

JILDA ALICIA CACCAVO

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ORCID: orcid.org/0000-0002-8172-7855

Gender F | Date of birth January 6th, 1986 | Nationality USA

EDUCATION

Doctorate of Science (Ph.D.) in Ecology

Nov. 2014 - Oct. 2018 University of Padua

Master of Science (M.S.) in Aquatic Biology Sep. 2013 - Sep. 2014

Queen Mary University of London

Master of Science (M.S.) in Biological Sciences Sep. 2009 - Oct. 2012

Rockefeller University

Bachelor of Arts (A.B.) in Neurobiology Sep. 2004 – June 2009

Harvard University

RESEARCH EXPERIENCE

Research Associate

Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research Bremerhaven 27570 Berlin Center for Genomics in Biodiversity Research Berlin 14195, Germany May 2019 - Present

Assessing population structure of Antarctic toothfish to inform management and the establishment of a

Marine Protected Area in the Weddell Sea

Graduate student in the Laboratory of Molecular Ecology

University of Padua Padua 35121, Italy Nov. 2014 - Oct. 2018

Multidisciplinary approaches assessing population structure of Antarctic silverfish in the Southern Ocean

Graduate student in the Benthic Evolutionary and Molecular Ecology group

Institute of Zoology London NW1 4RY, UK Dec. 2013 - Oct. 2014

Using microsatellites to characterize population ecology of sea pens in the North Sea

Graduate student in the Laboratory of Biology of Addictive Diseases

Oct. 2009 - Oct. 2012 Rockefeller University New York, NY 10065, USA

Identifying mechanisms underlying drug escalation behavior in rats

SERVICE EXPERIENCE

Steering Committee

Scientific Committee on Antarctic Research (SCAR) Scientific Research Programme (SRP) -June 2021 - Present Integrated Science to Inform Antarctic and Southern Ocean Conservation (Ant-ICON)

coordinating policy-driven research to conserve and manage Antarctica and the Southern Ocean

Scientific Steering Committee

Southern Ocean Observing System (SOOS) facilitating the collection and delivery of essential July 2020 - Present observations on dynamics and change of Southern Ocean systems to international stakeholders

ex-officio, Executive Committee

Association for Early Career Scientists (APECS) an international and interdisciplinary organization of Oct. 2019 - Present

early career scientists promoting polar research, career development and scientific outreach

Steering Committee

Marine Ecosystem Assessment of the Southern Ocean (MEASO) assessing status and trends of April 2019 - Present

habitats, species and food webs with the aim to provide a common foundation for science and policy

President, Executive Committee

Oct. 2018 - Sep. 2019 Association for Early Career Scientists (APECS)

Vice-President, Executive Committee Oct. 2017 - Sep. 2018

Association for Early Career Scientists (APECS)

FIELD EXPERIENCE

Jan. 2014

The North Sea and Skagerrak aboard the Hakon Møsby research trawl survey vessel In collaboration with The Institute of Marine Research Bergen 5005, Norway Collecting sea pens for genetic analysis and assisting in shrimp, shark and bony fish sampling

PUBLICATIONS

Articles

Caccavo JA, Christiansen H, Constable AJ, Ghigliotti L, Treblico R, Brooks CM, Cotte C, Desvignes T, Dornan T, Jones CD, Koubbi P, Saunders RA, Strobel A, Vacchi M, Van de Putte AP, Walters A, Waluda CM, Woods B, Xavier JC (2021) Productivity and change in fish and squid in the Southern Ocean. Frontiers in Ecology and Evolution. 9:351. https://doi.org/10.3389/fevo.2021.624918

Caccavo JA, Raclot T, Poupart T, Ropert-Coudert Y, Angelier F (2021) Anthropogenic activities are associated with shorter telomeres in chicks of Adélie penguin (*Pygoscelis adeliae*). <u>Polar Biology</u>. 44:1391–1399. https://doi.org/10.1007/s00300-021-02892-7

Brasier MJ, McCormack S, Bax N, **Caccavo JA**, Cavan E, Ericson JA, Figuerola B, Hancock A, Halfter S, Hellessey N, Höfer J, Puskic P, Soares de Oliveira C, Subramaniam R, Wallis J, Weldrick CK (2020) Overcoming the Obstacles Faced by Early Career Researchers in Marine Science: Lessons From the Marine Ecosystem Assessment for the Southern Ocean. <u>Frontiers in Marine Science</u>. 7:692. https://doi.org/10.3389/fmars.2020.00692

Gwenaëlle G, Casado M, Aho K, **Caccavo JA**, Champollion N, Choy E, Connors SL, Dey R, Fernández A, Fugmann G, Höfer J, Jawak S, Lizotte M, Maes S, Mayers K, Mintenbeck K, Mojica JF, Pandit P, Poloczanska E, Rosenbaum P, Seyboth E, Shakil S, van Soest M (2020) What Peer-review Experiences Can Offer To Early Career Scientists And To The Scientific Community. <u>Proceedings of the 5th International Young Earth Scientists (YES) Congress "Rocking Earth's Future" Berlin, Germany 2019</u>), 15. https://doi.org/10.2312/yes19.15

Casado M, Gremion G, Rosenbaum P, **Caccavo JA**, Aho K, Champollion N, Connors S, Dahood A, Fernandez A, Lizotte M, Mintenbeck K, Poloczanska E, Fugmann G (2020) The benefits to climate science of including Early Career Scientists as reviewers. <u>Geoscience Communication</u>. 3:89-97. https://doi.org/10.5194/qc-3-89-2020

Bohleber P, Casado M, Ashworth K, Belcher A, Baker CA, **Caccavo JA**, Jenkins HE, Satterthwaite E, Spolaor A, Winton VHL (2020) Successful Practice in Early Career Networks: Insights from the Polar Sciences. <u>Advances in Geosciences</u>, Special Issue: <u>Diversity and equality in the geosciences</u>. 53, 1–14, 2020. https://doi.org/10.5194/adgeo-53-1-2020

Caccavo JA, Ashford JR, Ryan S, Papetti C, Schröder M, Zane L (2019) Spatial structuring and life history connectivity of Antarctic silverfish along the southern continental shelf of the Weddell Sea. Marine Ecology Progress Series. 624:195-212. https://doi.org/10.3354/meps13017

Caccavo JA, Papetti C, Wetjen M, Knust R, Ashford J, Zane L (2018) Along-shelf connectivity and circumpolar gene flow in Antarctic silverfish (*Pleuragramma antarctica*). <u>Scientific Reports</u>. 8:17856. https://doi.org/10.1038/s41598-018-36030-x

Brooks C, **Caccavo JA**, Ashford J, Dunbar R, Goetz K, La Mesa M, Zane L (2018) Early life history connectivity of Antarctic silverfish (*Pleuragramma antarctica*) in the Ross Sea. <u>Fisheries Oceanography</u>. 00:1-14. https://doi.org/10.1111/fog.12251

Schiavon L, Milan M, Lucassen M, **Caccavo JA**, Paterno M, Boscari E, Marino IAM, Congiu L, Zane L (2018) Genetic variability of the striped venus *Chamelea gallina* in the northern Adriatic Sea. <u>Fisheries Research</u>. 201:68-78. https://doi.org/10.1016/j.fishres.2018.01.006

Caccavo JA, Brooks C, Zane L, Ashford JR (2015) Identification of *Pleuragramma antarctica* larvae in the Ross Sea via mitochondrial DNA. <u>CCAMLR Working Group on Fish Stock Assessment</u>. WG-FSA 15. https://docs.wixstatic.com/ugd/456279_9cdf5aa56ed74d6e9b2e8d75ec3fbb10.pdf

Picetti R, **Caccavo JA**, Ho A, and Kreek MJ (2012) Dose escalation and dose preference in extended access heroin self-administration in Lewis and Fischer rats. <u>Psychopharmacology</u>. 220:163-172. https://doi.org/10.1007/s00213-011-2464-4

Abstracts

Aug. 2020 **Caccavo JA**, Arantes LS, Mazzoni C. A genome reduced-representation approach (3RAD) to understanding the population structure of the Antarctic toothfish in the Weddell Sea and beyond, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (SCAR-OSC), conference moved online.

Aug. 2020 **Caccavo JA**, Ashford J. Midway upon the journey of life: the importance of local and regional hydrography on population connectivity in Antarctic fish, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), conference moved online.

Aug. 2020 Caccavo JA, Ropert-Coudert Y, Poupart T, Raclot T, Angelier F. Anthropogenic activities are associated with shorter telomeres in chicks of Adélie penguin, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (SCAR-OSC), conference moved online.

Aug. 2020 Caccavo JA, Christiansen H, Ghigliotti L, Treblico R, Brooks CM, Desvignes T, Dornan T, Jones CD, Koubbi P, Saunders R, Strobel A, Vacchi M, Van de Putte A, Walters A, Woods B, Xavier J. Marine Ecosystem Assessment for the Southern Ocean (MEASO): Productivity and change in fish and squid in the Southern Ocean, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (SCAR-OSC), conference moved online.

Aug. 2020 Constable C, Bestley S, Braiser M, Caccavo JA, Cavanagh R, Costa D, Grant S, Griffiths H, Gutt J, Henley S, Höfer J, Hofmann E, Hollowed A, Johnston N, McCormack S, Melbourne-Thomas J, Morley S, Muelbert M, Murphy E, Newman L, Pinkerton M, Piñones A, Ropert-Coudert Y, Schloss I, Schofield O, Treblico R, Van de Putte A, Waller C, Weldrick C. Marine Ecosystem Assessment for the Southern Ocean (MEASO): process, outcomes and strategy for delivery by ICED of the first assessment., presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (SCAR-OSC), conference moved online.

Aug. 2020 Cardenas C, Braiser M, McCormack S, Hancock A, **Caccavo JA**, MEASO ECR and APECS community. Opportunities for Early Career Researchers in Antarctic Science, the perspectives and priorities from the Association of Polar Early Career Scientists and the Marine Ecosystem Assessment for the Southern Ocean, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), conference moved online.

Aug. 2020 Di Blasi D, **Caccavo JA**, Seyboth E, Rombola EF, Machado AL, Santos M, Reid K. CCAMLR Scientific Scholarship Scheme: an important tool to involve early career researchers in CCAMLR processes and to build capacity, presented at the 36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), conference moved online.

May 2020 **Caccavo JA**, Mazzoni CJ, Brey T. A multidisciplinary approach to understanding the population structure of an exploited Southern Ocean top predator, the Antarctic toothfish, to improve sustainability and marine spatial planning, presented at European Geosciences Union (<u>EGU</u>) General Assembly, conference moved online.

Dec. 2019 Gremion G, Caccavo JA. The APECS-led IPCC group review: a launching pad for Early Career Researchers into peer review, presented at COP25, Madrid, Spain.

June 2019 **Caccavo JA**, Ashford JR, Ryan S, Papetti C, Schröder M, Zane L. An integrated approach to test spatially-based population structure and life history connectivity of Antarctic silverfish (*Pleuragramma antarctica*) in the southern Weddell Sea, presented at the Integrated Marine Biosphere Research Open Science Conference (<u>IMBeR OSC</u>), Brest, France.

Dec. 2018 Casado M, Caccavo JA, Gremion G. The benefits to climate science of including Early Career Scientists as reviewers, presented at COP24, Katowice, Poland.

June 2018 **Caccavo JA**, Boutoute M, Kohlbach D, Flores H, Mayzaud P. Lipid dynamics and trophic patterns of Antarctic silverfish in the Weddell Sea, presented at that 35th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), Davos, Switzerland.

June 2018 **Caccavo JA**, Raclot T, Poupart T, Ropert-Coudert Y, Angelier F. Adélie penguin telomeres: eco-indicators of environmental stress? presented at that 35th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), Davos, Switzerland.

June 2018 **Caccavo JA**, Thornton AE, Holloway J, Bradley A, Hindshaw R, Tummon F, Fugmann G, Early Career engagement bridges polar boundaries: a case study from Horizon 2020, presented at that 35th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), Davos, Switzerland.

July 2017 **Caccavo JA**, Ashford J, Papetti C, Zane L. Testing spatially-based population structure and life history connectivity of *Pleuragramma antarctica* in the Southeast Weddell Sea, presented at the 12th Scientific Committee on Antarctic Research (<u>SCAR</u>) Biology Symposium, Leuven, Belgium.

June 2017 **Caccavo JA**, Ashford J, Papetti C, Zane L. Population connectivity and ecological dynamics of *Pleuragramma antarctica*, presented at the 13th International Student Meeting: Ecology and Behaviour, Chizé, France.

Aug. 2016 **Caccavo JA**, Papetti C, Zane L. Population genetic structure of *Pleuragramma antarctica* across the Weddell Sea, presented at the 34th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), Kuala Lumpur, Malaysia.

Aug. 2016 Brooks C, **Caccavo JA**, Goetz K, Zane L, Ashford JA, La Mesa, M. *Pleuragramma antarcticum* distribution in the Ross Sea: patterns of early life history and evidence of new nursery grounds presented jointly with Brooks, C. at the 34th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (<u>SCAR-OSC</u>), Kuala Lumpur, Malaysia.

July 2016 Caccavo JA, Papetti C, Zane L. Population structure of *Pleuragramma antarctica* in the Ross Sea, presented at the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Working Group on Ecosystem Monitoring and Management (WG-EMM) 2016, Symposium on the Ross Sea Ecosystem, Bologna, Italy.

INVITED TALKS

Jan. 2021

Aug. 2020

Institute Pierre-Simon Laplace (<u>IPSL</u>), Marine biogeochemistry, ecosystems and resources theme seminar series.

Sep. 2021 Climate genomics – the next generation of quantifying and predicting climate change impacts on species and ecosystems.

The French National Museum of Natural History (MNHN) Institute of Systematics, Evolution and Biodiversity (ISYEB, UMR 7205) seminar series.

Jan. 2021 Biodiversity (ISYEB, UMR 7205) semi Conservation genomics in Antarctic fish.

<u>MNHN</u> Laboratory of Biology of Aquatic Organisms and Ecosystems (<u>BOREA</u>) Program of Ecosystem Observations of Antarctica Fisheries (<u>POEPA</u>)

Population dynamics of Antarctic toothfish: management implications.

SESSIONS CONVENED

36th Biennial Meetings and Scientific Committee on Antarctic Research Open Science Conference (SCAR-OSC) conference moved online.

Co-convener with Mark Belchier of Session 22: The Role of Fish in the Southern Ocean

STUDENTS SUPERVISED

Teresa Britz

Master's student in Analytical Chemistry and Quality Assurance at the University of Applied Sciences Bonn-Rhein-Sieg

Mar. 2020 – Oct. 2020

Bonn-Rhein-Sieg

Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research Bremerhaven 27570

Optimizing the analysis of trace elements in Antarctic toothfish otolith microstructures

Giulia Trauzzi

Nov. 2017 Master's student in Marine Biology at Marche Polytechnic University

University of Padua Padua 35121

Using DNA barcoding to distinguish between species of smooth-hound sharks

TEACHING EXPERIENCE

Master's Course in Bioinformatics at the Free University of Berlin

Jun. 2021 Core Module: Biodiversity and Evolution, Lecture on Population Genomics

REVIEWER EXPERIENCE

Communications Biology

Frontiers in Marine Science

Journal of the Marine Biological Association of the United Kingdom

Limnology and Oceanography

Marine Policy

Nature Climate Change

MEDIA ENGAGEMENT

Jan. 2021 - Present

American Fisheries Society (AFS) Climate Ambassadors Program

A specialized communication skills training program that focuses on climate change

Oct. 2020

Polar Times podcast

Science and stories from literally the coolest places on the planet!

GRANTS AND AWARDS

Oct. 2021 Postdoctoral fellowship (valued at approximately \$100000) from the Institut Pierre-Simon Laplace (IPSL) Science Theme "Marine biogeochemistry, ecology, and resources".

Nov. 2019 <u>CCAMLR Scientific Scholarship</u> of \$25000 to cover expenses for participation in CCAMLR related events.

Mar. 2019 <u>Humboldt Research Fellowship</u> for Postdoctoral Researchers (valued at approximately €85000) from the Alexander von Humboldt Foundation.

Nov. 2018 Mini-grant of \$910 from <u>SCAR ANTERA</u> to complete research project at the Laboratoire d'Océanographie de Villefranche-sur-Mer.

May 2018 Travel Funding of \$750 from SCAR AntEco to attend POLAR2018 conference.

Oct. 2016 Erasmus+ Fellowship of €1440 for pursuit of research at the Centre d'Etudes Biologiques de Chizé.

Aug. 2016 SCAR Fellowship of \$13000 for pursuit of research at the Laboratoire d'Océanographie de Villefranche-sur-Mer.

May 2016 Antarctic Science Bursary of £4305 for pursuit of research at Old Dominion University, Center for Quantitative Fisheries Ecology and Woods Hole Oceanographic Institution.

THESES

DOCTORAL THESIS <u>Population structure</u>, <u>connectivity and ecological dynamics of the Antarctic silverfish</u>, <u>Pleuragramma antarctica</u>. Accepted June 2018.

Grade: Cum laude

Research conducted at The University of Padua, Old Dominion University, Virginia and the Laboratoire d'Océanographie de Villefranche-sur-Mer

MASTER THESIS Canary in the coalmine: genetic structure and ecological significance of the tall sea pen Funiculina quadrangularis in the North Sea and Skagerrak. Accepted Sep. 2014.

Grade: Distinction

Research conducted at The Institute of Zoology, London and The Institute of Marine Research, Bergen

UNDERGRADUATE SENIOR THESIS Stress Hormone Modulation of Synaptic Plasticity in the

Amygdala. Accepted May 2009. Grade: *Magna cum laude*

Research conducted at The Rockefeller University, New York

LANGUAGES

Mother tongue

English

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	•	Spoken production	
Italian	C1	C1	C1	C1	C1
	External coursework and independent study				
French	B2	B2	B2	B2	B2
	External coursework and independent study				
German	B1	B1	B1	B1	B1
	External coursework and independent study				
Japanese	A2	A2	A2	A2	A2
	External coursework and independent study				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user Common European Framework of Reference for Languages

OTHER EXPERIENCE					
	English Instructor				
Jan. 2015 – Mar. 2016	British Institute Padua 35129, Italy				
Feb. 2014 – June 2014	Yoga Instructor				
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Oct. 2013 – Dec. 2013	Bartender				
	Lost Society London SW8 3JF, UK				
May 2012 - July 2013	Yoga Instructor Yo Yoga! New York, NY 10022, USA				
	Bartender and Ordering Manager				
Nov. 2011 – July 2013	Trash Bar Brooklyn, NY 11211, USA				
Aug. 2007 – July 2013	Adoption representative, photographer				
Aug. 2007 – July 2013	KittyKind a non-profit, cat rescue and adoption group, New York, NY 10003, USA				
Oct. 2011 – July 2013	Yoga Instructor				
, , , , , , , , , , , , , , , , , , , ,	David Barton Gym New York, NY 10028, USA				
QUALIFICATIONS AND					
CERTIFICATIONS					
May 2013	500 Hour Yoga Alliance Registered Teaching Certification				
Way 2013	Aarsha Yoga Vidya Peetham – Kerala, India				
July 2012	PADI Advanced Open Water Dive Certification				
	Scuba Fun Dive Center – Sint Maarten, Netherlands Antilles				
Oct. 2011	Certificate of Completion of beverage mixing and service American Bartenders School – New York NY LISA				

American Bartenders School – New York, NY, USA **200 Hour Yoga Alliance Registered Teaching Certification**

Yoga to the People – New York, NY, USA

Aug. 2011