

## Jonathan Erez, CURRICULUM VITAE

Professor of Oceanography (Emeritus),  
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**Personal:** Born: Israel Apr.9, 1946, married to Miriam and father to Roy, Haggit and Yair

### Education:

B.Sc.: Hebrew University, Department of Geology, 1970.

M.Sc.: Hebrew University, Department of Geology, 1972.

Ph.D.: Massachusetts Institute of Technology - Woods Hole  
Oceanographic Institution, Joint Program in Oceanography, 1978.

### Professional Positions:

- 1979 – 1984 Lecturer in Oceanography and Geology at The Hebrew University of Jerusalem, The H. Steinitz Marine Biology Laboratory, Eilat.
- 1979, 1981 Resident Director of the H. Steinitz Marine Biology Laboratory, Eilat
- 1984 - 1986 Senior Lecturer in Oceanography and Geology at the H. Steinitz Marine Biology Laboratory, The Hebrew University, Eilat.
- 1986 – 1991 Senior Lecturer in Oceanography and Geology at the Department of Geology, Institute of Earth Sciences, The Hebrew University of Jerusalem.
- 1991 – 1997 Associate Professor in Oceanography and Geology at the Department of Geology, Institute of Earth Sciences, The Hebrew University of Jerusalem.
- 1987 – 1988 Sabbatical year at Cambridge University, UK, and a Visiting Fellow at Clare Hall College.
- 1988 – 1992 Chairman of Oceanographic Studies at The Hebrew University of Jerusalem.
- 1992 – 1994 Chairman of Geology and Earth Science studies at The Hebrew University of Jerusalem.
- 1994 – 1996 Chairman and founder of The Environmental Studies Program at the Faculty of Sciences, The Hebrew University of Jerusalem.
- 1996 - 2001 Scientific Director of The Interuniversity Institute for Marine Sciences (IUI), Eilat.
- 2004 Nominated for the Kozenitsky-Rosenbach Chair in Geology.
- 1997- Present Professor of Oceanography at The Institute of Earth Sciences, The Hebrew University of Jerusalem (Emeritus since 2016).

### Scientific research:

1. Oceanography, marine and aquatic biogeochemistry
2. Biomineralization in foraminifera and corals: Physiology, cellular mechanisms and their implications for proxy development and paleoceanographic interpretations.
3. Marine aspects of the global carbon cycle, particularly photosynthesis and calcification in corals and foraminifera in view of ocean acidification.
4. The effects local and global changes on community calcification in coral reefs
5. Biogeochemistry of stable carbon isotopes in marine and aquatic systems.
6. Development of new proxies for paleoceanography and paleoclimatology using stable isotopes and trace elements.
7. Carbon and nutrient cycling in coral reefs in view of global change.

### **Awards and visiting fellowships**

1987-8	Sabbatical in Cambridge University UK
2002	Recipient of the Gledden Fellowship for Sabbatical at the Center of Water Research, U. of Western Australia, Perth.
2008	Visiting Associate at California Institute of Technology, Pasadena, USA
2010	Excellence Award of the Petersen Foundation, IFM-GEOMAR (Leibnitz Institute for Marine Research, Kiel University, Germany)
2010	Recipient of the Ray Lankester Investigatorship of the Marine Biological Association of the UK
2011	Recipient of University of Western Australia Research Collaboration Award to investigate coral calcification.
2013	Recipient of the R. Freund Prize of the Israel Geological Society
2014	Recipient of the Landau Prize for Art and Sciences, Israel
2017	recipient of the Joseph A. Cushman Award for the year 2018 by the Cushman Foundation for Foraminiferal Research

### **Guidance of graduate students:**

Guided roughly, 15 PhD students (3 active) and about 25 MSc students (1 active).

### **Teaching Experience**

#### Regular frontal courses at HUJI

1. Advanced sedimentology (3 Semester hrs for B.Sc. and M.Sc)
2. General Paleontology (3 hrs B.Sc)
3. Global Biogeochemical Cycles (3 hrs B.Sc)
4. Introduction to Oceanography (3 hrs B.Sc)
5. Paleoceanography and Global Change (3 hrs B.Sc. and M.Sc.).

#### Field and laboratory courses

6. Introduction to geological mapping (5 hrs, B.Sc)
7. The Ecosystem of the Gulf of Eilat (7 hrs, B.Sc, IUI)

8. Biogeochemistry of the Coral Reef (5 hrs, B.Sc and M.Sc, IUI)
9. Experimental Marine Symbiosis (5 hrs, B.Sc. M.Sc. IUI)
10. Methods in Oceanography (5 hrs, B.Sc. and M.Sc., IUI)
11. Lake Kinneret Ecosystem (1.5 hrs B.Sc., M.Sc)

### **Field and Laboratory Experience**

1. Chief scientist on many cruises in the Gulf of Eilat, Red Sea (Erithrea), Indian Ocean (Seychells).
2. Study the community metabolism of the coral reef ecosystem in the Nature Reserve Reef (NRR) in Eilat.
3. Initiated and lead the monitoring program for the Northern Gulf of Eilat.
4. Studied the stable isotope fractionation of algae in Lake Kinneret and its food chain.
5. Build and maintain foraminifera and coral, clams and sea-urchins culturing facilities at the IES, Hebrew University in Jerusalem
6. Develop and maintain light video-microscopy and confocal microscopy for observations on live foraminifera and corals in the IES, Hebrew University in Jerusalem
7. Microanalysis of trace elements and isotopes using SIMS (CRPG, Nancy, WHOI, Woods Hole), LA-ICP-MS at IES, HUJI and at RHUL, UK, Goethe University, Germany).
8. Initiate and led expeditions to study coral reef community metabolism in the Gulf of Eilat, Red Sea, Indian Ocean.
9. Initiated and participated in 2 expeditions to the Great Barrier Reef in Australia 2008 and 2009 to study coral community calcification in view of ocean acidification

### **LIST OF PUBLICATIONS, Jonathan Erez.**

1. **Erez, J.**, 1972, Multivariate analysis of biogenic components in the sediments of Ras Burka, Gulf of Eilat. **M.Sc. Thesis, The Hebrew University of Jerusalem.** (in Hebrew).
2. Gill, D. Boehm, S. and **Erez, J.**, 1976, ASSOCA: Fortran IV program for Williams and Lambert association Analysis with printed dendrograms. **Computers and Geoscience** 2 (2), p. 219-247.
3. **Erez, J.** and Gill, D., 1977, Multivariate analysis of biogenic components in recent sediments off Ras Burka, Gulf of Eilat, Red Sea. **Mathematical Geology** 9 (1), p. 77-98.
4. **Erez, J.**, 1977, Influence of symbiotic algae on the stable isotope composition of hermatypic corals: A radioactive tracer approach. In: **Proceedings 3rd International Coral Reef Symposium**, Ed. D. A. Taylor., p.563-569.
5. **Erez, J.**, 1978, Vital effect on the stable-isotope composition seen in foraminifera and coral skeletons. **Nature** 273 (5659), p. 199-202.
6. Honjo, S. and **Erez, J.**, 1978, Dissolution rates of calcium carbonate in the deep ocean: an in-situ experiment in the North Atlantic Ocean. **Earth and Plan. Sci. Lett.**, 40 (2), p. 287-300.
7. **Erez, J.**, 1979, Influence of differential production and dissolution on the stable isotope composition of planktonic foraminifera. **Ph.D. Thesis, Woods Hole Oceanographic Institution - Massachusetts Institute of Technology**, 118 p.

8. **Erez, J.**, 1979, Modification of the oxygen isotope record in deep sea cores by Pleistocene dissolution cycles. **Nature** 281 (5732), p. 535-538.
9. **Erez, J.**, and Honjo, S., 1981, Comparison of isotopic composition of planktonic foraminifera in plankton tows, sediment traps and sediments. **Paleogeog. Paleoclimat. Paleoecol.**, 33, p.129-156.
10. **Erez, J.**, and Luz, B. 1982, Temperature control of oxygen- isotope fractionation of cultured planktonic foraminifera, **Nature**, vol. 297, no 5863, p. 220-222.
11. **Erez, J.**, Takahashi, K. and Honjo, S. 1982, In-situ dissolution experiment of Radiolaria in the Central North Pacific Ocean. **Earth and Plan. Sci. Lett.** vol. 59, p. 245-254.
12. Dafni, J., and Erez, J., 1982, Differential growth in *Tripneustes gratilla* (Echinoidea). **Proceedings of the International Echinoderm Conference**, Tampa, Florida. Ed. J. M. Lawrence. p. 71-75.
13. **Erez, J.**, 1983, Calcification rates, photosynthesis and light in planktonic foraminifera. In: **Biom mineralization and Biological Metal Accumulation**. Eds: P. Westbroek and E. de Jong. D. Reidel Publishing Company, p. 307-312.
14. **Erez, J.**, and Luz, B. 1983, Experimental paleotemperature equation for planktonic foraminifera. **Geochim. et Cosmochim. Acta**, vol. 47, p. 1025-1031.
15. Winter, A., Almogi-Labin, A., Erez, J., Halicz, E., Luz, B., and Reiss, Z., 1983, Salinity Tolerances of Marine Organisms deduced from Red Sea Quaternary Record. **Marine Geology**. vol. 53, p. M17-M22.
16. ter Kuile, B. and **Erez, J.**, 1984, In-situ growth rate experiments on the symbiont bearing foraminifera *Amphistegina lobifera* and *Amphisorus hemprichii*, **Jour. of Foraminiferal Research**, v. 14, no. 4, p. 262-276.
17. Weiner, S., and **Erez, J.**, 1984, Organic matrix of the shell of the foraminifer *Heterostigina depressa*, **Jour. of Foraminiferal Research**, v. 14, no. 3, p. 206-212.
18. Reiss, Z., Luz, B., Almogi-Labin, A., Halicz, E., Winter, A., and **Erez, J.**, 1984, Paleoceanography of the Gulf of Aqaba during the Last 150,000 Years. **Palaeoecology of Africa**, Vol. 16. Eds. J.A. Coetzee and E.M. Van Zinderen. A.A. Balkema/Rotterdam
19. Jorgensen, B.B., **Erez, J.**, Revsbech, N.P. and Cohen, Y., 1985, Symbiotic photosynthesis in a planktonic foraminiferan *Globigerinoides sacculifer* (Brady), studied with microelectrodes. **Limnol. and Oceanog.** 30(6) p. 1253-1267.
20. Lee, J.J., **Erez, J.**, McEnery, M.E., Lagziel, A., and Xenophontos, X., 1986, Experiments on persistence of endosymbiotic diatoms in the larger foraminifer: *Amphistegina Lessoni*, **Symbiosis** 1, p. 211-226.
21. Dafni, J. and **Erez, J.**, 1987, Skeletal calcification in the sea-urchin *Tripneustes gratilla elatensis* I: Basic patterns. **Marine Biology** 95 p.275-287
22. Dafni, J., and **Erez, J.**, 1987, Skeletal calcification in the sea-urchin *Tripneustes gratilla elatensis* II: effect of various treatments. **Marine Biology** 95 p. 289-297
23. ter Kuile, B., and **Erez, J.**, 1987, Uptake of inorganic carbon and internal carbon cycling in symbiont-bearing benthonic foraminifera. **Marine Biology** 94, p. 499-510.
24. Reches, Z., **Erez, J.** and Garfunkel, Z., 1987, Sedimentary and tectonic features in the northern Gulf of Elat (Aqaba). **Tectonophysics**, 141 p.169-180
25. ter Kuile B., **Erez, J.**, and Lee, J.J., 1987, The role of feeding in the metabolism of larger symbiont bearing foraminifera. **Symbiosis** 4, p.335-336.

26. Cole, J.J., Honjo, S. and **Erez, J.**, 1987, Benthic decomposition of organic matter at a deep-water site in the Panama Basin. **Nature**, 327, p.703-704.
27. ter Kuile, B. and **Erez, J.**, 1988, The size and function of the internal inorganic carbon pool of the foraminifer *Amphistegina lobifera*. **Marine Biology** 99, p.481-487.
28. Lee, J.J., **Erez, J.**, ter Kuile, B. Lagziel, A., and Burgos, S., 1988, Feeding rates of two species of larger foraminifera *Amphistegina lobifera* and *Amphisorus hemprichii* from the Gulf of Eilat (Red Sea). **Symbiosis**, 5, p.61-102.
29. ter Kuile, B., **Erez, J.**, and Padan, E., 1989a, Competition for inorganic carbon between photosynthesis and calcification in the symbiont-bearing foraminifer *Amphistegina lobifera*., **Marine Biology** 103, p.253-259.
30. Krom, M.D., **Erez, J.** Porter, C.B. and Ellner, S., 1989, Phytoplankton nutrient uptake dynamics in earthen marine fishponds under winter and summer conditions. **Aquaculture**, 76, p. 237-253.
31. ter Kuile, B., **Erez, J.**, and Padan, E., 1989b, Mechanisms for the uptake of inorganic carbon by two species of symbiont-bearing foraminifera. **Marine Biology**, 103, p. 241-251.
32. Lee, J.J., McEnery, M. E., ter Kuile, B., **Erez, J.**, Rottger, R., Rockwell, R.F., Faber, W. W. Jr. and Lagziel, A., 1989, Identification and distribution of endosymbiotic diatoms in larger foraminifera. **Micropaleontology** 35 (4), p. 353-366.
33. Lazar, B., Javor, B., and **Erez, J.**, 1989, Total alkalinity in marine-derived brines and pore waters associated with microbial mats. in: **Microbial Mats Physiological Ecology of Benthic Microbial Communities**., Eds. Y. Cohen and E. Rosenberg, American Society of Microbiology, Washington, DC.
34. **Erez, J.**, Krom, M.D. and Neuwirth, T., 1990, Daily oxygen variations in marine fish ponds, Elat, Israel. **Aquaculture**, 84, p. 289-305.
35. Krungal, S. B., **Erez, J.** and Chen, C. A., 1990, Anthropogenic CO<sub>2</sub> penetration in the Northern Red Sea and the Gulf of Elat (Aqaba). **Oceanologica Acta**, 13 (3), p. 283-290.
36. Bijma, J., **Erez, J.**, and Hemleben, C., 1990, Lunar and semi-lunar reproduction cycles in spinose planktonic foraminifera. **J. of Foraminiferal Res.** 20, p.117-127.
37. **Erez, J.**, 1990, On the importance of food sources in coral-reef ecosystems, in: **Coral Reefs**, Ed. Z. Dubinsky, *Ecosystems of the World*, Vol. 25. Elsevier Sci. Publ. p. 411-418.
38. Lazar, B. and **Erez, J.**, 1991, Extreme Carbon isotope depletions in seawater-derived brines and their implication to the past geochemical carbon cycle. **Geology**, 18, p. 1191-1194. (Israel Geological Society, R. Freund Award for 1992 best publication).
39. **Erez, J.** Almogi, A. and Abraham, S., 1991, On the life history of planktonic foraminifera: Lunar reproduction cycle in *Globigerinoides sacculifer* (Brady). **Paleoceanography** 6 (3), p. 295-306.
40. ter Kuile, B. and **Erez, J.**, 1991, Carbon budgets for two species of benthonic symbiont-bearing foraminifera. **Biological Bull.** 180, 489-495.
41. Lazar, B. and **Erez, J.**, 1992, The geochemistry of marine derived brines: I. Variations in carbon isotopes, total CO<sub>2</sub> and alkalinity, and the role of microbial mats on their spatial distribution. **Geochim. Cosmochim. Acta.** 56, 335-345
42. Russell, A.D., Emerson, S., Nelson, K. B., **Erez, J.** and Lea, D., 1994, Uranium in foraminiferal calcite as a record of seawater uranium concentrations. **Geochim. Cosmochim. Acta**, 58(2), 671-681.

43. Zohary, T., **Erez, J.**, Gophen, M., Berman-Frank, I., and Stiller, M., 1994, Seasonality of stable carbon isotopes within the pelagic food web of Lake Kinneret. **Limnol. and Oceanog.** 39 (5), 1030-1043.
44. Shemesh, A., Luz, B. and **Erez, J.**, 1994, Carbon isotopes, dissolved oxygen, and the carbonate system in the northern Gulf of Aqaba (Elat). **Israel Jour. Earth Sci.** 43 (3-4): 145-155.
45. Berman-Frank, I., Zohary, T., **Erez, J.**, and Dubinsky, Z., 1994, CO<sub>2</sub> availability, carbonic anhydrase and the annual dinoflagellate bloom in Lake Kinneret. **Limnol. and Oceanog.** 39(8), 1822-1834.
46. Zohary, T., Gophen, M., **Erez, J.**, 1994, Food web links in Lake Kinneret studied using stable carbon isotopes: Management Implications. In: H. Sund et al. Eds., **Environmental Protection and Lake Ecosystem**, China Science and Technology Press, 439-448.
47. Ronen-Tarazi, M., Schwarz, R., Bouevitch, A., Lieman-Hurwitz, **J. Erez. J.**, and Kaplan, A., 1995, Response of Photosynthetic Microorganisms to Changing Ambient Concentration of CO<sub>2</sub> **NATO ASI Series**, Vol G 38: 323-334. *Molecular Ecology of Aquatic Microbes*, I. Joint (Ed.), Springer-Verlag Berlin Heidelberg.
48. Goldshmidt, O., Galil, B., Golani, D., Lazar, B., **Erez, J.**, and Baranes, A., 1996, Food selection and habitat preferences in deep-sea fishes of the northern Red Sea. Uiblein, F., Ott, J., Stachowitsch, M. (Eds): Deep-sea and extreme shallow-water habitats: affinities and adaptations. - **Biosystematics and Ecology Series** 11: 271-298.
49. **Erez, J.**, and Lazar, B., 1996, Variable metabolic performance of Red Sea coral Reefs calculated from diurnal changes on oxygen, carbonate chemistry and  $\delta^{13}\text{C}$ . **8th International Coral Reef Congress**, Panama, 1: 959-964.
50. Berman-Frank, I. and **Erez, J.**, 1996, Inorganic carbon pools in the bloom-forming dinoflagellate *P. gatunense*. **Limnol. and Oceanog.** 41 (8), p. 1780-1789.
51. Hastings, D., Emerson, S., **Erez, J.** and Nelson, K. B., 1996, Vanadium in foraminiferal calcite: Evaluation of a method to determine paleo-seawater vanadium concentrations. **Geochim. Cosmochim. Acta** 60 (19), p.3701-3715.
52. Elderfield, H., Bertram, C. J. and **Erez, J.** 1996, A biomineralization model for the incorporation of trace elements into foraminiferal calcium carbonate. **Earth and Planet. Sci. Lett.** 142, 409 - 423.
53. Achituv, Y., Brickner, I. and **Erez J.**, (1997), Stable carbon isotope ratio in Red Sea cirripeds as indicator of their food source. **Marine Biology** 130: 243-247.
54. Lazar, B., Gazit-Yaari, N., and **Erez, J.**, (1998), Field evidence for <sup>13</sup>C depletion due to "Baertschi effect" caused by microbial mat communities. In: **Microbiology and biogeochemistry of hypersaline environments** (Oren, A., ed.). CRC Press, Boca Raton, 109-118.
55. **Erez, J.** Bouevitch, A. and Kaplan, A., (1998), Carbon isotope fractionation by photosynthetic aquatic microorganisms: Experiments with *Synechococcus* PCC 7942 and simple carbon flux model. **Canadian Jour. of Botany** 76, 1109-1118.
56. Berman-Frank I., **Erez, J.** and Kaplan, A., (1998), Changes in inorganic carbon uptake during the progression of a dinoflagellate bloom in a lake ecosystem. **Canadian Jour. of Botany** 76, 1043-1051.
57. Crosby, M.P., Abu-Hilal, A., Al-Homoud, A. **Erez, J.** and Ortal, R., (2000), Interactions among scientists, managers and the public in defining research priorities and management strategies for marine and coastal resources: Is the Red Sea Marine Peace Park a new paradigm ?. **Water, Air and Soil Pollution** 123: 581-594.

58. Hadas, O. Malinski-Rushanski, N., Pinkas, R. Halicz, E. and **Erez, J.**, (2000), High chemoautotrophic primary production across a transect in Lake Kinneret, Israel. **Arch. Hydrobiol. Spec. Issues Advanc. Limnol.** 55: 413-420.
59. Erel Y., Y. Dubowski L. Halicz **J. Erez** and A. Kaufman, (2000), Lead concentrations and Isotopic ratios In the Sediments of the Sea of Galilee. **Environ. Sci. & Technol.** 35 (2): 292-299.
60. Camacho A. **Erez, J.** Chicote A. Florin M. Squires M. M., Lehman, C. and Bachofen R. (2001) Microbial microstratification, inorganic carbon photoassimilation and dark carbon fixation at the chemocline of the meromictic Lake Cadagno (Switzerland) and its relevance to the food web. **Aquatic Sciences** 63/1: 91-106.
61. Hadas O. Pinkas R. and **Erez J.**, (2001) Sulfide oxidation and the role chemosynthetic primary production in Lake Kinneret, Israel. **Limnol and Oceanog.** 46 (8): 1968-1976.
62. Dubowski Y. **Erez J.** and Stiller M. (2003) Isotopic paleolimnology of Lake Kinneret. **Limnol. and Oceanog.** 48(1): 68-78
63. **Erez, J.**, 2003, The source of ions for biomineralization in foraminifera and their implications for paleoceanographic proxies. **Reviews in Mineralogy and Geochemistry** 54:115-149. <http://dx.doi.org/10.2113/0540001>
64. Silverman J. Lazar B. and **Erez J.** (2004) Monitoring the Health of Coral Reef Ecosystems Using Community Metabolism pp. 367- 376. In: Rosenberg E, Loya Y, (Eds) **Coral Health and Disease**, Springer, Berlin Heidelberg New York 500 pp.
65. Bentov S. and **Erez J.** (2005), Novel cellular observations on the calcification mechanisms of perforate foraminifera. **Geology** 33 (11):841- 844
66. Bentov S. and **Erez, J.**, (2006) The impact of biomineralization processes on the Mg content of foraminiferal shells: A biological perspective. **Geochem. Geophys. Geosystems.** 7 (1), doi:10.1029/2005GC001015
67. Segev, E., and **J. Erez** (2006), Effect of Mg/Ca ratio in seawater on shell composition in shallow benthic foraminifera, **Geochem. Geophys. Geosystems.**, 7, Q02P09, doi:10.1029/2005GC000969.
68. Silverman J., Lazar B., Dray M., Lazarovich M., Rivlin T. and **Erez J.**,(2006), Monitoring the status of coral reefs using a simplified technique to measure of community metabolism: a case study from the northern Gulf of Aqaba, Red Sea. **Proc. of the 10<sup>th</sup> Intl. Coral Reef Symp.**, Okinawa, Japan: 1174-1181.
69. Raz-Bahat M, **Erez J.**, and Rinkevich B (2006) *In vivo* light microscopy documentation for primary calcification processes in the hermatypic coral *Stylophora pistillata*. **Cell and Tissue Res.** 325: 361–368
70. Schneider K. and **Erez J.**(2006) The effect of carbonate chemistry on calcification and photosynthesis in the hermatypic coral *Acropora eurystoma*. **Limnol. & Oceanog.** 51: 1284-1293.
71. Levi, O, Dubinsky, Z, Achituv, Y, and **Erez, J.** (2006), Diurnal polyp expansion behavior in stony corals may enhance carbon availability for symbionts photosynthesis. **Jour. Exp. Mar. Biol. Ecol.** 333 1– 11
72. Mass T, Einbinder S, Brokovich E, Shashar N, Vago R, **Erez J.**, Dubinsky Z (2007), Photoacclimation of *Stylophora pistillata* to light extremes: metabolism and calcification **Mar Ecol Prog Ser** 334:93-102
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75. **Erez J.** and Braun A. **Abstract** (2007) Calcification in hermatypic corals is based on direct seawater supply to the biomineralisation site. *Geochim. Cosmochim. Acta* 71, SA260.
76. Lazar B., **Erez J.**, Silverman J., Rivlin T., Rivlin A., Dray M., Meeder E. and Iluz D., (2008), Recent environmental changes in the chemical-biological oceanography of the Gulf of Aqaba (Eilat) in: F.D. Por Editor, *Aqaba-Eilat, the Improbable Gulf. Environment, Biodiversity and Preservation* Magnes Press, Jerusalem.
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80. Rollion-Bard C. **Erez J.**, Zilberman T., (2008) Intra-shell oxygen isotope ratios in the benthic foraminiferan *Amphistegina lobifera* and the influence of seawater carbonate chemistry and temperature on this ratio, **Geochim. Cosmochim. Acta** 72, 6006–6014
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86. **Erez Jonathan**, SILVERMAN Jacob, SCHNEIDER Kenneth, REYNAUD Stéphanie and ALLEMAND Denis (2011) Coral calcification under ocean acidification and global change, Part 3, 151-176, DOI: 10.1007/978-94-007-0114-4\_10, in (Dubinsky Z and Stambler N editors), *CORAL REEFS: AN ECOSYSTEM IN TRANSITION Ecosystems of the World*, Springer
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**The following publications are not in refereed Journals** (total of 20, most of them went through a review process).

# in list: 1, 3, 7, 12, 13, 18, 33, 37, 46, 47, 48, 49, 54, 64, 68, 75, 85, 100, 106, 118.

