



7th International Symposium on the Syrphidae

20th - 26th June 2013 Novosibirsk, Russia

PROGRAMME AND ABSTRACTS



7th International Symposium on the Syrphidae 20th–26th June Novosibirsk, Russia

**7th International
Symposium on the Syrphidae**

PROGRAMME AND ABSTRACTS

20th – 26th June 2013

Novosibirsk, Russia

Organized by

The Russian Foundation of Basic Research, Russia
Optecgroup, ZEISS, Russia
Institute of Systematics and Ecology of Animals,
Russian Academy of Sciences, Siberian Branch

Organizing committee

Anatolij V. Barkalov
Ludmila V. Petrozhizkaya
Vera I. Rodkina
Daria Yu. Kropacheva
Vera S. Sorokina
Dmitrij E. Taranenko

Congress venue

The resort hotel "Sosnovka",
633000, Russia, Novosibirsk area, Berdsk
Phone: +7 (383) 334 48 28, +7 (383) 334 40 38
E-mail: info@sosnovka.biz
<http://www.sosnovka.biz>

Postal address

Institute of Systematics and Ecology of Animals,
Russian Academy of Sciences, Siberian Branch,
Frunze Street 11, Novosibirsk 630091, Russia
Phone/fax: +7 (383) 2170973

Edited by

Anatolij V. Barkalov

CONTENTS

Preface	4
Programme	5
Abstracts	10
List of syrphidologist	50
Index of authors	57

Ecological divergence in closely related taxa of the *Chrysotoxum festivum* species complex (Diptera: Syrphidae)

NEDELJKOVIĆ ZORICA, JELENA AČANSKI, JELENA STEPANOV, ANTE VUJIĆ, SNEŽANA RADENKOVIĆ & ANTONIO RICARTE

University of Novi Sad, Faculty of Sciences, Department of Biology and Ecology, Trg Dositeja Obradovića 2, Novi Sad 21000, Serbia

E-mails: zoricaned14@gmail.com, acanskijelena@gmail.com

Comparing differences in ecological data among closely related taxa might contribute in distinguishing genetically similar forms. In addition, diversification processes can be better understood by analysing the impact of environmental factors on the studied populations. In the present study, ecological data were analyzed to find additional evidences for supporting morphologically similar taxa.

Chrysotoxum festivum Linnaeus, 1758 comprises two different taxa, *C. festivum* A and *C. festivum* B. *Chrysotoxum festivum* A occurs in lowlands, low mountains and at low altitudes of high mountains, while *C. festivum* B is confined to high mountains in the Balkan Peninsula and Italian Alps. Sympatric and synchronic occurrences of these species were detected on a limited number of localities.

Point-based method analysis was performed on 410 specimens (232 *C. festivum* A and 178 *C. festivum* B) to determine different ecological requirements between these species. Variation in altitude between *Chrysotoxum festivum* A and *Chrysotoxum festivum* B was detected using analysis of variance (ANOVA). Based on data from investigated localities, variability box plot showed that *C. festivum* A prefers habitats at altitudes not higher than 1400 masl, while *C. festivum* B occurs from 1200 to 2200 masl. MANOVA results showed that each of these taxa live under significantly different environmental conditions. PCA analysis showed that altitude and temperature were more decisive than precipitation in the distribution of these two taxa.

In summary, ecological divergence supports morphological differences found between *C. festivum* A and *C. festivum* B and these can be confirmed as separate evolving lineages.

Acknowledgements

This work was funded by the Ministry of Education and Science of the Republic of Serbia (Projects: OI173002 and III43002) and by the Provincial Secretary for Science and Technological Development (Project: Genetic resources of agroecosystems in Vojvodina and sustainable agriculture).



Notes



Novosibirsk, 2013

Russia