CURRICULUM VITAE

PERSONAL INFORMATION

Thomas A. Püschel

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https://primobevolab.web.ox.ac.uk/post-doctoral-fellows

EDUCATION AND TRAINING

Jan 2014–Jan 2018

PhD in Adaptive Organismal Biology

The University of Manchester, School of Earth and Environmental Sciences (United Kingdom)

Dissertation: 'Morpho-functional analyses of the primate skeleton: applying 3D geometric morphometrics, finite element analysis and phylogenetic comparative methods to assess ecomorphological questions in extant and extinct anthropoids.'

Supervisor: Prof. William Sellers

Co-supervisor: Prof. Christian Peter Klingenberg

Sep 2012–Aug 2013

MSc in Human Evolution with Distinction

The University of York, Hull York Medical School (United Kingdom)

Dissertation: 'Biomechanical modelling of Human Femora: a comparison between Agriculturalists and Hunter-Gatherers using Finite element analysis, Geometric Morphometrics and Beam Theory.'

Supervisor: Prof. Paul O'Higgins

2007–2011

BSc in Anthropology, Major in Biological Anthropology with Distinction

Universidad de Chile, Santiago (Chile)

Dissertation: 'Deformación Intencional del Cráneo en los Oasis de San Pedro de Atacama: un Enfoque Morfométrico Geométrico.'

Supervisor: Prof. Germán Manríquez

WORK EXPERIENCE

1 Nov 2018–Present

Postdoctoral Research Officer- Leverhulme Early Career Fellowship

School of Anthropology and Museum Ethnography, University of Oxford, Oxford (United Kingdom)

Project: 'This study has teeth: exploring human origins and Climate Change through time.'

1 Oct 2019–Present

College advisor

St Antony's College, Oxford (United Kingdom)

Pastoral duties at St Anthony's College where I advise five students, both at the levels of MSc and DPhil.

Apr 2018–Oct 2018

Research Associate

School of Earth and Environmental Sciences, Faculty of Science and Engineering, University of Manchester, Manchester (United Kingdom)

Postdoctoral position within the NERC project: 'The co-evolution of human hands and tool using behaviour' led by Prof. William Sellers.

May 2013 — Research Assistant
Musée de l'Homme, Paris (France)
Ecos-Conicyt Project headed by Dr. Germán Manríquez and Dr. Martin Friess.

Jun 2012 — Research Assistant
Musée d'Anthropologie préhistorique (Monaco)
Ecos-Conicyt Project headed by Dr. Germán Manríquez in collaboration with Dr. Patrick Simon.

May 2012 — Research Assistant
Russian Institute of Archaeology, Moscow (Russia)
Russian-Chilean Bilateral cooperation project: biomedical techniques applied to archaeology, led by Dr. Germán Manríquez in collaboration with Dr. Maria Mednikova and Dr. Tatiana Shvedchikova.

Oct 2010–Oct 2012 — Laboratory Assistant
Universidad de Chile
Assistant of the Geometric Morphometrics laboratory, Human Genetics Program, ICBM (Universidad de Chile).

Aug 2011–Nov 2011 — Professional Practice
Gustavo Le Paige Archaeological Museum, San Pedro de Atacama (Chile)
3D scanning of pre-Hispanic human skulls and photographs of skeletal materials housed in the museum.

2010–2011 — Research Assistant
Gustavo Le Paige Archaeological Museum and Calama Cultural Foundation
ACT-96 Research Project (Proyecto Anillo).

May 2011 — Internship
Musée de l'Homme, Paris (France)
Ecos-Conicyt Project: 3D Surface Scanning of archaeological skulls.

Jan 2010–Feb 2010 — Internship
Gustavo Le Paige Archaeological Museum, San Pedro de Atacama (Chile)
Intern under the supervision of Dr. Mark Hubbe.

ADDITIONAL INFORMATION

Teaching

February-March 2020 Teaching Assistant of the practical laboratories of the 'Introduction to Human Evolution' lecture series for Human Sciences students (University of Oxford, UK).

August 2019 Staff member at the Oxford-Gorongosa Field School 2019. (Gorongosa, Mozambique). Teaching (field methods and lectures) and pastoral duties.

March 2018 'Primate Models for Behavioural Evolution Methods' (University of Oxford, UK). Workshop on predictive modelling applied to ecological and palaeoanthropological data.

February 2016 - October 2018 Teaching Assistant, Morphometrics unit of the 'Human anatomy' course organised by Prof. Klingenberg (University of Manchester, UK).

May 2012 Teaching Assistant of the Workshop on Geometric Morphometrics for Anthropology, Biology, and Archaeology (Department of Physical Anthropology, Peter the Great Museum of Anthropology and Ethnography, Russian Academy of Sciences, Saint Petersburg, Russia).

Second Semester 2011 Teaching Assistant of 'Introduction to Human Movement', (Physical therapy degree program, Faculty of Medicine, Universidad de Chile, Santiago de Chile).

Second Semester of 2011 Teaching Assistant of 'Morphophysiology IV: Growth and Development' organised by Dr. Juan Carlos Salinas and Dr. Germán Manríquez. (Universidad de Chile, Santiago de Chile).

First Semester 2011 Teaching Assistant of 'Evolution II' organised by Dr. Germán Manríquez. (Universidad de Chile, Santiago de Chile).

Supervision and assessment

October 2019 - present Human Sciences tutor (University of Oxford, UK)

March 2020 FHS Biological Sciences 3rd-year project assessor

February 2020 Confirmation of Status (CoS) assessment of a DPhil student, (University of Oxford, UK)

November 2018 - January 2020 Supervision of a 3rd-year project in Biological Sciences (University of Oxford, UK)

December 2019 Undergraduate admissions interviewer in Human Sciences.

June 2019 Transfer of Status (ToS) assessment of a DPhil student, (University of Oxford, UK)

Scholarships

'Becas Chile' PhD Scholarship (2014-2018), National Commission for Scientific and Technological Research of Chile.

'Becas Chile' Master Scholarship (2012-2013), National Commission for Scientific and Technological Research of Chile.

ECOS-CONICYT scholarship for an Internship in the context of the bilateral cooperation project Ecos-Conicyt "Les découvertes archéologiques de la mission scientifique de Georges de Créqui- Montfort et d'Eugène Sénéchal de la Grange (1903) dans la nécropole de Calama (Désert d'Atacama), Chili". Laboratory of Dr. Martin Friess, Musée de l'Homme, Muséum d'Histoire Naturelle, Paris.

Grants and Awards

SAME, University of Oxford Award for Excellence 2020. I received the 'Award for Excellence' of the School of Anthropology and Museum Ethnography, University of Oxford in recognition of my exceptional contribution to the department during 2020**.**

The Boise Trust Fund Research Award 2019. Research fund awarded by the Department of Zoology of the University of Oxford to carry out the project 'Taxonomic and Ecological Characterization of the Late Miocene Mammalian Fauna from Gorongosa, Mozambique: An exceptional window to test key palaeobiogeographic hypotheses about early hominin evolution'.

The Boise Trust Fund Research Award 2018. Research fund awarded by the Department of Zoology of the University of Oxford to carry out the project 'Climate Change and hominin origins: developing new dental ecometrics to reconstruct the African late Miocene/early Pliocene environment'.

Leverhulme Early Career Fellowship (2018-2021). Postdoctoral fellowship awarded to undertake the project 'This study has teeth: exploring human origins and Climate Change through time' ECF- 2018-264.

SYNTHESYS Access Project. EU-funded Integrated Activities grant. (March 2015). BE-TAF-4459 grant for access to the Royal Museum for Central Africa, Tervuren (Belgium) (BE-TAF). Purpose of the research: 3D data collection of anthropoid scapulae to perform comparative geometric morphometrics and biomechanical analyses.

Faculty of Social Sciences DAE-CECSO award for academic activities. (2009) Funding for a student project to undertake short-term research on the "Chonos" a pre-Hispanic, canoeist population (Las Guaitecas Archipelago, Aysén Region, Chile).

Conference presentations, workshops and symposia

1. **Püschel TA**, Bobe R, Martínez F. A macro-evolutionary perspective on Papionini craniofacial diversification, European Federation of Primatology/Primatological Society of Great Britain (September 2019), Oxford.

2. Manríquez G, **Püschel TA**, Toro-Ibacache V. Antropología virtual y morfometría geométrica: Nuevos enfoques para analizar la dieta en contextos arqueológicos. Congreso Chileno de Arqueología (December 2018), Santiago, Chile

3. Benítez, H, **Püschel TA**. Evolution of average shape, disparity and allometry in the ground beetle genus Ceroglossus. Sociedad Chilena de Biología (November 2018), Puerto Varas, Chile.

4. **Püschel TA**. Relaciones ecomorfológicas entre la dieta y la estructura mandibular de Primates: un enfoque morfo-funcional. Simposio de Antropología Dental y Genética Antropológica: estado actual y perspectivas en modelos humanos y de otros mamíferos (December 2017), Santiago, Chile.

5. **Püschel TA**, Gladman J, Bobe R, Sellers WI. The ecomorphological affinities of the Miocene platyrrhine tali. 15th Annual Meeting of the European Association of Vertebrate Palaeontologists, (1-3 August 2017) Munich, Germany.

6. **Püschel TA**, Gladman J, Bobe R, Sellers WI. La evolución del talus platirrino: un análisis comparativo de las afinidades morfo-funcionales de los platirrinos del mioceno del extreme sur de sudamérica con sus parientes modernos. XIV Congreso Asociación Latinoamericana de Antropología Biológica (15-18 October 2016) Santiago, Chile.

7. **Püschel TA,** O'Higgins P**.** Biomechanical modelling of human femora: a comparison between agriculturalists and hunter-gatherers using FEA, GMM and beam theory. 8ème Symposium de Morphométrie et Evolution des Formes (2 -3 June 2014) Dijon, France.

8. **Püschel TA**, Sellers WI. Forma y Función de la escápula Hominoidea. XIII Congreso Asociación Latinoamericana de Antropología Biológica (15-18 October 2014) Santiago, Chile.

9. **Püschel TA,** O'Higgins P. Comparando fémures agricultores y cazadores-recolectores. XIII Congreso Asociación Latinoamericana de Antropología Biológica (15-18 October 2014) Santiago, Chile

10. **Püschel TA.** Biomechanical toolkit in virtual anthropology. SOCHIAB Meeting. (29-30 December 2013) Concepción, Chile.

11. **Püschel TA.** Virtual casting in bioanthropology. SOCHIAB Meeting (17 December 2013), Santiago, Chile.

12. **Püschel TA**. Analysis of artificial cranial deformation using of geometric morphometrics. Workshop on Geometric Morphometrics (October 2011), Santiago, Chile.

13. **Püschel TA,** Manríquez G**.** Artificial cranial deformation in San Pedro de Atacama oases. III Latin American Congress of Archaeometry (November 2011), Arica, Chile.

Invited lectures and public presentations

1. Martínez, F, **Püschel TA**. Gorongosa baboon phenostructure. Wenner-Gren Foundation Workshop at Gorongosa National Park (23-25 July 2019), Chitengo, Mozambique.

2. **Püschel TA**. Adaptive radiation and evolution of Neotropical primates. Departmental seminar series, School of Anthropology and Museum Ethnography, University of Oxford (February 2019). Oxford, UK.

3. **Püschel TA.** What's with the long face? Analysing craniofacial diversification in baboons (genus Papio). Primate conversations seminar series, Institute of Cognitive and Evolutionary Anthropology, University of Oxford (February 2019). Oxford, UK.

4. **Püschel TA**. Analysing craniofacial diversification in baboons (genus Papio) using macroevolutionary approaches and habitat suitability models. Seminario Nuevas fronteras en el estudio de la evolución humana: El proyecto PPPG (Paleo-Primate Project Gorongosa) en el Parque Nacional Gorongosa, Mozambique (December 2018). Santiago, Chile.

5. **Püschel TA**. Virtual dental anthropology. Institute of Archaeology Russian Academy of Sciences (May 2012). Moscow, Russia.

6. **Püschel TA**. Virtual anthropology applications to elucidate bioarcheological questions (May 2012). Moscow, Russia.

Posters

Püschel TA, Marcé-Nogué J, Chamberlain AT, Yoxall A, Sellers WI. The biomechanical importance of the scaphoid-centrale fusion during simulated knucklewalking and its implications for the locomotion of the LCA of humans and African apes. European Society for the study of Human Evolution (September, 2019), Liege, Belgium.

Püschel HP, **Püschel TA**. Body mass estimation of the only record of Glossotherium robustum in Chile. 1er Congreso de Paleontología Chilena (October 2018), Puntas Arenas, Chile.

Bucchi A, **Püschel TA**, Lorenzo C, Marcé-Nogué J. Stress distribution in the thumb proximal phalanx in Chimpanzee and Homo species during simulated stone-tool use. European Society for the study of Human Evolution (September 2018), Faro Portugal. Best Poster Prize.

Püschel TA, Marcé-Nogué J, Gladman JT, Bobe R, Sellers WI. Inferring locomotor behaviours in Miocene New World monkeys using talar morphology as proxy. European Society for the study of Human Evolution (September 2018), Faro, Portugal.

Püschel TA, Marcé-Nogué J, Kaiser T, Brocklehurst R, Sellers, WI. Analyzing the morpho-functional consequences of seed predation in the Pitheciid lower jaw using finite element analysis and geometric morphometrics. AAPA (April 19-22, 2017) New Orleans, USA.

Püschel HP, **Püschel TA**, Bostelmann E, Rubilar-Rogers D. Análisis morfológico de los restos de Glossotherium (Mammalia, Xenarthra) de Lonquimay, región de la Araucanía. V Simposio de paleontología, (November 7-10 2016), Concepción,Chile.

Püschel TA, Sellers WI. Form and function of the platyrrhine talus: analyzing the association between talar shape and locomotor mode percentages. IPS/ASP (August 21-27, 2016) Chicago, USA.

Püschel TA, Sellers WI. Analyzing the association between platyrrhine locomotor mode percentages and talar shape. ICVM (June, 2016) Washington DC, USA.

Püschel TA, Sellers WI. Analysing the form and function of the hominoid scapula: a Morphometric and Biomechanical Approach. AAPA (March, 2015), St Louis, USA.

Püschel TA, Sellers WI. Standing on the shoulder of Neanderthals: Analyzing scapular form and function using finite element analysis and geometric morphometrics. 4th International Palaeontological Congress (October 2014), Mendoza, Argentina.

Püschel TA, Sellers WI. Analysing the form and function of the hominoid scapula: A morphometric and biomechanical approach. SVPCA (September 2014), York, UK.

Püschel TA, O'Higgins P. Biomechanical modelling of human femora: Comparing agriculturalists vs. hunter-gatherers. XI Jornadas de Antropología Biológica (November 2013), Buenos Aires, Argentina.

Püschel TA, O'Higgins P. Biomechanical modelling of human femora: Comparing beam theory vs. finite element analysis. PALEO conference (June 2013), York, UK.

Püschel TA. What does it mean to be a "gum specialist"? Exudativory adaptations and phylogeny of the pygmy marmoset (Cebuella Pygmaea). PALEO conference (June 2013), York, UK.

Bucchi A, **Püschel TA**, Manríquez G. Rol social y patrones de deformación intencional del cráneo durante la prehistoria de Atacama: Un análisis usando morfometría geométrica. XIX Congreso Nacional de Arqueología Chilena (Octubre 2012), Arica, Chile.

Organised Conferences

European Federation of Primatology and Primatological Society of Great Britain (EFP-PSGB) Conference "Our Primate Heritage, Our Primate Legacy" Oxford, (UK). 8-11 September 2019. https://www.efp-psgb2019.com/#portfolioModal1

4th International Meeting of Early-stage Researchers in Palaeontology Cuenca (Spain) 11-14 June 2019. https://imerp2019.weebly.com/

Ad-hoc reviewer

- Journal of Paleontology (1)
- International Journal of Tropical Biology and Conservation (1)
- Mammalian Biology (1)
- Revista Colombiana de Entomología (1)
- Scientific Reports (2)
- American Journal of Primatology (1)
- Journal of Zoological Systematics and Evolutionary Research (1)
- Proceedings of the Royal Society B: Biological Sciences (1)

Affiliations

- Chilean Society of Biological Anthropology (SOCHIAB). 2011-Present.
- American Association of Physical Anthropology, USA. 2015-Present.
- Paleoanthropology Society, USA. 2020-Present.
- International Primatological Society. 2015-Present.
- European Society for the study of Human Evolution. 2016-Present.

Fieldwork

July - August 2019 Gorongosa National Park, Mozambique. Excavation and ecological surveys.

January - February 2012 San Pedro de Atacama, Chile. Survey and excavation.

January - February 2011 San Pedro de Atacama, Chile. Survey and excavation.

Museum data collection

2019 National Museums of Kenya (Nairobi, Kenya)

2015 Anthropological Institute and Museum (Zürich, Switzerland)

2014 Royal Museum for Central Africa (Tervuren, Belgium)

2012 Musée d'Anthropologie préhistorique (Monaco)

2012 Musée de l'Homme (Paris, France)

2012 Institute of Archaeology, Russian Academy of Sciences (Moscow, Russia)

2012 Museo Arqueológico R. P. Gustavo Le Paige (San Pedro de Atacama, Chile)

2011 Museo Arqueológico R. P. Gustavo Le Paige (San Pedro de Atacama, Chile)

Technical skills

Software:

Text: MS Office, OpenOffice, LaTeX etc.
Statistics: Fluent in R and also trained in diverse statistical packages (e.g. SPSS, STATA, NTSYS, PAST).
Geometric Morphometrics: Familiar with standard applications such as the TPS Series, Morphologika, Landmark Editor, Evan Toolbox and MorphoJ and R packages such as 'geomorph' and 'Morpho'.
Biomechanics: Finite element analysis (e.g. Abaqus, ANSYS, Vox-Fe) and Multibody dynamics (e.g. GaitSym, Opensymm) techniques and skeletal stress analysis (BoneJ).
Bioinformatics: Familiar with genetic databases (e.g. NCBI) and phylogenetic analysis applications (PAUP, MEGA, Mr. Bayes, etc.)
Programming languages: R, Python, Matlab.
Imaging: Proficient with ImageJ, AVIZO, Seg3D, 3D Slicer, etc.

Techniques:

- 2D and 3D Morphometrics.
- 2D (photography and X-rays) and 3D data (Microscribe, surface scanner, structured-light scanner, photogrammetry).
- Optical and Electronic microscopy.
- 3D image analysis and processing.
- Biomechanical analysis (beam theory, finite element analysis, multibody dynamics, cortical thickness mapping).
- Meso and microwear analysis.
- Standard Osteological techniques.
- Human and animal dissection experience.
- Field techniques: knowledge of excavation techniques, GIS and GPS software.

LIST OF PUBLICATIONS

Journal Articles

1. **Püschel TA**, Marcé-Nogué J, Gladman J, Almécija S, Patel B, Sellers WI. In press. Getting its feet on the ground: elucidating Paralouatta's semi-terrestriality using the virtual morpho-functional toolbox. *Frontiers in Earth Science*.

2. Marcé-Nogué J, **Püschel TA**, Daasch A, Kaiser T**.** In press**.** Broad-scale morpho-functional traits of the mandible suggest no hard food adaptation in the hominin lineage. *Scientific reports*.

3. Bucchi A., **Püschel T.A.**, Lorenzo C., Marcé-Nogué J. In press. Finite element analysis of the proximal phalanx of the thumb in Hominoidea during simulated stone tool use. *Comptes rendus Palevol*.

4. **Püschel TA**, Marcé-Nogué J, Chamberlain AT, Yoxall A, Sellers WI. 2020. The biomechanical importance of the scaphoid-centrale fusion during simulated knuckle-walking and its implications for human locomotor evolution. *Scientific Reports* 10, 1–7.

5. **Püschel, TA**, Friess, M, and Manríquez, G. 2020. Morphological consequences of artificial cranial deformation: Modularity and integration. *PLOS ONE* 15, e0227362.

6. **Püschel TA**, Marcé-Nogué J, Gladman JT, Bobe R, Sellers WI. 2018. Inferring locomotor behaviours in Miocene New World monkeys using finite element analysis, geometric morphometrics and machine-learning classification techniques applied to talar morphology. *Journal of The Royal Society Interface* 15, 20180520.

7. Benítez HA, Lemic D, **Püschel TA**, Virić Gašparić H, Kos T, Barić B, Bažok R, Pajač Živković I. 2018. Fluctuating asymmetry indicates levels of disturbance between agricultural productions: An example in Croatian population of Pterostichus melas melas (Coleptera: Carabidae). *Zoologischer Anzeiger* 276, 42–49.

8. **Püschel TA**, Marcé-Nogué J, Kaiser TM, Brocklehurst RJ, Sellers WI. 2018. Analyzing the sclerocarpy adaptations of the Pitheciidae mandible. *American Journal of Primatology* 80, e22759.

9. **Püschel TA**, Gladman JT, Bobe R, Sellers WI. 2017. The evolution of the platyrrhine talus: A comparative analysis of the phenetic affinities of the Miocene platyrrhines with their modern relatives. *Journal of Human Evolution* 111:179–201.

10. Marcé-Nogué J, **Püschel TA**, Kaiser TM. 2017. A biomechanical approach to understand the ecomorphological relationship between primate mandibles and diet. *Scientific Reports* 7:8364.

11. Püschel HP, **Püschel TA**, Rubilar-Rogers D**.** 2017. Taxonomic Comments of a Glossotherium Specimen from the Pleistocene of Central Chile. *Boletín del Museo Nacional de Historia Natural*, Chile 66:223–262.

12. Marcé-Nogué J, Esteban-Trivigno SD, **Püschel TA**, Fortuny J. 2017. The intervals method: a new approach to analyse finite element outputs using multivariate statistics. *PeerJ.* 5, e3793.

13. **Püschel TA**, Sellers WI. 2016. Standing on the shoulders of apes: Analyzing the form and function of the hominoid scapula using geometric morphometrics and finite element analysis. *American Journal of Physical Anthropology* 159:325–341.

14. Bucchi A, **Püschel TA**, Manríquez G**.** 2016. Artificial cranial modification in San Pedro de Atacama and the Loa Basin: A quantitative approach to its role as a marker of social identity. *Revista Chilena de Antropología* 34:19–30.

15. Benítez HA, Vargas HA, **Püschel TA.** 2015. Left–right asymmetry and morphological consequences of a host shift in the oligophagous Neotropical moth Macaria mirthae (Lepidoptera: Geometridae). *Journal of Insect Conservation* 1–10.

16. **Püschel TA.** 2014. Modularidad e integración morfológica en cráneos humanos: Un enfoque morfométrico geométrico. *International Journal of Morphology* 32:299–304.

17. **Püschel TA**, Benítez HA. 2014. Femoral functional adaptation: A comparison between hunter- gatherers and agriculturalists using geometric morphometrics. *International Journal of Morphology* 32:627–633.

18. Benítez HA, **Püschel TA**, Lemic D, Čačija M, Kozina A, Bažok R. 2014. Ecomorphological variation of the wireworm cephalic capsule: Studying the interaction of environment and geometric shape. *PLOS ONE* 9:e102059.

19. Benítez HA, Lemic D, Bažok R, Bravi R, Buketa M, **Püschel TA**. 2014. Morphological integration and modularity in Diabrotica virgifera virgifera LeConte (Coleoptera: Chrysomelidae) hind wings. *Zoologischer Anzeiger - A Journal of Comparative Zoology* 253:461–468.

20. Benítez HA, **Püschel TA.** 2014. Modelando la varianza de la forma: Morfometría geométrica aplicaciones en biología evolutiva. *International Journal of Morphology* 32:998–1008.

21. **Püschel TA**, Espejo J, Sanzana M-J, Benítez HA. 2014. Analysing the floral elements of the lost tree of Easter Island: A morphometric comparison between the remaining ex-situ lines of the endemic extinct species Sophora toromiro. *PLOS ONE* 9:e115548.

Book chapters

1. Manríquez G, **Püschel TA**, Flores S, González T, Moraga M, Rothhammer F. 2016. Origen y evolución de la población chilena: el punto de vista biológico. In: Fallabela F, Uribe M, Aldunate C, Hidalgo J, editors. Prehistoria en Chile. Desde sus Primeros Habitantes hasta los Incas. Editorial Universitaria.

Under review/In preparation

1. Marcé-Nogué J, **Püschel TA**, Kaiser T. Under review. Response surface optimization methods to infer muscle forces in Miocene apes corroborates frugivorous diet in Ekembo. *Journal of The Royal Society Interface*.

2. Püschel HP, Bertrand OC, O'Reilly JE, Bobe R, **Püschel TA**. In preparation. A total evidence approach to estimate divergence times in hominins.

3. **Püschel TA**, Bobe R, Martínez F. In preparation. Analysing the tempo and mode of Papionini craniofacial diversification.

4. Bucchi A, Lorenzo C, **Püschel TA**. In preparation. Modularity in the hominoid wrist joint.

5. Morley J, Bucchi A, Lorenzo C, **Püschel TA**. In preparation. Characterising the toolmakers: a morphofunctional analysis of the first metacarpal in humans, great apes and fossil hominins.

6. **Püschel TA**, Kaiser T, Marcé-Nogué J. A morpho-functional perspective on mandibular adaptations to seed predation in Afropithecus turkanensis.