

Curriculum Vitae
ADELJEAN LOONG FAT CLEMEN HO
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Permanent Address

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Institutional Address

Bethune-Cookman University
Department of Integrated Environmental Science
640 Dr. Mary McLeod Bethune Boulevard
Daytona Beach, FL 32114

EDUCATION

- Florida Institute of Technology**, Melbourne, FL 2015
Ph.D. in Biological Sciences
- Florida Institute of Technology**, Melbourne, FL 2010
M.S. in Biological Sciences with Marine Biology Option
- Roger Williams University**, Bristol, RI 2008
B.A. in Marine Biology, Chemistry (Double Major, *magna cum laude*)

RESEARCH EXPERIENCE

- Postdoctoral Fellow**, Bethune-Cookman University, Daytona Beach, FL 2013 – Present
Mosquito Lagoon living shorelines for controlling nonpoint source pollution and tool for public education.
- Visiting Scholar**, South China Sea Institute of Oceanology, CAS, Guangzhou, China 2016
Population genomics, population genetics, and regional morphology of the seaweed pipefish, *Syngnathus schlegeli*
- Postdoctoral Fellow**, Florida Institute of Technology, Melbourne, FL 2015
Population genetics of the lined seashore, *Hippocampus erectus*
Advisor: Dr. Junda Lin
- Doctorate in Biology**, Florida Institute of Technology, Melbourne, FL 2015
Comparative study of reproductive biology, trophic ecology, and ecomorphology of Neotropical livebearers, *Poecilia* spp., between wet and dry environments
Advisor: Dr. Junda Lin
- Research Assistant**, Florida Institute of Technology, Melbourne, FL 2013 – 2015
Molecular and morphological identification of hybrid seahorses, *Hippocampus* spp.
- Visiting Scientist**, Department of Fisheries, Oranjestad, Aruba 2009 – 2011
Queen conch (*Strombus gigas*) population assessment in Aruba
- Honors Thesis**, Roger Williams University, Bristol, RI 2008
Color development and ontogenetic changes in skin pigment composition in juvenile clown anemonefish, *Amphiprion ocellaris*
- Research Assistant**, Roger Williams University, Bristol, RI 2006 – 2008

Sampling and mercury analysis of sediments, six Rhode Island game-fish species, and respective prey species

Student Researcher, Roger Williams University, Bristol, RI 2005 – 2008

Managed three research projects on larviculture and coloration in marine aquarium fishes

Research Assistant, Roger Williams University, Bristol, RI 2004 – 2005

Aquatic animal husbandry and cultivation. Aquatic life support system design, construction, and maintenance

Research Assistant, Department of Fisheries, Oranjestad, Aruba 2004 – 2005

Assessed tourism induced coral reef damage. Monitored artisanal fisheries and marine bird nesting

PUBLICATIONS

Refereed Journal Articles

Geng Qin, G, Y Zhang, **ALFC Ho**, Y Zhang, and Q Lin (2017) (2016) Seasonal distribution of seahorses employing a social reproductive strategy and supporting for a closed fishing season. *ICES Journal of Marine Science: fsx042*. doi: 10.1093/icesjms/fsx042

Ho, ALFC, CL Pruett, and J Lin (2016) Phylogeny and biogeography of *Poecilia* (Cyprinodontiformes: Poeciliinae) across Central and South America based on mitochondrial and nuclear DNA markers. *Molecular Phylogenetics and Evolution* 101(2016):32-45.

Ho, NKP, ALFC Ho, GD Underwood, A Underwood, D Zhang, and J Lin. (2015). A simple molecular protocol for the identification of hybrid Western Atlantic seahorses, *Hippocampus erectus* × *H. reidi*, and potential consequences of hybrids for conservation. *Journal of the Zoo and Aquarium Research* 3(1):11-20

Ho, ALFC, S Zong and J Lin (2014). Skin color retention after dietary carotenoid deprivation and dominance mediated skin coloration in clown anemonefish, *Amphiprion ocellaris*. *AACL Bioflux* 7(2):103-115

Ho, ALFC, SK O'Shea, and HF Pomeroy (2013) Dietary esterified astaxanthin effects on color, carotenoid concentrations, and compositions of clown anemonefish, *Amphiprion ocellaris*, skin. *Aquaculture International* 21(2):361-374

Ho, ALFC, NM Orlando Bertran, and J Lin (2013) Dietary esterified astaxanthin concentration effect on dermal coloration and chromatophore physiology in spinecheek anemonefish, *Premnas biaculeatus*. *Journal of the World Aquaculture Society* 44(1):76-85

Wittenrich, ML and **ALFC Ho** (2013) Social structure and reproductive behavior of the callionymid fish *Callionymus bairdi* (Gobiesociformes: Callionymidae): with notes on male alternative reproductive tactics. *Aqua, International Journal of Ichthyology* 19(1):17-28

Ho, ALFC, CL Pruett, and J Lin (2012) Population genetic structure, coloration, and morphometrics of yellowhead jawfish, *Opistognathus aurifrons* (Perciformes: Opistognathidae) in the Caribbean region. *Marine Ecology Progress Series* 444:275-287

Manuscripts in Review & in Preparation

- Ho, ALFC, and J Lin** (in review) Trophic Ecomorphology: covariation of shape and feeding ecology parameters across contrasting precipitation regimes in a group of Neotropical livebearers *Poecilia* (Cyprinodontiformes: Poeciliidae). *Journal of Fish Biology*
- Ho, ALFC, and J Lin** (*en prepa*) Spatio-temporal contrast of female reproductive traits in a group of Neotropical livebearers *Poecilia* (Cyprinodontiformes: Poeciliidae): A window into responses to drought like conditions on reproduction
- Ho, ALFC, and J Lin** (*en prepa*) Spatio-temporal isotopic niche structure in a group of Neotropical livebearers *Poecilia* (Cyprinodontiformes: Poeciliidae)
- Ho, ALFC, NPK Ho, and J Lin** (*en prepa*) Traditional and geometric morphometric identification of hybrid Western Atlantic seahorses, *Hippocampus erectus* × *H. reidi*
- Ho, ALFC, NPK Ho, S Yong, JT Boehm, H Masonjones, A Spiterly, and J Lin** (*en prepa*) Population genetic structure of the lined seashore, *Hippocampus erectus*, across the Western Atlantic and Gulf of Mexico inferred from microsatellite markers

Other Publications

- Ho, ALFC** (2013) The endemic molly of the ABC islands: van de Poll's molly (*Poecilia vandepolli*). *Amazonas* 2(5 Sep/Oct):44-51
- Ho, ALFC** (2011) One fish, two fish, red mandarin? Decoding the genetics of the red mandarin. *Coral* 8(6 Nov/Dec): 60-61
- Ho, ALFC** (2011) Population assessment of queen conch, *Strombus gigas*, in Western waters of Aruba. Division of Fisheries Report № DLVV/R11.01.003. Department of Agriculture, Husbandry, Fisheries, & Market Halls of Aruba

AWARDS & HONORS

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|---|---------------|
| Outstanding Graduate Student Paper Award, FAS 79 th Annual Meeting, Saint Leo, FL | 2015 |
| Honorable Mention Undergrad. Student Poster, FAS 79 th Annual Meeting, Saint Leo, FL | 2015 |
| MASNA 2013-2014 Graduate Student Scholarship, Ft Lauderdale, FL | 2014 |
| Best Abstract/Travel Award, World Aquaculture 2011, Natal, Brazil | 2011 |
| Outstanding Graduate Student in Marine Biology, Florida Institute of Technology | 2011 |
| Outstanding Graduate Student Paper Award, FAS 75 th Annual Meeting, Melbourne, FL | 2011 |
| The Honor Society of Phi Kappa Phi Member | inducted 2011 |
| Outstanding Graduate Student Paper Award, FAS 74 th Annual Meeting, Ft. Pierce, FL | 2010 |
| <i>Magna Cum Laude</i> , Roger Williams University | 2008 |
| 1 st Place Provost Award, Roger Williams University Academic Showcase | 2008 |
| Outstanding Senior Chemist Award, Roger Williams University | 2008 |
| Student Travel Award, NAC- SETAC, 13 th Annual meeting, Bristol, RI | 2007 |
| Honors Program Award, Best Junior, Roger Williams University Academic Showcase | 2007 |
| βββ Biological Honor Society | inducted 2006 |
| Who's Who Among Students in American Universities and Colleges Recipient, RWU | 2006 |
| Valero College Student Scholarship, Aruba | 2006 – 2008 |
| CRC Press Freshman Chemistry Achievement Award, Taylor & Francis Group | 2005 |

International Merit Scholarship, Roger Williams University	2004 – 2008
Dean’s List, 8 semesters, Roger Williams University	2004 – 2008
Honor Student, Roger Williams University	2004 – 2008

GRANTS

Undergraduate Research Grant, CEED, Roger Williams University	2007
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INVITED SEMINARS

Facing Water Loss: Comparative reproductive biology in contrasting wet and dry environments in a group of Neotropical livebearer Smithsonian Marine Station at Fort Pierce, FL, USA	2014
Time to rearrange your fish room: How to conduct scientific experiments from home! Marine Breeder’s Workshop. Cranbrook, MI, USA	2014
The biology and condition of the queen conch (<i>Strombus gigas</i>) population in Aruba Department of Agriculture Husbandry and Fisheries of Aruba	2011
Invasion of lionfish <i>Pterois volitans/miles</i> complex to Aruba Department of Agriculture Husbandry and Fisheries of Aruba	2010

CONFERENCE ACTIVITY

Session Chair

Co-Chair (in lieu of J. Lin). Ornamental Culture Section, World Aquaculture 2011 meeting of the World Aquaculture Society in Natal, RN, Brazil, June 6 – 10, 2011

Platform Presentations

- Ho, ALFC**, A Orozco, P Bellamy, and HJ Cho (2017) Living shorelines as tools for citizen science and runoff mitigation. Indian River Lagoon Symposium 2017: An Estuary in Peril, February 9 – 10.
- Orozco, A. HJ Cho, **ALFC Ho**, and P. Bellamy (2017) Effectiveness of Public Education at Controlling Nonpoint Source Pollution along the Mosquito Lagoon. Indian River Lagoon Symposium 2017: An Estuary in Peril, February 9 – 10.
- Ho, ALFC** and J Lin (2015) Links in reproductive biology, trophic ecology, and morphology across contrasting wet and dry environments in a group of Neotropical livebearers (Cyprinodontiformes: Poeciliidae). 79th Annual Meeting of the Florida Academy of Sciences, March 19-21. (Outstanding Graduate Student Paper Award in Biological Sciences)
- Killinger, C, N Ho, **ALFC Ho**, and J Lin (2015) Population genetics of the lined seahorse (*Hippocampus erectus*): Conservation education involving citizen scientists. 79th Annual Meeting of the Florida Academy of Sciences, March 19-21
- Yong, S, NKP Ho, **ALFC Ho**, and J Lin (2015) Seahorse roundup: Establishing a genetic baseline for the lined seahorse, *Hippocampus erectus*, through collaboration and outreach. Regional Aquatics Workshop 2015, March 2 – 6

- Ho, NKP, **ALFC Ho**, G Fairchok, and J Lin (2015) Seahorse Roundup: Establishing a genetic baseline for the lined seahorse through citizen science. Indian River Lagoon Symposium 2015, February 5 – 6
- Ho, ALFC** and J Lin (2015) Comparative reproductive biology in contrasting wet and dry environments in a group of Neotropical livebearers (Cyprinodontiformes: Poeciliidae), with links to trophic ecology and ecomorphology. The Society for Integrative and Comparative Biology Annual Meeting 2015, January 3 – 7
- Ho, ALFC** and J Lin (2014) Comparative reproductive biology in contrasting wet and dry environments in a group of Neotropical livebearers (Cyprinodontiformes: Poeciliidae). 99th Ecological Society of America Annual Meeting, August 10 – 15
- Ho, ALFC** and J Lin (2011) Population genetic structure coincides with geography, coloration, and morphometrics in yellowhead jawfish, *Opistognathus aurifrons* (Perciformes: Opistognathidae). 75th Annual Meeting of the Florida Academy of Sciences, Melbourne, FL, March 11 – 12 (Outstanding Graduate Student Paper Award in Biological Sciences)
- Ho, ALFC** and J Lin (2011) Effect of dietary esterified astaxanthin concentration on dermal coloration and chromatophore physiology in spinecheek anemonefish, *Premnas biaculeatus*.
- Aquaculture 2011, Natal, Brazil, June 6 – 10. (Best Abstract Award)
 - 74th Annual Meeting of the Florida Academy of Sciences, March 10 (Outstanding Graduate Student Paper Award in Biological Sciences)
- Ho, ALFC**, SK O’Shea, HF Pomeroy, NE Breen, and KG Jackson (2008) Effect of a diet varying in astaxanthin concentrations on coloration and dermal carotenoid composition and in false percula anemonefish, *Amphiprion ocellaris*. Aquaculture America Ornamentals 2008, February 9 – 12
- Ho, ALFC**, SK O’Shea, HF Pomeroy, NE Breen, and KG Jackson (2007) Effect of a diet varying in astaxanthin concentrations on coloration and dermal carotenoid composition and in false percula anemonefish, *Amphiprion ocellaris*. 2nd Biology New England South Undergraduate Research 2007, November 30
- Ho, ALFC**, MR Palmtag, BD Bourque, and HF Pomeroy (2007) Effects on survival and growth of the copepod *Acartia tonsa* as an alternative diet for first feeding in larval false percula anemonefish, *Amphiprion ocellaris*. Aquaculture 2007, San Antonio, TX, February 26 – March 2
- Ho, ALFC**, BD Bourque, and HF Pomeroy (2006) Larviculture of the false percula anemonefish, *Amphiprion ocellaris*. Northeastern Aquaculture Conference and Exposition 2006, December 8
- Ho, ALFC**, T Arcand, BD Bourque, and HF Pomeroy (2006) Culture of the orchid dottyback, *Pseudochromis fridmani*. Northeastern Aquaculture Conference and Exposition 2006, December 8

Poster Presentations (Select)

- Macke, K, EZ Schnatter., WS Papazian, Jr., **ALFC Ho**, and J Lin (2015) Comparative female reproductive biology in contrasting wet and dry environments in a group of Neotropical livebearers (Cyprinodontiformes: Poeciliidae). 79th Annual Meeting of the Florida Academy of Sciences, March 19-21, 2015

- Alvarez, A, D Doerflinger, A Kingston, **ALFC Ho**, and J Lin (2015) Niche structure, inferred from carbon and nitrogen stable isotopes, in Central American clade mollies (Cyprinodontiformes: Poeciliidae: *Poecilia*). 79th Annual Meeting of the Florida Academy of Sciences, March 19-21, 2015
- Orris, BP, NB Lehmann, CM Draghetti, **ALFC Ho**, and J Lin (2015) Morphological variation amid various Central American clade mollies (Cyprinodontiformes: Poeciliidae: *Poecilia*) geographically distributed across Central and South America: a geometric morphometric analysis. 79th Annual Meeting of the Florida Academy of Sciences, March 19-21, 2015. (Honorable Mention Undergraduate Student Poster in Biological Sciences)
- Derosia, D, N Ho, **ALFC Ho**, and J Lin (2015) Morphological identification of hybrid offspring between seahorse species *Hippocampus erectus* and *H. reidi*. 79th Annual Meeting of the Florida Academy of Sciences, March 19-21, 2015
- Ho, NKP, **ALFC Ho**, Yong S, and J Lin (2014) Establishing population genetic structure in the lined seahorse across the Atlantic United States. Association of Zoos and Aquariums Annual Meeting 2014, September 12 – 18
- Pham, NK, **ALFC Ho**, and J Lin (2013) A cautionary tale: Two Florida native seahorse species (*Hippocampus erectus* and *Hippocampus reidi*) produce hybrid. Regional Aquatics Workshop, April 22- 26
- Helming, SA, **ALFC Ho**, DL Taylor, and SK O'Shea (2007) Factors influencing bioaccumulation of trace heavy metals by the blue mussel (*Mytilus edulis*). The 6th Annual New England Environmental Research Symposium, November 10.
- Helming, SA, **ALFC Ho**, DL Taylor, and SK O'Shea (2007) Trophic transfer of trace heavy metals to tautog (*Tautoga onitis*) in Narragansett Bay, Rhode Island. 2nd Northeast Regional IDEa Meeting 2007, August 15 – 17
- Helming, SA, **ALFC Ho**, DL Taylor, and SK O'Shea (2007) Trace heavy metal analysis of a benthic food chain in Narragansett Bay, Rhode Island. 13th Annual Meeting of the North Atlantic Regional Chapter of the Society of Environmental Toxicology and Chemistry 2007, Bristol, RI, June 13 – 15. (Winner of Student Travel Award).
- Jackson, KJ, **ALFC Ho**, SK O'Shea, and HF Pomeroy (2007) Dermal accumulation of astaxanthin in the false percula anemonefish, *Amphiprion ocellaris*, under a diet of varying astaxanthin concentrations. American Chemical Society's 223rd National Meeting, March 25 – 29
- Jackson, KJ, **ALFC Ho**, SK O'Shea, NE Breen, AC White, BD Bourque, and HF Pomeroy (2007) A more efficient method of fatty acid analysis and the determination of carotenoid content in the study of broodstock and juvenile nutrition in marine ornamental fishes. Aquaculture 2007, San Antonio, TX, February 26 – March 2.

TEACHING EXPERIENCE

Bethune-Cookman University, Department of Integrated Environmental Science
Adjunct Faculty

Introduction to Environmental Science Lecture: Spring 2017

Part of a standardized course: Adapted course materials and lectures, lectured, adapted and administered exams, graded, and held office hours

Florida Institute of Technology, Department of Biological Sciences

Graduate Student Assistantship: Teaching Assistant

Crustacean Aquaculture Lecture: Fall 2013

Sole responsibility for the course: Prepared course materials and lectures, lectured, prepared and administered exams, graded, and held office hours

Crustacean Aquaculture Laboratory: Fall 2009 – 2013

Molluscan Aquaculture Laboratory: Spring 2010 – 2015

Sole responsibility for both Molluscan and Crustacean Aquaculture Laboratory sections: Prepared course materials, labs, and lab research projects, prepared and administered quizzes, graded, and held office hours

Biometry Laboratory: Spring 2009

Implemented laboratory materials, administered quizzes, graded, and held office hours

Invertebrate Zoology Laboratory: Fall 2008

Implemented laboratory materials, administered quizzes, graded, and held office hours

Undergraduate Mentorship

Mentored four undergraduate students on their “Independent Research projects” 2010 – 2014

Two undergraduate mentees were coauthors on the peer-reviewed publications for their contribution of their independent research projects to the manuscripts

Mentored 16 undergraduate students who worked on various research projects 2008 – 2015

RELATED EXPERIENCE

Aquatic Laboratory Manager, Florida Institute of Technology, Melbourne, FL 2009 – 2013

Volunteer Foundation Official, TurtugAruba, Oranjestad, Aruba 2002 – 2005

Sea turtle conservation program public educator, field technician, and field-volunteer manager

SERVICE TO PROFESSION

Journal Peer Reviews:

Aquaculture Nutrition

Brazilian Journal of Oceanography

Diversity

Helgoland Marine Research

Journal of Oceanography and Marine Science

Journal of Shellfisheries Research

Journal of the World Aquaculture Society

Zootaxa

EXTRACURRICULAR UNIVERSITY SERVICE

Vice President, Biology Graduate Student Association, Florida Tech 2009 – 2014

Adviser to Aquaculture Society, Florida Tech 2009 – 2012

President, Roger Williams University Honors Program	2005 – 2008
Vice President American Chemical Society at Roger Williams University	2007 – 2008
President, βββ Biological Honor Society, Theta Gamma Chapter	2007 – 2008
Historian, βββ Biological Honor Society, Theta Gamma Chapter	2007
Treasurer, Roger Williams University Marine Science Club	2004 – 2006

RELATED PROFESSIONAL SKILLS

Knowledgeable in field and laboratory experimental design and analysis, including statistical applications SPSS and R

Sophisticated understanding of aquatic animal husbandry and laboratory techniques: Design and construction of aquatic life support systems, micro algae culture, live feed culture (copepods, rotifers, and *Artemia*)

Successful rearing (broodstock though juvenile/sub-adult stage) of aquatic vertebrates and invertebrates: Anemonefishes (Amphiprioninae), yellowhead jawfish (*Opistognathus aurifrons*), orchid dottyback (*Pseudochromis fridmani*), livebearers (*Poecilia* spp., *Xiphophorus helleri*), and cleaner shrimps (*Lysemata* spp.)

Experienced in small craft handling (nearshore and offshore) and use of field sampling gear: beach seine, push net, dip net, cast net, plankton net, otter trawl, rod & reel, and traps

Experienced in SCUBA and/or snorkel aided ichthyofauna sampling and surveying techniques: barrier netting, hand netting, chemically aided & targeted sampling, and transecting and census techniques

Knowledgeable in instrumental methods of analyses:

- High Pressure Liquid Chromatography coupled with Mass Spectroscopy/Electrospray Ionization (HPLC/MS-ESI), UV/Vis Spectroscopy Photodiode Array Detector (HPLC-PDA), UV/Vis Spectroscopy Single Wavelength (HPLC-UV/Vis).
- UV/Vis Spectroscopy (PDA detector)
- Fourier Transform Infrared Spectroscopy (FTIR)
- Mercury analysis via Direct Mercury Analyzer | DMA-80
- Extraction of various organic and inorganic compounds with, e.g., Soxhlet extractor.
- Determination of water quality parameters, e.g., nitrates and nitrites.

CERTIFICATIONS

Small craft captains license (< 20m/65ft). Aruba Navigation and Maritime Affairs	2010
Institutional Animal Care and Use Committee (IACUC) Certified	2006, 2015
PADI® Open Water Diver and Advanced Open Water Diver	2003

LANGUAGES

Papiamentu: native speaking, reading, and writing. (Language of Aruba, Curaçao, & Bonaire)

English: fluent speaking, reading, and writing

Dutch: fluent speaking, reading, and writing

Spanish: excellent speaking, reading, and writing

Cantonese: conversational speaking

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

Director of Industry, Legislation, and Ocean Conservation of the Marine Aquarium Societies of North America	2015 – Present
Member , Marine Aquarium Societies of North America	2015 – Present
Member , Society for Integrative and Comparative Biology	2014 – Present
Member , American Society of Ichthyologists & Herpetologists	2013 – Present
Student Member , American Fisheries Society	2010 – 2014
Student Member , The World Aquaculture Society	2006 – 2014
Student Affiliate , American Chemical Society	2007 – 2008
Student Member , American Fisheries Society, S.N.E.C.	2006 – 2008
Student Member , Society of Environmental Toxicology and Chemistry, N.A.C.	2006 – 2008