NEFERTITI TAYDÉ ROLDÁN WONG

PhD Student Biology Specialization Chemical and Environmental Toxicology
Faculty of Science, University of Ottawa, Canada (2021)
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RESEARCH INTEREST

-Cephalopod physiology

-Marine ecotoxicity (mainly metal contamination)

-Environmental and public health

-Proteomics and metabolomics

-Behavior and physiology

-Citizen science (including popular science)

LANGUAGES

Spanish: Native speaker
English: TOEFL iBT score 106 out of 120
French: Basic A2

EDUCATION

M.Sc., Marine Resource Management, Interdisciplinary Center of Marine Sciences CICIMAR -IPN, 2017.
Thesis: Bioaccumulation and biomagnification of potentially toxic elements in the octopus *Octopus hubbsorum* from the mining port of Santa Rosalia, Gulf of California
Thesis advisor: Marcial Arellano Martínez, PhD
Grade: 10/10. Graduated with honours.

B.Sc., Marine Biology, Autonomous University of Baja California Sur, UABCS, 2015.
Thesis: Variation in the biochemical composition and energy conversion associated with the gonadic maturation of the octopus *Octopus hubbsorum* Berry, 1953
Thesis advisor: Marcial Arellano Martínez, PhD
Grade: 9.2/10. Graduated with honours.

Other relevant courses:

Molecular physiology of bivalves and vulnerability in a changing environment.
CIBNOR, February 12-15, 2019. Professor: Caroline Fabioux, PhD. European University Institute, France

Behavioural ecology.
CICIMAR, August 5-8, 2019. Professor: Gavan Cooke, PhD. Anglia Ruskin University, UK.

SKILLS

Fieldwork: certified Open Water Scuba Diver. FMAS /CMAS (2012), certified First Aid and Management of Medical Emergencies (2019).

Laboratory work: cephalopod dissection techniques, histological and staining techniques, determination of heavy metals in marine organisms by ICP-MS.

Student supervision: currently serving as dissertation supervisor for undergraduate student.

PUBLICATIONS

2020. Roldán-Wong N.T., Yee-Duarte J.A., Camacho-Mondragón M.A., Kidd K.A., Arellano-Martínez A. Health risk assessment of metals and arsenic via consumption of commercial bivalves in the Gulf of California. *In preparation.*

2020. Yee-Duarte J.A., Racotta I.S., Camacho-Mondragón M.A., Roldán-Wong N.T., Carreño-León D.P., Shumilin E., Kidd K.A., Arellano-Martínez A. Contrasting reproductive health of female clams *Megapitaria squalida* from two nearby metal-polluted sites in the Gulf of California: potential effects of copper, lead, and cobalt. *Marine Pollution Bulletin*. https://doi.org/10.1016/j.marpolbul.2020.111583

2020. Roldán-Wong N.T., Kidd K. A., Ceballos-Vázquez B. P., Rivera-Camacho A.R., and Arellano-Martínez M. Polycyclic aromatic hydrocarbons (PAHs) in mussels (*Modiolus capax*) from sites with increasing anthropogenic impact in La Paz Bay, Gulf of California. *Regional Studies in Marine Science*. https://doi.org/10.1016/j.rsma.2019.100948

2018. Roldán-Wong N.T., Kidd K. A., Ceballos-Vázquez B. P., and Arellano-Martínez M. Is there a risk to humans from consuming octopus species from sites with high environmental levels of metals? *Bulletin of Environmental Contamination and Toxicology*. https://doi.org/10.1007/s00128-018-2447-9

2018. Roldán-Wong N.T., Kidd K. A., Marmolejo-Rodríguez A. J., Ceballos-Vázquez B. P., Shumilin E. and Arellano-Martínez M. Bioaccumulation and biomagnification of potentially toxic elements in the octopus *Octopus hubbsorum* from the Gulf of California. *Marine Pollution Bulletin.* https://doi.org/10.1016/j.marpolbul.2017.10.014

PROFESSIONAL EXPERIENCE

Feb 2020 to date. Member of the board of directors of the Society of Malacology of Mexico. Organizing committee of the National Meeting of Malacology and Cochiliology 2022.

Feb 2019 to date. Regional manager -Latin and North America- of the international citizen science organization "The Cephalopod Citizen Science Project" (14 international groups, 1,700 worldwide members). Duties include overseeing local managers, recruiting volunteers, collect and analyze data for scientific research (mainly for ethology, physiology and ecology studies), promote the welfare of cephalopods and disseminate findings (through public and scientific conferences, educational courses and photographic exhibitions), and apply for grants (National Geographic Grant won).

Jun 2012 to date. Thesis preparation (to obtain bachelor's and master's degree), social service, voluntary support for graduate and undergraduate students and scientific research collaboration in various projects.

Nov 2017. Technical support in research project of Sustainable Northwest (NOS). Topic: Reproductive biology of mollusk species. Laboratory work and data management. (Paid job: 300 USD).

Jul-Sep 2016. Study Abroad at the Canadian Rivers Institute of the University of New Brunswick, Canada. Topic: Determination of heavy metals in marine organisms by ICP-MS. Supervised by Karen A. Kidd PhD. Supported by CONACYT scholarships 2016-2017 (291062) (Grant amount: 3100 USD) and by IPN scholarships for graduate students 2016 (Grant amount: 1050 USD).

Aug 2015-Jun 2017. Technical support in the National Research Projects: 20150117, 20160467, 20171428. Institutional Training Program of Researchers of the National Polytechnical Institute. Topic: Evaluation of physiological and reproductive condition of marine organisms from contaminated areas. Fieldwork, laboratory work and interpretation of results. (Grant amount: 2200 USD).

PRESENTATIONS

2019. Roldán-Wong N.T., Kidd K.A., Ceballos-Vázquez B.P., Rivera-Camacho A., and Arellano-Martínez M. "Polycyclic aromatic hydrocarbons (PAHs) in mussels (*Modiolus capax*) from sites with increasing anthropogenic impact in La Paz Bay, Gulf of California". *XV National Conference of Malacology. SMMAC. Mérida, Yucatán, México.* 8-11/10/2019.

2019. Roldán-Wong N.T., Borgo de la Rosa P., and Cooke G. "Cephalopod Citizen Science in Mexico and the world: filling information gaps and raising awareness". *XV National Conference of Malacology. SMMAC. Mérida, Yucatán, México.* 8-11/10/2019.

2019. Roldán-Wong N.T. "Cephalopods and humans, an undeniable link". *CICESE, La Paz, México.* 13/09/2019.

2018. Roldán-Wong N.T., Kidd K. A., and Arellano-Martínez M. "Consume octopus species from sites polluted with metals, a risk to human health?". *Cephalopod International Advisory Council Conference. CIAC 2018. St. Petersburg, Florida, USA.* 12-16/11/2018.

2018. Roldán-Wong N.T. "The role of cephalopods in the bioaccumulation and transfer of metals through the food webs". *Cephalopod International Advisory Council Conference. CIAC 2018. St. Petersburg, Florida, USA.* 12-16/11/2018.

2017. Roldán-Wong N.T., Kidd K.A., Shumilin E., Marmolejo-Rodríguez A.J., and Arellano-Martínez M. "Bioaccumulation and biomagnification of metals in the octopus *Octopus hubbsorum* from the Santa Rosalia mining harbour, Gulf of California, México". *Cephs In Action and CIAC Meeting. CRETAquarium, Heraklion, Crete, Greece.* 28-31/03/2017.

AWARDS, GRANTS AND ACHIEVEMENTS

2019. Open Explorer Grant. Science Exploration Education Initiative, National Geographic. Project: "The Secret Lives of Shell Dwelling Octopuses"
(Grant amount: underwater drone Sofar Trident).

2018. Best National Graduate Thesis. National Polytechnic Institute.
(Grant amount: 1600 USD).

2015-2017. Scholarship holder. National Council for Science and Technology.
(Grant amount: 12500 USD).