



Injured shells/(animals)

As one calls such a damage of this *Perisphinctes bernensis* (top) forking of ribs (because a *Perisphinctes* occasionally has ribs and the repair occasionally looks like forking of ribs), one can't call the changing of the design of that land snail for sure not forking of ribs (because there do not exist any ribs). But the principle of that repair looks very similar.

This animal as well survived this massive repair quite a while (approx. 1 ½ windings).

How does *Creniceras renggeri* look like ?

Before talking about Renggeri Marl, one should show how this characteristic ammonite looks like and which are the types it possibly could be mixed up with.



Arbitrary number of *Creniceras renggeri* (0_Creni03)

As already mentioned besides eye-catching teeth mainly on the body chamber (approx. half of the last revolution) *Creniceras renggeri* does not show any significant features.

This impression changes quite fast as soon one takes pictures, enlarge them and then sorting / comparing them. The following pictures should illustrate this. Whether one interprets some of these findings as different species or just as the very often discussed variation width (not only horizontally = same time, but also vertically = during time) the reader may decide.

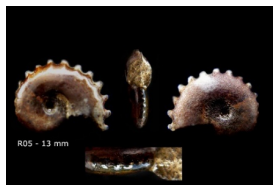
Pict.:02 Some arbitrary examples of "*Creniceras renggeri*" (?) (18 out of 60 are show



1



2



3



Some arbitrary examples of “*Creniceras renggeri*” (?) (15 out of 60 are shown)

Totally 60 findings (leftover of my collection, which now are in Singapore) had been analyzed. Out of these, 41 had been below 16mm, and totally 19 above 15 mm. Seven examples had been without or only small part of body chamber but could in my opinion be identified as macro-conch.

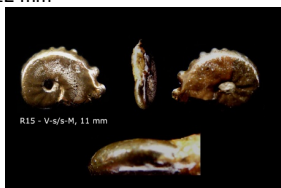
After having taken 4 pictures of every finding (left, right, front, and from front enlarged, to see possible crenulation of the phragmocon easier), one more likely could see differences. For instance no.2= crenulated phragmocon, no.12 or 1= smooth phragmocon. The advantage of comparing photos instead of the findings: One can easily enlarge different views or will not mix up the registration labels and can look at different views of one finding at the same time. Looking at this page above, one can recognize that some specimens have a crenulated venter while with others it is smooth. The size varies between 10 (with) and 19 mm (without or only parts of a body chamber). Pictures No.31 up to 43 do not have a sudden close up of the suture line and therefore, because of their size, might be the macro-conch of *Creniceras renggeri*.

Now e.g. a next step could be to compare findings where the body chamber is bending inwards compared to taking off of the spiral.

Body chamber **bending inwards**



12 mm



11 mm

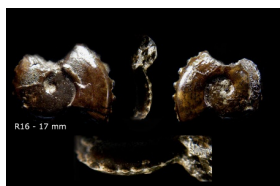


10 mm



13 mm

Body chamber **taking off**



17 mm



19 mm



16 mm



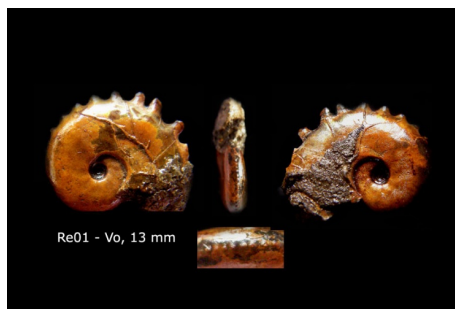
15 mm

Body chamber bending inwards (left) / taking off (right)

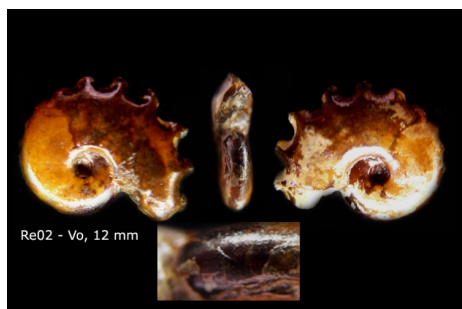
Surprisingly findings, where the body chamber is bending inwards (which only could be checked when selecting such types and showing together), all have a smooth venter/keel (left column) and are smaller than the ones where the body chamber lifts up and then has a crenulated venter / phragmocon (right column).



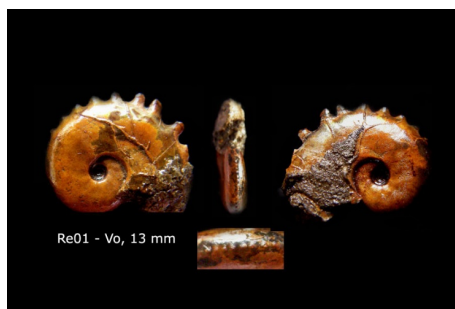
R25 GFZ-1.6 D=19mm



Re01 GFZ-1.9 D=13mm, see also below



Re02 D=12mm, phragmocon smooth



Re01 D=13mm, phragmocon weak crenulation

Different size of teeth within same (Re02/Re01)/ different size (Re01/Re25) of shell

As soon as there should have been measurements taken, the photos of the objects had been enlarged 10 times to prevent incorrect measurements.

Coryceras sp. ?? (see also picture)