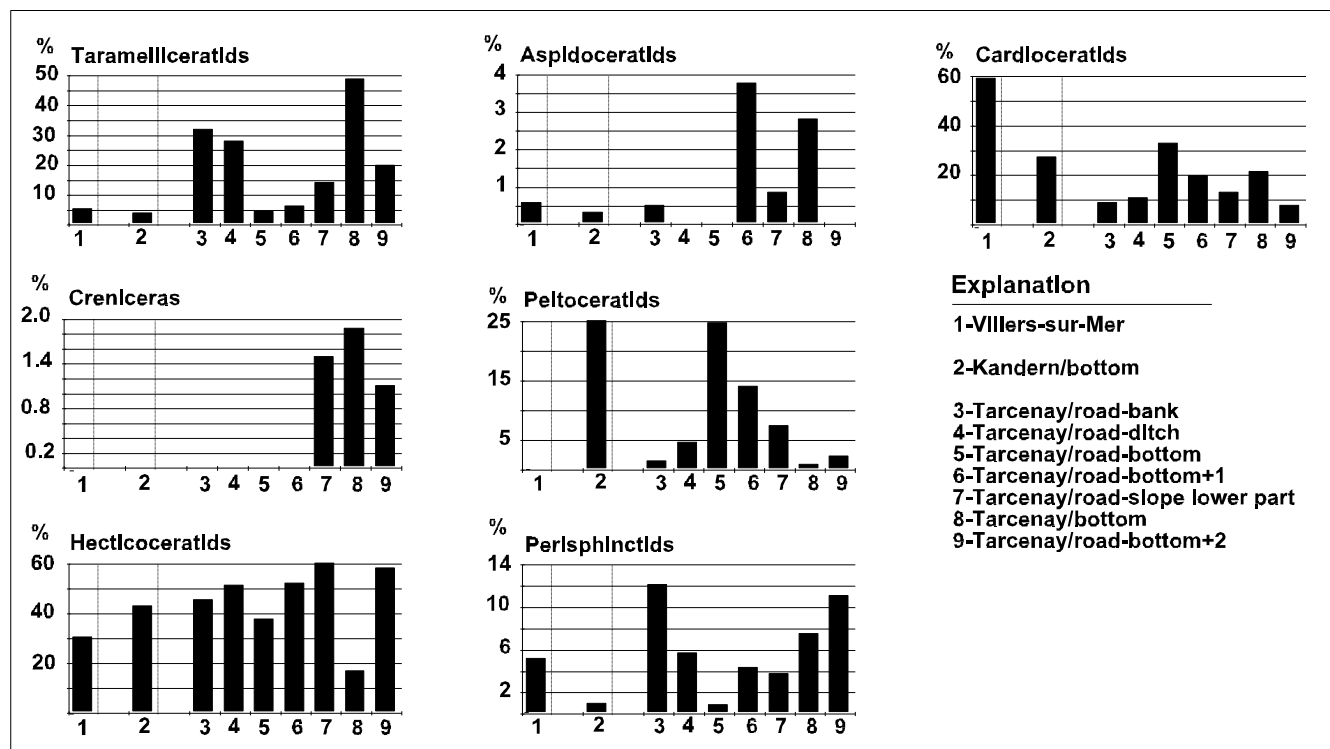


Faunal spectrum by sub-chrons

The following ammonite fauna profiles are grouped as the previous chapter but additionally have a geographical component. (picture 2.1).

The Lamberti Chron (Plate 40.1 / 40.2)

It might be surprising that within a certain site and within the same subchron there are clear differences in the fauna spectrum. As the size of the fossils are within a small band width, a faunal profile cannot be the result of varying currents and therefore, show different profiles. Whether the reason for this circumstances is a slowly changing biotop, an evolutionary development or just a small time difference is difficult to judge. I personally believe that it is an evolutionary development of the findings which easily can be seen as a change of species. This only can be proven by a developing line, which only can be observed by a comparison of the total findings.



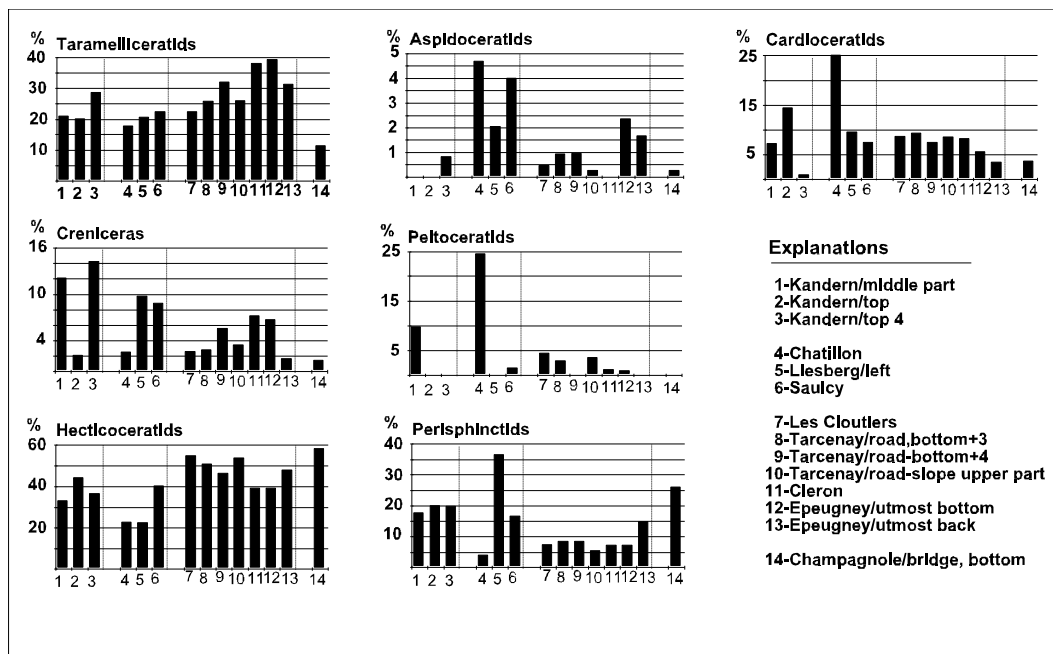
The late Lamberti Subchron

In general one has the impression that the fauna of Kandern and Tarcenay are quite different. Villers-sur-Mér seem to belong to the Henrici subchron. Nevertheless site 2 and 5 (Kandern/bottom and Tarcenay/road, bottom) have yielded very similar profiles.

Tarcenay/bottom, a house construction, seems to belong to the Lamberti subchron. The yield was quite small. Whether the Creniceras found here are not really Glochiceras, can not be said with certainty.

Tarcenay/road (locations 3-9 in the above graph) show a time sequence within Lamberti subchron within the same location.

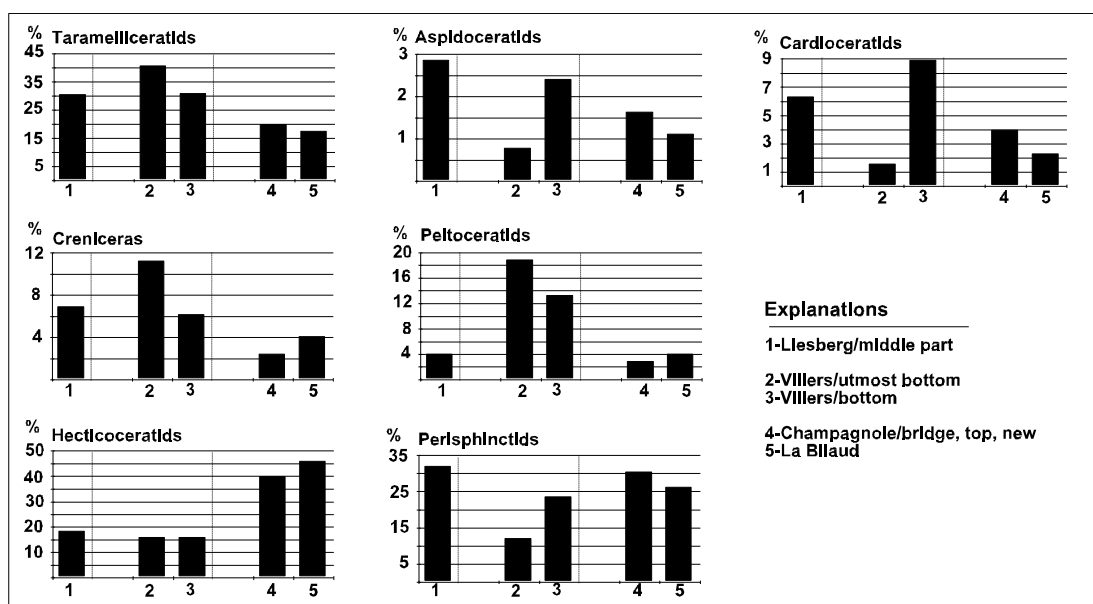
Scarburgense Subchron (Plate 41.1)



Scarburgense subchron

By not taking into consideration the distribution of Aspidoceratids and Peltoceratids, the geographical distribution shows a much more unique appearance. The geographical group Kandern and Tarcenay again represent a chronological sequence within the Scarburgense subchron. Les Cloutiers directly marks the borderline Lamberti / Scarburgense subchron. Unfortunately this was only realised when determining the findings. The integration within the Scarburgense subchron in the above graph has to be interpreted with some reservations.

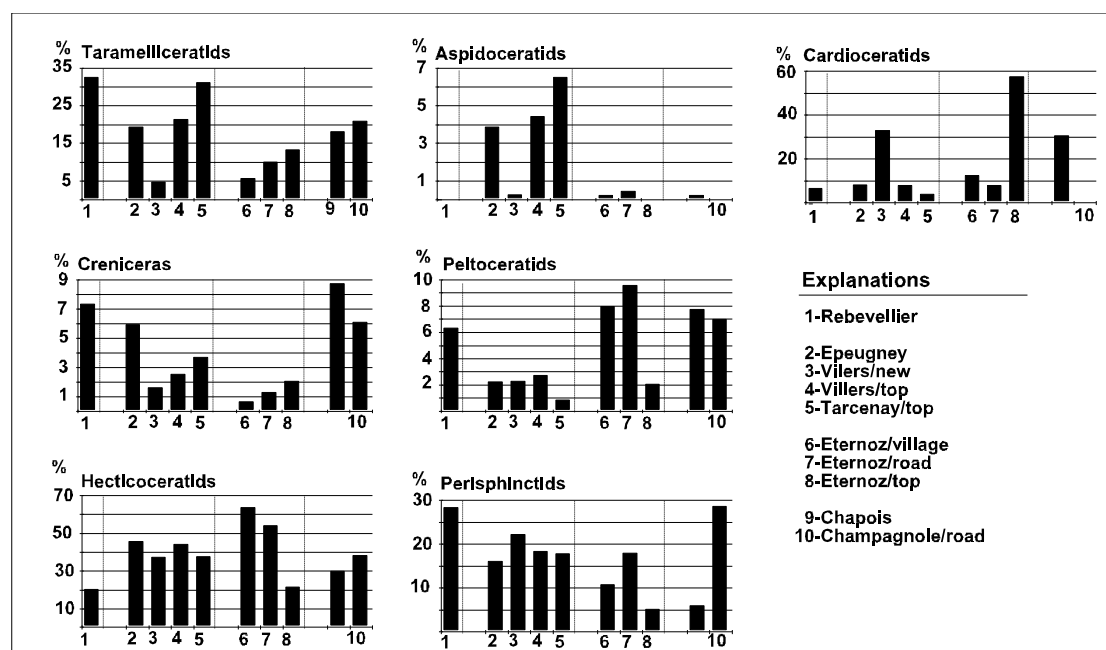
Praecordatum Subchron (plate 41.2)



Praecordatum subchron

Here as well the more southern sites seem to have a slightly different fauna profile.

Bukowskii / Costicardia Subchron (plate 42.1)



Bukowskii / Costicardia subchron

To differentiate a Bukowskii subchron from a Costicardia subchron is too difficult for me. The relatively remarkable frequency of the Aspidoceratids and the relatively rare Peltoceratids at the area of Villers-s/s-Montrond and the low number of Creniceras in the area of Eternoz are worthwhile mentioning.

Whether these statements are appropriate on a subchron level should be left to the reader. Every one who wants to analyse more details may look at table 6.212, which has figures for previously shown graphs.

Abnormal ammonite shells

Exceptional wise one can find shells, which show differences of their normal features, specially their ornamentation. To me it does not make sense to discuss what the reason for these differences are. Prof.Hoelder from University Muenster/D has given latin names for these variances and makes proposals what the reasons for these variances might be like attack by a predator or repair, illness, genetic changes etc. At least the pictures show the possibilities this type of fossils have to overcome certain problems.

The following pages show abnormal shells which are exceptional findings. Whether the reason is a disease or a repair after an attack of a predator, who knows. I don't want to speculate.