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## НАУКОВЕ І ПРИКЛАДНЕ ЗНАЧЕННЯ КОЛЕКЦІЇ ПАЛЕОНТОЛОГІЧНИХ ШЛІФІВ (АЛЬГОФЛОРА) ПІЗЬНОГО ДЕВОНУ УКРАЇНИ, ЩО ЗБЕРІГАЄТЬСЯ В ІНСТИТУТІ ГЕОЛОГІЧНИХ НАУК НАЦІОНАЛЬНОЇ АКАДЕМІЇ НАУК УКРАЇНИ

### SCIENTIFIC AND APPLIED SIGNIFICANCE OF LATE DEVONIAN PALEONTOLOGICAL THIN SECTIONS COLLECTION (ALGOFLORA) STORED IN THE INSTITUTE OF GEOLOGICAL SCIENCES OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE

Наведено інформацію про колекцію шліфів з пізньодевонських відкладів Переддобрудзького і Львівського палеозойського прогіпсів, Дніпровсько-Донецької западини і Донбасу. Колекція зберігається в Інституті геологічних наук НАН України і представлена шліфами з 13 свердловин і одного відслонення. Вона має важливе наукове та практичне значення у зв'язку з неможливістю в осяжному майбутньому відбору пробів на Донбасі, обмеженому доступі до коренового матеріалу Дніпровсько-Донецької западини, Переддобрудзького і Львівського палеозойського прогіпсів. Дана колекція є цінним матеріалом для вивчення розвитку органічного світу минулих епох, а також для вивчення нафтоносних сульфатно-карбонатних відкладів середнього і верхнього девону України.

Вивчені водорості девону і карбону були важливим біогенним компонентом минулих геологічних епох і відіграли значну роль у формуванні морських відкладів. Вони є чудовим показником палеокліматичних та палеоосімітатичних умов. На окремих стратиграфічних рівнях, як, наприклад, межа девону/карбону, водорості можуть використовуватися для кореляції відкладів морських басейнів різних регіонів.

Назва колекція покладена в основу монографії "Атлас известковых водоростей позднего девона Украины" (Берченко, 2003), яка є підсумком багаторічних досліджень О. І. Берченка з вивчення вапнянистих водоростей і стратиграфії пізнього девону України. "Атлас известковых водоростей позднего девона Украины" є першою і поки єдиною публікацією, в якій монографічно описано всі відомі на той час види вапнянистих водоростей пізнього девону України і містяться зображення 123 видів (серед них сім нових) 30 родів вапнянистих вапнянистих водоростей верхнього девону Донбасу, Дніпровсько-Донецької западини, Переддобрудзького та Львівського палеозойського прогіпсів. У цій статті подано зображення геологічних нових видів, а також списки палеоальгофлора, вапнянистої і деяких колекцій.

**Ключові слова:** мікропалеонтологія, нафтогазові відклади, пізній девон, вапнянисті водорості, колекція, Україна.

Information on the thin sections collection from Late Devonian deposits of Donets Basin, the Dniro-Donets Depression, the Pre-Dobruzhian and Lviv Paleozoic Troughs is provided. This collection is kept at the Institute of Geological Sciences of the National Academy of Sciences of Ukraine and represented by thin sections of rocks from 13 boreholes and one outcrop. The collection data is a valuable material for studying the development of the organic world of past eras and includes important information for the study of oil-bearing sulfate-carbonate deposits of the Middle and Upper Devonian of Ukraine.

The monograph "The Atlas of Late Devonian calcareous algae of Ukraine" has been based on this collection. The atlas is the result of many years of research by O. I. Berchenko on the study of calcareous algae and stratigraphy of the Late Devonian in Ukraine. "The Atlas of Late Devonian calcareous algae of Ukraine" is the first, and so far the only, work including all known monographically described fossil calcareous algae of the Late Devonian in Ukraine at that time and containing images of 123 species (7 of them are new) which belong to 30 genera of Late Devonian calcareous algae genera of the Donets Basin, the Dniro-Donets Depression, the Pre-Dobruzhian and Lviv Paleozoic Troughs. The images of holotypes of new species, as well as the lists of paleoalgaoflora have been represented in our paper.

**Keywords:** micropaleontology, oil and gas deposits, Late Devonian, calcareous algae, collection, Ukraine.

#### Introduction

The purpose of this work is to arrange the material of thin sections from different regions of Ukraine, which, in view of the reduction of drilling operations in the Pre-Dobruzhian and Lviv Paleozoic Troughs, the impossibility of sampling in the Donets Basin in the nearest future, and limited access to the core material of the Dniro-Donets Depression, has an important scientific and practical significance. Thus, the collections of thin sections available in the Institute of Geological Sciences of the National Academy of Sciences of Ukraine are valuable material for studying the development of the organic world of past eras.

Calcareous algae of the Devonian and Carboniferous were an important biotic component of past geological epochs and played a significant role in the formation of marine sediments, and are also an excellent indicator of paleoecological and paleoclimatic conditions. At separate stratigraphic levels, such as the Devonian/Carboniferous boundary, they can be used to correlate the sediments of marine basins in different regions [12].

The most significant contribution to the study of fossil calcareous algae of Ukraine was made by O. I. Berchenko, as well as O. A. Sukhov and V. I. Yefimenko. In general, these authors published a number of works related to the study of fossil algae of the Don-Donets Trough, elucidation of their stratigraphic significance and facies dating [7-9 et al.].

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