

Jang Kyun Kim

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EDUCATION

- Ph.D. Marine Botany, University of Connecticut, USA. 2008. (Advisor: Prof. Charles Yarish)
Thesis: Mechanism of Nitrogen Assimilation of *Porphyra* from New England.
- M.S. Marine Botany. University of Connecticut, USA. 2003. (Advisor: Prof. Charles Yarish)
Thesis : Ecophysiological Studies of Four Native *Porphyra* (Bangiales, Rhodophyta) Species from Coastal New England: Responses to Varying Combinations of Ammonium and Temperature.
- M.S. Marine Biology. University of Inchon, KOREA. 2000. (Advisor: Prof. Taejun Han)
Thesis : Effects of Major Environmental Pollutants on the Green Alga, *Ulva pertusa* Kjellman.
- B.S. Biology. University of Inchon, KOREA. 1997.

RESEARCH EXPERIENCE

- Post-Doctoral Associate (Supervisors: Drs. Jim Duston, David Garbary and Balakrishnan Prithiviraj),
Nova Scotia Agricultural College, Canada. 2009 – present.
- Research Project: Integrating Red Macroalgae into land-based Marine Finfish Aquaculture
- Research Assistant (Supervisor: Prof. Charles Yarish). University of Connecticut, USA. 2001 – 2003.
- Research on the effects of nutrients and temperature on *Porphyra*.
- Research Assistant (Supervisor: Dr. Sung-Ho Kang). Korean Ocean Research & Development Institute,
KOREA. 2000.
- Monitored Antarctic phytoplankton: composition, biomass and distribution pattern of indicator species.
- Research Assistant (Supervisor: Dr. Kyung-Doo Cho). Inchon Development Institute, KOREA. 1997 – 1999.
- Established long-term comprehensive marine environmental conservation program for Inchon, KOREA.

GRANTS, AWARDS and HONORS

- Oral Presentation Award (the First Place), The Annual International Conference and Exposition of World Aquaculture Society. 2008.
- Grants-In-Aid Award, The Phycological Society of America, 2008
- The Ronald Bamford Award, Department of Ecology and Evolutionary Biology, University of Connecticut. 2008.
- The Francis Rice Trainor Award, Connecticut State Museum of Natural History. 2006, 2008.
- DEMI Award, Department of Ecology and Evolutionary Biology, University of Connecticut. 2008.
- The Doctoral Dissertation Fellowship Award, University of Connecticut Graduate School. 2007.
- The Ronald Bamford Award, Department of Ecology and Evolutionary Biology, University of Connecticut. 2007.
- The Henry N. Andrew Award, Connecticut State Museum of Natural History. 2007.

Hoshaw Travel Award, The Phycological Society of America. 2003, 2006, 2008.
Honor Scholarships awarded by the Graduate School, University of Inchon. 1999.
Honor Scholarships awarded by University of Inchon due to excellent academic results. 1996.

PUBLICATIONS

- Kim J.K.** and C. Yarish. 2010. Development of a Tide-Simulating Apparatus for Macroalgal Blades. *ALGAE*. 25:37-44.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2009. A Comparison of Growth and Nitrate Uptake by New England *Porphyra* Species from Different Tidal Elevations in Relation to Desiccation. *Phycological Research*. 57:152-157.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2008. Physiological Activity of *Porphyra* in Relation to Zonation. *Journal of Experimental Marine Biology and Ecology*. 365:75-85.
- Kim J.K.**, G.P. Kraemer, C.D. Neefus, I.K Chung and C. Yarish. 2007. Effects of temperature and ammonium on growth, pigment production and nitrogen uptake by four species of *Porphyra* (Bangiales, Rhodophyta) native to the New England coast. *J. Appl. Phycol.* 19:431-440.
- Kim J.K.** and T. Han. 2001. Effects of Inorganic Nutrients and Heavy Metals on Germination of the Green Alga, *Ulva pertusa* Kjellman. *Korean Journal of Environmental Biology* 19: 7-17.
- Kim J.K.** and T. Han. 2000. Effects of Inorganic Nutrients and Heavy Metals on Reproduction of the Green Alga, *Ulva pertusa* Kjellman. *Korean Journal of Phycology* 15: 81-88
- Kim J.K.** and T. Han. 1999. Effects of Inorganic Nutrients and Heavy Metals on Growth and Pigmentation of the Green Alga, *Ulva pertusa* Kjellman. *Korean Journal of Environmental Biology* 17: 427-438.
- Kim J.K.**, K.D. Cho and K. Park. 1999. Conservation plan of Marine Environment. *In* Long-term Comprehensive Environmental Conservation Plan of Incheon. K.D. Cho et al. (eds). Incheon Metropolitan City.
- Kim J.K.**, K.D. Cho, H.Y. Yoon and Y.J. Jeon. 1998. Conservation plan of Marine Environment. *In* 2020 Incheon Deram. Kim T.G., S.O. Park and W.S. Choi (eds), Incheon Metropolitan City.

LECTURES and PRESENTATIONS

- Kim J.K.**, G.P. Kraemer and C. Yarish. 2010. Desiccation of the genus *Porphyra* causes release of nitrogen. 49th Northeast Algal Symposium.
- Kim J.K.**, B. Prithiviraj, D.J. Garbary, J. Duston. 2010. *Chondrus crispus* stocking density affects nutrient removal efficiency in high water flux effluent from a land-based Atlantic halibut farm. 49th Northeast Algal Symposium.
- Kim J.K.**, P. Corey, B. Prithiviraj, D.J. Garbary, B.C. Blanchard and J. Duston. 2010. Integrating red macroalgae into land-based marine finfish aquaculture. Scotian Pride 2010. Invited speaker for a symposium.
- Abdu, Y., **J.K. Kim**, G.P. Kraemer and C. Yarish. 2009. Mapping Ecologically Significant Inorganic Nitrogen in the Nearshore Environments of Long Island Sound, USA Using Macroalgal Tissue Samples. 48th Northeast Algal Symposium.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2008. An Innovative Way of Nitrogen Metabolism Induced by Desiccation in *Porphyra*. 62nd Annual Meeting of the Phycological Society of America.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2008. Desiccation of the Economically Important Genus *Porphyra* (=nori) Alters Nitrogen Metabolism in a Novel Way. The Annual International Conference and Exposition of World Aquaculture Society. 2008. ***Oral Presentation Award (the First Place)**.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2008. How is nitrogen metabolism impacted by desiccation stress in *Porphyra*? 47th Northeast Algal Symposium.

- Kim J.K.**, G.P. Kraemer and C. Yarish. 2007. Nitrate uptake rate in *Porphyra* species from different tide levels: responses to desiccation stress. 61st Annual Meeting of the Phycological Society of America.
- Pereira R., **J.K. Kim**, Y. Sudo, I. Sousa-Pinto and C. Yarish. 2007. An unusual form of growth in *Porphyra*: vegetative propagation or a form of perennation? 61st Annual Meeting of the Phycological Society of America.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2006. Are Intertidal seaweeds quicker nutrient scrubbers? International Conference on Marine Algae and Global Warming. The 20th Anniversary of the Korean Society of Phycology.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2006. Effects of desiccation on nitrate uptake and growth rate in two native *Porphyra* species occurring in different tidal levels along the New England Coast. 60th Annual Meeting of the Phycological Society of America.
- Yarish C., **J.K. Kim** and R. Gladych. 2006. Seaweed mariculture: a student primer for cultivation. Marine Algae Culture: Techniques, Uses and Development Perspectives. Zaragoza (Spain), May 22-26.
- Yarish C., **J.K. Kim** and R. Gladych. 2006. Seaweeds culture: Open sea systems. Marine Algae Culture: Techniques, Uses and Development Perspectives. Zaragoza (Spain), May 22-26.
- Yarish C., **J.K. Kim** and R. Gladych. 2006. Seaweeds culture: Harvesting and processing for open sea systems. Marine Algae Culture: Techniques, Uses and Development Perspectives. Zaragoza (Spain), May 22-26.
- Kim J.K.**, G.P. Kraemer and C. Yarish. 2006. Desiccation effects on growth and nitrate uptake of *Porphyra* spp. in relation to tidal elevation. 45th Northeast Algal Symposium.
- Kim J.K.**, G.P. Kraemer, C.D. Neefus, I.K Chung and C. Yarish. 2004. Effects of temperature and ammonium on growth, pigment production and nitrogen uptake in four species of *Porphyra* naïve to the coast of New England. 43rd Northeast Algal Symposium.
- Kim J.K.**, G.P. Kraemer, C.D. Neefus, I.K Chung and C. Yarish. 2004. The effects of temperature and ammonium on growth and nitrogen uptake in four species of *Porphyra* naïve to the coast of New England. Northeast Ecology and Evolution Conference 2004.
- Yarish C., G.P. Kraemer, **J.K. Kim**, R. Carmona, P. He, C.H. Sohn, C.D. Neefus, T. Chopin, D. Snellgrove, G.C. Nardi, K. Shadel, J.J. Curtis and R. Pereira. 2004. The bioremediation potential of the economically important red alga, *Porphyra*, in an integrated aquaculture system with finfish. The Annual International Conference and Exposition of World Aquaculture Society.
- Yarish C., G.P. Kraemer, **J.K. Kim**, R. Carmona, C.D. Neefus, G.C. Nardi, J.J. Curtis, R. Pereira and M. Rawson. 2004. The bioremediation potential of economically important seaweed in integrated aquaculture systems with finfish. 33rd Annual UJNR Conference.
- Kim J.K.**, G.P. Kraemer, C.D. Neefus, I.K Chung and C. Yarish. 2003. A comparison of four native *Porphyra* species from coastal New England in response to ammonium and temperature in small tank system. 57th Annual Meeting of the Phycological Society of America.
- Kim J.K.**, G.P. Kraemer, C.D. Neefus, I.K Chung and C. Yarish. 2003. Effect of NH₄⁺ and temperature on the growth and nitrogen concentration of *Porphyra*. 42nd Northeast Algal Symposium.
- Kim J.K.** and T. Han. 2000. Effects of Major Environmental Pollutants on Reproduction of the Green Alga, *Ulva pertusa* Kjellman. 14th Korean Phycological Society Meeting.
- Kim J.K.** and T. Han. 1999. Effects of Major Environmental Pollutants on Growth and Pigmentation of the Green Alga, *Ulva pertusa* Kjellman. 13th Korean Phycological Society Meeting.

PROFESSIONAL SOCIETIES

Sigma Xi, The Scientific Research Society
 The Phycological Society of America
 World Aquaculture Society
 The Northeast Algal Society
 Korean Phycological Society

PATENT

Kim J.K., M.S. Yoo and C. Yarish. “Tide Simulating Apparatus for Intertidal Sessile Organisms” Korea Patent No. 2008-6128.

COURSES TAUGHT

General Biology
Foundations of Biology
Principles of Biology
Aquaculture
Physiology of Marine Plants
Cultivation Techniques of Marine Algae

PROFESSIONAL ACTIVITIES & VOLUNTARY SERVICE

Thesis Advisory Committee

Peter Corey, MSc, Nova Scotia Agricultural College and Dalhousie University joint program.

Juan Manriquez, MSc, Nova Scotia Agricultural College and Dalhousie University joint program.

Undergraduate Students Research Mentor (2010 – present), St. Francis Xavier University

Undergraduate Students Research Mentor (2009 – present), Nova Scotia Agricultural College

Undergraduate Students Research Mentor (2008 – 2009), University of Connecticut

Manuscript Reviewer: Journal of Experimental Marine Biology and Ecology; Estuarine, Coastal and Shelf Science

Student Participant and Assistant at the Long Island Sound Synthesis Workshop (May 14 – 16, 2007), Science Technical Advisory Committee for the US EPA Long Island Sound Study.

Leader for the Seaweed Workshops, Marine Science day (May 12, 2006 & May 17, 2007), a program for 5th and 6th grade students by the Long Island Sound Foundation and the Connecticut Association of Schools. University of Connecticut at Avery Point.

Translator for Student Exchange Visits between the US (Bridgeport Regional Vocational Aquaculture School) and Korea (Wando Fisheries High School) supported by National Oceanic and Atmospheric Administration (NOAA), and Ministry of Maritime Affairs and Fisheries (MOMAF), September 2004. Bridgeport Regional Vocational Aquaculture School.

Meeting facilitator for the 43rd Northeast Algal Symposium (April 23-24, 2004), University of Connecticut at Avery Point.