Plant macrofossils from deposits of the former Lake Schwarzenberg (South Bohemia, Czech Republic) and from associated Mesolithic archaeological sites.

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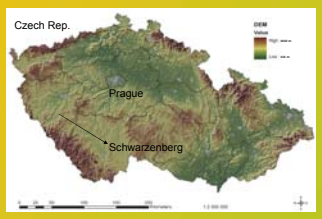


Fig. 1. Lokacion of the site on the map.

Fig. 2. The area of the former lake. In the foreground is the aeolian sand dune of the Late Glacial age. In the background the Schwarzenberg fishpond. Foto P. Pokorný.

Fig. 3. The Schwarzenberg fishpond. Situation plan with cores, trenches, archaeological sites and the reconstructed Early Holocene shoreline.

Fig. 4. Shaft phragment made from pine wood (9500 ± 50 BP).

Fig. 5. Selected macroremains (edible fruits: (Rubus saxatilis, Sambucus nigra), bar scales 1mm. Selected wooden artifacts (pinewood, Early Mesolithic period), bar scales 1 cm.

Introduction

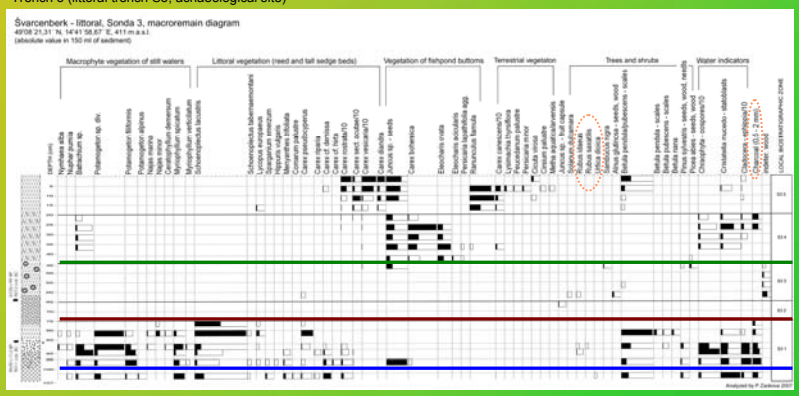
Investigations of the Schwarzenberg Lake constantly bring important data on vegetation, landscape development and human occupation since the end of the Last Glacial Maximum.
The great scientific potential of this area is based on conditions suitable for both palaeoenvironmental and archaeological research.
Since the discovery in 1996, sediments of the extinct Schwarzenberg Lake represent the most complex archive of palaeoenvironmental information in the area of the Czech Republic.

The former Schwarzenberg Lake

- situated in norhern edge of Třeboň Basin, South Bohemia
- the lake originated in the end of Pleniglacial (cca 16 000 BC)
- kidney-shaped with steep slopes
- depth of sediments cca 10 m (in the middle of the basin)
- surface area of the lake was about 0,51 km^2
- eight Mesolitical archeological site were identified in the SE shore
- interesting findings: the shaft fragment 9500 ± 50 BP (fig 4.), stone and wooden artifacts (fig 5.), a fire ground with a clay

Results

Trench 3 (littoral trench S3, achaeological site)



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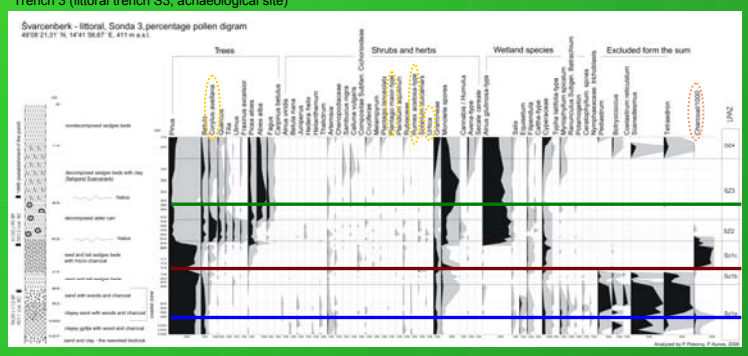
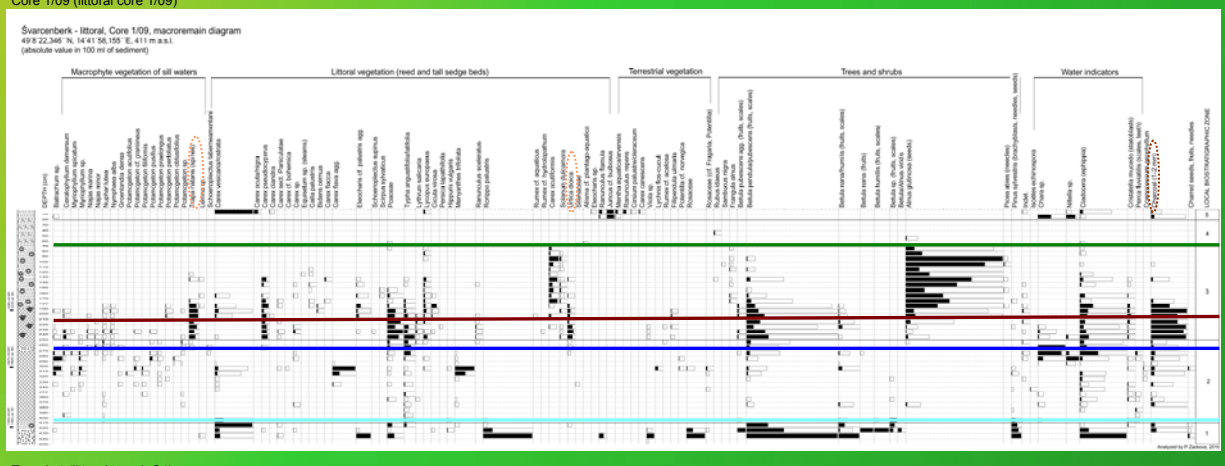


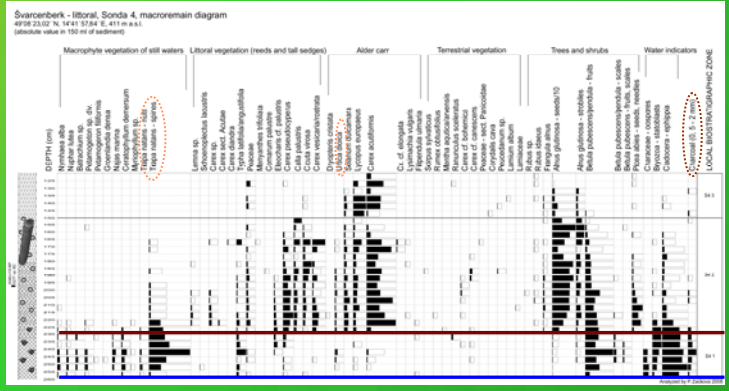
Core 1/09 (littoral core 1/09)



Periodization:
- Pleistocene/Holocene
- Atlantic
- Subatlantic (18th century)
- Younger Dryas

Indirect human indicators:
- Seed or fruit
- Charcoal
- Pollen

Trench 4 (littoral trench S4)



Conclusions

- During the time of the Late Glacial and early Holocene period (9 000 BC) the investigated area was a coastal sand zone. The water level in this period fluctuated, probably due to climate changes.
- The mesolithic settlement in the first half of the Holocene is clearly detectable by the combination of macroremain, pollen and charcoal analyses (*Corylus avellana*, *Trapa natans*, *Rubus saxatilis*, *R. idaeus*, *Urtica dioica*).
- The palaeoecological evidence pointed to a very intensive settlement, which had a significant impact on the landscape, probably not only at the local level (charred seeds and charcoal with high concentration in sediments).
- Terrestralization occured in the middle of the Holocene (cca 4000 BC) through high production of organic matter (vegetation of Alder carr: *Alnus glutinosa*, *Frangula alnus*, *Carex acutiformis*, *Solanum dulcamara*).
- Sediments from the Subboreal period are missing because of the peat mining.
- The Schwarzenberg fishpond was founded at the beginning of the 18th century on the same place where used the lake used to be.