

Curriculum Vitae

Dr. Thomas Michael Cullen

*NSERC Postdoctoral Fellow, Carleton University,
Research Associate, Field Museum of Natural History
Fellow, Royal Canadian Geographical Society*

Email: thomas.cullen11@gmail.com

Website: thomasmcullen.net

Citizenship: Canadian

Degrees / Education:

| Title | Program | Year | Institution | Supervisor(s) |
|-----------|----------------------------------|------|-----------------------|-------------------------------------------|
| Ph.D. | Ecology and Evolutionary Biology | 2017 | University of Toronto | David Evans |
| M.Sc. | Earth Sciences | 2012 | Carleton University | Natalia Rybczynski, Claudia Shröder-Adams |
| B.Sc Hon. | Earth Sciences | 2010 | Carleton University | Michael Ryan, Claudia Shröder-Adams |

Academic Appointments & Professional Experience:

| Dates | Institution | Position | Supervisor(s) |
|----------------|-----------------------------------------------------|--------------------------------------------|--------------------------------------------|
| 2021 - Present | Carleton University | NSERC Postdoctoral Fellow | Brian Cousens, Hillary Maddin |
| 2021 - Present | Carleton University | Contract Instructor | - |
| 2020 - Present | Field Museum of Natural History | Research Associate / Scientific Affiliate | - |
| 2020 - 2021 | NC State University & NC Museum of Natural Sciences | Postdoctoral Research Scholar | Lindsay Zanno |
| 2018 - 2019 | Field Museum of Natural History | Postdoctoral Research Scientist | Peter Makovicky |
| 2013 - 2017 | University of Toronto | Research Assistant | David Evans |
| 2010 - 2012 | Carleton University | Research Assistant | Natalia Rybczynski, Claudia Schröder-Adams |
| 2009, 2010 | Canadian Museum of Nature | Collections Technician | Kieran Shepherd, Jennifer Doubt |
| 2008 | Canadian Museum of Nature | Research Assistant | Stephen Cumbaa |
| 2005-2009 | City of Ottawa / Friends of Petrie Island | Park Monitor; Native Flora & Fauna Program | Allen Tweddle |

Awards, Honours, and Grants: (detailed & itemized below, total value = ~\$292,000 CAD)

| Title | Agency / Organization | Value (Total) | Dates / Duration |
|--------------------------------------------------------------------------|---------------------------------------------------------|---------------|-------------------------------------------|
| Major Postdoctoral Awards/Grants | | | |
| NSERC Postdoctoral Fellowship | NSERC | \$90,000 CAD | 2021-2023 |
| Major Graduate Scholarships | | | |
| Queen Elizabeth II / Dr. F.M. Hill Scholarship in Science and Tech | Government of Ontario / University of Toronto | \$15,000 CAD | 2016-2017 |
| Alexander Graham Bell Canada Graduate Scholarship (PhD) | NSERC | \$105,000 CAD | 2013-2016 |
| Ontario Graduate Scholarship (PhD) | Government of Ontario | \$15,000 CAD | 2013 (declined after being awarded NSERC) |
| Alexander Graham Bell Canada Graduate Scholarship (MSc) | NSERC | \$17,500 CAD | 2011-2012 |
| Ontario Graduate Scholarship (MSc) | Government of Ontario | \$15,000 CAD | 2011 (declined after being awarded NSERC) |
| Dr. George A. Jeletzky Memorial Scholarship | Dept. of Earth Sciences, Carleton University | \$5000 CAD | 2010 |
| Awards & Honours | | | |
| Elected to the College of Fellows | Royal Canadian Geographical Society | - | 2020 |
| Featured Article & Subject of Series Blog | <i>Geology</i> (journal), Geological Society of America | - | 2020 |
| R.L. Carroll Prize (outstanding scientific contribution by PhD student) | Canadian Society of Vertebrate Palaeontology | \$500 CAD | 2018 |
| Ramsay Wright Award (top PhD student), hon. men. | EEB Department, University of Toronto | - | 2016 |
| Editor's Pick Article, Top 10 Annual Highlight, & Subject of Series Blog | <i>BMC Ecology</i> (journal) | - | 2016 |
| Editor's Pick Article, Monthly Highlight, Best Figures of 2014 | <i>BMC Evolutionary Biology</i> (journal) | - | 2014 |
| Article featured as journal issue cover | <i>Evolution</i> (journal) | - | 2014 |
| Undergraduate Research Day Award | Carleton University | - | 2010 |
| Dean's Honour List | Carleton University | - | 2007-2012 |

| Title | Agency / Organization | Value (Total) | Dates / Duration |
|----------------------------------------------------|---------------------------------------------------------------------------|---------------|------------------|
| Minor Scholarships | | | |
| Internal Restricted Award | EEB Department, University of Toronto | \$1000 CAD | 2017 |
| C.S. Rufus Churcher Award | EEB Department, University of Toronto | \$1974 CAD | 2013 |
| Frederick P. Ide Graduate Award | EEB Department, University of Toronto | \$826 CAD | 2013 |
| Dr. George A. Jeletzky Memorial Scholarship | Dept. of Earth Sciences, Carleton University | \$1000 CAD | 2011, 2012 |
| Departmental Graduate Scholarship 3 | Dept. of Earth Sciences, Carleton University | \$2000 CAD | 2010, 2011 |
| Departmental Graduate Scholarship 2 | Dept. of Earth Sciences, Carleton University | \$2100 CAD | 2010, 2011 |
| In-Course Scholarship | Carleton University | \$750 CAD | 2007, 2009 |
| SEAC Scholarship | Salaried Employees Alliance of Canada | \$1000 CAD | 2008 |
| Grants | | | |
| Student Project Grant | Dinosaur Research Institute | \$1000 CAD | 2017 |
| Student Project Grant | Dinosaur Research Institute | \$2000 CAD | 2016 |
| Rene Vandervelde Travel Award | Dinosaur Research Institute | \$1250 CAD | 2014 |
| Student Travel Grant | Society of Vertebrate Palaeontology / Jackson School of Geosciences | \$600 USD | 2014 |
| Harold Harvey Travel Grant | EEB Department, University of Toronto | \$400 CAD | 2013 |
| Student Project Grant | Dinosaur Research Institute | \$2300 CAD | 2013 |
| Northern Science Training Program Grant | Government of Canada (AANDC) | \$2000 CAD | 2012 |
| Donations for Antarctic Fieldwork / SOI Program | Gainey Foundation, JC Potvin, J Sullivan | \$5143 CAD | 2011 |
| Northern Science Training Program Grant | Government of Canada (AANDC) | \$2500 CAD | 2010 |
| W.H. Collins Fund | Dept. of Earth Sciences, Carleton University | \$1000 CAD | 2010 |

Teaching Experience:

| Title / Position | Course Code | Course Name | Institution | Dates | |
|------------------------------|-------------------------|-----------------------------------------|------------------------------------|------------|-----------|
| Contract Instructor | ERTH 1009 | Earth System Through Time | Carleton U | 2021 | |
| | ERTH 1011 | Evolution of the Earth | Carleton U | 2021 | |
| Guest Lecturer | EEB 466 | Approaches to the Study of Biodiversity | U Toronto | 2016-2017 | |
| | ERTH 2401 | Dinosaurs | Carleton U | 2011, 2021 | |
| | ERTH 3111 | Vertebrate Evolution II | Carleton U | 2021 | |
| Workshop Instructor | - | Geometric Morphometrics Workshop | ROM | 2015 | |
| | - | Paleohistology Workshop | ROM | 2013-2016 | |
| | - | 'PalEO' Workshop – Histology | Carleton U | 2021 | |
| | - | 'PalEO' Workshop – Grant Writing | Carleton U | 2021 | |
| Laboratory Instructor | EEB 388 | Diversity of Mammals | U Toronto | 2017 | |
| | EEB 390 | Vertebrate Palaeontology | U Toronto | 2016-2017 | |
| | EEB 466 | Approaches to the Study of Biodiversity | U Toronto | 2015-2017 | |
| | EEB 267 | Animal Diversity | U Toronto | 2013-2017 | |
| | ERTH 3113 | Geology of Human Origins | Carleton U | 2012 | |
| | ERTH 2312 | Dinosaurs | Carleton U | 2011-2012 | |
| | ERTH 3112 | Palaeontology of Lower Vertebrates | Carleton U | 2011 | |
| | ERTH 2401 | Dinosaurs | Carleton U | 2011 | |
| | ERTH 2314 | Sedimentation & Stratigraphy | Carleton U | 2010-2011 | |
| | ERTH 2102 | Mineralogy to Petrology | Carleton U | 2010 | |
| | ERTH 1007 | Exploring Planet Earth | Carleton U | 2010 | |
| | ERTH 1006 | The Dynamic Earth | Carleton U | 2009-2010 | |
| | Field Instructor | ERTH 2802 | Field Geology and Mapping | Carleton U | 2011 |
| | | EEB 398/399 | Research Excursion (Field Palaeo.) | U Toronto | 2013-2015 |

Mentorship and Academic Supervision of Highly Qualified Personnel (HQP):

Hidden / made anonymous
for online CV version
(for privacy of HQPs)

Fieldwork Experience:

| Leader(s) | Institution(s) | Year | Locality* |
|---------------------------------|-----------------|------------|--------------------------------------------------|
| Lund, Cullen | NCMNS | 2020 | Hell Creek Fm., Montana [♦] |
| Evans, Cullen | ROM, FMNH | 2019 | Mattagami Fm., Ontario [◇] |
| Arbour, Cullen | RBCM, FMNH | 2019 | Spatsizi Plateau, BC [♦] |
| Makovicky, Apesteguía | FMNH | 2019 | Neuquén Group, Patagonia, Argentina [♦] |
| Makovicky | FMNH | 2018 | Ripley Fm., Missouri [♦] |
| Cullen , Evans, Brinkman | ROM, FMNH, RTMP | 2018 | Oldman Fm., Alberta [♦] |
| Makovicky | FMNH | 2018 | Cedar Mountain Fm., Utah [◇] |
| Makovicky, Cullen | FMNH | 2018 | Hell Creek Fm., Montana [♦] |
| Arbour, Evans, Cullen | ROM | 2017 | Sustut Basin, BC [♦] |
| Evans, Cullen | ROM | 2016 | Hell Creek Fm., Montana & N Dakota [♦] |
| Cullen | ROM | 2015 | Atchafalaya Basin, Louisiana [§] |
| Evans | ROM | 2013, 2015 | Judith River Fm., Montana [♦] |
| Schröder-Adams | Carleton U | 2012 | Smoking Hills Fm., NWT [♦] |
| Schröder-Adams | Carleton U, SOI | 2011 | Antarctic Peninsula ^{♦§} |
| Rybczynski | CMN | 2010 | Haughton Fm., Devon Island, NU [‡] |
| Evans, Ryan | ROM, CMNH | 2009-2017 | Belly River Group, Alberta [♦] |

*Locality Time Period: [◇]Early-Mid Cretaceous, [♦]Late Cretaceous, [‡]Miocene, [§]Modern

Conference Presentations: (total N=38: 5 virtual, 20 oral, 13 poster)

| Conference | Format | Year | Author(s) | Title / Topic |
|-------------------------------------------|----------------|------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| International Societies | | | | |
| Geological Society of America | Hybrid Oral | 2021 | Cullen | Intensive temporal/spatial-constrained multi-taxic palaeocommunity analyses |
| Geological Society of America | Hybrid Oral | 2021 | Nanglu, Cullen | Sources of bias in palaeocommunity analyses, data collection to inference |
| Society of Vertebrate Paleontology | Virtual | 2021 | Cullen , Zhang, Spencer, Cousens | Sr isotopes to examine vertebrate habitat use and spatial feeding patterns |
| Society of Vertebrate Paleontology | Virtual | 2020 | Cullen , Zanno, Larson, Currie, Evans | Theropod biodiversity, biostratigraphy, morphometrics |
| Society of Vertebrate Paleontology | Virtual | 2020 | Wilkinson, Cullen , Evans | Palaeontology & sedimentology of Hell Creek Fm. multi-taxic bonebed |
| Society of Vertebrate Paleontology | Virtual | 2020 | Tsogtbaatar, Cullen , Phillips, Zanno | Mississippi ornithomimid biodiversity & palaeobiogeography |
| Society of Vertebrate Paleontology | Virtual | 2020 | Makovicky, Cullen , Darrough, Fix, Gorscak, McDonald, Saitta, Shinya, Stinchcombe, Wiersma | New hadrosauroid dinosaurs from Missouri, site sedimentology, microvertebrate palaeoecology |
| International Symposium on Paleohistology | Oral | 2019 | Cullen , Canale, Apesteguía, Smith, Makovicky | Osteohistology and body size evolution in large theropods |

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|-------------------------------------------------------------|--------|------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|
| Society for the Preservation of Natural History Collections | Oral | 2019 | Cullen | Best practices for destructive sampling in palaeontology |
| Society for the Preservation of Natural History Collections | Oral | 2019 | Cullen | Specimen Spotlight – hard life of a young tyrannosaur |
| Society of Vertebrate Paleontology | Oral | 2018 | Cullen | Stable isotope analyses of extant and Cretaceous floodplain systems |
| Society of Vertebrate Paleontology | Poster | 2018 | Arbour, Evans, Simon, Cullen | Report on new fossils from northern BC |
| Society of Vertebrate Paleontology | Oral | 2017 | Cullen , Longstaffe, Wortmann, Goodwin, Huang, Evans | Modern analogue stable isotope analyses of coastal floodplains |
| Society of Vertebrate Paleontology | Poster | 2016 | Cullen , Longstaffe, Evans | Testing for primary signals in Oldman Fm stable isotope data |
| Society of Vertebrate Paleontology | Poster | 2016 | Benner, Cullen , Evans | Osteohistological variability in caenagnathid dinosaur skeleton |
| Society of Vertebrate Paleontology | Oral | 2015 | Cullen, Evans, Ryan, Currie | Biostrat, extinction in Dinosaur Park Fm |
| Society of Vertebrate Paleontology | Poster | 2014 | Cullen, Evans, Ryan, Kobayashi, Currie | Ornithomimid osteohistology and variability |
| Society of Vertebrate Paleontology | Oral | 2014 | LeBlanc, Brink, Cullen , Reisz | Development of thecodonty in amniotes |
| Society of Vertebrate Paleontology | Poster | 2014 | Larson, Cullen , Todd, Evans | Theropod frontal morphometrics |
| Society of Vertebrate Paleontology | Poster | 2014 | Cullen , Ryan, Capobianco, Newbrey, Evans | Palaeoenvironment and palaeoecology of Foremost Fm |
| International Symposium on Paleohistology | Poster | 2013 | Cullen , Ryan, Currie, Kobayashi, Evans | Ornithomimid multi-element histology |
| Society of Vertebrate Paleontology | Oral | 2012 | Cullen , Ryan, Schröder-Adams, Kobayashi, Currie | Ornithomimid multi-element histology |
| Joint Congress on Evolutionary Biology | Poster | 2012 | Cullen , Rybczynski, Schröder-Adams | Fossil pinniped taxonomy and evolution |
| International Polar Year Conference | Poster | 2012 | Cullen , Pugh, Schröder-Adams, Halfkenny, Rybczynski, Mitchell | Approaches to geoheritage outreach in the Canadian Arctic |
| Society of Vertebrate Paleontology | Poster | 2011 | Cullen , Rybczynski, Schröder-Adams | Fossil pinniped taxonomy & evolution |
| Society of Vertebrate Paleontology | Poster | 2010 | Cullen , Ryan, Schröder-Adams, Kobayashi, Currie | Ornithomimid bonebed description, taphonomy, and stratigraphy |
| National / Regional Societies | | | | |
| Canadian Society of Vertebrate Palaeontology | Oral | 2019 | Cullen , Canale, Apesteguía, Smith, Makovicky | Osteohistology and body size evolution in large theropods |
| Canadian Society of Vertebrate Palaeontology | Oral | 2019 | Arbour, Evans, Simon, Cullen | Dinosaurs and fossil plants from Northern BC |
| Canadian Society of Vertebrate Palaeontology | Oral | 2018 | Cullen | Coastal floodplain stable isotope ecology |
| Canadian Society of Vertebrate Palaeontology | Oral | 2017 | Evans, Cullen , Larson, Rego | New species of troodontid dinosaur |
| GAC Canadian Palaeontology Conference | Oral | 2016 | McFeeters, Cullen | Ornithomimid dinosaur caudal morphology & taxonomy |
| Canadian Society of Vertebrate Palaeontology | Oral | 2016 | Cullen | Environmental drivers of Belly River Group fossil vertebrate biodiversity |
| Canadian Society of Vertebrate Palaeontology | Oral | 2016 | Benner, Cullen , Evans | Morphology and histology of caenagnathid dinosaurs |

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|--------------------------------------------------------------|--------|------|----------------------------------------------------|----------------------------------------------------------------------|
| GAC Canadian Palaeontology Conference | Oral | 2014 | Cullen | Intraspecific variation in osteohistology of ornithomimids |
| GAC Canadian Palaeontology Conference | Oral | 2013 | Cullen , Fraser, Rybczynski, Schröder-Adams | Evolution of sexual dimorphism in pinnipeds |
| GAC Canadian Palaeontology Conference | Poster | 2012 | Cullen , Ryan, Evans, Capobianco, Newbrey | Foremost Fm. microsite paleoecology & paleoenvironments |
| Geological Assoc. of Canada – Mineralogical Assoc. of Canada | Oral | 2012 | Cullen , Ryan, Evans, Currie, Kobayashi | Ornithomimid bonebed description, taphonomy, stratigraphy, histology |
| Canadian Society of Zoologists | Poster | 2011 | Cullen , Rybczynski, Schröder-Adams | Pinniped morphology and evolution |

Invited Public & Academic Seminars: (total N=14: 9 public, 5 academic)

| Venue / Host | Event | Title/Topic | Year |
|------------------------------------|-------------------------------------|------------------------------------------------------------------------|------|
| Public | | | |
| NC Museum Nat. Sci. | Science Cafe | Reconstructing dinosaur ecosystems | 2020 |
| Anne Arundel County Public Schools | ‘Working from home with Mrs. Boltz’ | What does a palaeontologist do? How does one become a palaeontologist? | 2020 |
| Earth Sci Club N Illinois | Holiday Lecture | Stable isotope studies of dinosaurs | 2019 |
| Royal BC Museum | Lunch Hour Lectures | Changing interpretations of dinosaurs | 2019 |
| Burpee Museum | 21 st Annual Paleofest | Body size evolution in theropods | 2019 |
| Field Museum | A. Watson Armour Seminar | Multi-scale approaches to studying paleoecosystems | 2018 |
| Royal Ontario Museum | Fossil Fest Family Day | New dinosaur species from ROM collections | 2017 |
| Royal Ontario Museum | Dinosaurs Weekend | Cretaceous ecology & environments of Alberta | 2015 |
| Can. Museum of Nature | Antarctic Expedition Seminars | Antarctic ecosystems through deep-time | 2011 |
| Academic | | | |
| Smithsonian NMNH | Paleobiology Guest Seminars | Stable isotope analyses of dinosaur ecosystems | 2020 |
| U Washington | PaleoLunch Seminars | Palaeocommunity analyses in the Oldman Fm. | 2020 |
| Field Museum | Collections Forum | Curation & research needs in destructive analyses | 2018 |
| U Toronto | Atwood Colloquium | Quantifying variation in osteohistology | 2015 |
| U Ottawa | AESRC | Fossil pinnipeds & evolution of polygyny | 2014 |

Professional Affiliations:

| Society | Tenure | Society | Tenure |
|---------------------------------------------------|-----------|------------------------------------------------|-----------|
| Society of Vertebrate Paleontology..... | 2006-pres | Royal Can. Geog. Soc. College of Fellows..... | 2020-pres |
| Canadian Society of Vertebrate Palaeontology.... | 2013-pres | Geological Society of America..... | 2019-pres |
| Association of Polar Early Career Scientists..... | 2011-pres | Paleontological Society..... | 2020-pres |
| Geological Association of Canada..... | 2007-2015 | American Assoc. for Advancement of Science.... | 2013-2017 |
| Society for the Study of Evolution..... | 2010-2020 | Canadian Society of Ecology and Evolution..... | 2010-2019 |
| Canadian Society of Petroleum Geologists..... | 2009-2017 | | |

Professional Services to Museum Exhibits, Documentaries, and Education Programs:

| Project | Institution/ Organization | Year | Role (*component of postdoctoral work) |
|-------------------------------------------------|---------------------------------------|-----------|--------------------------------------------------------------------------------------------------------|
| Museum Exhibits | | | |
| <i>SUE the T. rex Experience</i> (travelling) | Field Museum | 2019-2020 | <i>*Primary Advisor:</i> specimens, exhibit panel text, life-size <i>T. rex</i> reconstruction, murals |
| <i>Patagotitan</i> Mini-Exhibit (permanent) | Field Museum | 2019 | <i>Advisor:</i> environmental & taxon selection |
| <i>The Evolving Planet</i> (permanent) | Field Museum | 2019 | <i>Advisor:</i> updates to panel images and text |
| <i>SUE's World</i> (permanent) | Field Museum | 2018-2019 | <i>*Primary Advisor:</i> exhibit design, panel images/text, specimens, reconstructions |
| Documentaries | | | |
| <i>Prehistoric Road Trip with Emily Graslie</i> | PBS / Window to the World Productions | 2019-2020 | <i>Consultant:</i> technical accuracy of scripts and interviews, interviewee/topic selection |
| Education Programs | | | |
| Microsite Citizen Science Program | NC Mus. Nat. Sci. | 2020 | <i>*Project Manager:</i> develop content, supervise staff, arrange contracts/services, collect data |
| 'Dino Box', 'Dinosaur Family Tree' | Field Museum | 2019 | <i>Consultant:</i> content for teacher training kits |

Public Outreach:

| Organization / Institution | Year(s) | Activity |
|---------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| NC Museum of Natural Sciences | 2020-2021 | In-person outreach in exhibits, specimen touch tables, donor events, guided tours for visitors, behind-the-scenes events |
| Field Museum of Natural History | 2018-2019 | In-person outreach in exhibits, specimen touch tables, donor events, guided tours for visitors, behind-the-scenes events, leading 'Make-A-Wish' tours |
| Science Borealis | 2017-2020 | Manage social media accounts as part of Outreach Team |
| Royal Ontario Museum | 2014-2017 | In-person outreach in exhibits, specimen touch tables, donor events, guided tours for visitors, behind-the-scenes events |
| Science Travels | 2012 | In-person science education workshops to school groups (ages 5-17) in remote towns and First Nations communities in N Ontario |
| Let's Talk Science | 2012 | In-person science education workshops to elementary school groups in Ottawa area |
| Canadian Museum of Nature | 2010-2011 | In-person outreach in exhibits, specimen touch tables, guided tours for visitors |
| Carleton University | 2008-2012 | Planning and in-person science outreach around Ottawa-Gatineau for annual 'Explore Geoheritage Day' events |
| Friends of Petrie Island | 2005-2009 | Provide in-person information and guided nature tours about local flora, fauna, and geology |

Services for Academic Societies & Institutions:

| Society/Institution/Event | Role | Year |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------|
| Geological Society of America | Co-organizer, symposium on community paleoecology (sponsored by the Paleontological Society) | 2021 |
| Society of Vertebrate Paleontology | Program Committee Member, reviewer for conference symposia and conference abstracts | 2021 |
| Canadian Society of Vertebrate Palaeontology | Co-Chair, Committee on Equity, Diversity, Inclusivity | 2020-pres. |
| NC Museum Nat. Sci. / NC State University | Peer-mentor for graduate and undergraduate students | 2020-pres. |
| Soc. for the Preservation of Nat. Hist. Collect. | Co-organizer, symposium on destructive analyses | 2019 |
| Canadian Society of Vertebrate Palaeontology | Postdoctoral Member-At-Large, Executive Committee | 2018-2022 |
| UToronto, Ecology & Evolution Graduate Students Association | Peer-mentor for graduate students | 2016-2017 |
| UToronto, Ecology & Evolution Graduate Students Association | Dept representative at UofT Grad Student Union, ROM students representative at EEB grad student society | 2013-2016 |
| UToronto Grad Student Union | Member of Civics Committee | 2013 |
| Advances in Earth Science Research Conference (AESRC) | Member of Executive Committee and 2011 conference Local Organizing Committee | 2011-2012 |
| Carleton University, Graduate Students in Earth Sciences Society (GRAESSOC) | President | 2011-2012 |
| Geological Association of Canada – Mineralogical Association of Canada | Moderator, symposium on Ottawa-Bonnechere Graben System | 2011 |
| Carleton Palaeontology & Evolution Journal Discussion Group | Co-organizer | 2010-2012 |
| Soc. for the Preservation of Nat. Hist. Collect. | Co-led field trip discussing geology of Burnt Lands Alvar | 2010 |

Services as Peer-Reviewer:

| Journal / Publication | # Reviewed | Journal / Publication | # Reviewed |
|------------------------------------------------------------------|------------|----------------------------------------------------------|------------|
| <i>Paleobiology</i> | 1 | <i>Palaeogeog., Palaeoclimat., Palaeoecol.</i> | 2 |
| <i>Phil. Trans. of the Royal Society</i> | 1 | <i>Royal Society Open Science</i> | 5 |
| <i>Canadian Journal of Earth Sciences</i> | 2 | <i>Cretaceous Research</i> | 2 |
| <i>Biology Letters</i> | 2 | <i>Geological Society of America Bulletin</i> | 1 |
| <i>Historical Biology</i> | 1 | <i>Journal of Vertebrate Paleontology</i> | 1 |
| <i>The Complete Dinosaur</i> (book volume)..... | 1 | <i>Vertebrate Anatomy Morphology Palaeontology</i> | 1 |
| <i>The Dinosauria, 3rd Edition</i> (book volume)..... | 1 | <i>Acta Palaeontologica Polonica</i> | 1 |

Publications: (N = 25: 18 published, 3 in-press/accepted, 4 in-review/submitted; H-index: 10, 269 citations)

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| Submitted | <p>26. Nanglu, K., Cullen, TM. Across space and time: an empirical investigation and review of sampling and analytical biases in fossil data across macroecological scales <u>In Prep for Re-Submission</u>, <i>Earth Science Reviews</i>.</p> |
| In Review | <p>25. Thompson, M., Cullen, TM., Schröder-Adams, C., Evans, DC., Ryan, MJ. Multi-proxy palaeoenvironmental and palaeoecological reconstruction of the Foremost Formation (Upper Cretaceous; Campanian) of Alberta <u>Submitted</u>, <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i>.</p> <p>24. Wilkinson, RD., Cullen, TM., Avrahami, H., Currie, PJ. Zanno, L., Evans DC. Paleontology and sedimentology of the <i>Acheroraptor</i> holotype locality, a multi-taxic bonebed in the Hell Creek Formation of Montana, USA. <u>In Review</u>, <i>Palaios</i>. (ms# 21-052)</p> <p>23. Cullen, TM., Zhang, S., Spencer, J., Cousens, B. Sr-O-C isotope signatures reveal herbivore niche-partitioning in a Late Cretaceous greenhouse ecosystem <u>In Review</u>, <i>Palaeontology</i>. (ms# PALA-09-21-5151-RC)</p> <p>22. Cullen, TM., Longstaffe, FJ., Wortmann, UG., Huang, L., Evans, DC. Dinosaur enamel ¹³C-enrichment reflects non-analogue environmental conditions in a ‘vanished world’. <u>In Review</u>, <i>Proceedings of the Royal Society B</i>. (ms# RSPB-192864)</p> |
| In Press / Accepted | <p>21. Cullen, TM., Dunn, R., Suarez, C., Chiba, K. Chp.2.5: Approaches to Studying Ecosystems. <u>In Press</u>, invited chapter in: <i>The Complete Dinosaur, 3rd Edition</i>. Edited by L. Zanno, T. Holtz, and V. Arbour. Indiana University Press.</p> <p>20. Cullen, TM. Stable isotopic analyses of living and extinct crocodylians: implications for understanding their ecology, environments, and physiology. <u>In Press</u>, invited chapter in: <i>Crocodylian Biology and Paleobiology</i>. Edited by H Woodward and J Farlow. Indiana University Press.</p> <p>19. Benson, R., Brown, CM., Campione, N., Cullen, TM., Evans, DC., Zanno, L. Comment on the influence of juvenile dinosaurs on community structure and diversity. <u>In Press</u>, <i>Science</i>. (ms# abj5976)</p> |
| 2021 | <p>18. Cullen, TM., Brown, CM., Chiba, K., Brink, KS., Makovicky, PJ., Evans, DC. Growth variability, dimensional scaling, and the interpretation of osteohistological data <i>Biology Letters</i> 17: 202110383. https://doi.org/10.1098/rsbl.2021.0383</p> |

- 2021 (cont'd)**
17. **Cullen, TM.**, Zanno, L., Larson, DW., Currie, PJ., Evans DC. Anatomical, morphometric, and stratigraphic analyses of theropod biodiversity in the Upper Cretaceous (Campanian) Dinosaur Park Formation. *Canadian Journal of Earth Sciences* 58(9): 870-884
<https://doi.org/10.1139/cjes-2020-0145>
- 2020**
16. **Cullen, TM.**, Canale, JI., Apesteguía, S., Smith, NS., Hu, D., Makovicky, PJ. Osteohistological analyses reveal diverse strategies of theropod gigantism. *Proceedings of the Royal Society B* 287: 20200258.
<https://doi.org/10.1098/rspb.2020.2258>
15. **Cullen, TM.**, Longstaffe, FJ., Wortmann, UG., Huang, L., Fanti, F., Goodwin, MB., Ryan, MJ., Evans, DC. Large-scale stable isotope characterization of a Late Cretaceous dinosaur-dominated ecosystem. *Geology* 48(6): 546-551. <https://doi.org/10.1130/G47399.1>
Featured article & subject of a [GSA Series blog](#)
14. **Cullen, TM.**, Simon, DJ., Benner, EKC., Evans, DC. Morphology and osteohistology of a large-bodied caenagnathid (Theropoda: Oviraptorosauria) from the Hell Creek Formation (Montana): implications for size-based classifications and growth estimation in theropods. *Papers in Palaeontology*. <https://doi.org/10.1002/spp2.1302>.
- 2019**
13. Arbour, VM., Evans, DC., Simon, DJ., **Cullen, TM.**, Braman, D. Cretaceous flora and fauna of the Sustut Group near the Sustut River, northern British Columbia, Canada. *Canadian Journal of Earth Sciences* 57(6): 671-680.
doi: <https://doi.org/10.1139/cjes-2019-0031>.
12. **Cullen, TM.**, Longstaffe, FJ., Wortmann, UG., Goodwin, MB., Huang, L. Evans, DC. Stable isotopic characterization of a coastal floodplain forest community: a case-study for isotopic reconstruction of Mesozoic vertebrate assemblages. *Royal Society Open Science* 6(2): 181210.
doi: <http://dx.doi.org/10.1098/rsos.181210>.
- 2018**
11. McFeeters, B., Ryan, MJ., and **Cullen, TM.** Response to Brownstein (2018) 'Rebuttal of McFeeters, Ryan, and Cullen, 2018'. *Vertebrate Anatomy Morphology Palaeontology* 6: 73-74.
doi: 10.18435/vamp29343
10. McFeeters, B., Ryan, MJ., and **Cullen, TM.** Positional variation in pedal unguals of North American ornithomimids *Vertebrate Anatomy Morphology Palaeontology* 5: 60-67.
doi: 10.18435/vamp29283
- 2017**
9. LeBlanc, ARH., Brink, K., **Cullen, TM.**, and Reisz, R. Evolutionary implications of tooth attachment versus tooth implantation: a case study using dinosaur, crocodylian, and mammal teeth. *Journal of Vertebrate Paleontology* 37(5): e1354006.
doi: 10.1080/02724634.2017.1354006

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8. Evans, DC., **Cullen, TM.**, Larson, DL., and Rego, A.
A new species of troodontid theropod (Dinosauria: Maniraptora) from the Horseshoe Canyon Formation (Maastrichtian) of Alberta, Canada.
Canadian Journal of Earth Sciences 54(8): 813-826.
doi: 10.1139/cjes-2017-0034

2016

7. **Cullen, TM.** and Evans, DC.
Palaeoenvironmental drivers of vertebrate community composition in the Belly River Group (Campanian) of Alberta, Canada, with implications for dinosaur biogeography.
BMC Ecology 16(52): 1-35.
doi: 10.1186/s12898-016-0106-8.
[Editor's Pick and BMC Ecology top 10 highlight for 2016, and subject of a BMC Series blog](#)
6. McFeeters, B., Ryan, MJ., Schröder-Adams, C., and **Cullen, TM.**
A new ornithomimid theropod from the Dinosaur Park Formation of Alberta, Canada.
Journal of Vertebrate Paleontology 36(6): e1221415.
doi:10.1080/02724634.2016.1221415
5. **Cullen, TM.**, Fanti, F., Capobianco, C., Ryan, MJ., and Evans, DC.
A vertebrate microsite from a marine-terrestrial transition in the Foremost Formation (Campanian) of Alberta, Canada, and the use of faunal assemblage data as a palaeoenvironmental indicator.
Palaeogeography, Palaeoclimatology, Palaeoecology 444: 101-114.
doi:10.1016/j.palaeo.2015.12.015

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4. **Cullen, TM.**, Ryan, MJ., Currie, PJ., Kobayashi, Y., and Evans, DC.
Osteohistological variation in growth marks and osteocyte lacunar density in a theropod dinosaur (Coelurosauria: Ornithomimidae).
BMC Evolutionary Biology 14(231): 1-14. doi:10.1186/s12862-014-0231-y
[Editor's Pick and a BMC series highlight for November 2014, and included in list of the 12 best figures in BMC Evolutionary Biology for 2014](#)
3. Evans, DC., Larson, DW., **Cullen, TM.**, & Sullivan, RM.
'*Saurornitholestes*' *robustus* is a troodontid (Dinosauria: Theropoda).
Canadian Journal of Earth Sciences 51(7): 730-734.
doi: 10.1139/cjes-2014-0073

2. **Cullen, TM.**, Fraser, D., Rybczynski, N., and Schröder-Adams, C.
Early evolution of sexual dimorphism and polygyny in Pinnipedia.
Evolution 68(5): 1469-1484. <https://doi.org/10.1111/evo.12360>
[Subject of the May 2014 cover of Evolution](#)

2013

1. **Cullen TM.**, Ryan MJ, Schröder-Adams C, Currie PJ, Kobayashi Y.
An Ornithomimid (Dinosauria) Bonebed from the Late Cretaceous of Alberta, with Implications for the Behavior, Classification, and Stratigraphy of North American Ornithomimids.
PLoS ONE 8(3): e58853.
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Media Coverage & Appearances:

| Source | Medium | Year | Topic |
|-----------------------------------------|-------------------------|------|-------------------------------------------------------------------------------|
| CNN | Newspaper | 2020 | Cullen et al 2020; theropod body size evolution |
| CBC | Newspaper | 2020 | Cullen et al 2020; theropod body size evolution |
| ThomsonReuters | Newspaper | 2020 | Cullen et al 2020; theropod body size evolution |
| Asharq News (Egypt) | Newspaper | 2020 | Cullen et al 2020; theropod body size evolution |
| Canadian Geographic | Magazine | 2020 | Cullen et al 2020; stable isotope palaeoecology |
| Daily Herald Tribune | Newspaper | 2020 | Cullen et al 2020; stable isotope palaeoecology |
| Insider | Website | 2019 | Technical accuracy of <i>The Land Before Time</i> |
| Cracked | Magazine | 2019 | Cullen et al 2019; use of roadkill in stable isotope research |
| Atlas Obscura | Website | 2019 | Cullen et al 2019; use of roadkill in stable isotope research |
| The Brain Scoop | YouTube | 2019 | Development of new Field Museum exhibit on <i>SUE</i> the <i>T. rex</i> |
| Ars Technica | Website | 2019 | Cullen et al 2019; use of roadkill in stable isotope research |
| Ben & Morey Show, Chicago SketchFest | Live Stage Interview | 2019 | My research, how I became a palaeontologist, new exhibits at the Field Museum |
| Leisure Opportunities | Website | 2018 | My work and contributions on Field Museum <i>SUE</i> exhibit |
| Christian Science Monitor | Newspaper | 2018 | Public impact of Jurassic Park |
| Phys.Org | Website | 2016 | Cullen and Evans 2016; vertebrate responses to environments |
| Discover Magazine | Magazine | 2015 | Discovery of new horned dinosaur species |
| CJSW | Radio | 2015 | Speculative / future evolution |
| History Channel: Dino Hunt Canada | Television | 2014 | Southern Alberta Dinosaur Project; new species of horned dinosaurs discovered |
| Live Science | Website | 2014 | Cullen et al 2014; seal fossils & mating system evolution |
| Nunatsiaq | Newspaper | 2014 | Cullen et al 2014; seal fossils & mating system evolution |
| TVO | Television | 2013 | Southern Alberta Dinosaur Project & ROM palaeontology |
| CKCU | Radio | 2011 | Public science outreach at the Canadian Museum of Nature |
| Ottawa Citizen | Newspaper | 2011 | Carleton / CMN / SOI Antarctic expedition |
| CBC Radio One | Radio | 2011 | Carleton / CMN / SOI Antarctic expedition |

Other Skills / Training / Certifications:

Language: English (fluent oral/written/reading), French (moderate oral/written/reading)

Workshop Completion:

- Active and Inquiry-Based Learning Strategies for Field and Classroom Educators (SVP meeting) (2020)
- Teaching Fundamentals Certificate Program (University of Toronto) (2014)
- FossilWorks Intensive Workshop in Analytical Paleobiology (Macquarie University) (2014)
- Canadian Society of Petroleum Geologists – Student Industry Field Trip (2009)

Laboratory training/techniques/certifications:

- WHMIS (UToronto, FMNH, Carleton), stable isotope / laser safety (UWO, UToronto),
- Osteohistological thin-section production and imaging using microscope camera set-ups
- Screen-washing, grain-size analysis, and identification of vertebrate microfossil material
- Stable isotopic sample preparation and analyses:
 - Pretreatments of keratin for $\delta^{13}\text{C}$, $\delta^{18}\text{O}$, $\delta^{15}\text{N}$ analyses, bioapatite (enamel, dentine, bone) for $\delta^{13}\text{C}$, $\delta^{18}\text{O}$, $^{87}\text{Sr}/^{86}\text{Sr}$, and elemental concentration analyses
 - Analysis using MC-ICP-MS, LA-GC-IRMS, CF-IRMS, EA CF-IRMS, HT-EA CF-IRMS
- Additional analytical and imaging procedures in the earth sciences & paleontology:
 - uCT and CT scanning, SEM, XRD

Fieldwork training/techniques/certifications:

- Field geology, section-measurement, and stratigraphic data collection
- Geological mapping and ArcGIS/ArcMap
- Vertebrate macrofossil bonebed and isolated specimen ID, excavation, & quarrying.
- North American mammal, bird, amphibian, reptile ID (emphasis on eastern & northern taxa)
- Training & licensing in non-restricted firearms (Canada)
- Watercraft & outboard motor operation training & certifications (Canada)
- Trained & certified in Wilderness First Aid. (Canadian Red Cross)

Collections training/techniques:

- Use of EMu / KE EMu collections management software (FMNH K EMu training workshops)
- SPNHC workshops on collections best practices, security & insurance in natural history collections, COVID-19 mitigation in museum and lab settings, use of collaborative databases & how to involve community groups and avocational palaeontology enthusiasts
- fossil casting/molding, 3D-scanning and 3D file manipulation, photogrammetry.
- Specimen repair and conservation, cataloguing
- vertebrate dissection/de-fleshing.

Photography:

- I document all field expeditions photographically, for use in publications, educational programs, and PR.
- My photographs have been used for educational or promotional purposes (e.g. Students on Ice, Royal Ontario Museum, NC Museum of Natural Sciences), have been featured in a university textbook (Cornell Lab of Ornithology Handbook of Bird Biology, 3rd Edition), are featured in museum exhibitions (e.g. Field Museum, Royal British Columbia Museum), and have won awards in photography contests.

Professional References:**David C. Evans, Ph.D. (doctoral supervisor)**

Temerty Chair in Vertebrate Palaeontology & Vice President, Royal Ontario Museum
 Associate Professor, Dept. of Ecology & Evolutionary Biology, University of Toronto
 Tel: 1 (416) 586-5753
 d.evans@utoronto.ca

Peter J. Makovicky, Ph.D. (postdoctoral supervisor)

Professor, Dept. of Earth & Environmental Sciences, University of Minnesota
 Research Associate (*Curator of Dinosaurs until August 2019*), Field Museum of Natural History
 Tel: 1 (612) 301-2758
 Pmakovic@umn.edu

Lindsay Zanno, Ph.D. (postdoctoral supervisor)

Division Head, Paleontology, North Carolina Museum of Natural Sciences
 Adjunct Professor, Dept. Biological Sciences, North Carolina State University
 Research Associate, Field Museum of Natural History
 Tel: 1 (919) 707-8289
 lindsay.zanno@naturalsciences.org