

## Pilot area – Velika plaža, Ulcinj, Montenegro

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|---|---|
| Location  | Municipality of Ulcinj, Montenegro  |
| Property  | Public property. The EPA MNE grants authorisation for actions in protected natural resources such as Velika plaža Beach. No environmental impact assessment (EIA) is needed.  |
| Position  | 41° 55' 25" N, 19° 12' 14" E<br>Velika plaža is about 4 km from the town of Ulcinj. This area is bounded by the Port Milena channel in the west and the river Bojana/Buna in the east.  |
| Surface area  | Around 600 ha. The beach has an average width of about 50 m and a length of about 13 km (PUP Ulcinj, 2013)  |
| Habitat type  | Eleven NATURA 2000 habitats are reported for the beach and its hinterland: Annual vegetation of drift lines (1210), Embryonic shifting dunes (2110), Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes, 2120), Fixed coastal dunes with herbaceous vegetation (grey dunes, 2130*), Humid dune slacks (2190), Dunes with <i>Euphorbia terracina</i> (2220), Mediterranean salt meadows ( <i>Juncetalia maritima</i> ) (1410), <i>Brachypodietalia</i> dune grasslands with annuals (2240), Wooded dunes with <i>Pinus pinea</i> and/or <i>Pinus pinaster</i> (2270*), Mediterranean temporary ponds (3170), and <i>Salix alba</i> and <i>Populus alba</i> galleries (92A0) (Milanović et al. 2021).   |
| Vegetation cover                                      | /   |
| Status  | Since 1968, the beach has been recognized as a monument of nature (Official Gazette of the Socialist Republic of Montenegro, SRJG 30/68). According to the Spatial Plan of Special Purpose for the Coastal Zone, one spatial unit on the east side of Velika plaža is recognized as a newly protected nature reserve, with forests, marshes and meadows. Nevertheless, the boundary of the area has not yet been officially established. The site is also included in the list of IPA areas (Petrović and Karaman 2009).  |
| Critical issues                                       | Part of the area is protected from trampling or grazing with a wooden fence. However, the rest of the beach, which represents more than 75% of the natural coast and 97% of whole sand dune system, is heavily impacted by tourism, illegal dumping, sand extraction and urbanization (Stešević et al. 2020, Šilc et al. 2020, Milanović et al. 2021).<br>Monitoring of the biota and habitats as well as monitoring of environmental parameters has not been established, while last detailed biological survey was undertaken in 2021 <sup>st</sup> . Result of the survey is considered as out of date, while rather intensive anthropogenic pressure caused very obvious landscape changes, habitat fragmentation and possibly loss of some very sensitive species as plant <i>Euphorbia paralias</i> . |
| Species present at the site<br>(Directive 92/43 EEC ) | Mammals: <i>Miniopterus schreibersi</i> , <i>Myotis beschsteini</i> , <i>Myotis blythii</i> , <i>Myotis capaccinii</i> , <i>Rhinolophus euryale</i> ; 75 bird species + migratory species; Reptiles and amphibians: <i>Testudo hermanni</i> , <i>Emys orbicularis</i> , <i>Mauremys caspica</i> ; Invertebrata: <i>Lycaena dispar</i> ( <a href="https://epa.org.me/wp-content/uploads/2018/08/ISPU-DSL-dio-Sektora-66-modul-IV-V.pdf">https://epa.org.me/wp-content/uploads/2018/08/ISPU-DSL-dio-Sektora-66-modul-IV-V.pdf</a> ).  |
| Other protected species also present                  | Plants: <i>Ammophila arenaria</i> , <i>Euphorbia paralias</i> , <i>Pancratium maritimum</i> , <i>Polygonum maritimum</i> , <i>Slasola kali</i> , <i>Eryngium maritimum</i> , <i>Echinophora spinosa</i> , <i>Calystegia soldanella</i> , <i>Cakile maritima</i> ...   |

Since there is no established monitoring of the biota and habitats as well as monitoring of environmental parameters, the activities in the first year of the project should be focused on field survey, data gathering and assessment of the current state. Therefore, the pilot actions – dune restoration site will be defined based on the data in the existing literature and data analysis obtained during the project.



Fig.1. Sandy beach Velika plaža in Montenegro (Stesevic, D. et al.,2019)

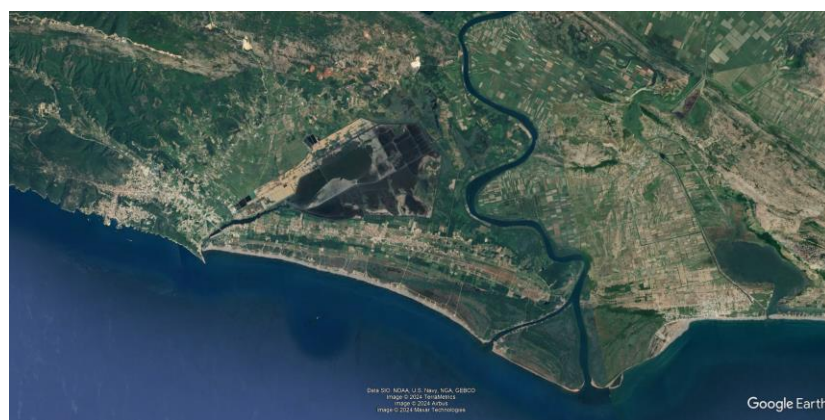


Figure2. Sandy beach Velika plaža with nearby municipality of Ulcinj and Bojana/Buna river (Google Earth)

#### Literature:

- Stešević, D., Küzmič, F., Milanović, Đ., Stanišić-Vujačić, M., & Šilc, U. (2020). Coastal sand dune vegetation of Velika plaža (Montenegro). *Acta Botanica Croatica*, 79(1); DOI: 10.37427/botcro-2020-003.
- Šilc, U., Mullaj, A., Alegro, A., Ibraliu, A., Dajić Stevanović, Z., Luković, M., Stešević, D. (2016). Sand dune vegetation along the eastern Adriatic coast. *Phytocoenologia* 46, 339–355.
- Milanović, Đ., Caković, D., Hadžiablahović, S., Vuksanović, S., Mačić, V., Stešević, D., Stanišić-Vujačić, M., Biberdžić, V. & Lakušić, D. (2021): Priručnik za identifikaciju tipova staništa Crne Gore od značaja za Evropsku uniju sa obrađenim glavnim indikatorskim vrstama. Agencija za zaštitu životne sredine Crne Gore, Univerzitet u Banjoj Luci - Šumarski fakultet.
- Petrović, D., Karaman, M. 2009: Important plant areas in Montenegro – IPA Programme. NVO Zelena Gora, Podgorica
- PUP Ulcinj, 2013: Prostorno-urbanistički plan opštine Ulcinj 2020 – Nacrt plana (Spatial - Urban Plan of the Municipality of Ulcinj – draft plan)