
Poster Session 2 – Taxonomy Genetics

82 Systematics of an Andean akodontine, *Akodon mimus* (Cricetidae, Sigmodontinae): insights from molecular markers

Carola Cañón¹, Jonathan Guzmán^{2,3}, Ulyses F.J. Pardiñas¹

¹Instituto de Diversidad y Evolución Austral (IDEAus-CONICET), Puerto Madryn, Chubut, Argentina, carolacanov@gmail.com

²Departamento de Ciencias Básicas, Campus Los Ángeles, Universidad de Concepción, Concepción, Chile

³Bayerische Staatssammlung für Paläontologie und Geologie, Munich, Germany

Akodon mimus (Thomas, 1901) is a medium-sized member of one of the most diverse genera of the second largest tribe of sigmodontine rodents, *Akodontini*. The scarce available data indicate that *Akodon mimus* is a monotypic form distributed in eastern Andean slopes between 2,000-3,700 m from southeastern Peru (Puno department) to central Bolivia (Cochabamba, La Paz and Santa Cruz departments), and inhabiting primarily elfin forests. Originally described in the genus *Oxymycterus*, it was later selected as the type species of *Microxus*, an entity coined by Thomas in 1909, in order to allocate several small-bodied long-nosed mostly Andean forms. After the influential treatise of Cabrera in 1961, *Microxus* was subsumed under *Akodon*, and never properly revisited its generic rank. With the advent of molecular markers in sigmodontine systematics, the placement of *Akodon mimus* nested in *Akodon* was cemented on the basis of one specimen from Puno, Peru. However, more recent studies retrieved an unstable position of *Akodon mimus* regarding the remainder species of *Akodon* or even to close genera such as *Castoria*, *Deltamys* and *Thaptomys*. We examined the phylogenetic position of *Akodon mimus* and also the relationship between Cochabamba and Puno populations referred to the species. Based on four loci and a dense taxonomic approach covering most of the *Akodontini*, we performed parsimony, maximum likelihood and Bayesian analyses. Our phylogenetic results point to the validity of the genus *Microxus* or, alternatively, to return to a polytypic *Akodon* composed by several subgenera (i.e., *Akodon s. s.*, *Deltamys*, *Castoria* and *Microxus*). In addition, we detected high levels of genetic divergence between Cochabamba and Puno populations (ca. 10% p distance – cytochrome b locus), suggesting that they represent different species. In this context, *Akodon mimus* appears as another case of an Andean sigmodontine largely overlooked but with an unsuspected diversity.

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.