ROYSEUX

by E. POTY, R. CONIL, E. GROESSENS, M. LALOUX & S. LAURENT

Three sections situated in the Hoyoux valley, south of Royseux, actually yield the most abundant Uppermost Visean micro and macrofaunas in Belgium. Two of them (sections I and II) will be visited.

1. ROYSEUX ROAD SECTION (ROYSEUX II)

References

PIRLET, H. (1963) - Lithologie, stratigraphie et tectonique du Viséen supérieur (bord nord du Synclinorium de Dinant). *Ann. Soc. géol. Belg., 86*, (1962-1963), *8*, 397-404.

CONIL, R. & LYS, M. (1964) - Matériaux pour l'étude micropaléontologique du Dinantien de la Belgique. *Mém. Inst. Géol. Louvain, XXIII*, 1-292.

PIRLET, H. (1968) - La sédimentologie rythmique et la stratigraphie du Viséen supérieur V3b, V3c inf. dans le synclinorium de Namur et de Dinant. *Acad. roy. Belg., Cl. des Sci., 2ème série, XVII (4)*, 1-98.

POTY, E. (1981) - Recherches sur les Tétracoralliaires et les Hétérocoralliaires du Viséen de la Belgique. *Med. Rijks Geol. Dienst, 35 (1)*, 1-161.

LAURENT, S. (1985) - Contribution à l'étude litho- et biostratigraphique du Viséen supérieur de Royseux (Synclinorium de Dinant). *Mém. de l'Université de Liège (inédit)*, 76 p.

Localisation

- Modave-Huy road cutting (right side of the Hoyoux river), south of Royseux at the edge of the Fort Sart wood.
- Documents of the Geological Survey of Belgium : 146 W 179.
- Documents R. CONIL : Huy 6-7.

Description

- bed 3 to 27 : algal and peloidal member belonging to the upper part of the Poilvache Formation. Note the bed 16 : a cinerite with caliche nodules ; and the bed 18 : argillaceous limestones with autochtonous *Stigmaria*.
- beds 28 to 68 : Anhée Formation, mainly bioclastic.

Foraminifera (M. LALOUX)

The microfauna of foraminifera is the richest and the most diversified of all those studied till now in this part of the basin.

Subzone Cf6γ

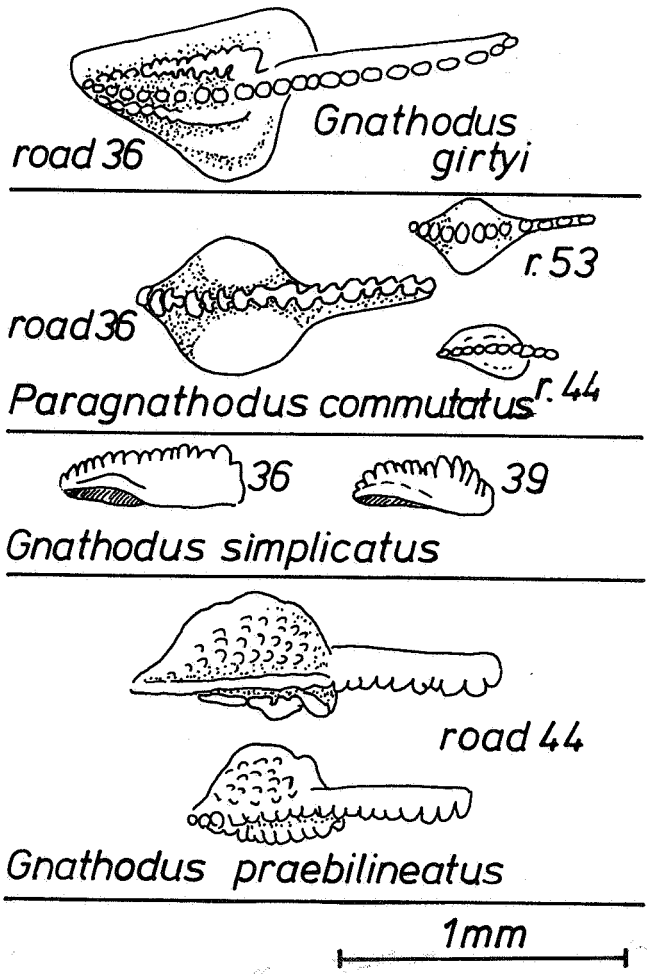
Cribrostomum and *Howchinia* gr. *bradyana* guides of the base of the subzone Cf6γ appear as soon as sequence - 2 of the V3bγ of PIRLET (1963, 1968).

The table below shows the important appearence of foraminifera of subzone Cf6γ in relation with the sequences of H. PIRLET (1968) for the Anhée Formation.

Sequences	Foraminifera	Section
- 2	*Cribrostomum* *Koskinobigenerina* *Howchinia* gr. *bradyana*	Road (PIRLET, 1968)
0	*Bradyina rotula*	wood (bed 6)
+ 2	*Cribrospira panderi*	road (bed 33) wood (bed 18)
	Bibradya	road (bed 29) wood (bed 20)
+ 5	*Asteroarchaediscus*	road (bed 60) wood (bed 48)
+ 6	*Plectostaffella*	wood (bed 58)
+ 8	cf. *Eostaffellina*	wood (bed 78)

Conodonts (E. GROESSENS)

Despite the numerous samples taken (beds 3A, 3C, 5, 6, 9, 14, 15 Top, 16, 17, 18, 21) no conodonts have been found in beds older than bed 25 were *Cavusgnathus* occurs. This genera is also present in bed 52. Bed 26 contains bars, *Hindeodella*, *Neoprioniodus* and *Spathognathodus scitulus*.



Neoprionodus has also been found in beds 31 and 53, and *Sp. scitulus* in beds 39, 44 and 53.

The first *Gnathodus girtyi* appears in bed 31 and was also present in beds 36, 52, 53 and 57 where many lingulids have been found in the residues.

Paragnathodus commutatus has been found in beds 36, 44 and 53 and *Gnathodus simplicatus* in beds 36 and 39. The only sample containing *Gnathodus praebilineatus* come from bed 44.

Mestognathus bipluti was found in bed 53. Beds 47, 48 and 66 didn't contain conodonts in the samples.

Corals (E. POTY)

Actually, the section does not allow to collect significant corals. Note the occurrence of *Siphonodendron junceum* (upper R.C. 7 subzone) in the beds 34, 45 and 53.

Brachiopods

Gigantoproductus are recorded from the bed 33.

Gastropods

Numerous vermetiform gastropods have been recorded in the beds 7, 38 and 49.

Trilobits

Beds 51 and 66.

Ostracoda

The presence of *Shemonaella* and *Paraparchitaces* in the bed 7 is indicative of a restricted shallow water faciès ; those of *Bairdia*, *Bairdiocypris* and *Bairdiacypris* in the beds 39, 42 and 68, an open shallow water, subtidal environment.

2. *ROYSEUX LEFT SIDE HOYOUX RIVER SECTION IN THE WOOD (ROYSEUX I-I') (section I' not figured here)*

References

POTY, E. (1981) - Recherches sur les Tétracoralliaires et les Hétérocoralliaires du Viséen de la Belgique. *Med. Rijks Geol. Dienst, 35 (1)*, 1-161.

LAURENT, S. (1985) - Contribution à l'étude litho- et biostratigraphique du Viséen supérieur de Royseux (Synclinorium de Dinant). Mémoire de l'Université de Liège (inédit), 76 p.

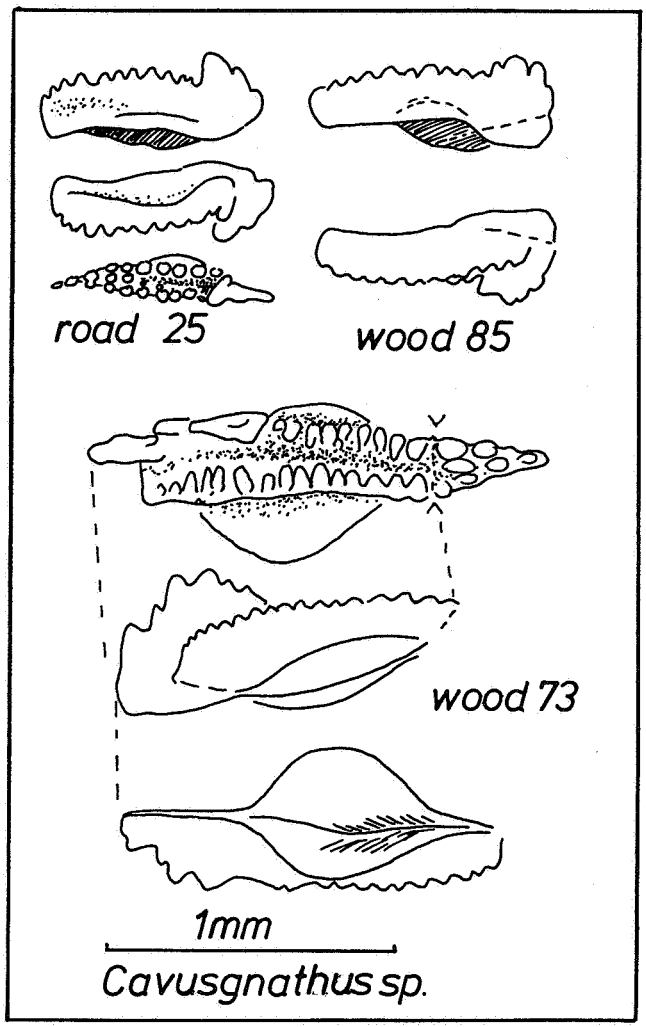
Localisation

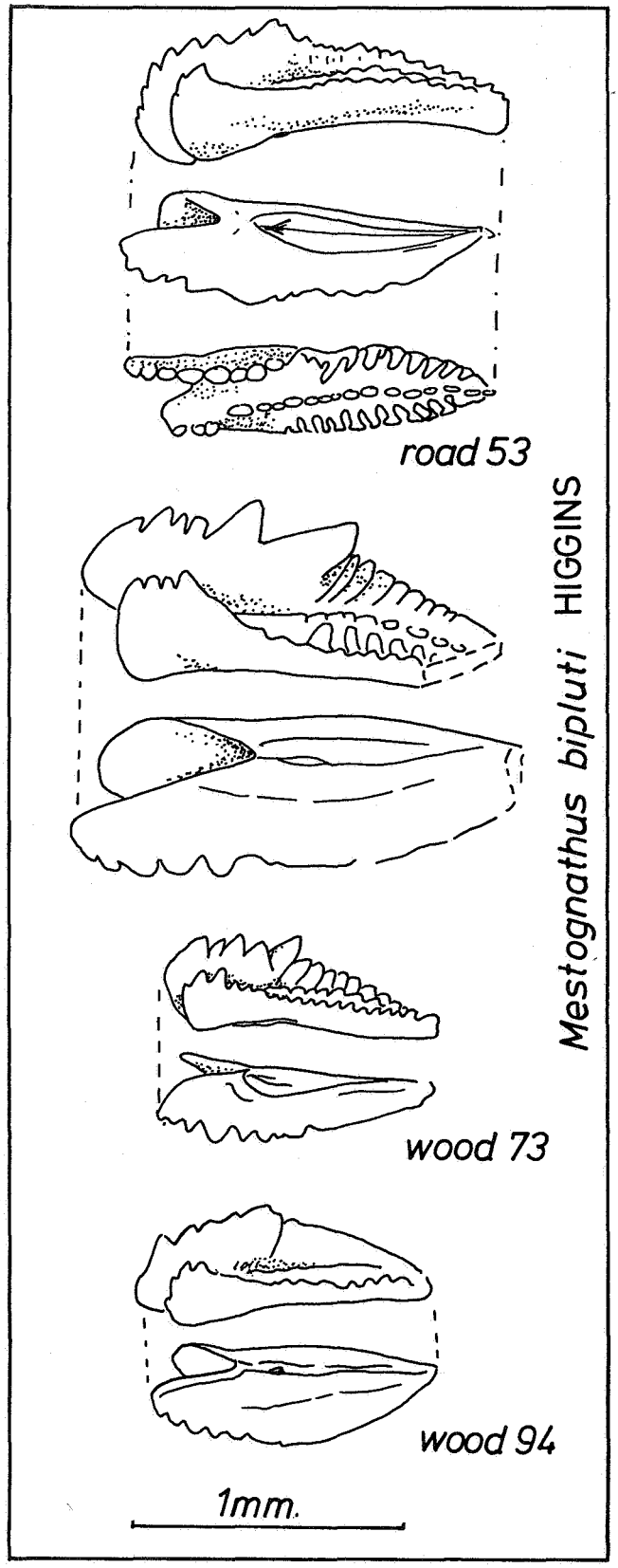
- Outcrop on the left slope of the Hoyoux valley, in front of and in the same south anticlinal flank as the previous section (Royseux II) road.
- Documents of the Geological Survey of Belgium : 146 W 280
- Documents R. CONIL : Huy 19.

Description

- beds I'2 - I15 : algal peloidal member belonging to the Poilvache Formation. Note the presence of rootlets in the bed 19.
- beds I16 - I94 : Anhée Foramtion, mainly bioclastic, with an abundant fauna including Foraminifera, Ostracoda, Conodonts, Corals, Brachiopods, ...
- beds 96 to 102 : Warnant Formation
  - bed 96 : weathered siliceous shales and limestones with small brachiopods, crinoïds and numerous fragments of trilobits.
  - beds 97 to 102 : phtanites, siliceous shales and siltstones, with some coal layers (bed 100).

The facies of the beds 96-102 is characteristic of the upper member of the Warnant Formation while the lower member of the Formation (finely bedded cherty limestones with shales) seems to be replaced by the same limestones as those present in the Anhée Formation.





Corals

The lower part of the section (beds I'19 and 20) has only yielded *Siphonodendron* sp. and Heterocorals, which indicate the lower RC7 coral subzone. From the bed I23 a rich fauna progressively develops and specimens become numerous in the upper part of the Anhée Formation (about from the bed 59). The most common corals are *Siphonodendron martini, S. pauciradiale, S. junceum, Diphyphyllum* sp., *Aulophyllum fungites, Dibunophyllum bipartitum, Palaeosmilia murchisoni* and *Pseudozaphrentoides juddi.* They are characteristic of the upper RC7 coral subzone. At least in the bed 90 occurs *Lonsdaleia floriformis crassiconus*, an indicative species of the RC8 coral zone and of the Brigantian stage in Great-Britain.

Conodonts (E. GROESSENS)

A previous sampling (LAURENT, S., 1985) has allow to find the first conodonts from this section (samples 27, 47 and 75).

Mestognathus bipluti was found at that time in bed 75. It was now also found in beds 73, 77 (a specimen of 2,5 mm in lenght) and 94.

Cavusgnathus sp. occures in beds 73, 78 and 85.

Gnathodus girtyi was found in samples 27, 73, 75, 77, 78, 81, 92 and 94.

Paragnathodus commutatus is restricted to samples 27 and 47. Sample 83 contained only bars and samples 80, 82, 88 and 90 did not yield conodont faunas.

Foraminifera (M. LALOUX)

The important appearence of foraminifera of subzone Cf6γ are listed above (Royseux road).

The guides of the subzone Cf6δ, *Warnantella* and *Loeblichia paraammonoides* appear respectively in bed 81 and bed 82 (base of V3c inf. sensu PIRLET, 1968, *see* remark about the lower member of the Warnant Formation above).

The assemblages found into beds 88 to 91 are extremely rich and contain among other *Climacammina* and *Janischewskina.*

Brachiopods

The first *Gigantoproductus* sp. occur in the bed 63 and are particulary common in the bed 91.

Bivalves

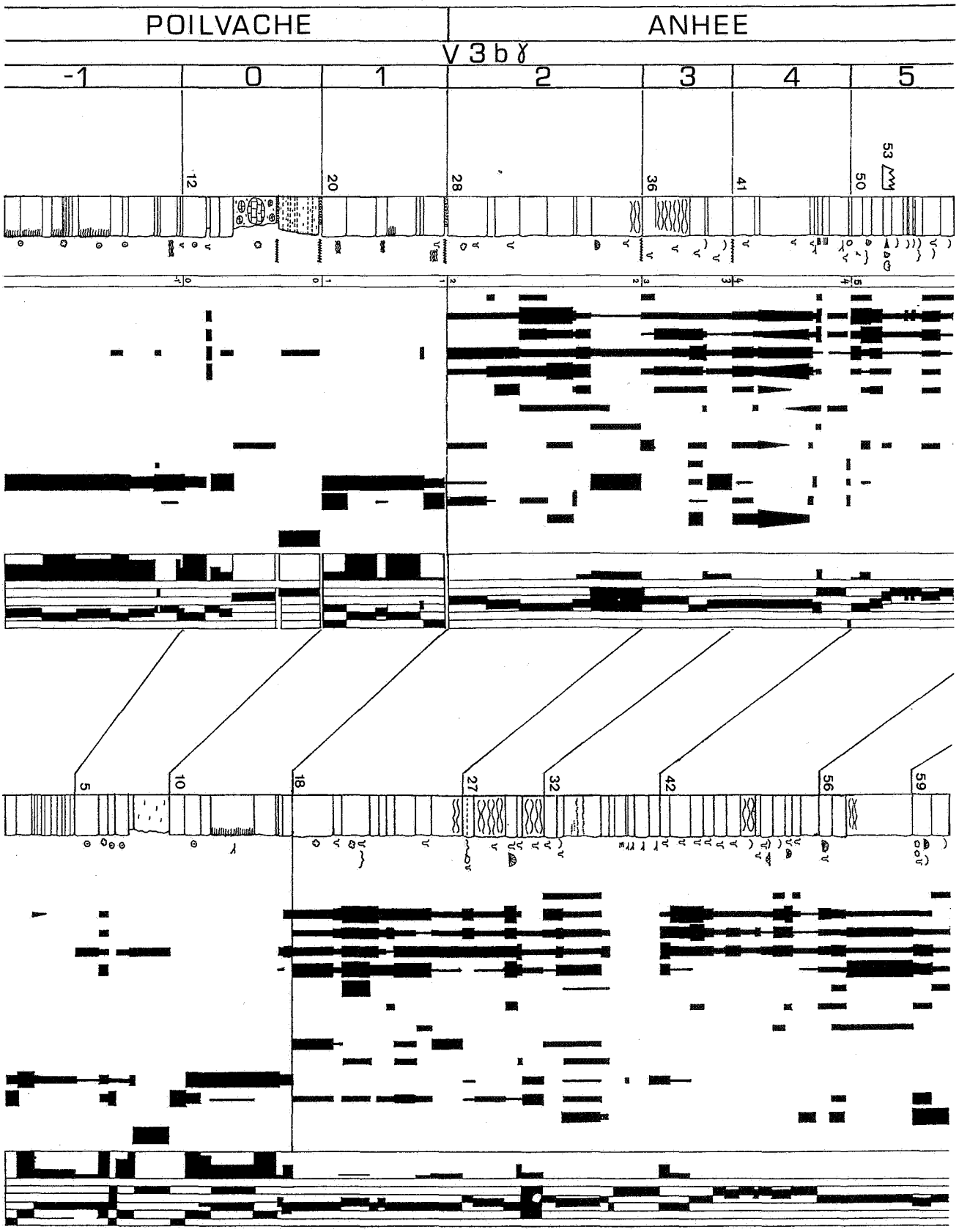
Note the presence of *"Lithophaga"* in the bed 27 (which contains also numerous fragments of trilobits and conodonts).

Trilobits

Beds 20, 27, 75, 96.

Ostracoda

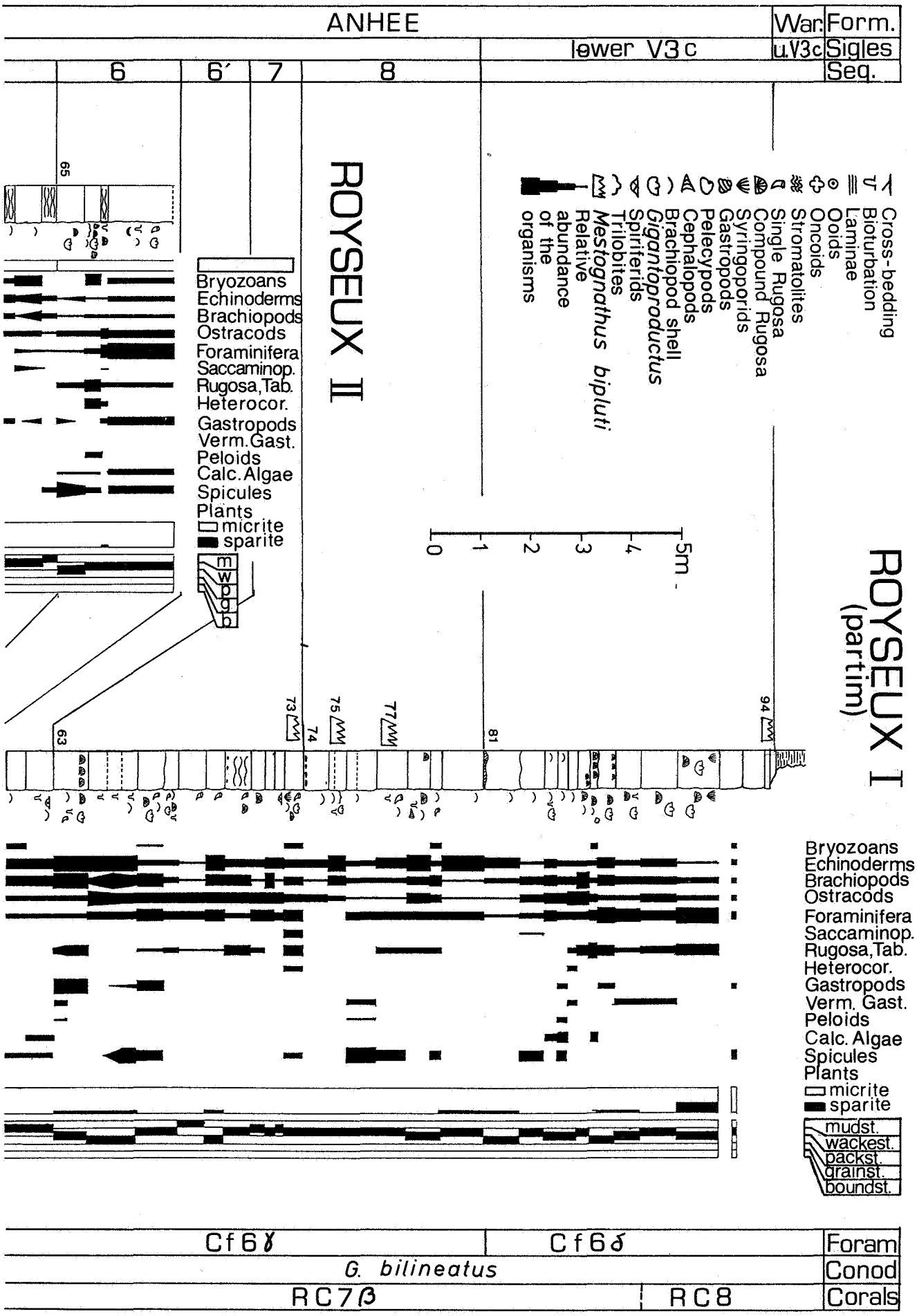
Some Paraparchitacea have been collected in the beds 5 and 30. They indicate a shallow environment.



Cf 6 γ

G. bilineatus

RC 7α (partim) | RC 7 β


ANHEE
War.
Form.
lower V3c
u.V3c
Sigles
Seq.
6
6'
7
8
ROYSEUX II
ROYSEUX I (partim)
Bryozoans
Echinoderms
Brachiopods
Ostracods
Foraminifera
Saccaminop.
Rugosa,Tab.
Heterocor.
Gastropods
Verm.Gast.
Peloids
Calc.Algae
Spicules
Plants
micrite
sparite
m
w
p
g
b
Cross-bedding
Bioturbation
Laminae
Ooids
Oncoids
Stromatolites
Single Rugosa
Compound Rugosa
Syringoporids
Gastropods
Pelecypods
Cephalopods
Brachiopod shell
Gigantoproductus
Spiriferids
Trilobites
Mesognathus bipluti
Relative abundance of the organisms
0
1
2
3
4
5m
mudst.
wackest.
packst.
grainst.
boundst.
Cf6γ
Cf6δ
Foram
G. bilineatus
Conod
RC7β
RC8
Corals