

POLISH PARASITOLOGICAL SOCIETY

ANNALS OF PARASITOLOGY

volume 59 · supplement · 2013



**PL ISSN 2299-0631
Nr indeksu 38125X**

Annals of Parasitology (formerly *Wiadomości Parazytologiczne*) is supported financially by Ministry of Science and Higher Education

Quarterly *Annals of Parasitology* (formerly *Wiadomości Parazytologiczne*) is indexed in Helminthological Abstracts, Protozoological Abstracts, International Abstracts of Biological Sciences, AGRO-LIBREX, EBSCO, BIOSIS, Global Health, Thomson Reuters Master Journal List and is evaluated in Index Copernicus. Internet under address: <http://www.annals-parasitology.eu>

Editorial Board

Editor-in-Chief Barbara Machnicka-Rowińska
Associate Editor Piotr Kurnatowski; e-mail: pkurnatowski@wp.pl
Editorial assistant Piotr Nowosad; e-mail: pnowosad@ump.edu.pl
Secretary Anna Rocka; e-mail: abroczy@poczta.onet.pl

Language Editor

Ed Lowczowski

Statistical Editor

Irena Maniecka-Bryła

Section Editors

General Parasitology Anna Okulewicz
Veterinary Parasitology Irena Ziomko
Mycology Maria Dynowska
Medical Parasitology Bogumiła Milewska-Bobula

Editorial Council

Bożena Moskwa, Katarzyna Niewiadomska, Anna Okulewicz, Wojciech Piasecki

Scientific Council

Jerzy M. Behnke (U.K.)	Wanda Kocięcka (Poland)
Henryka Długońska (Poland)	Hanna Mizgajska-Wiktor (Poland)
Pavol Dubinský (Slovak Republic)	Wallace Peters (U.K.)
Bertrand Dupont (France)	Teresa Pojmańska (Poland)
Tadeusz H. Dzbeński (Poland)	Danuta Prokopowicz (Poland)
Gerald W. Esch (U.S.A.)	Robert A. Schwartz (U.S.A.)
Thaddeus K. Graczyk (U.S.A.)	Krzysztof Siuda (Poland)
Philip D. Harris (Norway)	Rajmund Sokół (Poland)
Rudolf Hoffmann (Germany)	Joanna Stańczak (Poland)
Celia Holland (Ireland)	Babill Stray-Pedersen (Norway)

Copyright©2013 Polish Parasitological Society

President: Piotr Kurnatowski, Polish Parasitological Society, 51/55 Twarda Street, 00-818 Warsaw, Poland;

E-mail: pkurnatowski@wp.pl

Editorial Office address: The Editor „Annals of Parasitology”, 51/55 Twarda Street, 00-818 Warsaw, Poland

Manuscript should be addressed to the Editorial Office or via mail: abroczy@poczta.onet.pl

Subscription and purchase details: *Annals of Parasitology* may be ordered from Editorial Board or Polish Parasitological Society, 51/55 Twarda Street, 00-818 Warsaw. The price of the volume (4 issues) is 80 USD, and that of single issue 20 USD (including air mail postage). Account name and number: Polskie Towarzystwo Parazytologiczne PKO BP VI Oddział, Warszawa **94 1020 1068 0000 1902 0071 8650**

Subscription is carried out by RUCH SA:

Subscription orders for paper version and e-editions can be submitted directly on the website www.prenumerata.ruch.com.pl

Please, direct any questions to the e-mail address: prenumerata@ruch.com.pl or contact the Subscriptions Hotline number: 22 693 70 00 open 7.00 – 17.00 weekdays. Telephone connections charged according to the rates set by your operator.

Edition: 180 copies

Typesetting and formatting: SCRIPT, ul. Teligi 6/22, 02-777 Warsaw

Printed by: Paper & Tinta, Nadma, ul. Ceglana 34, 05-270 Marki

POLISH PARASITOLOGICAL SOCIETY

**ANNALS OF
PARASITOLOGY**

volume 59 · supplement · 2013



PL ISSN 2299-0631

The XXIIIth Congress of PPS is organized by Executive Board of the Polish Parasitological Society and Wrocław Branch of the Society, and Wrocław University, Wrocław University of Environmental and Life Sciences and Wrocław Medical University



Uniwersytet
Wrocławski



UNIWERSYTET MEDYCZNY
IM. PIASTÓW ŚLĄSKICH WE WROCŁAWIU

Honorary Patronage

Rector of the University of Wrocław
Prof. Marek Bojarski

Rector of the Wrocław University of Environmental and Life Sciences
Prof. Roman Kołacz

Rector of the Wrocław Medical University
Prof. Marek Ziętek

Organizing Committee

Chair: Prof. Anna Okulewicz

Vice-chair: Dr Marcin Popiołek

Secretary: Dr Joanna Hildebrand

Treasurer: Dr Jolanta Piekarska

Committee members

Dr Katarzyna Buńkowska-Gawlik

Dr Dorota Kiewra

Prof. Elżbieta Lonc

Dr Agnieszka Perec-Matysiak

Prof. Zenon Sołtysiak

Dr Maria Wesółowska

Dr Grzegorz Zaleśny

Sponsors

The Organizing Committee for the XXIIIth Congress of the Polish Parasitological Society acknowledges with gratitude the generous support received from the following sponsors:



EURx
Molecular Biology Products



ABE-IPS
books online journals
www.abe.pl

Print of the Congress materials is supported by Ministry of Science and Higher Education of Poland.

Authors are responsible for supplied abstracts.

**The XXIIIth Congress
of the Polish Parasitological
Society**

4-7 September 2013, Szklarska Poręba-Piechowice

ABSTRACTS

Helminths of Northern fur seals (*Callorhinus ursinus* L., 1758) on St. Paul Island, Alaska, USA

Tetiana A. Kuzmina¹, Eugene T. Lyons², Terry R. Spraker³, Olga I. Lisitsyna¹, Yurii I. Kuzmin¹, Olena Kudlai^{1,4}, Vitaliy A. Kharchenko¹

¹Institute of Zoology NAS of Ukraine, B. Khmel'nitskogo 15, Kyiv, 01601, Ukraine

²University of Kentucky, Gluck Equine Research Center, Lexington, KY 40546-0099, USA

³Colorado State University Diagnostic Laboratory, College of Veterinary Medicine and Biomedical Sciences, Fort Collins, CO 80526, USA

⁴Nature Research Centre, Akademijos 2, LT-08412, Vilnius, Lithuania

Corresponding author: Tetiana Kuzmina; e-mail: taniak@izan.kiev.ua

Northern fur seals (NFS) (*Callorhinus ursinus* L., 1758) are parasitized by more than 20 species of helminths of four groups – Nematoda, Cestoda, Trematoda and Acanthocephala. The studies performed during July–August 2011 and 2012 were aimed to examine the abundance and biodiversity of helminths parasitizing the Northern fur seals on St. Paul Island, Alaska. In total, 502 NFS males (3–4 years old) were examined during the annual Aleut subsistence harvest. Gastro-intestinal tracts were collected from 406 NFSs. All helminths collected from skins and gastro-intestinal tract (in total, 3,827 specimens of nematodes, 6,183 cestodes, 578 trematodes, 483 acanthocephalans) were fixed in 70% ethanol and identified by their morphology.

All NFSs examined were infected with gastrointestinal helminths. The prevalence of NFS infection by gastric nematodes was 71.9%; intensity – 10.5 ± 14.2 . Four species of three genera – *Anisakis* (*A. simplex*), *Contracaecum* (*C. osculatum*) and *Pseudoterranova* (*P. decipiens*, *P. azarazi*) were found. Prevalence of NFS infection with cestodes was 98.3%; intensity – 15.7 ± 13.9 . *Diphyllobothrium pacificum* was the dominant species (prevalence=97%); *Diplogonoporus violettiae* was found in 6.6% NFSs. The prevalence of NFS infection with acanthocephalans was 39.4%; intensity – 3.1 ± 3.2 . Seven species of genera *Corynosoma* (*C. strumosum*, *C. alaskensis*, *C. semerme*, *C. similis*, *C. validum*, *C. villosum*), and *Bolbosoma* (*B. nipponicum*) were found. Trematodes were found in 36.2% of the NFS examined; *Phocitrema fusiforme* was the dominant species (prevalence=78%), *Pricitrema zalophi* and *Stictodora* spp. were observed in 5.5% and 6.4% of NSF infected respectively. The filarial nematode *Acanthocheilonema odendhali* was found in 18% of NFSs with an average intensity of 1.32 ± 0.83 .

A comparison of current data with that of previous researchers reveals changes in the gastrointestinal parasite community structure in NFSs during the last decades which, in our opinion, are connected with changes in NFS diet. Further studies are necessary to confirm the relationship between parasite community structures and changes of NFS foraging behavior.