

Avigdor Abelson - LIST OF PUBLICATIONS

1. **Abelson, A.**, B. Galil, and Y. Loya. 1991. Skeletal modifications in stony corals caused by indwelling crabs: Hydrodynamical advantages for crab feeding. **Symbiosis**, 10: 233-248.
2. **Abelson, A.**, T. Miloh, and Y. Loya. 1993. Flow patterns induced by substrata and body morphologies of benthic organisms, and their roles in determining food particle availability. **Limn. Oceanogr.** 38:1116-1124.
3. **Abelson, A.**, D. Weihs, and Y. Loya. 1994. Hydrodynamic impediments to settlement of marine propagules, and adhesive-filament solutions. **Limn. Oceanogr.** 39:164-169.
4. **Abelson, A.** and Y. Loya. 1995. Cross-scale patterns of particulate-food acquisition in marine environments. **Am. Nat.** 145: 848-854.
5. Ilan, M. and **A. Abelson**. 1996. The life of a sponge in a sandy lagoon. **Biological Bulletin** 189: 363-369.
6. Stone, L., E. Eilam, **A. Abelson** and M. Ilan. 1996. Modelling coral reef biodiversity and habitat destruction. **Mar. Ecol. Prog. Ser.** 134: 299-302.
7. **Abelson, A.** 1997. Settlement in flow: upstream exploration of substrata by weakly swimming larvae. **Ecology** 78: 160-166.
8. **Abelson, A.** and M. Denny. 1997. Settlement of marine organisms in flow: mechanisms, problems, solutions and ecological interpretations. **Annu. Rev. Ecol. Syst.** 28:317-339.
9. Bresler, V., L. Fishelson and **A. Abelson**. 1998. Anti-xenobiotic defense mechanisms and environmental health. **Rapp. Comm. Intl. Mer. Medit.** 35:338-340
10. **Abelson, A.** and M. Rosenfeld. 1998. Boundary zones between soft and hard substrates and their ecological implications. Proceeding of the International Symposium on Environmental Management in the Mediterranean Region, Vol. 2: 723-731
11. **Abelson, A.**, B. Shteinman, M. Fine and S. Kaganovsky. 1999. Mass transport from pollution sources to remote coral reefs in Eilat (Gulf of Aqaba, Red Sea). **Mar. Poll. Bull.** 38:25-29.
12. Bresler, V., L. Fishelson and **A. Abelson**. 1999. A proposed fluorescent microscopic methodology for distinguishing of dioxin-like biological effects in wild animals. **Organohalogen Compounds** 44: 385-388.
13. Bresler V., Bissinger V., **Abelson A.**, Dizer H., Sturm A., Kratke R., Fishelson L. and Hansen P-D. 1999. Marine molluscs and fish as biomarkers of pollution stress in littoral regions of the Red Sea, Mediterranean Sea and North Sea. **Helgol. Mar. Res.** 53: 219-243.
14. **Abelson, A.** and Y. Loya. 1999. Interspecific aggression among stony corals in Elat, Red Sea: A hierarchy of aggression ability and related parameters. **Bull. Mar. Sci.** 65:851-860.
15. Rosenfeld, M., V. Bresler, and **A. Abelson**. 1999. Sediment in coral reefs - a disturbing factor or a source of food? **Ecology letters** 2:345-348.
16. Sultan, A., **A. Abelson**, V. Bresler, L. Fishelson and O. Mokady. 2000. Biomonitoring marine environmental quality at the level of gene-expression-texting the feasibility of a new approach. **J. Water Sci.** 42: 269-274.
17. Pasternak, Z., A. Rix and **A. Abelson**. 2001. Episymbionts as possible anti-fouling agents on reef-building hydrozoan. **Coral Reefs** 20:318-319.

- 18.** Bresler V. M., Fishelson L. and, **Abelson A.** 2001. Determination of primary and secondary responses to environmental stressors and biota health. In: Assessment and Management of Environmental Risks: Methods and Applications", p: 57-70, eds: I. Linkov and J. Palma-Oliveira. Kluwer Academic Press.
- 19.** **Abelson, A.** and Y. Shlesinger. 2002. Development of coral-reef community on artificial reefs in Eilat, Gulf of Aqaba, red sea: aggregates of limestone rocks. **ICES J. Mar. Sci.** 59: S122-S126.
- 20.** Fishelson, L., V. Bresler, **A. Abelson**, L. Stone, E. Gefen, M. Rosenfeld and O. Mokady. 2002. The two sides of man-induced changes in littoral marine communities: Eastern Mediterranean and the Res Sea as an example. **Sci. Total Env.** 296: 139-151.
- 21.** Pasternak, Z., **A. Abelson** and Y. Achituv (2002). Orientation of *Chelonibia patula* on the carapace of its crab host is determined by the feeding mechanism of the adult barnacle. **J. Mar. Biol. Ass. U.K.** 82:4026/1-6.
- 22.** Bresler, V., **Abelson, A.**, Fishelson, L., Feldstein, T., Rosenfeld, M., Mokady O. 2003. Using marine molluscs for environmental monitoring. I. Cellular and molecular reponses. **Helgoland Mar. Res.** 57: 157-165.
- 23.** Bresler, V., Mokady O., Fishelson, L., Feldstein, T., **Abelson, A.** 2003. Using marine molluscs for environmental monitoring. II. Experimental exposure to selected pollutants. **Helgoland Mar. Res.** 57: 206-211.
- 24.** Feldstein, T., Kashman, Y., **Abelson, A.**, Fishelson, L., Mokady O., Bresler, V., Erel, Y. 2003. Using marine molluscs for environmental monitoring. III.Chemical characterization of animal tissue and sediments. **Helgoland Mar. Res.** 57: 212-219.
- 25.** Ben-Tzvi, Y. Loya and **A. Abelson**. 2004. Deterioration Index (DI): a suggested criterion for assessing the health of coral communities. **Mar. Poll. Bull.** 48:954-960.
- 26.** Shefer, S., **A. Abelson**, O. Mokady and E. Geffen. 2004. Red- to Med-Sea bioinvasion: natural drift through the Suez Canal, or anthropogenic transport? **Mol. Ecol.** 13: 2333-2343.
- 27.** Pasternak, Z., A. Bachar, **A. Abelson** and Y. Achituv. 2004. Initiation of symbiosis between the soft coral *Heteroxenia fuscescens* and its zooxanthellae. **Mar. Ecol. Prog. Ser.** 279:113-116.
- 28.** Pasternak, Z., B. Blasius and **A. Abelson**. 2004. Host Location by Larvae of a Parasitic Barnacle: Larval Chemotaxis and Plume Tracking in Flow. **J. Plankton Res.** 26: 387-393.
- 29.** Pasternak, Z., B. Blasius, Y. Achituv and **A. Abelson**. 2004. Host-location in flow by larvae of the symbiotic barnacle *Trevathana dentata* using odor-gated rheotaxis (2004). **Proc. Royal Soc. Lond. B UK** 271: 1745-1750.
- 30.** Fine, M., Y. Aluma, E. Meroz-Fine, **A. Abelson**, Y. Loya. 2005. *Acabaria erythraea* (Octocorallia: Gorgonacea) a successful invader to the Mediterranean Sea? **Coral reefs** 24: 161-164.
- 31.** **Abelson, A.**, R. Olinky, S. Gaines. 2005. Coral recruitment to the reefs of Eilat, Red Sea: temporal and spatial variation, and possible effects of anthropogenic disturbances. **Mar. Poll. Bull.** 50: 576–582.
- 32.** **Abelson, A.** 2006. Artificial reefs versus coral transplantation as restoration tools for mitigating coral reef deterioration: benefits, concerns and proposed guidelines. **Bull. Mar. Sci.** 78; 151-159.
- 33.** **Abelson, A.** and S. Gaines. 2006. A call for a standardized protocol of coral recruitment research and outlines for its conception. **Mar. Poll. Bull.** 50: 1745-1748.

- 34.** Shaish, L., **A. Abelson** and B. Rinkevich. 2006. Branch to colony trajectory in a modular organism: Pattern formation in the Indo-Pacific coral *Stylophora pistillata*. **Developmental Dynamics** 235:2111-21
- 35.** Pasternak, Z., B. Blasius, **Abelson A.** and Achituv Y., 2006. Host-finding behaviour and navigation capabilities of symbiotic zooxanthellae. **Coral Reefs** 25:201-207.
- 36.** Pasternak, Z., A. Diamant, **Abelson A.** 2007. Co-invasion of a Red Sea fish and its ectoparasitic monogenean, *Polylabris cf. mamaevi* into the Mediterranean: observations on oncomiracidium behavior and infection levels in both seas. **Parasitology Research** 100:721-727.
- 37.** Ben-Tzvi, **A. Abelson**, S. D. Gaines, M. S. Sheehy, G.L. Paradis and M. Kiflawi. 2007. The inclusion of sub Detection Limit (DL) LA-ICPMS data, in the analysis of otolith microchemistry by use of a "Palindrome Sequence Analysis" (PaSA). **Limnol. Oceanogr. – methods** 5:97-105.
- 38.** Shaish, L., **A. Abelson** and B. Rinkevich. 2007. Branch to colony trajectory in a modular organism: Pattern formation in the Indo-Pacific coral *Stylophora pistillata*. **PLoS One** 7:e644(1-9)
- 39.** Ben-Tzvi, M. Kiflawi, H. Gildor and **A. Abelson**. 2007. Possible effects of downwelling on the recruitment of coral-reef fishes to the Eilat coral reefs. **Limnol. Oceanogr.** 52:2618-2628.
- 40.** Zvuloni, A., O. Mokady, G. Bernardi, S. Gaines, **A. Abelson**. 2008. Local scale genetic structure in coral populations in Eilat, Red Sea: an indication of selection? **Mar. Poll. Bull.** 56: 430-438.
- 41.** Ben-Tzvi, O., M. Kiflawi, S. D. Gaines, M. Al-Zibdah, M. S. Sheehy, G.L. Paradis and **Abelson, A.** 2008. Tracking recruitment pathways of *Chromis viridis* in the Gulf of Aqaba using otolith chemistry. **Mar. Ecol. Prog. Ser.** 359: 229-238.
- 42.** Ben-Tzvi, **O., A. Abelson**, O. Polak and M. Kiflawi. 2008. Habitat selection and the colonization of new territories by *Chromis viridis*. **J. Fish Biol.**, 73:1005-1018.
- 43.** Ben-Tzvi, M. Kiflawi, O. Polak and **A. Abelson**. 2009. The effect of adult aggression on habitat selection by settlers of two coral-dwelling damselfishes. **PLoS One** 4:e5511(1-8).
- 44.** 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. **Biofoul.** 25: 675–683
- 45.** Bahartan, K., M. Zibdah, Y. Ahmed, A. Israel, I. Brickner and **A. Abelson**. 2010. Algal dominancy in coral reefs: A sign of reef degradation in the Eilat reefs (Gulf of Aqaba, Red Sea). **Mar. Poll. Bull.** 60: 759-764
- 46.** Goren, M., G. Lipsky, E. Brokovich and **A. Abelson**. 2010. A 'flood' of alien cardinal fishes in the eastern Mediterranean - first record of the Indo-Pacific *Cheilodipterus novemstriatus* in the Mediterranean Sea. **Aquatic Invasions** 5: S49-S51.
- 47.** Ben-Tzvi, O., M. El-Zibdah, V. Bresler, Y. Jamal and **A. Abelson**. 2011. Coral reef monitoring: Examination of the reliability of coral community indices based on comparisons with cytological tests. **J. Mar. Sci. art id 151268, doi:10.1155/2011/151268**
- 48.** Korzen, L.S., A. Israel and **A. Abelson**. 2011. Herbivory Effects on Turf Algae and Coral Recruits: Implications of Fish versus Sea-Urchin Grazing on Coral Reef Resilience. **J. Mar. Sci. art id 960207, doi:10.1155/2011/960207.**

- 49.** Ben-Tzvi, O., Abelson, A., Gaines, S. D., Bernardi, G., Beldade, R., Sheehy, M. S., Paradis, G. L., and M. Kiflawi. 2012. Evidence for Cohesive Dispersal in the Sea. *PLoS ONE*, 7(9), e42672. doi:10.1371/journal.pone.0042672
- 50.** Keshavmurthy, S., et al. (incl. **A. Abelson**). 2013. DNA barcoding reveals the coral “laboratory-rat”, *Stylophora pistillata* encompasses multiple identities. *Scientific Reports* 3:1–7. doi:10.1038/srep01520
- 51.** Martinez, S. and **A. Abelson**. 2013. Coral recruitment: The critical role of early post-settlement survival. *ICES J. Mar. Sci.* doi:10.1093/icesjms/fst035
- 52.** Korzen, I.N. Pulidindi, A. Israel, **A. Abelson** and A. Gedanken. 2015. Single step production of bioethanol from the seaweed *Ulva rigida* using sonication. *RSC Advances*, 5:16223-16229.
- 53.** Korzen, L. Y. Peled, S. Zemah Shamir, M. Shechter, A. Gedanken, **A. Abelson** and A. Israel. 2015. An economic analysis of bioethanol production from the marine macroalga *Ulva* (Chlorophyta). *Technology* 3:114. DOI: 10.1142/S2339547815400105
- 54.** Korzen, L., Pulidindi, I. N., Israel, A., **Abelson**, A., and Gedanken, A. 2015. Marine integrated culture of carbohydrate rich *Ulva rigida* for enhanced production of bioethanol. *RSC Advances*, 5:59251-59256.
- 55.** Yeruham, E., G. Rilov, M. Shpigel and **A. Abelson**. 2015. Collapse of the echinoid *Paracentrotus lividus* populations in the Eastern Mediterranean - result of climate change? *Scientific Reports* 5: 13479. doi: [10.1038/srep13479](https://doi.org/10.1038/srep13479)
- 56.** Korzen, L., **A. Abelson** and A. Israel. 2015. Growth, protein and carbohydrate contents in *Ulva rigida* and *Gracilaria bursa-pastoris* integrated with an offshore fish farm. *Journal of Applied Phycology* (accepted; online).
- 57.** **Abelson**, A., Halpern, B.S., Reed, D.C., Orth, R.J., Kendrick, G.A., Beck, M.W., Belmaker, J., Krause, G., Edgar, G.J., Airolidi, L., Brokovich, E, France, R., Shashar, N., de Blaeij, A., Stambler, N., Salameh, P., Shechter, M. and Nelson, P. 2016. Upgrading Marine Ecosystem Restoration Using Ecological–Social Concepts. *BioScience* 66(2):156-163.
- 58.** Obolski, U., L. Hadany and **A. Abelson**. 2016, Potential contribution of fish restocking to the recovery of deteriorated coral reefs: an alternative restoration method? *PeerJ* 4:e1732; DOI 10.7717/peerj.1732
- 59.** Crane, N. L., M. J. Paddack, P. A. Nelson, **A. Abelson**, J. Rulmal, and G. Bernardi. 2016. "Corallimorph and Montipora Reefs in Ulithi Atoll, Micronesia: documenting unusual reefs." *Journal of the Ocean Science Foundation* 21: 10-17.
- 60.** **Abelson**, A., P. Nelson, G. Edgar, N. Shashar, D. Reed, J. Belmaker, G. Krause, M. Beck, E. Brokovich, R. France, S. Gaines. 2016 Expanding marine protected areas to include degraded coral reefs. *Conserv. Biol.* 30 (6): 1182–1191
<http://onlinelibrary.wiley.com/doi/10.1111/cobi.12722/abstract>
- 61.** **Abelson**, A, U. Obolski, P. Regoniel, L. Hadany. 2016. Restocking of herbivorous fish populations as an ecological-social restoration tool in coral reefs. *Frontiers Mar. Sci.* 3, 138.
<https://doi.org/10.3389/fmars.2016.00138>
- 62.** Crane, N., M. Paddack, P. Nelson, **A. Abelson**, K. Precoda6, J. Rulmal and G. Bernardi. 2017. Atoll-scale patterns in coral reef community structure: Human signatures on Ulithi Atoll, Micronesia. *PLoS One*, 12(5), p.e0177083.
- 63.** Yanovsky, R., P. Nelson and **A. Abelson**. 2017. Structural complexity in coral reefs: evaluation tools and spatial scales. *Frontiers in Ecology and Evolution* , 5, p.27.

- 64.** Ashkenazi, D., A. Israel, **A. Abelson**. 2018. A novel two-stage seaweed IMTA (Integrated Multi-Trophic Aquaculture), *Reviews in Aquaculture* (in press).
- 65.** Yeruham, E., A. **Abelson**, Rilov, G., Ezra, D.B. and Shpigel, M., 2019. Energy budget of cultured *Paracentrotus lividus* under different temperatures. *Aquaculture*, 501, pp.7-13.
- 66.** Yanovsky, R. and A. **Abelson**. 2019. Structural complexity enhancement as a potential coral-reef restoration tool. *Ecological Engineering* 132: 87-93
- 67.** Barr, Y. and A. **Abelson**. 2019. Feeding – Cleaning Trade off: Manta ray ‘decision making’ as a conservation tool. *Frontiers in Marine Science* 6, p.88.
- 68.** Yeruham, E., M. Shpigel, A. **Abelson**, and Rilov. 2019. Ocean warming and tropical invaders erode the performance of a key herbivore. *Ecology* (in press).
- 69.** **Abelson**, A. 2019. Are we sacrificing the future of coral reefs on the altar of the ‘climate change’ narrative? *ICES J. Mar. Sci.* fsz226, <https://doi.org/10.1093/icesjms/fsz226>

Environmental management and monitoring publications

1. Gasith A. and **A. Abelson**, 1996. Environmental aspects of marine pollution by mercury release from power plants along the Mediterranean coasts of Israel: a standpoint for the Ministry of the Environment (in Hebrew).
2. **Abelson**, A. 1997. Ecological effects of 'Marina Haifa': a standpoint for the Ministry of the Environment (in Hebrew).
3. **Abelson**, A. 1998. The impact of 'Marina Haifa' on the marine environment: An ecological perspective. Environmental effects of 'Marina Haifa' (the Society for Nature Protection in Israel; in Hebrew).
4. **Abeslon**, A. and B. Shteinman. 1999. The use of fluorescent tracers in studies on mass transport in coastal environments. *Science at the Service of Environment: Leading Environmental Studies* (the Israeli Ministry of the Environment; in Hebrew).
5. **Abeslon**, A. and B. Shteinman. 2001. Pollutant transport from pollution sources to the coral reefs of Eilat. *Researches in Environmental Marine Sciences* (Ministry of the Env.).
6. Gasith, A. and **A. Abeslon**. Environmental effects of mercury in the sea. *Researches in Environmental Marine Sciences* (the Israeli Ministry of the Environment; in Hebrew).
7. **A. Abeslon** and A. Gasith. Harmful effects of mercury in the Mediterranean sea. *Researches in Environmental Marine Sciences* (the Israeli Ministry of the Environment).
8. **A. Abeslon**. 2001. Scientific considerations in the design of marine nature reserves: the coastal reserves of Israel. *Ecology and Environment* 6:292-294.
9. A. Eidelman and **A. Abeslon**. 2006. Environmental impact assessment of artificial reefs in Eilat (prepared for the Ministry of Tourism; in Hebrew).
10. A. Eidelman and **A. Abeslon**. 2007. Artificial reefs in Eilat: Guidelines for a pilot project (prepared for the Ministry of Tourism; in Hebrew).
11. **Abelson**, A. O. Ben-Tzvi, O. Michaeli. 2009. Status report of the coral reefs of Puerto Princesa, Palawan (Philippines): Assessment for conservation action
12. **Abelson**, A. 2009. Artificial reefs as a platform for diving activities in Sheridan Beach, Sabang (Palawan, Philippines): Practical considerations based on ecological and environmental assessments
13. **Abelson**, A. 2011. Coral-reef gardening as a restoration tool: the unbearable lightness of healing a deep wound with a band-aid. *Ecol. and Env.* 4:312-3
14. **Abelson**, A. 2011. The coral reefs of Puerto Princesa, Palawan (Philippines): Recommendations for reefs rescue following the El-Nino mass bleaching event of 2010

15. **Abelson, A.** and I. Brickner. 2013. Ecological restoration in the marine environment: Coral reefs as a case study; in 'The Glory of the Sea: Stability and Change in the Aquatic Systems of Israel' (in Hebrew; ed: N. Stembler).
16. Israel, A. Gedanken, M. Shechter, **A. Abelson**, S. Zemah Shamir, A. Korzen, L. Y. Peled. 2015. Aspects of bio-ethanol production from macro-algae in Israel. *Ecology and Environment* (in Hebrew) 3:211-216.
17. Brokovich E., Abelson, A. et al. 2015. Abrasion platforms in Israel: Status, environmental significance and rehabilitation possibilities before they disappear. Experts' opinion, The Israel Society of Ecology and Environmental Sciences (in Hebrew). pp32
18. Abelson, A. 2017. Environmental assessment and proposed coastal zone management planning for Aborlan area, Palawan, Philippines.