

David G. Patriquin: Publications, Selected Reports & Articles

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Agriculture & Horticulture

- Liu, K.K.L., A. Hammermeister, D. Patriquin and R. Martin. 2008. **Assessing organic potato cropping systems at the end of the first cycle of four-year rotations using principal component analysis.** *Canadian Journal of Soil Science* 88: 543-552
- MacLeod, M., Cohen, and D. Patriquin. 2007. **Farmers' Perspectives on Education related to Organic Agriculture in Nova Scotia.** In: *Academic Conference Proceedings of Salt of the Earth: Creating a Culture of Environmental Respect and Sustainability* (White Point N.S. Oct. 2006), pp 49-56.
- MacAskill, G., D. Patriquin. 2002, 2003. **Trials of source-separated municipal solid waste compost/sand topdressings on HRM athletic fields.** Reports to Halifax Regional Municipality Environmental Services Department (Phase I, Jan 2002, 33 pp; Phase II July 2002, 36 pp; Phase III, July 2002, 41 pp; Final Summary Report, March 2003, 26 pp).
- Patriquin, D.G. 1999. **Farms as Ecosystems.** In: *Exploring Organic Alternatives: Meeting the Challenges of Agriculture, Health and Community.* Edited by Wordstream Associates, University Extension Press, University of Saskatchewan, Saskatoon, pp 25-32.
- Patriquin D.G., D. Reid and B Walsh. 1996. **The Oaks Experiments on Organic Turf Management.** Report to Edmonds Environmental Services and Canada-Nova Scotia Sustainable Economic Development Agreement, 302 pp.
- Patriquin, D.G., D. Baines and A. Abboud 1995. **Soil fertility effects on pests and diseases.** In: *Soil Management in Sustainable Agriculture*, edited by H.F. Cook and H.C. Lee, Wye College Press, Wye (UK), pp. 161-174,
- Loucks, R., J. Edmonds, J. Shepard, D Reid, R. Van Ingen, and D. Patriquin, D. 1994. **The First Lake System Watershed Management Project. Phase I: Neighborhood Stewardship.** In: P.G. Wells and P.J. Ricketts (eds) *Cooperation in the Coastal Zone: Conference Proceedings*, Coastal Zone Canada Association, Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada, pp 1341-1348.
- Patriquin, D.G., H. Blaikie, M. Patriquin and C. Yang. 1993. **On farm measurements of pH, electrical conductivity and nitrate for monitoring coupling and decoupling of nutrient cycles.** *Biological Agriculture & Horticulture* 9: 231-272.
- Patriquin, D.G. And F. Moncayo. 1993. **Cerrando el Ciclo de los nutrientes. Conceptos obtenidos de la agricultura organica.** Publicado en *Memorias del II Seminario Taller Internacional, Sistemas Agropecuarios Sostenibles Y Desarrollo Rural para el Tropico*, Cali, Colombia Marzo de 1991, editado por A.Z. Cadavid et R.G. Espinel Marin, pp. 101-122. CIPAV, Cali, Colombia.
- Patriquin, D.G., S. Hubbard and J. Scott. 1993. **Evaluation of low external input, sustainable farming practices for livestock farms in Cumberland County.** Final Report of REAP-Cumberland to Canada/Nova Scotia Livestock Feed Initiative Agreement on Project TT163. 127 p.
- Patriquin, D.G. and C. Pundak. 1990. **Determining and Improving the Beneficial Effects of Seaweed Extract on Vegetable Crops 1989 Research.** Report to Acadian Seaplants Ltd., Dartmouth, N.S. 32 p.
- Patriquin D.G. and F. Moncayo. 1992. **Farming on Top of A Mountain. Ecofarming in Colombia. A resource kit (video, audio tapes, booklet).** Distributed by CUSO-Atlantic, Halifax
- Samson, R.A., C.M. Foulds and D.G. Patriquin (1991) **Effect of cover crops on cycling of nitrogen**

- and phosphorus in a winter wheat-corn sequence**. In: *Cover Crops for Clean Water*, edited by W.L. Hargrove. Soil and Water Conservation Society, Ankeny, Iowa, pp 106-108.
- Patriquin, D.G., L. Edwards, M. Gimby, P. Jobin and R. Samson. 1991. **Seven Case Studies in Sustainable Agriculture**. Report to the Science Council of Canada, 159 pp.
 - Abboud, A. and D.G. Patriquin. 1991. **Processes Involved in Mobilization of P in Different Farming Systems in S.W. Ontario: Nutrient Levels in Plant Tissues and Soils**. Report to Canada-Ontario SWEEP (Soil and Water Enhancement Program), SWEEP Report #23 from REAP-Canada, under direction of Ecological Services for Planning, Agriculture Canada, Harrow, Ontario, 46 p.
 - Schneider, G., and D.G. Patriquin (eds). 1991 **Proceedings of the Bioregional Farmer/Scientist Workshop in Organic Agriculture (Fredericton, N.B., Nov 18-20, 1988)**. Organic Crop Improvement Association of New Brunswick & Dalhousie University, 80 p.
 - Eaton, L. J. and D.G. Patriquin. 1990. **Fate of labeled fertilizer nitrogen in commercial lowbush blueberry stands**. *Canadian Journal of Soil Science* 70: 727-730.
 - Hill, N.M. and D.G. Patriquin. 1990. **Evidence for the involvement of *Azospirillum brasilense* and *Helicomyces roseus* in the aerobic nitrogen-fixing/cellulolytic systems from sugarcane litter**. *Soil Biology & Biochemistry* 22: 313-319.
 - Patriquin, D.G. and C. Pundak. 1990. **Determining and Improving the Beneficial Effects of Seaweed Extract on Vegetable Crops 1989 Research**. Report to Acadian Seaplants Ltd., Dartmouth, N.S. 32p.
 - Samson, R., C. Foulds and D. Patriquin. 1990. **Choice and Management of Cover Crop Species and Varieties for use in Row Crop Dominant Rotations**. Report to Canada-Ontario SWEEP (Soil and Water Enhancement Program), SWEEP Report # 12, from REAP Canada, under direction of Ecological Services for Planning. Agriculture Canada, Harrow Ontario, 99 p.
 - Hill, N.M., D.G. Patriquin and S.P. Vander Kloet. 1989. **Weed seed bank and vegetation at the beginning and end of the first cycle of a 4- course crop rotation with minimal weed control**. *Journal of Applied Ecology* 26: 233-246.
 - Patriquin D.G. 1989. **Collaborative on-farm research**. Paper no 14 in Proceedings of Conference on Research in Sustainable Agriculture (Agriculture Canada/Macdonald College), 10 pp.
 - Eaton, L.J. and D.G. Patriquin. 1988. **Inorganic nitrogen levels and nitrification potential in lowbush blueberry soils**. *Canadian Journal of Soil Science* 68: 63-75.
 - Hill, N.M. and D.G. Patriquin. 1988. **Induction of aerobic nitrogen fixation and enhancement of wheat straw decomposition by inoculation with a crude culture from sugarcane litter**. *Soil Biology and Biochemistry* 20: 613-618.
 - Patriquin, D.G., D. Baines, J. Lewis and A. Macdougall. 1988. **Aphid infestation of fababeans on an organic farm in relation to weeds, intercrops and added nitrogen**. *Agriculture, Ecosystems and Environment* 20: 279-288.
 - Patriquin, D.G. 1988. **Closing the nitrogen cycle**. In *Proceedings of 1987 REAP-Canada Conference*, Macdonald College, Quebec, pp 1-19.
 - *Eaton, L.J. and D.G. Patriquin. 1988. **Inorganic nitrogen levels and nitrification potential in lowbush blueberry soils**. *Canadian Journal of Soil Science* 68: 63-75.
 - Patriquin, D.G. 1988. **Weed control in organic farming systems**. In: M.A. Altieri and M. Liebman (Eds) *Weed Management in Agroecosystems: Ecological Approaches*. CRC Press, Boca Raton, Florida, pp 304-317.
 - Patriquin, D.G., N.M. Hill, D. Baines, M. Bishop and G. Allen. 1986. **Observations on a mixed farm during the transition to biological husbandry**. *Biological Agriculture and Horticulture* 4: 69-154.
 - Patriquin, D.G. 1986. **Biological husbandry and the nitrogen problem**. *Biological Agriculture and Horticulture*. 3: 167-189.
 - Patriquin, D.G. **O nitrogenio na agricultura alternativa**. In: *Agricultura Alternativa, Anais do*

Seminario de Pesquisa 10 a 12 de dezembro de 1984, Londrina, Brasil. Publ. Fundacao Instituto Agronomico de Parana, Londrina, pp 153-174.

- Vessey, K. and D.G. Patriquin. 1984. **In situ nitrogen fixation by white clover in mixed swards in Nova Scotia**. *Canadian Journal of Plant Science* 64: 625-636.
- Patriquin, D.G. and D. Burton. 1982. **Faba bean: an alternative to soybean in Nova Scotia**, Canada. In: S.B. Hill and P. Ott, (Eds), *Basic Techniques in Ecological Farming*. Borkhauser Verlag: Basel, Boston, Stuttgart. pp 98-107.
- [?] Patriquin, D.G. 1982. **Nitrogen fixation in sugar cane litter**. *Biological Agriculture and Horticulture* 1: 39-63.
- Patriquin, D.G., D. Burton and N. Hill. 1981. **Strategies for achieving self sufficiency in nitrogen on a mixed farm in eastern Canada based on use of the faba bean**. In: J.M. Lyons et al., (Eds) *Genetic Engineering for Nitrogen Fixation and Conservation of Recently Fixed Nitrogen*. Plenum Publ. Corp., New York, pp 651-671.
- Patriquin, D.G. 1979. **Regarding possible effects of the Annapolis River Tidal Power Project on the dykeland farming operations of Rob Warren Sr. at Belleisle, Annapolis Co.** Report to ABP Consultants, Lawrencetown, Annapolis Co., N.S.
- Patriquin, D.G. 1978. **Techniques for the study of N₂-fixing "associative symbioses" in sugar cane**. International Atomic Energy Agency (Vienna) Programme for Development of Agricultural production through the Application of Nuclear technology. Report AC/TR/SM/05/78, 8 pp + appendix.
- Patriquin, D.G., J.C. MacKinnon and K.I. Wilkie. 1978. **Seasonal patterns of denitrification and leaf nitrate reductase activity in a corn field**. *Canadian Journal of Soil Science* 58: 283-285.

Articles Related to Organic Farming - partial

- **Managing soils for effective pest control**. *EcoFarm and Garden*, Spring, 2003, pp 38-43. Reprinted in *The Organic Companion: Gleanings from Canadian Organic Growers*. Edited by J. Wallace. Published by The Canadian Organic Growers, 2005, pp. 185-191.
- **Reducing the risks from E. coli 0157 on the organic farm**. *EcoFarm & Garden*, Summer 2000, pp 27-35.
- **Livestock in the nutrient balance on the farm**. *Maine Organic Farmer and Gardener*, Jun./Aug. 1995, pp 28-29.
- **The ecology of transition**. *COGnition*, 12(4) Oct. 1988, pp 8-13.
- **Danger -- nitrates!** *Rural Delivery*, Dec. 1984, pp 12-15.

Teaching, Marine & Estuarine Ecology, Terrestrial Ecology, Nitrogen Fixation

- Scheibling, Robert E., Patriquin, David G, and Filbee-Dexter, Karen. 2018. **Distribution and abundance of the invasive seagrass *Halophila stipulacea* and associated benthic macrofauna in Carriacou, Grenadines, Eastern Caribbean**. *Aquatic Botany* 144: 1-8
- [?] Hill, N.M. and D. Patriquin, 2014. **Ecological Assessment of the Plant Communities of the Williams Lake Backlands**. A REPORT to The Williams Lake Conservation Company, feb 12, 2014. Available at <http://versicolor.ca/wlcc/index.html>
- LaPaix, R. , B. Freedman, B. and D, Patriquin, 2009. **Ground vegetation as an indicator of ecological integrity**. *Environmental Reviews* 17: 249-265
- Chen, L., Gass, G. and D. Patriquin. 2008. **The hands-on challenge in online introductory biology classes**. *Focus* (Dalhousie University) 16(2): 6
- Patriquin, D., C, Adl, J, Van Dommelen, C. O'Neil, and B Freedman. 2005. **Facilitating Access: Introductory Biology Classes Online**. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher*

Education 2005 (pp. 1008-1014). Chesapeake, VA: AACE.

- Patriquin, D.G. 2001. **Web Literacy in the Science Curriculum**. In: *Proceedings of the Atlantic Universities' Teaching Showcase 2000* (J. Hill and D. Novo, eds), Association on Atlantic Universities and Mount Saint Vincent University, Halifax, Canada, pp 181-191.
- Patriquin, David G. 1999. **Using the Web to promote collaborative learning and academic critique**. In: *Atlantic Universities' Teaching Showcase 1998*.(J. Gordon and D. Novo, Eds), Association on Atlantic Universities and Mount Saint Vincent University, Halifax, Canada, pp 181-191.
- Patriquin, D.G. and W. Hunte. 1997 **Preliminary observations of the status of shallow water reefs at Sandy Island, Carriacou, Grenada**. Report to the Grenada Board of Tourism and the Kido Project Environment Station, Carriacou, 21 pp. + photographs.
- Hill, N. and D.G. Patriquin. 1992 **Interactions between fungi and nitrogen-fixing bacteria**. In: C.J. Carol and D.T. Wicklow (Eds). *The Fungal Community*, 2nd Ed. Marcel Dekker, New York, Ch. 39, pp 783-796.
- Hill, N.M. and D.G. Patriquin. 1990. **Increased oxygen consumption at warmer temperatures favors aerobic nitrogen fixation in plant litters**. *Soil Biology and Biochemistry* 22: 321-325.
- Lane, P.A., J.H. vandermeulin, M.J. Crowell and D.G. Patriquin. 1988. **Impact of Corexit 9527 on marsh vegetation in experimentally oiled salt marsh**. *Proceedings of 1987 Oil Spill Conference*. American Petroleum Institute, Washington, D.C., pp 509-514.
- Jain, D.K. and D.G. Patriquin. 1985. **Characterization of a substance produced by *Azospirillum* which causes branching of root hairs**. *Canadian Journal of Microbiology* 31: 206-210.
- Jain, D.K. and D.G. Patriquin. 1984. **Root hair deformation, bacterial attachment and plant growth in wheat-*Azospirillum* associations**. *Applied and Environmental Microbiology* 48: 1208-1213.
- Smith, D.L., D.G. Patriquin & G.M. Curry. 1986. **The effect of light dependent oxygen consumption on nitrogenase activity in *Anabaena cylindrica* Lemm.** *Canadian Journal of Botany* 64: 1843-1848.
- McClung, C.R., D.G. Patriquin and R.E. Davis. 1984. ***Campylobacter nitrofragilis* sp. Nov., a nitrogen-fixing bacterium associated with the roots of *Spartina alterniflora* Loisel.** *International Journal of Systematic Bacteriology* 33: 605-612.
- Patriquin, D.G., J. Dobreiner and D.K. Jain. 1983. **Sites and processes of association between diazotrophs and grasses**. *Canadian Journal of Microbiology* 29: 900-915.
- Patriquin, D.G. 1981. **New developments in grass-bacteria associations**. In: N.S. Subba Rao (Ed). *Advances in Agricultural Microbiology*. M/S Oxford and IBH New Delhi, pp 139-190.
- Livingstone, D.C. and D.G. Patriquin. 1981. **Below ground growth of *Spartina alterniflora* Loisel: habit, functional biomass and non-structural carbohydrates**. *Estuarine Coastal Shelf Science* 12: 579-587.
- Boyle, C.D. and D.G. Patriquin. 1981. **Carbon metabolism of *Spartina alterniflora* in relation to that of its associated N₂-fixing bacteria**. *New Phytologist* 89, 275-288.
- Guerinot, M.L. and D.G. Patriquin. 1981. **N₂-fixing vibrios isolated from the gastrointestinal tract of sea urchins**. *Canadian Journal of Microbiology* 27: 311-317.
- Guerinot, M.L. and D.G. Patriquin. 1981. **The association of N₂-fixing bacteria with sea urchins**. *Marine Biology* 62: 197-207.
- Boyle, C.D. and D.G. Patriquin. 1981. **Acetylene-reducing activity (ARA) by endorhizosphere diazotrophs**. In: P.B. Vose and A.P. Ruschel (Eds.) *Associative N₂ Fixation* Vol. II, CRC Press, Boca Raton, Florida, pp 27-31.
- Patriquin, D.G. 1981. **The general biology of saltmarshes**. In: *Saltmarsh Usage in Nova Scotia*, Edited by A. Hatcher, D.G. Patriquin and A. Hanson. Publ. Inst. Resource and Environmental Studies, Dalhousie University.
- Blacklock, N.E., F.B. Goldsmith and D.G. Patriquin. 1981. **Nitrogen fixation (C₂H₂ reduction) by lungwort lichen (*Lobaria pulmonaria* (L.) Hoffm.) on red maple (*Acer rubrum* L.)** *Proceedings of the Nova*

Scotia Institute of Science 30: 89-107.

- Patriquin, D.G./ L.A. Gracioli and A.P. Ruschel. 1980. **Nitrogenase activity of sugar cane propagated from stem cuttings in sterile vermiculite.** *Soil Biology and Biochemistry* 12, 413-417.
- Livingstone, D.C. and D.G. Patriquin. 1980. **Seasonal nitrogenase activity in relation to root carbohydrates and organic acids in a temperate zone associative symbiosis.** *Soil Biology and Biochemistry* 12: 543-546.
- Boyle, C.D. and D.G. Patriquin. 1980. **Endorhizal and exorhizal acetylene-reducing activity in a grass (*Spartina alterniflora* Loisel)-diazotroph association.** *Plant Physiology* 66, 276-280.
- Smith, D.L., J. MacLachlan and D.G. Patriquin. 1980. **Nitrogen fixation (acetylene reduction) in two salt marshes of the Minas Basin.** *Proceedings of the Nova Scotian Institute of Science* 29: 381-392.
- McClung, C.R., and D.G. Patriquin. 1980. **Isolation of a nitrogen-fixing species from the roots of *Spartina alterniflora* Loisel.** *Canadian Journal of Microbiology* 26: 881-886.
- Magalhaes, F.M.M., D. Patriquin and J. Dobereiner. 1979. **Infection of field grown maize with *Azospirillum* sp.** *Revista Brasileira de Biologia* 39: 587-596.
- van Raalte, C.V., and D.G. Patriquin. 1979. **Use of the acetylene blockage technique for assaying denitrification in salt marsh sediments.** *Marine Biology* 52: 315-320.
- Patriquin, D.G. 1978. **Nitrogen fixation and denitrification.** In: B.T. Hargrave (Ed.) *Geochemical and biological observations in intertidal sediments from Cobequid Bay, Bay of Fundy, Nova Scotia.* Fisheries and Marine Service Technical Report 782-21-23.
- Smith, D. and D.G. Patriquin. 1978. **A survey of angiosperms in Nova Scotia for rhizosphere nitrogenase (acetylene reduction) activity.** *Canadian Journal of Botany* 56: 2218-2223.
- Keddy, C. and D.G. Patriquin. 1978. **Annual eelgrass in Nova Scotia.** *Aquatic Botany* 5: 163-170.
- Patriquin, D.G. and J. Dobereiner. 1978. **Light microscopy observations of tetrazolium-reducing bacteria in the endorhizosphere of maize and other grasses in Brazil.** *Canadian Journal of Microbiology* 24: 734-742.
- Patriquin, D.G. and C.R. McClung. 1978. **Nitrogen accretion, and the nature and possible significance of N₂ fixation (acetylene reduction) in a Nova Scotian *Spartina alterniflora* stand.** *Marine Biology* 47: 227-242.
- Patriquin, D.G. and C. Keddy. 1978. **Nitrogenase activity (acetylene reduction) in a Nova Scotian salt marsh: its association with angiosperms and the influence of some edaphic factors.** *Aquatic Botany* 4: 227-244.
- Patriquin, D.G. and D. Denike. 1978. **In situ acetylene reduction assays of nitrogenase activity associated with the emergent halophyte *Spartina alterniflora* Loisel: methodological problems.** *Aquatic Botany* 4: 211-226.
- Patriquin, D.G. 1978. **Factors affecting nitrogenase activity (acetylene reduction) associated with excised roots of the emergent halophyte *Spartina alterniflora* Loisel.** *Aquatic Botany* 4: 193-210.
- Patriquin, D.G. 1978. **Nitrogen fixation (acetylene reduction) associated with cord grass, *Spartina alterniflora* Loisel.** *Bulletin of Ecological research Communications* (Stockholm) 26: 20-27.
- Patriquin, D.G. and C.R. Butler. 1976. **Marine Resources of Kouchibouguac National Park.** Applied Ocean Systems Ltd., Dartmouth for Parks Canada, 403 pp.
- Patriquin, D.G. 1975. **Migration of seagrass bed blowouts in the eastern Caribbean and its geological and ecological implications.** *Aquatic Botany* 1: 163-189.
- Patriquin, D.G. and R. Knowles. 1972. **Nitrogen fixation in the rhizosphere of marine angiosperms.** *Marine Biology* 16: 49-58.
- Patriquin, D.G. 1967. **Biology of *Gadus morhua* in Ogac Lake, a landlocked fiord on Baffin Island.** *Journal of the Fisheries Research Board of Canada* 24: 2537-2594.
- Patriquin, D.G. 1972. **Carbonate mud production by epibionts on *Thalassia*: an estimate based on**

leaf growth rate data. *Journal of Sedimentary Petrology* 42: 687-689.

- Patriquin, D.G. 1972. **The origin of nitrogen and phosphorus for growth of the marine angiosperm *Thalassia testudinum*.** *Marine Biology* 15: 35-46.
- Patriquin, D.G. 1972. **Removal of phosphate from aquatic systems by cropping of aquatic angiosperms: consideration of the possible loss in the "squeezing out" process.** Report for Zero Defects Design Ltd., Montreal, 4 pp.
- Garrett, P., D.L. Smith, A.O. Wilson and D.G. Patriquin. 1971. **Physiography, ecology and sediments of two Bermuda patch reefs.** *Journal of Geology* 79: 647-668.
- Patriquin, D.G. 1969. **Grain size distribution and constituent particles of three Bermuda patch reefs.** *Bermuda Biological Stations Special Publication* No. 2: 89-100.
- Patriquin, D.G. 1967. **Biology of *Gadus morhua* in Ogac lake, a landlocked fiord on Baffin Island.** *Journal of the Fisheries Research Board of Canada* 24: 2537-2594.

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