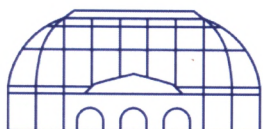


**Abstracts of the
25th International Diatom Symposium**

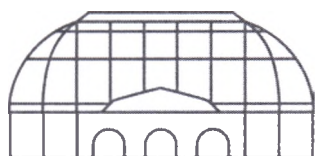
Berlin 25–30 June 2018



BG | Botanischer Garten &
BM | Botanisches Museum
Berlin

Freie Universität  Berlin

Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin



BG | Botanischer Garten &
BM | Botanisches Museum
Berlin

Freie Universität Berlin



Published by BGBM Press
Botanic Garden and Botanical Museum Berlin
Freie Universität Berlin

LOCAL ORGANIZING COMMITTEE:

Nélida Abarca, Regine Jahn, Wolf-Henning Kusber, Demetrio Mora, Jonas Zimmermann

YOUNG DIATOMISTS:

Xavier Benito Granell, USA; Andrea Burfeid, Spain; Demetrio Mora, Germany; Hannah Vossel, Germany

SCIENTIFIC COMMITTEE:

Leanne Armand, Australia; Eileen Cox, UK; Sarah Davies, UK; Mark Edlund, USA; Paul Hamilton, Canada; Richard Jordan, Japan; Keely Mills, UK; Reinhard Pienitz, Canada; Marina Potapova, USA; Oscar Romero, Germany; Sarah Spaulding, USA; Ines Sunesen, Argentina; Rosa Trobajo, Spain

© 2018 The Authors. The abstracts published in this volume are distributed under the Creative Commons Attribution International 4.0 Licence (CC BY 4.0 – <http://creativecommons.org/licenses/by/4.0/>).

ISBN 978-3-946292-27-2

doi: <https://doi.org/10.3372/ids2018>

Published online on 21 June 2018 by the Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin – www.bgbm.org

CITATION:

Kusber W.-H., Abarca N., Van A. L. & Jahn R. (ed.) 2018: Abstracts of the 25th International Diatom Symposium, Berlin 25–30 June 2018. – Berlin: Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin. doi: <https://doi.org/10.3372/ids2018>

ADDRESS OF THE EDITORS:

Wolf-Henning Kusber, Nélida Abarca, Anh Lina Van, Regine Jahn
Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin
Königin-Luise-Str. 6–8
D-14195 Berlin
Germany
n.abarca@bgbm.org, w.h.kusber@bgbm.org, a.van@bgbm.org, r.jahn@bgbm.org

Front cover: IDS 2018 Logo by N. Abarca; back cover: images of living diatoms by O. Skibbe

The diatom plankton algae in the oxbow lakes of the National Park “Pripyatsky” (Belarus)

Svirid, Anna^{1,*}; Mikheyeva, Tamara² & Khursevich, Galina¹

¹Belarusian State Pedagogic University named after Maxim Tank, Sovetskaya Street, 18, 220050 Minsk, Belarus, *e-mail: sviridanna.61@mail.ru, ²Belarusian State University, Independence Avenue, 4, 220030 Minsk, Belarus.

We present the results of a planktonic diatom study in 13 oxbow lakes located in the National Park «Pripyatsky» (Belarus): in floodplain lakes of the Pripyat' River (8 lakes, with total mineralization from 136 to 442,8 mg/L, pH from 6.0 to 7.28) and in non-flowing oxbow lakes of high floodplain or the first terrace (5 lakes, total mineralization below 50 mg/l, pH from 5.96 to 6.09). Sediment plankton samples were collected in July, 2015, simultaneously with the temperature and pH water measurements. Permanent slides of diatom algae were prepared too. Identification was done by means of light microscopes Axiostar and Axioscop (Carl Zeiss).

Altogether, 170 species and intraspecific taxa (3 classes, 14 orders, 27 families, 56 genera) and 12 up to now unidentified taxa were identified: in floodplain lakes – 151 species and an intraspecific taxon, 10 taxa of open nomenclature; in non-flowing oxbow lakes of high floodplains or the first terrace – 98 species and intraspecific taxa, 6 taxa of open nomenclature. Both groups had 79 species and intraspecific taxa in common (46.5% of total). The following species were encountered: *Cyclostephanos dubius* (Hust.) Round and *Aulacoseira ambigua* (Grunow) Simonsen (all 13 lakes), *Stephanodiscus minutulus* (Kütz.) Cleve & Möller and *Cocconeis placentula* Ehrenb. var. *placentula* (12), *Cyclotella meneghiniana* Kütz. and *Cocconeis euglypta* Ehrenb. (11 lakes).

In floodplain lakes, 72 species of diatom algae were encountered (47.7% for this group and 42.3% of total). 50 specific species (69.4% of total) were found only in one lake, and 14 species (20% of total) in 3–7 lakes. The genus *Amphora* Ehrenb. ex Kütz. and the abundance of species within the *Cymbellaceae* family (15 species compared to 2 in the lakes of the other group) were specific to this group. The species *Amphora pediculus* (Kütz.) Grunow (7 lakes) and *A. ovalis* (Kütz.) Kütz. (4 lakes), *A. copulata* (Kütz.) Schoeman & R. E. M. Archibald (5 lakes) are indifferent to alkaline and mineralization, the last one is halophile. In 3–5 floodplain oxbow lakes specific species were: *Cocconeis pediculus* (5 lakes), *Navicula menisculus* (4 lakes), *Staurosirella berolinensis* (3 lakes), *Staurosira binodis* (3 lakes), *Rhoicosphenia abbreviata* (3 lakes), *Gomphonema olivaceum* (3 lakes), *Nitzschia recta* (3 lakes), *N. sigmaidea* (3 lakes). In lakes of the high floodplain and above-floodplain terrace 19 species of diatoms algae were found (19.4 % for this group and 11.2 % of total in oxbow lakes). Only in one lake there were 17 species (about 90 % of total). The species *Epithemia turgida* (indifferent, alkalifil, typical for meso-eutrophic reservoirs) was found in 3 lakes; *Tabellaria flocculosa* (halophobe and acidophilus) – in 2 lakes. Thus, the flora of diatoms in studied lakes has features of originality at the level of families, genera and species. The most complete characterization of the species composition in investigated lakes water bodies were considered in previous our publications (Mikheyeva & al., 2016, Mikheeva et al. 2017). In these work the comparative floristic analysis of diatom floras of two groups of lakes by taxonomic and ecological indicators is given too. We plan to continue studying diverse water bodies of the National Park “Pripyatsky”, in order to assess in future other diatom species and floristic diversity of this region.

Mikheyeva T. M., Svirid A. A., Khursevich G. K. & al. 2016: Vodorosli planktona vodoemov i vodotokov Natsionalnogo parka “Pripyatskii” [Algae of plankton of water bodies and watercourses of the National Park “Pripyatsky”]. – Mikheyeva T. M. (ed.). – Minsk (in Russ.).

Mikheeva T. M., Lukyanova E. V. & Svirid A. A. 2017: Structure and quantitative phytoplankton development in lakes water bodies of the National Park “Pripyatsky”. – J. Belarus. State Univ. Biol. 2017 (1): –97 (in Russ.).