

## CURRICULUM VITAE

### **Dominique P. Bureau**

Dept. of Animal and Poultry Science  
University of Guelph, Guelph, Ontario, N1G 2W1, CANADA  
Ph: +1-519-824-4120 ext. 53668; Mobile: +1-519-824-4120  
Email : dbureau@uoguelph.ca

### **EDUCATION**

#### **Ph.D. in Nutritional Sciences (1992-1997)**

Department of Human Biology and Nutritional Sciences, University of Guelph.  
Advisors: C. Young Cho and James B. Kirkland

#### **M.Sc. in Animal Science (1991-1992)**

Department of Animal Science, Université Laval, Québec, Canada.  
Research project carried out in Khon Kaen University, Thailand  
Advisors: Joël de la Noüe and Pornchai Jaruratjamorn

#### **B.A.Sc. in Bio-Agronomy (1986-91)**

Université Laval, Québec, Canada.

### **EXPERIENCE**

#### **Professor (2009- present) (Assistant Prof, 2001 – 2005; Associate Prof, 2005-2008)**

UG/OMNR Fish Nutrition Research Laboratory (<http://fishnutrition.uoguelph.ca>)

Department of Animal and Poultry Science, University of Guelph.

Activities: Conduct fish nutrition research to support his fish culture and stocking activities of the Ontario Ministry of Natural Resources (OMNR) and the development of commercial aquaculture in Ontario and Canada. Supervise a research team composed of about 15 students, research assistants and visiting scientists. Develop strategies and tools to improve economical and environmental sustainability of aquaculture operations.

#### **Coordinator – University of Guelph Paris Semester (2006-2009)**

Centre for International Programs, University of Guelph

Activities: Planning all aspects of the Paris Semester Program: Advertising the program, selection and supervision of participants for the offerings of the program in 2007 and 2009, developing and teaching two original courses, hiring and supervising contractual teaching staff, managing program budget, planning field trips and visits, counseling to participants, etc.

**Adjunct Professor (2000-2001) & Research Associate (1997-2000)**

Department of Animal and Poultry Science, University of Guelph.

Activities: Carry out an independent research program in fish nutrition with the support of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the Ministry of Natural Resources (OMNR). Teach the course “Nutrition of Fish and Crustacea” and modules in different courses.

**Fish Nutritionist (1994-1997)**

Department of Human Biology and Nutritional Sciences, University of Guelph.

Activities: Carry out an independent research program in fish nutrition with the support of OMAFRA. Teach the undergraduate course “Nutrition of Fish and Crustacea” and contribute to the teaching of graduate courses for the MSc Aquaculture program.

**Graduate Teaching Assistant (1993-1994)**

Department of Nutritional Sciences, University of Guelph.

Activities: Teach the laboratory portion of the course “Fundamentals of Nutrition”.

**Genetic Evaluation Clerk (1990)**

Centre d'Insémination Artificielle du Québec (CIAQ), St-Hyacinthe, Québec.

Activities: Assist genetists in the genetic evaluation and procurement of dairy and beef sires.

**Research Assistant in Animal Nutrition (1989)**

Agriculture Canada Research Station, Lennoxville, Québec.

Activities: Assist scientists (Drs. J.J. Matte and C. L. Girard) in studies on folic acid requirements of swine and young ruminants.

**Dairy Farm Employee (1988)**

Fraserridge Holstein, Matsqui, British Columbia.

Activities: Barn maintenance, feeding, milking.

**Community Development Volunteer (1988)**

Canada World Youth / Community Development Department, Thailand.

Activities: Participate to various agricultural, cultural and educational activities in a village of Northeastern Thailand.

**HONOURS AND PARTICIPATION**

**2009-2010 Independent Expert Witness**

Contributed expertise and an expert report for a litigation related to salmon aquaculture  
McGrigors LLP, Edinburg, Scotland, United Kingdom

**2009-2011 NRC Committee on Nutrient Requirements of Fish and Shrimp**

Appointed by the National Research Council (NRC) and The National Academies (USA) to a 10-member committee responsible for carrying out a comprehensive review of the literature on nutrient requirements of fish and shrimp.

**2007-present Technical Advisor to PT Suri Tani Pemukan, Japfa Comfeed Group, Indonesia**  
Providing support to R&D team for research planning, staff training, experiment design and analysis, feed formulation, and ingredient quality issues.

**2007-2008 Stanford Sustainable Aquaculture Feeds Working Group**

**2007-present Editorial Board Member**  
Aquaculture Research

**2006-present Editorial Board Member**

## LANGUAGES

Fluent in French (mother tongue) and English (near-native fluency).  
Functional knowledge of Spanish (written, spoken) and Thai (spoken).

## PATENTS

Holub, B.J., F. W. Collins, D.P. Bureau and D.J. Philbrick. Triterpene Saponins from Soybeans for Treating Kidney Disease. United States Patent, No. 6,784,159, issued August 31<sup>st</sup>, 2004.

## TEACHING EXPERIENCE

### Undergraduate Courses:

#### **UNIV 3160 Agriculture and Food in France: *Terroirs, Traditions, et Modernité***

Study Abroad Semester - Paris W07 & W09  
Lecturer & Semester coordinator  
University of Guelph  
Taught course twice

#### **UNIV 3170 Ideas, Icons and Institutions: Contributions of French Scientists**

Study Abroad Semester - Paris W07 & W09  
Lecturer & Semester coordinator  
University of Guelph  
Taught course twice

#### **UNIV\*1200 First Year Seminars: Section 12. Evolution of Dietary Habits**

University of Guelph  
Lecturer  
Taught this first year seminar once (winter 2008)

#### **NUTR 3340 Nutrition of Fish and Crustacea**

Dept. of Animal and Poultry Science, University of Guelph  
Lecturer  
Taught course multiple times between 1995 and 2012

#### **ANSC 2200 Principles of Aquaculture**

Dept. of Animal and Poultry Science, University of Guelph  
Guest lecturer  
Taught modules on fish nutrition and feeding ten (10) times between 1995 and 2011

#### **ANSC 3120 Introduction to Animal Nutrition**

Dept. of Animal and Poultry Science, University of Guelph

Guest lecturer

Taught modules on fish nutrition and feeds seven (7) times between 1995 and 2004

### **NUTR 3190 Fundamental of Nutrition**

Dept. of Nutritional Sciences, University of Guelph

Graduate teaching assistant

Taught and supervised laboratory portion of course in 1993 and 1994

### **Graduate Courses :**

#### **ANSC\*6480 Advanced Animal Nutrition II**

Dept. of Animal and Poultry Science, University of Guelph

Team taught this course twice (W2008, W2010) and currently teaching the course alone (W2012)

#### **ANSC\*6100 Special Projects: Advanced Concepts in Nutrition and Metabolism**

Dept. of Animal and Poultry Science, University of Guelph

Course Coordinator and Instructor, W2005 and W2006

#### **Aqua\*6100 Science and Technology in Aquaculture**

Dept. of Animal and Poultry Science, University of Guelph

Guest lecturer

Taught a module on feed requirement models 10 times between 1995 and 2008.

### **Major Research Accomplishments**

#### **1) Dietary and Endogenous Factors Affecting Efficiency of Amino Acid Utilization in Fish.**

*El Haroun and Bureau. 2007. Aquaculture, 262: 402-409; Encarnaçao et al. 2006. Aquaculture 261,1371-138; Bureau and Encarnaçao, 2006. Proc. VIII Simposium Internacional de Nutricion Acuicola; Peña and Bureau. 2006. XII International Symposium on Fish Nutrition & Feeding; Encarnaçao et al. 2004. Aquaculture 235,569-586.*

I have planned and supervised a series of studies conducted by three Ph.D. students and one post-doctoral fellow on the effect of dietary and endogenous factors on the efficiency of amino acid utilization by rainbow trout and Atlantic salmon. Our studies indicated that diet composition (e.g. digestible energy content, type of energy-yielding nutrients, form under which digestible amino acids are supplied, ingredient matrix) has a significant effect on efficiency of amino acid utilization. Our studies also highlighted very significant differences in efficiency of amino acid utilization between species and fish at different life stages. Through the studies we have challenged orthodoxy and rapidly established ourselves as one of the leading research groups in the field of amino acid nutrition of fish. We have identified gaps in our understanding of amino acid nutrition, highlighted contradictions between common modes of expression of amino acid requirements, and defined limitations of novel approaches.

#### **2) Pattern and Cost of Growth and Nutrient Depositions in Salmonid Fish Species.**

*Dumas et al., 2010. Aquacult. Res., 41: 161-181. Dumas et al. 2007. Aquaculture, 273: 165-181; Dumas et al. 2007. Aquaculture 267, 139-146; Gunther et al. 2007. Aquacult.Nutr., 13: 230-239; Bureau et al.*

2006. *Aquacult. Res.* 37, 1090-1098; Peña and Bureau. 2006. *XII International Symposium on Fish Nutrition & Feeding*; Gunther et al. 2005. *Aquaculture*. 249, 195-204; Azevedo et al. 2005. *J. An. Sci.* 83, 842-851; Azevedo et al. 2004 *Aquacult.* 234, 393-314; Azevedo et al. 2004. *Aqua. Nutr.* 10, 401-411.

My group carried out numerous studies on the characterization of growth trajectory and patterns of nutrient depositions in salmonid fish species as a function of endogenous (species, life stage) and exogenous factors (diet, water temperature). These studies were conducted by three PhD students and one MSc student. We carried out the most comprehensive series of studies examining the effect of species, body weight, water temperature, and diet composition on growth, feed efficiency, and efficiency of dietary protein and energy utilization in four salmonid species. One of my PhD students integrated findings from dozens of studies into what is, perhaps, the most comprehensive and robust model of body composition and nutrient deposition of fish available today. Our studies generated solid evidence that efficiency of amino acid utilization has a determinant effect on feed efficiency, much more so than efficiency of energy utilization. This conclusion goes against what is assumed in all fish growth (bioenergetics) models currently used for aquaculture and fisheries management. The concepts and models developed as part of this research effort are at the forefront of the field internationally.

### **3) Models Estimating Feed Requirements and Waste Outputs of Fish Culture Operations.**

Hua et al. 2010. *J. Agr. Sci.*, 148: 17-29. ; Bureau et al. 2008. *XIII International Symposium on Fish Nutrition and Feeding*; Bureau, Azevedo, Podemski. 2007. *Canada-Chile S&T Workshop*; Azevedo et al. 2005. *32nd Aquat. Tox. Workshop*; Bureau et al., 2003. *North American Journal of Aquaculture* 65: 33-38.

We have continued work on the development of nutrient utilization, feed requirement and waste outputs models for fish culture operations. We have improved our bioenergetics and mass balance models to make them more flexible and applicable to commercial fish culture operations. We explored novel concepts and approaches and collaborated to the development of more rational models, based on nutrient utilization rather than bioenergetics. We collaborated to a large multi-disciplinary study aimed at validating the predictions of feed requirements and waste outputs models under commercial-like conditions. This work is also at the forefront of the field internationally.

### **4) Models of Phosphorus Utilization by Salmonid Fish.**

Hua et al. 2008. *Aquaculture Research*, 39: 1059-1068; Hua and Bureau. 2006. *Aquaculture* 254, 455-465; Hua et al. 2005. *Proc. Sixth Int. Work. Model. Nutr. Utilis. in Farm Anim.*; Hua et al. 2005. *J. Agr. Food Chem.* 53, 1571-1574.

One of my PhD students has developed what is the most detailed and rational suite of models of phosphorus utilization by fish. These models were constructed based on integration of data from the literature and the use of novel frameworks (factorial vs. dynamic models). This work is increasingly attracting attention due to the high price of phosphorus supplements and concerns about phosphorus waste outputs by fish culture operations. Feed manufacturers have requested that we adapt these models to common species cultures in Asia.

## LIST OF RESEARCH CONTRIBUTIONS

### Theses/ Books/ Book Chapters (Career total = 12)

National Research Council. 2011. Nutrient Requirements of Fish and Shrimp. Animal Nutrition Series. National Academies Press, Washington, DC.

Bureau, D.P. and D. L. Meeker. 2010. Chapter 8. Terrestrial Animal Fats, pp. xxx-xxx. In: Turchini, G.M, W.K. Ng and D.R. Tocher (Eds.). Fish Oil Replacement and Alternative Lipid Sources in Aquaculture Feeds. CTC Press, Taylor and Francis Group, USA.

Bureau, D.P., K. Hua, and P.A. Azevedo. 2008. Efficiency of conversion of feed Inputs into animal biomass: The usefulness of bioenergetics models and need for a transition to nutrient-flow models, pp.547-567. In: Cyrino, J.E.P., D.P. Bureau, and B.G. Kapoor (Eds.) Feeding and Digestive Function of Fishes. Science Publishers, Enfield, NH, USA, 580p.

Bureau D.P. and K. Hua. 2008. Models of nutrient utilization by fish and potential applications for fish culture operations. In: Mathematical Modelling in Animal Nutrition (ed. by J. France & E. Kebreab), pp. 442-461. CAB International, Wallingford.

Cyrino, J.E.P., D.P. Bureau, and B.G. Kapoor (Eds.). 2008. Feeding and Digestive Function of Fishes. Science Publishers, Enfield, NH, USA, 580 Pages. ISBN 978-1-57808-375-6.

Bureau, D.P. 2006. Rendered products in aquaculture feeds, pp. 179-194. In: Meeker, D.L. (Ed.) Essential Rendering. All About the Animal By-Products Rendering Industry. National Renderers Association, Alexandria, VA. 303p.

Hua, K., J.P. Cant, and D.P. Bureau. 2006. Dynamic simulation of phosphorus utilization in salmonid fish, pp. 180-191. In: Danfaer, A., J. Dijkstra, J. France, W. Gerrits, E. Kebreab, J. McNamara, & D. Poppi (Eds.) Proceeding Sixth International Workshop on Modelling Nutrient Utilisation in Farm. CABI Publishing, Wallingford, Oxfordshire, UK, 480p.

Bureau, D.P., S.J. Kaushik and C.Y. Cho. 2002. Bioenergetics. pp. 1-53. In : Halver, J.E. and R.W. Hardy (Eds.) Fish Nutrition, III Edition, Academic Press, San Diego, California, USA.

Bureau, D.P. 1997. The Partitioning of Energy from Digestible Carbohydrates by Rainbow Trout (*Oncorhynchus mykiss*). Ph.D. Thesis, University of Guelph, Guelph, Ontario, Canada.

Bureau, D. 1992. L'utilisation de résidus agricoles pour la production piscicole dans la région du nord-est de la Thaïlande [*Use of Crop Residues for Fish Production in Northeastern Thailand*]. Mémoire de maîtrise ès sciences, Université Laval, Québec, Canada.

Bureau, D. 1992. Répertoire des thèses, mémoires et essais réalisés dans les universités québécoises et portant sur l'Asie. Documents du Gérard No.4, Le Groupe de Recherches sur l'Asie Contemporaine, Université Laval, Québec, Canada.

## Refereed Journal Publications (Career total = 69)

- Azevedo, P.A. C.L. Podemski, R.H. Hesslein, S.E.M. Kasian, D.L. Findlay and D.P. Bureau. 2011. Estimation of waste outputs by a rainbow trout cage farm using a nutritional approach and monitoring of lake water quality. *Aquaculture*, 311: 175-186.
- Hooft, J.M., A. Elmor, P. Encarnação, and D.P. Bureau. 2011. Rainbow trout (*Oncorhynchus mykiss*) is extremely sensitive to the feed-borne Fusarium mycotoxin deoxynivalenol (DON). *Aquaculture* 311, 224-232.
- Palma, J., D.P. Bureau., J.P. Andrade. 2011. Optimizing *Artemia* enrichment and feeding protocol when rearing juvenile long snout seahorse, *Hippocampus guttulatus*. *Aquaculture* 319: 439-443.
- Poppi, D.A., M.V. Quinton, K. Hua and D.P. Bureau. 2011. Development of a test diet for assessing the bioavailability of arginine in feather meal fed to rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 314, 100-109.
- Bureau, D.P. and K. Hua. 2010. Towards effective nutritional management of waste outputs in aquaculture, with particular reference to salmonid aquaculture operations. *Aquaculture Research*, 41: 777-792.
- Dumas, A., J. France and D.P. Bureau. 2010. Modelling growth and body composition in fish nutrition: Where have we been and where are we going? *Aquaculture Research*, 41: 161-181.
- Hua, K. and D.P. Bureau. 2010. Quantification of differences in digestibility of phosphorus among cyprinids, cichlids, and salmonids through a mathematical modelling approach. *Aquaculture*, 308: 152-158.
- Hua, K., S. Birkett, C.F.M. de Lange, and D.P. Bureau. 2010. Adaptation of a non-ruminant nutrient-based growth model to rainbow trout (*Oncorhynchus mykiss*). *Journal of Agriculture Science*, 148: 17-29.
- Li, M., D.P. Bureau, W.A. King, and J. F. Leatherland. 2010. The actions of *in ovo* cortisol on egg fertility, embryo development and the expression of growth-related genes in rainbow trout embryos, and the growth performance of juveniles. *Molecular Reproduction and Development* 77:922-931.
- Wang, Y., L.-J. Kong, C. Li, and D.P. Bureau. 2010. The potential of rendered animal protein ingredients to replace fish meal in diets for cuneate drum, *Nibea miichthioides*, is affected by dietary protein level. *Aquaculture Nutrition*, 16: 47-43.
- Chowdhury, M.A.K., and D.P. Bureau. 2009. Predicting body composition of Nile tilapia (*Oreochromis niloticus*). *Asian Fisheries Science*, 22:597-605.
- El Haroun, E.R., P.A. Azevedo and D.P. Bureau. 2009. High dietary incorporation levels of rendered animal protein ingredients on performance of rainbow trout *Oncorhynchus mykiss* (Walbaum, 1972). *Aquaculture*, 290: 269-274.



- El Haroun, E.R., D.P. Bureau and J.P. Cant. 2009. A mechanistic model of nutritional control of protein synthesis in animal tissues. *J. Theoretical Biology*, 262: 361-369.
- Hua, K. and D.P. Bureau. 2009. A mathematical model to explain variations in estimates of starch digestibility and predict digestible starch content of salmonid fish feeds. *Aquaculture*, 294: 282-287.
- Hua, K. and D.P. Bureau. 2009. Development of a model to estimate digestible lipid content of salmonid fish feeds. *Aquaculture*, 286: 271-276.
- Li, K. Y. Wang, Z.X. Zheng, R.L.Jiang, N.X. Xie and D.P. Bureau. 2009. Replacing fish meal with rendered animal protein ingredients in diets for Malabar grouper, *Epinephelus malabricus*, reared in net pens. *Journal of the World Aquaculture Society*, 40: 67-75.
- López, L.M., E. Durazo, M.T. Viana, M. Drawbridge, and D. P. Bureau. 2009. Effect of dietary lipid levels on performance, body composition and fatty acid profile of juvenile white seabass, *Atractoscion nobilis*. *Aquaculture* 289, 101-105.
- Morash, A.J., D.P. Bureau, and G. B. McClelland. 2009. Effects of dietary fatty acid composition on the regulation of CPT I in rainbow trout (*Oncorhynchus mykiss*). *Comp. Biochem. Physiol.*, 152: 85-93.
- Naylor, R.L., R. W. Hardy, D.P. Bureau, A. Chiu, M. Elliott, A.P. Farrell, I. Forster, D.M. Gatlin, R.J. Goldburg, K. Hua, P.D. Nichols. 2009. Aquaculture in an era of finite resources. *Proceedings of the National Academy of Science (PNAS)* 106: 15103-15110.
- Palma, J., D.P. Bureau, M. Correia, and J.P. Andrade. 2009. Effects of temperature, density and early weaning on the survival and growth of Atlantic ditch shrimp *Palaemonetes varians* larvae. *Aquaculture Research*, 40: 1468-1473.
- Sara, J.R., R.M. Gous, and D.P. Bureau. 2009. Describing growth and predicting feed intake in the marine prawn *Fenneropenaeus indicus*: Part I: Theoretical and practical aspects of measuring and predicting genetic parameters. *Aquaculture*, 287: 402-413.
- Bureau, D.P., K. Hua and A.M. Harris. 2008. The effect of dietary lipid and long-chain n-3 PUFA levels on growth, energy utilization, carcass quality and immune function of rainbow trout (*Oncorhynchus mykiss*). *Journal of the World Aquaculture Society*, 39: 1-21.
- Guderley, H., E. Kraffe, W. Bureau, D.P. Bureau. 2008. Dietary fatty acid composition changes mitochondrial phospholipids and oxidative capacities in rainbow trout red muscle. *Journal of Comparative Physiology B*, 178: 385-399.
- Hua, K., C.F.M. de Lange, A. J. Niimi, G. Cole, R. D. Moccia, M. Z. Fan, and D. P. Bureau. 2008. A factorial model to predict phosphorus waste output from salmonid fish production. *Aquaculture Research*, 39: 1059-1068.

- Palma, J., D.P. Bureau, and J.P. Andrade. 2008. Effects of binder type and binder addition on the growth of juvenile *Palaemonetes varians* and *Palaemon elegans* (Crustacea: Palaemonidae). *Aquaculture International* 16, 427-436.
- Wang, Y. K. Li, H. Han, Z.X. Zheng and D. P. Bureau. 2008. Potential of using a blend of rendered animal protein ingredients to replace fish meal in practical diets for malabar grouper (*Epinephelus malabricus*). *Aquaculture* 281: 113-117.
- Chowdhury, M.K., D.P. Bureau, M. L. Bose, and M. Dei. 2007. Relevance of rapid appraisal approach to identify locally available feed ingredients to small-scale Nile tilapia (*Oreochromis niloticus* L.) aquaculture. *Aquaculture Economics and Management*, 11: 151-169.
- Dumas, A., J. France and D.P. Bureau. 2007. Evidence of three growth stanzas in rainbow trout (*Oncorhynchus mykiss*) across life stages and adaptation of the thermal-unit growth coefficient. *Aquaculture*, 267: 139-146.
- Dumas, A., C.F.M. de Lange, J. France and D. P. Bureau 2007. Quantitative description of body composition and rates of nutrient deposition in rainbow trout (*Oncorhynchus mykiss*). *Aquaculture*, 273: 165-181.
- El-Haroun, E.R. and D.P. Bureau. 2007. Comparison of the bioavailability of lysine in blood meals of various origins to that of L-lysine HCL for rainbow trout (*Oncorhynchus mykiss*). *Aquaculture*, 262: 402-409.
- Gauquelin, F., G. Cuzon, G. Gaxiola, C. Rosas, L. Arena, D.P. Bureau and J.C. Cochard. 2007. Effect of dietary protein level on growth and energy utilization by *Litopenaeus stylirostris* under laboratory conditions. *Aquaculture*, 271: 439-448.
- Gunther, S.J., R.D. Moccia, and D.P. Bureau. 2007. Patterns of growth and nutrient deposition in lake trout (*Salvelinus namaycush*), brook trout (*Salvelinus fontinalis*) and their hybrid, F1 splake (*Salvelinus namaycush* X *Salvelinus fontinalis*) as a function of water temperature. *Aquaculture Nutrition*, 13: 230-239.
- Guo, J., Y. Wang, and D.P. Bureau. 2007. Inclusion of rendered animal ingredients as fish meal substitutes in practical diets for cuneate drum, *Nibea miichthioides* (Chu, Lo et Wu). *Aquaculture Nutrition*, 13: 81-87.
- Raine, J.C., K. Hua, D. P. Bureau, M. M. Vijayan, and J. F. Leatherland. 2007. Influence of ration level and rearing temperature on hepatic GHR1 and 2, and hepatic and intestinal TR $\alpha$  and TR $\beta$  gene expression in late stages of rainbow trout embryos. *Journal of Fish Biology*, 71:148-162.
- Wang, Y., L.-J. Kong, K. Li and D. P. Bureau. 2007. Effects of feeding frequency and ration level on growth, feed utilization and nitrogen waste output of cuneate drum (*Nibea miichthioides*) reared in net pens. *Aquaculture*, 271: 35-356.

- Bureau, D.P., K. Hua, and C.Y. Cho. 2006. Effect of feeding level on growth and nutrient deposition in rainbow trout (*Oncorhynchus mykiss* Walbaum) growing from 150 to 600 g. *Aquaculture Research* 37, 1090-1098.
- Bureau, D.P. and K. Hua. 2006. Letter to the Editor of *Aquaculture*. *Aquaculture*, 252: 103-105.
- Encarnação, P., C.F.M. de Lange, and D. P. Bureau. 2006. Diet energy source affect lysine utilization for protein deposition in rainbow trout (*Oncorhynchus mykiss*). *Aquaculture*, 261: 1371-1381.
- Hua, K. and D.P. Bureau. 2006. Modelling digestible phosphorus content of salmonid fish feeds. *Aquaculture* 254: 455-465.
- López, L, A. L. Torres, E. Durazo, M. Drawbridge, and D.P. Bureau. 2006. Effects of lipid on growth and feed utilization of white seabass (*Atractoscion nobilis*) fingerlings. *Aquaculture*, 253: 557-563.
- Ogunkoya, A.E., G. I. Page, M. A. Adewolu, and D. P. Bureau. 2006. Dietary incorporation of soybean meal and exogenous enzyme cocktail can affect physical characteristics of faecal material egested by rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 254: 466-475.
- Tapia-Salazar, M., W. Bureau, S. Panserat, G. Corraze, and D.P. Bureau. 2006. Effect of DHA supplementation on digestible starch utilization by rainbow trout. *British Journal of Nutrition* 95: 1-12.
- Wang, Y., J. Guo, D.P. Bureau, and Z. Cui. 2006. Replacement of fish meal by rendered animal protein ingredients in feeds for cuneate drum (*Nibea miichthioides*). *Aquaculture* 252: 476-483.
- Wang, Y., J. Guo, K. Li and D. P. Bureau. 2006. Effects of dietary protein and energy levels on growth, feed utilization and body composition of cuneate drum (*Nibea miichthioides*). *Aquaculture* 252: 21-428.
- Wang, Y., L.-J. Kong, C. Lia, and D. P. Bureau. 2006. Effect of replacing fish meal with soybean meal on growth, feed utilization and carcass composition of cuneate drum (*Nibea miichthioides*). *Aquaculture* 261: 1307-1313.
- Azevedo, P.A., J. van Milgen, S. Leeson, and D.P. Bureau. 2005. Comparing efficiency of metabolizable energy utilization by rainbow trout (*Oncorhynchus mykiss*) and Atlantic salmon (*Salmo salar*) using factorial and multivariate approaches. *Journal of Animal Science* 83: 842-851.
- Gunther, S.J., R.D. Moccia, and D.P. Bureau. 2005. Growth and carcass composition of lake trout (*Salvelinus namaycush*), brook trout (*Salvelinus fontinalis*) and their hybrid, F1 splake (*Salvelinus namaycush* X *Salvelinus fontinalis*), from first-feeding to 4 g live weight. *Aquaculture* 249:195-204.
- Hua, K., L. Liu, and D.P. Bureau. 2005. Determination of phosphorus fractions in animal protein ingredients. *Journal of Agricultural and Food Chemistry* 53: 1571-1574.
- Azevedo, P.A., S. Leeson, C.Y. Cho, and D. P. Bureau. 2004 Growth, nitrogen, and energy utilization by four juvenile salmonid species: Diet, species, and size effects. *Aquaculture* 234: 393-314.

- Azevedo, P.A., S. Leeson, C.Y. Cho, and D.P. Bureau. 2004. Growth and feed utilization of large size rainbow trout (*Oncorhynchus mykiss*) and Atlantic salmon (*Salmo salar*) reared in freshwater: diet and species effects, and responses over time. *Aquaculture Nutrition* 10: 401-411.
- Encarnação, P.M., C.F.M. de Lange, M. Rodehutschord, D. Hoehler, W. Bureau and D. P. Bureau. 2004. Diet digestible energy content affects lysine utilization, but not dietary lysine requirement of rainbow trout (*Oncorhynchus mykiss*) for maximum growth. *Aquaculture* 235: 569-586.
- Bureau, D.P., S. Gunther and C.Y. Cho. 2003. Chemical composition and preliminary theoretical estimates of waste outputs of rainbow trout reared on commercial cage culture operations in Ontario. *North American Journal of Aquaculture* 65: 33-38.
- Philbrick, D.J., D.P. Bureau, F.W. Collins and B J. Holub. 2003. Evidence that soyasaponin Bb retards disease progression in a murine model of polycystic kidney disease. *Kidney International* 63: 1230-1239.
- Azevedo, P.A., D.P. Bureau, S. Leeson, C.Y. Cho. 2002. Growth and efficiency of feed usage by Atlantic salmon (*Salmo salar*) fed diets with different dietary protein :energy ratios at two feeding levels. *Fisheries Sciences* 68: 878-888.
- Cho, C.Y. and D.P. Bureau. 2001. A review of diet formulation strategies and feeding systems to reduce excretory and feed wastes in aquaculture. *Aquaculture Research* 32: 349-360.
- Bureau, D.P., A.M. Harris, D.J. Bevan, L.A. Simmons, P.A. Azevedo and C.Y. Cho. 2000. Use of feather meals and meat and bone meals from different origins as protein sources for rainbow trout (*Oncorhynchus mykiss*) diets. *Aquaculture* 181: 281-291.
- Bureau, D.P., A.M. Harris and C.Y. Cho. 1999. Apparent digestibility of rendered animal protein ingredients for rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 180: 345-358.
- Bureau, D.P. and C.Y. Cho. 1999. Phosphorus utilization by rainbow trout (*Oncorhynchus mykiss*): Estimation of dissolved phosphorus output. *Aquaculture* 179: 127-140.
- Page, G.I., K.M. Hayworth, R.R. Wade, A.M. Harris and D.P. Bureau. 1999. Non-specific immunity parameters and formation of advanced glycosylation end-products (AGE) in rainbow trout, *Oncorhynchus mykiss* (Walbaum), fed high levels of dietary carbohydrates. *Aquaculture Research* 30: 287-298.
- Simmons, L., R.D. Moccia, D.P. Bureau, J.G. Sivak and K. Herbert. 1999. Dietary methionine requirement of juvenile Arctic charr, *Salvenius alpinus* L. *Aquaculture Nutrition* 5: 93-100.
- Azevedo, P.A., C.Y. Cho, S. Leeson and D. P. Bureau. 1998. Effects of feeding level and water temperature on growth, nutrient and energy utilization and waste outputs of rainbow trout (*Oncorhynchus mykiss*). *Aquatic Living Resources* 11: 227-238.
- Bureau, D.P., A.M. Harris and C.Y. Cho. 1998. The effects of purified alcohol extracts from soy products on feed intake and growth of chinook salmon (*Oncorhynchus tshawytscha*) and rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 161: 27-43.

Bureau, D.P., J.B. Kirkland and C.Y. Cho. 1998. The partitioning of energy from digestible carbohydrate by rainbow trout (*Oncorhynchus mykiss*). pp.163-166. In: McCracken, K.J., E.F. Unsworth and A.R.G. Wylie (Editors). Energy Metabolism of Farm Animals, CAB International Press, Wallingford, UK.

Cho, C.Y. and D.P. Bureau. 1998. Development of bioenergetic models and the *Fish-PrFEQ* software to estimate production, feeding ration and waste output in aquaculture. *Aquatic Living Resources* 11: 199-210.

Cho, C.Y. and D.P. Bureau. 1997. Reduction of waste output from salmonid aquaculture through feeds and feedings. *The Progressive Fish Culturist* 59:155-160.

Bureau, D.P., J. de la Noüe and P. Jaruratjamorn. 1995. The effect of dietary crop residues incorporation on growth, mortality and feed conversion ratio (FCR) of the African catfish, *Clarias gariepinus* (Burchell, 1822). *Aquaculture Research* 26: 351-360.

Cho, C.Y. and D.P. Bureau. 1995. Determination of the energy requirements of fish with particular reference to salmonids. *Journal of Applied Ichthyology* 11: 141-163.

#### **Invited Reviews (Non-Refereed Publications) (Career total = 26)**

Bureau, D.P., and G. Salze. 2011. Better defining nutritional requirements of fish and nutritive value of feed ingredients: Lessons from integration of experimental data from a wide variety of sources. XI Simposio Internacional de Nutrición Acuícola, 23-25 November 2011, Iztacala, DF, Mexico.

Bureau, D.P. 2010. Aquaculture nutrition: Working towards better economical and environmental sustainability. Proceedings of the World Nutrition Forum, 13-16 October 2010, Salzburg, Austria.

Bureau, D.P. 2010. The challenges imposed by the current Canadian feed regulatory system on the aquaculture sector in Canada. Report prepared for the The Canadian Aquafeed Working Group (CAWG) and the Animal Nutrition Association of Canada (ANAC), 7 December 2010.

Bureau, D.P. 2010. Novel tools and feed ingredients for the aquaculture feed industry: Opportunities for the Canadian feed industry. Proceedings of the Eastern Nutrition Conference 12-13 April 2010, Guelph, Ontario, Canada.

Bureau, D.P. and K. Hua. 2009. Nutritional models as tools to address current challenges in aquaculture. 3° Simposio Internacional de Nutrição e Saude de Peixes, 4-6 November 2009, Botucatu, SP, Brazil.

Bureau, D.P. 2008. A brief history of fish culture, feed development, and fish nutrition research in Ontario, Canada. Summer Symposium on Nutrition and Feed Technology for Aquaculture, Xiamen (15 June 2008) and Guangzhou (16 June 2008), P.R. China. & National Renderers Association – International Aquaculture Seminars, Jakarta, Indonesia (18 June 2008) and Ho Chi Minh Vietnam (20 June 2008).

Bureau, D.P., V. Blondin, and K. Hua. 2008. Lipid nutrition as it relates to aquaculture feed formulation.

Summer Symposium on Nutrition and Feed Technology for Aquaculture, Xiamen (15 June 2008) and Guangzhou (16 June 2008), P.R. China. & National Renderers Association – International Aquaculture Seminars, Jakarta, Indonesia (18 June 2008) and Ho Chi Minh Vietnam (20 June 2008).

Bureau, D.P. and K. Hua. 2007. Assessing the quality of ingredients and feeds: From the research lab to the quality control lab. Autumn Symposium on Nutrition and Feed Technology for Aquaculture, Hangzhou (12 November 2007) & Guangzhou (13 November 2007), P.R. China. & National Renderers Association – International Aquaculture Seminars, Jakarta, Indonesia (14 November 2007) and Ho Chi Minh Vietnam (16 November 2007).

Hua, K. and D.P. Bureau. 2007. Approaches to estimate and improve digestibility of phosphorus in fish feeds. Autumn Symposium on Nutrition and Feed Technology for Aquaculture, Hangzhou (12 November 2007) & Guangzhou (13 November 2007), P.R. China. & National Renderers Association – International Aquaculture Seminars, Jakarta, Indonesia (14 November 2007) and Ho Chi Minh, Vietnam (16 November 2007).

Bureau, D.P. 2006. Feed issues in the aquaculture industry, pp. 181-196. Proceedings of the 27<sup>th</sup> Western Nutrition Conference, 19-20 September 2006, Winnipeg, Manitoba.

Bureau, D.P. 2006. Animal by-products utilization in aquaculture, pp.11-125. Proceedings of the 42<sup>nd</sup> Eastern Nutrition Conference, 11-12 May 2006, Guelph, Ontario.

Bureau, D.P. and K. Hua. 2006. Future directions in feed formulation for waste reduction, pp. 48-52. Proceedings of the Canadian Freshwater Aquaculture Symposium, 17-20 October 2004, Quebec City, QC, Canada. Aquaculture Association of Canada Special Publication No. 11, St. Andrews, NB, Canada.

Bureau, D.P. and K. Hua. 2006. Mass balance and nutrient flows in freshwater aquaculture, pp. 98-102. Proceedings of the Canadian Freshwater Aquaculture Symposium, 17-20 October 2004, Quebec City, QC, Canada. Aquaculture Association of Canada Special Publication No. 11.

Bureau, D.P. and P. M. Encarnação. 2006. Adequately determining the amino acid requirements of fish: the case example of lysine. In : Cruz-Suarez, L.E., D. Ricque-Marie, M. Tapia-Salazar, M.G. Nieto-Lopez, D.A. Villareal Cavazos, A.C. Puello Cruz, and A. Garcia-Ortega (Eds.) *Avances en Nutricion Acuicola VIII. VIII Simposium Internacional de Nutricion Acuicola*. 15-17 November 2006. Mazatlan, Sinaloa, Mexico. Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo Leon, Mexico. ISBN 970-694-333-5.

Bureau, D.P. 2005. Aquaculture nutrition: The need for a transition from bioenergetics to nutrient-flow models. Annual Meeting of the Mexican Association of Animal Nutrition (AMENA), 25-28 October 2005, Puerto Vallarta, Jalisco, Mexico.

Bureau, D.P. 2005. *Utilización de harinas de origen animal en la nutrición de peces* [Use of animal proteins in fish nutrition]. Proceedings of the 2nd Foro Internacional de acuicultura, 1-3 December 2005, Hermosillo, Sonora, Mexico.

Bureau, D.P. 2004. Formulating more cost-effective aquaculture feeds. pp. 131-140, *In*: Yin, Y.L., Y.P.

Liao, Z.L. Tan (Eds.). International Symposium on Feed Additive, Animal Nutrition and Health, 16-17 July 2004, Panyu, Guangzhou, P.R. China. 309 pp.

Bureau, W. and D.P. Bureau, 2004. Insights into the regulation of amino acid catabolism in rainbow trout and Atlantic salmon. pp. 135-141, *In*: Yin, Y.L., Y.P. Liao, Z.L. Tan (Eds.). International Symposium on Feed Additive, Animal Nutrition and Health, 16-17 July 2004, Panyu, Guangzhou, P.R. China. 309 pp.

Bureau, D.P., J. Gibson, A. El-Mowafi. 2002. Use of animal fats in aquaculture feeds. In : Cruz-Suarez, L.E., D. Ricque-Marie, M. Tapia-Salazar, and R. Civera-Cerecedo (Eds.) *Avances en Nutricion Acuicola V. Memorias del VI Simposium Internacional de Nutricion Acuicola*. 3-7 September 2002. Cancun, Quintana Roo, Mexico.

Cho, C.Y. and D.P. Bureau. 2001. Nutrition, energetics and growth of fish: Current challenges and approaches. In : Coimbra, J (Ed.) *NATO Advanced Research Workshop on Modern Aquaculture in the Coastal Zone-Lessons and Opportunities*, 14-17 Sep. 1998, Porto, Portugal NATO Science Series A: Life Sciences, IOS Press, Amsterdam, The Netherlands.

Bureau, D.P., P.A. Azevedo, M. Tapia-Salazar and G. Cuzon. 2000. Pattern and cost of growth and nutrient deposition in fish and shrimp: Potential implications and applications. pp. 111-140. In : Cruz-Suarez, L.E., D. Ricque-Marie, M. Tapia-Salazar, M.A. Olvera-Novoa and R. Civera-Cerecedo (Eds.) *Avances en Nutricion Acuicola V. Memorias del V Simposium Internacional de Nutricion Acuicola*. 19-22 Noviembre, 2000. Merida, Yucatan, Mexico.

Bureau, D.P. and C.Y. Cho. 1997. Ingredients quality: An essential factor in the formulation of cost-effective diets in aquaculture. pp. 234-274. In: Duerr, E.O., L. Johnson and M. Reagen (Editors). *Expanding Agriculture Co-Product Uses in Aquaculture Feeds*. Workshop Proceedings. December 5-7, 1994, Des Moines, Iowa.

Bureau, D.P. 1996. Nutritional value of rendered animal protein ingredients for salmonids in the 90's. *Proceedings of the Canadian Feed Industry Association Eastern Nutrition Conference*. 15-17 May 1996, Halifax, Nova Scotia, Canada. pp.239-246.

Cho, C.Y. and D.P. Bureau. 1996. Bioenergetics in diet formulation and feeding standard for salmonid aquaculture: Principles, methods and applications. In: Cruz-Suarez, L.E., D.M. Ricque and R. Mendoza (Editors). *Proceedings of the Third International Symposium on Aquatic Nutrition*, 11-13 November 1996, Monterrey, Mexico.

## **Scientific Communications**

Bureau, D.P. 2011. What do marine fish need and what do feed ingredients bring: Thinking beyond fish meal and fish oil replacement. *The Aquaculture Roundtable Series (TARS)*, 17-18 August 2011, Singapore.

Bureau, D.P. 2011. Amino Acids in Aquaculture Nutrition: Overview of the State-of-the-Art and Strategies for Meeting Essential Amino Acids Requirements of Fish. *Evonik Asia Aquaculture Seminar*,

19 August 2011, Singapore.

Palma, J., Bureau, D. P., Andrade, J. P. 2011. Optimizing Artemia enrichment and feeding protocol when rearing juvenile long snout seahorse, *Hippocampus guttulatus*. First Syngnathid Biology International Symposium. Fiskebäckskil, Sweden, 25-29 April, 2011.

Palma, J., Bureau, D. P., Andrade, J. P. 2011. Using enriched shrimp as a diet for long snout seahorse, *Hippocampus guttulatus*. First Syngnathid Biology International Symposium. Fiskebäckskil, Sweden, 25-29 April, 2011.

Palma, J., Bureau, D. P., Andrade, J. P. 2011. Effect of broodstock nutrition on the long snout seahorse (*Hippocampus guttulatus*) reproduction and brood quality. First Syngnathid Biology International Symposium. Fiskebäckskil, Sweden, 25-29 April, 2011.

Palma, J., Bureau, D. P., Andrade, J. P. 2011. "Using enriched shrimp as a diet for longsnouted seahorses, *Hippocampus guttulatus* (Cuvier, 1829)". Fifth International Public Aquarium Husbandry Series - Husbandry, Management and Conservation of Syngnathids Symposium, Shedd Aquarium, Chicago, 1-7 November, 2011.

Salze, G. and D.P. Bureau. 2011. Dietary modulation of puberty and maturation process in fish. Conference and Workshop on Age and Size at Maturity of Chinook Salmon and other Pacific Salmonids, 17-19 May 2011, Portland, Oregon.

Sarker, P.K., Bureau, D.P., Drew, M., Hua, K., Forster, I., Hicks, B., Vandenberg, G.W., Were, K., 2011. A review of sustainability issues related to feeding salmonids: a Canadian perspective. Aquaculture Association of Canada (AAC) 2011, Quebec City, Canada, May 09-11, 2011.

Azevedo, P.A. C.L. Podemski, C. Bristow, R.H. Hesslein, R.A. Anderson, K. Beaty, and D.P. Bureau. 2010. Effects of a rainbow trout (*O. mykiss*) farm on whole-lake phosphorus and nitrogen annual budgets. Aquaculture Canada, 16-19 May 2010, St. John's, NF, Canada.

Bureau, D.P. 2010. Assessment of the nutritive value of processed animal proteins for fish. International Symposium on Fish Nutrition and Feeding, 31 May - 4 June 2010, Qingdao, China.

Bureau, D.P. 2010. The challenge of defining and meeting the essential amino acid requirements of fish. DSM 16th Asia Pacific Aquaculture Conference, 17-18 November 2010, Bangkok, Thailand.

Ho, W.Y., A. Lemme, K. Hua, M. Quinton, and D.P. Bureau. 2010. Bioavailability of two novel methionine sources for rainbow trout (*Oncorhynchus mykiss*). International Symposium on Fish Nutrition and Feeding, 31 May - 4 June 2010, Qingdao, China.

Hooft, J.M., A. Elmor, P. Encarnaç o, and D.P. Bureau. 2010. Effects of low levels of naturally occurring Fusarium mycotoxins in grains on the performance and health of rainbow trout. 1-5 March 2010, San Diego, California, USA.

Podemski, C.L., P.A. Azevedo, J. Zhang and D.P. Bureau. 2010. Modelling the solid waste dispersion of



rainbow trout farming in freshwater environment: a preliminary test of DEPOMOD. Aquaculture Canada, 16-19 May 2010, St. John's, NF, Canada.

Salze, G., K. Hua, M. Quinton and D.P. Bureau. A meta-analysis of essential amino acid requirement of fish. World Aquaculture 1-5 March 2010, San Diego, California, USA.

Wang, S., P.M. Encarnacao, R.L. Payne, and D.P. Bureau. 2010. Estimating dietary lysine requirements for live weight gain and protein deposition in juvenile rainbow trout (*Oncorhynchus mykiss*). International Symposium on Fish Nutrition and Feeding, 31 May - 4 June 2010, Qingdao, China.

Bureau, D.P. 2009. Modelling waste outputs is as an essential step in the study of the environmental impacts of aquaculture., Taller "Herramiento para Promover la Sustentabilidad Ambiental en Acuicultura", 24 de noviembre del 2009, Puerto Varas, Chile.

Bureau, D.P. 2009. Strategies for improving our understanding of feed and nutrients utilization by fish. Seminari Internacional de Nutricion en Acuicultura : Investigacion y Estrategia para una Industria Sustentable, 19-20 de noviembre del 2009, Puerto Varas, Chile.

Bureau, D.P. and P.A. Azevedo. 2009. Nutritional management of waste outputs in aquaculture: Principles and Recent Advances. Fish Conservation Week, 21 october 2009, Bureau of Fisheries and Aquatic Resources, Manila, Philippines.

Hua, K. and D.P. Bureau. 2009. Fish meal replacement by plant protein ingredients in salmonid feeds: a meta-analysis of published studies taking into account nutritional adequacy, growth performance, and nutrient utilization. Aquaculture America, 15-18 February 2009, Seattle, Washington.

Hooft, J., A. Elmor, and D.P. Bureau. 2009. The effects of low levels of naturally occurring Fusarium mycotoxins in grains on the performance and health of rainbow trout. Seminario Internacional de Nutricion en Acuicultura : Investigacion y Estrategia para una Industria Sustentable, 19-20 de noviembre del 2009, Puerto Varas, Chile.

Saez, P. and D.P. Bureau. 2009. Practical strategies for improving the feeding value of corn products for fish. Seminario Internacional de Nutricion en Acuicultura : Investigacion y Estrategia para una Industria Sustentable, 19-20 de noviembre del 2009, Puerto Varas, Chile.

Bureau, D.P. 2008. Farmed fish in the news: taking a balanced view. Ontario Veterinary Medical Association (OVMA) Conference, 31 January - 2 February 2008, Toronto, Ontario, Canada.

Bureau, D.P. 2008. Nutritional strategies for reducing FCR and maintaining omega-3 content in salmonids: Starting with basic concepts. Tercer Taller de III Taller de Nutrición y Sustentabilidad Acuícola, 28 May 2008, Puerto Montt, Chile.

Bureau, D.P. 2008. Nutritive value of processed animal proteins for fish: Perspectives from 15 years of collaborative research with industry. NRA Poultry and Aquaculture Seminar, 18 December 2008, Cairo, Egypt.

Bureau, D.P. 2008. Principles of fish nutrition and feed formulation with emphasis on rainbow trout and tilapia. Second Annual Symposium Nicovita – Tracability, 1-4 December 2008, Guayaquil, Ecuador.

Bureau, D.P. 2008. Nutritive value of rendered animal proteins and fats for aquaculture species, Fats and Proteins Research Foundation (FPRF) Emerging Issues Seminar, 21 October 2008, Laguna Niguel, CA.

Bureau, D.P., P.A. Azevedo, C.L. Podemski. 2008. Field validation of a nutritional model for estimating waste outputs by rainbow trout cage culture operations. XIII International Symposium on Fish Nutrition and Feeding, 2-5 June 2008, Florianopolis, Brazil.

Bureau, D.P. and K. Hua. 2008. Nutritional management of waste outputs in aquaculture. Aquaculture Europe 2008, 15-18 September 2008, Krakow, Poland.

Bureau, D.P. 2007. Addressing current challenges in aquaculture through advances in nutrition. First Symposium Nicovita – Innovation to Grow, 5-7 December 2007, Cartagena, Colombia.

Bureau, D.P. 2007. Alternatives derived from animal by-products. Sustainable Aquaculture Feed Workshop, 4-5 October 2007, Stanford University, Stanford, CA.

Bureau, D.P., P.A. Azevedo, and C.L. Podemski. 2007. Predicting waste outputs from fish culture operations: the Canadian experience. Canada-Chile Science & Technology Workshop, 8-10 October 2007, Santiago, Chile.

Bureau, D.P. 2007. The nutritional and economic benefits of using processed avian and porcine proteins in modern aquaculture diets. European Fat Processor and Renderers Association (EFPRA) Congress 2007, 6-9 June 2007, Marbella, Spain.

Bureau, D.P., K. Hua, and A. Dumas. 2007. Endogenous and dietary determinants of body composition in salmonid fishes. Canadian Society of Zoologists Annual Meeting, 21-25 May 2007, Montreal, Quebec, Canada.

Bureau, D.P. and R.D. Moccia. 2007. Formulation of salmonid fish feeds with high levels of plant ingredients: Effects on waste outputs and potential environmental impacts of fish culture operations. 98<sup>th</sup> American Oil Chemists' Society (AOCS) Meeting and Expo, 13-16 May 2007, Quebec City, Quebec, Canada.

Young, N., M.D. Drew and D.P. Bureau. 2007. Cholesterol supplementation in plant-based diets for rainbow trout (*Oncorhynchus mykiss*). Aquaculture Europe, 24-27 October 2007, Istanbul, Turkey.

Bureau, D.P. and C. Wilson. 2006. Exploiting the diversity of North American salmonid fish species: maximizing potential through better understanding of feed conversion. First Latin American Conference on Culture of Native Fish Species & Third Mexican Conference on Culture of Native Fishes, 18-20 October 2006, Morelia, Michoacan, Mexico.

Bureau, D.P. and K. Hua. 2006. Predicting feed efficiency of rainbow trout: transitioning from bioenergetics models to approaches based on protein accretion. XII International Symposium on Fish

Nutrition & Feeding 28 May - 1 June 2006, Biarritz, France.

Dumas, A., C.F.M. de Lange, J. France, K. Hua, and D.P. Bureau. 2006. Modelling growth pattern, body composition and nutrient deposition in rainbow trout across life stages. XII International Symposium on Fish Nutrition & Feeding 28 May - 1 June 2006, Biarritz, France.

El-haroun E.R. and D.P. Bureau. 2006. Effect of increasing digestible energy of feeds by increasing digestible protein using protein sources with different amino acid profiles on growth and feed efficiency of rainbow trout (*Oncorhynchus mykiss*). XII International Symposium on Fish Nutrition & Feeding May 28 May - 1 June 2006, Biarritz, France.

Encarnação, P., L. Peña, D.P. Bureau. 2006. The lysine sparing effect of lipids is apparently not exerted through down-regulation of hepatic lysine  $\alpha$ -ketoglutarate reductase activity in rainbow trout. XII International Symposium on Fish Nutrition & Feeding 28 May - 1 June 2006, Biarritz, France.

Palma, J., D. P. Bureau and J. P. Andrade. 2006. Effect of protein source on the growth of *Palaemonetes varians* and *Palaemon elegans* (Crustacea: Palaemonidae) produced as aquaculture live food. XII International Symposium on Fish Nutrition & Feeding, 28 May - 1 June 2006, Biarritz, France.

Palma, J., D. P. Bureau, M. Correia and J. P. Andrade. 2006. Quantitative dietary requirement of juvenile grass shrimp *Palaemonetes varians* (Leach) for lysine, methionine and arginine. XII International Symposium on Fish Nutrition & Feeding, 28 May - 1 June 2006, Biarritz, France.

Peña L. and D.P. Bureau. 2006. An investigation into the basis of the difference in efficiency of amino acid utilization between rainbow trout and Atlantic salmon. XII International Symposium on Fish Nutrition & Feeding, 28 May - 1 June 2006, Biarritz, France.

Salazar-Hermoso, F., D.P. Bureau and R.D. Moccia. 2006. Evaluating the use of stable isotopes for the identification and quantification of aquaculture solids in the natural environment. Aquaculture Canada, Annual Meeting of the Aquaculture Association of Canada, 19-23 November 2006, Halifax, Nova Scotia.

Tapia-Salazar, M., K. Hua, and D.P. Bureau. 2006. Low levels of digestible starch can negatively affect protein utilization in rainbow trout fed digestible carbohydrate-free diets supporting high nitrogen retention efficiency. XII International Symposium on Fish Nutrition & Feeding, 28 May - 1 June 2006, Biarritz, France.

Azevedo, P.A., D.P. Bureau, C. Podemski. 2005. Estimation of waste outputs by a rainbow trout cage farm using a nutrient mass-balance approach. The 32nd Aquatic Toxicity Workshop, 2-5 October 2005, Waterloo, Ontario.

Bureau, D.P. 2005. Aquaculture nutrition: The need for a transition from bioenergetics to nutrient-flow models. Annual Meeting of the Mexican Association of Animal Nutrition (AMENA), 25-28 October 2005, Puerto Vallarta, Jalisco, Mexico.

Bureau, D.P. 2005. *Utilización de harinas de origen animal en la nutrición de peces*. 2nd Foro Internacional de acuicultura, 1-3 December 2005, Hermosillo, Sonora, Mexico.

Moccia, R.D., D.P. Bureau, M. Glinka, F. Salazar and G.K. Reid. 2005. Management and prediction of waste impacts from freshwater aquaculture, and connection to the science-policy interface. 32nd Aquatic Toxicity Workshop, Oct. 2-5, Waterloo, ON.

Azevedo, P.A., S. Leeson, C.Y. Cho, S. Birkett, and D.P. Bureau. 2004. Partitioning of metabolizable energy by rainbow trout and Atlantic salmon using a multivariate approach: species and diet effects. *J. An. Sci.* 82 : 331.

Birkett, S.H., C.F.M. de Lange and D.P. Bureau. 2004. Toward a nutrient partitioning model of fish growth. XI International Symposium on Nutrition and Feeding of Fish, 2-7 May 2004, Phuket, Thailand.

Bureau, D.P. 2004. Formulating feeds with high levels of economical protein sources: Paying attention to ingredient characteristics and essential nutrient utilization. Seminario Internacional Agricultura y Salmonicultura, 1 December 2004, Puerto Varas, Chile.

Bureau, D.P. 2004. Future directions in feed formulation for waste reduction. Aquaculture Association of Canada Annual Meeting, 16-20 October 2004, Quebec, Canada.

Bureau, D.P. 2004. Mass Balance and Nutrient Flows in Freshwater Aquaculture. Aquaculture Association of Canada Annual Meeting, 16-20 October 2004, Quebec, Canada.

Bureau, D.P., L. O. Pena-Ortega and K. Hua. 2004. Metabolic wastes in fish: exogenous and endogenous determinants. International Congress of Fish Biology, 1-6 August 2004, Manaus, Brazil.

Encarnacao, P.M., C.F.M. de Lange, and D.P. Bureau. 2004. Energy source affects lysine utilization for protein deposition in rainbow trout. XI International Symposium on Nutrition and Feeding of Fish, 2-7 May 2004, Phuket, Thailand.

El-Haroun, E.R. and D.P. Bureau 2004. Assessing bioavailability of lysine in different blood meals using a slope-ratio assay with rainbow trout. Aquaculture Association of Canada Annual Meeting, 16-20 October 2004, Quebec, Canada.

Palma, J., D.P. Bureau, and J.P. Andrade. 2004. Effect of binder type and binder addition to artificial diets used for the growth of the species *Palaemonetes varians* and *Palaemon elegans* (Crustacea: Palaemonidae) produced as aquaculture live preys. XI International Symposium on Nutrition and Feeding of Fish, 2-7 May 2004, Phuket, Thailand.

Pena Ortega L.O., and D.P. Bureau. 2004. Investigation into the differences in nitrogen metabolism between rainbow trout and Atlantic salmon of different sizes/ages. International Congress of Fish Biology, 1-6 August 2004, Manaus, Brazil.

Tapia-Salazar, M. W. Bureau, S. Panserat, G. Corraze, and D.P. Bureau. 2004. Utilization of digestible starch by rainbow trout: Possible inhibitory effect of DHA. XI International Symposium on Nutrition and Feeding of Fish, 2-7 May 2004, Phuket, Thailand.

Azevedo, P.A., S. Leeson, C.Y. Cho, S.H. Birkett, H. Bayley and D.P. Bureau. 2003. Partitioning of metabolizable energy for maintenance and growth by growing salmonids using a factorial approach: species, size/age and diet effects. Annual Meeting of American Dairy Science Association, American Society of Animal Science and Mexican Association of Animal Production. June 22-26, 2003, Phoenix, Arizona, USA.

Azevedo, P.A., S. Leeson and D.P. Bureau. 2003. Nitrogen and energy utilization by growing salmonids: species, size/age and diet effects. 29<sup>th</sup> Fish Feed and Nutrition Workshop, June 23-25, 2003, Davis, California, USA.

Bureau, D.P. and M.T. Viana. 2003. Formulation of cost-effective, environmentally friendly, feeds for gastropods, crustaceans, and fish based on improved knowledge of nutrient requirements and utilization. First Congress of the Latin America College of Animal Nutrition (CLANA), 20 August 2003, Cancun, Mexico.

Collins, F.W., D.J. Philbrick, D.P. Bureau, R. Assabgui, and B.J. Holub. 2003. Preparative-scale purification of soyasaponins for use in a murine model of polycystic kidney disease. 5th International Symposium on the Role of Soy in Preventing and Treating Chronic Disease, 21-24 September 2003, Orlando, Florida, USA.

Encarnacao, P. and D.P. Bureau. 2003. Effect of different acetyl-CoA precursors on lysine utilization by rainbow trout. 29<sup>th</sup> Fish Feed and Nutrition Workshop, 23-25 June 2003, Davis, California, USA.

Gunther, S.J. and D.P. Bureau. 2003. Adaptation of a feed requirement and waste output model to stocks of lake trout, brook trout and F1 splake. 29<sup>th</sup> Fish Feed and Nutrition Workshop, 23-25 June 2003, Davis, California, USA.

Hua, K. and D.P. Bureau. 2003. A model to estimate the digestible phosphorus content of fish feeds. 29<sup>th</sup> Fish Feed and Nutrition Workshop, 23-25 June 2003, Davis, California, USA.

Azevedo P.A., S. Leeson and D.P. Bureau, 2002. The effect of dietary DP/DE ratio on growth and feed efficiency of nitrogen and energy utilization by four salmonid species at various sizes. X International Symposium on Nutrition and Feeding of Fish, 2-7 June 2002, Rhodes, Greece.

Dao, T., E. Goyard, G. Cuzon, D. Bureau, G. Seynave and AQUACOP. 2002. Assessment of the responses to genetic selection for growth in *Penaeus stylirostris* under different diets. World Aquaculture 2002, Beijing, China, April 2002.

Encarnacao P., C.F.M. de Lange, M. Rodehutsord and D.P. Bureau. 2002. Digestible energy affects lysine utilization, but not dietary lysine requirements of rainbow trout (*Oncorhynchus mykiss*) for maximum growth. X International Symposium on Nutrition and Feeding of Fish, 2-7 June 2002, Rhodes, Greece.

Gunther, S. and D.P. Bureau. 2002. Growth and carcass composition of brook trout (*Salvenius fontinalis*), Lake trout (*Salvenius namaycush*) and their F1 hybrid, splake from first-feeding to 4 g live weight. X International Symposium on Nutrition and Feeding of Fish, 2-7 June 2002, Rhodes, Greece.

Gunther, S.J. and D. P. Bureau. 2002. Growth and carcass composition of lake trout (*Salvelinus namaycush*), brook trout (*Salvelinus fontinalis*), and their hybrid, splake (*Salvelinus namaycush* X *Salvelinus fontinalis*). Symposium on the Ecology, Habitat and Management of Lake Trout in North America. 14-16 August 2002, Whitehorse, Yukon, Canada.

Gunther, S.J. and D. P. Bureau. 2002. Patterns of growth and nutrient deposition in brook trout (*Salvelinus fontinalis*), lake trout (*Salvelinus namaycush*) and their hybrid, splake (*S. fontinalis* X *S. namaycush*) as a function of temperature. Fifth International Congress on the Biology of Fish: Developments in Understanding Fish Growth. 21-25 July 2002, Vancouver, British Columbia, Canada.

Slimane W., P. Martin, D.P. Bureau and M. Mambrini. 2002. Assessment of differential expression of genes coding for glutamate dehydrogenase, a key enzyme for protein and energy metabolisms. X International Symposium on Nutrition and Feeding of Fish, 2-7 June 2002, Rhodes, Greece.

Watanabe K., D.P. Bureau and M. Mambrini. 2002. Characterization of Atlantic salmon glutamate dehydrogenase gene. X International Symposium on Nutrition and Feeding of Fish, 2-7 June 2002, Rhodes, Greece.

Azevedo, P.A., S. Leeson and D.P. Bureau. 2001. Protein and lipid deposition patterns and costs in four salmonid species at various sizes. 28<sup>th</sup> Fish Feed and Nutrition Workshop, 17–19 October 2001, Baton Rouge, Louisiana, USA.

Azevedo, P.A., S. Leeson, S. Birkett, H. Bayley, C.Y. Cho and D.B. Bureau. 2001. Patterns and costs of growth, protein and lipid depositions in salmonids. AquaNet I, 29 Sept.–02 Oct 2001, Halifax, Nova Scotia, Canada.

Bureau, D.P. 2001. Current and future issues in aquaculture nutrition: A Canadian researcher's perspective. AquaNet I, 29 Sept.-2 Oct. 2001, Halifax, Nova Scotia, Canada.

Collins, F.W., D.J. Philbrick, D.P. Bureau and B J. Holub. 2001. Preparative chromatographic methods for the purification of soyasaponin Bb and its efficacy in the retardation of polycystic kidney disease (PKD) progression in a murine model. 4th International Symposium on the Role of Soy in Preventing and Treating Chronic Disease, November 4-7 2001, Hyatt Islandia, San Diego, California.

Encarnacao, P., C.F.M. de Lange and D. P. Bureau. 2001. Effect of digestible energy content of diet on lysine requirement of rainbow trout (*Oncorhynchus mykiss*). 28<sup>th</sup> Fish Feed and Nutrition Workshop, 17–19 October 2001, Baton Rouge, Louisiana, USA.

Gunther, S. and D.P Bureau. 2001. Pattern of growth and feed utilisation of brook trout, lake trout and their hybrid (splake) at different water temperatures. 28th Fish, Feed and Nutrition Workshop, October 17-19 2001, Baton Rouge, Louisiana, USA

Bureau, D.P. and C.Y. Cho. 2000. Complementarity of corn gluten meal and soybean meal as protein sources in the diet of young Atlantic salmon, *Salmo salar*. IX International Symposium on Nutrition and Feeding of Fish, 21-25 May 2000, Miyazaki, Japan.

Bureau, D.P. and C.Y. Cho. 2000. High nutrient dense (HND) diets for sustainable aquaculture. Seventeenth Annual Meeting of the Aquaculture Association of Canada, 28-31 May 200, Moncton, New Brunswick, Canada.

Bureau, D.P., S.J. Kaushik, I. Lupatsch, F. Médale, M. Rodehutsord and S. Satoh (Organizers). 2000. Second Workshop on Energy Metabolism of Fish. Efficiency of Energy Utilization: Methodological Considerations and Effects of Dietary, Biological and Environmental Factors, 22 May 2000, Miyazaki, Japan.

Bureau, D.P., P.A. Azevedo and C.Y. Cho. 2000. Rendered animal protein ingredients a major protein sources in the diet of rainbow trout. V Simposium Internacional de Nutricion Acuicola. 19-22 Noviembre, 2000. Merida, Yucatan, Mexico.

Cho, C.Y. and D.P. Bureau. 2000. Reduction of excretory and feed wastes in aquaculture through diet formulation strategies and feeding systems. IX International Symposium on Nutrition and Feeding of Fish, 21-25 May 2000, Miyazaki, Japan.

El-Mowafi, A.F., H. Dorrell, and D.P. Bureau. 2000. Potential of a pH-stat method to estimate apparent digestibility of protein in salmonids. IX International Symposium on Nutrition and Feeding of Fish, 21-25 May 2000, Miyazaki, Japan.

Bureau, D.P., P.A. Azevedo and C.Y. Cho. 1999. Growth and nutrient deposition as a function of feeding level in salmonids. International Workshop on Fish Nutrition and Growth, Wuhan, Hubei, P.R. China, 10-14 October 1999, p.41.

Cho, C.Y., A.M. Harris and D.P. Bureau. 1999. Effects of “rancid” fish oils on young Atlantic salmon. International Workshop on Fish Nutrition and Growth, Wuhan, Hubei, P.R. China, 10-14 October 1999, p.48-49.

Cho, C.Y. and D.P. Bureau. 1999. Feeding fish is not “folklore” anymore. International Workshop on Fish Nutrition and Growth, Wuhan, Hubei, P.R. China, 10-14 October 1999, p.17.-20.

Cho, C.Y. and D.P. Bureau. 1999. Toward more rational feeding standards for salmonids based on bioenergetic principles. IX Congresso de Zootecnia, Associação Portuguesa dos Engenheiros zootécnicos, 11-13 Novembro 1999, p.71.

Philbrick, D.J., D.P. Bureau, F. W. Collins, B. Sarr, M.R. Ogborn and B.J. Holub. 1999. Effect of a soyasaponin-enriched alcohol extract from soy protein isolate on disease progression in mice with polycystic kidney disease. Amercian Society of Nephrology Annual Meeting, Miami Beach, Fl., 4-7 November 1999.

Bureau, D.P., A.M. Harris and C.Y. Cho. 1998. Nutritive value for rainbow trout of feather meals and meat and bone meals from various origins. VIII International Symposium on Nutrition and Feeding of Fish, 2-4 June 1998, Las Palmas de Gran Canaria, Spain. p.150.

Bureau, D.P., A.M. Harris and C.Y. Cho. 1998. Nutritive value of highly saturated or highly unsaturated lipid sources for rainbow trout reared at two temperatures. 27<sup>th</sup> Fish Feed and Nutrition Workshop, 13-15 September 1998, Pine Bluff, Arkansas, USA.

Bureau, D.P., F. Médale and S. Satoh (Moderators). 1998. First Workshop on Energy Metabolism of Fish: Energy/Feed Requirement Models for Finfish: What is Known, What Needs to be Determined. VIII International Symposium on Nutrition and Feeding of Fish, 2-4 June 1998, Las Palmas de Gran Canaria, Spain. p.165.

Bureau, D.P., P.A. Azevedo and C.Y. Cho. 1998. Energy and feed requirements of rainbow trout at different body weights and water temperatures. 27<sup>th</sup> Fish Feed and Nutrition Workshop, 13-15 September 1998, Pine Bluff, Arkansas, USA.

Cho, C.Y. and D.P. Bureau. 1998. Phosphorus utilization by rainbow trout: Estimation of dissolved phosphorus waste. VIII International Symposium on Nutrition and Feeding of Fish, 2-4 June 1998, Las Palmas de Gran Canaria, Spain. p.83

Cho, C.Y., P.A. Azevedo and D.P. Bureau. 1998. Optimization of the feeding standards for Atlantic salmon and rainbow trout using bioenergetic and growth models. Meeting of the Japanese Society of Fisheries Science, 23-27 September 1998, Hakodate, Hokkaido, Japan.

Azevedo, P.A., C.Y. Cho and D.P. Bureau. 1997. Satiation vs. restricted feeding on growth and feed efficiency of rainbow trout at four temperatures. XVI International Congress of Nutrition, 27 July - 1 August 1997, Montréal, Canada. p.80.

Azevedo, P.A., D.P. Bureau and C.Y. Cho. 1997. The effects of feed intake level and protein to energy ratio on waste production by rainbow trout and Atlantic salmon. III International Symposium on Nutritional Strategies and Management of Aquaculture Waste (NSMAW), 2-4 October 1997, Vila Real, Portugal. p.11.

Bureau, D.P., A. Farwell, S.J. Kaushik and C.Y. Cho. 1997. The utilization of various starches by rainbow trout. XVI International Congress of Nutrition, 27 July - 1 August 1997, Montréal, Canada. p.80.

Bureau, D.P., A.M. Harris. and C.Y. Cho. 1996. The effects of a saponin extract from soybean meal on feed intake and growth of chinook salmon and rainbow trout. VII International Symposium on Nutrition and Feeding of Fish, 11-15 August 1996, College Station, Texas.

Harris, A.M., C.Y. Cho and D.P. Bureau. 1996. The effect of dietary lipids and long chain n-3 PUFA levels on growth, immune competence and carcass quality of rainbow trout. Proceedings of the Eastern Nutrition Conference. 15-17 May, 1996, Halifax, N.S., Canada. p.247.

Bureau, D.P., J.B. Kirkland and C.Y. Cho. 1995. The fate of carbohydrate-energy fed to rainbow trout. 24th Fish Feed and Nutrition Workshop, 19-21 October 1995, The Ohio State University, Columbus, Ohio.



Bureau, D.P., J.B. Kirkland and C.Y. Cho. 1995. The effects of dietary chromium supplementation on performance, carcass yield and blood glucose of rainbow trout (*Oncorhynchus mykiss*) fed two practical diets. ASAS Annual Meeting, 25-28 July 1995, Orlando, Florida. Journal of Animal Science 73 suppl.1: 194.

Bureau, D.P., J.B. Kirkland and C.Y. Cho. 1994. The utilization of two sources of dietary carbohydrate by rainbow trout (*Oncorhynchus mykiss* W.). ASAS Annual Meeting, 11-15 July 1994, Minneapolis, Minnesota. Journal of Animal Science 72 suppl.1: 199.

### **Popular Communications, Workshops and Courses**

Bureau, D.P., G. Salze, O. Skipper-Horton, and K.Z. Hua. 2011. Towards a better characterization and understanding of growth and feed utilization by rainbow trout. Martin Mills Annual Cage grower Meeting, Parry Sound, 1-2 April 2011.

Hooft, J.M., Y Yang, L.M. Lopez-Acuna, M.A.K. Chowdhury, A. Gholami, P. Saez, and D.P. Bureau. 2011. Nutritive value and limitations of common and novel fish feed ingredients. Martin Mills Annual Cage grower Meeting, Parry Sound, 1-2 April 2011.

Saez, P., E.M. Abdel-Aal, and D. P Bureau. 2011. Effects of corn gluten meal on flesh pigmentation of rainbow trout. International Aquafeed, March/April Issue.

Salze, G., M. Quinton, and D.P. Bureau, 2011. Challenges associated with carrying out a meta-analysis of essential amino acid requirements of fish. International Aquafeed, Sept-October 2011 Issue, 28-31.

Bureau, D.P. 2010. Improving characterization of the nutritive value of feather meal for fish. Render Magazine, August 2010 Issue.

Bureau, D.P. 2010. The case for production benchmarking and the usefulness of nutritional models to the aquaculture industry in Ontario. Martin Mills Cage Grower Meeting, 26-27 March 2010, Parry Sound, Ontario.

Hooft, J. and D.P. Bureau. 2010. Mycotoxins in feed affect fish health, performance. In: The Global Aquaculture Advocate Magazine, March/April 2010, pp. 31-32.

Bureau, D.P. 2009. History and research programs of the UG/OMNR Fish Nutrition Research Laboratory. 14 April 2009, Northwestern Agriculture and Technology University, Yangling, P.R. China

Bureau, D.P. 2009. History of the UG/OMNR Fish Nutrition Research Laboratory. 7 April 2009, Institute of Agriculture (IPB), Bogor, Indonesia

Bureau, D.P. 2008. Meaningful characterization of the nutritive value of processed animal proteins. International Aquafeed, September/October 2008, pp.18-22.

- Bureau, D.P. 2008. Towards a better definition of essential amino acid requirements of fish. *International Aquafeed*, September/October 2008, pp.14-17.
- Bureau, D.P. 2008. Efficiency of protein retention in rainbow trout: a key issue for cage producers in Ontario. Martin Mills Cage Grower Meeting, 28-29 March 2008, Parry Sound, Ontario.
- Bureau, D.P. 2008. Old Feed Ingredients? New Feed Ingredients? What's up? Martin Mills Cage Grower Meeting, 28-29 March 2008, Parry Sound, Ontario.
- Bartley, M.P., S.J. Gunther, D.P. Bureau and G.W. Hooper. 2007 Feed transition strategies for extensive/intensive production of advanced walleye fingerlings in Ontario. *World Aquaculture Society Magazine*, 38 (2): 37-39.
- Bureau, D.P. 2007. Fish meal replacement in aquaculture feeds: Opportunities for rendered products. *Render Magazine*, August 2007, 10-12.
- Hua, K. and D.P. Bureau. 2007. A novel method for calculating digestible phosphorus content of fish feeds. *International Aquafeeds*, 10 (4): 30-32.
- Nates, S.F. and D.P. Bureau. 2007. Opportunities for rendered animal proteins in aquaculture feeds. *Global Aquaculture Advocate*, November /December 2007, 66-68.
- Bureau, D.P. 2006. Advanced Concepts in Fish Nutrition. Universidad Autónoma de Baja California / Facultad de Ciencias Marinas; FCM-UABC, Ensenada, BC, Mexico. (Graduate Level Short Course, . 24-28 April 2006, 16h duration).
- Bureau, D.P. 2006. Predicting efficiency of conversion of feeds into aquatic biomass: Easier said than done! Seminar Series of the Instituto Investigación de Oceanologica, FCM-IIO, 28 April 2006. Universidad Autónoma de Baja California, UABC, Ensenada, BC, Mexico.
- Chowdhury, M.K. and D.P. Bureau. 2006. A rapid appraisal approach to identify feed ingredients for low-input cage aquaculture. *International Aquafeeds*, 9 (1): 14-19.
- El-Haroun, E.R. and D.P. Bureau. 2006 Tech Topics: Bioavailability of lysine in various blood meals. *Render Magazine*, October 2006, 24-25.
- Hua, K. and D.P. Bureau. 2006. Animal proteins: good phosphorus sources. *Render Magazine*, August 2006, 16-17.
- Mazumder, M. and D.P. Bureau. 2006. Managing solid waste outputs from cage culture operations with emphasis on copper and Zinc. Martin Mills Cage Grower Meeting, 12 April 2006, Parry Sound, Ontario.
- Bureau, D.P. 2005. Advanced concepts in fish nutrition and feed formulation. National Renderers Association-sponsored lecture presented in Jakarta and Surabaya, Indonesia, 8-12 August 2005.
- Bureau, D.P. 2005. Formulating more cost-effective aquaculture feeds. *International Aquafeed*, 7 (3): 6-9.

Bureau, D.P. 2004. Animal fats as aquaculture feed ingredients: Nutritive value, product quality and safety. *International Aquafeeds*, 7(1): 33-37.

Bureau, D.P. 2004. Feeds and feeding: How they affect growth, feed conversion, body composition, waste output, and fitness of hatchery fishes. Fish Nutrition Workshop, Great Lakes Fisheries Commission Annual Fish Health Meeting, 26 February 2004, Guelph, Ontario.

Bureau, D.P. 2004. Feed conversion, waste outputs management, feed formulations and ingredient selection: What's new? Martin Mills Cage Culture Growers Meeting, 6 March 2004, Espanola, Ontario.

Cho, C.Y. and D.P. Bureau. 2004. Digestibility methods. Fish Nutrition Methodology Workshop, 2 May 2004, Phuket, Thailand.

Nguyen, K. and D.P. Bureau. 2004. Copper and zinc: Bioavailability in feedstuffs, organic and inorganic sources. Ontario Sustainable Aquaculture Working Group (OSAWG) Meeting, 30 June 2004, Parry Sound, Ontario.

Bureau, D.P. 2003. Aquaculture: an international opportunity. Fats and Proteins Research Foundation (FPRF) Emerging Issues and Opportunities Seminar, 21 October 2003, Scottsdale, Arizona, USA.

Bureau, D.P. 2003. Estimation of the impact of different production strategies and market weight on feed conversion ratio and production cost of rainbow trout. Martin Mills Cage Culture Growers Meeting, 21 April 2003, Espanola, Ontario.

Bureau, D.P. 2002. Predicting feed conversion ratio of rainbow trout at increasing weight using two different approaches. Martin Mills Cage Culture Growers Meeting, 5-6 April 2002, Espanola, Ontario.

Bureau, D.P. and M. Mambrini. 2002. Workshop: Introduction to fish nutrition, feeds and feeding for aquaculture researchers and fish biologists. AquaNet II, 16 September 2002, Moncton, New Brunswick, Canada.

Cho, C.Y. and D.P. Bureau 2002. Don't reinvent the wheel -understand the basics. *Feed Mix* 10(4), 15-17.

Cho, C.Y. and D.P. Bureau 2002. Challenging old aquaculture values. *Feed Mix* 10(3), 10-13.

Goyard, E., L. Penet, L. Chim, G. Cuzon, D. Bureau, E. Bedier and AQUACOP. 2002. Selective breeding of the Tahitian domesticated population of Pacific blue shrimp (*Litopenaeus stylostris*): Perspectives for the New Caledonian shrimp industry. *World Aquaculture*, 33 (3), 28-30.

Bureau, D.P. 2001. Compensatory growth of salmonids. Martin Mills Cage Culture Growers Meeting, 2-3 March 2001, Espanola, Ontario.

Bureau, D.P. 2001. Less wasteful, less fish meal-dependent, feeds. *Eurofish* 2001(2), 68-70.

- Bureau, D.P. 2001. Nutritive value of rendered animal ingredients for fish. National Renderers Association-sponsored lecture presented in Beijing, Tianjin, and Fuzhou, P.R. China, 9-12 November 2001.
- Encarnacao, P. and D.P. Bureau. 2001. Essential amino acid requirements of fish: A matter of controversy. *International Aquafeed*, February 2001 issue, 30-34.
- Bureau, D.P. 2000. Animal proteins for world aquaculture production. The Fats and Proteins Research Foundation Annual Meeting, Palm Springs, California, 23-24 October 2000.
- Bureau, D.P. 2000. Aquaculture feeds: Opportunities and potential for rendered products. *Render Magazine*, August 2000 issue, 10-12.
- Bureau, D.P. 2000. Fish feeds: Use of rendered animal protein ingredients. *International Aquafeed*, July 2000 issue, 30-34.
- Bureau, D.P. 2000. Fish nutrition, growth and feeding. OMNR Fish Culture Course. 14-18 August 2000, University of Guelph.
- Bureau, D. P. and C.Y. Cho. 2000. A flexible approach for estimating waste outputs from fish culture operations. *Northern Aquaculture Supplement Aquaculture & the Environment* 2000, 25-26.
- Bureau, D.P. and C.Y. Cho. 2000. Predicting and controlling growth of rainbow trout with emphasis on achieving production targets. Martin Mills Manitoulin and Area Growers Meeting, 4 March 2000, Espanola, Ontario.
- Cho, C.Y. and D.P. Bureau. 2000. Estimating and managing waste outputs: What cage farmers should know and could do. Martin Mills Manitoulin and Area Growers Meeting, 4 March 2000, Espanola, Ontario.
- Bureau, D.P. 1999. Fish feed preparation: A hand-on project for learning about nutrition. STAO'99. Science Teachers Association of Ontario Annual Meeting, 4-6 November 1999, Toronto, Ontario.
- Bureau, D.P. 1999. Nutritive value of rendered animal protein ingredients for fish. National Renderers Association-sponsored lecture presented in Beijing, Chengdu, Guangzhou and Zhanjiang, P.R. China, 8-16 October 1999.
- Bureau, D.P. and C.Y. Cho. 1999. An overview of fish nutrition: principles, implications and applications. Martin Mills' Aquaculture Nutrition and the Environment Workshop: Ensuring our Industry's Growth through Environmentally Responsible Nutritional Strategies, 20 March 1999, Espanola, Ontario.
- Bureau, D.P. and C.Y. Cho. 1999. Modeling and controlling growth of salmonids. OMNR Annual Production Planning Meeting, 1-3 December 1999, North Bay, Ontario.
- Bureau, D.P. and C.Y. Cho. 1999. Nutrition and feeding of fish. OMNR Fish Culture Course, University of Guelph, Guelph, Ontario, 21-25 June 1999.

Bureau, D.P. and C.Y. Cho. 1999. Toward more rational feeding practices. Ontario Aquaculture Association (OAA) Newsletter, July/August 1999, p.3-6.

Bureau, D. P. and C.Y. Cho. 1998. Three key strategies for the management and reduction of aquaculture wastes. Northern Aquaculture Supplement Environment '98, p.25-26.

Holub, B.J., D.J. Philbrick and D.P. Bureau. 1998. "Designer diets and foods" for retarding the progression of polycystic kidney disease (PKD). PKR Progress, 13: 4-5.