

Jérôme P. Payet, PhD

Oregon State University, Department of Microbiology
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Research Interests

Ecology, biogeography and diversity of viruses in aquatic microbial ecosystems; viral infection pathways and their implications for biogeochemical cycles;

Education

PhD in Oceanography	2012
University of British Columbia, Vancouver, Canada Dept. of Earth and Ocean Sciences, <i>Thesis:</i> Ecology and diversity of marine Viruses on the Canadian Arctic Shelf, Arctic Ocean <i>Supervisor:</i> Prof. Curtis A. Suttle	
Master in Oceanography	2003
Université du Québec à Rimouski, Québec, Canada Institut des Sciences de la Mer (ISMER) <i>Thesis:</i> Combined effects of ultraviolet-B radiation and dissolved hydrocarbons on natural microbial assemblages of the St-Lawrence Estuary <i>Supervisors:</i> Prof. Émilien Pelletier & Dr. Serge Demers	
Maîtrise de Biologie des Populations and des Écosystèmes	2000
Université de La Réunion, France (passed with distinctions)	
Licence de Biologie des Populations	1999
Université de La Réunion, France (passed with distinctions)	
DEUG B (General Biology)	1998
Université de La Réunion, France (passed with distinctions)	

Research Experience

Postdoctoral Scholar, Feb 2012 - present

Oregon State University, Department of Microbiology, Corvallis, OR, USA
with PI: Dr. Rebecca Vega Thurber

- Assessing ecology, diversity and biogeography of coral-associated viruses
- Detection and isolation of viruses that infect coral endosymbionts (*Symbiodinium*)

Research Assistant, Jan 2004 – Nov 2011

PhD candidate, University of British Columbia, Vancouver, BC, Canada

- Spent 6 months on the *Amundsen* icebreaker to collect water samples
- Characterized spatial-temporal changes in the distribution and abundance of marine viruses in relation to biotic and abiotic factors in the Arctic Ocean
- Conducted experiments to assess viral infection pathways and their ecological impacts on microbial mortality and biogeochemical cycles
- Determined the genetic fingerprints and phylogenetic diversity of viruses belonging to the

Phycodnaviridae and *Myoviridae* families

Research Assistant, Jan 2001-June 2003

Université du Québec à Rimouski, Québec, QC, Canada

- Designed mesocosms to study the influence of dissolved hydrocarbons and ultraviolet-B radiation on natural marine microbial assemblages

Field Research Assistant, Sept 1998 – Aug 2000

Université de La Réunion, France

- Studied the extent of coral bleaching and colonization patterns of macroalgae harboring epiphytic harmful dinoflagellates implicated in ciguatera fish poisoning at two sites on the fringing coral reefs of Réunion Island. Artificial reef structures were deployed and monitored for 9 months.

Teaching Experience

Guest lecturer, Jan 2008

University of British Columbia, Vancouver, BC, Canada

Marine Biodiversity course (EOSC 270)

Teaching Assistant, Sept-Dec 2007

University of British Columbia, Vancouver, BC, Canada

Ocean Environment course (EOSC 314)

Guest lecturer, March 2006, Vancouver, BC, Canada

University of British Columbia

Marine Microbiology (EOSC 475)

Oceanographic Cruises

R/V Vector, Strait of Georgia, Vancouver, British Columbia, Canada. Sept 2008

CGSS Amundsen Icebreaker, Canadian Arctic Shelf, Canada, 2003-2004

R/V Coriolis II, St-Lawrence Estuary, Québec, Canada, Aug 2002

Fellowships & Awards

Research Grant Robert WAN-Tahiti Perles group benefiting the Institute for Pacific Coral Reefs, Feb 2013

ISME Travel Awards for Young Scientists, Aug 2010

Captain Thomas S. BYRNE Scholarship, University of British Columbia, Sept 2008

PhD Tuition Fee Award, University of British Columbia, 2003-2008

Travel Award, University of British Columbia, 2007

Travel Award, University of British Columbia, 2006

Travel Award, American Society of Limnology and Oceanography, June 2006

Travel Award, Conseil Régional de La Réunion, France, Sept 2000

Publications

Payet J.P. and Suttle C.A. 2013. To kill or not to kill: the balance between lytic and lysogenic viral infection is driven by trophic status in Arctic marine coastal waters. *Limnology and Oceanography*, 58 (2), 465-474.

Winter, C., **Payet J.P.** and C.A. Suttle 2012. Modeling the Winter-to-Summer Transition of Prokaryotic and Viral Abundance in the Arctic Ocean. *PLoS ONE* 7 (12), e52794.

Brussaard, C.P.D., **Payet J.P.**, Winter C., M.G. Weinbauer 2010. Quantification of aquatic viruses by

flow cytometry. In S.W. Wilhelm, M.G. Weinbauer, and C.A. Suttle (eds), *Manual of Aquatic Viral Ecology*, ASLO. Chapter 11, pp. 102-109.

Clasen J.L., Brigden S.M., **Payet J.P.** and C.A. Suttle 2008. Viral abundance across marine and freshwater systems is driven by different biological factors. *Freshwater Biology*, 53, pp. 1090-1100.

Payet J.P. and C.A. Suttle 2008. Physical and biological correlates of virus dynamics in the southern Beaufort Sea and Amundsen Gulf. *Journal of Marine Systems*, 74, pp. 933 – 945.

Pelletier E., Sargian P., **Payet J.** and S. Demers 2006. Ecotoxicological effects of combined UVB and organic contaminants in coastal waters: a review. *Photochemistry and Photobiology*, 86: 981-993.

Presentations

Payet J.P. and C.A. Suttle 2010. Genetic composition and diversity of marine viruses during a year-long study in the Southeastern Beaufort Sea, Arctic Ocean. ISME-13: Microbes – Stewards of a changing planet, Seattle WA, USA, August 22nd-27th (Oral)

Payet J.P. and C.A. Suttle 2010. Genetic composition and diversity of viruses infecting marine microbes on the Canadian Arctic Shelf, Arctic Ocean. CIFAR symposium on Integrated Microbial Biodiversity, Seattle WA, USA, August 19th-22nd (Poster)

Payet J.P. and C.A. Suttle 2010. Seasonal and spatial dynamics in the genetic composition and diversity of marine viruses in the Arctic Ocean. Viruses of microbes, Institut Pasteur, Paris, France, June 21st-26th (Poster)

Payet J.P. and C.A. Suttle 2009. Lysogenic versus lytic virus life strategies are strongly related to seasonal and spatial differences in productivity in Arctic Ocean coastal waters. ASLO Aquatic Sciences Meeting, Nice, France, January 25th-30th (Oral)

Payet J.P. and C.A. Suttle 2007. Viruses are a dynamic and active component of the marine microbial communities in the southern Beaufort Sea, Arctic Ocean. Centre for Microbial Diversity and Evolution meeting, Vancouver BC, Canada, June 12th – 15th (Poster)

Payet J.P. and C.A. Suttle 2007. Dynamics of marine viruses and their biogeochemical and ecological effects on the Canadian Arctic Shelf. 17th Evergreen International Phage Biology Meeting, Olympia, Washington, USA, August 12th-17th (Oral)

Payet J.P. and C.A. Suttle 2007. Environmental effects on the spatial and seasonal dynamics of marine viruses and bacteria in the Amundsen Gulf and Mackenzie Shelf. Canadian Arctic Shelf Exchange Study International meeting, Quebec QC, Canada, April 30th-May 2nd (Oral)

Payet J.P. and C.A. Suttle 2007. Seasonal variability of viral abundance and activity in the Canadian Beaufort Sea. ASLO Aquatic Sciences Meeting, summer meeting, Victoria BC, Canada, June 4th-9th (Oral)

Payet J.P. and C.A. Suttle 2006. Marine viruses on the Canadian Arctic Shelf. SCOR International workshop on virus ecology in marine systems, Vancouver BC, Canada, June 1st-3rd (Poster)

Payet J.P. and C.A. Suttle 2006. Spatial and temporal variability of viral abundance and activity on the Canadian Arctic Shelf. Canadian Arctic Shelf Exchange Study International Meeting, Winnipeg MA, Canada, February 13th-16th (Oral)

Payet J.P. and C.A. Suttle 2006. Viral and bacterial distribution on the Canadian Arctic Shelf. CASES First International Data Workshop, Montreal QC, Canada, October 25th-29th (Poster)

Payet J.P., Nozais C., Pelletier E., and S. Demers 2002. Combined effects of UVB and dissolved hydrocarbons on marine microbial communities. 30th Annual Meeting of the American Society for Photobiology, Québec QC, Canada, July 13th-17th (Poster)

Membership in professional societies

International Society for Microbial Ecology

Association for the Sciences of Limnology and Oceanography

American Society for Microbiology

Additional information

Languages: French (native language), English, creole from Reunion Island

AAUS Scientific diver through Oregon State University

Driver's license