

Education & Profession

Postdoctoral Researcher – University of New South Wales, Sydney, Australia	2022 - Now
Founder and Program Director – Kelp Forest Alliance, Sydney, Australia	2022 - Now
Doctor of Philosophy – University of New South Wales, Sydney, Australia	2018 – 2022
Master of Science – University of Victoria (UVic), Victoria, Canada	2015 – 2018
Bachelor of Science (Honours) – McGill University, Montreal, Canada	2010 – 2014

Summary

Aaron’s research connects information and people to benefit ocean ecosystems and local communities. His record is well demonstrated by his publications, project outputs, professional networks, and innovative solutions to the problems facing the sustainability of our oceans. His research is co-developed with the end user in mind and has been applied in 13 countries around the world, featured at the United Nations, COP28, and Google Australia. He has published 20 peer-reviewed articles and key reports with 245 other researchers, including in top journals such as Nature Communications, One Earth, Current Biology, and Biological Reviews. This work has accumulated 675 citations, an h-index of 11, and an i-10 index of 13 as of September 2024, less than two years from finishing his PhD.

The uptake and application of his research is reflected in the funding he has secured, \$1,250,250 in direct funding and \$390,000 in in-kind funding. This grant money and support has come from key end users: the Nature Conservancy (the world’s largest environmental NGO), Google Australia, Australia’s Commonwealth Department of Foreign Affairs and Trade, the Department of Primary Industries for NSW, and private philanthropists.

In recognition of his work, Aaron was the recipient of the inaugural “Mario Ruvio Early Career Award” from the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization.

Impacts

State of the World’s Kelp Report (2024): Lead editor and author of five chapters, detailing the status of global kelp forests, including threatened areas, restoration efforts, and protection measures. The report will debut at the Convention on Biological Diversity COP16 in Cali, Colombia.

Site Selection Framework (2024): Currently leading a team of 17 kelp experts from seven countries to create an effective and ethical framework for kelp forest restoration, integrating ecology, governance, Indigenous stakeholders, logistics, and oceanography.

[Roadmap for Scaling Kelp Conservation](#) (2023): Lead author of a roadmap, collaboratively

developed with 78 authors, outlining barriers and steps to increase global kelp habitat protection and restoration. Showcased at COP28 in Dubai.

Kelp Forest Challenge (2023): Led the development of an international goal to protect and restore 4 million hectares of kelp forest by 2040, consulting with 240 people across 11 international workshops, supported by global partners including Google Australia, The Nature Conservancy, and the International Union for the Conservation of Nature.

The Kelp Forest Alliance (2022): Founder and Director of the Kelp Forest Alliance, a research-driven nonprofit that consolidates information, provides technical and policy guidance in kelp restoration, and fosters a community of over 550 members from 25 countries.

Kelp Restoration Guidebook (2022): Lead author of the first comprehensive guidebook on kelp restoration, coordinating 46 co-authors and hosting workshops on all continents except Antarctica. The guidebook has been downloaded over 5,000 times as of September 2024.

Kelp Restoration Database (2022): Created an online, user-friendly kelp restoration project database, displaying outcomes and metadata of global kelp restoration projects, with a platform for users to contribute new information.

Marine Restoration Monitoring Guidelines (2021-2024): Led the development of standardized monitoring and reporting guidelines for marine restoration projects by hosting a workshop in collaboration with The Nature Conservancy at the 6th International Marine Conservation Congress in Kiel, Germany. The guidelines will be published as a guidebook and online resource.

United Nations Environment Program (UNEP) Report (2022): Lead author of the kelp restoration chapter in the UNEP kelp forest summary document, providing an authoritative global summary of kelp forests.

Kelp Forest Restoration Typology (2022): Led the International Union for the Conservation of Nature working group to establish a typology of kelp restoration activities, determining which qualify for restoration credits, nationally determined contributions, and restoration targets.

Awards and Funding

Total Funding: \$1,250,250

1 / Kelp Forest Alliance: Fundraising, 756,550	2022-2024
2 / Scientia PhD Fellowship: University of New South Wales, 385,000	2018-2022
3 / Industrial Partnership Scholarship: NSERC Canada, 42,000	2015-2017

- 4 / **International Relations Program:** Australian Dept of Foreign Affairs, 39,700 2021
- 5 / **Dr. Arne H. Lane Graduate Fellowships:** UVic, 8,150 2017
- 6 / **NSW Research Acceleration Program:** Department of Primary Industries, 5,500 2020
- 7 / **King Platt Memorial Award:** UVic, 3,000 2017
- 8 / **Research Grant:** Oatley Flora and Fauna Conservation Society, 2,000 2021
- 9 / **Post Graduate Research Grant:** Global Ocean Accounts Partnership, 2,000 2021
- 10 / **Faculty of Graduate Studies Travel Award:** UVic, 4,500 2015, 2016, 2017
- 11 / **Heinle Award for Best Talk:** Pacific Estuarine Research Symposium, 750 2016, 2017
- 12 / **Skills Transfer Award:** Ecology and Evolution Research Center, 500 2020
- 13 / **Best Presentation:** Center for Marine Sci & Innovation Annual Review, 600 2020, 2021
- 14 / **Koonamore Student Award:** Society of Ecological Restoration Australia 2021
- 15 / **Mario Ruivo Memorial Early Career Award:** United Nations Intergovernmental Oceanographic Commission 2023

Publications and Outputs

1 / **Eger, A. M.**, Marzinelli, E. M., Beas-Luna, R., Blain, C. O., Blamey, L. K., Byrnes, J. E. K., Carnell, P. E., Choi, C. G., Hessing-Lewis, M., & Kim, K. Y. (2023). The value of ecosystem services in global marine kelp forests. *Nature Communications*, 14(1), 1894.

2 / **Eger, A. M.**, Marzinelli, E. M., Christie, H., Fagerli, C. W., Fujita, D., Gonzalez, A. P., Hong, S. W., Kim, J. H., Lee, L. C., & McHugh, T. A. (2022). Global kelp forest restoration: Past lessons, present status, and future directions. *Biological Reviews*, 97(4), 1449-1475.

3 / **Eger, A. M.**, Eddy, N., Gleason, M., Layton, C., McHugh, T., Steinberg, P., & Vergés, A. (2022). The Kelp Forest Alliance: A global community of practice to understand, advise, and motivate kelp forest conservation and restoration. *Limnology and Oceanography*, 31, 130-132.

4 / **Eger, A. M.**, Layton, C., McHugh, T. A., Gleason, M., & Eddy, N. (2022). Kelp restoration guidebook: Lessons learned from kelp projects around the world. In J. Caselle & B. DeAngelis (Eds.). **Report**.

5 / **Eger, A. M.**, & Baum, J. K. (2020). Trophic cascades and connectivity in coastal benthic marine ecosystems: A meta-analysis of experimental and observational research. *Marine Ecology Progress Series*, 656, 139-152.

6 / **Eger, A. M.**, Earp, H. S., Friedman, K., Gatt, Y., Hagger, V., Hancock, B., Kaewsrikhaw, R., McLeod, E., Moore, A. M., & Niner, H. J. (2022). The need, opportunities, and challenges for creating a standardized framework for marine restoration monitoring and reporting. *Biological Conservation*, 266, 109429.

7 / **Eger, A.**, Aguirre, J. D., Altamirano, M., Arafeh-Dalmau, N., Arroyo, N. L., Bauer-Civiello, A. M., Beas-Luna, R., Bekkby, T., Bellgrove, A., & Bennett, S. (2024). The Kelp Forest Challenge: A collaborative global movement to protect and restore 4 million hectares of kelp forests. *Journal of Applied Phycology*, 36(2), 951-964.

8 / **Eger, A. M.**, Vergés, A., Choi, C. G., Christie, H., Coleman, M. A., Fagerli, C. W., Fujita, D., Hasegawa, M., Kim, J. H., & Mayer-Pinto, M. (2020). Financial and institutional support are important for large-scale kelp forest restoration. *Frontiers in Marine Science*, 7, 535277.

9 / **Eger, A. M.**, Marzinelli, E., Gribben, P., Johnson, C. R., Layton, C., Steinberg, P. D., Wood, G., Silliman, B. R., & Vergés, A. (2020). Playing to the positives: Using synergies to enhance kelp forest restoration. *Frontiers in Marine Science*, 7, 544.

10 / **Eger, A. M.**, Marzinelli, E. M., Steinberg, P., & Vergés, A. (2020). Worldwide synthesis of kelp forest reforestation. doi.org/10.17605/OSF.IO/5BGTW. **Dataset**.

11 / **Eger, A. M.**, Curtis, J. M. R., Fortin, M.-J., Côté, I. M., & Guichard, F. (2016). Transferability and scalability of species distribution models: A test with sedentary marine invertebrates. *Canadian Journal of Fisheries and Aquatic Sciences*, 74(5), 766-778.

12 / **Eger, A. M.**, Best, R. J., & Baum, J. K. (2021). Dominance determines fish community biomass in a temperate seagrass ecosystem. *Ecology and Evolution*, 11(15), 10489-10501.

13 / Iacarella, J. C., Adamczyk, E., Bowen, D., Chalifour, L., **Eger, A.**, Heath, W., Helms, S., Hensing-Lewis, M., Hunt, B. P. V., & MacInnis, A. (2018). Anthropogenic disturbance homogenizes seagrass fish communities. *Global Change Biology*, 24(5), 1904-1918.

14 / Vergés, A., Campbell, A. H., Wood, G., Kajlich, L., **Eger, A. M.**, Cruz, D., Langley, M., Bolton, D., Coleman, M. A., & Turpin, J. (2020). Operation Crayweed: Ecological and sociocultural aspects of restoring Sydney's underwater forests. *Ecological Management & Restoration*, 21(2), 74-85.

15 / Saunders, M. I., Doropoulos, C., Bayraktarov, E., Babcock, R. C., Gorman, D., **Eger, A. M.**, Vozzo, M. L., Gillies, C. L., Vanderklift, M. A., & Steven, A. D. L. (2020). Bright spots in coastal marine ecosystem restoration. *Current Biology*, 30(24), R1500-R1510.

16 / Ward-Paige, C. A., White, E. R., Madin, E. M. P., Osgood, G. J., Bailes, L. K., Bateman, R. L., Belonje, E., Burns, K. V., Cullain, N., Darbyshire-Jenkins, P., de Waegh, R. S., **Eger, A. M.** ... & Yamb, B. (2022). A framework for mapping and monitoring human-ocean interactions in near real-time during COVID-19 and beyond. *Marine Policy*, 140, 105054.

17 / Webster, M. M., Twohey, B., Alagona, P. S., Arafeh-Dalmau, N., Colton, M. A., **Eger, A. M.**, Miller, S. N., Pecl, G. T., Scheffers, B. R., & Snyder, R. (2023). Assisting adaptation in a changing world. *Frontiers in Environmental Science*, 11, 1232374.

18 / Zimmerhackel, J., Piñeiro-Corbeira, C., Norderhaug, K. M., Filbee-Dexter, K., ... **Eger, A. M.**, ... S., Vergés, A., & Weigel, B. (2024). Dependency of commercial fisheries on kelp forests for valuation of ecosystem services. **Preprint**

19 / Purandare, J., de Sousa de Saboya, R., Bayraktarov, E., Boström-Einarsson, L., Carnell, P. E., **Eger, A. M.**, Le Port, A., Macreadie, P. I., Reeves, S. E., & van Kampen, P. (2024). Database for marine and coastal restoration projects in Australia and New Zealand. *Ecological Management & Restoration*, 25(1), 14-20.

20 / Gatt, Y. M., Walton, R. W., Andradi-Brown, D. A., Spalding, M. D., ... **Eger, A. M.**, ... Acosta-Velázquez, J., Adame, M. F., Barros, F., Beeston, M. A., Bernardino, A. F., Buelow, C. A., et al. (2024). The Mangrove Restoration Tracker Tool: Meeting local practitioner needs and tracking progress towards global targets. *One Earth*, November 2024.

Supervision Experience

- 1 / Mohammad Sedarat, PhD Candidate, Scripps Institute of Oceanography (June 2023 – Present) *Advisor*
- 2 / Alison Boutros, master's Student, University of California Santa Cruz (January 2023 – December 2024) *Advisor*
- 3 / Amelia Brown, research assistant, UNSW (June 2023 – April 2024) *Supervisor*
- 4 / Sharon Chan, research assistant, UNSW (June 2023 – April 2024) *Supervisor*
- 5 / Emma Melis, research assistant, UNSW (April 2020 – February 2021) *Supervisor*
- 6 / Jessica Nguyen, directed study student, UNSW (April 2020 – February 2021) *Supervisor*
- 7 / Molly French, research assistant, UNSW (June 2020 – December 2020) *Supervisor*
- 8 / Clayton Mead, honours Student, UNSW (February 2020 – December 2020) *Supervisor*
- 9 / Haley Robb, directed studies student, University of Victoria (Sept. 2016 – April 2017) *Supervisor*
- 10 / Tella Osler, Quinn Lowen, Sarah Friesen, field assistants, University of Victoria (May – Sept. 2016) *Supervisor*

Teaching Experience

Teaching Assistant

Marine & Aquatic Ecology (BIOS2091), UNSW, Australia 2019,2024
Marked student's assignments, prepared tutorial materials, and assisted in the tutorials.

Directed Studies in Marine Sci (MRNE 400), Bamfield Marine Sci Center, Canada 2017

Worked closely with 24 students and guided them in planning, conducting, reporting, and writing their research projects, an integral component of a 4 month long directed studies research course taught at a remote field station. In addition, supervised field work and taught classes on scientific communication.

Conservation Biology (BIOL 370), University of Victoria, Canada 2015, 2017
Developed course materials, taught tutorials, presented guest lectures, handled marking and office hours for a third-year conservation biology course.

Service Roles

Board Member: Society for Ecological Restoration of Australasia	2022 – 2026
Curator: Kelp Forest Photo Awards	2023 - 2024
Observer: United Nations Framework Convention on Climate Change	2023
Guest Editor: Journal of Applied Phycology	2023
Director: Society for Ecological Restoration Film Festival	2022 - 2023
Consultant: Ocean Wise	2022 – 2024
Consultant: EnviroStrat	2022 – 2024
Delegate: United Nations Ocean Conference	2022
Student representative: UNSW Science Sustainability Committee	2020 – 2021
Postgraduate Committee Chair: Center for Marine Science and Innovation	2019 – 2021
Committee Lead: Uni of New South Wales Climate Change Network	2019 – 2021

Communications

Aaron is a media-trained communicator and ensures that the outcomes and significance of his research is communicated to other professionals, other sectors, and the public. His communication experience includes:

1 / Twenty-six (26) presentations at professional conferences on every continent, ranging from scientific societies to the United Nations.

2 / Twenty-one (21) media interviews, composed of 9 radio interviews, 6 print news, 3 films, 2 podcasts, and 1 national tv broadcast.

- [9 News](#)
- [Seaweed People Podcast](#)
- [RRR Radio Melbourne](#)
- [Korean News Network](#)

3 / Extensive news coverage of research and outputs, including a minimum of 36 published press articles.

- [The Guardian 1](#), [The Guardian 2](#)
- [Vox](#)
- [Phys.org](#)
- [Canadian Broadcasting Corporation](#)
- [New Scientist](#)
- [Bloomberg News](#)
- [Yahoo News](#)

4 / Led or co-led fifteen (15) workshops to conduct collaborative research or collectively answer questions.

- The Kelp Forest Challenge: a shared vision for saving our kelp forests. November 2022 – February 2023, 9 online workshops, 250 participants, *Lead*
- Creating a Global Roadmap for Scaling up Kelp Forest Conservation. February 19th, 2023, Hobart, Australia, 44 in person, 25 online participants, *Lead*
- Creating a Kelp Restoration Typology, 3 workshops August 2023, Online, 12 participants, *Lead*
- Kelp Restoration Knowledge Exchange Between Australia and Korea, May 27th, 2021, Online, 12 participants, *Lead*
- Monitoring and Reporting Frameworks for Marine Restoration, August 26th, 2020, Online, 16 participants, *Lead*
- Effective and ethical site selection for kelp forest restoration, March 2024, April 2025, August 2025, Santa Barbara, California, 29 participants, *Lead*

5 / Led or co-led of four (4) scientific symposia at conferences.

6 / Public communication at events such as the [Festival of Dangerous Ideas](#), Google Meets Parliament, and the [Ocean Lovers Festival](#).

7 / Co-director of “[Gardening Marine Forests](#)” a ten-time film festival finalist and three-time winner short film exploring the philosophy of kelp forest restoration.

Talks

1 / 30th Reunión Anual Sociedad de Ecología de Chile, La Serena, Chile, November 5, 2024, Talk

2 / Conference of Parties Convention on Biological Diversity 16, Cali, Colombia, October 27, 2024, Talk

3 / International Marine Conservation Congress 2024, Cape Town, South Africa, October 15, 2024, Talk

- 4 / Australian Coastal Restoration Network 2024, Sydney, Australia, May 28, 2024, Talk
- 5 / Asia Pacific Phycological Forum, Sapporo, Japan, April 15, 2024, Talk
- 6 / Climate-Informed Ecosystem Restoration, Santa Cruz, USA, March 27, 2024, Talk
- 7 / Google Giant Kelp Outreach, Hobart, Australia, February 22, 2024, Outreach
- 8 / Eastern Pacific Kelp Network 2024, Virtual, January 24, 2024, Talk
- 9 / 28th Conference of Parties, Dubai, UAE, December 12, 2023, Talk
- 10 / Society Ecological Restoration World Forum 2023, Darwin, Australia, September 30, 2023, Talk
- 11 / Society Ecological Restoration World Forum 2023, Darwin, Australia, September 29, 2023, Talk
- 12 / Society Ecological Restoration World Forum 2023, Darwin, Australia, September 27, 2023, Panel
- 13 / Oatley Flora Fauna Annual Meeting, Online, Online, August 20, 2023, Outreach
- 14 / General Assembly UN Intergovernmental Oceanographic Commission, Paris, France, June 21, 2023, Outreach
- 15 / Australian Coastal Restoration Network 2023, Townsville, Australia, May 18, 2023, Talk
- 16 / Blue + Green Symposium, Los Angeles/Online, USA/Online, April 14, 2023, Panel
- 17 / Ocean Lovers Festival, Bondi, Australia, March 18, 2023, Outreach
- 18 / International Seaweed Symposium 2023, Hobart, Australia, February 20, 2023, Talk
- 19 / International Temperate Reef Symposium 2023, Hobart, Australia, January 26, 2023, Talk
- 20 / Eastern Pacific Kelp Network 2023, Online, Online, January 15, 2023, Talk
- 21 / Festival of Dangerous Ideas, Sydney, Australia, September 17, 2022, Outreach
- 22 / impact X Summit 2023, Sydney, Australia, September 11, 2022, Panel

23 / National Science Week - Regenerating Australia, Sydney, Australia, August 18, 2022, Panel

24 / United Nations Ocean Conference 2022, Lisbon, Portugal, June 28, 2022, Talk

25 / Society for Ecological Restoration Australia 2021, Darwin, Australia, November 05, 2021, Talk

26 / Western Society of Naturalists 2020, Online, Online, November 11, 2020, Talk

27 / International Marine Conservation Congress 2020, Online, Online, August 28, 2020, Talk

28 / Australian Marine Science Association 2020, Online, Online, June 28, 2020, Talk

29 / International Temperate Reef Symposium 2019, Hong Kong, China, September 01, 2019, Talk

30 / International Congress for Conservation Biology 2019, Kuala Lumpur, Malaysia, May 23, 2019, Talk

31 / Ecological Society of America, Portland, USA, October 08, 2017, Talk

32 / International Congress for Conservation Biology 2017, Cartagena, Colombia, July 26, 2017, Talk

33 / Canadian Society for Ecology and Evolution 2017, Victoria, Canada, April 30, 2017, Talk

34 / Pacific Estuarine Research Society 2017, Washington, USA, March 16, 2017, Talk

35 / Vancouver Aquarium Seminar Series, Prince Rupert, Canada, September 18, 2015, Outreach

36 / Pacific Estuarine Research Society 2015, Squamish, Canada, March 20, 2015, Talk