

Curriculum Vitae and List of Publications

A. Curriculum Vitae – Gal Eyal

1. Personal Data

Identity Number: 036333524

Place of Birth: Israel

Date of Birth: 25/07/1979

Family Status: +3

Nationality: Israeli & Australian

Work Address: Room 101, Level 1, Building 201, Bar-Ilan University, Ramat Gan 5290002, Israel

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Army Service: Yes

2. Education, Certificates and Degrees, Post-Doctorate

From-To	Institute	Area of Specialty	Degree
2005-2008	Ruppin Academic Centre	Maritime studies	BSc
2010-2012	Tel Aviv University	Zoology	MSc
2012-2017	Tel Aviv University	Ecology	PhD

Doctoral thesis: *Ecology and physiology of mesophotic scleractinian corals at Eilat (northern Red Sea).*

Advisor: Prof. Yossi Loya

Post-Doctorate titles: 1. *Sustainable Urban Seascapes in Moreton Bay – Biodiversity & Ecosystem Dynamics*; 2. *Past and present mesophotic coral ecosystems as a predictor for survival of coral reefs in an era of climate change.*

Post-Doctoral Advisor: Prof. John M. Pandolfi

3. Positions Held:

From-To	Institute	Research Area	Title
2023-present	Faculty of Life Sciences, Bar-Ilan University, Ramat Gan, ISRAEL.	Marine Ecosystem Dynamics	Senior Lecturer
2024-present	Mediterranean Sea Research Center of Israel (MERCi).	Israel Marine research and conservation activity	Member in the BOD and Academic Committee
2023-2029	School of the Environment, The University of Queensland, Brisbane, AUSTRALIA.	Palaeoecology; Marine biology	Honorary/Adjunct Senior Research Fellow (Level C)

2018-2022	Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies.	Marine palaeoecology	Affiliated Researcher
2016-present	International Coral Reef Society	Coral Reefs	Conservation Committee Member

4. Academic Administrative Positions Held in the University

From-To	Institute	Position
2024-present	Faculty of Life Sciences, Bar-Ilan University	PALTAM Committee Member
2025-present	Faculty of Life Sciences, Bar-Ilan University	Events & Hosting Committee Member
2023-present	Interdisciplinary school of sustainability and environment	Researcher
2023-present	Interdisciplinary school of energy and sustainability	Researcher

5. Public Scientific Activities outside the University

From-To	Type of Activity
2026	Public lecture for stakeholders and locals of Eilat about "Deep-Sea in the Red Sea"
2025	Academic workshop on the Red Sea for the National Planning Committee (Southern District), in collaboration with the Society for the Protection of Nature in Israel and the Israel Nature and Parks Authority
2025	Public lecture for Ratio Energies Ltd on the development of marine robotics for research
2024-2025	Mentoring three groups of children on robotics projects as part of a national initiative for elementary school students
June-July 2024	Mentor and host in Israel Experience Onward – Ithai Dvir internship Jewish Agency for Israel

6. Participation in National and International Scientific Conferences

Conference	Place and Date	Title
16th International Coral Reefs Symposium (ICRS2026)	Auckland, New Zealand July 2026	Beyond Refugia: Predictability, Unpredictability, and Coral Persistence from High-Latitude Shallows to Mesophotic Depths (full talk)
16th International Coral Reefs Symposium (ICRS2026)	Auckland, New Zealand July 2026	Lead chair of session 132 - Management and conservation of mesophotic ecosystems

Conference	Place and Date	Title
Faculty seminar	Eilat, the Interuniversity Institute (IUI) April 2026	Temporal dynamics along depth gradients (Invited faculty seminar)
European Coral Reefs Symposium (ECRS2024)	Naples, Italy. July 2024	Historical and contemporary evaluation of Eilat's mesophotic coral ecosystems (full talk)
Faculty seminar	University of Haifa. May 2024	Temporal dynamics in marginal marine ecosystems (Invited faculty seminar)
Gordon Research Conference - Mesophotic Coral Ecosystems	Venture, CA, USA Feb 2023	Invited Discussion Leader

7. Funding Sources

Period	Funding Agency	Title	Amount
2025-2028	רשות מקרקעי ישראל - הקרן לשמירה על שטחים פתוחים	סקרים אקולוגיים בקניונים העמוקים במפרץ אילת	330,000NIS
2025-2029	VATAT marine centre consortia	WP4 leader - Marine Biodiversity Ecological Dynamics: Secrets of the Mediterranean and Red Sea	840,000NIS
2026-2027	Multi-Omics Center Subsidy Program 2026	How reef-building corals age?	35,000NIS
2026-2027	BIU AI Convergence	Recovering Structured Meaning from Low-Coherence Narratives: An AI Bridge Between Narrative Science and Ecological Monitoring	75,000NIS
2027-2032 (as partner, Led by the University of Southampton)	EU- ERC-2025-ADG	Feast, famine, and fallout: Control of symbiont turnover in the reef coral-dinoflagellate partnership as mechanistic link between coral growth, environmental stress tolerance, and bleaching	277,039 € (to BIU from total of ~2.7M €)

8. Supervision of Graduate and Post-Graduate Students

Name of Student	Degree, Years Supervised	Thesis Title
Dr Bar Feldman	Postdoc, 2023-2024	<i>Historical ecology of Israeli marine environments</i>
Ankita Das	MSc, 2023-2025	<i>"Corals at the Crossroad" How Stylophora pistillata Tweaks Its RNA and Physiology Through Seasons and Depths</i>
Ankita Das	PhD, 2025-present	<i>The Biology of Coral Persistence: Molecular and cellular mechanisms of tissue homeostasis across</i>

Name of Student	Degree, Years Supervised	Thesis Title
		<i>environmental adaptation, lifespan, and disease</i>
Reem Neri	PhD, 2025-present	<i>Biodiversity Dynamics Across Depth and Anthropogenic Gradients in the Eastern Mediterranean and Northern Red Sea</i>
Almog Haim	MSc, 2024-2026	<i>Rariphotic zone of Eilat, Red Sea</i>
Almog Haim	PhD, 2026-present	<i>Deep-sea canyons of Eilat, Red Sea</i>
Ilai Mednik	MSc, 2024-2026	<i>Seasonal Physiological and Biochemical Responses of Fimbriaphyllia (Euphyllia) paradviva Following Mesophotic-to-Shallow Translocation in the Gulf of Aqaba/Eilat</i>
Amir Agami	MSc, 2024-2026	<i>Depth- and Season-Driven Physiological and Metabolomic Variation in the Red-Sea Soft Coral Dendronephthya hemprichi</i>
Yuval Karako	MSc, 2025-present	<i>AI and ML modeling for marine surveys</i>
11 Adv. lab students	BSc, 2023-present (5 enrolling)	<i>Biotechnology Research Laboratory</i>

9. Teaching Experience

Years	Course title
2023-now	Biology for Physics
2024-now	General Biology 1 (in English)
2024-now	Introduction to the Mediterranean Sea (Interuniversity by MERCI)
2023-now	Biotechnology Research Advanced Lab
2023-now	Ecology Seminar (BSc)
2023-now	General Seminar (MSc & PhD)

10. Miscellaneous: Member in Professional Committees, Editor/Member of an editorial committee, etc.

Date	Membership
2026-present	PhD committee member of Aleksandra Koinova (Prof. Micha Ilan – TAU)
2025-present	PhD committee member of Lidor Shtruzer (Prof. Oren Levy – BIU)
2024-present	PhD committee member of Inbar Dahan (Prof. Yonatan Belmaker – TAU)
2024-present	PhD committee member of Oren Arbel (Prof. Ezri Tarazi – Technion)
2023-present	PhD committee member of Prameek Kannan (Prof. Amiyaal Ilany – BIU/TAU)
2024	PhD external examiner of Fiona Chong (Dr. Domino Joyce - University of Hull, UK)
2023	PhD external examiner of Ofer Berman (Prof. Ezri Tarazi – Technion)
2026	MSc external examiner of Shir Peretz (Prof. Yossi Loya – TAU)

2025	MSc internal examiner of Lidor Shtruzer (Prof. Oren Levy – BIU)
2025	MSc internal examiner of Achiad Chen-Zion (Dr. Chana Kranzler – BIU)
2025	MSc external examiner of Maya Gross (Prof. Yossi Loya – TAU)
2025	MSc external examiner of Dana Goldwasser (Prof. Micha Ilan – TAU)
2024	MSc external examiner of Noga Gavrieli (Prof. Yossi Loya – TAU)
2023	MSc external examiner of Shai Tamir (Prof. Yehuda Benayahu– TAU)
Date	Reviewer for Journals
2026	Diversity and Distributions (Wiley); Global Ecology and Biogeography (Wiley); Limnology and Oceanography (Wiley); Journal of Animal Ecology (Wiley); Coral Reefs (Springer); Continental Shelf Research (ScienceDirect); Environmental Science & Technology Letters (ACS)
2025	Diversity and Distributions (Wiley); Global Ecology and Biogeography (Wiley); The Depositional Record (Wiley); Coral Reefs (Springer); Marine Pollution Bulletin (ScienceDirect); Marine Environmental Research (ScienceDirect); The ISME Journal (Oxford University Press); PLoS One
2024	Conservation Biology (Wiley); Journal of Animal Ecology (Wiley); Coral Reefs (Springer); Proceedings of the Royal Society B (The Royal Society); Hod Hayam (IAAS-Book)
2023	Frontiers in Marine Science; Conservation Biology (Wiley); Diversity (MDPI)
Date	Reviewer for Research Foundations
Oct 2022	2023 Regular Fondest National Projects Competition, National Research and Development Agency, Chile.
Mar 2026	Research Grants Council (RGC), General Research Fund, Hong Kong SAR, China. 2 x Applications for 2026/27 (GRF1)
Apr 2026	Dutch Research Council, NWO, The Netherlands. Round Open Competition Domain Science – ENW-M-1, 2025-2026
Date	Invited Papers
Date	Awards and Honors

11. Academic Profile

Main Research Interests and Scientific Activities

My research focuses on the biodiversity, functioning, and resilience of marine ecosystems across the full depth continuum, from shallow coral reefs to mesophotic coral ecosystems (30–150 m), rariphotic habitats (130–300 m), and deep-sea environments. My primary study regions include the Gulf of Eilat/Aqaba (Red Sea), the Mediterranean Sea, and comparative systems in Australia.

My work integrates contemporary ecology and physiology with paleoecology and historical ecology in order to distinguish natural environmental variability from human-driven change across spatial, vertical, and temporal scales. I combine long-term ecological monitoring and high-resolution photogrammetry with experimental approaches, including coral transplantation, aquaria-based physiological experiments, and reproductive and growth assessments. These are complemented by palaeoecological reconstructions using sediment and reef cores, geochemical and isotopic proxies, dating and age modelling, and ancient/environmental DNA.

A central component of my research is developing and applying advanced technologies for studying deep habitats. I routinely employ technical diving, ROV-based surveys, and AI-assisted image analysis to enable ecological mapping and monitoring of mesophotic reefs, rariphotic zones, and deep-sea ecosystems such as submarine canyons.

Major Research Findings

My research has demonstrated that mesophotic coral ecosystems harbour unexpectedly high biodiversity and strong depth zonation, including new regional records and candidate new coral species. I have shown that many mesophotic taxa exhibit narrow depth and spatial distributions, reflecting strong environmental filtering along light and temperature gradients.

Through physiological and ecological studies across depth gradients, I documented depth-related specialisation and plasticity in corals, including differences in light tolerance, fluorescence diversity and regulation, calcification, growth, survival, and reproduction. Using permanent monitoring sites and repeated seasonal surveys, I demonstrated that deep reefs are not uniformly protected from climate stress: selective deep-water bleaching can occur due to depth isolation, leading to substantial community restructuring and impaired reproduction in mesophotic corals.

By integrating contemporary ecological data with palaeoecological and historical records, my work provides seasonal-to-millennial baselines for reef ecosystems and documents long-term faunal and community transitions. These findings improve predictions of reef trajectories under climate change and strengthen the scientific basis for conservation of shallow, mesophotic, rariphotic, and deep-sea ecosystems.

Future Goals

My future goals are to establish an integrated shallow-to-deep research and monitoring framework for Israeli marine ecosystems in both the Red Sea and the Mediterranean, including deep-sea canyon environments. This framework will generate robust ecological baselines to support evidence-based management, conservation, and restoration strategies.

I aim to expand technology-driven marine surveys and monitoring, including high-resolution photogrammetry, automated and AI-based image analysis, and advanced ROV development, including spectral and robotic tools for deep-sea exploration. In parallel, I plan to strengthen palaeoecological and molecular infrastructure, particularly aeDNA/SedeDNA capabilities, to support long-term ecosystem reconstructions.

My key scientific objectives include resolving connectivity and refugia potential across depth gradients, identifying biological and ecological traits that underpin resilience and adaptation, and quantifying the ecological services and discovery potential of shallow, mesophotic, rariphotic, and deep-sea habitats under ongoing environmental change.

12. List of Publications since 2023

A. Chapters in Books:

1. Tyler B Smith, **Gal Eyal (2026)** Mesophotic Coral Ecosystems as Extreme and Marginal Habitats. In: Soares, M.O., Smith, T.B., Camp, E.F., Schoepf, V. (eds) Extreme and Marginal Coral Reefs and Communities. Coral Reefs of the World, vol 24. Springer, Cham. DOI: [10.1007/978-3-032-28035-0_12](https://doi.org/10.1007/978-3-032-28035-0_12)

B. Refereed Articles:

2. Almog Haim, **Gal Eyal (Under Review)** Five Decades of Rariphotic Research: Trends, Biases, and Future Directions.
3. **Gal Eyal**, David K. Weinstein, Nicholas M. Hammerman, Yonatan Shaked, Adi Torfstein (**Under Review**) Faunal transitions and unanticipated high accretion rates of mesophotic coral rubble fields.
4. Kristen T. Brown, Benjamin Glass, Marcelina Martynek, Tania M. Kenyon, **Gal Eyal**, Caitlin A. Lawson, Stuart Kinninmonth, Katie L. Barott (**Accepted**) Cascading negative feedbacks stemming from marine heatwaves erode coral reef resilience. *Ecology* (IF 2025 - 4.1, Q1)
5. C. Mark Eakin et al. (**2026**) Severe and widespread coral reef damage during the 2014-2017 Global Coral Bleaching Event. *Nature Communications* 17:1318. (IF 2025 - 18.1, Q1)
DOI: [10.1038/s41467-025-67506-w](https://doi.org/10.1038/s41467-025-67506-w)
6. Devin A. Rowell, Nicholas M. Hammerman, Kirsten M. Golding, Tania M. Kenyon, Zoe Meziere, Courtney Morgans, Kristen T. Brown, Faye F. Diederiks, David E. Carrasco Rivera, Karen Eigeland, Roima Paewai-Huggins, Kathryn Markey, Maria Beger, Fiona Chong, Gabriella Donno, Alice Dutto, Wanchien Victoria Hsiao, Stuart Kinninmonth, Caitlin A. Lawson, Heather Middleton, **Gal Eyal**, Chris Roelfsema (**2026**) Multi-scale observations of the 2024 mass coral bleaching event on Heron Reef, Australia. *Marine Biology* 173:17. (IF 2025 – 2.3, Q1)
DOI: [10.1007/s00227-025-04759-5](https://doi.org/10.1007/s00227-025-04759-5)
7. Katia C. Capel, Inbal Ayalon, Noa Simon-Blecher, Adi Zweifler Zvifler, Jennifer I.C. Benichou, **Gal Eyal**, Dror Avisar, Jonathan Roth, Pim Bongaerts, Oren Levy (**2025**) Depth-structured lineages in the coral *Stylophora pistillata* of the Northern Red Sea. *npj Biodiversity* 4:13. (IF 2025 - 10.7, Q1)
DOI: [10.1038/s44185-025-00083-9](https://doi.org/10.1038/s44185-025-00083-9)
8. Alistair Grinham, Tony Costantini, Nathaniel Deering, Cameron Jackson, Carissa Klien, Catherine Lovelock, John Pandolfi, **Gal Eyal**, Michael Linde, Matthew Dunbabin, Brendon Duncan, Nichlas Hutley, Ilha Byrne, Craig Wilson, Simon Albert (**2024**) Short and long-term impacts of a major flood on fine sediment and nitrogen loading to a large coastal embayment. *Science of the Total Environment* 918:170646. (IF 2022 - 10.753, Q1)
DOI: [10.1016/j.scitotenv.2024.170646](https://doi.org/10.1016/j.scitotenv.2024.170646)
9. Jörg Wiedenmann, Cecilia D'Angelo, Maria Loreto Mardones Velozo, Shona Moore, Cassandra E. Benkwitt, Nicholas A.J. Graham, Bastian Hambach, Paul A. Wilson, James Vanstone, **Gal Eyal**, Or Ben-Zvi, Yossi Loya, Amatzia Genin (**2023**) Reef-building corals farm and feed on their photosynthetic symbionts. *Nature* 620:1018-1024. (Impact Factor 2022 - 69.504, Q1)
DOI: [10.1038/s41586-023-06442-5](https://doi.org/10.1038/s41586-023-06442-5)
10. Johanna C. Gijsbers, Norbert Englebert, Katharine E. Prata, Michel Pichon, Zena Dinesen, Ramona Brunner, **Gal Eyal**, Fanny L. González-Zapata, Samuel E. Kahng, Kelly R.W. Latijnhouwers, Paul Muir, Veronica Z. Radice, Juan Armando Sánchez, Mark J.A. Vermeij, Ove Hoegh-Guldberg, Sarah J. Jacobs, Pim Bongaerts (**2023**) Global phylogenomic assessment of *Leptoseris* and *Agaricia* reveals substantial undescribed diversity at mesophotic depths. *BMC Biology* 21:147. (Impact Factor 2022 - 7.364, Q1)
DOI: [10.1186/s12915-023-01630-1](https://doi.org/10.1186/s12915-023-01630-1)
11. Mila Grinblat, Lee Eyal-Shaham, **Gal Eyal**, Or Ben-Zvi, Saki Harii, Masaya Morita, Kazuhiko Sakai, Mamiko Hirose, David J. Miller, Yossi Loya (**2023**) Energy allocation trade-offs as a function of age in fungiid corals. *Frontiers in Marine Science* 10:1113987. (IF 2022 - 5.247, Q1)
DOI: [10.3389/fmars.2023.1113987](https://doi.org/10.3389/fmars.2023.1113987)
12. Miguel Ángel Pérez-Castro, **Gal Eyal**, Gerardo Esteban Leyte-Morales, Gustavo Hinojosa-Arango, Susana Enríquez (**2023**) Benthic Characterization of Mesophotic Communities Based on Optical Depths in the Southern Mexican Pacific Coast (Oaxaca). *Diversity* 15:531. (IF 2022 - 3.029, Q2)
DOI: [10.3390/d15040531](https://doi.org/10.3390/d15040531)
13. Kristen T. Brown, **Gal Eyal**, Sophie G. Dove, Katie L. Barott (**2023**) Fine-scale heterogeneity reveals disproportionate thermal stress and coral mortality in thermally variable reef habitats during a marine heatwave. *Coral Reefs* 42:131-142. (IF 2022 - 4.64, Q1)

13. Contribution to publications in which I was not the corresponding author

1. C. Mark Eakin et al. (Nature Communications 2026)

Severe and widespread coral reef damage during the 2014–2017 Global Coral Bleaching Event

As the sole contributor from Israel to this global consortium, I played a substantial role in integrating regional datasets on coral bleaching, particularly from the Red Sea and mesophotic ecosystems that were otherwise underrepresented in the global analysis. I contributed expert interpretation of bleaching patterns, ecological baselines, and depth-specific impacts, and participated in synthesising cross-regional patterns that strengthened the manuscript's global conclusions. My contributions ensured that the unique ecology of the Red Sea was represented within this worldwide assessment of bleaching severity and reef impacts.

2. Devin A. Rowell et al. (Marine Biology 2026)

Multi-scale observations of the 2024 mass coral bleaching event on Heron Reef, Australia

My contribution focused primarily on the design and interpretation of multi-scale ecological assessments, particularly the integration of fine-scale coral physiological responses with temperature regimes. I supported the development of analytical approaches to distinguish colony-level variability from reef-wide thermal stress trends, drawing on my expertise with bleaching dynamics across depth gradients. I also contributed to manuscript refinement and interpretation of the ecological implications of the 2024 event.

3. Katia C. Capel et al. (npj Biodiversity 2025)

Depth-structured lineages in the coral *Stylophora pistillata* of the Northern Red Sea

I contributed Red Sea coral sampling expertise, species-level identification, and ecological contextualization of genetic patterns observed across depth strata. My insights into mesophotic coral biology were instrumental for linking molecular findings to depth-related selection pressures and habitat partitioning.

4. Alistair Grinham et al. (Science of the Total Environment 2024)

Short and long-term impacts of a major flood on fine sediment and nitrogen loading to a large coastal embayment

I contributed expertise on benthic ecological impacts and coastal sediment dynamics, helping to interpret how flood-driven changes in sediment and nutrient loading affect downstream coral communities and coastal ecosystems. My role included reviewing and refining the ecological analyses, strengthening the discussion of long-term environmental implications and their relevance to reef systems. This ecological perspective added depth to the environmental assessment and contextualized its broader marine impacts.

5. Jörg Wiedenmann et al. (Nature 2023)

Reef-building corals farm and feed on their photosynthetic symbionts

I contributed to the collection, identification, and ecological characterization of key coral specimens, providing foundational biological context for the physiological and biochemical assays performed in this study. My expertise in coral ecology informed both experimental design and the interpretation of coral-algal trophic interactions. Additionally, I supported the articulation of broader ecological implications of the findings, helping to link physiological mechanisms with reef-scale processes.

6. Johanna C. Gijsbers et al. (BMC Biology 2023)

Global phylogenomic assessment of *Leptoseris* and *Agaricia* reveals substantial undescribed diversity at mesophotic depths

I played a major role in contributing mesophotic coral samples from the Red Sea, ensuring high-quality material for genomic analyses. I also provided detailed taxonomic and ecological insights that were essential for verifying lineage identities, interpreting phylogenetic patterns, and situating the findings within the broader context of mesophotic biodiversity. My role significantly strengthened the study's global perspective on deep coral diversity.

7. Mila Grinblat et al. (Frontiers in Marine Science 2023)

Energy allocation trade-offs as a function of age in fungiid corals

I contributed to fieldwork, field sampling design, conceptualization, and provided expertise on coral growth, age structure, and life-history strategies. My ecological insights helped guide hypotheses regarding energy allocation across developmental stages, and I contributed to the interpretation of physiological results in an ecological framework. I also supported manuscript refinement and contextualised the findings within broader coral stress-response and demographic theory.

8. Miguel Ángel Pérez-Castro et al. (Diversity 2023)

Benthic Characterization of Mesophotic Communities Based on Optical Depths in the Southern Mexican Pacific

I served as a key contributor on the methodological and ecological interpretation side, advising on mesophotic coral community structure and optical-depth classification frameworks. My experience with mesophotic ecosystems informed the analysis of habitat zonation and community patterns. I also helped refine the discussion and strengthen comparisons with mesophotic assemblages across ocean basins.

9. Kristen T. Brown et al. (Coral Reefs 2023)

Fine-scale heterogeneity reveals disproportionate thermal stress and coral mortality in thermally variable reef habitats

My role included fieldwork, advising on study design, data interpretation, and the ecological significance of fine-scale thermal variability. I brought expertise in coral stress responses and spatial heterogeneity, contributing to the conceptual model that links micro-environmental conditions with differential bleaching and mortality patterns. My input also supported the framing of ecological implications for reef resilience under climate-driven heatwaves.

Appendix - Funding Sources Pending

Period	Funding Agency	Title	Amount
2027-2030 (as partner)	EU- 2025 Biodiversa+	Resilient Ex-situ evolution and future-stock bank for climate-proof coral reef restoration	119970 €