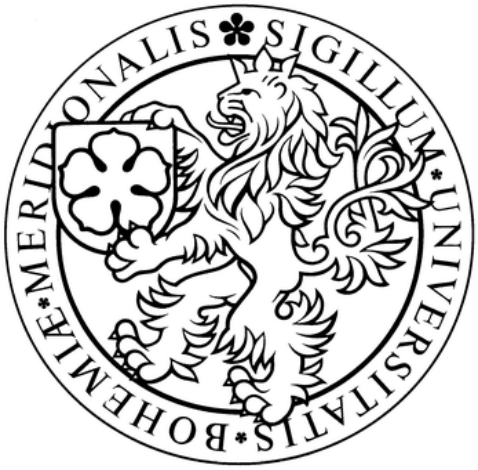
UNIVERSITY OF SOUTH BOHEMIA IN ČESKÉ BUDĚJOVICE
FACULTY OF SCIENCE



The algal flora of Acadia National Park, Maine

RNDr. Thesis

Mgr. Jana Veselá, M.S.

České Budějovice
2011

VESELÁ, J. (2011): The algal flora of Acadia National Park, Maine. RNDr. Thesis. Faculty of Science, University of South Bohemia, České Budějovice, Czech Republic, 23 pp.

Annotation

This study presents freshwater and brackish algal flora of Acadia National Park, Maine, U.S.A., a small park on the coast of New England. Prior to this study, there has been no examination conducted on freshwater and brackish algae restricted to the park boundaries. Over 200 samples, from 119 localities within the park, were collected and examined using standard microscopic techniques. A total of 160 genera of algae (from 12 algal phyla) were observed in the samples, including 140 new generic records for the park. Based on the similar studies, the high number of occurring algal genera in the park indicates an exceptionally high diversity for an area of this size.

Declaration [in Czech]

Prohlašuji, že svoji rigorózní práci jsem vypracovala samostatně pouze s použitím pramenů a literatury uvedených v seznamu citované literatury.

Prohlašuji, že v souladu s § 47b zákona č. 111/1998 Sb. v platném znění souhlasím se zveřejněním své rigorózní práce, a to v úpravě vzniklé vypuštěním vyznačených částí archivovaných Přírodovědeckou fakultou, elektronickou cestou ve veřejně přístupné části databáze STAG provozované Jihočeskou univerzitou v Českých Budějovicích na jejích internetových stránkách, a to se zachováním mého autorského práva k odevzdanému textu této kvalifikační práce. Souhlasím dále s tím, aby toutéž elektronickou cestou byly v souladu s uvedeným ustanovením zákona č. 111/1998 Sb. zveřejněny posudky školitele a oponentů práce i záznam o průběhu a výsledku obhajoby kvalifikační práce. Rovněž souhlasím s porovnáním textu mé kvalifikační práce s databází kvalifikačních prací Theses.cz provozovanou Národním registrem vysokoškolských kvalifikačních prací a systémem na odhalování plagiátů.

V Českých Budějovicích dne 20. 12. 2011

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Jana Veselá

07 December 2011

Declaration of co-author

Hereby I declare that Jana Veselá made a significant contribution to the following article:

VACCARINO, M.A., VESELÁ, J. & JOHANSEN, J.R. (2011): The algal flora of Acadia National Park, Maine. Northeastern Naturalist 18(4): 457-474.

I agree that the order of the article authors corresponds with the amount of work spent in its preparation. My contribution consisted of the identification and tabulation of genera (except for diatoms), the generation of figures, about two written pages of discussion, as well as some assistance with the preservation of materials and litererature searching.

Melissa Vaccarino, M.S.

Melissa Vaccarino

JOHN CARROLL UNIVERSITY
THE JESUIT UNIVERSITY IN CLEVELAND
Department of Biology
Phone 216.397.4487
Fax 216.397.4482
13 December 2011

Declaration of co-author:

I hereby declare that Jana Veselá had a significant contribution to the following article:

VACCARINO, M.A., VESELÁ, J. & JOHANSEN, J.R. (2011): The algal flora of Acadia National Park, Maine. Northeastern Naturalist 18(4): 457-474.

I agree that the order of the article authors corresponds with the amount of work spent in its preparation. Melissa Vaccarino examined the samples we collected in Acadia National Park for non-diatom algal genera at the time of collection. Jana Veselá examined the samples for diatom genera and species. The time Jana spent on data collection was at least if not more than Melissa Vaccarino, but Melissa played a leadership role in writing the manuscript (although Jana Veselá spent a great deal on the manuscript as well, as she had to organize the diatom data for the tables). My contribution consisted of the methodical supervising of the work and help with writing and final editing of the manuscript.

In summary, I consider the efforts of Melissa Vaccarino and Jana Veselá on this article to be almost equal, with my efforts distinctly tertiary.

Sincerely,

Jeffrey R. Johansen
Professor of Biology

The actual text of the RNDr. thesis is the following scientific publication (archived by the Faculty of Science, University of South Bohemia):

VACCARINO, M.A., VESELÁ, J. & JOHANSEN, J.R. (2011): The algal flora of Acadia National Park, Maine. Northeastern Naturalist 18(4): 457-474.

Abstract

The inland algal flora of Acadia National Park was studied based on over 200 samples from 119 localities. A total of 160 algal genera were found, representing 12 algal phyla. Among these were 140 new generic records for the Park. The most frequently encountered taxa were desmids and diatoms, and the genera and species in these groups were acidophilous, reflecting the low pH of the ponds, lakes, and streams of the Park. Ponds and streams were the most heavily sampled habitats in the park, and coincidentally had the highest diversity (103 and 91 genera, respectively). Based on other similar studies, we estimate that the Park likely contains as many as 1000 algal species within its boundaries, indicating that the diversity is exceptionally high for an area of this size.

The impact factor of the scientific journal *Northeastern Naturalist* within the last 3 years:
2010: 0.566
2009: 0.512
2008: 0.424