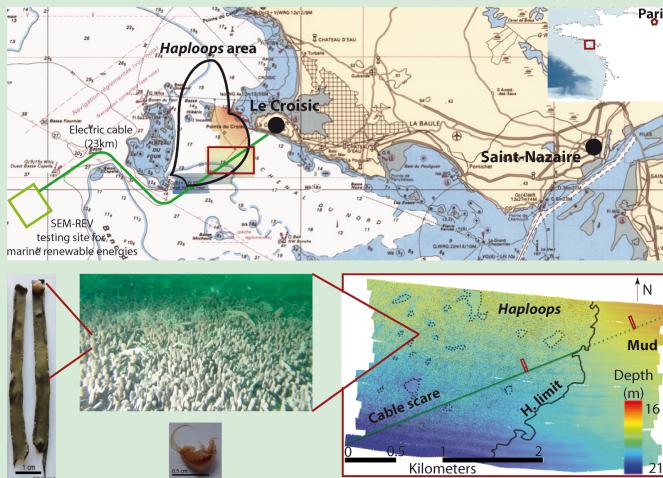


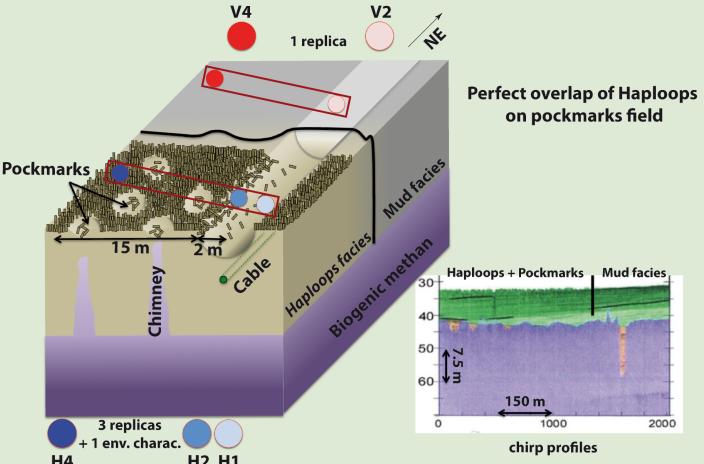


- * Which foraminiferal assemblages are associated to the *Haploops* habitats?
- * Does the physical disturbance associated to a buried electric cable have a medium-term impact on those specific compositions?

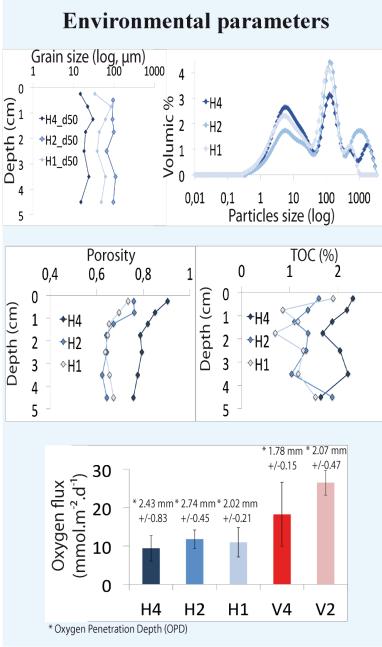
Study Area



Sampling Design

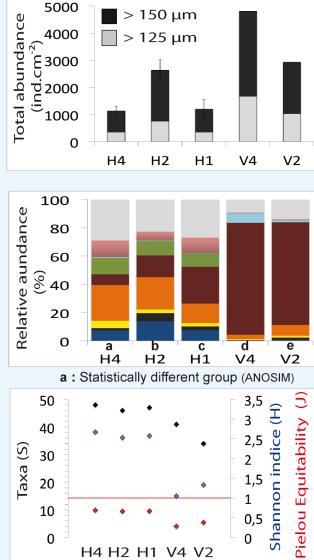


Results



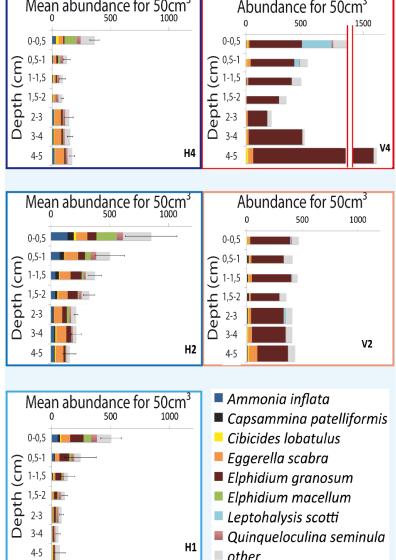
- Similar grain-size distribution for the three stations (3 modes : a clay one at 7 µm, a fine sandy one at 150µm and a coarse sand one)
- H4 has a higher proportion of clay, a higher porosity and a higher TOC content than H2 and H1
- Mud-facies stations have a higher oxygen flux at the sediment-water interface for a similar OPD compared to Haploops-facies stations

Haploops vs mud facies (0-5 cm; >125 µm)

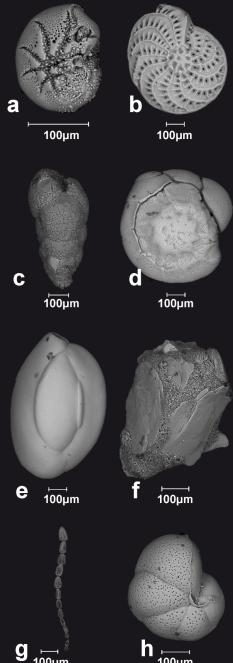


- Higher total abundance in the Mud-facies
- Dominance of *E. granosum* in the Mud-facies
- *E. macellum* exclusive of the Haploops-facies
- Biodiversity is higher in the Haploops

Foraminiferal vertical distribution (>125 µm)



- Vertical distribution varies from typical decreasing (H1, H2) to bimodal (H4, V4) to homogeneous (V2) in the sediment depth
- The dissimilarity between stations (all depth) on the base of species composition is significant (ANOSIM p-value < 0,05)
- Species proportions shift when closing the center of the cable scare (e.g., *E. scabra* gradually replaced by *E. granosum* moving from H4 to H1; *L. scotti* decreasing toward the cable scare along transect V)



a *Elphidium granosum*
b *Elphidium macellum*
c *Eggerella scabra*
d *Ammonia inflata*
e *Quinqueloculina seminula*
f *Capsammina patelliformis*
g *Cibicides lobatulus*
h *Leptohalysis scotti*

Conclusions

Haploops stations show higher biodiversity and the exclusive presence of *E. macellum* suggesting low environmental stress. The dominance of *E. granosum* and the low diversity of mud facies suggest less stable conditions for this habitat. The vertical distribution suggests physical disturbance (may be related to bioturbation?) at V stations and, at a minor extent at H4. Stations H1 and H2 situated into the cable scare do not show signs of bioturbation, maybe due to lack of recolonisation of the scare by *Haploops*.

Perspectives

- Test of some biotic index (F-AMBI, expH', FI)
- Ecology of the foraminifera assemblage at micro-scale (micro-habitat by studying FLEP/DET 2D gel, link to bioturbations)
- Deepen relationship between foraminiferal species and presence of methane (comparaison of pockmarks faunas)