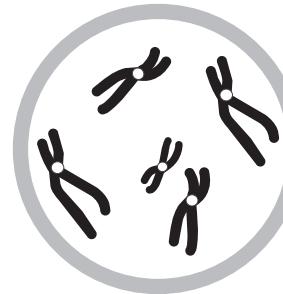


# Contents

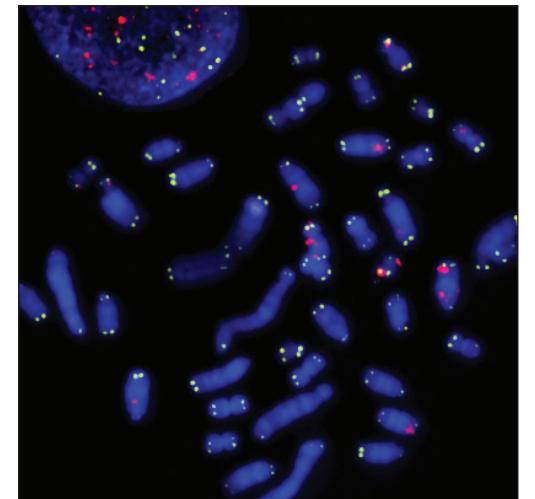
- 197** Dysfunction telomeres in embryonic fibroblasts and cultured in vitro pluripotent stem cells of *Rattus norvegicus* (Rodentia, Muridae)  
Natalya S. Zhdanova, Evgenia A. Vaskova, Tatyana V. Karamysheva, Julia M. Minina, Nikolay B. Rubtsov, Suren M. Zakian
- 211** Molecular cytogenetic characterization and phylogenetic analysis of four *Miscanthus* species (Poaceae)  
Yan-Mei Tang, Liang Xiao, Yasir Iqbal, Jian-Feng Liao, Long-Qian Xiao, Zi-Li Yi, Chao-Wen She
- 231** Development of new cytogenetic markers for *Thinopyrum ponticum* (Pordp.) Z.-W. Liu & R.-C. Wang  
Pavel Yu. Kroupin, Victoria M. Kuznetsova, Ekaterina A. Nikitina, Yury Ts. Martirosyan, Gennady I. Karlov, Mikhail G. Divashuk
- 245** Karyotype structure and NOR activity in Brazilian *Smilax* Linnaeus, 1753 species (Smilacaceae)  
Daniel Piazza, Vanessa M. Oliveira-Maekawa, Aline R. Martins, Mateus Mondin, Margarida L.R. Aguiar-Perecin
- 265** Banded karyotype of Nelore cattle (*Bos taurus indicus* Linnaeus, 1758)  
Andréia Pires Amancio, Sabrina Sara Moreira Duarte, Rafael Carneiro Silva, Alex Silva da Cruz, Danilo Conrado Silva, Claudio Carlos da Silva, Aparecido Divino da Cruz
- 277** A cytogenetic analysis in two species of Cassidinae (Coleoptera, Chrysomelidae)  
Eduard Petitpierre
- 283** New evidence for the presence of the telomere motif (TTAGG)n in the family Reduviidae and its absence in the families Nabidae and Miridae (Hemiptera, Cimicomorpha)  
Snejana Grozeva, Boris A. Anokhin, Nikolay Simov, Valentina G. Kuznetsova
- 297** Chromosome spreading of the (TTAGGG)n repeats in the *Pipa carvalhoi* Miranda-Ribeiro, 1937 (Pipidae, Anura) karyotype  
Michelle Louise Zattera, Luana Lima, Iraine Duarte, Deborah Yasmin de Sousa, Olívia Gabriela dos Santos Araújo, Thiago Gazoni, Tamí Mott, Shirlei Maria Recco-Pimentel, Daniel Pacheco Bruschi
- 311** Karyotype reinvestigation does not confirm the presence of two cryptic species and interspecific hybridization in the Polyommatus (Agrodiaetus) damocles complex in the Crimea (Lepidoptera, Lycaenidae)  
Vladimir A. Lukhtanov, Konstantin A. Efetov, Alexander V. Dantchenko
- 321** In Memoriam: Dr. Sergey V. Zhirov (1966–2017)  
Valentina Kuznetsova, Natalia Golub, Ninel Petrova, Vladimir Lukhtanov, Boris Anokhin, Natalia Khabasova, Nazar Shapoval, Larissa Kupriyanova, Ilya Gavrilov-Zimin

COMPARATIVE CYTOGENETICS ◆ 13(3), 2019



# COMPARATIVE Cytogenetics

International Journal of Plant &amp; Animal Cytogenetic, Karyosystematics, and Molecular Systematics


**PENSOFT**

13(3) ◆ 2019

<http://compcytogen.pensoft.net>



COMPARATIVE  
**Cytogenetics**

International Journal of Plant & Animal Cytogenetics,  
Karyosystematics, and Molecular Systematics

**Editors-in-Chief:**

Prof. Dr. Valentina G. Kuznetsova  
Zoological Institute, St. Petersburg  
valentina\_kuznetsova@yahoo.com

Dr. Ilya A. Gavrilov-Zimin  
Zoological Institute, St. Petersburg  
coccids@gmail.com

**Managing Editor:** Dr. Lyubomir Penev

**Language Editors:** Robert B. Angus

**Editorial Board:**

**Robert B. Angus** (University of London, r.angus@rhul.ac.uk), **Irina Yu. Baklushinskaya** (Koltzov Institute of Developmental Biology RAS, Moscow, irina.bakl@gmail.com), **Alicja Boron** (University of Warmia and Mazury, Olsztyn, alibo@uwm.edu.pl), **Nina Sh. Bulatova** (Institute of Ecology and Evolution, Moscow, ninbul@mail.ru), **Julio R. Daviña** (Universidad Nacional de Misiones, Posadas, juliordavina@gmail.com), **Grazyna Furgala-Selezniow** (University of Warmia and Mazury, Olsztyn, grazska@uwm.edu.pl), **Natalia V. Golub** (Zoological Institute, St. Petersburg, psocid@zin.ru), **Vladimir E. Gokhman** (Moscow State University, gokhman@bg.msu.ru), **Veronika V. Golygina** (Institute of Cytology and Genetics, Novosibirsk, nika@bionet.nsc.ru), **Ekatерина Gornung** (University of Rome "Sapienza", ekaterina.gornung@gmail.com), **Snejana Grozeva** (Institute of Biodiversity and Ecosystem Research, Sofia, sgrozeva@yahoo.com), **Vladimir A. Lukhtanov** (St. Petersburg State University, lukhtanov@mail.ru), **Anna Maryanska-Nadachowska** (Institute of Systematics and Evolution of Animals, Krakow, maryanska@isez.pan.krakow.pl), **Seppo Nokkala** (University of Turku, seppo.nokkala@utu.fi), **Andrey Polyakov** (Institute of Cytology and Genetics SB RAS, Novosibirsk, polyakov@bionet.nsc.ru), **Petr Rab** (Institute of Animal Physiology and Genetics, Libechov, rab@iapg.cas.cz), **Nazar Shapoval** (Russian Academy of Sciences, St. Petersburg, nazaret@bk.ru), **Joan Vallès** (Universitat de Barcelona, joanvalles@ub.edu), **Jan Zima** (Institute of Vertebrate Biology, Brno, jzima@brno.cas.cz)

**International Advisory Board:**

**Ekaterina D. Badaeva** (Institute of Molecular Biology, Moscow, \_badaeva@mail.ru), **Katsuhiko Kondo** (Hiroshima University, Hiroshima, kkondo@hiroshima-u.ac.jp), **Iya I. Kiknadze** (Institute of Cytology and Genetics, Novosibirsk, kiknadze@bionet.nsc.ru), **Frantisek Marec** (Institute of Entomology, Ceske Budejovice, marec@entu.cas.cz), **Jon Martin** (University of Melbourne, Melbourne, j.martin@unimelb.edu.au), **Paraskeva Michailova** (Institute of Zoology, Sofia, michailova@zoology.bas.bg), **Benjamin B. Normark** (University of Massachusetts, Amherst, bnormark@ent.umass.edu), **Walther Traut** (University of Luebeck, Luebeck, traut@molbio.uni-luebeck.de), **Ludmila V. Vysotskaya** (Novosibirsk State University, Novosibirsk, vysot@fen.nsu.ru)

All correspondence with reference to editorial matters should be addressed to: Dr. Ilya Gavrilov-Zimin by e-mail: coccids@gmail.com with subject "Comparative Cytogenetics" or to the address: Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, St. Petersburg 199034, Russia.

**Creative Commons Attribution License.** This is an open access journal distributed under the terms of the Creative Commons Attribution License 3.0 CC-BY, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Subscription for 2014:**

The printed version: institutional subscription - € 145.00; individual subscription - € 70.00;  
subscribers from Russia - € 120.00.

PENSOFT Publishers

Prof. Georgi Zlatarski 12, 1700 Sofia, Bulgaria  
Tel. +359-2-8704281  
Fax: +359-2-8704282  
e-mail: info@pensoft.net  
<http://compcytogen.pensoft.net>