

WDCM training course summary report

Personal introduction

My name is Blagoy Angelov Uzunov and I am 34 years old. I graduated Sofia University *St Kliment Ohridski* (Bulgaria) with my bachelor's (Ecology and environmental protection) and master's (*Algology and mycology*) degrees. My recent position in the University is a main assistant. In 2010 I became a curator of the Algal collection (ACUS) and since 2015 I am an administrator of the e-learning platform of the Biology Faculty. My PhD - *Aeroterrestrial algae from Pirin Mt (Bulgaria)* was graduated in 2009 in the University of Innsbruck (Austria). Recently I have 35 articles, 27 project and 19 scientific conference participations.

Name of the culture collection

Algal Collection of the University of Sofia St Kliment Ohridski (ACUS)

ABSTRACT

Report for the training course organized for the participants from development countries by the Institute of Microbiology of Chinese Academy of Sciences in the period 5-23 September 2016 Beijing (China) is provided. Benefits from the course for ACUS and its curator are reported. Likewise some suggestions to the work of GCM and to the

organization of future courses are also proposed. Further cooperation between ACUS and WDCM in conclusion is commented.

Key words: ACUS, aeroterrestrial algae, Bulgaria, e-learning, GCM

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1. Brief introduction of the Culture Collection

Algal collection of Sofia University *St Kliment Ohridski* was established in 2006 in the Department of Botany of the Faculty of Biology under supervising and personal participation of Univ. Prof. DSc Georg Gärtner from the University of Innsbruck (Austria). The first collected samples were from soil and aerophytic cyanoprokaryotes and algae. These algae are still known as aeroterrestrial algae and they are in the basis of the collection. From the group of aeroterrestrial

algae in Sofia University collection are included living strains of

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On 13th of April 2010 the collection was registered in WDCM with number 965 and the acronym ACUS (Algal Collection of the University of Sofia). Director of the collection is Prof. DSc Maya Stoyneva and its curator is Dr Blagoy Uzunov. The director and the curator of ACUS work already 10 years as volunteers because there is

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not a special item of expenditure for ACUS in the budget of Biology Faculty. Therefore the ACUS challenges in the future can be demonstrate in three time periods:

1. Permanent challenges: funding, staff, and strain number increasing;
2. Short-term challenges: gene sequence analysis, metabolite analysis, cryopreservation and ISO standards;
3. Long-term challenges: converting ACUS into main European research center of aeroterrestrial algae.

2. Benefit from the training courses.

The training course organized from WDCM provided many different and important for me and for the future of ACUS benefits. The main of them was the opportunity for contact network creation between all participants from 11 different countries who have similar work and challenges. Other significant benefit from the course was provided information for the: 1) existence of many diverse data basis which will be very useful in my work in the future; 2) method of work of the data basis; 3) automatically created web page of the ACUS, closely connected with GCM and WDCM; 4) opportunities for study, teaching and development provided by the Chinese Academy of Sciences.

3. Suggestion on WDCM work.

Actually the work of colleagues from the Institute of Microbiology of the Chinese Academy of Sciences regarding WDCM was very impressive for me. In the last 5 years they are really made a lot for the improvement of the data base and for the creation of the Global catalogue of microorganisms (GCM). However I have some suggestion concerning GCM because the group of algal organisms looks neglected in the catalogue in comparison with other organisms (e.g. bacteria and fungi). The suggestions are as follow:

1. In *Species tree viewer/Species Info* cyanoprokaryotes and algae are no included in the provided taxonomic tree. I should think that it will be very useful for the GCM users if you make a link to the taxonomic tree of *AlgaeBase* (<http://www.algaebase.org/browse/taxonomy/>). *AlgaeBase* is a widely accepted database of information on cyanoprokaryotes and algae that includes terrestrial, marine and freshwater organisms. *AlgaeBase* should be used also by name checking of the new provided cyanoprokaryotic and algal strains from the collections in GCM.
2. In *Species tree viewer/List by Isolation Sources* the information in the column *Microalgae* is not upgraded for the groups of soil and aerophytic algae (should by in row *air*). In this particular occasion

the curator of ACUS (Reg. №965) provided such type of information for the collection, all strains of which are aeroterrestrial cyanoprokaryotes and algae.

4. Comments or suggestion on the training courses.

The idea for the implementation of such type of training courses is very well accepted among all participants. My personal suggestions to the training course carried out in the period 5-23 September 2016 are as follow:

1. Most important part of such courses for me is the practical experience. Actually during the course we had some problems with this part regarding Internet connection and inability to work with the proposed online data bases. Therefore I would like to propose for the future courses more laboratory work and work related to collection of the Institute of Microbiology. The Institute possesses many different and well equipment laboratories and using of their facilities would be a great advantage for all participants in the course. From the other hand the theoretical part of the course is also a good benefit for the trained when it is specialized for the needs of concrete person or collection.

2. Theoretical part of the course would be much more useful if opportunities provided by free e-learning platform Moodle are used. In this way all participants in the course should be enrolled in the e-based

could save time of trainers and trained. Everyone could manage with the provided information in advance, even in their own countries, in the hotel, before and after the practice. Using this mode of course preparation all participants in e-based courses will be well prepared to discuss their topic of interest and they can also use other Internet source, which is independent from the building where the course is carried out. Furthermore, the using of e-learning in the theoretical part of course will save time for more practical work and for more common discussions that in my opinion is the most important.

5. Suggestion on further cooperation between WDCM and your collections.

Algal collection of Sofia University St Kliment Ohridski (ACUS) is a small collection of aeroterrestrial cyanoprokaryotes and algae that contains living strains. Since its establishment ACUS have no special funding from Sofia University. However, the director and the curator of ACUS are able to provide to WDCM their knowledge and capacity in classical taxonomy for determination of aeroterrestrial and freshwater cyanoprokaryotes and algae. Undoubtedly we will be very thankful to WDCM if we have a possibility to cope with our short-term challenges related to gene sequence analysis, metabolite analysis, cryopreservation, and ISO standards.

