Prior assessment of a proposed Antarctic Specially Protected Area within the Argentine Islands and Kyiv Peninsula area, Antarctic Peninsula

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**Working Paper submitted by Ukraine**

Summary

A prior assessment for a proposed Antarctic Specially Protected Area (ASPA) within the Argentine Islands and Kyiv Peninsula area, Antarctic Peninsula, has been carried out by Ukraine. The proponent recommends that the CEP: (1) agrees that the values within the proposed ASPA merit special protection, (2) endorses the development of a Management Plan for the area, and (3) encourages interested Parties to work with Ukraine informally during the intersessional period in the development of a Management Plan for potential submission at CEP XLVI.

Introduction

In accordance with the provisions in Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, Ukraine would like to propose the establishment of an Antarctic Specially Protected Area (ASPA) within the Argentine Islands and Kyiv Peninsula area, Antarctic Peninsula.

The proposed ASPA would be a multi-site ASPA intended primarily to protect a range of values.

Environmental values:

* Valuable for the Antarctic Peninsula vascular plants habitats. The vegetation in general represents a pattern of sharp discontinuities; discontinuous and only known stands of some species, the peatlands are valuable for paleoclimate reconstructions.
* The flora is among the richest, the most studied and specific in the Antarctic Peninsula region, with at least 7 liverworts, 51 mosses and 123 lichens. Highly peculiar moss banks communities and peatlands, and some of the moss banks here are up to 3800 years old. In the terrestrial vegetation communities, there also grow fungi (including some lichenicolous species) and micro- and macroalgae: 30 species of Chlorophyta, 41 diatoms and 7 cyanophytes. For both vascular Antarctic plants, Antarctic hairgrass (*Deschampsia antarctica*) and Antarctic pearlwort (*Colobanthus quitensis*), this is the middle part of one of the richest in the region vascular plants’ areas (*D.antarctica* and *C.quitensis*)from Booth Island to Garcia Point.
* Small, and therefore vulnerable and valuable populations of disjunctively distributed moss and lichenspecies*.*
* A number of mosses, lichens and invertebrates, such as tardigrads were first discovered and then described here, many of which are still known only for this region.
* The southernmost edge of the nesting range for Gentoo penguin (*Pygoscelis papua*) and chinstrap penguin (*P.antarcticus*)*.* There are dramatic changes in this region in the context of global climate change, which result in rapid expanding of nesting area of gentoo penguins. It provides a unique opportunity to observe processes influenced by climate change. Within the proposed ASPA, there will be several sites with nesting birds combining both closed (control monitoring) and open for human access areas, which also provides a unique opportunity for real-time observations of human impact.
* Local Adelie penguin (*P.adeliae*) colonies are dwindling, which also requires immediate reaction. This provides a great opportunity to observe processes influenced by climate change as well.
* Two Antarctic Important Bird Areas located in the region (No 089 and 090).
* Fully viable subpopulation of the Weddell seal (*Leptonychotes weddelli*) from the Lemaire Channel to Lahille Island, breeding on Cruls Islands.
* The region is the southern frontier of the brown skua (*Catharacta antarctica lonngbergi*) nesting area, and thus this site is very important for monitoring the spread of this species.
* Marine part of the proposed ASPA is approximately 0.05 km2. These are biodiversity-rich and sensitive for navigation or diving areas, with giant sponges and ascidians, starfishes, ascidians, ophiuras and sea spiders, fields of gorgonian corals and others. Many intraspecific taxa of phytoplankton were found here.

Scientific values:

* The data archive inherited from the British Antarctic Survey, the botanical and meteorology data in particular, became the basis for further long-term plant monitoring, which have been conducted by Ukrainian researchers for more than two decades.
* Sites of the Argentine Islands Magnetic Polygon, which is the part of a magnetic observatory complex of Vernadsky station.
* CEMP cameras installed in 2016 for annual monitoring of penguin breeding success: Yalour Islands, Galindez Island, Petermann Island.
* A geodynamic polygon, laid to monitor the Penola-Lemaire Fissure, is based on two output sites and 14 monitoring sites.
* An installed equipment for distance probing of the ionosphere that is a part of the electromagnetic research complex of Vernadsky station on Galindez Island.
* 37 microclimate loggers for studying the microclimate and ecology of Antarctic vascular plants and further climate impact studies.
* Areas of the geologic and paleomagnetic polygons where researchers actively search for bedrocks originating from different epochs and magnetic rocks that are evidences of paleomagnetism.
* The region contains a diverse though largely unstudied invertebrate fauna, including two tardigrades that are new to science (*Bryodelphax olszanowskii sp. nov*. and *Diphascon puchalskii sp. nov.*); the copepod *Pseudobocellia popeii* was found here outside of its general distribution.
* Unique karyotypes of *D*. *antarctica* were found here, as well as one of the largest populations of *C. quitensis* in this region, which is believed to be the origin population for the whole region*.*
* Plots for regular studies of the dynamics of development and taxonomic structure of plankton communities (near Galindez Island).

Wilderness, geology and aesthetic values:

* The numerous rock outcrops on the Graham Coast and adjacent islands are of great interest for studying the stratigraphy, magmatism and tectonics of the Antarctic Peninsula as well as reconstruction of its geological history during the Paleozoic, Mesozoic and Cenozoic. Beside the wide range of ages, local geological formations demonstrate significant petrographic diversity of the rocks and their positioning.
* A number of geological outcrops new to the Antarctic Peninsula and important for the reconstruction of its geological history was discovered here.
* It also has high aesthetic value: Lemaire Channel, one of the most famous channels in Antarctic for its beauty and spectacular views.
* Spectacular views due to numerous islands of different heights, which are also snowy to different extent; glaciers and impressive views of high mountains of mainland in the closest vicinity.

***Prior assessment***

Following discussions at CEP XX, the *Guidelines: A prior assessment process for the designation of ASPAs and ASMAs* were up dated to include a non-mandatory ASPA prior assessment template to facilitate the provision of information consistent with the Guidelines. Ukraine has completed the prior assessment template for the proposed ASPA (see: Attachment A), which includes extended table of values of each site, maps, and list of relevant publications.

If the CEP agrees that the area merits special protection, Ukraine intends to develop intersessionally a Management Plan for the proposed ASPA in collaboration with all interested Parties with the expectation that this will be submitted for consideration during CEP XLVI.

***Recommendations***

Ukraine recommends that the CEP:

1. agrees that the values within the proposed ASPA merit special protection, as described under Annex V to the Protocol;
2. endorses the development of a Management Plan for the Area, led by Ukraine; and
3. encourages interested Parties to work Ukraine informally during the intersessional period in the development of a Management Plan for potential submission at CEP XLVI.