Erin Elysse Maxwell

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Email: erin.maxwell@mcgill.ca

EDUCATION

Ph.D candidate, Biology 2003 – present

McGill University, Montreal Canada supervisor: Dr. Hans Larsson

BSc Honours (Evolutionary Biology), 1999-2003

University of Alberta, Edmonton Canada

MAJOR ACADEMIC GRANTS AND AWARDS:

Natural Sciences and Engineering Research Council of Canada

(NSERC) CGS-D September 2006 - present, \$35 000/yr

Fonds Québecois de la Recherche sur la Nature et les Technologies (FQRNT)

Doctoral Research Fellowship May 2006 - September 2006, \$6700

Scholarship

Tomlinson Fellowship (PhD level) September 2003 - 2006, \$20 000/yr

NSERC PGS-M extension September 2004-2005, \$21 000

Wylie Memorial Fellowship September 2003-2004, \$2500

NSERC CGS-M September 2003-2004, \$17 500

Lieutenant Governor's Gold Medal Awarded June 2003

Governor General's Silver Medal Awarded June 2003

NSERC USRA Summer 2002, \$5700

NSERC USRA Summer 2001, \$5300

RESEARCH INTERESTS

- Ichthyosaur systematics and biogeography
- Ossification sequence evolution
- Intraspecific variability in morphological characters.

Please see attached research interests statement for more information.

PUBLICATIONS AND PRESENTATIONS

PEER-REVIEWED PUBLICATIONS

MAXWELL, E.E. (In press). Comparative embryonic ossification sequence of galliform birds, focusing on the skeletal development of the Domestic Turkey (*Meleagris gallopavo*). *Zoology*.

MAXWELL, E.E. AND LARSSON, H.C.E. 2007. The osteology and myology of the wing of the Emu (*Dromaius novaehollandiae*), and its bearing on the evolution of vestigial structures. *Journal of Morphology* **268**(5):423-441.

MAXWELL, E.E. AND CALDWELL, M.W. 2006. Evidence for a second species of the ichthyosaur *Platypterygius* in North America: a new record from the Loon River Formation (Lower Cretaceous) of northwestern Canada. *Canadian Journal of Earth Sciences* **43**:1291-1295.

MAXWELL, E.E. AND CALDWELL, M.W. 2006. A new genus of ichthyosaur from the Lower Cretaceous of Western Canada. *Palaeontology* **49**(5), 1043-1052.

MAXWELL, E.E. AND CALDWELL, M.W. 2003. First record of live birth in Cretaceous ichthyosaurs: closing an 80 million year gap. *Proceedings of the Royal Society of London, B*, **270**, S104-S107.

MAXWELL, E.E. (In review). Ossification sequence in the avian order Anseriformes, with comparison to other precocial birds. *Journal of Morphology*.

MAXWELL, E.E. AND HARRISON, L.B. (In review). Ossification sequence of the Common Tern (*Sterna hirundo*) and implications for the interrelationships of the Lari. *Journal of Morphology*.

MAXWELL, E.E., FRÖBISCH, N.B. AND HEPPLESTON, A.C. (In review). Variability and conservation in late chondrichthyan development – ontogeny of the winter skate (*Leucoraja ocellata*). *Anatomical Record*.

PEER-REVIEWED ABSTRACTS

MAXWELL, E.E. 2007. The phylogenetic significance of ossification sequence data in birds, and its relevance to fossil taxa. *Journal of Vertebrate Paleontology* **27(3)Suppl.**, 115A.

MAXWELL, E.E., HEPPLESTON, A.C., MICHEL, A., AND LARSSON, H.C.E. 2006. The anatomy of the Emu wing: an example of primary digital reduction in archosaurs. *Journal of Vertebrate Paleontology* **26(3)Suppl.**, 97A.

MAXWELL, E.E. 2005. Testing the relationship between ontogeny and phylogeny using avian skeletal development. *Journal of Vertebrate Paleontology* **25(3)Suppl.**, 90A.

MAXWELL, E.E. AND CALDWELL, M.W. 2004. A platypterygiid ichthyosaur from the Lower Cretaceous of Western Canada. *Journal of Vertebrate Paleontology*. **24** (3) **Suppl.**: 91A.

OTHER PUBLISHED ABSTRACTS

MAXWELL, E.E., HEPPLESTON, A.C., FRÖBISCH, N.B. AND LARSSON, H.C.E. 2007. Ontogenetic origins of batoidean morphology in the winter skate (*Leucoraja ocellata*). *Canadian Society of Zoologists Bulletin* 38(2): 26.

LARSSON, H.C.E., DE BOEF, M., DECECCHI, T.A., MAXWELL, E.E., TISSANDIER, S.C., AND VAVREK, M.J. 2006. Marine reptiles from Melville and Cameron islands, Nunavut. *Canadian paleontology conference Proceedings* no. 4. p.26.

MAXWELL, E.E. 2006. The anatomy of extreme digit reduction in the Emu (*Dromaius novaehollandiae*). Canadian Society of Zoologists Bulletin 37(2): 36.

MAXWELL, E.E. 2006. Intraspecific variability in highly reduced limbs: the Emu wing. Interdisciplinary Graduate Student Research Symposium, Abstracts and Program. Scientific approaches to complex natural systems.

MAXWELL, E.E. AND LARSSON, H.C.E. 2005. *Ornithomimus* endocast. *Dinosaur Park Symposium* 2005, *Short Papers, Abstracts and Program*.

LARSSON, H.C.E. AND MAXWELL, E.E. 2005. Evolution of theropod endocrania and brains. *Dinosaur Park Symposium 2005*, *Short Papers*, *Abstracts and Program*.

MAXWELL, E.E. 2004. Supertrees and avian systematics: an examination of the perceived conflict between morphological and molecular data, and the contribution of fossils to the debate. *Canadian Paleontology Conference Proceedings* 2: 37-38.

THESES

Doctoral thesis (in progress): Development and evolution of the avian skeleton

Honours thesis (submitted April 2003): Incubation Energetics in Barrow's Goldeneye and Bufflehead

RESEARCH EXPERIENCE

A) LAB AND ANALYTICAL EXPERIENCE

PhD program, Dept. of Biology, McGill University, Montreal Canada 2003-2007

- Lab techniques: gross dissection, and enzymatic clearing and staining used to address problems in avian morphology and embryology
- Analytical techniques: gained familiarity with the analysis of CT data, as well as phylogenetic software and methodology for analyzing developmental data.

Undergraduate Research Assistant,

2002

Dept. of Biology, University of Alberta, Edmonton

• Learned fossil preparation, illustration and description

Undergraduate Research Assistant,

2001

Dept. of Biology, University of Alberta, Edmonton

• Designed experiments to test methods of prey detection in owls

B) GEOLOGICAL, PALEONTOLOGICAL & BIOLOGICAL FIELD EXPERIENCE

| Vertebrate palaeontological excavations in Eastend and | May 2007 |
|--|-----------------|
| Grasslands National Park (Saskatchewan, Canada) | |

| Paleontological expedition to Melville Island | July 2006 |
|---|------------------|
| (Nunavut, Canada) | |

| Vertebrate paleontological excavations in Dry Island | August 2005 |
|--|-------------|
| Buffalo Jump Provincial Park, Alberta | |

| Vertebrate paleontological excavations in Dry Island | August 2004 |
|--|-------------|
| Buffalo Jump Provincial Park, Alberta | |

| Paleontological expedition to Axel Heiberg (Nunavut, | July 2004 |
|--|------------------|
| Canada) | |

| Led a Common Merganser egg collection expedition | May 2004 |
|--|----------|
|--|----------|

| Vertebrate paleontological excavation in Eastend, | Summer 2002 |
|---|--------------------|
| Saskatchewan | |

| Monitoring a population of Northern Saw-whet Owls | |
|--|--------------------|
| (north of Edmonton), including searching for nests, banding | Summer 2001 |
| of females and nestlings, and trapping and banding of males. | |

TEACHING EXPERIENCE

Paleobiology (Geology 302), Dept. of Geography, Planning and Environment, Concordia University. Role: Instructor

Organismal Biology (Biology 111), McGill University, Fall 2006

Montreal Canada. Role: Teaching Assistant

Animal Diversity (Biology 305), McGill University, Winter 2006

Montreal Canada. Role: Teaching Assistant

Evolution (Biology 304), McGill University, Montreal Fall 2005

Canada. Role: Teaching Assistant

Cell and Molecular Biology (Biology 112), McGill Winter 2005

University, Montreal Canada. Role: Teaching Assistant

Tomlinson Project teaching workshop, Participant Winter 2005

COURSES TAKEN / TEACHING EXPERTISE

Teaching Expertise: Please see attached statement

Biology 505, Diversity and Systematics Seminar. Winter 2004

• Phylogenetic techniques for the analysis of morphological and molecular data

Biology 569, Developmental Evolution Winter 2005

• Concepts and current debates in developmental evolution

RELEVANT PROFESSIONAL DEVELOPMENT AND VOLUNTEER EXPERIENCE

Member, Canadian society of zoologists 2006 - present

Department of Biology General Assembly, 2007-present

graduate student representative

Biology Graduate Student Association, Executive 2004-present

council member (Treasurer); I also organized and executed an herb sale fundraiser for this organization

Member, Society of Vertebrate Paleontology 2003-present

Mentor, Scibermentor Program 2002-present

Volunteer, Museums Day kid's program (Redpath Museum) Summer 2005-2006

Volunteer, Let's Talk Science 2005

Palaeontology Club, University of Alberta, member 2002-2003

Volunteer, University of Alberta Museums: Trowels, 2002-2003

Trilobites and Treasures / Science Sunday for kids

Museum Display, design and assembly: Earth Winter 2002

Sciences Building, University of Alberta

LANGUAGES

English: Mother language

French: 13 years of education in school (fluent reading and writing, passable spoken)

WORK AUTHORIZATION

I have permanent residency status in the United States (Green Card)

REFERENCES

See attached.