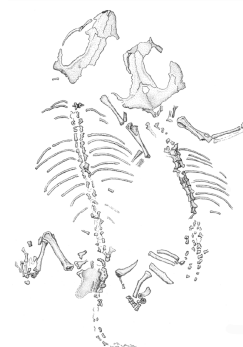


Curriculum Vitae – Laura K. Säilä

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Finland
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Research interests

Vertebrate palaeontology, phylogenetics, evolution, developmental biology and animal behaviour.

Present position

December 2009 – December 2013

Postdoctoral researcher, Academy of Finland funded project 'Extinction dynamics of taxa in the fossil record' (headed by Prof. Mikael Fortelius), Department of Geology, University of Helsinki; Associate Coordinator of the NOW (Neogene of the Old World) mammal database.

Past positions

February 2009 – November 2009

Postdoctoral researcher, Jernvall Evo-devo research group, Institute of Biotechnology, University of Helsinki.

Education

2004 – 2008

Palaeontology PhD, University of Bristol, thesis successfully defended in December 2008 (degree awarded in January 2009).

Dissertation: '*Leptopleuron, Anomoiodon and the Russian Permian procolophonoids: A study of the interrelationships, evolution and palaeobiogeography of Procolophonoidea*'. In addition to the comprehensive redescription of Scottish procolophonid *Leptopleuron*, the study includes a review of the Permian procolophonoids from Russia, and a redescription of the genera *Anomoiodon* from Germany. An extensive phylogenetic study of Procolophonoidea enabled the examination of the P-Tr extinction survival rate and palaeobiogeography of the important parareptile group. Supervisors: Prof. Mike Benton and Dr. Sean P. Modesto.

1998 – 2001, 2002 – 2004

Undergraduate degree leading to a Master (MSci) in Morphological and Ecological Zoology. University of Helsinki, Finland. Pass with excellent knowledge (3/3), dissertation grade: Magna cum laude.

Dissertation: '*Male mate choice in the livebearing peociliid fish Heterandria formosa*'. The preferences for large females over small ones and for virgin over non-virgin females were investigated in laboratory experiments with repeated trials. Results indicate the males prefer smaller females over larger ones, a unique result among peociliid fish.

Minor subjects: Genetics, geology, media studies and social psychology.

2001 – 2002

MSc in Palaeobiology, University of Bristol, pass with Commendation (Highest Grade).

Taught units: Research Methods; Trace fossils; Current Controversies; Palaeobiology; Scientific Communication; Systematic Methods; Taphonomy and Palaeoecology; Dinosaurs; Mammalian Palaeobiology.

Dissertation: *The reptiles of Pant 4 – A re-description of the reptilian fauna of a Lower Jurassic fissure fill, Glamorgan, South Wales.* A detailed morphological study of the sphenodontian, pleurodont lepidosaur and archosaurian remains from Pant 4 quarry, and a comparison of the extensive Pant 4 fauna with more depauperate 'Morganucodon fauna' of St. Bride's Island.

Refereed scientific papers

1. Deng, T., Wang, X., Fortelius, M., Li, Q., Wang, Y., Tseng, Z. J., Takeuchi, G. T., Saylor, J. E., **Säilä, L. K.**, and Xie, G. 2011. Out of Tibet: Pliocene woolly rhino suggests high-plateau origin of Ice Age megaherbivores. *Science*, 333 no. 6047: 1285-1288.
2. **Säilä, L. K.** 2010. Osteology of *Leptopleuron lacertinum* Owen, a procolophonoid parareptile from the Upper Triassic of Scotland, with remarks on ontogeny, ecology and affinities. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, 101: 1-25.
3. **Säilä, L. K.** 2010. The phylogenetic position of *Nyctiphruretus acudens*, a parareptile from the Permian of Russia. *Journal of Iberian Geology*, 36: 123-143.
4. Ala-Honkola, O., **Säilä, L.**, and Lindström, K. 2010. Males prefer small females in dichotomous choice test in the poeciliid fish *Heterandria formosa*. *Ethology*, 166: 736-743.
5. **Säilä, L. K.** 2009. The alpha taxonomy of the Russian Permian procolophonoids. *Acta Paleontologica Polonica*, 54: 599-608.
6. **Säilä, L. K.** 2008. The osteology and phylogenetic relationships of *Anomoiodon liliiensterni*, a procolophonoid reptile from the Middle Triassic Bundsandstein of Germany. *Journal of Vertebrate Paleontology* 28: 1199–1205.
7. Gill, P. G., **Säilä, L. K.**, Corfe, I. J., Challands, T., Williams, M. and Clemens, W. A. 2006. The fauna and palaeoenvironment of St. Bride's Island: evidence from the Lower Jurassic fissure fills of South Wales; pp. 48–51 in *Proceedings of the 9th Symposium of Mesozoic Terrestrial Ecosystems and Biota*. Natural History Museum, London.
8. **Säilä, L. K.** 2005. A new species of the sphenodontian reptile *Clevosaurus* from the Lower Jurassic of South Wales. *Palaeontology* 48: 817–831.

Other scientific publications

In addition to my own publications, my illustrations have been published in the following publications, papers and theses:

1. The cover of *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* issue 101 – Drawing of a fossil specimen and a life-reconstruction of the procolophonoid *Leptopleuron lacertinum*.
2. Eronen, J. T. Evans, A. R., Jernvall, J., and Fortelius, M. 2009. The impact of regional climate of the evolution of mammals. A case study using fossil horses. *Evolution*, 64: 398-408.

3. Gill, Pam G. 2005. *Kuehneotherium* from the Mesozoic fissure fillings of South Wales. PhD thesis, University of Bristol.
4. Keskinen E. and Meyer-Rochow V. B. 2004. Post-embryonic photoreceptor development and dark/light adaptation in the spittle bug *Philaenus spumarius* (L.) (Homoptera, Cercopidae). *Arthropod Structure & Development* 33: 405–417.
5. Keskinen E. and Meyer-Rochow V. B. 2004. Post-embryonic photoreceptor development in the fishlouse *Argulus coregoni* Thorell, 1865 (Crustacea: Branchiura). *Acta Parasitologica* 49: 336–347.
6. Keskinen, E. 2004. Post-embryonic growth and fine-structural organization of arthropod photoreceptors: A study involving selected species of insects and crustaceans. *Acta Ouluensis*. PhD thesis, University of Oulu.

I also designed the logo for the SVP 2009 Annual Meeting and the logo for the Jernvall Evo-devo research group.

Conference papers and posters

- SVPCA 2011 meeting, Lyme Regis; scientific paper, titled: Patterns in the origin of multicuspid teeth among terrestrial amniotes – early adopters from Devon; jointly with Ian Corfe (presenter), Aki Kallonen, Keijo Hämäläinen and Jukka Jernvall. Scientific poster, titled: A new procolophonoid parareptile from Australia (Arcadia Formation, Early Triassic); jointly with Susan Evans.
- ISDM 2011, Newcastle; scientific paper, titled: Patterns in the origin of multicuspid teeth among terrestrial amniotes; jointly with Ian Corfe (presenter), Aki Kallonen, Keijo Hämäläinen and Jukka Jernvall.
- Annual meeting of Finnish Developmental Biologists 2010, Hyytiälä; scientific poster, titled: *Tooth implantation and its relationship with tooth development and morphology in the Triassic procolophonoid *Kapes bentoni**; jointly with Ian Corfe, Aki Kallonen, Keijo Hämäläinen and Jukka Jernvall.
- Euro Evo-Devo 2010 meeting, Paris; scientific paper, titled: *Discovering developmental signals in phylogenetic dental data - from micro- to macro-evolutionary variability*; jointly with Ian Corfe (presenter), Eric Seiffert, Dough Boyer, and Jukka Jernvall.
- IPC3 meeting, 2010, London; scientific poster, titled: *The interrelationships, palaeobiogeography, and the P-Tr extinction event survival rate of the parareptile clade Procolophonoidea*.
- SVP(CA) 2009 meeting, Bristol, and the 10th Symposium of Mesozoic Terrestrial Ecosystems, Teruel; scientific paper, titled: *The interrelationships, palaeobiogeography, and the P-Tr extinction event survival rate of the parareptile clade Procolophonoidea*.
- Palaeontological Association Annual Meeting 2007, Upsala; scientific paper, titled: *Review of the Russian Permian procolophonoids, and their implications on procolophonoid evolution and biogeography*.
- SVPCA (Glasgow) and SVP (Austin) 2007 meetings; Scientific poster, titled: *The osteology and phylogenetic relationships of *Anomoiodon liliiensterni*, a procolophonoid reptile from the Middle Triassic Buntsandstein of Germany*.
- SVP 2006 meeting, Ottawa; Scientific paper, title: *New Information on the late Triassic reptile *Leptopleuron lacertinum* and its implications for the phylogeny of procolophonoid parareptiles*

- Palaeontological Association Annual Meeting 2005, Oxford; scientific poster, title: *Palaeoecological reconstruction of St. Bride's Island, based on the fossils from Pant 4 fissure fill.*
- SVP 2005 meeting, Mesa; scientific poster, title: *A new species of the sphenodontian reptile Clevosaurus from South Wales, and the tetrapod diversity of St. Bride's Island.* (Winner of the Student Poster Prize category)
- Palaeontological Association Annual Meeting 2002, Cambridge; scientific poster, title: *Questioning the tetrapod diversity of a Jurassic island, Glamorganshire*, jointly with Dr. Ian Corfe.
- SVPCA 50 meeting, 2002, Cambridge; scientific paper, title: *Questioning the tetrapod diversity of a Jurassic island, Glamorganshire*, jointly with Dr. Ian Corfe.

Most important foreign visits

- November – December 2006: Three-week visit to the Paleontological Institute, Moscow (PIN), to study their Permian (and Triassic) procolophonoid collections.
- July – August 2005: Four-week visit to South Africa, including two weeks of fieldwork, and visits to fossil collections of the Bernard Price Institute (Johannesburg), South African Museum (Cape Town) and Bloemfontein Museum.

Research and travel grants/awards

- Waldemar von Frenckells stiftelse (Finland): A stipend for the project 'Phylobiogeography in deep time – the spatial dynamics of adaptive radiations', June 2009. (9000 e)
- Oskari Huttunen Foundation (Finland): Three-year funding from for PhD studies in the University of Bristol for October 2004 – September 2007.
- Winner of Student Poster Category in the 2005 SVP meeting, Mesa, Arizona. (\$400)

In addition, I received the following travel grants during 2005-2010:

- R. Estes Memorial Award (Society of Vertebrate Paleontology, USA): For a three-week visit to Moscow to study the Permian Russian procolophonoids. (\$1000)
- Synthesys Access Grant (EU): For visiting the Museum für Naturkunde, Berlin, to study the German procolophonid *Anomoidon liliensterni*. (All inclusive)
- Samuel P. and Doris Welles Research Fund (University of California, Berkeley): For a visit to the Paleontological Museum, Berkeley to study their procolophonid collection. (\$734)
- NSERC (Natural Sciences and Engineering Research Council of Canada): Funds towards museum visits in America and South Africa, fieldwork in South Africa and attending conferences. Part of Dr. Sean Modesto's Discovery grant.
- Bob Savage Memorial Fund Award (University of Bristol): For obtaining specimens of the procolophonid *Leptopleuron lacertinum* to Bristol from several museum collections. (£150)
- Bob Savage Memorial Fund Award (Department of Earth Sciences, Univ. of Bristol) for visiting the Moscow Paleontological Institute. (£200)
- Funding towards conference attendance from the following sources: Society of Vertebrate Paleontology (USA); Society of Vertebrate Palaeontology and Comparative Anatomy (UK);

Paleontological Association (UK); Transferable Skills Fund (University of Bristol); Bristol University Alumni Foundation; Chancellor's Travel Grant (University of Helsinki).

Academic teaching and supervision

Academic year 2011

Second supervisor for the MSc thesis project of Aino Tuomola, titled: *A new lizard species from Upper Cretaceous of Ukhaa Tolgod, Mongolia*.

December 2010

Lecturer for 'Earth' course, lecture title '*Mesozoic land ecosystems and tetrapods, and return to the sea*'.

October 2007

Teaching assistant 'Research Methods', a Palaeobiology MSc course module, University of Bristol.

Academic years 2004 – 2007

Teaching assistant for the MSc level 'Palaeobiology' course and the 1st year level 'Fossil Record' course, University of Bristol.

Outreach activities

2011

My illustrations of the procolophonid *Leptopleuron lacertinum* are used as a part of a museum display about Triassic reptiles in Elgin Museum (Scotland).

2007 – 2008

Part of the 'Ask A Biologist' interactive web initiative, which encourages school children to ask questions relating to natural sciences and gives them answers by professional biologists/palaeontologist who have joined the 'Ask A Biologist' online community. I also designed the 'Ask A Biologist' flier, which is distributed to schools in the UK.

August 2003

At-Bristol Science Centre/University of Bristol, UK.

Dinosaur summer school assistant for children aged 11 to 14 years. Aim: to teach the children about dinosaurs and palaeontology. Means included lectures, group assignments, making a dinosaur and its habitat and presenting these to their parents and judges.

June 2003

Vantaan Luonnon Ystävät (Vantaa's Natures Friends), Vantaa, Finland.

Nature camp counsellor for children aged 13 to 14 years. Teaching about different aspects of nature by means of camping in the wood, outdoor activities and collecting and analysing plant and insect samples.

June 2001

Suomen Luonto Liitto (Finnish Nature Organisation), Helsinki, Finland.

Nature club counsellor for children aged 5 to 7 years. Teaching children to know and appreciate the Finnish nature by means of games, quizzes and outdoor activities. Planned visits to and activities at a bird swamp, woodlands and the seashore.

Skills, memberships and responsibilities

Palaeontological skills:

Screen washing, acid matrix dissolution and picking of micro-vertebrate remains; stratigraphic sectioning/logging; digital and photographic imaging of fossils; casting natural moulds of fossils with silicone rubber to produce high quality casts; illustrating extinct and extant animals and habitats with line drawings and paintings; coding and testing phylogenetic hypotheses.

Computer skills:

Competent in multiple applications and platforms; Word, EndNote, Excel, PAST, PowerPoint, PhotoShop, Illustrator, PAUP, MacClade, TreeRot, TreeView, RadCon, Ghosts; on PC and Apple Macintosh.

Language skills:

Fluent in Finnish and English, intermediate in Swedish, beginner in French and Portuguese.

Memberships:

- Palaeontological Association, 2001 – present.
- Society of Vertebrate Paleontology, 2004 – present.
- The Finnish Society for Development Biology, 2008 – present.

Responsibilities

- Member of the organising committee for the SVP Annual Meeting Benefic Auction, 2009.
- Member of the organising committee for the Progressive Palaeontology conference, 2007.
- Organiser of the Palaeontological Discussion Group (PDG) lunchtime seminars in the department of Earth Sciences, academic year 2004 – 2005.
- A host for Helix, the Helsinki University Bioscience Society, 1999 – 2001.
- Student tutor for new biology students at University of Helsinki, Autumn 2003.