

## Karl Cottenie

### LIFETIME CURRICULUM VITAE

#### 1. PRIMARY APPOINTMENT AT THE UNIVERSITY OF GUELPH

**Rank:** Associate Professor, Tenure  
**Academic Unit:** Integrative Biology  
**Dates:** Jan. 2005 - present  
**Percentage Workload:** 100%  
desc

##### DISTRIBUTION OF EFFORT

**Dates:** Jul. 2021 - present  
**Teaching:** 15%  
**Research/Scholarship:** 15%  
**Service:** 70%

#### 2. EDUCATION AND DEGREES

Ecology, Jun. 2005  
University of California, Santa Barbara, United States of America, Completed.

Ecology, Jun. 2002  
Katholieke Universiteit Leuven (Dutch), Belgium, Completed.

Statistics, Jul. 1997  
Katholieke Universiteit Leuven (Dutch), Belgium, Completed.

Ecology, Jul. 1996  
Katholieke Universiteit Leuven (Dutch), Belgium, Completed.

#### 3. EMPLOYMENT HISTORY

##### ACADEMIC WORK EXPERIENCE AT THE UNIVERSITY OF GUELPH

Jul. 2011 - present: **Associate professor**, Associate Professor, Tenure, Full-time, Integrative Biology, University of Guelph, Canada

Jul. 2005 - Jun. 2011: **Assistant professor**, Assistant Professor, Tenure Track, Full-time, Integrative Biology, University of Guelph, Canada

## ACADEMIC WORK EXPERIENCE EXTERNAL TO THE UNIVERSITY OF GUELPH

Oct. 2001 - Jan. 2003: **Researcher**, Full-time, Catholic University Leuven  
. Leuven

## LEAVES OF ABSENCE

Sep. 2018 - Apr. 2019: **Sabbatical**  
University of Guelph, Canada  
Study/Research Leave

Sep. 2012 - Apr. 2013: **Sabbatical**  
University of Guelph, Canada  
Study/Research Leave

## 5. TEACHING RESPONSIBILITIES

### TEACHING AT THE UNIVERSITY OF GUELPH

#### Assigned Teaching

Semester	Course	Section	Credits	# Students	Campus	Role
2022 - Fall	IBIO6630 Scientific Communication		0.50		Guelph	Instructor
2022 - Winter	IBIO6070 St: Advanced Integrative Biology I	1	0.50	4	Guelph	Instructor
2021 - Fall	IBIO6070 St: Advanced Integrative Biology I	1	0.50	3	Guelph	Instructor
2021 - Fall	IBIO6630 Scientific Communication	1	0.50	29	Guelph	Instructor
2020 - Fall	IBIO6630 Scientific Communication	1	0.50	25	Guelph	Instructor
2020 - Winter	STAT2230 Biostats for Integrative Biol	1	0.50	176	Guelph	Instructor
2019 - Fall	BIOL3010 Lab & Field Work in Ecology	1	0.50	77	Guelph	Instructor
2018 - Winter	IBIO4500 Research in Integrative Biol I	01	1.00	35	Guelph	Instructor
2018 - Winter	IBIO4510 Research/	01	1.00	26	Guelph	Instructor

Semester	Course	Section	Credits	# Students	Campus	Role
	Integrative Biol II					
2017 - Fall	IBIO6070 Advances in Integrative Biology I			1	Guelph	Instructor
2017 - Fall	BIOL3010 Laboratory and Field Work in Ecology			101	Guelph	Instructor
2017 - Winter	IBIO6000 Special Topics in Ecology and Behaviour			17	Guelph	Instructor
2016 - Fall	BIOL4110 Ecological Methods				Guelph	Instructor
2016 - Fall	BIOL3010 Laboratory and Field Work in Ecology				Guelph	Course instructor
2015 - Fall	BIOL*4110 Ecological Methods			80	Guelph	course instructor
2015 - Fall	BIOL*4410 Field Course Algonquin			25	Guelph	course instructor
2015 - Winter	IBIO*6000 Advances in Ecology and Evolution			8	Guelph	course instructor
2014 - Fall	BIOL*4110 Ecological Methods			59	Guelph	course instructor
2014 - Winter	BIOL*3120 Community Ecology			180	Guelph	course instructor
2013 - Fall	BIOL*4410 Field Course Algonquin			25	Guelph	course instructor
2012 - Winter	UNIV*1200 Exploring environmental healing			18	Guelph	course instructor
2012 - Winter	BIOL*3120 Community Ecology			200	Guelph	course instructor
2011 - Fall	IBIO*6000 Advances in Ecology and Behaviour			20	Guelph	course instructor
2011 - Fall	BIOL*4410 Field Course Algonquin			25	Guelph	course instructor
2011 - Winter	BIOL*3120 Community Ecology			171	Guelph	course instructor
2010 - Fall	BIOL*4350 Biology of Polluted Waters			50	Guelph	course instructor

Semester	Course	Section	Credits	# Students	Campus	Role
2010 - Winter	BIOL*3120 Community Ecology			158	Guelph	course instructore
2009 - Fall	BIOL*4350 Biology of Polluted Waters			40	Guelph	course instructor
2009 - Fall	BIOL*4410 Field Course Algonquin			22	Guelph	course instructor
2009 - Winter	BIOL*3120 Community Ecology			151	Guelph	course instructor
2008 - Fall	BIOL*4350 Biology of Polluted Waters			39	Guelph	course instructor
2008 - Winter	BIOL*3120 Community Ecology			110	Guelph	course instructor
2007 - Fall	BIOL*4350 Biology of Polluted Waters			39	Guelph	course instructore
2006 - Fall	BIOL*4350 Biology of Polluted Waters			39	Guelph	course instructor
2006 - Winter	BIOL*3120 Community Ecology			121	Guelph	course instructor
1997 - Fall	BIOL4110 Ecological Methods		1.00	42	Guelph	Instructor
<b>Totals</b>			<b>6.5</b>	<b>2116</b>		

\* CR = Credit Weight. A typical UofG credit course = 0.5

### **Independent Study**

**2016 - Fall:** IBIO6070 Advances in Integrative Biology I (Graduate). (Guelph Campus). **Role:** Individual Teaching/Study - Graduate Student. **Enrollment:** 1. **Student Name(s):** Katee McGee. **Student Completion Date:** Dec. 2016.

**Description:** Graduate Student Individual Instruction. Fall. Student Start Date: 2016-09-01. Student End Date: 2016-12-31

**2010 - Winter:** IBIO4521 Thesis in Integrative Biology (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Adam Marinelli. **Student Completion Date:** Dec. 2010.

**Description:** - Quantifying riparian buffer widths and landscape variables in Ontario boreal lakes

**2010 - Fall:** IBIO4500 Research in Integrative Biology I (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Brittany Jones. **Student Completion Date:** Apr. 2010.

**Description:** - Trade-offs and dispersal limitation in an experimental zooplankton metacommunity system .

**2009 - Winter:** IBIO4500 Research in Integrative Biology I (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Nancy Linehan. **Student Completion Date:** Apr. 2009.

**Description:** - Effect of future atmospheric carbon dioxide levels on ocean chemistry and Scleractinian calcification rate

**2009 - Winter:** IBIO4510 Research in Integrative Biology II (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Deniz Ergun. **Student Completion Date:** Apr. 2009.

**Description:** - Environment, space and time as explicit factors in the metacommunity analysis of zooplankton in natural and human constructed pools

**2009 - Winter:** IBIO4510 Research in Integrative Biology II (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Erinn Ipsen. **Student Completion Date:** Apr. 2009.

**Description:** - Effects of tree harvesting on zooplankton community succession .

**2009 - Fall:** IBIO4521 Thesis in Integrative Biology (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Amanda Winegardner. **Student Completion Date:** Apr. 2009.

**Description:** - Zooplankton metacommunity responses to manipulated salinity in sub arctic rock pools .

**2008 - Fall:** IBIO4500 Research in Integrative Biology I (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Katy Jay. **Student Completion Date:** Dec. 2008.

**Description:** - Trait based metacommunity dynamics

**2008 - Winter:** IBIO4510 Research in Integrative Biology II (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Completion Date:** Apr. 2008.

**2006 - Fall:** IBIO4521 Thesis in Integrative Biology (Undergraduate). (Guelph Campus). **Role:** Individual Teaching/Study - Undergraduate Student. **Student Name(s):** Ingrid Ng. **Student Completion Date:** Dec. 2006.

**Description:** Hierarchical zooplankton metacommunities: dispersal limitation versus mass effects.

## OTHER TEACHING-RELATED ACTIVITIES

Jan. 2018: **5 day metacommunity workshop**, co-instructor.  
Sao Jose Di Rio Preto, Brazil

Jan. 2016 - present: **Scholarship of Teaching and Learning**.  
Learning analytics at the University of Guelph. I am one of the participants in a research project that investigates the feasibility of implementing the Brightspace (Desire2Learn) Student Success System at the University of Guelph. The purpose of the S3 module is to identify

students on specific trajectories (those at risk of probationary status; those with very high performances) early enough that interventions can be considered. These predictions are based on a combination of interactions that each student has with different components of the learning management system such as the grade book, amount of time spent in the content section, course access, interactions with other students, etc. - We finished Phase 1 of the project, where we established a protocol to analyse the data we receive from D2L and evaluated the reliability of the tool. For the 3 CBS courses we looked at, the predictions are only determined by the grade book domain, and the tool is only reliable around week 10 in the 12 week course, thus not really an “early” warning tool. - Phase 2 will analyse the tool for a bigger set of courses, including exclusively on-line courses, to determine if these results are general across first-year University of Guelph courses.

Jan. 2016 - present: **Scholarship of Teaching and Learning.**

Presenting at a teaching conference. I participated with 2 presentations at the Teaching and Learning Innovations conference, University of Guelph, April 26-27 2016: Adventures and explorations in specifications grading, with Simon Denomme-Brown and Leslie Rye; Identifying students at risk: student learning analytics and other metrics, with Claire Coulter, Richard Gorrie, Brian Husband, Shoshanah Jacobs, and Scott Merrett.

## 6. STUDENT AND RESEARCHER SUPERVISION

### SUPERVISORY ACTIVITIES AT THE UNIVERSITY OF GUELPH

#### Graduate Supervision

##### Principal Supervisor

Number of Students: 9

##### Principal Supervisor: Master's Thesis

Sep. 2019 - Aug. 2021

**Alicia Halhed**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Metacommunity structure of microbiome in vertebrate hosts.

Sep. 2018 - Dec. 2020

**Jarvis, William**, **Status:** Completed

Sep. 2010 - Dec. 2012

**Brittany Jones**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2010 - Dec. 2012

**Thesis/Project Title:** THE EFFECTS OF SALINITY TOXICITY ON SPECIES FROM A SUB-ARCTIC ZOOPLANKTON COMMUNITY, IN LIGHT OF A CHANGING ENVIRONMENT

Sep. 2009 - Dec. 2011

**Amanda Winegardner**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2009 - Dec. 2011

**Thesis/Project Title:** ZOOPLANKTON METACOMMUNITY RESPONSES TO ENVIRONMENTAL CHANGE IN THE SUB-ARCTIC

Sep. 2007 - Dec. 2009

**Ingrid Ng**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2007 - Dec. 2009

**Other Supervisor(s):** Paul Sibley (Co-Supervisor)

**Thesis/Project Title:** EFFECTS OF VARYING RIPARIAN BUFFER WIDTHS ON ZOOPLANKTON COMMUNITIES IN BOREAL FOREST LAKES

### **Principal Supervisor: Master's Non-Thesis**

May 2020 - Dec. 2020

**Teodora Tockovska**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Spatial patterns in host-associated and free-living microbiomes

Apr. 2019 - Aug. 2019

**Karuna Vijayakumar**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Evaluating bioinformatic pipeline sensitivities in a metabarcoding project.

Apr. 2018 - Aug. 2018

**Xin Wei**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Spatial patterns of transposable elements in modelled circular bacterial genomes.

May 2017 - Aug. 2017

**Laura Lanteigne**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** An ecological approach to analyzing insertion sequence distributions in prokaryotic genomes

### **Co-Supervisor**

Number of Students: 15

### **Co-Supervisor: Doctorate**

Sep. 2022 - Aug. 2026

**Elizabeth Porter**, **Status:** In Progress

**Thesis/Project Title:** Reducing Bias in Ecological and Environmental Data Collection

Sep. 2020 - Aug. 2024

**Eleonore Lebeuf-Taylor**, **Status:** In Progress

**Thesis/Project Title:** The interplay between social stress and the gut microbiota in wild Siberian jays

Sep. 2019 - Aug. 2021

**Carolyn Gibson**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** The ecological and societal implications of permafrost thaw.

Jan. 2019 - Dec. 2023

**Marie-Eugenie Maggia**, University of Guelph, Integrative Biology, **Status:** Completed

**Other Supervisor(s):** Dirk Steinke (Co-Supervisor)

**Thesis/Project Title:** Global Earthworm Biodiversity Patterns

Sep. 2017 - Aug. 2023

**Jennifer Gleason**, University of Guelph, **Status:** Completed

**Other Supervisor(s):** Robert Hanner (Co-Supervisor)

**Thesis/Project Title:** Metacommunity dynamics and eDNA in a human-influenced landscape.

Sep. 2016 - Dec. 2023

**Anna Solecki**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2015 - present

**Other Supervisor(s):** Christopher Buddle (Co-Supervisor)

**Thesis/Project Title:** Ecophylogenetics of flies along multiple environmental gradients.

Sep. 2015 - Oct. 2023

**Carolyn Trombley**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2015 - present

**Other Supervisor(s):** Astrid Schwalb (Co-Supervisor)

**Thesis/Project Title:** Metacommunity structure of Virgin River fish and the effects of the invasive red shiner (*Cyprinella lutrensis*) on native fish assemblages

Sep. 2014 - present

**Simon Denomme-Brown**, University of Guelph, Integrative Biology, **Status:** In Progress, Sep. 2014 - Jul. 2022 (expected)

**Other Supervisor(s):** Andrew MacAdam (Co-Supervisor)

**Thesis/Project Title:** Metacommunity dynamics in small mammal communities

Sep. 2012 - Aug. 2019

**Brent Saylor**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2012 - present

**Other Supervisor(s):** Ryan Gregory (Co-Supervisor)

**Thesis/Project Title:** Applying ecological theory to genomic data.

### **Co-Supervisor: Master's Thesis**

Sep. 2022 - Aug. 2024

**Laura Dutheil**, **Status:** In Progress

**Thesis/Project Title:** Comparing family and species-level responses of aquatic invertebrates to mining effluent contamination

Apr. 2021 - Apr. 2023



**Bryan Vandenbrink, Status:** Completed

**Thesis/Project Title:** Use of DNA Barcoding data to differentiate potentially invasive and natural range expansion of arthropod species in Nunavut.

Sep. 2020 - Aug. 2022

**Elizabeth Porter**, University of Guelph, Integrative Biology, **Status:** Completed

**Other Supervisor(s):** Shoshanah Jacobs (Co-Supervisor)

**Thesis/Project Title:** Long-term monitoring of Eastern Grey Squirrel.

Sep. 2015 - Aug. 2017

**Joshua Cunningham**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2015 - present

**Other Supervisor(s):** Shoshanah Jacobs (Co-Supervisor)

**Thesis/Project Title:** The Use of Seabirds as Indicators of Marine Health and Processes Through Provisioning and Population Trends

Sep. 2012 - Sep. 2014

**Trevor Bringlee**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2012 - Sep. 2014

**Other Supervisor(s):** Sarah Adamowicz (Co-Supervisor)

**Thesis/Project Title:** Hierarchical spatial structuring of stream insect diversity through DNA barcoding

Sep. 2011 - Dec. 2013

**Gillian Martin**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2011 - Dec. 2013

**Other Supervisor(s):** Sarah Adamowicz (Co-Supervisor)

**Thesis/Project Title:** Increasing taxonomic resolution reduces strength of metacommunity patterns in freshwater stream invertebrates

## Committee Member

Number of Students: 32

### Committee Member: Doctorate

Sep. 2018 - present

**Gutgesell, Marie, Status:** Completed

Jan. 2018 - Dec. 2022

**Stefan Schneider, Status:** Completed, Jan. 2018 - Dec. 2022

Jan. 2016 - Dec. 2019

**Spencer Moncton, Status:** Completed, Sep. 2015 - Dec. 2019

Jan. 2012 - Dec. 2015

**Reid, Kevin, Status:** Completed, Feb. 2012 - Dec. 2015

Jan. 2012 - Apr. 2013

**Nuzhat Rafique, Status:** Completed, Jan. 2012 - Apr. 2013

Sep. 2011 - Aug. 2015

**La, Van, Status:** Completed, Sep. 2011 - Aug. 2015

**Description:** Student Start Date: 2011-09-01. Student End Date: 2015-08-11.

PHD.IBIO. Graduate Advising - Committee - Doctoral

Sep. 2011 - Nov. 2014

**Harvey, Eric, Status:** Completed, Sep. 2011 - Nov. 2014

Sep. 2006 - Sep. 2015

**Ward-Campbell, Belinda, Status:** Completed, Feb. 2006 - Sep. 2015

Sep. 2006 - Dec. 2013

**Olathe MacIntyre, Status:** Completed, Jan. 2006 - Dec. 2013

Sep. 2006 - Dec. 2009

**Astrid Schwalb, Status:** Completed, Sep. 2006 - Dec. 2009

Jan. 2005 - Dec. 2009

**Jennifer Shuter, Status:** Completed, Sep. 2005 - Dec. 2009

#### **Committee Member: Master's Thesis**

Sep. 2018 - Dec. 2020

**Quarrell, Nathaniel, Status:** Completed

Sep. 2018 - Dec. 2020

**Van Drunen, Stephen, Status:** Completed

Sep. 2018 - Dec. 2020

**Wang, Xueqi, Status:** Completed

Sep. 2018 - Dec. 2019

**Chatila-Amos, Kamil, Status:** Completed

Sep. 2018 - Dec. 2019

**Ho, Chris, Status:** Completed

Sep. 2018 - Nov. 2019

**Bain, Margaret, Status:** Completed

Jan. 2018 - Dec. 2018

**HOLUB, RACHEL, Status:** Completed, Sep. 2016 - Dec. 2018

Sep. 2015 - Dec. 2017

**Pyle, Michelle, Status:** Completed, Sep. 2015 - Dec. 2017

Sep. 2014 - Dec. 2016

**Fairweather, Aaron, Status:** Completed, Sep. 2014 - Dec. 2016

Sep. 2013 - Dec. 2016

**Wright, Michael, Status:** Completed, Sep. 2013 - Dec. 2016

Sep. 2013 - Oct. 2014

**Paterson, Caitlin, Status:** Completed, Sep. 2013 - Oct. 2014

Jan. 2013 - Apr. 2015

**Rogers, Michael, Status:** Completed, Sep. 2013 - Apr. 2015

**Description:** Student Start Date: 2013-09-01. Student End Date: 2015-04-30.

MSC.IBIO. Graduate Advising - Committee - Masters

Jan. 2010 - Dec. 2012

**Elizabeth Boyle, Status:** Completed, Sep. 2010 - Dec. 2012

Sep. 2009 - Aug. 2011

**Alisha Duwyn, Status:** Completed, Sep. 2009 - present

Jan. 2009 - Aug. 2010

**Sam Howard, Status:** Completed, Sep. 2009 - Aug. 2010

Sep. 2008 - Dec. 2010

**Keith Stamplecoskie, Status:** Completed, Sep. 2008 - Dec. 2010

Sep. 2008 - Dec. 2009

**Tremayne Stanton Kennedy, Status:** Completed, Sep. 2008 - Dec. 2009

Sep. 2007 - Dec. 2009

**Megan Sellick, Status:** Completed, Jan. 2007 - Dec. 2009

Sep. 2006 - Dec. 2009

**Sarah Pinto, Status:** Completed, Sep. 2006 - Dec. 2009

Sep. 2006 - Dec. 2008

**Lynn Bouvier, Status:** Completed, Sep. 2006 - Dec. 2008

Sep. 2005 - Dec. 2006

**Kate Crosby, Status:** Completed, Sep. 2005 - Dec. 2006

## **Academic Advisor**

Number of Students: 2

### **Academic Advisor: Doctorate**

Jan. 2012 - Dec. 2012

**Thiago Goncalves-Souza**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2010 - Dec. 2014

**Thesis/Project Title:** Metacommunity versus biogeography: a case study of two groups of Neotropical vegetation-dwelling arthropods

**Description:** Brazilian exchange student with the SANDWICH program

Jan. 2009 - Jan. 2010

**Tadeau Siqueira**, University of Guelph, Integrative Biology, **Status:** Completed, Sep. 2007 - Dec. 2010

**Thesis/Project Title:** Metacommunity dynamics in aquatic insect communities from Brazil

**Description:** Brazilian exchange student with the SANDWICH program

### **Other Student Supervision**

#### **Principal Supervisor**

Number of Students: 21

#### **Principal Supervisor: Bachelor's Honours**

Sep. 2022 - Apr. 2023

**Nathan Lewis**, **Status:** Completed

**Thesis/Project Title:** Cold Temperatures and High Urbanization Favour Melanic Eastern Gray Squirrels on a North American Scale

Sep. 2022 - Apr. 2023

**Christa Wise**, **Status:** Completed

**Thesis/Project Title:** Sources of variation in U of G Arboretum Winter Bird Count Data: 1980-2023

Sep. 2021 - Apr. 2022

**Brittney Bell**, **Status:** Completed

**Thesis/Project Title:** A Fly out of water: are aquatic and terrestrial life stages of insect populations linked?

Sep. 2020 - Apr. 2021

**Kaelyn Racine**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Core versus rare in microbiome communities

Sep. 2019 - Apr. 2020

**Catherine Rutherford**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** A meta-analysis of density dependent dispersal in small mammals

Sep. 2019 - Apr. 2020

**Margot Laliberte**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Earthworm biodiversity in agricultural gradient.

Sep. 2019 - Apr. 2020

**Emma Kominek**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Ecological and evolutionary processes in arctic Diptera

Sep. 2019 - Apr. 2020

**Fiona Persaud**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Ethanol eDNA versus metabarcoding in stream macroinvertebrate sampling.

Sep. 2017 - Apr. 2018

**Kaitlyn Ranft**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Small mammal body mass and capture probability

Sep. 2017 - Apr. 2018

**Danielle Ahrens**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Meta-analysis of red shiner invasions

Sep. 2015 - Apr. 2016

**Julia Sunga**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Assessment of road avoidance in American badger, *Taxidea taxus jacksoni*, at three spatial scales in southern Ontario, Canada

Jan. 2015 - Apr. 2015

**Carolyn Trombley**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** General laws in community ecology

Jan. 2015 - Apr. 2015

**Genevieve Pintel**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Biogeography versus metacommunity spatial scales

Sep. 2014 - Apr. 2015

**RandeLee MacDonald**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Impacts of livetrapp sound intensity on shrew mortality rates

Sep. 2014 - Apr. 2015

**Carolyn Gibson**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Controls on understory species composition and vegetation carbon pools following wildfire in interior Alaska

Sep. 2013 - Apr. 2014

**Krystall Gorringer**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Explicit community definitions in the study of latitudinal gradients

Jan. 2012 - Apr. 2012

**Lisa Vollbrecht**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Improving Dichotomous Keys for Undergraduate Teaching

Sep. 2011 - Apr. 2012

**Aaron Zoldero**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Variation in upland habitat differentially affects wetland Anurans in Algonquin Provincial Park: implications for timber harvest.

Sep. 2011 - Jan. 2012

**Danielle Eisner**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Freshwater fish community composition in stream ecosystems affected by shore degradation

Sep. 2010 - Apr. 2011

**Lucija Prelovec**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** A test for trade offs and dispersal limitation in a subarctic zooplankton metacommunity

Sep. 2010 - Apr. 2011

**Kyle Gillespie**, University of Guelph, Integrative Biology, **Status:** Completed  
**Thesis/Project Title:** Top-down, environmental and spatial effects on eelgrass (*Zostera marina*) fish and invertebrate community dynamics in a temperate pacific ecosystem: ecological and resource management perspectives

## **Researcher Supervision**

### **Academic Advisor**

Number of Students: 1

#### **Academic Advisor: Visiting Scholars**

Nov. 2022 - Mar. 2023

**Joas Brito**, **Status:** In Progress

**Thesis/Project Title:** Metacommunity and biogeography of adult odonata

## **SUPERVISORY ACTIVITIES EXTERNAL TO THE UNIVERSITY OF GUELPH**

### **Graduate Supervision**

#### **Committee Member**

Number of Students: 3

#### **Committee Member: Doctorate**

Apr. 2023 - Apr. 2027

**Andreia Alves**, Texas State University, San Marcos, **Status:** In Progress, Sep. 2022 - present

Jan. 2018 - Dec. 2022

**Zachary Mitchel, Status:** Completed, Sep. 2017 - Dec. 2022

**Description:** PhD at Texas State University, San Marcos.

### **Committee Member: Master's Thesis**

Sep. 2006 - Dec. 2009

**Shubha Pandit, Status:** Completed, Sep. 2006 - Dec. 2009

**Description:** McMaster - Kolasa.

## **Academic Advisor**

Number of Students: 1

### **Academic Advisor: Doctorate**

Jan. 2017 - Jul. 2017

**Danielle Petsch**, University of Guelph, Integrative Biology, **Status:** Completed

**Thesis/Project Title:** Dispersal mode and flooding regime as drivers of macrophyte and zooplankton metacommunity structure in a Neotropical floodplain

**Description:** Brazilian exchange student with the SANDWICH program

## 7. RESEARCH AND SCHOLARSHIP

### **SCHOLARSHIP STATEMENT**

#### **Research Funding (Awarded or Completed)**

<b>Title &amp; Role</b>	<b>Source &amp; Type</b>	<b>Amount</b>	<b>Dates</b>
<b>Title:</b> Improving environmental effects monitoring and assessment using DNA-based approaches  <b>Role:</b> Co-applicant	<b>Funding Type:</b> Grant  <b>Grant Type:</b> Operating	<b>Funding Total:</b> \$360,000 CAD  <b>Amount Received:</b> \$100 CAD	<b>Funding Dates:</b> Jan. 2025 - Dec. 2027
<b>Title:</b> Phylogenetic signals of Arctic Diptera  <b>Role:</b> Co-applicant	<b>Organization:</b> Polar Knowledge Canada  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$2,307 CAD	<b>Funding Dates:</b> Jan. 2019 - Aug. 2019
<b>Title:</b> Metacommunity dynamics at multiple scales	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada	<b>Funding Total:</b> \$200,000 CAD	<b>Funding Dates:</b> Apr. 2018 - Mar. 2023

Title & Role	Source & Type	Amount	Dates
<b>Role:</b> Principal Applicant	(NSERC)  <b>Funding Type:</b> Grant  <b>Grant Type:</b> Establishment		
<b>Title:</b> Aquatic ecosystem services and eDNA/metabarcoding  <b>Role:</b> Co-applicant	<b>Organization:</b> Food from Thought  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$79,500 CAD	<b>Funding Dates:</b> Jan. 2018 - Dec. 2020
<b>Title:</b> Exploring the Use of Student Evaluations of Teaching Effectiveness by Faculty in the College of Biological Sciences  <b>Role:</b> Co-applicant	<b>Organization:</b> University of Guelph  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$12,095 CAD	<b>Funding Dates:</b> Sep. 2017 - Aug. 2018
<b>Title:</b> Fostering metacognitive approaches to course engagement in undergraduate student learning.  <b>Role:</b> Co-applicant	<b>Organization:</b> University of Guelph  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$7,000 CAD	<b>Funding Dates:</b> Sep. 2017 - Aug. 2018
<b>Title:</b> NSERC-USRA  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Scholarship	<b>Funding Total:</b> \$4,500 CAD  <b>Amount Received:</b> \$100 CAD	<b>Funding Dates:</b> May 2016 - Aug. 2016
<b>Title:</b> Discovery Grant  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$130,000 CAD  <b>Amount Received:</b> \$130,000 CAD	<b>Funding Dates:</b> Apr. 2012 - Mar. 2017



Title & Role	Source & Type	Amount	Dates
<b>Title:</b> NSTP  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$2,325 CAD  <b>Amount Received:</b> \$2,325 CAD	<b>Funding Dates:</b> May 2011 - Aug. 2011
<b>Title:</b> Northern Research Fund  <b>Role:</b> Co-applicant	<b>Organization:</b> Churchill Northern Studies Centre  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$2,500 CAD  <b>Amount Received:</b> \$2,500 CAD	<b>Funding Dates:</b> May 2011 - Aug. 2011
<b>Title:</b> Northern Research Internship  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Fellowship	<b>Funding Total:</b> \$8,500 CAD  <b>Amount Received:</b> \$8,500 CAD	<b>Funding Dates:</b> May 2010 - Aug. 2010
<b>Title:</b> NSTP  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$2,325 CAD  <b>Amount Received:</b> \$2,325 CAD	<b>Funding Dates:</b> May 2010 - Aug. 2010
<b>Title:</b> USRA  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Scholarship	<b>Funding Total:</b> \$4,500 CAD  <b>Amount Received:</b> \$4,500 CAD	<b>Funding Dates:</b> May 2010 - Aug. 2010
<b>Title:</b> Northern Research Fund  <b>Role:</b> Co-applicant	<b>Organization:</b> Churchill Northern Studies Centre  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$3,000 CAD  <b>Amount Received:</b> \$3,000 CAD	<b>Funding Dates:</b> May 2010 - Aug. 2010

Title & Role	Source & Type	Amount	Dates
<b>Title:</b> NSTP  <b>Role:</b> Co-applicant	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$2,325 CAD  <b>Amount Received:</b> \$2,325 CAD	<b>Funding Dates:</b> May 2010 - Aug. 2010
<b>Title:</b> Metacommunity dynamics in Churchill rock pools  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$4,500 CAD	<b>Funding Dates:</b> Sep. 2009 - Aug. 2010
<b>Title:</b> Support work of Ingrid Ng in the North  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$1,878 CAD	<b>Funding Dates:</b> Sep. 2008 - Aug. 2009
<b>Title:</b> Effect of logging on zooplankton community structure  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$4,500 CAD	<b>Funding Dates:</b> Sep. 2008 - Aug. 2009
<b>Title:</b> Freshwater metacommunity: dispersal through space and time  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$115,500 CAD	<b>Funding Dates:</b> Sep. 2007 - Aug. 2012
<b>Title:</b> Aquatic metacommunity dynamics laboratory  <b>Role:</b>	<b>Organization:</b> Canada Foundation for Innovation (CFI)  <b>Funding Type:</b>	<b>Funding Total:</b> \$162,341 CAD	<b>Funding Dates:</b> Sep. 2007 - Aug. 2008

Title & Role	Source & Type	Amount	Dates
Principal Investigator	Grant		
<b>Title:</b> Sampling and analysis of zooplankton metacommunities  <b>Role:</b> Principal Investigator	<b>Funding Type:</b> Grant	<b>Funding Total:</b> \$6,500 CAD	<b>Funding Dates:</b> Sep. 2006 - present
<b>Title:</b> DNA Barcoding of Ontario Cladodera  <b>Role:</b> Principal Investigator	<b>Organization:</b> Natural Sciences and Engineering Research Council of Canada (NSERC)  <b>Funding Type:</b> Grant	<b>Funding Total:</b> \$6,500 CAD	<b>Funding Dates:</b> Sep. 2005 - Aug. 2006

### **Lifetime Funding Summary**

Total amount of funding received .....\$1,122,596 CAD  
As Principal Investigator .....\$431,719 CAD

## **PUBLICATIONS**

### **Summary of Publications**

Category	Refereed	Non-Refereed
Journal Articles	101	1
Journal Issues		
Books		
Book Chapters	2	
Book Reviews		
Conference Publications	1	

\* Denotes Student Contribution in most cases

### **Refereed Publications**

#### **Journal Articles**

1. \*Brito, J., Cottenie, K., Cruz, G., Calvão, L., Oliveira-Junior, J., Carvalho, F., . . . Juen, L. (2024, June). Odonata responses to dispersal and niche processes differ across Amazonian endemism regions. *Insect Conservation and Diversity*. doi:10.1111/icad.12764 (*Published*)
2. \*Maggia, M., Decaëns, T., Cottenie, K. & Steinke, D. (2024). Homogeneous earthworm communities in Southern Ontario. *European Journal of Soil Biology*, 122, 103655 - 103655. (*Published*)

3. \*Halhed, A., Petrullo, L., Boutin, S., Dantzer, B., McAdam, A., Wu, M. & Cottenie, K. (2024). Consistent spatial patterns in microbial taxa of red squirrel gut microbiomes. *Environmental Microbiology Reports*, 16, e13209 - e13209. (Published)
4. \*Brito, J., Cottenie, K., Brasil, L., Bastos, R., Ferreira, V., Cruz, G., . . . Juen, L. (2024). Main drivers of dragonflies and damselflies (Insecta; Odonata) metacommunities in streams inside protected areas in the Brazilian Amazon. *Environmental Monitoring and Assessment*, 196, 281 - 281. (Published)
5. Perez Rocha M., Cottenie K., Clein K., Elkins L., Mangold R., Nowlin W., Perkin J., Wright K., Schwalb A. (2024, January). Using a Nested Sampling Design Across Spatial Scales to Gain Insights Into Distribution Patterns of Fishes, Mussels and Macroinvertebrates in a Riverine System. *Journal of Biogeography*, 51, 2456 - 2468. doi:10.1111/jbi.15003 (Published)
6. \*Gleason, J., Hanner, R. & Cottenie, K. (2023). Hidden diversity: DNA metabarcoding reveals hyper-diverse benthic invertebrate communities. *BMC Ecology and Evolution*, 23, 19 - 19. (Published)
7. \*Rutherford, K., Cottenie, K. & \*Denomme-Brown, S. (2023). To go or not to go: variable density-dependent dispersal in small mammals. *Journal of Mammalogy*, 104, 783 - 791. (Published)
8. \*Omer, K., Jacobs, S., Bettger, B., Dawson, J., Graether, S., Murrant, C., . . . Newton, G. (2023). Evaluating and Improving the Formative Use of Student Evaluations of Teaching. *Canadian Journal for the Scholarship of Teaching and Learning*, 14, n1 - n1. (Published)
9. \*Mitchell, Z., Cottenie, K. & Schwalb, A. (2023). Trait-based and multi-scale approach provides insight on responses of freshwater mussels to environmental heterogeneity. *Ecosphere*, 14, e4533 - e4533. (Published)
10. Rocha M., Morris T., Cottenie K., Schwalb A. (2023). Limitations of beta diversity in conservation site selection. *Ecological Indicators*, 154, 110732 - 110732. (Published)
11. \*Ferreira, N., Omena, P., Gonçalves-Souza, T., Cottenie, K. & Júnior, M. (2022). Water availability and quality determine temporal synchrony and beta diversity of microcrustaceans in temporary pools. *Freshwater Science*, 41, 226 - 235. (Published)
12. Dunck B., Rodrigues L., Lima-Fernandes E., Cássio F., Pascoal C., Cottenie K. (2021, December). Priority effects of stream eutrophication and assembly history on beta diversity across aquatic consumers, decomposers and producers. *Science of The Total Environment*, 797, 149106 - 149106. doi:10.1016/j.scitotenv.2021.149106 (Published)

13. \*Maggia, M., Decaëns, T., Lapied, E., Dupont, L., Roy, V., Schimann, H., . . . Steinke, D. (2021, August). At each site its diversity: DNA barcoding reveals remarkable earthworm diversity in neotropical rainforests of French Guiana. *Applied Soil Ecology*, 164, 103932 - 103932. doi:10.1016/j.apsoil.2021.103932 (*Published*)
14. \*Vandamme, S., Raeymaekers, J., Maes, G., Cottenie, K., Calboli, F., Diopere, E. & Volckaert, F. (2021, February). Reconciling seascape genetics and fisheries science in three codistributed flatfishes. *Evolutionary Applications*, 14, 536 - 552. doi:10.1111/eva.13139 (*Published*)
15. \*Persaud, S., Cottenie, K. & \*Gleason, J. (2021, January). Ethanol eDNA Reveals Unique Community Composition of Aquatic Macroinvertebrates Compared to Bulk Tissue Metabarcoding in a Biomonitoring Sampling Scheme. *Diversity*, 13, 34 - 34. doi:10.3390/d13010034 (*Published*)
16. \*Gibson, C., Cottenie, K., Gingras-Hill, T., Kokelj, S., Baltzer, J., Chasmer, L. & Turetsky, M. (2021). Mapping and understanding the vulnerability of northern peatlands to permafrost thaw at scales relevant to community adaptation planning. *Environmental Research Letters*. doi:10.1088/1748-9326/abe74b (*Published*)
17. \*Petsch, D., Cottenie, K., Padial, A., Dias, J., Bonecker, C., Thomaz, S. & Melo, A. (2021, January). Floods homogenize aquatic communities across time but not across space in a Neotropical floodplain. *Aquatic Sciences*, 83, 19 - 19. doi:10.1007/s00027-020-00774-4 (*Published*)
18. \*Bingham, B., Coulter, C., Cottenie, K. & Jacobs, S. (2021, January). A Metacognitive Instructional Guide to Support Effective Studying Strategies. *The Canadian Journal for the Scholarship of Teaching and Learning*, 12. doi:10.5206/cjsotl-rcacea.2020.3.8318 (*Published*)
19. \*Trombley, C., Schwalb, A., Hardy, T. & Cottenie, K. (2021). Spatio-temporal analyses show conflicting evidence of the role of an invasive minnow in the decline of an endangered desert fish endemic to the south-western U.S.A. *Freshwater Biology*, 66, 2158 - 2169. doi:10.1111/fwb.13823 (*Published*)
20. Kremer, S., Linquist, S., \*Saylor, B., Elliott, T., Gregory, T. & Cottenie, K. (2021). Long-term TE persistence even without beneficial insertion. *BMC genomics*, 22, 1 - 6. (*Published*)
21. \*Denomme-Brown, S., Cottenie, K., Falls, J., Falls, E., Brooks, R. & McAdam, A. (2021). Examining the effects of heterospecific abundance on dispersal in forest small mammals. *Journal of Mammalogy*, 102, 1484 - 1496. <https://doi.org/10.1093/jmammal/gyab096> (*Published*)
22. \*Gleason, J., Elbrecht, V., Braukmann, T., Hanner, R. & Cottenie, K. (2020, July). Assessment of stream macroinvertebrate communities with eDNA is not congruent with tissue-based metabarcoding. *Molecular Ecology*, n/a. doi:10.1111/mec.15597 (*Published*)

23. Kremer, S., Linquist, S., \* Saylor, B., Elliott, T., Gregory, T. & Cottenie, K. (2020, May). Transposable element persistence via potential genome-level ecosystem engineering. *BMC Genomics*, 21, 367 - 367. doi:10.1186/s12864-020-6763-1 (Published)
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25. \*Denomme-Brown, S.T, Cottenie, K., Falls, J.B., Falls, E.A., Brooks, R.J. & McAdam, A.G. (2020). Variation in space and time: a long-term examination of density-dependent dispersal in a woodland rodent. *Oecologia*, 193, 903-912. (Published)
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28. Newton G., Pong K., Laila A., Bye Z., Bettger W., Cottenie K., Dawson J., Graether S., Jacobs S., Murrant C., Zettel J. (2019, February). Perception of Biology Instructors on Using Student Evaluations to Inform Their Teaching. *International Journal of Higher Education*, 8, 133 - 133. doi:10.5430/ijhe.v8n1p133 (Published)
29. \*Paterson, Caitlin, Cottenie, Karl & MacDougall, Andrew S. (2019). Restored native prairie supports abundant and species-rich native bee communities on conventional farms. *Restoration Ecology*, 27(6), 1291--1299. (Published)
30. \*Zawalski, R., Nowlin, W., Cottenie, K., Grubh, A. & Schwalb, A. (2019, January). Distinctive macroinvertebrate communities in a subtropical river network. *Journal of Freshwater Ecology*, 34, 135 - 150. doi:10.1080/02705060.2019.1574921 (Published)
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36. \*McDonald, L, \* Van Woudenberg, M, \* Dorin, B, \* Adcock, A, McMullin, R & Cottenie, K. (2017, January). The effects of bark quality on corticolous lichen community composition in urban parks of southern Ontario. *Botany*, 95, 1141-1149. (Published)
37. \*Ward-Campbell, B., Cottenie, K., Mandrak, N. & McLaughlin, R. (2017, January). Fish assemblages in agricultural drains are resilient to habitat change caused by drain maintenance. *Canadian Journal of Fisheries and Aquatic Sciences*, 74, 1538 - 1548. doi:10.1139/cjfas-2016-0361 (Published)
38. \*Bringloe, T., Cottenie, K., \*Martin, G. & Adamowicz, S. (2016, August). The importance of taxonomic resolution for additive beta diversity as revealed through DNA barcoding. *Genome*, 59, 1130 - 1140. doi:10.1139/gen-2016-0080 (Published)
39. Linquist, S., Gregory, T., \*Elliott, T., \*Saylor, B., Kremer, S. & Cottenie, K. (2016, May). Yes! There are Resilient Generalizations (or “Laws”) in Ecology. *The Quarterly Review of Biology*, 91, 119 - 131. doi:10.1086/686809 (Published)
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41. Liu S., Xie G., Wang L., Cottenie K., Liu D., Wang B. (2016, February). Different roles of environmental variables and spatial factors in structuring stream benthic diatom and macroinvertebrate in Yangtze River Delta, China. *Ecological Indicators*, 61, 602 - 611. doi:10.1016/j.ecolind.2015.10.011 (Published)
42. Cottenie, K. & Staempli, M. (2016). Concept mapping as a means to critical thinking. *Teaching and Learning Innovations*, 18, 1-10. (Published)
43. Linquist, S., Saylor\*, B., Elliot\*, T., Kremer, S., Gregory, R. & Cottenie, K. (2016). Yes! There are resilient generalisations (or ‘laws’) in ecology. *Quarterly Review of Biology*, 91, 119-131. (Published)

44. Pandit, S., Cottenie, K., Enders, E. & Kolasa, J. (2016). The role of local and regional processes on population synchrony along the gradients of habitat specialization. *Ecosphere*, 7, e01217. (Published)
45. Bringle\*, T., Adamowicz, S.J., Harvey, V.F.I., Jackson, J.K. & Cottenie, K. (2016). Detecting signatures of competition from observational data: a novel approach combining DNA barcoding, diversity partitioning, and checkerboards at small spatial scales. *Freshwater Biology*, 61, 646-657. (Published)
46. Gibson\*\*, C., Turetsky, M., Cottenie, K., Kane, E., Houle, G. & Kasischke, E. (2016). Variation in plant community composition and vegetation carbon pools a decade following a severe fire season in interior Alaska. *Journal of Vegetation Science*, 27, 1187-1197. (Published)
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49. Pandit S., Cottenie K., Enders E., Kolasa J. (2016). The role of local and regional processes on population synchrony along the gradients of habitat specialization - Pandit - 2016 - Ecosphere - Wiley Online Library. *Ecosphere*, 7, e01217 - e01217. doi:10.1002/ecs2.1217 (Published)
50. Helmers A., Platek A., Ponte M., Secen N., Cottenie K. (2016). The impacts of anthropogenic disturbance on plant species richness in the freshwater lakes of Algonquin Provincial Park. *SURG Journal*, 9, 5 - 13. Retrieved from <https://journal.lib.uoguelph.ca/index.php/surg/article/view/3151> (Published)
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52. Piasecka A., Bernstein R., Ollevier F., Meersman F., Souffreau C., Bilad R., Cottenie K., Vanysacker L., Denis C., Vankelecom I. (2015, February). Study of biofilms on PVDF membranes after chemical cleaning by sodium hypochlorite. *Separation and Purification Technology*, 141, 314 - 321. doi:10.1016/j.seppur.2014.12.010 (Published)
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55. Linquist, S., Cottenie, K., Elliott\*, T.A., Saylor\*, B., Kremer, S.C., Gregory, T.R. (2015). Applying ecological models to communities of genetic elements: the case of Neutral Theory. *Molecular ecology*, 24, 3232-3242. (*Published*)
56. Schwalb A., Alexander A., Paul A., Cottenie K., Rasmussen J. (2014, December). Changes in migratory fish communities and their health, hydrology, and water chemistry in rivers of the Athabasca oil sands region: a review of historical and current data. *Environmental Reviews*, 23, 133 - 150. doi:10.1139/er-2014-0065 (*Published*)
57. Gonçalves-Souza T., Romero G., Cottenie K. (2014, December). Metacommunity versus Biogeography: A Case Study of Two Groups of Neotropical Vegetation-Dwelling Arthropods. *PLOS ONE*, 9, e115137 - e115137. doi:10.1371/journal.pone.0115137 (*Published*)
58. Thompson K., Sora D., Cross K., St. Germain J., Cottenie K. (2014, February). Mucilage reduces leaf herbivory in Schreber's watershield, *Brasenia schreberi* J.F. Gmel. (Cabombaceae). *Botany*, 92, 412 - 416. doi:10.1139/cjb-2013-0296 (*Published*)
59. Vandamme\*, S.G., Maes, G.E., Raeymaekers, J.A.M., Cottenie, K., Imsland, A.K., Hellemans, B., Lacroix, G., Mac Aoidh, E., Martinsohn, J.T., Martinez, P. and others. (2014). Regional environmental pressure influences population differentiation in turbot (*Scophthalmus maximus*). *Molecular Ecology*, 23, 618--636. (*Published*)
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62. Pandit\*, S.N., Kolasa, J., Cottenie, K. (2013). Population synchrony decreases with richness and increases with environmental fluctuations in an experimental metacommunity. *Oecologia*, 171(1), 237--247. (*Published*)
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  65. Gonçalves-Souza T., Romero G., Cottenie K. (2013). A critical analysis of the ubiquity of linear local--regional richness relationships. *Oikos*, 122, 961 - 966. doi:10.1111/j.1600-0706.2013.00305.x (Published)
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  70. Frisch, D., Cottenie, K., Badosa\*, A., Green, A.J. (2012). Strong spatial influence on colonization rates in a pioneer zooplankton metacommunity. *PloS one*, 7(7), e40205. (Published)
  71. Winegardner\*, A.K., Jones\*, B.K., and Ng\*, I.S.Y., Siqueira\*, T., Cottenie, K. (2012). The terminology of metacommunity ecology. *Trends in Ecology and Evolution*, 27, 253--254. (Published)
  72. Jones B., Molenda O., Hayward C., D'Aguiar M., Miller N., Rye L., Cottenie K. (2011, March). Patterns of tree diversity in response to logging in Algonquin Provincial Park. *SURG Journal*, 4, 56 - 62. Retrieved from <https://journal.lib.uoguelph.ca/index.php/surg/article/view/1318> (Published)
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79. Pandit\*, Shubha N and Kolasa, Jurek and Cottenie, Karl. (2009). Contrasts between habitat generalists and specialists: an empirical extension to the basic metacommunity framework. *Ecology*, 90(8), 2253--2262. (*Published*)
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88. Ashlock, D., Cottenie, K., Carson, L., Bryden, K. & Corns, S. (2006, January). An Evolutionary Algorithm for the Selection of Geographically Informative Species. *2006 IEEE Symposium on Computational Intelligence and Bioinformatics and Computational Biology*, 1 - 7. doi:10.1109/CIBCB.2006.330947 (Published)
89. Halpern B., Cottenie K., Broitman B. (2006, January). Top-Down Vs. Bottom-Up Effects in Kelp Forests. *Science*, 313, 1737 - 1739. doi:10.1126/science.313.5794.1737c (Published)
90. Cottenie K. (2005). Integrating environmental and spatial processes in ecological community dynamics. *Ecology Letters*, 8, 1175 - 1182. doi:10.1111/j.1461-0248.2005.00820.x (Published)
91. Michels E., Cottenie K., Van de Meutter F., Declerck S., De Meester L. (2005). Ecologische gevolgen van verbindingen tussen leefgebieden: de vijvers van het natuurreservaat De Maten (Genk). *Natuur. focus*, 4, 16 - 23. (Published)
92. Cottenie K., Meester L. (2004). Metacommunity Structure: Synergy of Biotic Interactions as Selective Agents and Dispersal as Fuel. *Ecology*, 85, 114 - 119. doi:10.1890/03-3004 (Published)
93. Cottenie K., Meester L. (2003). Comment to Oksanen (2001): reconciling Oksanen (2001) and Hurlbert (1984). *Oikos*, 100, 394 - 396. doi:10.1034/j.1600-0706.2003.11953.x (Published)
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95. Cottenie K., Michels E., Nuytten N., Meester L. (2003). Zooplankton Metacommunity Structure: Regional Vs. Local Processes in Highly Interconnected Ponds. *Ecology*,

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96. Forró L., De Meester L., Cottenie K., Dumont H. (2003). An update on the inland cladoceran and copepod fauna of Belgium, with a note on the importance of temporary waters. *Belgian journal of zoology*, 133, 31 - 36. (Published)
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  98. Cottenie, K., Nuytten, N., Michels, E. & De, Meester L. (2001, January). Zooplankton community structure and environmental conditions in a set of interconnected ponds. *Hydrobiologia*, 442, 339 - 350. doi:10.1023/A:1017505619088 (Published)
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  100. Michels E., Cottenie K., Neys L., De Meester L. (2001). Zooplankton on the move: first results on the quantification of dispersal of zooplankton in a set of interconnected ponds. *Hydrobiologia*, 442, 117 - 126. (Published)
  101. Maes J., Taillieu A., Van Damme P., Cottenie K., Ollevier F. (1998, August). Seasonal Patterns in the Fish and Crustacean Community of a Turbid Temperate Estuary (Zeeschelde Estuary, Belgium). *Estuarine, Coastal and Shelf Science*, 47, 143 - 151. doi:10.1006/ecss.1998.0350 (Published)

## Book Chapters

1. Chase J., Amarasekare P., Cottenie K., Gonzalez A., Holt R., Holyoak M., Hoopes M., Leibold M., Loreau M., Mouquet N. (2005). Competing theories for competitive metacommunities. *Metacommunities* (pp. 335 - 354). University of Chicago Press Chicago/London. (Published)
2. Cottenie K., De Meester L. (2005). Local interactions and local dispersal in a zooplankton metacommunity. *Metacommunities. University of Chicago Press, Chicago* (pp. 189 - 211). (Published)

## Conference Publications

1. \*Porter, E., Luo, M., Lit, B., McKechnie, I., Saha, J., Ratra, P., . . . Jacobs, S. (2022). Developing a Transdisciplinary Citizen Science Tool for Experiential Learning in Undergraduate Education: Squirrel Life in a Nutshell. In *INTED2022 Proceedings* (p. 1781 - 1790) IATED. (*Published*)

## **Non-Refereed Publications**

### **Journal Articles**

1. Saylor, B., Kremer, S., Gregory, T. & Cottenie, K. (2019). Genomic environments and their influence on transposable element communities. *bioRxiv*, 667121 - 667121. (*Published*)

## **Other Scholarly Publications**

### **Summary of Publications**

Reports 2

### **Reports**

1. Schwalb, A., Morris, T.J. & Cottenie, K. (2013). *Freshwater mussel metacommunity analyses - 2: The impact of differences in dispersal abilities and host infecting strategies on the importance of structuring mussel assemblages* (p. 50).
2. Schwalb\*, A., Morris, T.J. & Cottenie, K. (2010). *Freshwater mussel metacommunity analyses* (p. 60).

## **PRESENTATIONS (INVITED)**

1. (Jan. 2016). **Invited Lecture / Keynote Address**. Biology Department, Texas State University San Marcos, . . (Regional) (Professional Service)
2. Cottenie, K. & Winegardner\*, A. (2014). **Species sorting and cryptic dispersal: a landscape-scale experiment**. Entomology 2014, Entomological Society of America annual meeting, Portland, United States of America
3. (Jan. 2014). **Invited Lecture / Keynote Address**. Biomathematics & Statistics Seminar series, University of Guelph. Canada-Ontario. (Regional) (Professional Service)
4. (Sep. 2013). **Invited Lecture / Keynote Address**. NIOO, Wageningen. Netherlands. (Regional) (Professional Service)
5. (Sep. 2013). **Invited Lecture / Keynote Address**. Donana Research Station, Sevilla. Spain. (Regional) (Professional Service)

6. (Sep. 2013). **Invited Lecture / Keynote Address**. Department of Ecology and Environmental Sciences, University of Umea. Sweden. (Regional) (Professional Service)
7. Adamowicz, S. J., Martin\* G. & Cottenie K. (2013). **Impact of taxonomic resolution on the detection of stream community patterns**. 10th Annual Canadian Rivers Institute Day, Waterloo, Canada
8. (Sep. 2012). **Invited Lecture / Keynote Address**. Section Ecology, Evolution and Biodiversity Conservation, K. U. Leuven. Belgium. (Regional) (Professional Service)
9. (Sep. 2011). **Invited Lecture / Keynote Address**. Department of Biology, University of Dalhousie, . . (Regional) (Professional Service)  
[View supplementary material](#)
10. (Sep. 2010). **Invited Lecture / Keynote Address**. Department of Biology, University of Toronto Mississauga, . . (Regional) (Professional Service)  
[View supplementary material](#)
11. (Sep. 2009). **Invited Lecture / Keynote Address**. Presented an invited seminar at the Department of Biology, University of Oulu, . . (Regional) (Professional Service)  
[View supplementary material](#)
12. (Sep. 2009). **Invited Lecture / Keynote Address**. Zoology Department, UBC, . . (Regional) (Professional Service)  
[View supplementary material](#)
13. (Sep. 2009). **Invited Lecture / Keynote Address**. School of Integrative Biology, University of Illinois, . . (Regional) (Professional Service)  
[View supplementary material](#)
14. (Sep. 2009). **Invited Lecture / Keynote Address**. Department of Ecology and Evolutionary Biology, University of Toronto, . . (Regional) (Professional Service)  
[View supplementary material](#)
15. (Sep. 2008). **Invited Lecture / Keynote Address**. Biology Department, Laurentian University, . . (Regional) (Professional Service)  
[View supplementary material](#)
16. (Sep. 2008). **Invited Lecture / Keynote Address**. Department of Zoology, University of Oklahoma, . . (Regional) (Professional Service)  
[View supplementary material](#)
17. (Sep. 2006). **Invited Lecture / Keynote Address**. Department of Mathematics and Statistics, University of Guelph, . . (Regional) (Professional Service)  
[View supplementary material](#)
18. (Sep. 2006). **Invited Lecture / Keynote Address**. Department of Biology, Queen's University, . . (Regional) (Professional Service)

[View supplementary material](#)

19. (Sep. 2006). **Invited Lecture / Keynote Address**. Department of Biology, McMaster University, . . (Regional) (Professional Service)

[View supplementary material](#)

20. (Sep. 2005). **Invited Lecture / Keynote Address**. Department of Biological Sciences, University of Montreal, . . (Regional) (Professional Service)

[View supplementary material](#)

21. (Sep. 2005). **Invited Lecture / Keynote Address**. Aquatic Ecology Group, University of Waterloo, . . (Regional) (Professional Service)

[View supplementary material](#)

22. (Sep. 2005). **Invited Lecture / Keynote Address**. Institute of the Sciences of Evolution, University of Montpellier, . . (Regional) (Professional Service)

[View supplementary material](#)

23. (Sep. 2005). **Invited Lecture / Keynote Address**. Laboratory of Aquatic Ecology, . . (Regional) (Professional Service)

[View supplementary material](#)

24. (Sep. 2004). **Invited Lecture / Keynote Address**. Department of Environmental Science, Policy and Management, University of California, . . (Regional) (Professional Service)

[View supplementary material](#)

25. (Sep. 2004). **Invited Lecture / Keynote Address**. Department of Biology, University of Regina, . . (Regional) (Professional Service)

[View supplementary material](#)

## PRESENTATIONS (OTHER)

1. Denomme-Brown\*, S, Cottenie, K & McAdam, A. (Jan. 2018). **Variation in space and time: examining conspecific and heterospecific density-dependent dispersal in woodland rodents**.. American Society of Mammalogists, Manhattan. Kansas. (International)  
Paper. Presented. Refereed: No

2. Denomme-Brown\*, S, Cottenie, K & McAdam, A. (Jan. 2018). **Variation in space and time: examining conspecific and heterospecific density-dependent dispersal in woodland rodents**.. Canadian Society for Ecology and Evolution Annual Meeting (2018), Guelph. Canada-Ontario. (National)  
Paper. Presented. Refereed: No

3. Gleason, J, Daniel-Simon, J, Cottenie, K & Rooney, R. (Jan. 2018). **Wetland community assembly across a gradient of environmental filtering and trophic levels**.. Canadian Society for Ecology and Evolution Annual Meeting (2018), Guelph. Canada-Ontario. (National)  
Paper. Presented. Refereed: No



4. Pyle\* MN, Adamowicz SJ, Cottenie K. (2017). **Insights into post-glacial colonization of northern environments: Using insect phylogeny to determine the role of biological traits.** Ontario Ecology, Ethology, and Evolution Colloquium, York University, Canada
5. Trombley\*, C., Schwalb, A., Hardy, T. & Cottenie, K. (2017). **Endangered endemic cyprinid minnow exhibits different spatial and temporal patterns to native and invasive species in a perennial desert stream.** Canadian Society for Ecology and Evolution, Victoria, BC, Canada
6. Cottenie, K., Coulter, C., Gorrie, R., Husband, B., Jacobs, S., & Merrett, S. (2016). **Identifying students at risk: student learning analytics and other metrics..** Teaching and Learning Innovations conference, Guelph, Canada
7. Denomme-Brown\*, S., Rye, L. & Cottenie, K. (2016). **Adventures and explorations in specifications grading.** Teaching and Learning Innovations conference, Guelph, Canada
8. Denomme-Brown, S, McAdam, A & Cottenie, K. (Jan. 2016). **Long-Distance Dispersal in *Peromyscus maniculatus*.** OE3C, Toronto. Canada. (Regional)  
Paper. Presented. Refereed: No
9. Trombley, C, Schwalb, A, Hardy, T & Cottenie, K. (Jan. 2016). **Alien invasion: Effects of the release of a bait fish on the abundance and distribution of a critically endangered endemic fish in the Virgin River.** OE3C, Toronto. Canada. (Regional)  
Paper. Presented. Refereed: No
10. Trombley\*\*, C., & Cottenie, K. (2015). **Different definitions of “community” influence conclusions in ecological research..** Ontario Ecology, Ethology, and Evolution Colloquium, Toronto, Canada
11. Trombley\*, C., Schwalb, A., Hardy, T. & Cottenie, K. (2015). **Alien invasion: Effects of the release of a bait fish on the abundance and distribution of a critically endangered endemic fish in the Virgin River..** Ontario Ecology, Ethology, and Evolution Colloquium, Toronto, Canada
12. Denomme-Brown\*, S., McAdam, A., & Cottenie, K. (2015). **Synchrony in a Terrestrial Metacommunity.** Ontario Ecology, Ethology, and Evolution Colloquium, Toronto, Canada
13. Cottenie, K., Saylor\*, B., Elliot\*, T., Linquist, S., Kremer, S., Gregory, T. R. (2015). **Yes! There are stable generalisations ('laws') in ecology.** CSEE meeting, Saskatoon, Canada
14. Denomme-Brown\*, S., McAdam, A., & Cottenie, K. (2015). **Long-Distance Dispersal in *Peromyscus maniculatus*..** Ontario Ecology, Ethology, and Evolution Colloquium, Toronto, Canada
15. Bringloe\*, T., Adamowicz, S.J., Harvey, V.F.I., Jackson, J.K. & Cottenie, K. (2015). **Detecting signatures of competition from observational data: a novel approach**

**combining DNA barcoding, diversity partitioning, and checkerboards at small spatial scales..** 6th International Barcode of Life Conference, Guelph, Canada

16. Martin\*, G.K., Adamowicz, S.J. & Cottenie, K. (2015). **Improving our understanding of metacommunity structure using DNA barcoding..** 6th International Barcode of Life Conference, Guelph, Canada

17. \*Saylor\*, B, \*Elliot\*, T, Linquist, S, Kremer, S, Gregory, T & Karl Cottenie. (May 2014). **Finding the appropriate spatial scale a genomic study: Insights from transposable element data.** Genomes to Biomes - 1st joint meeting of the Canadian Society of Ecology & Evolution (CSEE), the Canadian Society of Zoology (CSZ) and the Society of Canadian Limnologists (SCL). May 29. Montreal Quebec, Montreal. Canada-Quebec. (International) Paper. Presented. Refereed: No

18. Vandamme\*, S., Diopere, E., Cottenie, K., Raeymaekers, J.A.M., Vanelslender, B., Volckaert, F.A.M., Maes, G.E. (2014). **Comparative population genetics of flatfish reveals a common structuring oceanic front..** The 9th International Flatfish Symposium, Cle Elum, United States of America

19. Martin\* G., Adamowicz S.J. & Cottenie K. (2013). **Relationship between taxonomic resolution and metacommunity dynamics in aquatic insects.** Joint Annual Meeting of the Entomological Society of Canada and Entomological Society of Ontario, Guelph, Canada

20. Cottenie, K., Saylor\*, B., Elliot\*, T., Gregory, T. Ryan, Kremer, S., Linquist S. (2013). **Generality in community ecology.** The International Society for the History, Philosophy, and Social Studies of Biology, Montpellier, France

21. Paterson\*, C., MacDougall, A., & Cottenie, K. (2013). **Small restorations, big impacts: how habitat influences native pollinators in intensive agricultural landscapes..** Genomes to Biomes - 1st joint meeting of the Canadian Society of Ecology & Evolution (CSEE), the Canadian Society of Zoology (CSZ) and the Society of Canadian Limnologists (SCL)., Montreal, Canada

22. Saylor\*, B., Elliot\*, T., Linquist, S., Kremer, S., Gregory, T. Ryan, Cottenie K. (2013). **Finding the appropriate spatial scale a genomic study.** Genomes to Biomes - 1st joint meeting of the Canadian Society of Ecology & Evolution (CSEE), the Canadian Society of Zoology (CSZ) and the Society of Canadian Limnologists (SCL)., Montreal, Canada

23. Martin\*, G., Adamowicz, S.J. & Cottenie K. (2013). **The relationship between taxonomic resolution informed by DNA barcoding and metacommunity dynamics in aquatic insects.** Ecological Society of America Annual Meeting, Minneapolis, United States of America

24. Schwalb, A.N., Morris, T.J., Mandrak, N.E., & Cottenie, K. (2012). **Distribution of unionid freshwater mussels depends on the distribution of host fishes on a regional scale.** Society for Freshwater Science Annual Meeting, Louisville, United States of America

25. Goncalves-Souza\*, T., Romero, G. Q., & Cottenie, K. (2012). **Evolution on a tree: linking spider trait diversification to plant architecture and geographic distance**. 49th Annual Meeting of the Association for Tropical Biology and Conservation, Bonito, Brazil
26. Raeymaekers, J., De Leon, L. F., Chaves, J., Podos, J., Hendry, A. & Cottenie, K. (2012). **Exploring anthropogenic vs. natural influences on the evolution of Darwin's finches**. 1st Joint Congress on Evolutionary Biology, Ottawa, Canada
27. Saylor\*, B., Elliot\*, T. A., Linquist, S., Kremer, S. C., Gregory, T. R. & Cottenie, K. (2012). **A novel application of ecological analyses to explain transposable element distribution: Bos taurus genome**. 1st Joint Congress on Evolutionary Biology, Ottawa, Canada
28. Prelovec\*, L. & Cottenie, K. (2011). **A test for trade offs and dispersal limitation in a zooplankton metacommunity**. Ontario Biology Day, Waterloo, Canada
29. Winegardner\*, A. & Cottenie, K. (2011). **Zooplankton metacommunities responses to environmental change in Churchill, MB**. Churchill Northern Studies Centre and Parks Canada Science Symposium, Winnipeg, Canada
30. Gillespie\*\*, K. X. M., Robinson, C. & Cottenie, K. (2011). **Anthropogenic pressures and the effect on fish & invertebrates in the Gulf Islands of South-Western British Columbia**. Latonell Conservation Research Symposium, Guelph, Canada
31. Gillespie\*\*, K. X. M., Robinson, C. & Cottenie, K. (2011). **Top down control and local and regional scale environmental effects on fish and invertebrate community structure in a temperate eelgrass ecosystem**. Ontario Biology Day, Waterloo, Canada
32. Gillespie\*, K. X. M., Robinson, C. & Cottenie, K. (2011). **Top down control and local and regional scale environmental effects on fish and invertebrate community structure in a temperate eelgrass ecosystem**. 2nd International Marine Conservation Congress, Victoria, Canada
33. Jones\*, B. & Cottenie, K. (2011). **The effects of salinity toxicity on species from a sub-arctic zooplankton metacommunity in Churchill, Manitoba**. Churchill Northern Studies Centre and Parks Canada Science Symposium, Winnipeg, Canada
34. Cottenie, K. (Sep. 2010). **Inquiry-based learning in large classes (oral presentation)**. 23rd Annual Teaching and Learning Innovations Conference, Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
35. Cottenie, K. (Sep. 2010). **Zooplankton metacommunity responses to changing salinity in the sub arctic (oral presentation)**. CSEE/SCEE Conference 2010, Quebec City. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes
36. Nudds, T. & Cottenie, K. (2010). **Inquiry-based learning in large classes**. 23rd Annual Teaching and Learning Innovations Conference, Guelph, Canada

37. Winegardner\*, A. & Cottenie, K. (2010). **Zooplankton metacommunity responses to changing salinity in the sub arctic**. CSEE/SCEE Conference, Quebec City, Canada
38. Jones\*\*, B. & Cottenie, K. (2010). **Omnibus trade-off test in a zooplankton metacommunity**. Ontario Biology Day, Toronto, Canada
39. Nudds, T. & Cottenie, K. (2010). **Inquiry-based learning in large classes**. OCUBE UnConference, Teaching Ourselves to Learn Together, Peterborough, Canada
40. Cottenie, K. (2010). **Concept mapping as a tool to engage students in critical thinking**. EdTech Un-Conference, Guelph, Canada
41. Cottenie, K. (Sep. 2009). **Aquatic metacommunities: a planktioneer's approach to ecology (oral presentation)**. Churchill Northern Studies Centre Symposium, Winnipeg. Canada-Manitoba. (National)  
Paper. Accepted. . Refereed: Yes
42. Cottenie, K. (Sep. 2009). **Species richness: fact or fiction? (oral presentation)**. CSEE/SCEE & GSC/SGC Conference 2009, Halifax. Canada-Nova Scotia. (National)  
Paper. Accepted. . Refereed: Yes
43. Cottenie, K. (Sep. 2009). **Application of plant growth promoting rhizobacteria in a hydroponics system for advanced life support in space (oral presentation)**. GreenSys 2009, Quebec City. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes
44. Cottenie, K. (Sep. 2009). **The role of local and regional processes in the community structure of sub arctic rock pools (oral presentation)**. Ontario Biology Day, Windsor. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
45. Cottenie, K. (Sep. 2009). **Effects of tree harvesting on zooplankton community succession (poster presentation)**. Ontario Biology Day, Windsor. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
46. Cottenie, K. (Sep. 2008). **Species richness: fact or fiction? (oral presentation)**. ESA 94th Annual Meeting, Albuquerque. New Mexico. (National)  
Paper. Accepted. . Refereed: Yes
47. Cottenie, K. (Sep. 2008). **Watershed deforestation experiment: effect of riparian buffer width on zooplankton communities in boreal lakes (poster presentation)**. ESA 94th Annual Meeting, Albuquerque. New Mexico. (National)  
Paper. Accepted. . Refereed: Yes

48. Cottenie, K. (Sep. 2008). **Role of regional and local factors in population dynamics of a rock pool metacommunity along the gradient of species habitat specialization (oral presentation)**. ESA 94th Annual Meeting, Albuquerque. New Mexico. (National)  
Paper. Accepted. . Refereed: Yes
49. Cottenie, K. (Sep. 2008). **Effect of logging on lake zooplankton communities (poster presentation)**. Latonell Conservation Symposium, Alliston. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
50. Cottenie, K. (Sep. 2008). **Effectiveness of beneficial plant-microbe interactions under hypobaric and hypoxic conditions in an advanced life support system (oral presentation)**. 37th COSPAR Scientific Assembly, Montreal. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes
51. Cottenie, K. (Sep. 2008). **Effects of logging on lacustrine zooplankton communities (oral presentation)**. CSEE 2008 meeting, Vancouver. Canada-British Columbia. (National)  
Paper. Accepted. . Refereed: Yes
52. Cottenie, K. (Sep. 2008). **How do zooplankton species perceive the dispersal limitations of a landscape? (oral presentation)**. Ontario Biology Day, Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
53. Cottenie, K. (Sep. 2008). **The role of local and regional processes in the community structure of sub arctic rock pools (oral presentation)**. Ontario Biology Day, Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
54. Cottenie, K. (Sep. 2008). **Effects of logging on lacustrine zooplankton communities (oral presentation)**. OEEC 2008 meeting, Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
55. Cottenie, K. (Sep. 2008). **Cryptic dispersal in zooplankton, insights from a metacommunity perspective (oral presentation)**. OEEC 2008 meeting, Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
56. Cottenie, K. (Sep. 2008). **Species richness and environmental variability affect population synchrony (poster presentation)**. ESA annual meeting, Milwaukee. Wisconsin. (National)  
Paper. Accepted. . Refereed: Yes
57. Cottenie, K. (Sep. 2008). **Cryptic dispersal in zooplankton, insights from a metacommunity perspective (oral presentation)**. ASLO 2008 Summer meeting, St John's. Canada-Newfoundland. (National)  
Paper. Accepted. . Refereed: Yes

58. Cottenie, K. (Sep. 2007). **Multivariate statistics for dummies & a guide for community ecologists (oral presentation)**. ESA/SER Joint meeting 2007, San Jose. California. (National)  
Paper. Accepted. . Refereed: Yes
59. Cottenie, K. (Sep. 2007). **Metacommunity dynamics of invertebrate rock pool communities: specialist versus generalist species (oral presentation)**. ESA/SER Joint meeting 2007, San Jose. California. (National)  
Paper. Accepted. . Refereed: Yes
60. Cottenie, K. (Sep. 2007). **Time: the final frontier & Our mission: to boldly go where few scientists have gone before (in metacommunity theory) (oral presentation)**. SIL 2007, Montreal. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes
61. Cottenie, K. (Sep. 2007). **Space, the final frontier? (oral presentation)**. Environmental Science Research Initiative workshop "Species spread across landscapes: the integration of theoretical and empirical approaches", Guelph. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
62. Cottenie, K. (Sep. 2007). **Metacommunity dynamics in arctic rock ponds (oral presentation)**. Ontario Biology Day, Hamilton. Canada-Ontario. (National)  
Paper. Accepted. . Refereed: Yes
63. Cottenie, K. (Sep. 2007). **Aquatic connectivity and fish metacommunities in wetlands of the lower Great Lakes (oral presentation)**. Canadian Conference for Fisheries Research, Montreal. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes
64. Cottenie, K. (Sep. 2006). **Metacommunity dynamics through time (oral presentation)**. SCL 2006, Calgary. Canada-Alberta. (National)  
Paper. Accepted. . Refereed: Yes
65. Cottenie, K. (Sep. 2006). **Metacommunity dynamics: interplay between habitat heterogeneity and dispersal**. ASLO 2006, Victoria. Canada-British Columbia. (National)  
Paper. Accepted. . Refereed: Yes
66. Cottenie, K. (Sep. 2006). **Strong top-down control in Southern California kelp forest ecosystems**. 7th International Temporary Reef Symposium, Santa Barbara. California. (National)  
Paper. Accepted. . Refereed: Yes
67. Cottenie, K. (Sep. 2005). **Dispersal through time: temporal metacommunity dynamics in annual desert plant communities (oral presentation)**. ESA 2005 90th annual meeting, Montr&eacute;al. Canada-Quebec. (National)  
Paper. Accepted. . Refereed: Yes

68. Cottenie, K. (Sep. 2004). **Meta-analysis of metacommunities (Oral presentation)**. ESA 2004 89th annual meeting, Portland. Oregon. (National)  
Paper. Accepted. . Refereed: Yes

69. Cottenie, K. (Sep. 2003). **Local and regional processes in a zooplankton metacommunity (Oral presentation) and Meta-analysis of metacommunities: a research program (Poster presentation)**. DIALOG V - Bermuda, Unknown. Unknown. (National)  
Paper. Accepted. . Refereed: Yes

70. Cottenie, K. (Sep. 2002). **Connectivity and cladoceran species richness in a small interconnected pond system (Oral presentation)**. ASLO 2002 summer meeting, Victoria. Canada-British Columbia. (National)  
Paper. Accepted. . Refereed: Yes

## 8. SERVICE

### ASSIGNED SERVICE AT THE UNIVERSITY OF GUELPH

Jul. 2021 - Aug. 2024: **Associate Dean, Graduate Studies**, University of Guelph, Canada, (University Service).

Sep. 2019 - Jun. 2021: **Graduate Program Coordinator**, University of Guelph, Canada, (Department Service).

Sep. 2013 - Aug. 2017: **Program Coordinator: Graduate**, University of Guelph, Canada, (Department Service).  
IB Graduate Coordinator

### INSTITUTIONAL SERVICE ACTIVITIES AT THE UNIVERSITY OF GUELPH

#### Committee Memberships

##### **Chair / Co-Chair**

Sep. 2017 - Jun. 2021: **IB Graduate Studies & Awards Committee**, University of Guelph, Canada (Department Service).  
University. Department committee

Nov. 2016 - Jun. 2021: **Studies by Undergraduate Researchers at Guelph**, University of Guelph, Canada (University Service).

Sep. 2013 - Aug. 2017: **Integrative Biology graduate studies committee**, University of Guelph, Canada.

##### **Committee Member**

Sep. 2017 - present: **CBS graduate awards committee**, University of Guelph, Canada (College Service).  
University. College committee

Sep. 2017 - present: **CSEE conference Local Organizing Committee**, University of Guelph, Canada (Department Service).  
University. Department committee

Sep. 2013 - present: **University NSTP-committee**, University of Guelph, Canada (University Service).  
University. University committee  
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Sep. 2013 - present: **Ecology Curriculum Subcommittee**, University of Guelph, Canada (Department Service).  
University. Department committee

Sep. 2010 - present: **Marine Freshwater Biology Major subcommittee**, University of Guelph, Canada (Department Service).  
University. Department committee.

Sep. 2010 - present: **Zoology Major Subcommittee**, University of Guelph, Canada (Department Service).  
University. Department committee.

Sep. 2008 - present: **Co-evolutionary ecologist selection committee**, University of Guelph, Canada (Department Service).  
University. Department committee.

Sep. 2008 - present: **IB Chair's Advisory Committee/Academic Appointments Committee**, University of Guelph, Canada (Department Service).  
University. Department committee

Sep. 2017 - Jun. 2021: **University-wide graduate awards committee**, University of Guelph, Canada (University Service).  
University. University committee

Sep. 2017 - Jun. 2021: **CBS undergraduate awards committee**, University of Guelph, Canada (College Service).  
University. College committee

Sep. 2016 - Aug. 2018: **Admissions and Progress committee, a subcommittee of the Board of Graduate Studies (BGS). Members are appointed annually for one year terms (renewable), normally to a maximum of three consecutive terms, by the Chair of the BGS.**, University of Guelph, Canada.

Sep. 2013 - Aug. 2017: **College of Biological Science Graduate Studies and Awards Committee**, University of Guelph, Canada.



Sep. 2013 - Aug. 2017: **University-wide NSERC scholarship adjudication committee.**,  
University of Guelph, Canada.

### **Graduate Examination Activities**

#### **Graduate Examination Activities: Chair**

Sep. 2017 - present: **Chairing 5 QEs.** (Department Service).

Qualifying Examination - Chair

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Sep. 2017 - present: **Chairing 15 MSc and PhD defences.** (Department Service).

Thesis Defence / Dissertation - Chair

### **Mentoring Activities**

Sep. 2015 - present: **Statistics mentoring, 10 Mentorees:** On average, 10 participants per week, but the numbers and identity of the students vary widely per week..

I am organizing the University of Guelph R user group, a weekly meeting time for mainly Integrative Biology R users, both graduate and undergraduate students, but we have also participants from other departments. We discuss best practices, new packages, participant solutions in a collaborative environment.

Sep. 2015 - present: **Mentor.** (University Service).

University committee. The undergraduate journal "Studies by Undergraduate Researchers at Guelph" is rebooted by the Office of Research. Together with Owen Roberts, Office of Research, and Jack McCart, the new undergraduate Editor in Chief, we have strategized on how to increase submissions, efficient manuscript handling, and eventually also what direction the journal needs to go to be relevant for the undergraduate students. . SURG Advisory Committee

Sep. 2016 - Apr. 2017: **Undergraduate mentor, 1 Mentorees:** Annabeth Canella.

The CHROMA project is a mentoring program for first year students where faculty and graduate students provide academic and/or cultural transitional support to undergraduate students during their first year of university.

### **Assessment and Review Activities**

#### **Research Funding Application Assessment Activities**

Jan. 2016 - present: all grant agencies, with actual number reviewed in parentheses if more than 1, in the description section. (International)

In these 2 years (and not 2015-2016 as provided by Sedona at the start of this line), I reviewed proposals for these agencies: NSF (2), Portuguese Science Foundation, Swiss National

Science Foundation, Danish Council for Independent Research, Russian Science Foundation (4), NSERC (2), British Ecological Society small research grants (5).

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Sep. 2013 - present: all grant agencies, with actual number reviewed in parentheses if more than 1, in the description section. (International)

Animal Care Review, Austria Science Fund (4), Swiss National Science Foundation, NSERC (3), Portuguese Science Foundation.

Sep. 2012 - present: all grant agencies, with actual number reviewed in parentheses if more than 1, in the description section. (International)

Animal Care Review, Austria Science Fund (4), Swiss National Science Foundation, NSERC (3), Portuguese Science Foundation.

## PROFESSIONAL AND COMMUNITY SERVICE ACTIVITIES EXTERNAL TO THE UNIVERSITY OF GUELPH

### Graduate Examination Activities

Sep. 2017 - present: **Michael Dyer, Rhodes University, South Africa.** (Department Service).  
Unassigned

Thesis Defence / Dissertation - Committee

Sep. 2005 - present: **Frank Van de Meutter - PhD.** (Department Service).  
Unassigned

K. U. Leuven. Thesis Defence / Dissertation - Committee

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Sep. 2004 - present: **Jochen Vandekerckhove - PhD.** (Department Service).  
Unassigned

K. U. Leuven. Thesis Defence / Dissertation - Committee

## 9. OTHER SCHOLARLY AND PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS

### ASSESSMENT AND REVIEW ACTIVITIES

#### Journal Review Activities

Jan. 2016 - present: Reviewer, **all journals, with actual number reviewed in parentheses if more than 1, in the description section.** (International).

In these 2 years (and not 2015-2016 as provided by Sedona at the start of this line), I reviewed manuscripts for these journals: Ecography, NSF, Freshwater Biology (2), Hydrobiologia (7), Freshwater Sciences, PLoS1 (2), Journal of Plankton Research, American Naturalist (2), Aquatic Microbial Ecology, Molecular Ecology (2), Science Express, Ecology (2), Limnology &

Oceanography, Aquatic Sciences, Ecological Resource Management, Proceedings B (3), Oecologia, Ecological Complexity, Michigan Botanist (2), Ecological Applications, Global Ecology and Biogeography, Oikos (2), Journal of Biogeography.

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Sep. 2013 - present: Reviewer, **all journals, with actual number reviewed in parentheses if more than 1, in the description section.** (International).

Journal of Ecology (2), Ecology and Evolution, Ecology (2), Hydrobiologia (2), Ecology Letters, Journal of Biogeography, Ecography (5), American Naturalist, Ecosphere (2), PLoS One (3), Freshwater Biology (3), Proceedings of the Royal Society B (2), Oikos, Limnologica, Arctic Antarctic and Alpine Research (2), SURG,.

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Sep. 2012 - present: Reviewer, **all journals, with actual number reviewed in parentheses if more than 1, in the description section.** (International).

Journal of Ecology (2), Ecology and Evolution, Ecology (2), Hydrobiologia (2), Ecology Letters, Journal of Biogeography, Ecography (5), American Naturalist, Ecosphere (2), PLoS One (3), Freshwater Biology (3), Proceedings of the Royal Society B (2), Oikos, Limnologica, Arctic Antarctic and Alpine Research (2), SURG,.

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## EDITORIAL ACTIVITIES

Sep. 2012 - present: Editor: Peer Reviewed Journal, **Journal of Animal Ecology** (Journal). (International).

. I handled 22 manuscripts in these 2 years.

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Jan. 2019 - Dec. 2021: Associate Editor, **Diversity** (Journal).

Jan. 2018 - Dec. 2021: Science Advisory Group, **Canadian Institute for Ecology and Evolution** (Report).

Jan. 2018 - Dec. 2021: Expert Panel, **EXPRO review panel Czech Science Foundation** (Report).

Jan. 2016 - Dec. 2021: Expert Panel, **Scholarships panel British Ecological Society** (Report).

Jan. 2008 - Aug. 2017: Associate Editor, **Journal of Animal Ecology (reviewed every 3 years)** (Journal).

Responsible for handling approximately 12 manuscripts per year: pre-review, assigning reviewers, suggesting decision to Editor.

## EVENT ADMINISTRATION

Sep. 2011 - present: Professional Workshop / Courses Facilitated, **International Course for PhD students on Metacommunities and Meta-Ecosystems (EFRE, University of Oldenburg, 2011)**. (International) (Professional Service).

University of Oldenburg. Co-instructor.

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Jan. 2011 - present: Professional Workshop / Courses Facilitated, **Synchronous activity in biological systems investigative workshop**. (International) (Professional Service).

Knoxville, NIMBioS. participant in work shop.

Sep. 2010 - present: Professional Workshop / Courses Facilitated, **International Course for PhD students on applied metacommunity dynamics (University of Lundt, 2010)**.

(International) (Professional Service).

University of Lundt. Co-instructor.

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Sep. 2006 - present: Professional Workshop / Courses Facilitated, **Metacommunity dynamics**. (International) (Professional Service).

Santa Barbara. Participant in working group.

[View supplementary material](#)

Sep. 2006 - present: Professional Workshop / Courses Facilitated, **Spatial and Temporal community dynamics**. (International) (Professional Service).

Santa Barbara. Participant in working group.

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Jul. 2018: Organizing committee CSEE 2018, **CSEE annual meeting organizing committee member**. (Conference).

## PROFESSIONAL DEVELOPMENT

Jan. 2018 - present: **Instructional Skills Workshop** (Instructional).

3-day workshop for peer-based instructional development, the ISW is designed to strengthen instructional skills through intensive, yet practical exercises in learning-centred teaching.

Mixing small and large group interaction, the workshop will engage participants in: generating effective feedback and discussion, planning and delivering short lessons, developing participatory instructional techniques, listening actively, learning and teaching collaboratively.

This was a very transformative event, and my short-term goal is to participate in the Facilitator Development Workshop, and advocate that CBS would offer this to all new faculty members..

Guelph

Jan. 2018 - present: **Writing retreat** (Instructional).

5 day writing retreat organized by the University library.. Guelph

Jan. 2018 - present: **Post-graduate Student Supervision online course** (Instructional).

9 week online course in graduate supervision.. Memorial University Newfoundland