



## ANUNT

**Universitatea Babeș-Bolyai**, anunță organizarea concursului pentru ocuparea postului de **Biolog**, vacant în cadrul proiectului cu titlul “O abordare computațională spre descifrarea sarcinii structurii aripilor la păsări: implicații pentru evoluția zborului și biomimetică”, cod PN-III-P4-ID-PCE-2016-0572, nr. contract 182/2017:

**BIOLOG (Student masterand)**<sup>1</sup> 1 post

**Norma de lucru:** (8 ore/zi),

**Perioada angajării :** determinata \_02.10.2017– 31.12.2019

**Data** la care are loc selecția: 26.09.2017

**Ora:** 12:00

**Locul desfasurarii concursului:** Facultatea Biologie și Geologie, Departamentul de Geologie (sala se va anunța ulterior)

I. Dosarele de concurs se vor depune până la data de 25.09.2017, ora: 14:00 la *Biroul Structuri Didactice* (Str. M. Kogălniceanu nr. 1), persoana de contact: Teodora Capota (tel +40264405300 int. 5102);

II. Conținutul dosarului de candidatura :

- cerere de înscriere la concurs
- curriculum vitae;
- lita lucrărilor publicate
- copii ale diplomei licență

Condiții specifice necesare pentru ocuparea postului de **Biolog**

1) copie după diploma de licență

2) probe de selecție:

- Analiza dosarului candidatului (eliminatoire);

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<sup>1</sup> Descriere Euraxess Jobs: This MSc student project is focussed on the fossil record of avian feathers and wing shapes. The aim of this aspect of the project will be collect and collate relevant data from the known fossil record of feathers and birds in order to present an analysis and/or review of our knowledge of feather and wing shape evolution/basal conditions. This will be accomplished via museum collection visits and use of the relevant literature and images. The goals of this aspect of the research project are to: (1) collect data from the fossil record relating to preserved feathers and wing shapes; (2) analyze these data in a deep-time phylogenetic context. The MSc student will also be responsible for presenting project outputs at conferences and assisting with writing papers and reports.



- Interviu;

III. Alte condiții de selecție și condiții de desfășurare a selecției:

Nota minima la fiecare probă: 7

Modul de calcul al notei finale: media notelor la probele 1 și 2

Ierarhizarea candidaților: conform mediei la probele 1 și 2

IV. Tematica: Paleobiologie, Biologie evolutivă, Biomecanică

V. Bibliografia:

Biewener, A. & Dial, K. 1995. In vivo strain in the humerus of pigeons (*Columba livia*) during flight. *Journal of Morphology* 225, 61–75.

Bruderer, B., Peter, D., Boldt, A., & Liechti, F. (2010). Wing-beat characteristics of birds recorded with tracking radar and cine camera. *Ibis*, 152, 272-291.

Chiappe, L. & Dyke, G. (2002). The Mesozoic radiation of birds. *Annual Review of Ecology and Systematics*, 33, 91-124.

Laurent, C., Palmer, C., Boardman, R.P., Dyke, G. & Cook, R. (2014). Nanomechanical properties of bird feather rachises: exploring naturally occurring fibre reinforced laminar composites. *Journal of The Royal Society Interface*, 11, 20140961.

Lazos, B. & Visser, K. 2006. Aerodynamic comparison of hyper-elliptic cambered span (HECS) wings with conventional configurations. 24th Applied Aerodynamics Conference 5 - 8 June 2006, San Francisco, California

Newton, I. (2008). *The Ecology of Bird Migration*. Academic Press, London, UK.

Norberg, U. M. (1990). *Vertebrate Flight: Mechanisms, Physiology, Morphology, Ecology and Evolution*. Berlin, Germany: Springer-Verlag.

Osváth G., Sándor K., Vincze O., Bărbos L., Marton A., Nudds R.L., & Vágási C.I. (2015). Interspecific variation in the structural properties of flight feathers in birds indicates adaptation to flight requirements and habitat. *Functional Ecology*, 29, 746-757.

Pap, P. L., Osváth, G., Sándor, K., Vincze, O., Bărbos, L., Marton, A., & Vágási, C.I. (2015). Interspecific variation in the structural properties of flight feathers in birds indicates adaptation to flight requirements and habitat. *Functional Ecology*, 29, 746-757.

Pennycuik, C. (2008). *Modelling the Flying Bird*. Academic Press.

Rayner, J. M. V. (1988). Form and function in avian flight. In R. F. Johnston (Ed.), *Current Ornithology*, volume 5, pp 1–66). New York, NY: Plenum Press.



Rayner, J. M. V. (1990). The mechanics of flight and bird migration performance. In E. Gwinner (Ed.), *Bird Migration. Physiology and Ecophysiology* (pp. 283–299). Heidelberg, Germany: Springer-Verlag.

Vágási, C.I., Pap, P.L., Vincze, O., Osváth, G., Erritzøe, J., & Møller, A.P. (2015). Morphological adaptations to migration in birds. *Evolutionary Biology*, 43, 48-59.

Wang, X., Nudds, R.L., Palmer, C., & Dyke, G. (2012). Size scaling and stiffness of avian primary feathers: implications for the flight of Mesozoic birds. *Journal of Evolutionary Biology*, 25, 547-555.

RECTOR

Acad.Prof.Dr.Ioan-Aurel POP

Intocmit

Director proiect

Dr. Gareth J. Dyke