

## Cheng-Sheng Lee

College of Tropical Agriculture and Human Resources  
Department of Human Nutrition, Food and Animal Sciences  
FTE Distribution: 100% R

### Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
Bachelors	National Taiwan University, Taiwan	Fishery Biology
Master	National Taiwan University, Taiwan	Marine Biology
PhD	University of Tokyo, Japan	Aquaculture

### Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Researcher and Director, Center for Tropical and Subtropical Aquaculture		
Director, Center for Tropical and Subtropical Aquaculture	University of Hawai'i at Manoa Oceanic Institute, HPU	2018-present 1997-2018
Affiliate Faculty at MBBE	University of Hawai'i at Manoa	1997-present
Affiliate Faculty at CAFNRM	University of Hawai'i at Hilo	1997-2010
Director, Aquaculture Interchange Program	Oceanic Institute	1999-2010
Assistant Vice President	Oceanic Institute	1992-1997
Research Scientist	Oceanic Institute	1979-2018

### Courses Taught

<u>Course ID</u>	<u>Credits</u>	<u>Semester/Year</u>	<u>No of Students</u>
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### Publications (reverse chronological order)

#### Books

- Lee, Cheng-Sheng, Chhorn Lim, Delbert M. Gatlin III, Carl D. Webster (Eds.). 2015. *Dietary Nutrients, Additives and Fish Health*. John Wiley & Sons, Inc. New Jersey, USA. 355pp.
- Lim, C., C.D. Webster, and C.-S. Lee, (editors). *Alternative Protein Sources in Aquaculture Diets*. The Haworth Press, Binghamton, NY, USA. 571 pp. 2008.
- Sato, Vernon T. and Cheng Sheng Lee. 2007. *Keeper of Molii Pond*. Oceanic Institute 147 pp.
- Lee, Cheng-Sheng and Patricia J. O'Bryen (Eds.). 2007. *Open Ocean Aquaculture—Moving Forward*. Oceanic Institute, Waimanalo, Hawai'i, USA. 78 pp.
- Leung, PingSun, Cheng-Sheng Lee, and Patricia J. O'Bryen (Eds.). 2007. *Species and System Selection for Sustainable Aquaculture*. Blackwell Publishing, Ames, Iowa, USA. 624 pp.
- McVey, James P., Cheng-Sheng Lee, and Patricia J. O'Bryen (Eds.). 2006. *Aquaculture and Ecosystems: An Integrated Coastal and Ocean Management Approach*. The World Aquaculture Society, Baton Rouge, Louisiana, USA. 240 pp.
- Lee, Cheng-Sheng (Ed.). 2006. *Design and Selection of Biological Filters for Freshwater and Marine Applications*. *Aquacultural Engineering* 34 (3): 141-416.
- Scarfe, A. David, Cheng-Sheng Lee, and Patricia J. O'Bryen (Eds.). 2005. *Aquaculture Biosecurity: Prevention, Control and Eradication of Aquatic Animal Disease*. Blackwell Publishing, Ames, Iowa, USA. 208 pp.

- Lee, Cheng-Sheng, Patricia J. O'Bryen, and Nancy H. Marcus (Eds.). 2005. Copepods in Aquaculture. Blackwell Publishing, Ames, Iowa, USA. 269 pp.
- Lee, Cheng-Sheng (Ed.). 2003. Aquaculture: Retrospective and Outlook. An Aquaculture Summit. Asian Fisheries Society, Quezon City, Philippines and The World Aquaculture Society, Baton Rouge, Louisiana, USA. 314pp.
- Lee, Cheng-Sheng and Patricia J. O'Bryen (Eds.). 2003. Biosecurity in Aquaculture Production Systems: Exclusion of Pathogens and Other Undesirables. The World Aquaculture Society, Baton Rouge, Louisiana, USA. 293 pp.
- Lee, Cheng-Sheng and Patricia J. O'Bryen (Eds.). 2002. Aquaculture Growout Systems — Challenges and Technological Solutions. *Reviews in Fisheries Science* 10 (3&4): 391–620.
- Lee, C-S. and A. Ventura (editors). Status of Aquaculture in China. Proceedings of a Workshop hosted by The Oceanic Institute. Waimanalo, Hawaii, USA, 19-21 February 2002. 126 pp. 2003.
- Lee, Cheng-Sheng and Pat O'Bryen (Eds.). 2002. Microbial Approaches to Aquatic Nutrition within Environmentally Sound Aquaculture Production Systems. The World Aquaculture Society, Baton Rouge, Louisiana, USA. 187 pp.
- Lee, C-S. and E.M. Donaldson (editors). 2001. Reproductive Biotechnology in Finfish Aquaculture. *Aquaculture* 197: 1-319.
- Lee, C-S. and P.J. O'Bryen (editors). 2001. Advanced Biotechnology in Hatchery Production. *Aquaculture* 200: 1–250.
- Lee, Cheng-Sheng. Aquaculture of milkfish (*Chanos chanos*). TML Aquaculture Series No. 1, Published by Tungkang Marine Laboratory, TFRI, Taiwan and The Oceanic Institute, Hawaii, U.S.A., 141 pp. 1995.
- Yung C. Shang, PingSun Leung, Cheng-Sheng Lee, Mao-Sen Su, and I Chiu Liao. (Eds). Socioeconomics of Aquaculture, Proceedings of International Symposium '93. TML Conference Proceedings No.4. Published by Tungkang Marine Laboratory, Taiwan Fisheries Research Institute, 380 pp. 1994.
- Cheng-Sheng Lee, Mao-Sen Su, and I Chiu Liao (Editors). Finfish Hatchery in Asia. Proceedings of Finfish Hatchery in Asia '91. TML Conference Proceedings No.3. Published by Tungkang Marine Laboratory, Taiwan Fisheries Research Institute 1993.
- H. Tanaka, F. Roger Uwate, J. V. Juario and **C.-S. Lee** (Eds). Proceedings of the Regional Workshop on Milkfish Culture Development in the South Pacific, Tarawa, Kiribati, 21-25 November 1988. Published by South Pacific Aquaculture Development Project, Food and Agriculture Organization of the United Nations, Suva, Fiji, 423 pp. 1990
- Crim, L.W., C.S. Lee, R.E. Peter and N.M. Sherwood (Eds). Induce Spawning of Asian Fishes. *Journal of Aquaculture* 74 (1&2) 1-166 1988.
- Lee, C.-S., M. S. Gordon and W. O. Watanabe (Editors). Aquaculture of Milkfish (*Chanos chanos*): State of the Art. Published by The Oceanic Institute, Hawaii 1986.
- Lee, C.S. and I. C. Liao (Eds) Reproduction and Culture of Milkfish. Published by the Oceanic Institute, Hawaii, and Tungkang Marine Laboratory, Taiwan 1985.

### Book Chapters

- Kenneth M. Leber, Cheng-Sheng Lee, Nathan P. Brennan, Steve M. Arce, Clyde S. Tamaru, H. Lee Blankenship and Robert T. Nishimoto. 2016. Stock Enhancement of Mugilidae in Hawai'i (USA). In: *Biology, Ecology and Culture of Grey Mullet (Mugilidae)* chapter 18, Taylor and Francis Group, LLC. 467-486.
- Weber, Gregory M., and Cheng Sheng Lee. 2014. Current and Future Assisted Reproductive Technologies for Fish Species. G.C. Lamb and N. DiLorenzo (eds.), *Current and Future Reproductive Technologies and World Food Production*, *Advances in Experimental Medicine and Biology* 752, 33-76.
- Lee, Cheng-Sheng, Chin-Fa Liu. 2010. Milkfish (Family: Chanidae). In: Le Francois N., Jobling M., Carter C. and Blier P (Eds.) *Finfish Aquaculture Diversification*: 200-215. Chapter 10.
- Lee, Cheng-Sheng. 2006. Design and Selection of Biological Filters for Freshwater and Marine Applications. *Aquacultural Engineering* 34 (3): 141-142.
- Lee, C.-S. 2001. Feeding the world through aquaculture: Asian contributions — present and future. In: Liao, I C. (compiled) "Keynote addresses: 5<sup>th</sup> and 6<sup>th</sup> Asian Fisheries Forums (AFS Special Publication No. 11), pp.

63–77, Asian Fisheries Society, Manila, Philippines.

### Technical Editor:

Author and co-author for two books

Co-Editor for 21 books/special publications, published by various publishers

Guest Editor, Journal of the World Aquaculture Society 41:173-280. 2007

Guest Editor, Aquaculture Engineering 34(3). 2006

Guest Editor, Aquaculture 226(1-4). 2003

Guest Editor, Review in Fisheries Science 10(3-4). 2002

Guest Editor, Aquaculture 200(1–2). 2001

Guest Editor, Aquaculture 197(1–4). 2001

### Conference Proceedings

### Refereed Journal Publications (Exclude 2000 and before)

Lee, Cheng-Sheng. 2021. Sustain seafood resources in the U.S. affiliated Pacific islands- status and strategies. Bull. Jap. Fish. Res. Edu. Agen. No. 50, 67- 74.

Lee, Cheng Sheng. 2019. Challenges and opportunities of IMTA in Hawaii and beyond. Bull. Jap. Fish. Res. Edu. Agen. No. 49, 129- 134.

Sumirasa, Gede, Fuad Cholick, Taufik Ahmad, Katsumi Aida, Cheng-Sheng Lee, Harry Ako and Clyde S. Tamaru. Status of Milkfish Culture in Indonesia: An Example of What Happens with Technological Changes. World Aquaculture March 2019, 38-44.

Ju, Zhi Yong, Dong-Fang Deng, Peter Hutchinson, Cecilia Viljoen, Justin Reinicke, David Horgen, Luke Howard & Cheng-Sheng Lee. 2016. Effects of diets on the shell pigmentation of abalone (*Haliotis discus hannai*) and identification of pigments in abalone shells. Aquaculture Research 47: 4004-4014.

Wang, Heng, Thomas Iwar, Baoping Zhao, CS Lee, Jinzeng Yang. Aug 2010. Identification of Microsatellite DNA Markers for Pacific Threadfin Parentage Assignment. Journal of World Aquaculture Society Vol 41, No.4: 640-647.

Kang, H.Y., P.Y. Yang, W.G. Dominy, C.S. Lee. 2010. Bioprocessing papaya processing waste for potential aquaculture feed supplement - Economic and nutrient analysis with shrimp feeding trial. Bioresource Technology 101 (2010) 7973-7979

Hardy, Ronald W. and Cheng-Sheng Lee. 2010. Aquaculture feed and seafood quality. Bulletin of Fisheries Research Agency No. 31: 43-50

Lee, Cheng-Sheng. 2009. Introduced Species and Aquaculture. Bulletin of Fisheries Research Agency No. 29: 69-78

Lee, Cheng-Sheng. 2006. Design and Selection of Biological Filters for Freshwater and Marine Applications. Aquacultural Engineering 34 (3): 141-418.

Lee, Cheng-Sheng and Patricia J. O’Bryen (Eds.). 2003. Management of Aquaculture Effluents. Aquaculture 226 (1-4): 1-244.

Moriwake, A., V. Moriwake, A.C. Ostrowski, and C.-S. Lee. 2001. Natural spawning of the bluefin trevally *Caranx melampygus* in captivity. Aquaculture 203: 159–164.

Lee, Cheng-Sheng and Edward M. Donaldson. 2001. General discussion on “Reproductive biotechnology in finfish aquaculture.” Aquaculture 197: 303–320.

Lee, C.-S. and A. C. Ostrowski. 2001. Current status of marine finfish larviculture in the United States. Aquaculture 200: 89–109.

Lee, C.-S., Ellis, S. and K. L. Awaya. 2001. Giant clam farming in the U.S. affiliated Pacific Islands. World Aquaculture 32(3): 21–63.

Extension Publications

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

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

**Graduate Students (Most recent year only)**

<u>Category</u>	<u>Number of Students</u>	<u>Number that Graduated</u>
Chair of Master Committees		
Chair of PhD Committees		
Member of Master Committees		
Member of PhD Committees		

**Grant Support (Excluded 2015 and before)**

Title of Grant: FY21 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$968,000  
Dates of Grant: 9/1/2021-8/31/2025  
Role (PI, CoPI): PI

Title of Grant: Assessing Economic Feasibility of Aquaculture Feed Production in Hawaii  
Source of Grant: US Department of Commerce  
Dollar Value: \$226,763  
Dates of Grant: 12/1/2020-11/30/2022  
Role (PI, CoPI): PI

Title of Grant: FY20 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$924,280  
Dates of Grant: 9/1/2020-8/31/2025  
Role (PI, CoPI): PI

Title of Grant: Assessing Public Perceptions of Aquaculture and the Broader Impacts of K-12  
Aquaculture Education  
Source of Grant: US Department of Commerce  
Dollar Value: \$165,582  
Dates of Grant: 9/1/2019-6/30/2022  
Role (PI, CoPI): PI

Title of Grant: FY19 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$929,280  
Dates of Grant: 9/1/2019-8/31/2023

Role (PI, CoPI): PI

Title of Grant: FY18 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$929,280  
Dates of Grant: 9/1/2018-8/31/2023  
Role (PI, CoPI): PI

Title of Grant: FY17 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$743,424  
Dates of Grant: 9/1/2017-8/31/2021  
Role (PI, CoPI): PI

Title of Grant: FY16 Regional Aquaculture Center—Center for Tropical and Tropical Aquaculture  
Source of Grant: National Institute of Food and Agriculture  
Dollar Value: \$739,960  
Dates of Grant: 9/1/2016-8/31/2021  
Role (PI, CoPI): PI

**Presentations at Conferences (Excluded 2013 and before)**

Title: Ocean Food Security in Hawaii

Authors (put an asterisk on the presenter): Cheng Sheng Lee\*

Name of Conference: Aloha 'Aina Academy 2021: Ocean Food Systems

Date of Presentation: 2021

Title: Assessing Public Perceptions of Aquaculture and the Broader Impacts of K-12 Aquaculture Education

Authors (put an asterisk on the presenter): Cheng Sheng Lee\*, Catherine Chan and Leiana Opunui\*

Name of Conference: QAR Research Symposia: Exploring New Aquaculture Opportunities and Social/Economic/Behavioral Needs in Aquaculture

Date of Presentation: 2021

Title: Aquaculture in Fisheries Management Plan

Authors (put an asterisk on the presenter): Cheng Sheng Lee\*

Name of Conference: Indo-Pacific Maritime Security Exchange

Date of Presentation: 2021

Title: Environment and Seafood Quality

Authors (put an asterisk on the presenter): Cheng Sheng Lee

Name of Conference: Special lecture for Hainan Tropical Ocean University delegation

Date of Presentation: 2020

Title: Sustain seafood resources in the U.S. affiliated Pacific islands- status and strategies

Authors (put an asterisk on the presenter): Cheng Sheng Lee

Name of Conference: US-Japan Natural Resources panel meeting

Date of Presentation: 2019

Title: Natural Resources Utilization in Hawaii and U.S. affiliated Pacific islands  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Sanya Forum\_Smart Ocean and Future Agriculture, China  
Date of Presentation: 2019

Title: Lessons from a 40-year Research Career  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Special lecture at Chinese Culture University in Taiwan  
Date of Presentation: 2019

Title: NIFA Pacific Regional Aquaculture Center: Exploration Of Aquaculture Opportunities In US Affiliated Pacific Islands  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: World Aquaculture society annual meeting  
Date of Presentation: 2019

Title: General (esp. Marine) Aquaculture  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: USDA ARS webinar to the public  
Date of Presentation: 2018

Title: Aquaculture and Seafood Quality  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Special lecture for Hainan Tropical Ocean University delegation.  
Date of Presentation: 2018

Title: CTSA, Aquaculture and You  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Public talk to Maui community  
Date of Presentation: 2017

Title: IMTA and Sustainable Aquaculture  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: IMTA international symposium in Busan, Korea.  
Date of Presentation: 2017

Title: Aquaculture Education in 21st Century.  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Special lecture for Hainan Tropical Ocean University delegation.  
Date of Presentation: 2017

Title: Challenges and opportunities of IMTA in Hawai'i and beyond  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: US-Japan Natural Resources panel meeting  
Date of Presentation: 2017

Title: Aquaculture in Hawaii-Status and Opportunities  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: US-Korea Intergrated Multi-Trophic Aquaculture  
Date of Presentation: 2016

Title: Knowing your seafood  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Chinese Scholar Association in Hawai'i annual meeting  
Date of Presentation: 2016

Title: A Concerted Effort for Seafood Security in Hawai'i and U.S. Affiliated Pacific islands  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Pacifichem 2015  
Date of Presentation: 2015

Title: Aquaculture for Food Security  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: US-Korea Integrated Multi-Trophic Aquaculture in Korea  
Date of Presentation: 2015

Title: Hawai'i aquaculture and seed production  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: Flinders University, Australia  
Date of Presentation: 2014

Title: Marine shrimp farming R and D in the U.S.A  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: 9<sup>th</sup> world's Chinese symposium on crustaceans, China  
Date of Presentation: 2014

Title: Prospects of Fishery in the U.S.-affiliated Pacific islands Economy  
Authors (put an asterisk on the presenter): Cheng Sheng Lee  
Name of Conference: 3<sup>rd</sup> Asia-Pacific Coral Reef Symposium in Taiwan.  
Date of Presentation: 2014