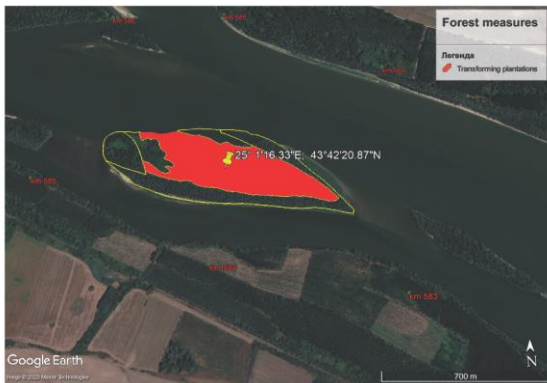


## Factsheet C.4.10: Palets Island (Bulgaria, BG019 PALETS)

Location: right bank of the Danube at river km 584

Responsible Partner: Persina Nature Park Directorate (PNPD)

Background: The site of restoration is located on one of the islands within the boundaries of Persina Nature Park – Palets Island. The total area of the island is 40.1 ha, and 20.7 ha are occupied by invasive species. The target invasive species are mainly hybrid poplar and *Amorpha fruticosa*. The average coverage with these species is about 50-70%. Perhaps, the biggest technical challenge is reaching the island to place machinery and equipment. The island is surrounded by water all year round and there is no such period when it connects with the mainland due to the low water level. Cleaning of invasive species and soil preparation before afforestation require the use of mechanization.



### Objectives:

The main goal for the implementation of this activity is to restore habitat 91E0\* on area of 10 ha by transformation a hybrid Poplar plantation into a floodplain forest with native tree species.

Based on the technical plan of afforestation following measures are going to be implemented on field:

- Elimination of invasive species. Carrying out felling of coppice hybrid poplar and export of wood outside the island to provide space for the restoration of the target habitat.
- Mechanized and/or manual activities for preparation of soil for planting of sapling; Soil preparation on 10 ha. Cleaning of the area of *Amorpha fruticosa* and hybrid poplar offshoots. The goal is to keep native species such as White willow (*Salix alba*), White poplar (*Populus alba*) and Black Poplar (*Populus nigra*) as well as dead wood.
- Purchase of saplings of native tree species: White willow (*Salix alba*), White poplar (*Populus alba*), Black poplar (*Populus nigra*), Pedunculatae oak (*Quercus robur*), European white elm (*Ulmus laevis*), etc.
- Planting of saplings by following methodology: afforestation with 1-2-year-old saplings in the cultivated areas, as the micro-elevations afforested with Pedunculatae oak (*Quercus robur*) and European white elm (*Ulmus laevis*), and the depressions with Black poplar (*Populus nigra*).



- Growing of the young plants for 3 years, removal of invasive shoots, and tolerance of native species.
- Perform actions to support the natural regeneration of White willow (*Salix alba*) etc.
- Monitoring and inventarisation. Assessment of conformity of vegetation with habitat 91E0 \*

#### Reason why this action is necessary

The transformation of natural floodplain forests in intensive poplar plantations in the past is a threat of particularly high importance in relation to natural forests. This transformation totally alters the species composition and structure of the affected forest communities. The short rotation period, the technological activities in the afforestation, cultivation and harvesting of intensive poplar plantations disrupt characteristic and valuable micro-habitats such as small wetlands, the river and the migratory corridors along the Danube, destroying existing and potential habitats of nesting birds and causing concern during their breeding period. On the other hand, the relatively large area occupied by hybrid poplar plantations is a prerequisite for reducing the genetic diversity of the populations of native tree species.

Disturbance of the natural structure of the forest is one of the prerequisites for the accommodation of aggressive invasive tree and shrub species that are not typical for the region and favors the development of erosion processes.

#### Expected results.

- Transformation of 10 hectares of hybrid poplar plantation into a floodplain forest – restored habitat 91E0\* according to Natura 2000 classification
- Positive impact for the biodiversity on the whole island in the size of 46 ha; establish a "green corridor" with restored 91E0\* habitat on two neighboring islands (Gradina island, next to Palets island was a target area for restoration of habitat 91E0\* under the Project LIFE08 NAT/BG/000281, Conservation and Restoration of 11 Natura 2000 Riparian and Wetland Habitats in 10 SCI's in Bulgarian Forests)
- Reduction of erosion processes, destruction of the coasts and loss of soil
- Change the category of Palets island from C to A WILDIsland