - Using Comparative Genomics to Reveal the Underpinnings of Bioluminescence Symbioses in Bobtail Squid - Michele K Nishiguchi, Elizabeth Heath-Heckman, and Daravuth Cheam

**Systematics and Biogeography of Continental Molluscs Symposium - Curlew Hall**

3:00-3:20 pm - Land Snails (1) : Dinosaurs (0) – Phylogenomics Resolves Late Mesozoic Diversification of Helicoid Land Snails - Frank Köhler, Makiri Sei, Gary Rosenberg, and Adnan Moussalli

3:20-3:40 pm - Go with the Flow? - Diversity and Speciation in Endemic Freshwater Gastropods in the Kaek River, Thailand - Nora Lentge-Maaß and Matthias Glaubrecht

3:40-4:00 pm - Non-invasive Audio-video Sampling of Gastropod Activity - Christopher L. Kitting

**Evolution of Toxins in Molluscs mini-Symposium - Curlew Hall**

4:00-4:20 pm - Fish-hunting Cone Snails: How Correlating Behavior with Venom Peptides Facilitates Biomedical Applications - Baldomero M. Olivera, Shrinivasan Raghuraman, and Helena Safavi

4:20-4:40 pm - Poisonous Eggs From *Pomacea* Snails have Evolved a Defensive Protein that Damage Cell Membranes with a Pore-forming Toxin Delivered by a Lectin - Heras Horacio, Matías Giglio, Santiago Ituarte, Verónica Milesi, and Eduardo Prieto
4:40-5:00 pm - Venom Evolution of West African Cone Snails (Gastropoda: Conidae) - Samuel Abalde, Manuel J. Tenorio, Carlos M. L. Afonso, and Rafael Zardoya

Novel Approaches to Managing Invasive and Pest Molluscs Thematic Session - Marlin Hall

3:00-3:20 pm - Mytella strigata Emerging as an Invasive Marine Threat in Southeast Asia - Kitithorn Sanpanich and Fred E. Wells

3:20-3:40 pm - Infestations of Exotic Pest Snails and Slugs in Australian Grain Crops - Michael Nash

3:40-4:00 pm - Hungry Slugs: the Feeding Habits of an Invasive Species - Érik L'Heureux, Hinatea Ariey, and Bernard Angers

4:00-4:20 pm - Apple Snails as a Weed Biocontrol Using Anti-feedance - Fatima Haider, Myron Smith, and James Coupland

4:20-4:40 pm - Molluscan Receptors and Neuropeptides to Control the Gray Garden Slug, Deroceras reticulatum - Man-Yeon Choi and Seung-Joon Ahn

4:40-5:00 pm - Biocontrol of Land Snails: Unlearned Lessons and Non-target Impacts - Kenneth A. Hayes, Carl C. Christensen, and Norine W. Yeung

Evolution of Molluscan Weirdness Symposium - Scripps Hall

3:00-3:20 pm - Phylogenetic Patterns of Dorid Nudibranch Spicule Networks - Brian K. Penney and J. Mitchell Young


3:40-4:00 pm - Phylogenetic Variability of Neural Circuitry in Nudipleura - Paul S. Katz, Akira Sakurai, Arianna N. Tamvacakis, and Joshua L. Lillvis

4:00-4:20 pm - Evolution of Mantle Sensory Organs in Bivalves: What Pteriomorphians tell us about Convergence and Adaptive Innovations - Jorge A. Audino, Jeanne M. Serb, and José Eduardo A. R. Marian

4:20-4:40 pm - Hemocyanin and Habitat Shifts of Heterobranchia - Bernhard Lieb and Gabriela Schäfer
FRIDAY 16 AUGUST, 2019
(Asilomar Conference Center, Pacific Grove, CA)

7:30-8:30 am Breakfast - Crocker Dining Hall

8:30-10:30 am Registration - Chapel Hall

Malacological Society of London Symposium on Color and Vision in Molluscs
Symposium - Chapel Hall

9:00-9:20 – airing of the film: The Sound of a Wild Snail Eating - Elisabeth Tova Bailey

9:20-9:40 am - Eye morphology and the depth distribution of large heteropods (Pterotracheidae and Carinariidae) in the northern Gulf of Mexico - Michael Vecchione, Kristine A. Clark, Heather L. Judkins, Brad A. Seibel

9:40-10:00 am - The evolution and diversification of eyes in strombid gastropods - Alison Irwin, Ellen Strong, Nicholas Roberts, Elizabeth Harper, Suzanne Williams

10:00-10:20 am - Repeated loss of vision and sensory compensation in deep-sea gastropods - Lauren Sumner-Rooney, Julia Sigwart, Suzanne Williams

Biogeography Session - Curlew Hall

9:00-9:20 am - Origin of diversity by repeated hybridization in the door snail Charpentieria itala in the Southern Alps revealed by RADseq data - Jie Xu, Bernhard Hausdorf

9:20-9:40am - Comparison of Biogeography Patterns of Two Freshwater Snails - Physa acuta and Helisoma anceps - Kelly Martin, Jingchun Li
9:40-10:00 am - *Micrarionta* land snails living on San Clemente Island, California: One species or two? - **Timothy A. Pearce**, Marvin C. Fields, Nathan Brouwer

10:00-10:20 am - Archipelago-wide patterns of diversity and divergence among an endemic radiation of Galápagos land snails - **John G. Phillips**, T. Mason Linscott, Andrew M. Rankin, Andrew C. Kraemer, Christine E. Parent

**Utility of Molluscan Genomics Symposium - Marlin Hall**

8:20-8:40 am - Empirical testing of minimum sample size and marker number required for estimating population genomic parameters using ddRAD seq data from *Webbhelix multilineata* (Mollusca, Gastropoda, Stylommatophora) - **Jermaine Mahguib**, Kyung Seok Kim, and Kevin Roe

8:40-9:00 am - Phylogenomic analyses confirm a novel invasive North American *Corbicula* (Bivalvia: Cyrenidae) lineage - **Amanda E. Haponski**, Diarmaid O’ Foighil

9:00-9:20 am - Generating molecular tools to study gastropod development - **Maryna Lesoway**, Jonathan Henry

9:20-9:40 am - Tangled tentacles: how useful are currently available genome-scale data for resolving relationships among the decapodiform cephalopods? - **Frank E. Anderson**, Annie R. Lindgren

9:40-10:00 am - Toward a fully resolved phylogeny of the Neogastropoda: a phylogenomic approach helps dissecting backbone relationships - **Alexander E. Fedosov**, Paul Zaharias, Mark Phuong, Delphine Gey, Maria Vittoria Modica, Mandë Holford, Yuri I. Kantor, Marco Oliverio, Philippe Bouchet, and Nicolas Puillandre

10:00-10:20 am - Understanding Phylogenetic Relationships in Cladobranchia (Nudibranchia, Heterobranchia, Gastropoda) using NGS Data - **Dario Karmeinski**, Jessica Goodheart, Tatiana Korshunova, Alexander Martynov, Michael Schroedl

**Molluscs as Model Paleontological Systems Symposium - Scripps Hall**

9:00-9:20 am - Are all happy families alike? Trajectories of phylogenetic, functional, and morphological diversity in marine bivalve lineages following the end-Cretaceous extinction. - **Stewart M. Edie**, Katie S. Collins, David Jablonski

9:20-9:40 am - EMPTY
9:40-10:00 am - What’s (Dug) up (at Old) Dock II - **Timothy Campbell**, Lyle Campbell, David Campbell

10:00-10:20 am - The evolution of mollusks at deep-sea hydrothermal vents and methane seeps - **Steffen Kiel**

10:20-10:40 am - Coffee Break - *Chapel Hall*

Malacological Society of London Symposium on Color and Vision in Molluscs
Symposium - *Chapel Hall*

10:40-11:00 am - Holding mirrors up to nature: The structure and function of the eyes of scallops - **Daniel I. Speiser**

11:00-11:20 am - Astonishing photochemical diversity in the scallop *Argopecten irradians* (Pectinidae) indicates sophisticated visual system - **Jeanne M. Serb**

11:20-12:00 pm - Dynamic colorful skin and colorblind camouflage by cephalopods - **Roger T. Hanlon**

Biogeography Session - *Curlew Hall*

10:40-11:00 am - Contrasting Phylogeography of Two Limpet Genera in the Southern Ocean - **Hamish G. Spencer**, Claudio González-Wevar

11:00-11:20 am - Deep Down Under: Australia’s abyssal mollusc fauna - **Hugh MacIntosh**, Francesco Criscione, Anders Hallan, Frank Koehler

11:20-11:40 am - Macro (and micro!) molluscs of the Kimberley marine region of Western Australia - **Lisa Ann Kirkendale**, Zoe T. Richards, Andrew Hosie, Peter Middelfart

11:40-12:00 pm - Growth rates of potamidid snails in mangroves in northern Australia - **Fred E. Wells**

Utility of Molluscan Genomics Symposium - *Marlin Hall*

10:40-11:00 am - A congruent topology for deep gastropod relationships - **Tauana Junqueira Cunha**, Gonzalo Giribet

11:00-11:20 am - Resolving the relationships of clams and cockles using dense transcriptome sampling - **Sarah Lemer**, David Combsch, Peter Ward, Neil Landman, Gonzalo Giribet
11:20-11:40 am - Phylogeny and diversity of the Indo-West Pacific gastropods *Haloa sensu lato* (Cephalaspidea: Haminoeidae): Tethyan vicariance, generic diversity, and ecological specialization - **Manuel António E. Malaquias**, Trond R. Oskars

11:40-12:00 pm - Molluscan Biomineralisation in the Antarctic – An Integrative Approach - **Victoria A. Sleight**

Molluscs as Model Paleontological Systems Symposium - *Scripps Hall*

10:40-11:00 am - Advances in Quaternary non-marine molluscan research: the view from Britain and NW Europe - **Tom S. White**

11:00-11:20 am - Miocene California and Caribbean mollusks refine age of the Salada Formation, southwestern Baja California Sur, México - **Judith Terry Smith**

11:20-11:40 am - Why are there so few molluscs in the polar oceans? - **James Alistair Crame**

11:40-12:00 pm - An Integrated Approach to Unraveling the Fossil Record: Estimating the Paleontological Past, One Phylogeny at a Time - **S. G Wiedrick**, A. J. W. Hendy, and D. J. Eernisse

12:00-1:00 pm Lunch - *Crocker Dining Hall*

Malacological Society of London Symposium on Color and Vision in Molluscs Symposium - *Chapel Hall*

1:00-1:20 pm - Unravelling the rainbow – attempts to understand the evolution of shell colour in molluscs - **Suzanne T. Williams**, Heather E. Grant, Jessica Wade

1:20-1:40 pm - Elucidating the molecular basis of pigmentation in the tropical abalone, *Haliotis asinina* - **Carmel McDougall**, Daniel J. Jackson, Bernard M. Degnan

1:40-2:00 pm - Shell Pigmentation In The Eastern Oyster, *Crassostrea virginica* - **Michael Whiteside**, Suzanne Williams, Kazumas Wakamatsu Sho Ito, Jessica Wade, Ximing Guo

2:00-2:20 pm - Deciphering shell color pigmentation pathways in the pearl oyster *Pinctada margaritifera* (Linnaeus 1758) through whole transcriptome sequencing and fine gene expression tuning- **Pierre-Louis Stenger**, Chin-Long Ky, Céline Reisser, Serge Planes, Jeremie Vidal-Dupiol
2:20-2:40 pm - The colour polymorphism of the snail *Cepaea nemoralis* is indiscrete - **Angus Davison**, Hannah J. Jackson, Ellis W. Murphy, and Tom Reader

Molluscs as Key Ecological Players Symposium - **Curlew Hall**

1:00-1:20 pm - The biology of Japanese epizoic limpet *Lottia tenuisculpta* - **Ryo Nakayama**, Tomoyuki Nakano

1:20-1:40 pm - Monitoring freshwater mussels in complex rivers: comparison of case studies - **Joaquim Reis**, Daniel Garrido, Daniel Pires

1:40-2:00 pm - Community Structure of Intertidal Muricids (Mollusca; Muricidae) Present in Verde Island, Batangas City, Batangas Philippines - **Ruthela P. Payawal**, Brian B. Valencia, Adelyn Escobar, Karl Arbie Borrero

2:00-2:20 pm - Developing resilience to ocean acidification in abalone aquaculture - **Daniel S. Swezey**, Sara E. Boles, Kristin M. Aquilino, Doug Bush, Tessa M. Hill, Brian Gaylord, Cynthia A. Catton, Laura Rogers-Bennett, Andrew Whitehead, Jim Moore, and Eric Sanford

2:20-2:40 pm - Decline and Stabilization of Black Abalone in Monterey Bay, California - **J. C. Selgrath**, J. Carlton, R. Elahi, J. Pearse, T. Thomas, J. Watanabe, and F., Micheli

Utility of Molluscan Genomics Symposium - **Marlin Hall**

1:00-1:20 pm - Phylogenomics and macroevolution of the venomous gastropods Turridae (Gastropoda, Conoidea) - **Paul Zaharias**, Yuri I. Kantor, Alexander E. Fedosov, Mark Phuong, Nicolas Puillandré

1:20-1:40 pm - Exploring species delimitation methods in the *Albinaria cretensis* complex on Crete based on RADseq data - **Sonja Bamberger**, Bernhard Hausdorf

1:40-2:00 pm - The complete mitochondrial genome of the pygmy octopus “*Octopus* fitchi” (Cephalopoda: Octopodidae) from the Gulf of California, Mexico reveals its phylogenetic position within Octopoda - **Miguel Angel del Río Portilla**, Erika Magallón-Gayón, Irene A. Barriga-Sosa

2:00-2:20 pm - Presence of *Argonauta hians* in Mexican waters? - **Miguel Angel del Río Portilla**, Carmen E. Vargas-Peralta, Carmen Alejo Plata

Molluscs as Model Paleontological Systems Symposium - *Scripps Hall*

1:00-1:20 pm - What Ammonoid Cephalopods Tell Us About Biodiversity Dynamics on a Changing Earth - **Dr. Margaret M. Yacobucci**

1:20-1:40 pm - Biodiversity hotspots and the dynamics of diversity gradients: Marine bivalves in time and space - **David Jablonski**, Stewart M. Edie, Katie S. Collins, Kaustuv Roy, James W. Valentine

1:40-2:00 pm - Morphometric species-level discrimination of fossil taxa in a Neogene venerid species complex - **Peter Roopnarine**

2:40-3:00 pm - Coffee Break - *Chapel Hall*

Molluscs as Key Ecological Players Symposium - *Curlew Hall*

3:00-3:20 pm - Integrative Systematics of the genus *Thuridilla* Bergh, 1872 (Mollusca, Gastropoda, Heterobranchia) Reveals a Cryptic Radiation of Polymorphic Sea Slug Species - **M. Rosario Martín-Hervás**, Leila Carmona, Manuel António E. Malaquias, Patrick J. Krug, Terrence Gosliner, and J. Lucas Cervera

3:20-3:40 pm - Integrative approach to the systematics of the genus *Dondice* Marcus, 1958 (Heterobranchia: Nudibranchia) from the Western Atlantic - **Kelly García-Méndez**, Angel Valdés

Utility of Molluscan Genomics Symposium - *Marlin Hall*

3:00-3:20 pm - High-throughput identification of homologous neurons in the nudibranch *Berghia stephanieae* - **M. Desmond Ramirez**, A. Tamvakakis, J. Dwyer, J. Bergan, P. Katz

3:20-3:40 pm - Genome assembly of the pearl oyster *Pinctada margaritifera*: a tool for environmental and evolutionary research - **Celine M.O. Reisser**, Jeremie Vidal-Dupiol, Jeremy Le Luyer, Chin Long Ky, Serge Planes

3:40-4:00 pm - Genomic signatures of evolution in *Nautilus* - **Sarah Lemer**, David Combsch, Peter Ward, Neil Landman, Gonzalo Giribet

4:00-4:20 pm - Utility of mitogenomes in resolving the phylogeny of gastropods at different taxonomic levels - **Rafael Zardoya**, Samuel Abalde, Juan E. Uribe, José Templado, and Manuel J. Tenorio
### Additional Activities and Meetings

3:00  Monterey Bay Aquarium behind-the scenes tour- **The tour starts at 3:45 pm**, and takes up to 1 hour; you can stay longer at the Aquarium until closing (6 pm), which will give you time to return to Asilomar for the end-of-meeting banquet! **You need to find your own transportation to the Aquarium.**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>3:00-4:30 pm</td>
<td>Unitas Malacologica General Assembly</td>
<td>Chapel Hall</td>
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<td>3:00-4:30 pm</td>
<td>Western Society of Malacologists business meeting</td>
<td>Scripps Hall</td>
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<tr>
<td>4:30-6:00 pm</td>
<td>American Society of Malacologists business meeting</td>
<td>Chapel Hall</td>
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<tr>
<td>7:00-10:00 pm</td>
<td>Mexican Fiesta Banquet and student awards ceremony</td>
<td>Outdoor Barbeque Area</td>
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