

STEPHANE MARTINEZ

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Citizenship: Israeli and French

EDUCATION

Ph.D.

2015- 2020

Department Marine Biology
University of Haifa

My research title is “Understanding carbon sources and trophic positions in the marine ecosystem through amino acids stable isotope analysis”. It concerned the development of new analytical methods, coral energy sources and fish ecology. Supervised by Prof. Dan Tchernov and Dr. Beverly Goodman.

MASTERS OF SCIENCE

2005-2008

Tel Aviv University

Ecology and Environmental Quality

Mark: 93/100; *cum laude*

My thesis focuses on the effect of coral-reef restoration tools (coral transplants and electro-reefs) on the recruitment of stony corals, supervised by Prof. Avigdor Abelson.

BACHELORS OF SCIENCE

2001-2004

Ruppin Academic Center

Marine Sciences and Ocean Environment

Mark: 86/100

PUBLICATIONS LIST

- Ofek-Lazar, M., Zvi-Kedem, T., Kroin, Y., **Martinez, S.**, Tchernov, D., Meron D. 2023. Sediment microbiota as a proxy of environmental health: discovering inter- and intra-kingdom dynamics along the Eastern Mediterranean continental shelf. *Microbiology Spectrum* (accepted)
- **Martinez S**, Grover R, Baker DM, Ferrier-Pagès C. 2022. Symbiodiniaceae Are the First Site of Heterotrophic Nitrogen Assimilation in Reef-Building Corals. *MBio* 13.
- **Martinez, S.**, Grover R, Ferrier-Pagès C. 2022. Symbiont starvation affects the stability of the coral–Symbiodiniaceae symbiosis. *Front Mar Sci*; 9: 1–11.
- Morgulis M, **Martinez S**, Almuly R, Einbinder S, Zaslansky P, Mass T. 2022. Black corals (Antipatharia) of the northern Red Sea: ancient predators of the mesophotic reef. *Mar Ecol Prog Ser*; 688: 33–47.
- Ferrier-Pagès, C*., **Martinez, S***., Grover, R., Cybulski, J., Shemesh, E., and Tchernov, D. 2021. Tracing the Trophic Plasticity of the Coral–Dinoflagellate Symbiosis Using Amino Acid Compound-Specific Stable Isotope Analysis. *Microorganisms* 9, 182. doi:10.3390/microorganisms9010182.
- Nativ, H., Scucchia, F., **Martinez, S.**, Einbinder, S., Chequer, A., Goodbody-Gringley, G., & Mass, T. 2021. In situ Estimation of Coral Recruitment Patterns From Shallow to Mesophotic Reefs Using an Optimized Fluorescence Imaging System. *Frontiers in Marine Science*, 8(July), 1–12. Doi :10.3389/fmars.2021.709175
- Goodbody-Gringley, G., Scucchia, F., Ju, R., Chequer, A., Einbinder, S., **Martinez, S.**, et al. 2021. Plasticity of *Porites astreoides* Early Life History Stages Suggests Mesophotic Coral Ecosystems Act as Refugia in Bermuda. *Frontiers in Marine Science*. 8, 1–11. doi:10.3389/fmars.2021.702672.
- **Martinez, S***., Bellworthy, J.*., Ferrier-Pagès, C., and Mass, T. 2021. Selection of mesophotic habitats by *Oculina patagonica* in the Eastern Mediterranean Sea following global warming. *Sci. Rep.* 11, 1–15. doi:10.1038/s41598-021-97447-5.

- Malik, A., S. Einbinder, **S. Martinez**, and others. 2020. Molecular and skeletal fingerprints of scleractinian coral biomineralization: From the sea surface to mesophotic depths. *Acta Biomater.* doi:10.1016/j.actbio.2020.01.010
- Grossowicz, M., E. Shemesh, **S. Martinez**, Y. Benayahu, and D. Tchernov. 2020. New evidence of *Melithaea erythraea* colonization in the Mediterranean. *Estuar. Coast. Shelf Sci.* **236**: 106652. doi:10.1016/j.ecss.2020.106652
- Casari, P., Lampe, L., **Martinez, S.**, and Diamant, R. 2020. ThreatDetect: An Autonomous Platform to secure Marine Infrastructures, in *Advanced Technologies for Security Applications* (Springer, Dordrecht), 271–281. doi:10.1007/978-94-024-2021-0_24.
- **Martinez S***, Kolodny Y*, Shemesh E, Scucchia F, Nevo R, Levin-Zaidman S, et al. 2020. Energy Sources of the Depth-Generalist Mixotrophic Coral *Stylophora pistillata*. *Front Mar Sci.* **7**: 1–16. doi:10.3389/fmars.2020.566663
- **Martinez S**, Lazar M, Shemesh E, Einbinder S, Goodman Tchernov B and Tchernov D. 2020. Effect of Different Derivatization Protocols on the Calculation of Trophic Position Using Amino Acids Compound-Specific Stable Isotopes. *Front. Mar. Sci.* **7**:561568. doi: 10.3389/fmars.2020.561568
- **Martinez, S.**, and A. Abelson. 2013. Coral recruitment: The critical role of early post-settlement survival. *ICES J. Mar. Sci.* **70**: 1294–1298. doi:10.1093/icesjms/fst035
- Siboni, N.*, **S. Martinez***, A. Abelson, A. Sivan, and A. Kushmaro. 2009. Conditioning film and initial biofilm formation on electrochemical CaCO₃ deposition on a metallic net in the marine environment. *Biofouling* **25**: 675–83. doi:10.1080/08927010903097204

*equal contribution

PARTICIPATION IN SCHOLARLY CONFERENCES

2022 **COST workshop Marine animal forest**, online, The role of heterotrophy in corals host-symbiont interactions- Speaker
 2022 **ICRS Bremen**, Germany, The role of heterotrophy in the host-symbiont interactions of *Stylophora pistillata*- Speaker
 2019 **Food web of the EMS under climate change** Sdot-Yam, Israel *Dusky groupers, does size matter?*- Speaker
 2019 **Natural history collections as scientific resource** Jerusalem, Israel *Food webs: past and present*- Speaker
 2016 **Science based management of marine and coastal resources** Haifa, Israel *Monitoring the mesophotic reef in the easternmost Mediterranean Sea*- Speaker
 2015 **Israeli Diving Authority** Eilat, Israel *LTER of the rocky reef in Israel*- Speaker
 2014 **Mesophotic workshop** Eilat, Israel *Mediterranean fish connectivity across depth gradient defined by utilizing compound specific stable isotope analysis*- Poster Presentation
 2013 **Tek Dive Camp** Eilat, Israel CCR in scientific Diving (Tsunami coring project): benefits and problems- Speaker
 2013 **Per Terram, Per Mare** Cyprus, *Hermatypic organisms on archaeological artifacts as indicators for depth, location and paleoclimate*- Speaker
 2008- **THE ZOOLOGICAL SOCIETY OF ISRAEL** Michmoret, Israel, *Coral recruitment: proposed bottleneck of the process*- Speaker

PROFESSIONAL EXPERIENCE

POST-DOC	2022-present
University of Rhode Island- Graduate School of Oceanography	
POST-DOC	2021-2022
Centre scientifique de Monaco- Ecophysiology team	

- Host-symbiont interaction in coral using amino acids copuound specific stable istope (GC-IRMS, bulk isotope analysis (IRMS), amino acids quantification (HPLC), coral physiology (total protein, cell count, photosynthesis, respiration)

SCIENTIFIC ADVISOR 2019-2022

Clean-Bit Environmental solutions

- Scouting for technologies
- Implementing new technologies
- Advising on biological topics

ROCKY REEF MONITORING MANAGER 2014-2021

Morris Kahn Marine Research Station University of Haifa

- Leading the rocky reef LTER project according to scientific committee decisions
- Leading the deep dive expedition team
- Database management
- Training new divers for CCR and scientific diving
- Writing scientific reports
- Building and designing LTER together with the scientific committee

CO-FOUNDER and PRODUCT MANAGER 2009-2015

QualiTV digital signage solutions

- Product development and management
- Hiring and managing staff and sub-contractors
- Screening of new products and markets
- Computer server installation and management
- Operating large deployments at client site
- Pre and post-sale support

TEACHING ASSISTANTSHIPS 2005-2019

Tel Aviv University- invertebrate biology 2005-2007

Ruppin Academic Centre- invertebrate biology, cell to organism biology and introduction to Mediterranean Sea ecology 2007-2019

AQUACULTURE SPECIALIST 2003-2005

D'gei Echout (Port of Ashdod)

Duties: under water constructor

DIVE INSTRUCTOR 2001-2007

Medusa Diving Center

Duties: Diving Instructor and mixed gas filling station specialist

MILITARY SERVICE- CAPTAIN 1997-2000

Israeli Defense Forces

Duties: Infantry and intelligence in elite ranger unit

GRANTS AWARDED

2015-2019 Presidential scholarship, University of Haifa

2015 Mediterranean Sea Research Centre in Israel (MERCIS) (Conference and travel)

2015 Leon H. Charney Research Grant (Mediterranean Sea food web)

2014 Israeli Diving Federation (Conference assistance)

2009 Isaac Khafif Research Grant (Mediterranean Sea deep sponges)

CERTIFICATIONS/LICENSES

Diving: Dive Master Instructor (I.A.N.T.D.; C.M.A.S; SSI); Advanced Nitrox Instructor (I.A.N.T.D.; SSI); Extended Range Instructor (SSI); Megalodon and Pathfinder CCR Trimix Instructor (TDI; I.A.N.T.D); Cave diver; AAUS diver; Trimix gas blender;
Skipper License: Certified power & sailboat to 80', for international voyages

SKILLS & ABILITIES

Field survey/analysis: Benthic surveys (photo quadrats, line/belt transects, invertebrate ID, counts and collecting samples) fish census, spear fishing, coring, drilling, lifting and fixing equipment. Underwater technical work to 120 m. Shark handling and coral transplantation

Laboratory: PCR, NGS, GCMS-IRMS, HPLC, Bacterial cloning and growing, Shark and fish dissection, Spectrophotometry, microscopy, SEM

Equipment: Pneumatic equipment (hammers and driller), lift bags (up to 2000 kg) long lining, gillnet, active telemetry, camera, video camera, bathymetric and side scan sonar systems

Computer: *Microsoft Office* (Word, Excel, PowerPoint, Access), *statistical programs* (SPSS, Statistica, Primer), *reference managers* (EndNote and Mendeley), *software* (ArcGIS, QGIS, mapinfo, CPCe, coralnet), *Bioinformatics* (Mothur, QIIME) *computer networks and servers* (TCP/IP, QNAP, VMware, win server 2008R2)

Languages: Hebrew (fluent, mother tongue); English (advanced); French (good)