Curriculum Vita

John Korstad Feb. 22, 2015

Personal Data:

Current Position: Professor of Biology (since Fall 1980) Department of Biology

Oral Roberts University

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ORU Faculty Profile: <a href="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/faculty-profile.php?id=9&k="http://webapps.oru.edu/new-php/academics/php/academ

Education:

Undergraduate: California Lutheran University, Thousand Oaks, CA

B.A. (Geology) and B.S. (Biology), 1972

Graduate: California State University, Hayward, CA

M.S. (Environmental Biology) December, 1980

University of Michigan, Ann Arbor, MI

M.S. (Zoology) 1979; Ph.D. (Zoology) December, 1980

Postdoctorate: SINTEF Division of Applied Chemistry, Aquaculture Group,

Trondheim, Norway (June 1987-July 1988, July 1993-June 1994)

Theses:

Master's: "An in situ Study of the Effects of Zooplankton Grazing on Phytoplankton Productivity"

Ph.D.: "Laboratory and Field Studies of Phytoplankton-Zooplankton Interactions"

Research Experience:

A study of the physical, chemical, and biological factors influencing lake primary productivity under Dr. Barbara Collins (California Lutheran University, 1972)

Field and laboratory investigations of the effects of zooplankton grazing on phytoplankton productivity with Drs. Michael Foster and Robert Main (California State University, Hayward, 1972-74)

Laboratory and field investigations of zooplankton nutrient regeneration rates under Drs. Claire Schelske and Karen Porter (University of Michigan, 1975-76)

Observations of the filter feeding mechanism of zooplankton using 16 mm cinematography with Drs. Karen Porter and Rudi Strickler (University of Michigan and Yale University, 1976)

Scanning electron microscope study of the morphology of Daphnia pulex (1976-86)

Laboratory investigations of the influence of grazing and nutrient regeneration by zooplankton on several species of phytoplankton with Drs. Karen Porter and John Lehman (University of Michigan, 1976-80)

Field manipulation study of the influence of zooplankton grazing and nutrient regeneration on phytoplankton in Third Sister Lake, Michigan (University of Michigan, 1976-80)

Laboratory investigation of growth and life history of <u>Daphnia pulex</u> fed different species of algae (University of Michigan, 1976-80)

Laboratory investigations of life history and feeding behavior of Brachionus plicatilis; larval fish feeding; aquaculture (Norway, 1987-88 and 1993-94)

Current Research: Phytoplankton-zooplankton interactions in lakes; Nutrient regeneration by zooplankton and fish in lakes; Aquaculture, including rotifer and brine shrimp feeding and life history studies; larval fish ecology/production; Wetlands ecology; Lake management; Control of invasive aquatic macrophytes in lakes; use of algae for biofuels.

Teaching Experience:

California Lutheran University:

General Geology lab—1970-71

California State University, Hayward:

General Biology lab—1972-73

General Anatomy and Physiology lab—1974

Principles of Biology lab—1974

General Ecology lab—1973

University of Michigan:

Biology for Nonscientists lab—1975

Parasitology lab—1976

General Ecology lab—1976, 1978

Biology of Invertebrates lab—1976-78

Natural History of Vertebrates lab—1977-79

Limnology lab—1979

Tulsa Community College:

General Biology—1985-87, 1991 General Zoology—1990 to 1999

Oral Roberts University:

Principles of Biology lab—1980, 1992

Introduction to Biology lab—1980 to present

Introduction to Biology lecture—1981 to present

Introduction to Biological Research—1980, 1983

General and Comparative Physiology lab—1981-83

Ecology lab—1982 to present

Ecology lecture—1983 to present

Aquatic Ecology (Limnology)—1983 to present

Biology seminar—1983-85

Introduction to Marine Ecology—1986 to present

Advanced Marine Ecology—1991

Medical Parasitology—1991 University Success—1994 to present

Principles of Marine Ecology – May 2002

Environmental Science (lec. & lab) – Jan. 2013 to present

Global Development and Sustainability – Jan. 2013 to present

University of Trondheim (AVH):

Live-Food for Marine Fish Production—Oct. 1993

ORU Math-Science Academy:

Co-Director 1992-2001 and on planning committee plus leading field trip to Oxley Nature Center (nearly every year since 2001)

Au Sable Environmental Institute:

Limnology -Summer 1996 to present

Academic Awards:

Dean's List, California Lutheran College—1970-72

Who's Who Among Students in American Universities and Colleges—1971-72

American Men and Women of Science

Who's Who in the South and Southwest

Nominated by ORU students for outstanding faculty member in 1981-82

Personalities of the South

Personalities of America

Men of Achievement

Outstanding Faculty Member of the Year Award (for excellence in teaching), School of Arts and Sciences, Oral Roberts University—1982-83

Who's Who in Frontiers of Science and Technology

Permanent International File of Naturalists

Outstanding Young Men of America

Scholar of the Year Award (for ORU faculty), 1988-89

Finalist for ORU Outstanding Faculty Member (for excellence in teaching), School of Arts and Sciences—1990-91, 1994-95, 1995-96, 2010-11

Fulbright Fellowship (to Norway)—1993-94

California Lutheran University Alumni Certificate of Excellence Award—1994

Who's Who in Science and Engineering

Who's Who Among America's Teachers

Carnegie Foundation Professor of the Year for Oklahoma—1996

American Men and Women of Science

American Biographical Institute Five Hundred Leaders of Influence

International Biographical Centre of Cambridge, England—2000 Outstanding People of the 20th Century and International Man of the Year

Dictionary of International Biography

Who's Who in America

Who's Who in the World

Who's Who in Medicine and Healthcare

2000 Outstanding Scientists of the 20th Century

Outstanding Faculty Member of the Year, School of Arts and Sciences, ORU—1999-2000 and

Ruth Swearingen Award for Outstanding Faculty Member for all of ORU

Grants:

Grant for Graduate Research, California State University at Hayward—1973

Sigma Xi Grant-in-Aid of Research—1973

University of Michigan Rackham Dissertation/Thesis Grant—1979

University of Michigan Block Grant—1979

Sigma Xi Grant-in-Aid of Research—1980

ORU Intramural Grants—1981-82, 1983-84, 1989-90, 1990-91, 1994-95

National Science Foundation Small-College Faculty Research Opportunity Award

Grant—1983

Norwegian Marshall Fund Award (1987-88 and 1993-94; two awards each time)

Royal Norwegian Council for Scientific and Industrial Research (NTNF) Fellowship (1987-88)

ORU Summer Math-Science Academy, funded by the Oklahoma Regents for Higher Education (co-written with several other ORU faculty; 1993-2001) and participated in grants funded in 2004-07 and one to be submitted for 2008-11

Recent (last 5 years) Grant Proposals

"Biofuels from Algae: Developing an Effective Protocol" \$30,000 submitted as an Oklahoma Applied Research Support (OARS) grant to the Oklahoma Center for the Advancement of Science and Technology (OCAST) on Sept. 28, 2008 http://www.ok.gov/ocast/ - not funded.

"Tulsa Algae Biofuels Research Project" \$1,150,000 submitted with Joe Moore at KBI to The Economic Development Generating Excellence (EDGE) on March 19, 2010 http://www.ok.gov/edge/ - not funded.

"Algae and Other Non-Food Biomass Depolymerization Process" \$99,977 submitted with Joe Moore at KBI as a Small Business Innovation Research (SBIR) grant proposal to the U.S. to the Dept. of Energy on Nov. 15, 2010 mailto://users/jkorstad/Biofuels/Grants,%20Giving,%20and%20Other%20Funding/DOE/DOE%20-%20Science%20-%20SBIR:STTR%2010.10.webarchive — not funded.

"Algae and Biomass Depolymerization (ABD) Project" \$1,695,000 submitted with Joe Moore at KBI to The Economic Development Generating Excellence (EDGE) on May 17, 2011 http://www.ok.gov/edge/ - in review.

Professional Memberships:

American Association of Zoological Parks and Aquariums American Institute of Biological Sciences American Scientific Affiliation American Society of Limnology & Oceanography Beta Beta Beta Biological Society Gamma Beta Phi Great Plains Honors Council Great Plains Limnologists National Collegiate Honors Council Oklahoma Academy of Science

Reviewer for:

Canadian Journal of Fisheries and Aquatic Sciences

Hydrobiologia

National Science Foundation

Journal of the Aquatic Plant Management Society

Journal of Freshwater Ecology

Journal of the National Collegiate Honors Council (on Editorial Board)

Research Council of Norway

Perspectives on Science and Christian Faith (Journal of the American Scientific Affiliation)

Proceedings of the Oklahoma Academy of Science

Energy & Fuels

Renewable & Sustainable Energy Reviews

Several biofuels papers

Several manuscripts by Norwegian scientists

Several textbook publishers

External examiner for Bhaskar Singh's Ph.D. Committee, Aug. 2010

Scientific Judge:

Oklahoma Academy of Science (Collegiate Academy)—1980-82
Beta Beta Beta Biological Honor Society—1982 to present
National Fellowship of Christian Schools (ORUEF)—1983 to present
Ecological Society of America—June 1985
Victory Christian School—1986 to present
Jenks Public School—1986-87
International Science and Engineering Fair—1990 (in Tulsa)
Heritage Academy—1998 to present

Professional Talks Given:

- "An <u>in situ</u> study of the effects of zooplankton grazing on phytoplankton productivity and species composition" presented at the 37th Annual Meeting of the American Society of Limnology and Oceanography, Seattle, WA, 1974.
- "Phytoplankton-zooplankton interactions" given by invitation of the Biology Department, Lawrence University, Appleton, WI, on October 5, 1975.
- "An <u>in situ</u> study of the effects of zooplankton grazing on phytoplankton productivity" presented at the 1977 Annual Meeting of the Western Society of Naturalists, Santa Cruz, CA.
- "Nutrient regeneration by zooplankton in southern Lake Huron" presented at the 42nd Annual Meeting of the American Society of Limnology and Oceanography, January 1980, Los Angeles, CA.
- "Life history of <u>Daphnia pulex</u> fed four species of algae" presented at the 43rd Annual Meeting of the American Society of Limnology and Oceanography, Knoxville, TN.
- "In situ response of phytoplankton to grazing and nutrient regeneration by zooplankton." (ibid.) 3
- "An SEM study of <u>Daphnia</u> filtering morphology" presented at the 44th Annual Meeting of the American Society of Limnology and Oceanography, Milwaukee, WI, June 1981.
- "In <u>situ</u> response of phytoplankton to grazing and nutrient regeneration by zooplankton" given by invitation of the Department of Natural Science, University of Tulsa on September 15, 1981.
- "Current research on phytoplankton-zooplankton interactions" presented at the 70th Annual Technical Meeting at the Oklahoma Academy of Science, November 13, 1981, at Phillips University, Enid, OK.
- (with R. Couch): "Effects of Sonar on coontail, water quality, and non-target organisms" presented at the Aquatic Plant Management Meeting in Jackson, MS, July 13-14, 1981.
- (with S. Phippen): "A scanning electron microscope study of <u>Daphnia</u> filtering morphology" presented at the Collegiate Academy of the Oklahoma Academy of Science, February 1982, at University of Oklahoma, Norman, OK.
- "The role of zooplankton in regulating phytoplankton community structure" presented at the 9th Annual Great Plains Limnology Meeting, October 1982, at the University of Oklahoma Biological Station.
- "Experimental design and use of enclosures in limnological research" presented at the 71st Annual Meeting of the Oklahoma Academy of Science, November 12, 1982, at University of Science and Arts in Chickasha, OK.

- (with D. Blank): "Vertical distribution of zooplankton in Lake Bixhoma" presented at the Collegiate Academy of the Oklahoma Academy of Science, February 1983, at Oklahoma State University, Stillwater, OK.
- "Response of phytoplankton to grazing and nutrient regeneration by zooplankton" given by invitation of the Biology Department, Baylor, University, Waco, TX, on March 25, 1983.
- "Response of phytoplankton to grazing and nutrient regeneration by zooplankton" given by invitation of the Department of Ecology and Systematic Biology, University of Kansas, Lawrence, on April 14, 1983.
- "Nutrient regeneration by fish and zooplankton" presented at the 47th Annual Meeting of the American Society of Limnology and Oceanography, Vancouver, British Columbia, June 1984.
- "Alaska as seen through the eyes of a biologist" given as an invited talk at the Spring Field Meeting of the Oklahoma Academy of Science, April 27, 1985.
- "The role of nutrient regeneration by fish and zooplankton in lakes" presented at the 74th Annual Meeting of the Oklahoma Academy of Science, November 15, 1985, at Oklahoma Baptist University in Shawnee, OK.
- "Practical aspects of statistics" given by invitation of the Department of Pharmacology and Graduate Student Council, University of Oklahoma Health Sciences Center, Oklahoma City, February 12, 1986.
- "Further comparisons of nutrient regeneration by fish and zooplankton" presented as a poster at the 49th Annual Meeting of the American Society of Limnology and Oceanography, Kingston, Rhode Island, June 1986.
- "How to present a science fair" presented as an invited speaker at the 4th Annual Meeting of the Oral Roberts University Educational Fellowship, Tulsa, OK, July 1986.
- "Further Comparisons of nutrient regeneration by fish and zooplankton" presented as a poster at the 75th Annual Meeting of the Oklahoma Academy of Science, November 14, 1986, at Northeastern State University in Tahlequah, OK.
- "An ecologist's view of terrestrial and aquatic ecosystems." Given by invitation of the Biology Club at Oklahoma State University in Stillwater on April 21, 1987.
- Several talks on my research interests and current project at various institutions in Norway (1987-88).
- (with Y. Olsen and O. Vadstein): "Life history of Brachionus plicatilis fed different algae" presented at the 5th International Rotifer Symposium, September 1988, at Gargnano, Italy.
- (with O. Vadstein and Y. Olsen): "Feeding kinetics of Brachionus plicatilis fed Isochrysis galbana." Ibid.
- "Aquaculture Research in Norway" presented at the 77th Annual Technical Meeting of the Oklahoma Academy of Science, November 11, 1988, at University of Science and Arts, Chickasha, OK.
- "Aquaculture Research in Norway"—several talks in 1988-89 at ORU, Northeastern State University in Tahlequah and Oklahoma State University in Stillwater.
- (with E. Nelson): "Sensitizing Teacher Education Candidates to Environmental Education" presented at the National Science Teachers Association Area Convention, October 26-28, 1989, in Tulsa, OK.
- "Field Research Opportunities in Freshwater Biology" (two talks) presented at the Oklahoma Junior Academy of Science Scientific Research Day at ORU on September 23, 1989, and the Annual Meeting on November 10, 1989, at Central Oklahoma State University in Edmond.
- (with G. Polen) "Feeding biology of the marine rotifer Brachionus plicatilis" presented at the 78th Annual Meeting of the Oklahoma Academy of Science, November 10, 1989, at Central State University in Edmond, OK.
- (with R. Turner) "Feeding biology of the brine shrimp Artemia salina" ibid.
- "Comparison of feeding kinetics of <u>Artemia salina</u> and <u>Brachionus plicatilis</u> on marine algae" presented at the World Aquaculture 90 meeting, June 10-14, 1990, in Halifax, Nova Scotia.
- (with P. Bell) "Preliminary studies of the feeding kinetics and life history of Artemia salina" presented at the 79th Annual Meeting of the Oklahoma Academy of Science, November 9, 1990, at Oral Roberts University, Tulsa, OK.
- (with C. Fortey) "Feeding kinetics of the rotifer <u>Brachionus plicatilis</u> and the brine shrimp <u>Artemia salina</u> fed different algae" (ibid.)
- (with R. Isaac) "Brachionus plicatilis (Rotifera)--various aspects of its feeding biology" (ibid.)
- (with J. Su) "Comparison of feeding kinetics of Artemia salina at different age groups" (ibid.)
- (with S. Toal) "Assimilation rate and efficiency of <u>Brachionus plicatilis</u> fed different algae" (ibid.)
- (with R. Mangual, R. Couch, and M. Fram) "Performance of hybrid tilapia fed a commercial ration vs. algae" presented at the World Aquaculture 91 meeting, June 16-20, 1991, in San Juan, Puerto Rico.
- (with A. Neyts et al.) "Use of swimming speed and egg ratio as predictors of the status of rotifer cultures in aquaculture" presented at the 7th International Rotifer Symposium, June 1994, at Mikolajki, Poland.
- Several aquaculture talks given in Norway during my 1993-94 stay.
- "Fish Culture in Norway" presented at the 16th Annual Meeting of the Oklahoma Chapter of the American Fisheries Society, September 8, 1995, in Stillwater.

- "Life in Norway" presented to the International Club of Tulsa, October 26, 1996.

 "Lake Ecology—Integrative Session," presented at the AuSable Environmental Institute, July 25, 1996.

 "Aquaponics—A Combination of Aquaculture and Hydroponics," presented at the Fall Field Meeting of the Oklahoma Academy of Science on September 19, 1997.
- "Aquaponics: Merging of Aquaculture and Hydroponics," presented at the Fall Technical Meeting of the Oklahoma Academy of Science on November 7, 1997, in Chickasha.
- "The Summer Math-Science Academy Program at ORU," given as an invited talk to the Broken Arrow Rotary Club, October 4, 1999 and Feb. 2001.
- "The Role of Aquaculture in Improving World Food Supplies," given as an invited talk to the Tri Beta Regional Meeting,

- University Oklahoma Biological Station, April 6, 2002.
- "Nurturing and Integrating Critical Thinking and Faith Development in Faith-Based Honors Programs," presented at the National Collegiate Honors Council on October 31, 2002 in Salt Lake City, UT.
- "The Aquarium as a Tool for Science" as part of a panel discussion of the Oklahoma Aquarium Society at the Tulsa Zoo, November 9, 2002.
- "Creation-Evolution Discussion" presented to the Tulsa area Reasons to Believe Chapter, Feb. 2005.
- "Management of Manistee Lake" presented to the area residents and Manistee Lake Association officers, Au Sable Environmental Institute, Mancelona, MI, Aug. 2005.
- "Stewardship of Lake Evelyn" presented at the American Scientific Affiliation at Calvin College, MI on July 29, 2006.
- Participated in several panel presentations on honors at the National Collegiate Honors Council conference in Philadelphia, PA in Nov. 2006.
- "Alternative Energy Biofuels from Algae as a Viable Prospect" presented to the Union High School Academy in April 2010 and Nov. 2010, and at Tulsa Community College in Oct. 2009, Jan. 2010, Mar. 2010, and Nov. 2010.
- "Biofuels from Algae as a Future Alternative Energy Source" presented at the Oklahoma Academy of Science Fall Technical Meeting, Northeast State Univ., Broken Arrow, OK on Nov. 5, 2010.
- "Overview of alternative energy and specific application to algae biofuels" presented to the ORU Engineering Dept. Seminar on Jan. 12, 2011.
- "Overview of alternative energy and specific application to algae biofuels" presented to the ORU Computer Science Club on Mar. 31, 2011.
- "Sustainability in Various Disciplines What Does It Really Mean, and How Might Honors Help Reconcile Differences" co-presented with Ashley Sweeney at the Great Plains Honors Council meeting April 2, 2011 at the University of Texas at Arlington.
- "Integrating Spirituality in Honors Classes: An Assessment of Six Interdisciplinary Seminars at Oral Roberts University."

 Co-presented with A. Sweeney and H. Covington at the Spirituality and Honors Education Symposium, May 29-31, 2012 at Indiana Wesleyan Univ.
- Several talks at the annual NCHC (Nat'l Collegiate Honors Council) conferences, including St. Louis (2009), Kansas City (2010), Phoenix (2011), Boston (2012), and New Orleans (2013) on Spirituality and Honors, Honors Interdisciplinary Courses, Honors Science Courses, Global Development and Sustainability, and more.
- Creation Care and Sustainability at Christian Chapel Church (Tulsa, OK) on Sept. 17, 2014.

Publications:

- Korstad, J. 1980. Laboratory and field studies of phytoplankton-zooplankton interactions. *Dissertation Abstracts* 41(9):3317-B. Order No. 8106167.
- Couch, R., E. Nelson, and J. Korstad. 1981. Effects of Sonar on coontail, water quality, and non-target organisms in Fin and Feather Club Lake; Rogers County, OK, 1980. Report to Lilly Research Laboratories, Dallas, TX. 23 pp.
- Korstad, J. 1983. The influence of nutrient regeneration by zooplankton in southern Lake Huron. *Journal of Great Lakes Research* 9(3): 374-388.
- . 1988. A selected bibliography on the biology of <u>Brachionus plicatilis</u>, with particular reference to feeding, life history, and population dynamics. SINTEF Report No. STF21 A88027. 40 p.
- _____. 2007. Stewardship of an aquatic habitat on the campus of Oral Roberts University, Tulsa, Oklahoma. *Perspectives on Science and Christian Faith* 59 (3):55-56.
- _____, Neyts et al. 2005. Use of swimming speed and egg ratio as predictors of the status of rotifer cultures used in aquaculture. *Hydrobiologia* 313/314:395-398.
- Y. Olsen, and O. Vadstein. 1989. Life history characteristics of the rotifer <u>Brachionus plicatilis</u>. *Hydrobiologia* 186/187:43-50.
- _____, O. Vadstein and Y. Olsen. 1989. Feeding kinetics of <u>Brachionus plicatilis</u> fed <u>Isochrysis galbana</u>. *Hydrobiologia* 186/187: 51-57.
- _____. 1994. Eighteen articles included in: *Environmental Encyclopedia*, Gale Research, Inc., 981 pp.
 - . 1997. Eleven articles included in: *Environmental Encyclopedia*, 2nd ed., Gale Research Institute.
- . 1999. Sixteen articles included in: World of Biology, Gale Research Institute.
- Petrucci, S., T. Bettinger, and J. Korstad. 1993. Observations of the Foraging Behavior of Squirrel Monkeys (*Saimiri sciureus boliviensis*) at the Tulsa Zoological Park. *Bios* 64 (3): 64-71.
- Sharma, Y., B. Singh, and J. Korstad. 2010. High yield and conversion of biodiesel from a non-edible feedstock (*Pongamia pinnata*). Journal of Agricultural and Food Chemistry 58 (1): 242-247.
- Sharma, Y., B. Singh, and J. Korstad. 2010. Application of an efficient nonconventional heterogeneous catalyst for biodiesel synthesis from *Pongamia pinnata* oil. Energy and Fuels 24 (5): 3223-3231.
- Sharma, Y., B. Singh, and J. Korstad. 2010. Latest developments on application of heterogeneous basic catalysts for an efficient and eco friendly synthesis of biodiesel: A review. Fuel 90(4): 1309–1324.
- Sharma, Y., B. Singh, and J. Korstad. 2011. Advancements in solid acid catalysts for ecofriendly and economically viable synthesis of biodiesel. Biofuels, Bioproducts and Biorefining. doi:10.1002/bbb.253.
- Sharma, Y., B. Singh, and J. Korstad. 2011. A critical review on recent methods used for economically viable and eco friendly development of microalgae as a potential feedstock for synthesis of biodiesel. Green Chemistry 13: 2993-3006 (DOI: 10.1039/c1gc15535k).

Sharma, Y., B. Singh, and J. Korstad. 2012. A critical review on corrosion of compression ignition (C.I.) engine parts and its inhibition by biodiesel and biodiesel blends. Accepted for publication in Renewable & Sustainable Energy Reviews 16(1): 3401-3408.

MANUSCRIPTS:

Korstad. Response of phytoplankton to grazing and nutrient regeneration by zooplankton in Third Sister Lake, Michigan. and A. Rachmanioff. Growth and life history of <u>Daphnia pulex</u> fed four species of algae.

and G. Polen. 1990. Feeding and population dynamics of <u>Brachionus plicatilis</u> fed three species of algae.

Fortey, C. and J. Korstad. 1992. Feeding kinetics of the brine shrimp <u>Artemia salina</u> and the rotifer <u>Brachionus plicatilis</u> fed different algae.

Isaac, R. and J. Korstad. 1992. Determining acclimation time for <u>Brachionus plicatilis</u> fed <u>Isochrysis galbana</u> in batch culture

Toal, S. and J. Korstad. 1992. Assimilation of different algae by the rotifer Brachionus plicatilis.

Sharma, Y., B. Singh, and J. Korstad. 2009. Heterogeneous catalysts and their role in the synthesis of biodiesel.

Sharma, Y., B. Singh, and J. Korstad. 2009. Chicken eggshell as an efficient heterogeneous catalyst for biodiesel synthesis from Karanga (*Pongamia pinnata*) oil.

Covington, H., A. Sweeney, and J. Korstad. 2012. Integrating Spirituality in Honors Classes: An Assessment of Six Interdisciplinary Seminars at Oral Roberts University. Presented at the Spirituality and Honors Education Symposium, May 29-31, 2012 at Indiana Wesleyan Univ. and submitted for publication in the resultant CCCU/NCHC publication. Manuscript being reviewed.

Covington, H., A. Sweeney, and J. Korstad. 2012. Honors Housing: Honors Culture Development at Oral Roberts University. Submitted by invitation the *J. National Collegiate Honors Council*. Manuscript being reviewed.

Hart, T., K. Ede, and J. Korstad. 2014. Differentiating on Sustainability: Examining the Top-100 US MBA Programs and Sustainability Competences, submitted to International Journal of Sustainability in Higher Education on 6.20.14.

Prevost, M. and J. Korstad. 2014. The Effects of Added Microbes (*Bacillus cereus*) on the Decomposition of Organic Matter (Lettuce). Submitted to *Bios* 2014.

Working Experience:

Assistant Geologist to Mr. Arlen Ehm, Cities Service Oil Co., 1971. Geology field assistant in Alaska.

Research Assistant to Dr. Michael S. Foster, California State University, 1973. Review of oil pollution.

Assistant Environmental Consultant to Dr. Charles R. Goldman, University of California, 1974. Collecting and analyzing lake samples.

Research Assistant to Dr. Claire L. Schelske, University of Michigan, 1974. Experiments on rates of nutrient regeneration by zooplankton in southern Lake Huron.

Research Assistant to Dr. John T. Lehman, Unviersity of Michigan, 1980. Experiments on the influence of nitrogen-loading on dissolved inorganice carbon in natural waters.

Assistant Professor of Biology at Oral Roberts University, August 1980 to July 1986.

Researcher with Dr. Stephen Threlkeld on his National Science Foundation grant, University of Oklahoma Biological Station, Summer 1983. Nutrient recycling by fish and zooplankton in Lake Texoma.

Part-time Lecturer in Biology, Tulsa Community College, 1985-87, 1990 to 1999.

Associate Professor of Biology at Oral Roberts University, August 1986 to July 1989.

Postdoctoral Fellow (sabbatical leave) with Dr. Yngvar Olsen at the Foundation for Industrial and Technical research (SINTEF) at the Norwegian Polytechnic University in Trondheim, Norway, June 1987 through July 1988. Aquaculture research.

Professor of Biology at Oral Roberts University, August 1989 to present.

Fulbright Fellowship to Norway, July 1993 to July 1994.

Director of the ORU Honors Program, 2001 to present.

Extracurricular Activities and Interests:

Past member of the YMCA Indian Guides, Boy Scouts of America and Sierra Club. Played trombone for eight years

member of junior and senior high school orchestra, concert band, marching band, and jazz band.

Past Convocator of California Lutheran College (1973-74).

Past member of Divine Shepherd Lutheran Church in Ann Arbor, Michigan, where I served as a Sunday school teacher and superintendent, chairman of the ministry of education, deacon, and elder from 1975 to 1980; and Immanuel Lutheran Church in Broken Arrow, Oklahoma, where I served as an adult and youth Sunday school teacher, director of the board of education, evangelism caller, and am currently an Elder, help teach adult Sunday School classes, and a member of the Men's Group.

Current member of Grace Lutheran Church in Tulsa, Oklahoma, where I have served as an usher.

Coordinator of the Oklahoma Academy of Science Annual Technical meeting at ORU in 1983, and co-coordinator in 1991 and 2000.

Director (1983-1986) and Assistant Director (1989-1992) of the Collegiate Academy of the Oklahoma Academy of Science.

Vice-president (1982-83; 1995-96), Chaplain (1988-89), and President (1996-97) of the Faculty Senate at ORU.

Faculty advisor for ORU Beta Beta Biological Honor Society Chapter (1990-2005).

Faculty advisor for ORU Gamma Beta Phi Honor Society Chapter (1999-2002).

On Board of Advisors for MEND Pregnancy Counseling Center (~1985 to present).

Active participant in various athletic programs and teams.

Speaker at various local church and civic groups.

President (1995) and current active member of Norwegian Club of Tulsa since 1989.

Member of the Marine Fishes Advisory Committee of the American Association of Zoological Parks and Aquariums. In this capacity, I help the Curator of Aquaria at the Tulsa Zoological Park, and also serve on the international advisory committee.

Biological advisor for the Oklahoma Aquarium, Jenks, OK (1999 to present).

Member of Board of Advisors for Young Life of Broken Arrow (1998-2001).

Member of Board of Directors for Petra Field Camps (~1999 to present).

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