INTRODUCTION
The first archaeological excavations were carried out by archaeologist Valdis Bērziņš in 2007 at the margin of Stēpenu Mires (Priedaine, Jūrmala City) (Fig. 1, 6, 7), where local people have been found stone age on 1975. Excavation at the Priedaine was continued during 2008 and large number finds about ancient fishermen's activities, which lived there before 5000 years (the Neolithic Age) was found (Fig. 2, 5).

Fragments of fishing gear and tools have been found, as well as remains of ancient inhabitant food. Fish scales and nutshell. Comb and pit type ceramics (Fig. 2) obtained at the excavations have been provisional dated to 3000 BC.

Investigations of geological, paleogeographical and paleoenvironmental conditions promoting inhabitation and preservation at Priedaine have been carried out in 2008 conducted by G. Eberhards (2008) (Fig. 8, 9).

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Fig. 1. Study area in Latvia

Fig. 2. Finds of ceramics, amber and flint

Fig. 6. Relief map of the Lielupe-Daugava lower course

Fig. 7. Relief map of the Priedaine stone age settlement area

Fig. 9. Cross-section of the Babite lagoon

Fig. 10. Pollen diagram of Priedaine site

Ruderal and cultivated land herb pollen indicates human presence and activities in the area since the time when organic sediment began to accumulate. Accumulation was especially intensive during AT2 and AT3, subsequently decreasing (Fig. 11, 12).

Fig. 11. Herbs pollen diagram of Priedaine site

Data of plant macroremains analysis demonstrates aquatic plant presence in whole section (6.9 - 0.1m). Four macroremains complexes are divided (Fig. 13) (Table 2). AB - Rupestris maritima presence among aquatic plants (beginning and middle part of AT5). Well preserved seeds of aquatic plant Hydrargyrum (Rupes maritima) (Fig. 13) occur in almost whole interval 1.3 - 1.4 m. Plant is distributed in salty lake water in depth up to 1.4 m in Latvia it usually grows together with Soft Hornwort or Tropical Hornwort (Centunculus submersum) and Horned Pondweed (Lemna trisulca) in the protected area of Priedaine meadows located at Valsauce coastal area of the Gulf of Riga. Seeds of these plants occur as well in this depth interval (Centunculus submersum up to 1.4 m). Rupes maritima and Centunculus submersum haven’t been found above depth 1.4 m. This fact probably indicates that sea water didn’t flow into lagoon anymore during next phases of lagoon development and water became less salty and unsuitable for growing of these plants.

- aquatic plants Hydrargyrum, Zannichellia palustris, Nuphar lutea, Potamogeton perfoliatus, Nymphaea alba, and aquatic plant remains (end of AT3, SB).

- dominance of terrestrial plant remains (end of SB, SA). Sharp decrease of aquatic plant species and plant remains as well increase of mine, wet meadow and other terrestrial plants can be observed in the upper part of section (6.9 - 0.1 m). That point on rapid paleoflood of area and overgrowthing of water basin. Only two aquatic plant remains have been found in depth interval 0.45 - 0.17 m, but above this interval just mine plants remain.

Fig. 12. Plant macrofossil diagram of Priedaine site

The finds from the excavation area, at the foot of a linear dune, relate to the uppermost peat layer and an underlying layer of fine sand, rich in plant matter (Fig. 4). The archaeological material, dated to the Middle/Late Neolithic, includes large numbers of pine lethal, in two cases bound with birch bark (probably waste from the making of fishing structures), as well as some unusual wooden implements (Fig. 5). Along the plant macroremains are remains of food plants (Fig. 14). Corylus avellana nuts, Trapaeolus fruticosus, as well as seeds of Rubus olivaceus and Fragaria vesca. The diversity and quantity of remains of other plants (Prunus, Ficus, Arctostaphylos uva-ursi), including scirpoids (Chenopodium album, Oenothera biennis, Polygonum reptans) is much greater than in the core samples. Seeds of the aquatic plants Caululina rivolii, Nuphar lutea and Rhipidocladus albus indicate a subaerial depositional environment.

Fig. 13. Seeds of Priedaine site (core 20)

Fig. 14. Seeds from the excavation site:
A - Corylus avellana, B - Trapa natans (frangm.), C - Rubus idaeus, D - Arctostaphylos uva-ursi

Fig. 3. Excavation area, at the foot of a linear dune

Fig. 4. Trench of the excavations, A section

Fig. 8. Geological cross-section of the Priedaine area

Fig. 5. Wooden implements

Fig. 15. Plant macrofossil diagram of Priedaine site