

Kirt L. Onthank

Curriculum Vitae

Walla Walla University
Department of Biological Sciences
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EDUCATION

<u>Degree</u>	<u>Year</u>	<u>University</u>	<u>Thesis title</u>
Bachelor of Science	2006	Walla Walla College	
Master of Science	2008	Walla Walla University	Aerobic metabolism and dietary ecology of <i>Octopus rubescens</i>
Doctor of Philosophy	2013	Washington State University	Exploring the life histories of cephalopods using stable isotope analysis of an archival tissue

RESEARCH INTERESTS

- Ecological physiology of cephalopods
 - › Relationship between metabolic physiology and prey selection
 - › Nutritional strategies of early life stages
 - › Ontogenetic diet shifts
 - › Inference of migrational history through stable isotopic composition
- Thermoregulation of hydrothermal vent invertebrates
 - › Behavioral thermoregulation of *Paralvinella* and *Lepidonotopodium*
 - › Spatial and temporal variation in hydrothermal vent environments

TEACHING

<u>Course</u>	<u>Terms Taught</u>	<u>School</u>
Anatomy and Physiology Lab	Fall 04, Winter 05, Fall 05, Winter 06, Fall 07 [†] , Winter 08 [†]	Walla Walla University
Mammalian Physiology Lab	Spring 09, Spring 10, Spring 13	Washington State University
Comparative Physiology Lab	Fall 11 [‡]	Washington State University
Human Physiology Lab	Fall 09	Washington State University
Systematic Botany Lab	Spring 07	Walla Walla University
Invertebrate Biology Lab	Fall 10, Fall 12*	Washington State University
General Ecology Lab	Spring 05, Fall 06	Walla Walla University
Natural History of Vertebrates Lab	Winter 07	Walla Walla University
Biostatistics Lab	Spring 06	Walla Walla University
General Biology Lab	Spring 08	Walla Walla University
Introductory Biology Lab	Fall 08, Summer 10, Summer 11, Spring 12, Summer 12	Washington State University

[†]Served as Lab Coordinator with responsibilities including ordering lab materials and mentoring graduate and undergraduate TAs

*Revised and updated lab activities as need and handled procuring all lab organisms and materials

[‡]Contributed to revision of lab manual, will be listed as a co-author on future editions

WORK HISTORY

<u>Employer</u>	<u>Dates</u>	<u>Position</u>
Walla Walla University	2013-Present	Assistant Professor
Washington State University	2008-2013	Graduate Student/Lab Instructor
Walla Walla University	2004-2008	Graduate Student/Lab Instructor
US Forest Service	2004-2008	Biological Technician

PUBLICATIONS, PRESENTATIONS AND THESES

--Peer-reviewed Publications--

- Onthank KL** and Cowles DL (2011) Prey selection in octopuses: Possible roles of energy budgeting and prey nutritional composition. *Marine Biology* 158:2795-2804.
- Onthank KL**, Payne BG, Groeneweg AR, Ewing TJ, Marsh N, Cowles DL and Lee RW. (In prep) Escaping the kraken's grasp: A sponge-scallop mutualism possibly maintained by octopus predation.
- Onthank KL** and Lee RW (in prep) Rare capture of hydrothermal vent-associated octopus reveals surprising information about dietary history. For *Biological Bulletin*
- Onthank KL** and Lee RW (in prep) Ontogenetic diet changes of *Dosidicus gigas* inferred from eye lens growth rings. For *Canadian Journal Fisheries and Aquatic Sciences*
- Robert K, **Onthank KL**, Juniper SK and Lee RW. (2012) Small-scale thermal responses of hydrothermal vent polynoid polychaetes: Preliminary *in situ* experiments and methodological development. *Journal of Experimental Marine Biology and Ecology* 420-421: 69-76.
- Bates AE, Robert K, **Onthank K**, Quinn G, Lee RW (2013) Thermoregulation in the hydrothermal vent sulphide worm: behavioural response to extreme temperature variability. *Journal of Experimental Marine Biology and Ecology* 448:149-155

--Meeting Presentations & Posters--

- Onthank, KL** (2012) Escaping the kraken's grasp: A sponge-scallop association possibly maintained by octopus predation. 2012 Octopus Workshop and Symposium. Seattle, WA
- Onthank KL** and Cowles DL (2008) Energy budgeting in *Octopus rubescens*: Implications for prey choice and trophic ecology. 2008 American Malacological Society annual meeting, Carbondale, IL.
- Onthank KL** and Cowles DL (2008) Metabolic measurements of energy flow through *Octopus rubescens*. 2008 ASLO Ocean Sciences Meeting, Orlando FL.
- Ewing T*, **Onthank KL** and Cowles DL (2008) The effect of octopus predation on a sponge-scallop association. 2008 ASLO Ocean Sciences Meeting, Orlando FL.

*Undergraduate authors

GRANTS, AWARDS AND FELLOWSHIPS

<u>Name</u>	<u>Year</u>	<u>Insitution</u>	<u>Amount</u>
Carl Elling Award	2011	Washington State University	\$ 675
Carl Elling Award	2009	Washington State University	\$2500
Conchologists of America Academic Grant	2009	Conchologists of America	\$2000
Phillip and Neva Ableson Fellowship	2008	Washington State University	\$4000
Graduate Dean's Scholastic Achievement Award	2008	Walla Walla University	\$ 100
Degering Award	2008	Walla Walla University	\$ 870
Donald Rigby Award in Biology	2005	Walla Walla University	\$1800

PROFESSIONAL ACTIVITIES

2002-2004	ASWWC Senate, Finance committee chairman, President pro tempore
2004-2005	ASWWC Executive Vice President
June 2007	Wildflower Hike Leader, Washington Native Plant Society, Botany Washinton 2007
February 13, 2008	Invited Lecture, Washington Native Plant Society, “ <i>Wildflower Diversity of the Northern Blue Mountains</i> ”
November 25, 2008	Invited Lecture, Pasco High School, “ <i>Humboldt Squid, Wolves of the Sea</i> ”
March 8, 2011	Invited Lecture, Walla Walla University, “ <i>New Tools for Inferring Cephalopod Diets</i> ”
July 2011	Instructor: CougarQuest Academic Summer Camp. Workshop: “ <i>Life at the bottom: Investigations under the Sea</i> ”

Reviewer for: Journal of Experimental Marine Biology and Ecology

PROFICIENCIES

Statistical & Graphical Software: R statistical computing environment (esp. GeoR, spatstat, ggplot2 packages), SPSS, Gnuplot, Gnumeric, MS Excel, Graphpad Prism, Inkscape, Scribus.

Phylogenetic Software: PHYLIP, MrBayes, ClustalX & W, Seaview, FastML, NJPlot, TreeviewX.

Image Analysis: ImageJ, Adobe Photoshop.

Geographic Information Systems: ArcGIS, GrassGIS, GlobalMapper.

SUCBA: NAUI Advanced Diver and PADI Rescue Diver certified.

Underwater Scientific Photography: Featured in the following selected scholarly works:

Kurakin, A (2009) Scale-free flow of life: on the biology, economics, and physics of the cell. *Theoretical Biology & Medical Modeling* 6:6

Conservation Working Group, Channel Islands National Marine Sanctuary Advisory Council. (2008) *Ocean Acidification and the Channel Islands National Marine Sanctuary: Cause, effect and response.* Prepared by the Environmental Defense Center, Santa Barbara, California. 42p

Burton, RS (2009) *Assessing Connectivity of Red Sea Urchin Populations Using New Genetic Tools.* UC San Diego: California Sea Grant College Program.

Chiton (2011) *Encyclopædia Britannica.* Encyclopædia Britannica Online. Encyclopædia Britannica

PROFESSIONAL SOCIETY MEMBERSHIPS*

Sigma Xi
American Society of Limnology and Oceanography
American Malacological Society
Western Society of Naturalists

*past and current

CURRENT AND RECENT COLLABORATORS

David L Cowles	Department of Biological Sciences, Walla Walla University, College Place, WA
Raymond W Lee	School of Biological Sciences, Washington State University, Pullman, WA
Amanda E Bates	Institute of Marine and Antarctic Studies, University of Tasmania, Hobart, Tasmania, Australia
Katleen Robert	National Oceanographic Centre, University of Southampton, Southampton, UK
E. Alan Verde	Corning School of Ocean Studies, Maine Maritime Academy, Castine, ME

UNDERGRADUATES SUPERVISED

Walla Walla University

Jeremy Thomas Summer 07, Basic respirometry, SCUBA octopus collection.

Washington State University

Lauren Ruhs Academic year 08-09, Stable isotope sample preparation

Yaneli Martinez Academic years 09-10, 10-11, Stable isotope sample preparation

Miranda Filan Fall 10, Aquarium maintenance, octopus care

Thomas Reeves Fall 10, Underwater camera platform development

Christopher Parker Fall 10, Stable isotope sample preparation

Meaghan Reeves Academic year 10-11, Aquarium maintenance, octopus care