

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Erforschung biologischer Ressourcen der Mongolei  
/ Exploration into the Biological Resources of  
Mongolia, ISSN 0440-1298

Institut für Biologie der Martin-Luther-Universität  
Halle-Wittenberg

---


2012

*Erforschung biologischer Ressourcen der Mongolei*, band  
12 = *Exploration into the Biological Resources of  
Mongolia*, volume 12: Front Matter and Table of  
Contents

Annegret Stubbe

Martin-Luther Universität, stubbe@zoologie.uni-halle.de

Follow this and additional works at: <http://digitalcommons.unl.edu/biolmongol>

 Part of the [Asian Studies Commons](#), [Biodiversity Commons](#), [Environmental Sciences Commons](#),  
[Nature and Society Relations Commons](#), and the [Other Animal Sciences Commons](#)

---

Stubbe, Annegret, "*Erforschung biologischer Ressourcen der Mongolei*, band 12 = *Exploration into the Biological Resources of Mongolia*, volume 12: Front Matter and Table of Contents" (2012). *Erforschung biologischer Ressourcen der Mongolei / Exploration into the Biological Resources of Mongolia*, ISSN 0440-1298. 2.  
<http://digitalcommons.unl.edu/biolmongol/2>

This Article is brought to you for free and open access by the Institut für Biologie der Martin-Luther-Universität Halle-Wittenberg at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in *Erforschung biologischer Ressourcen der Mongolei / Exploration into the Biological Resources of Mongolia*, ISSN 0440-1298 by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

# Erforschung biologischer Ressourcen der Mongolei

## Band 12

# Exploration into the Biological Resources of Mongolia

## Volume 12

### **Herausgeber:**

Annegret Stubbe (Halle/Saale)  
Petra Kaczensky (Wien)  
Karsten Wesche (Görlitz)  
Ravčigijn Samjaa (Ulaanbaatar)  
Michael Stubbe (Halle/Saale)  
Richard P. Reading (Denver)  
Scott L. Gardner (Lincoln)

### **Schriftleitung:**

Annegret Stubbe

# Ergebnisse des Internationalen Symposiums „Biodiversity Research in Mongolia“

Halle (Saale), Germany; 25 – 29 March 2012

Für die Druckkostenförderung danken wir:  
Martin-Luther-Universität Halle-Wittenberg  
Universitäts- und Landesbibliothek Sachsen-Anhalt  
Leibniz Institut für Pflanzengenetik und Kulturpflanzenforschung Gatersleben  
Senckenberg Museum für Naturkunde Görlitz



MARTIN-LUTHER-UNIVERSITÄT  
HALLE-WITTENBERG



**SENCKENBERG**  
world of biodiversity

Erforschung biologischer Ressourcen der Mongolei/Im Auftrag der Martin-Luther-Universität Halle-Wittenberg, herausgegeben von Wissenschaftlern der Martin-Luther-Universität Halle-Wittenberg, der International Takhii Group, der Nationalen Universität Ulaanbaatar, des Senckenberg Museums für Naturkunde Görlitz, der Denver Zoological Foundation/USA und der Universität von Nebraska, Lincoln/USA – Halle (Saale) – Band 12 – 2012

© 2012, Institut für Biologie der Martin-Luther-Universität Halle-Wittenberg, D-06099 Halle/Saale (Kontaktperson: Dr. Annegret Stubbe)

Das Werk ist einschließlich aller seiner Teile urheberrechtlich geschützt. Jede Verwertung außerhalb der Grenzen des Urheberrechts ist ohne Zustimmung der Herausgeber und der Autoren unzulässig. Dies gilt insbesondere für Vervielfältigungen auf fotomechanischem Weg (Fotokopie, Mikrokopie), Übersetzung, Mikrofilmung und die Einspeicherung und Verarbeitung in elektronischen Systemen.

Printed in Germany  
Herstellung: Salzland Druck GmbH & Co. KG, Staßfurt  
Satz: Computer-Typo-Grafik Mielenz, Schulzendorf  
ISSN: 0440-1298

## Contents

M. Stubbe, R. Samjaa & A. Stubbe 50 years Mongolian-German Biological Expeditions and their future .....	7
D. Regdel, Ch. Dugarjav & P.D. Gunin Ecological conditions for social-economic development and biodiversity conservation of Mongolia .....	13
M. Mühlenberg Long-term research on biodiversity in West Khentey, northern Mongolia .....	27
M.A. Erbajeva, N.V. Alexeeva, T.V. Kisloschaeva <i>Ochotona daurica</i> Pallas, 1776: modern and past distribution area in Mongolia and the Transbaikalian region .....	39
M.A. Erbajeva Biodiversity and evolutionary development of Oligocene-Pliocene lagomorphs (Lagomorpha, Mammalia) of Mongolia .....	47
T. Sato, F. Khenzykhenova, T. Tsurumaru, M. Ambiru, J. Takakura, Y. Otsuka, S. Iida, N. Schepina & B. Tsogtbaatar Pleistocene faunal fossils from Bayangol I Site, Bulgan Aimag, Mongolia .....	55
A. Stubbe, M. Stubbe, N. Batsajchan & R. Samjaa Long-term ecology of Asiatic wild ass ( <i>Equus h. hemionus</i> Pallas) in Central Asia .....	61
K. Schöpke, A. Stubbe, M. Stubbe, N. Batsaikhan & R. Schafberg Morphology and variation of the Asiatic wild ass ( <i>Equus hemionus hemionus</i> ) .....	77
M. Horacek, M. Burnik Sturm & P. Kaczensky First stable isotope analysis of Asiatic wild ass tail hair from the Mongolian Gobi .....	85
T. Munkhzul, J.D. Murdoch, R. Samjaa & R.P. Reading Home range characteristics of corsac and red foxes in Mongolia .....	93
V.N. Bolshakov, I.A. Vasilyeva & A.G. Vasilyev Morphological disparity among Rock voles of the genus <i>Alticola</i> from Mongolia, Kazakhstan and Russia (Rodentia, Cricetidae) .....	105
D.S. Tinnin, E.T. Jensen, N. Batsaikhan & S.L. Gardner Coccidia (Apicomplexa: Eimeriidae) from <i>Vespertilio murinus</i> and <i>Eptesicus gobiensis</i> (Chiroptera: Vespertilionidae) in Mongolia and how many species of Coccidia occur in bats? .....	117

D.S. Tinnin, E.T. Jensen, N. Batsaikhan, S. Ganzorig & S.L. Gardner New Species of <i>Eimeria</i> (Apicomplexa: Eimeriidae) from <i>Ochotona hyperborea</i> and <i>Ochotona pallasi</i> (Lagomorpha, Ochotonidae) in Mongolia .....	125
I. Scheffler, D. Dolch, J. Ariunbold, A. Stubbe, M. Stubbe, A. Abraham & K. Thiele Ectoparasites of bats in Mongolia, Part 2 (Ischnopsyllidae, Nycteribiidae, Cimicidae and Acari) .....	135
D. Kiefer, M. Stubbe, A. Stubbe, S.L. Gardner, D. Tserenorov, R. Samyia, D. Otgonbaatar, D. Sumyia (†) & M.S. Kiefer Siphonaptera of Mongolia and Tuva: Results of the Mongolian- German Biological Expeditions since 1962 – years 1999-2003 .....	153
S. Gombobaatar, D. Sumiya (†) & J.M. Baillie Bird Red List and its future development in Mongolia .....	169
S. Klaus, K.-H. Schindlatz, A.V. Andreev & H.-H. Bergmann Ecology and behaviour of the black-billed capercaillie <i>Tetrao urogalloides stegmanni</i> in the Khentej Mountains, Mongolia .....	183
U. Rehsteiner Nestling food in the Desert Wheatear <i>Oenanthe deserti</i> in the Dzungarian Gobi, Mongolia .....	193
Kh. Munkhbayar & M. Munkhbaatar Herpetological diversity of Mongolia and its conservation issues .....	203
H. Ansorge, U. Fritz, Kh. Terbish & S. Shar “ <i>Agrionemys kazachstanica terbishii</i> ” or the two-faced Mongolian steppe tortoise .....	213
Yu. Dgebuadze, B. Mendsaikhan & A. Dulmaa Diversity and distribution of Mongolian fish: recent state, trends and studies .....	219
A. Dulmaa New data on the fish <i>Coregonus peled</i> (Gmelin, 1788) in some water bodies of Mongolia .....	231
P. Surenkhorloo, R. Samjaa, J. Slowik & M. Mühlenberg Some taxonomic records of aquatic insects in the Eroo river basin (West Khentii, Northern Mongolia) .....	245
M. Pfeiffer & E. Bayannasan Diversity and community pattern of darkling beetles ( <i>Coleoptera</i> : <i>Tenebrionidae</i> ) along an ecological gradient in arid Mongolia .....	251
N. Tiralla, K. Földner & S. Schütz Magnitude and structure of <i>Lymantria dispar asiatica</i> infestations of common forest steppe tree species in Northern Mongolia .....	267

A. Poloczek, M. Mühlenberg & I.W. Stürmer Uniformity in a diversity of landscapes – Branchiopod communities in eastern and central Mongolia .....	275
I. Hartleib, M. Schnittler, S. Rilke, A. Zemmrich, B. Bobertz, U. Najmi, R. Zölitz & S. Starke An approach to the virtual flora of Mongolia – from a data repository to an expert system <a href="http://greif.uni-greifswald.de/fl_oragreif/">http://greif.uni-greifswald.de/fl_oragreif/</a> .....	287
E.V. Danzhalova, S.N. Bazha, P.D. Gunin, Yu.I. Drobyshev, T.I. Kazantseva, A.V. Prischepa, N.N. Slemnev & E. Ariunbold Indicators of pasture digression in steppe ecosystems of Mongolia .....	297
B. Neuffer, N. Friesen, B. Oyuntsetseg, Ts. Jamsran & H. Hurka Osnabrück Botanical Expeditions to Mongolia .....	307
U. Beket & H.D. Knapp Protection of the natural and cultural heritage of the Mongolian Altai .....	335
Ch. Dulamsuren & M. Khishigjargal Opposing growth trends created by external disturbances in larch forests of the Mongolian Altai .....	353
V.T. Yarmishko & N.N. Slemnev Recruitment of <i>Larix sibirica</i> Ledeb. in closed forest stands, on clear-felling sites and at fire-sites in the forests of Mongolia .....	365
W. Hilbig, K. Pistrick, N. Narantujaa & Č. Sančir Beitrag zur Kenntnis der Flora der östlichen Mongolei (Ostmongolischer Florenbezirk und angrenzende Gebiete) .....	371
N.I. Bobrovskaya & R.I. Nikulina Water use efficiency of main dominant species in steppes and deserts of Mongolia .....	395
T.I. Kazantseva, N.N. Slemnev, P.D. Gunin & Sh. Tsooj Structure and productivity of <i>Haloxylon ammodendron</i> communities in the Mongolian Gobi .....	405
B. Oyuntsetseg, F.R. Blattner & N. Friesen Diploid <i>Allium ramosum</i> from East Mongolia: A missing link for the origin of the crop species <i>A. tuberosum</i> ? .....	415
P. Hanelt The Mongolian poppies ( <i>Papaver</i> spp.) in the context of their Holarctic relatives .....	425
G. Punsalpaamuu, F. Schluetz, Ts. Gegeensuvd & D. Saindovdon On the importance of pollen morphology in classification of Chenopodiaceae in Mongolia .....	429

A. Kemmling, B. Pfeiffer, R. Daniel & M. Hoppert	
Bacterial diversity in biological soil crusts from extrazonal mountain dry steppes in northern Mongolia .....	437
Sh. Altantsetseg, S. Shatar & N. Javzmaa	
Comparative study of constituents of essential oils of <i>Ocimum basilicum</i> L. cultivated in the Mongolian Gobi .....	451
H.D. Knapp	
Biochemical research on Mongolian lichens, bryophytes and vascular plants – In memoriam Dr. Siegfried Huneck (1928–2011) .....	457

### **Short communications**

Book titles .....	116, 168, 192, 202, 244, 250, 296, 334, 364, 450, 462
Book reviews .....	46, 394
Photo reports .....	37, 38, 45, 54, 92, 152, 218, 333, 404, 414, 449, 456