## CURRICULUM VITAE (Updated April 2020)

### Ana M. Aguilar-Islas

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# **PROFESSIONAL EXPERIENCE**

2017-Present	Associate Professor, College of Fisheries and Ocean Sciences, University of Alaska Fairbanks (UAF)
2010-2017	Assistant Professor, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks (UAF)
2007-2010	Postdoctoral Fellow, International Arctic Research Center (IARC), UAF
2001-2007	Graduate Research Assistant, University of California Santa Cruz (UCSC)

## **EDUCATION**

2007	Doctor of Philosophy, Ocean Sciences, University of California Santa Cruz, Santa Cruz, CA
2002	Bachelor of Science (summa cum laude), Chemistry, University of California Santa Cruz, Santa Cruz, CA
1988	Bachelor of Fine Arts (cum laude), Communication Design, University of Illinois at Chicago, Chicago, IL

## **TEACHING EXPERIENCE**

Graduate Courses	Chemical Oceanography (MSL 660/463), UAF, Spring semester (2011 to present) Chemical Coastal Processes (MSL 694/494) UAF, Spring semester (2011 to present) Seminar: The Role of Atmospheric Input in Trace Element Cycles (MSL692) UAF, Spring 2013
	IMS Seminar (MSL692) UAF, Fall 2012 Chemical Oceanography (OCEA 220), UCSC, Winter 2007
Undergraduate Courses	<i>The Oceans (MSL 111X)</i> UAF, Fall 2012- present <i>Marine Science Laboratory (MSL 213)</i> UAF, Spring 2012- present

## SUPERVISION AND MENTORING

Students	Emily Ortega – PhD Chemical Oceanography, UAF, committee chair, 2019 to present Annie Kandel – MS Chemical Oceanography, UAF, committee chair, 2018 to present Channing Bolt – PhD Chemical Oceanography, UAF, committee chair, 2016 to present Vincent Domena – MS Chemical Oceanography, UAF, committee chair, graduation Fall 2017 Megan Roberts – MS Environmental Chemistry, UAF, committee co-chair, graduation Summer 2018
	<u>Committee member to current students</u> : Alexis Walker – PhD Marine Biology; Jeannette Gann – PhD Marine Biology; Katherine Trahanovsky – PhD Oceanography; Brian Ulaski – MS Biological Oceanography, UAF, committee member 2014 to 2017 (degree change) <u>Committee member to graduated students</u> : Ann Riddle – MS Marine Biology; Jessica Turner – MS Oceanography; Faith Stemmler – MA Marine Science; Stacey Reisdorph – Oceanography; Courtney Shuert – MS Marine Biology; John Perreault – MS Geology
Postdocs	Marie Seguret – UAF 2012 to 2014

Marie Seguret – UAF, 2012 to 2014Postdocs

### FUNDING

A. Aguilar-Islas (Co-Investigator), 01/10/17-30/09/22, National Science Foundation, *LTER: Resilience in the Environmental Mosaic of the Northern Gulf of Alaska (NGA) Shelf Ecosystem*. \$1,127,000 per year (PI: R. Hopcroft).

A. Aguilar-Islas (Co-Investigator), 01/09/17-30/08/20, National Science Foundation, *Chemical, Physical and Biological processes linking snow and sea ice to the Arctic Ocean mixed layer: Improving models through the MOSAiC platform*. \$1,312,269 (Principal Investigator: R. Rember).

A. Aguilar-Islas (Co-Investigator), 01/09/16-31/08/19, National Science Foundation, *MRI: Acquisition of a shared MC-ICPMS*. \$581,702 (Principal Investigator: M. Wooler).

A. Aguilar-Islas (Co-Investigator), 28/02/16-28/02/18, North Pacific Research Board, *GOAIERP Synthesis*. \$99,953 (Principal Investigator: R. Hopcroft).

A. Aguilar-Islas (Principal Investigator), 10/01/14-09/30/17, US National Science Foundation, US GEOTRACES Arctic Section: Characterization, Sampling and Analysis of the Sea Ice Environment in the Arctic Ocean. \$609,060 (Co-rincipal Investigator: R. Rember (IARC)).

A. Aguilar-Islas (Co-principal Investigator), 06/01/13-05/31/16, Bureau of Ocean Energy Management (BOEM) through Alaska Coastal Marine Institute, *Distribution and abundance of select trace metals in Chukchi and Beaufort sea ice*. \$262,073 (non-federal match of \$60,990 from IARC, and of \$201,083 from SFOS) (PI: R. Rember (IARC)).

A. Aguilar-Islas (Principal Investigator, IARC component), 04/01/13-03/31/14, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), *JICS: Theme 5: Biogeochemical Observational Studies in the Arctic Ocean.* \$20,600. (Co-principal Investigators: I. Semiletov (IARC), N. Shigeto and T. Kikuchi (JAMSTEC)).

A. Aguilar-Islas (Principal Investigator, UAF component), 12/01/12-11/30/15, US National Science Foundation, *Collaborative Research: GEOTRACES Pacific section: Collection and analysis of atmospheric deposition.* \$299,042. (Co-principal Investigators: W. Landing (FSU), C. Buck (FSU))

A. Aguilar-Islas (Principal Investigator, IARC component), 04/01/12-03/31/13, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), *JICS: Theme 5: Biogeochemical Observational Studies in the Arctic Ocean.* \$31,544. (Co-principal Investigators: I. Semiletov (IARC), N. Shigeto and T. Kikuchi (JAMSTEC)).

A. Aguilar-Islas (Principal Investigator), 06/01/11-01/31/15, North Pacific Research Board, *Iron size classes in the Gulf of Alaska: Effects on productivity and community structure.* \$499,917.

A. Aguilar-Islas (Principal Investigator), 07/01/11-06/30/12, US National Science Foundation, *RAPID: Continuation of US GEOTRACES* North Atlantic Section: The fractional solubility of aerosol iron in seawater. \$15,046.

A. Aguilar-Islas (Principal Investigator, IARC component), 04/01/11-03/31/12, Japan Agency for Marine-Earth Science and Technology, *JICS: Theme 5: Biogeochemical Observational Studies in the Arctic Ocean.* \$28,478, (Co-principal Investigators: I. Semiletov (IARC), N. Shigeto and T. Kikuchi (JAMSTEC)).

A. Aguilar-Islas (Principal Investigator), 09/15/09-08/31/12, US National Science Foundation, US GEOTRACES North Atlantic Section: The fractional solubility of aerosol iron in seawater. \$115,305.

A. Aguilar-Islas (Principal Investigator), 2009, Alaska EPSCoR Early Career Fellowship, *Riverine input of trace metals into the Arctic Ocean: Possible effects of increased river discharge on the coastal ecosystem* \$22,177.

#### FIVE RECENT PEER-REVIEWED PUBLICATIONS

Conway, T.M., Hamilton, D.S., Shelley, R.U., **Aguilar-Islas, A.M.,** Landing, W.M., Mahowald, N.M., John, S.G., 2019. Tracing and constraining anthropogenic aerosol iron fluxes to the North Atlantic Ocean using iron isotopes. *Nature Communications*, 10, DOI: 10.1038/s41467-019-10457-w.

Buck, C.S., **Aguilar-Islas**, A., Marsay, C., Kadko, D., Landing, W.M., 2019. Trace element concentrations, elemental ratios, and enrichment factors observed in aerosol samples collected during the US GEOTRACES eastern Pacific Ocean transect (GP16). *Chemical Geology*, 511, DOI: 10.1016/j.chemgeo.2019.01.002.

Kadko, D., **Aguilar-Islas, A., Bolt, C.,** Buck, C.S., Fitzsimmons, J.N., Jensen, L.T., et al., 2019. The residence times of trace elements determined in the surface Arctic Ocean during the 2015 US Arctic GEOTRACES expedition. *Marine Chemistry*, 208, DOI: 10.1016/j.marchem.2018.10.011

Marsay, C.M., **Aguilar-Islas**, A., Fitzsimmons, J.N., Hatta, M., Jensen, L.T., John, S.G., Kadko, D., Landing, W.M., et al., 2018. Dissolved and particulate trace elements in late summer Arctic melt ponds. *Marine Chemistry*, 204: DOI: 10.1016/j.marchem.2018.06.002.

Yang, L., **Aguilar-Islas**, A., Rember, R., Mester, Z., and others, 2018. Inter-laboratory study for the certification of trace elements in seawater certified reference materials NASS-7 and CASS-6, *Analytical and Bioanalytical Chemistry*, 410, DOI: 10.1007/s00216-018-1102-y

# FIELD EXPERIENCE

June/July 2019	<i>R/V Sikuliaq</i> ; Gulf of Alaska; sample collection for trace metals and nutrients
April 2019	Utqiagvik, Alaska; sea ice sample collection and processing for trace metals and nutrients
April/May 2019	<i>M/V Tiglax;</i> Gulf of Alaska; sample collection for trace metals and nutrients
September 2018	M/V Tiglax; Gulf of Alaska; sample collection for trace metals and nutrients
July 2018	<i>M/V Wolstad</i> ; Gulf of Alaska; sample collection for trace metals and nutrients
April/May 2018	<i>R/V Sikuliaq;</i> Gulf of Alaska; sample collection for trace metals and nutrients
September 2017	<i>M/V. Tiglax;</i> Gulf of Alaska; sample collection for trace metals and nutrients
Aug-Oct 2015	USCGC Healy; Arctic Ocean; collection of trace-metal-clean sea ice, snow and seawater samples
May 2015	Oliktok, Alaska; collection of trace-metal-clean sea ice, snow, and seawater samples
October 2014	<i>R/V Point Sur</i> ; California Coast; NSF Chief Scientist training cruise; Co-Chief Scientist
Aug-Oct 2013	<i>R/V Mirai</i> , Arctic Ocean; collection of trace-metal-clean seawater and snow samples
April-May 2013	<i>M/V Tiglax</i> , Gulf of Alaska; collection of trace-metal-clean seawater samples
April 2013	NOAA Ship Oscar Dyson, North Pacific; collection of trace metal-clean seawater samples
Nov-Dec 2011	<i>R/V Knorr</i> , North Atlantic; aerosol collection and leaching
September 2011	<i>M/V Tiglax</i> , Gulf of Alaska; collection of trace-metal-clean seawater samples
April-May 2011	<i>R/V Thomas G. Thompson</i> ; Gulf of Alaska; trace-metal-clean collection and filtration of seawater
Oct-Nov 2010	<i>R/V Knorr</i> , North Atlantic; aerosol collection and leaching
May 2010	R/V Point Sur, California Coast; on-board dissolved Mn analysis
Nov-Dec 2009	Granite Harbour, Antarctica; trace-metal-clean collection of sea ice, seawater and snow
July 2009	Prudhoe Bay, Alaska; trace-metal-clean collection of river water and snow samples
May 2009	Prudhoe Bay, Alaska; trace-metal-clean collection of river water and snow samples
March 2009	Barrow, Alaska; trace-metal-clean collection of sea ice and snow
August 2008	Copper River, Alaska; trace-metal-clean collection and filtration of river/glacier melt water samples
July 2008	USCG Healy; Bering Sea; trace-metal-clean collection and filtration of seawater samples
June 2008	R/V Knorr; North Atlantic; on-board dissolved Fe analysis
March/April 2008	USCG Healy; Bering Sea; trace-metal-clean collection and filtration of seawater samples
September 2007	R/V Thomas G. Thompson; Gulf of Alaska; aerosol collection and leaching
April-May 2007	USCG Healy; Bering Sea; trace-metal clean collection and filtration of seawater samples
Nov-Dec 2006	R/V Nathaniel B. Palmer; Ross Sea; on-board dissolved Mn analysis
May-June 2006	R/V Wecoma; Columbia River plume; on-board dissolved Mn analysis
Dec 2005/Jan 2006	R/V Nathaniel B. Palmer; Ross Sea; on-board dissolved Mn analysis
August 2005	R/V Wecoma; Columbia River plume; on-board dissolved Mn analysis
May-June 2005	R/V Wecoma; Columbia River plume; on-board dissolved Mn analysis
Oct-Nov 2005	<i>R/V Melville</i> ; North Pacific Gyre; on-board total dissolved Fe analysis
July 2004	R/V Wecoma; Columbia River plume; on-board dissolved Mn analysis
June-July 2004	R/V Point Sur; CA, OR, WA Coasts; on-board dissolved Mn analysis
Aug-Sep 2003	R/V Kilo Moana; Bering Sea; on-board dissolved Mn analysis
Feb 2003	R/V Point Sur; California Coast, on-board dissolved Mn analysis

# **PROFESIONAL MEMBERSHIPS**

2008-present	The Oceanography Society
2004-present	American Geophysical Union
2003-present	American Society of Limnology and Oceanography

# PROFESIONAL SERVICE

Member	International GEOTRACES Intercalibration Committee (2018-present) Arctic Icebreaker Coordinating Committee (2015-present) US GEOTRACES Science Steering Committee (2014-present)
Reviewer	Atmospheric Chemistry and Physics, Continental Shelf Research, Deep Sea Research, Environmental Chemistry, Frontiers in Chemistry, Geochimica et Cosmochimica Acta, Geophysical Research Letters, Journal of Environmental Quality, Journal of Geophysical Research – Oceans, Journal of Oceanography, Limnology and Oceanography Methods, Marine Chemistry, The Oceanography Society
	U.S. National Science Foundation; Australia Antarctic Science Program; Sea Grant California; French National Research Agency (ANR)
Panelist	U.S. National Science Foundation (Chemical Oceanography)
Session Chair	ASLO Aquatic Sciences and Ocean Sciences meetings
Examiner	PhD Thesis outside examiner (Curtin University, Australia; UBC, Canada)

## DEPARTMENTAL AND UNIVERSITY SERVICE

$\begin{array}{l} 2020 - \text{present} \\ 2019 - \text{present} \\ 2019 - \text{present} \\ 2019 - \text{present} \\ 2019 - \text{present} \\ 2018 - 2019 \\ 2017 - 2018 \\ 2016 - \text{present} \\ 2016 - 2018 \\ 2016 - 2018 \\ 2014 - 2016 \\ 2014 - 2016 \\ 2014 - 2016 \\ 2012 - 2016 \\ 2012 - 2016 \\ 2012 - 2014 \\ 2012, 2013 \\ 2013 - 2015 \\ 2012 - 2016 \\ 2011 - \text{present} \end{array}$	UAF Limited Submission Review Committee (member) CFOS Undergraduate Programs Working Group (member) CFOS B.S. F&MS Committee (member) UAF URSA Advisory Board (member) UAF Program Review Faculty Committee (member) CFOS Academic Task Force (member) UAF Provost Search Committee (member) CFOS Ship Committee (member) UAF Faculty Senate (member) UAF Faculty Senate (member) UAF Curricular Affairs Committee (member) SFOS Curriculum Review Committee (Chair) SFOS Academic Working Group (member) UAF Faculty Senate (alternate) SFOS Minor in Marine Science Coordinator SFOS Curriculum Review Committee (member) UAF Graduate School: Ph.D. Oral Comprehensive Exam Outside Examiner SFOS Faculty Search Committee (member) SFOS Comprehensive Exam Committee (member)
2011 - present	SFOS <i>R/V Sikuliaq</i> Ship Committee (member) SFOS Comprehensive Exam Committee (member – Chemical Oceanography)
2010 - 2011	SFOS Search Committee (member) – Oceanography Faculty Hire

# FELLOWSHIPS, SCHOLARSHIPS, HONORS

2015	Excellence in Teaching Award (UAF's Graduate Program in Marine Science and Limnology and Institute of Marine Science)
2010	UAF Faculty Development Travel award (ASLO Aquatic Sciences Meeting. San Juan, Puerto Rico)
2010	NSF's OPP Travel Grant (SCAR Open Science Conference. Buenos Aires, Argentina)
2009	S.T. Lee Young Researcher Travel Award to the Antarctic Research Center, New Zealand
2006	Ida Benson Lynn Graduate Fellow in Ocean Health
2003-2006	NSF Graduate Research Fellowship