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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

40th meeting
Strasbourg, 1-4 December 2020

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Other complaints

Presumed threat to Emerald site "Bugzkyi Gard National Nature Park" (UA0000040) (Ukraine)

- COMPLAINT FORM -

Document prepared by
UNGC, Ukraine

NGO «UKRAINIAN NATURE CONSERVATION GROUP»

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№ 111/ 2020 02.03.2020

Secretariat of the Bern Convention

Subject: Presumed threat to Emerald site "Bugzkyi Gard National Nature Park" (UA0000040)

First name:. Oleksii.....

Surname(s): Vasyliuk

On behalf of (if applicable): NGO «UKRAINIAN NATURE CONSERVATION GROUP»....

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Date : 02.03.2020.

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1. Please state the reason of your complaint (refer also the Contracting Party/es involved and the Articles of the Convention which might be violated).

The Emerald site "Bugzkyi Gard National Nature Park" (UA0000040) presents a high level of biodiversity and endemism in flora due to the unique geological history of its territory and microclimate features. One of the major problems of conservation of rare habitat types and endemic species during the last decades is flooding by the Oleksandrivka water reservoir as a result of the expansion of the South-Ukraine electric power producing complex. In the 1980s, the building of a nuclear power plant with hydropower complex began here. Two large reservoirs were projected in the Southern Bug river valley between Pervomajsk and Oleksandrivka. At the time such a project was rejected due to public opposition and activities of environmental organizations. This led to the acquisition by the territory of a number of conservation status: the Regional Landscape Park "Granitno-Stepove Pobuzhzhya" (6266 ha) was created in 1994-1999, the culture memory territory Historical landscape of the Center of Bugo-Gardivska Palanka of Zaporizhzhya Army (1305 ha) - in 2006, National Nature Park Buzkyi Gard (6138 ha) - in 2009, site of Emerald Network (6148 ha) - in 2016. Despite the value of the territory and the number of protection status, the energy sector has continued the construction of the hydropower complex. The valuable natural site Island Gard was partially flooded as a result of raising the Oleksandrivka reservoir level up to 16.0 m in 2006-2010, with the natural level for the river about 5 m above sea level. This process was found to be unlawful, but there has been no accountability for South-Ukraine electric power producing complex on national level. In the nearest future, the level of the Oleksandrivka water reservoir could be raised to 20.7 m.

The last scientific researches in climatology, hydrology and nature conservation shows a negative impact on the environment as well as violation the number of international and national legal acts by the current and possible increasing of the reservoir level. The territory is important for 12 plant species and 25 animal species, listed in the national and international red lists and conventions (Red Data Book of Ukraine; European Red List; IUCN Red List; Berne Convention). Nevertheless, the final decision about flooding would be taken by the Government of Ukraine in 2020, after the environmental impact assessment will be published and the public discussion will be held.

Articles of the Bern Convention, which might be violated: 2, 3, 4, 5, 6, 7, 10.

2. Which are the specific specie/s or habitat/s included in one of the Appendices of the Bern Convention potentially affected? (Please include here information about the geographical area and the population of the species concerned, if applicable)

Species, listed in Resolution 6 of Berne Convention: *Dianthus hypanicus*, *Moehringia hypanica, Unio crassus, Lycaena dispar, Probaticus subrugosus*, *Lucanus cervus, Rhodeus sericeus amarus, Cobitis taenia, Aspius aspius, Misgurnus fossilis, Alosa pontica, Chalcalburnus chalcoides* (*Alburnus sarmaticus*), *Lutra lutra, Ixobrychus minutus, Circus aeruginosus, Hieraaetus pennatus, Alcedo atthis.*

All known habitats for the endemic plant species *Moehringia hypanica* are located on the territory of the National Nature park Buzkyi Gard, for the *Dianthus hypanicus* – on the territory of the National Nature park Buzkyi Gard and surroundings areas of the Dnieper Upland. These two species are very sensitive to changing of environmental conditions.

The population of Unio crassus in the National Nature park Buzkyi Gard is the only known large stable population of Unio crassus in the Steppe ecoregion of Ukraine. In other river basins, it has dramatically decline or extinct. It is connected with special role of the unique landscapes of the Southern Bug river valley. The small rapids' zone of the Southern Bug River is an area for more than 90% of the known population of Unio crassus in the Steppe ecoregion of Ukraine.

Habitats, listed in Resolution 4 of Berne Convention:

E1.11 Euro-Siberian rock debris swards
H3.1 Acid siliceous inland cliffs
C2.27 Mesotrophic vegetation of fast-flowing streams
C2.28 Eutrophic vegetation of fast-flowing streams
C2.12 Hard water springs

E3.4 Moist or wet eutrophic and mesotrophic grassland
F9.1 Riverine scrub
G1.11 Salix woodland
G1.7 Thermophilous deciduous woodland
G1.A1 Quercus - Fraxinus - Carpinus betulus woodland on eutrophic and mesotrophic soils
G1.A4 Ravine and slope woodland
C1.222 Floating Hydrocharis morsus-ranae rafts
C2.33 Mesotrophic vegetation of slow-flowing rivers
D5.2 Beds of large sedges normally without free-standing water

3. What might be the negative effects for the specie/s or habitat/s involved?

The planned raising of the level of the reservoir from 16.0 m to 20.7 m will affect territory with a total area of 254 ha in the Southern Bug river valley. Among them, natural landscapes are presented by area of 110 ha, the remaining 144 ha of potentially flooded territories are synanthropic vegetation of villages (7 ha) and ruderal and semi-natural landscapes, transformed by previous flooding and strengthening of the banks of the reservoir (137 ha). Additional to 110 ha of direct flooding, areas of valuable habitats would be indirect affected by changing in the hydrological regime and artificial strengthening of the banks of the reservoir, as it was after the previous flooding. Changing in the hydrological regime of reservoir banks cause mesophytisation of dry habitats, which are located on the middle and upper slopes of Southern Bug river valley before the potential flooding, and the resulting spreading of natural shrubs (*Crataegus spp., Prunus stepposa, Rosa spp.*) and invasive herb and shrub species (*Acer negundo, Amorpha fruticosa, Robinia pseudoacacia, Grindelia squarrosa*) into grassland and petrophytic habitats.

Areas of *E1.11 Euro-Siberian rock debris swards* and *H3.1 Acid siliceous inland cliffs* in the potential flooded zone are some of the most valuable in the Southern Bug river valley, because of their unique richness in endemic and rare species. Potentially affected habitats of the narrow endemic species *Dianthus hypanicus, Moehringia hypanica, Gymnospermium odessanum* are among the most representative and important habitats of these species in Ukraine.

For endemic species *Dianthus hypanicus*, the average population density for the habitats in the potential flooded zone is 4 plants/m². The species has a very narrow range of optimal hydrological regime, and the most valuable habitats for *Dianthus hypanicus* could be lost. According to the estimations, at least 88,000 individuals of D. hypanicus will be affected by direct flooding and indirect influence of the reservoir. Habitats of endemic species *Moehringia hypanica* do not fall under direct flooding, but this species is very sensitive to changing of environmental conditions. So, two of three populations of this plant in the world may be under risk of extinction due to flooding. *Moehringia hypanica*, it should be noted, does not survive to the generative age in botanical gardens.

Areas of habitats *C2.27 Mesotrophic vegetation of fast-flowing streams, C2.28 Eutrophic vegetation of fast-flowing streams, C2.12 Hard water springs, E3.4 Moist or wet eutrophic and mesotrophic grassland, F9.1 Riverine scrub, G1.11 Salix woodland, G1.7 Thermophilous deciduous woodland, G1.A1 Quercus - Fraxinus - Carpinus betulus woodland on eutrophic and mesotrophic soils* and *G1.A4 Ravine and slope woodland* are the southernmost in the Southern Bug river valley localities of such rare for the steppe zone habitats. A few other habitats (*C1.222 Floating Hydrocharis morsus-ranae rafts, C2.33 Mesotrophic vegetation of slow-flowing rivers, D5.2 Beds of large sedges normally without free-standing water*) have a small relative surface area or representativity within the territory of the planned flooding, in comparison with other studied localities of such habitats in the National Nature Park.

For the rare mollusk species *Unio crassus*, any changes of hydrological conditions, habitat reduction or population declining in this area can be considered as threats to the entire steppe population of the species.

The habitats for insects will be also destroyed during raising the water level of the reservoir. Flooding of the Gard island, as well as the flooding of forest biotopes, will lead to the complete destruction of island populations of many insect species, or cause significant damage to populations.

The most valuable element of the ichthyofauna is the reophilic complex of fishes, partially or completely lost in other parts of the former habitat, mainly in the Dnieper basin, precisely because of the flow regulation - *Rhodeus sericeus amarus, Cobitis taenia, Aspius aspius, Misgurnus fossilis, Alosa pontica, Chalcalburnus chalcoides* (*Alburnus sarmaticus*). Until the second half of the twentieth century, many fish species of Southern Bug river were valuable industrial species with high quality products (before intensive hydroconstruction). However, the number of species has declined catastrophically due to river runoff regulation. Unless the fish canal is restored around the Oleksandrivka dam, Ukraine will lose a significant part of the fish species population of the reophilic complex. The only way to protect against the complete destruction of fish species of the reophilic complex is to preserve their habitats. To avoid the catastrophic impact of the Oleksandrivka Reservoir on fish stocks, it is necessary to restore the operation of the fishing channel bypassing the Oleksandrivka Dam. Creating a fish farm with breeding of alien fish does not compensate for the loss of species protected by Ukrainian and international legislation, and does not prevent violation of legislation. With regard to the vast majority of native fish species, measures for their artificial reproduction have not been developed in Ukraine. This is a significant problem, so the only way to protect against the complete destruction of the species of fish of the reophilic complex is to preserve their habitats. Today the dam of the Oleksandrivka Hydroelectric Power Station creates conditions for the emergence and increase of the number of invasive fish species: *Lepomis gibbosus, Pseudorasbora parva, Perccottus glenii*. Often, these species are dangerous to native fauna.

The river otter (*Lutra lutra*) is a very rare species, the relative abundance in the studied area is estimated at about 2-4 individuals. The islands in the flooding zone have steep shores with holes of *Lutra lutra*. Fast-flowing river rapids are important for this animals in winter time.

Nests of such bird species will be potentially destroyed by the flooding: *Ixobrychus minutus, Circus aeruginosus, Hieraaetus pennatus, Alcedo atthis.*

4. Do you know if potentially affected species or habitats also fall under the scope of other international Conventions, (for instance: RAMSAR, CMS, ACCOBAMS, Barcelona Convention, etc) or if the area has been identified as a NATURA 2000/Emerald network site?

The territory is an important part of the Emerald site “Bugzkyi Gard National Nature Park” (UA0000040).

5. Do you know if there are any pending procedures at the national or international level regarding the object of your complaint?

During the last 10 years, all official documents and government conclusions do not consider any alternatives for the planned flooding of valuable territories. According to the previous official government studies on the impact of raising the Oleksandrivka water reservoir (made by "Ukrhydroproject"), raising of the water level to the level 20.7 m “will not result to significant changes in populations of rare species”. In the same time, according to our independent studies, natural and historical site Gard, which could be characterized as a territory with unique biotope diversity and important environmental significance, is particularly destroyed by the previous flooding and could be finally lost. Among the species and habitats in danger, there are some of the most valuable areas of Euro-Siberian rock debris swards and Acid siliceous inland cliffs with habitats of the narrow endemic species *Dianthus hypanicus* and *Moehringia hypanica*, areas of 9 southernmost in the Southern Bug river valley localities of rare for the steppe zone habitat types, the entire steppe population of the rare mollusk species *Unio crassus,* and, also, reophilic complex of rare fish species.

We think, that the official results of Environmental Impact Assessment, as well as appropriate conclusions of the *Ministry of energy and environment protection of Ukraine* and *Cabinet of Ministers of Ukraine* should contain a prohibition recommendation for the planned raising of the water level of Oleksandrivka water reservoir and consider the alternative ways of the development of energy sector and sustainable use of natural resources.

6. Any other information (existence of an Environmental Impact Assessment (EIA), size of projects, maps of the area, etc)

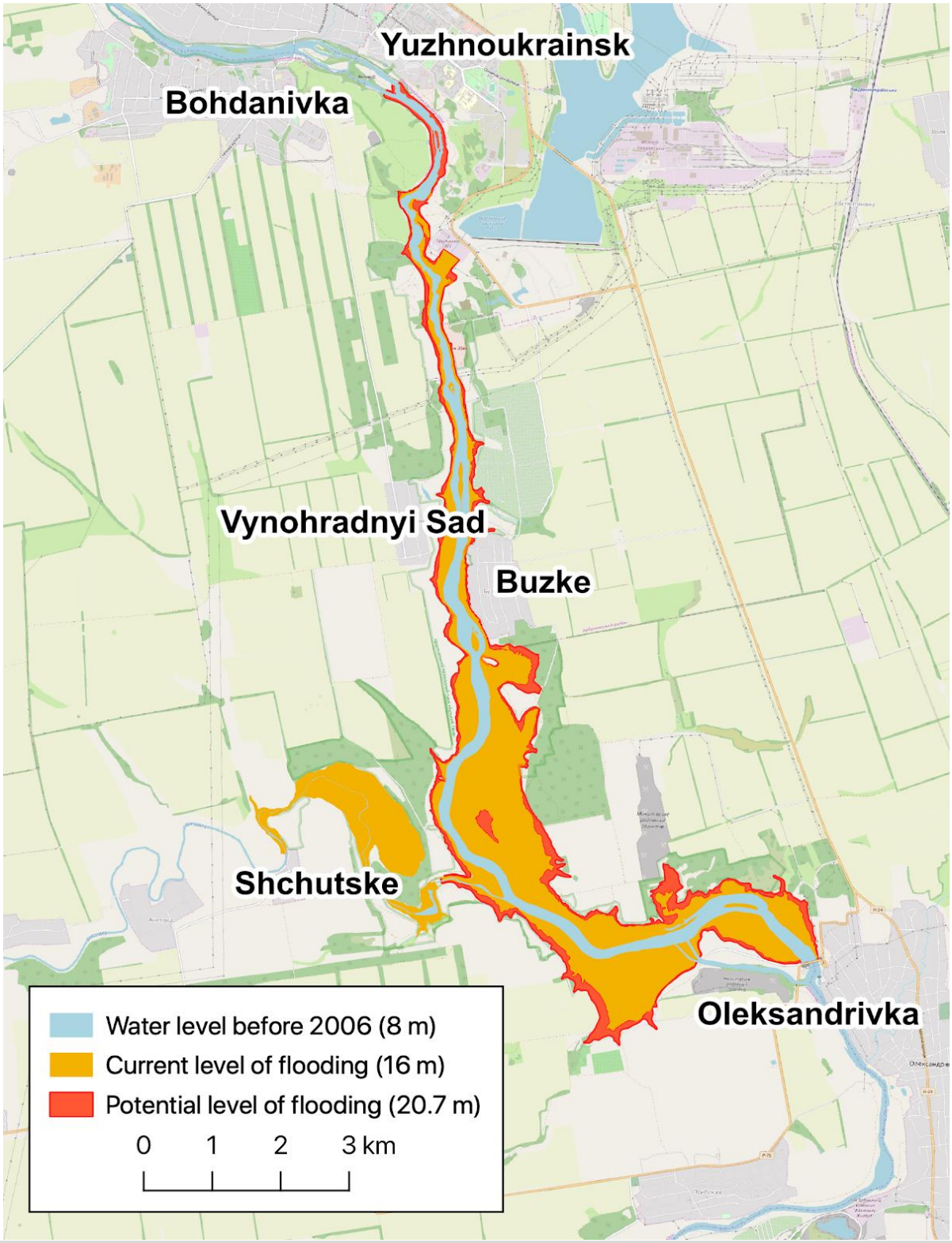

Fig. Oleksandrivske water reservoir in Southern Bug river valley with current and planned water level. Basemap: © OpenStreetMap contributors.

Fig. Natural boundary Gard, fragment of the drone orthophoto map (upper part) and habitat mapping (down part). Habitat types: E1.11 Euro-Siberian rock debris swards, H3.1 Acid siliceous inland cliffs, F3.247 Ponto-Sarmatic deciduous thickets, G1.11 Salix woodland. Class T combines all areas, which

were transformed by previous flooding (ruderal and semi-natural). Basemap: © Anton Biatov, aerial drone mapping

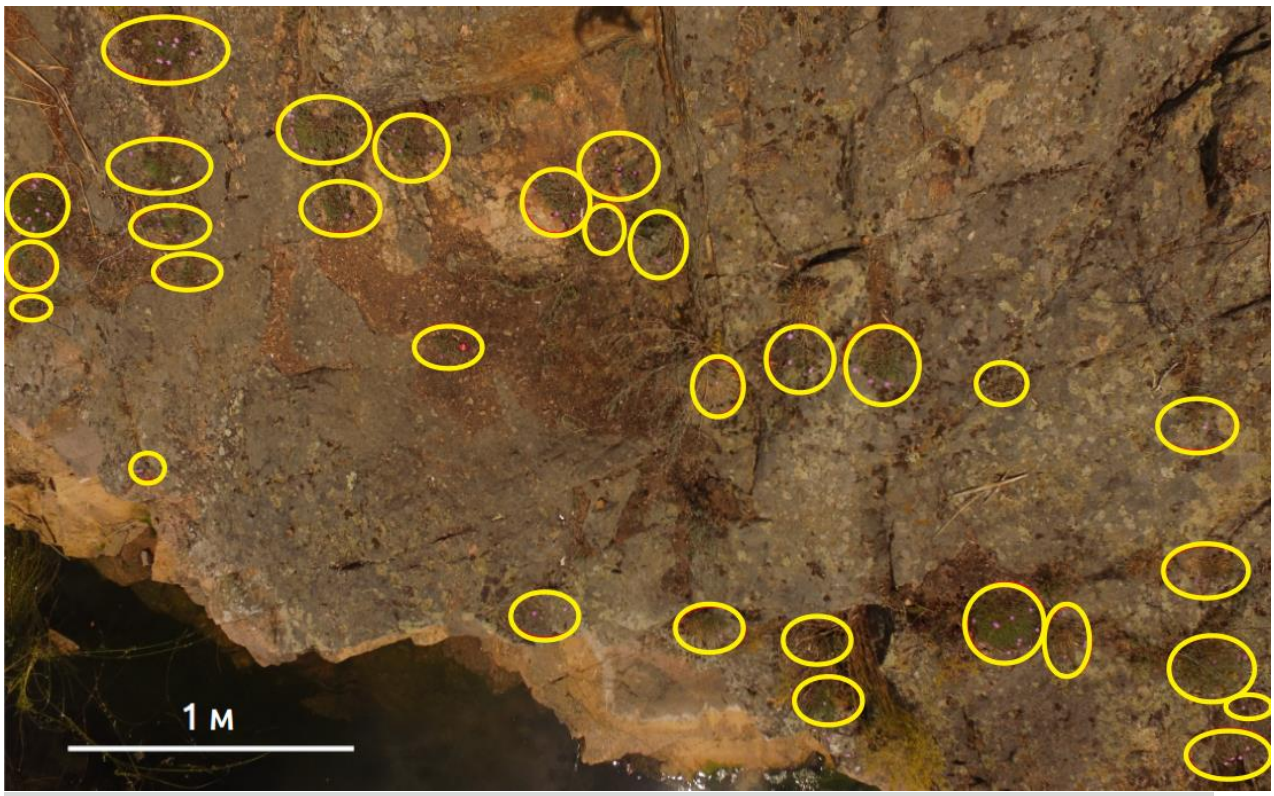

Fig. Part of detailed aerial drone photography mapping of the model site on granitic outcrops, in the zone of potential flooding. The yellow circles mark individual plants of *Dianthus hypanicus* – endemic of the territory of National Nature park Buzkyi Gard and surroundings areas of the Dnieper Upland.

Further information received on 12 June 2020

Dear Krzysztof ZYMAN!

To additions to our appeal «Presumed threat to Emerald site "Bugzkyi Gard National Nature Park" (UA0000040) (Ukraine)» https://rm.coe.int/09000016809cff8f

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Habitat types E1.11 *Euro-Siberian rock debris swards* and H3.1 *Acid siliceous inland cliffs* of the area of potential flooding are some of the most valuable in the Southern Bug river valley, because of their unique richness in endemic and rare species. Potentially affected habitats of the local endemic species *Dianthus hypanicus*, *Moehringia hypanica*, *Gymnospermium odessanum* are among the most representative and important habitats of these species in Ukraine.

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Habitat types C2.27 *Mesotrophic vegetation of fast-flowing streams*, C2.28 *Eutrophic vegetation of fast-flowing streams*, C2.12 *Hard water springs*, E3.4 *Moist or wet eutrophic and mesotrophic grassland*, F9.1 *Riverine scrub*, G1.11 *Salix woodland*, G1.7 *Thermophilous deciduous woodland*, G1.A1 *Quercus - Fraxinus - Carpinus betulus woodland on eutrophic and mesotrophic soils* and G1.A4 *Ravine and slope woodland* are the southernmost in the Southern Bug river valley localities of such rare for the steppe zone habitats. A few other habitats (C1.222 *Floating Hydrocharis morsus-ranae rafts*, C2.33 *Mesotrophic vegetation of slow-flowing rivers*, D5.2 *Beds of large sedges normally without free-standing water*) have a relatively small area or representativity within the territory of the planned flooding, in comparison with other studied localities of such habitats in the National Nature Park.

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We report additional information about this as we learned from the website of the European Investment Bank (https://www.eib.org/en/projects/pipelines/all/20180619), the bank plan to finance the completion of the TASHLYK HPSPP. Earlier we sent you a complaint about the threat of building TASHLYK HPSPP.

We believe the EIB financing of the project will destroy the valuable territories of the Emerald site in Ukraine.

We ask you to apply to the bank and inform about the inadmissibility offinancing of such a project.

Thanks.
Kind regards,
Oleksii Vasyliuk, UNCG