

Kara Mclsaac joined the ACOA AIF research project

Dr. Scott McBurney (Canadian Cooperative Wildlife Health Centre, CCWHC), working with New Brunswick Museum bat researchers Dr. Donald McAlpine and Ms. Karen Vanderwolf, diagnosed the index case of white-nose syndrome in New Brunswick. The affected bats were found in a hibernating cave in the southwest of the Province. Approximately 25% (1,500) of the bats in the cave laid dead on the floor of the cave, many with the white fuzzy growth in their faces and wings that gives the disease its name.

White-nose syndrome, associated with the fungus *Geomyces destructans*, was first diagnosed in 2006 in New York State, and has since decimated bat populations in the Eastern Coast of the US, extending from the original site to many other states and, last year, to Ontario and Quebec. The New Brunswick Museum will continue to work with CCWHC in monitoring the spread of the disease.

For more information, please visit the CCWHC Atlantic Region website at: atlantic.ccwhc.ca

NSERC Discovery Grant Renewed



Dr. Fred Kibenge was extremely pleased to learn recently that his NSERC Discovery Grant was renewed for another 5 years at \$40,000/year (total funding \$200,000). This is an increase of \$2,368/year over his last Discovery Grant. The success rate for established researchers renewing a grant in the 2011 competition for NSERC Discovery Grants Program was 74% and the average grant was \$35,045/year. Dr. Kibenge's basic research program on infectious salmon anaemia virus (ISAV) has been funded continuously by NSERC since 2001. In the last Discovery Grant, his lab identified the in-vivo correlates of ISAV virulence, and the molecular basis for pathogenicity variation among ISAV isolates. Along the way Dr. Kibenge' team proposed a new uniform system for classifying ISAV strains; the system was subsequently applied to isolates from the 2007-2010 ISA outbreaks in Chile, and was able to trace the source of infection and spread of the virus in the Chilean salmon industry. Current field observations indicate that ISAV is now endemic in fish populations wherever ISA has been reported worldwide, and that virulent strains of the virus have been replaced by the non-pathogenic variant HPR0 viruses, but the dynamics of this evolution are not known. With the new Discovery Grant (proposal titled "Viral evolution of the fish orthomyxovirus Isavirus"), Dr. Kibenge's team wants to gain a detailed molecular understanding of how ISAV is evolving in the fish host to generate these HPR0 viruses and its precise mechanisms of pathogenesis. These studies will not only have important practical applications for the aquaculture industry nationally and internationally, but will also continue to be of significant topical virological interest since ISAV is the only poikilothermic orthomyxovirus.

Kara Mclsaac joined the ACOA AIF research project

Kara McIsaac joined the ACOA AIF research project group led by **Dr. Anne Muckle** (Pathology & Microbiology), David Sims (Biomedical Sciences) and **Dennis Olexson** (Diagnostic Services), on March 14th, 2011, as term Quality Assurance / AIF Administrative Assistant. Kara obtained her certification in Office Systems Administration from Holland College in 2000 and has extensive experience in Quality Assurance and Product Development from previous employment with Genzyme Diagnostics and Fortius Canada.

Kara can be reached at extension 0916, Room 1004N.

Invited Special Guest

Dr. Arnost Cepica was invited as a special guest for the PhD Thesis of Dr. Elena Alina Palade in the Department of Pathology and Veterinary Forensic Medicine, Faculty of Veterinary Science, the Szent Istvan University, Budapest, Hungary. He was invited to deliver the lecture entitled "Aleutian mink disease, current and future control measures" (March 29-31, 2011). He was also invited by the Department of Virology and Diagnostics, of the Veterinary Research Institute, Brno, Czech Republic, to deliver the same lecture (April 7, 2011).

Costa Rican Veterinary Visits AVC

Dr. Rocio Gonzalez, from the National Animal Health Service (Servicio Nacional de Salud Animal, SENASA) in Costa Rica, spent a couple of weeks at the AVC last March. Rocio works in the diagnostic pathology area of SENASA, and visited AVC with two main goals: bring back to Costa Rica a plan to implement in situ hybridization (ISH) techniques and get an inside view of our MVSc in Anatomic Pathology program. Rocio interacted with many faculty and technical members, and found her stay both productive and pleasant - in spite of the dreary March weather. Amongst others, **Kathy Jones**, an experienced technologist in our department, shared her in depth knowledge on ISH and immunohistochemistry techniques. Rocio was also happy to participate in necropsies of species that may be taken for granted here but are a novelty to Central American eyes (see picture). We all enjoyed having Rocio here and hope she will be able to return as an MVSc student.

New Postdoctoral Fellow



Dr. Bassim Mohamed has joined the Department of Pathology of Microbiology as a Postdoctoral Fellow, to work on the project of **Dr. Arnost Cepica** entitled "The Aleutian disease on-farm resistance breeding program, a novel control method."

Graduate Student Travel Award

Whitney-Kelly Clark, an MSc student working with **Drs. Scott McBurney** and Spencer Greenwood, obtained one of the first Colleen MacDougall Graduate Student Travel Awards. The award, honoring the memory of a UPEI alumnus, grants \$500 to students traveling to conferences to present their work. Whitney will use it to attend the Annual Meeting of the Wildlife Disease Association, to be held in Quebec City next August. She hopes to present her research work on the genetic identity of *Trichomonas gallinae* species affecting wild finches in the Maritimes. For more information on Whitney's work, [click here](#).

Small Contribution to Traveling Exhibit

Last fall, **Dr. María Forzán**, wildlife pathologist of the Canadian Cooperative Wildlife Health Centre based here in the Path/Micro department, was contacted by a museum in Ontario looking for microscopic images of frog skin. Science North, an educational resource for children and adults, constantly creates new exhibits that aim at helping people understand the relationship between science, technology and their lives. The exhibits remain at their base in Sudbury, Ontario, for one year and then travel throughout North America for five to seven years. Their latest project and 8th major travelling exhibit, *Wildlife Rescue*, highlights the stresses wildlife populations around the world experience - stresses that are taking some to the brink of extinction. The exhibit includes mechanical interactives, one of which mimics a microscope viewer that uses Dr. Forzán's microphotographs (see picture). The photographs compare the microscopic appearance of the skin of a healthy frog and one suffering from chytridiomycosis, a disease that has caused the decline and/or extinction of over 200 frog species worldwide.



Recent Publications

Qin SS, Wu CM, Wang Y, Jeon B, Shen ZQ, Wang Y, Zhang Q, Shen JZ. Antimicrobial resistance in *Campylobacter coli* isolated from pigs in two provinces of China. *International Journal of Food Microbiology* 2011; 146:94-98.

Daoust, P-Y, Kibenge, FSB, Fouchier RAM, van de Bildt MWG, van Riel, D, Kuiken, T. Replication of low-pathogenic avian influenza virus in naturally infected mallard ducks (*Anas platyrhynchos*) causes no morphological lesions. *Journal of Wildlife Diseases* 2011; 47:401-409.

Parmley E.J, Soos C, Breault A., Fortin M, Jenkins, E, Kibenge F, *et al.* Detection of low pathogenic avian influenza viruses in wild ducks from Canada: Comparison of two sampling methods. *Journal of Wildlife Diseases* 2011; 47:466-470.

Cawthorn RJ. Diseases of American lobsters (*Homarus americanus*): A review. *Journal of Invertebrate Pathology*, 2011;106:71-78.

Dawe EG, Mallowney DR, Colbourne EB, Han G, Morado JF, Cawthorn RJ. Relationship of oceanographic variability with distribution and prevalence of bitter crab syndrome in snow crab (*Chionoecetes opilio*) on the Newfoundland-Labrador Shelf. In: G.H. Kruse, G.L. Eckert, R.J., Foy, Lipcius, R.N., Sainte-Marie, B., D.L. Stram, and D. Woodby (eds.), *Biology and Management of Exploited Crab populations under Climate Change*. Alaska Sea Grant, University of Alaska Fairbanks. 2010; Doi:10.4027/bmecpcc.2010.06:175-197.

Morado, J.F., Dawe, E.G., Mallowney, Shavey, C.A., Lowe, VC, Cawthorn, RJ, Burmeister A, Zisseron, B, Colbourne E. Climate change and the worldwide emergence of Hematodinium-associated disease: Is there evidence for a relationship? In: G.H. Kruse, G.L. Eckert, R.J., Foy, Lipcius, R.N., Sainte-Marie, B., D.L. Stram, and D. Woodby (eds.), *Biology and Management of Exploited Crab populations under Climate Change*. Alaska Sea Grant, University of Alaska Fairbanks. 2010;

Conboy, G. Giardiasis. Clinical Veterinary Advisor; 2011;Dogs and Cats 2nd edition, pp 447-478.

Conboy, G. Canine angiostrongylosis: The French heart-worm: An emerging threat in North America. Veterinary Parasitology, 2011;176:382-389.

Ahmad A, Rabbani M, Muhammad K, Shabbir MZ. Yaqub T, Munir K, Akhter F, Cepica A. Prevalence of bovine viral diarrhoea virus persistency in 12 Holstein cattle dairy herds of Charlottetown, Canada. Pakistan Journal of Zoology, 2011; 43:255-261.

Rodriguez-Tovar, LE, Speare DJ, Markham RJF. Fish microsporidia: Immune response, immuno-modulation and vaccination. Fish & Shellfish Immunology, 2011;30:999-1006.

Jeon SJ, Gonsalves LC, Jacobs JM, Rhodes M, Councilman J, Baya A, May EB, Fast MD. Short-term infection of striped bass *Morone saxatilis* with *Mycobacterium marinum*. Diseases of Aquatic Organisms, 2011; 94:117-124.

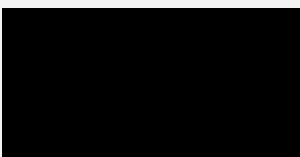
Departmental Seminars

May 3	Understanding P-glycoprotein mediated drug resistance in <i>Lepeophtheirus salmonis</i>	Okey Igboeli Biomedical Sciences
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Funding News

The online tutorials for potential student (USRA) applicants are now available on the NSERC website at: http://www.nserc-crsng.gc.ca/Students-Etudiants/Tutorial-Tutoriel/Tutorial-Tutoriel_eng.asp

Post Doctoral Research Fellowships (PDRF) offered through Foreign Affairs and International Trade Canada (DFAIT): Program description including eligibility requirements and application information can be found on the Government of Canada's International Scholarships website at www.scholarships.gc.ca



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For comments or suggestions for our newsletter, please contact
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