
Taxonomy Genetics

Genetic analysis of type material brings logical order in geographic distribution and taxonomy. Case study of Central Asian vole genera *Neodon*, *Blanfordimus*, *Lasiopodomys*

Nataliya Abramson, Tatyana Petrova

Zoological Institute RAS, Sankt-Petersburg, Russia, natalia_abr@mail.ru

The systematics and nomenclature of central Asian vole species from genera *Neodon*, *Blanfordimus* and *Lasiopodomys* raised many questions. The dramatic discordance may be discovered in comparison of species distribution and taxonomy. Thus, the range of *Lasiopodomys fuscus* is very narrow and is in the very center of distribution ranges of voles from the genus *Neodon*. It is on the other hand very isolated from two other congeneric species. The range of *Neodon juldaschi* in turn lays in the center of distribution of voles from the genus *Blanfordimus* and is strongly isolated from the distribution of congeneric voles. It should be kept in mind that the proper use of species names depends entirely on the process of verifying whether additional specimens are conspecific with the specimen with which the species name is associated. Related to this the genetic studies of type material are of paramount importance in elucidating taxonomic issues. We successfully extracted DNA and obtained fragments of mitochondrial cytb from lectotype and paralectotypes of *Lasiopodomys fuscus* (collected by Przhevalskii) and the holotype of *Neodon juldaschi* (collected by Severtzov) from the collection of the Zoological Institute RAS. The results of phylogenetic analysis bring back the logic correspondence between zoogeography and systematics. Thus, *Lasiopodomys fuscus* should be without any doubt assigned to the genus *Neodon* and *Neodon juldaschi* to the genus *Blanfordimus*. Both species with a high support find their places within corresponding monophyletic clusters at the phylogenetic tree. Funding: research theme № AAAA-17-1170 424 10 167-2, RFBR grant № 15-04-04602, Program of Presidium RAS "Dynamics of gene pools in natural populations" and "Development of vital and biosphere processes".

4 5 9

Julius-Kühn-Archiv

Jens Jacob, Jana Eccard (Editors)

6th International Conference of Rodent
Biology and Management
and
16th Rodens et Spatium

Potsdam, Germany, 3-7 September 2018

Book of Abstracts



Julius Kühn-Institut
Bundesforschungsinstitut für Kulturpflanzen

4 5 9

Julius-Kühn-Archiv

Jens Jacob, Jana Eccard (Editors)

6th International Conference of Rodent
Biology and Management
and
16th Rodens et Spatium

Potsdam, Germany, 3-7 September 2018

Book of Abstracts



Editors:

Jens Jacob¹ and Jana Eccard²

¹Julius Kühn Institute, Federal Research Centre for Cultivated Plants,
Institute for Plant Protection in Horticulture and Forests, Vertebrate Research,
Toppeideweg 88, 48161 Münster, Germany

²University of Potsdam, Institute of Biochemistry and Biology,
Animal Ecology Group, Maulbeerallee 1,
14469 Potsdam, Germany

Local Organizing Committee:

Jana Eccard, University of Potsdam

Jens Jacob, Julius Kühn Institute, Federal Research Centre for Cultivated Plants, Münster

Daniela Reil, Julius Kühn Institute, Federal Research Centre for Cultivated Plants, Münster

Christiane Scheffler, University of Potsdam

Elke Seydewitz, University of Potsdam

Scientific organising committee:

Emil Tkadlec (Czech Republic); Frauke Ecke (Sweden); Grant Singleton (Philippines); Heikki Henttonen (Finland); Jana Eccard (Germany); Jens Jacob (Germany); Lyn Hinds (Australia); Prince Kaleme (Congo); Xavier Lambin (UK); Zhibin Zhang (China)

International Steering Committee Rodens et Spatium:

Abraham Haim (Israel); Alexey Surov (Russia); Ana Maria Benedek (Romania); Boris Krasnov (Israel);

Emil Tkadlec (Czech Republic); Éric Le Boulengé (Belgium); Farida Khammar (Algeria);

František Sedláček (Czech Republic); Gert Olsson (Sweden); Grant Singleton (Australia);

Heikki Henttonen (Finland); Jan Zima (Czech Republic); Jean-François Cosson (France); Linas Balčiauskas

(Lithuania); Maria da Luz Mathias (Portugal); Molly McDonough (USA); Mustafa Sözen (Turkey);

Nigel Yoccoz (Norway); Olga Osipova (Russia); Takuya Shimada (Japan); Victor Sánchez Cordero (Mexico);

Xavier Lambin (United Kingdom); Yasmina Dahmani (Algeria)

International Steering Committee**International Conference of Rodent Biology and Management:**

Andrea Byrom (New Zealand); Charley Krebs (Canada); Grant Singleton (Philippines); Jens Jacob (Germany);

Jiqi Lu (China); Lyn Hinds (Australia); Nico Avenant (South Africa); Peter Banks (Australia);

Peter Brown (Australia); Regino Cavia (Argentina); Rhodes Makundi (Tanzania); Roger Pech (New Zealand);

Steven Belmain (UK); Sudarmaji (Indonesia); Zhibin Zhang (China)

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation

In der Deutschen Nationalbibliografie: detaillierte bibliografische

Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

ISSN 1868-9892

ISBN 978-3-95547-059-3

DOI 10.5073/jka.2018.459.000



Alle Beiträge im Julius-Kühn-Archiv sind unter einer

Creative Commons - Namensnennung - Weitergabe unter gleichen Bedingungen -

4.0 Lizenz veröffentlicht.

Printed in Germany by Arno Brynda GmbH, Berlin.