

MINISTRY OF ECONOMIC AFFAIRS
ADM. MINES - GEOLOGICAL SURVEY OF BELGIUM
13 Jennerstreet - 1040 Brussels - Belgium



EXCURSION D

Guides :

BLESS M.
BOUCKAERT J.
CONIL R.
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GROESSENS E.
STREEL M.
THOREZ J. (leader)

GUIDEBOOK

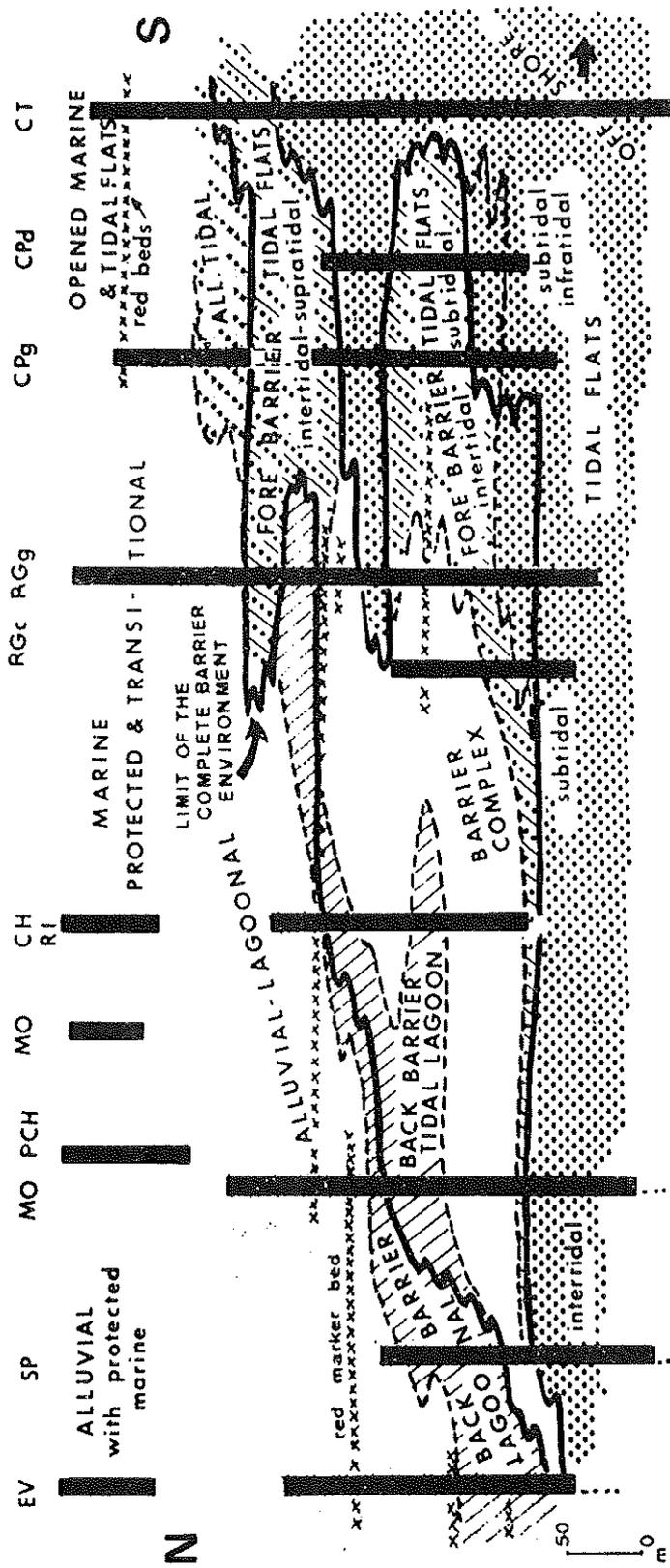
Edited by

J. BOUCKAERT & M. STREEL

The correlation chart (fig. 1) is taken from a previous work (B.S.T. 1968) but more recent and complementary data have been added and M.g.m used instead of chronozones for correlation. This chart presents the geographical and stratigraphical position of the different outcrops visited during excursion D and allows to built other diagrams. Fig. 2 for instance offers a simplified environmental reconstitution of the megafacies. Apart from a detailed analysis of the lithologies and rhythmic patterns and from the sedimentology, it has been possible to reconstruct the lithostratigraphical structure of the Ourthe valley Upper Famennian. Some formations and their associated members are shown on fig. 3. A complete proposal for a lithostratigraphical legend of the Upper Famennian in the north-eastern part of the Dinant synclinorium has been submitted to the Belgian National Commission on Devonian Stratigraphy but has not yet (June 1974) been discussed.

As shown by fig. 2 and 3, it must be emphasized that the "megaenvironments" are diachronous, particularly at the Montfort Fm. level. Sedimentology, palynology and micropaleontology (Forams, Conodonts and Ostracods) have been carried out independently and successively in the main outcrops.

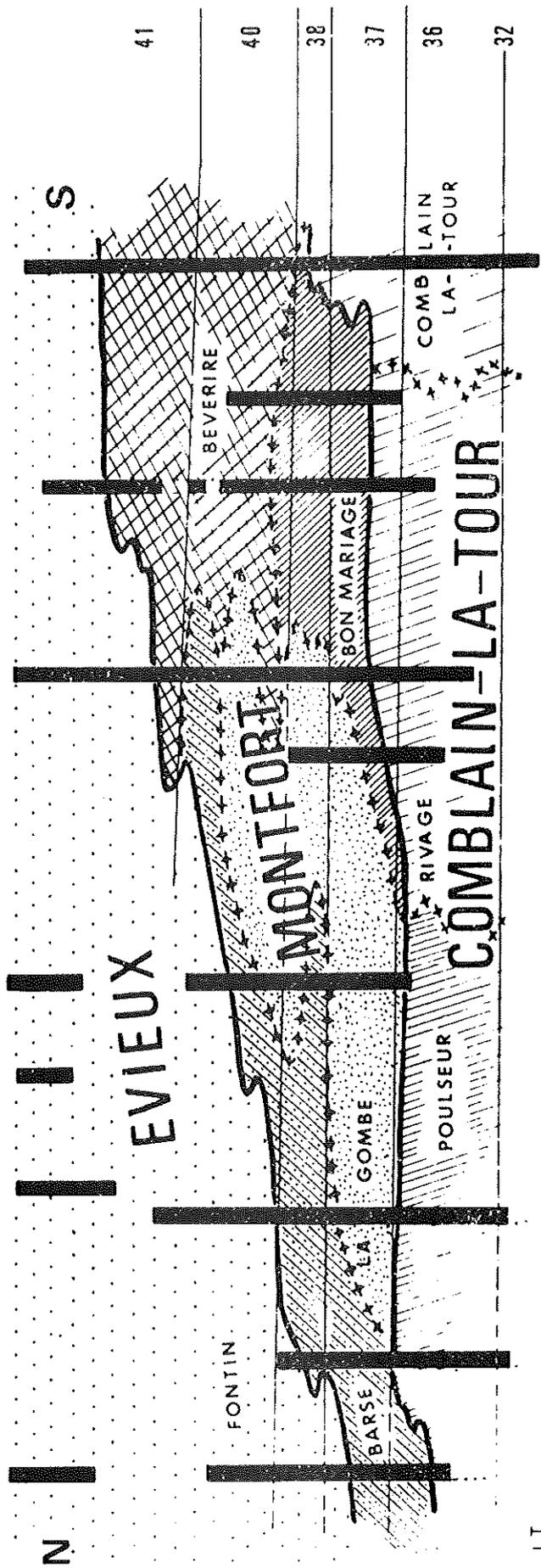
Fig. 4, displays the acritarcha assemblages and Fig. 5, the Ostracods assemblages and their relationships with the lithological facies. The ostracods assemblages are tentatively situated in the sedimentary environment on Fig. 6 which summeries the paleotopography of a sedimentary sequence.



: the "Psammites du Condroz"(Upper Famennian) in the Ourthe Valley:

Fig.2

simplified environmental reconstruction of the megafacies. The vertical black lines show the relative position of the investigated sections. No horizontal scale has been adopted. The sinuous black line borders the barrier complex s.l. with its ideal components back barrier, barrier complex s.s. and fore barrier.



J T

Fig. 3 schematic distribution of the lithostratigraphic units (formations and members) in the same area. The interfingering pattern of these units has been largely simplified. The graph shows the Montfort Formation and parts of the Evieux and Comblain-la-Tour Formations

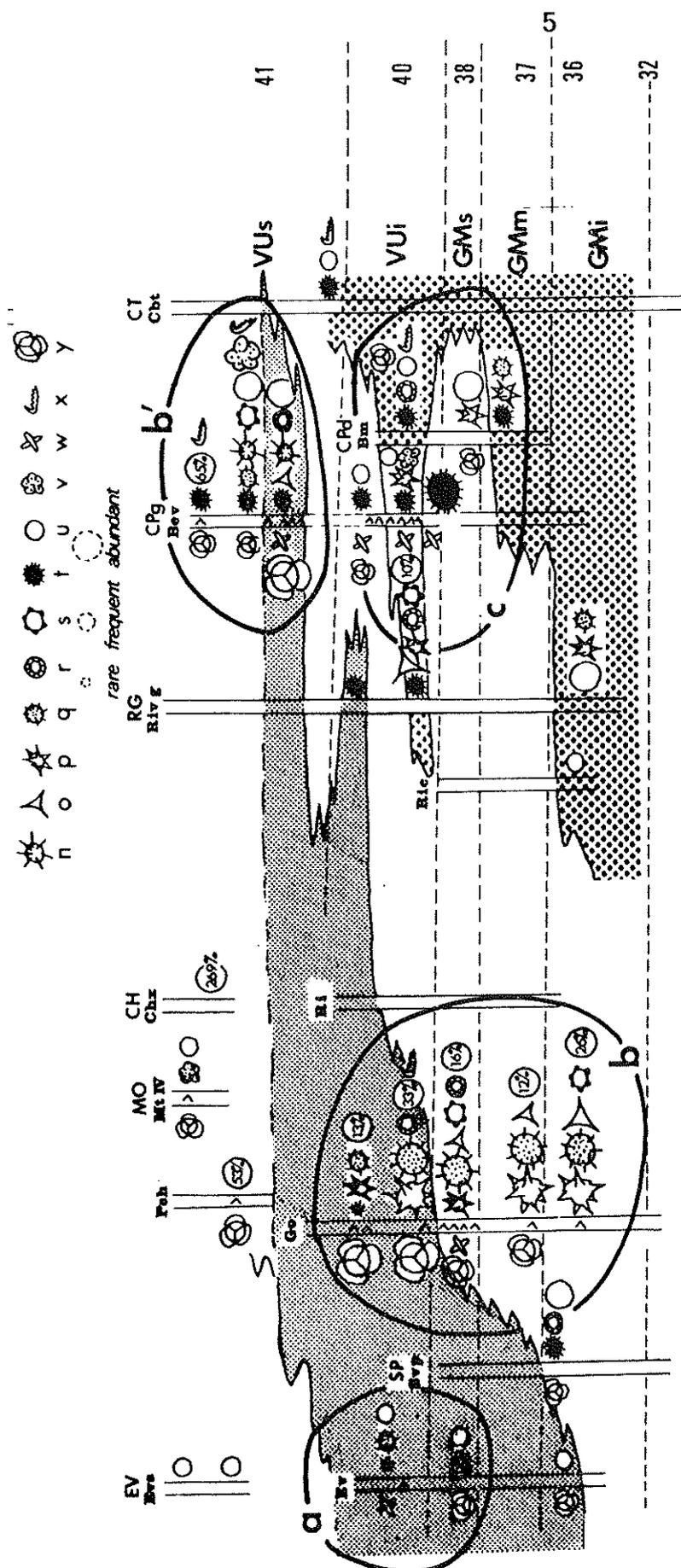
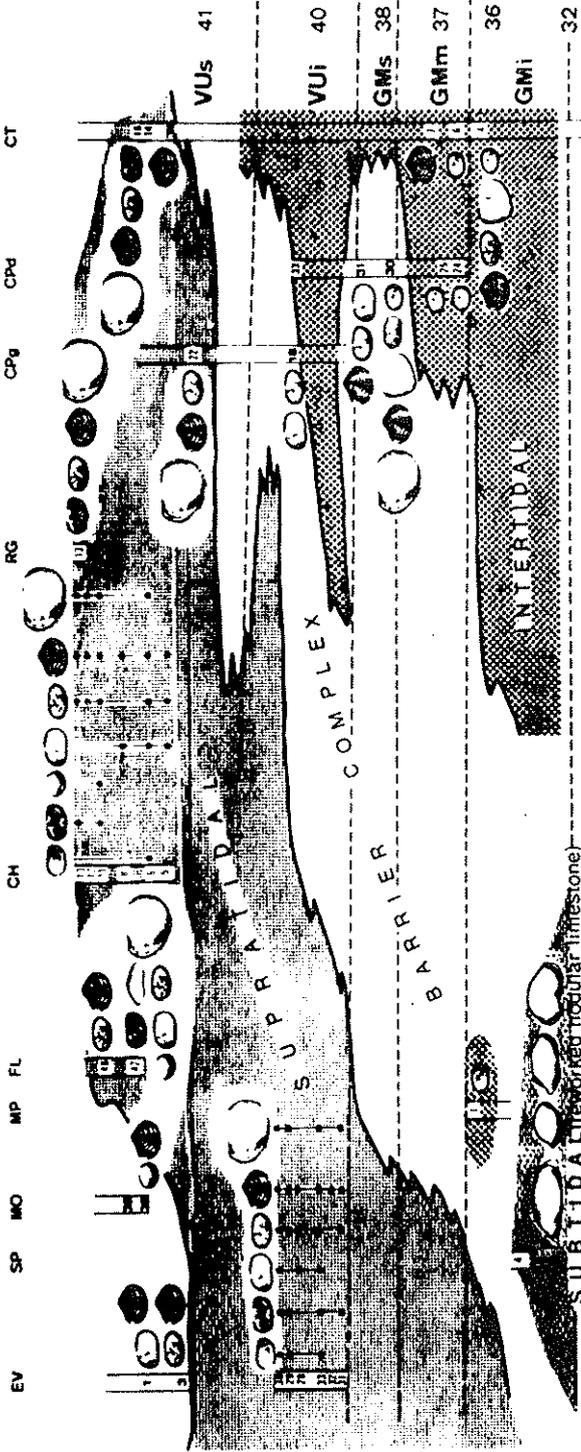


Fig.4 a, b, b', c : Acritarcha assemblages

- n. Gorgonisphaeridium winslowii
- o. Veryhachium trispinosum s.l.
- p. Michrystroidium cf. stellatum
- q. Gorgonisphaeridium sp.
- r. Cymatiosphaera
- s. Tornacia sarjeanti
- t. Lophosphaeridium
- u. Leiospherids
- v. Incertae sedis
- w. Tracheids with grouped pits
- x. Scolecodonts
- y. Tetrads



Diachronic paleofacies in the Upper Famenian of the Ourthe valley

- 1 = *Bairdiocypris* aff. *rudolphi* (KUMMEROW 1939); 2 = *Bairdiocypris* aff. *robusta* KUMMEROW 1939; 3 = *Bairdia* sp.; 4 = *Shemonaella* spp. 65 and 66; 5 = "Berak" *venulosa* KUMMEROW 1939; 6 = *Shemonaella*? sp. cf. 66; 7 = *Shiella* aff. *porrecta* (ZANINA 1956); 8 = *Kollettina acutilobata* (ROME 1971); 9 = *Pseudobithocypris platyventralis* ROME 1971; 10 = *Kuoviella* spp.; 11 = *Kuoviella* cf. *complexa* (KUMMEROW 1939); 12 = *Cavellina coela* (ROME 1971); 13, 18 = *Beyrichiopsis glyptopleuroides* GREEN 1953; 14 = *Beyrichiopsis* sp. 47; 15 = *Beyrichiopsis* sp. 16; 16 = *Bairdiocypris* cf. *rotundus* ROZIMISTVENSKAJA 1972; 17 = *Bairdia* (*Cryptobairdia*) sp. 128; 19 = *Sulcella* sp. 11; 20 = *Cryptophyllus* sp.; 21 = *Cavellina* aff. *coela* (ROME 1971); 22 = *Cavellina* sp. 31; 23 = *Indivisa* aff. *variolata* ZANINA 1960; 24 = *Bairdia* aff. *porviniensis* SAMOILOVA 1970; 25 = *Acratia* cf. *calanensis* EGOROV in POLENOVA 1933; 26 = *Bairdiocypris* sp. 32; 27 = *Bairdia* aff. *kelleri* EGOROV in POLENOVA 1953

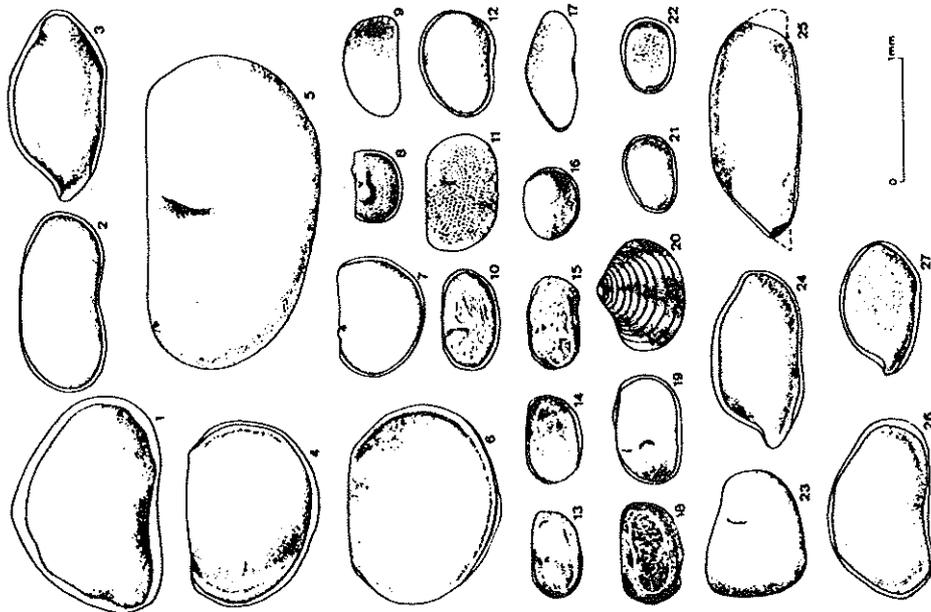


Fig. 5

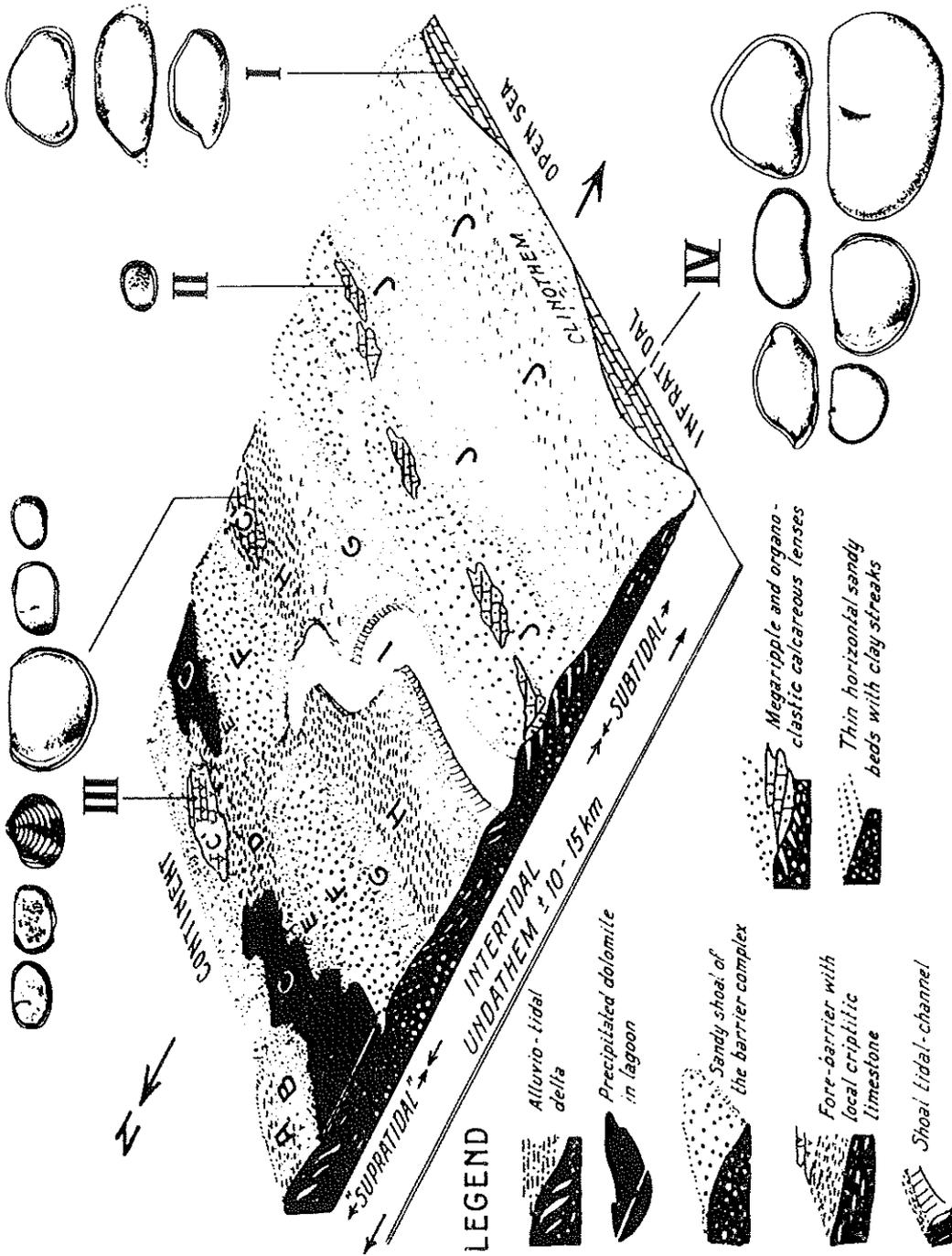
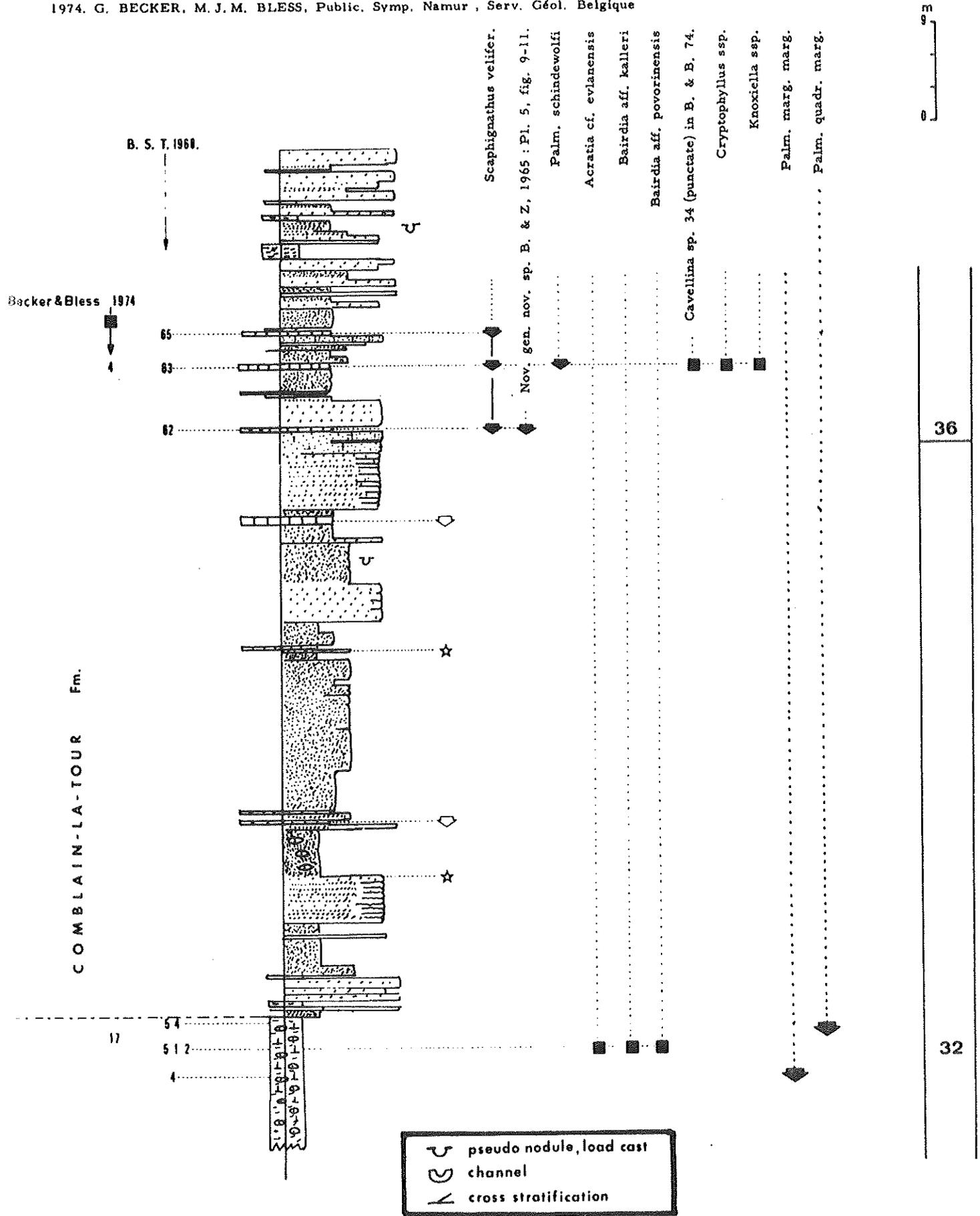


Fig.6 Reconstruction of the paleogeography of a sedimentary sequence

COMBLAIN-LA-TOUR

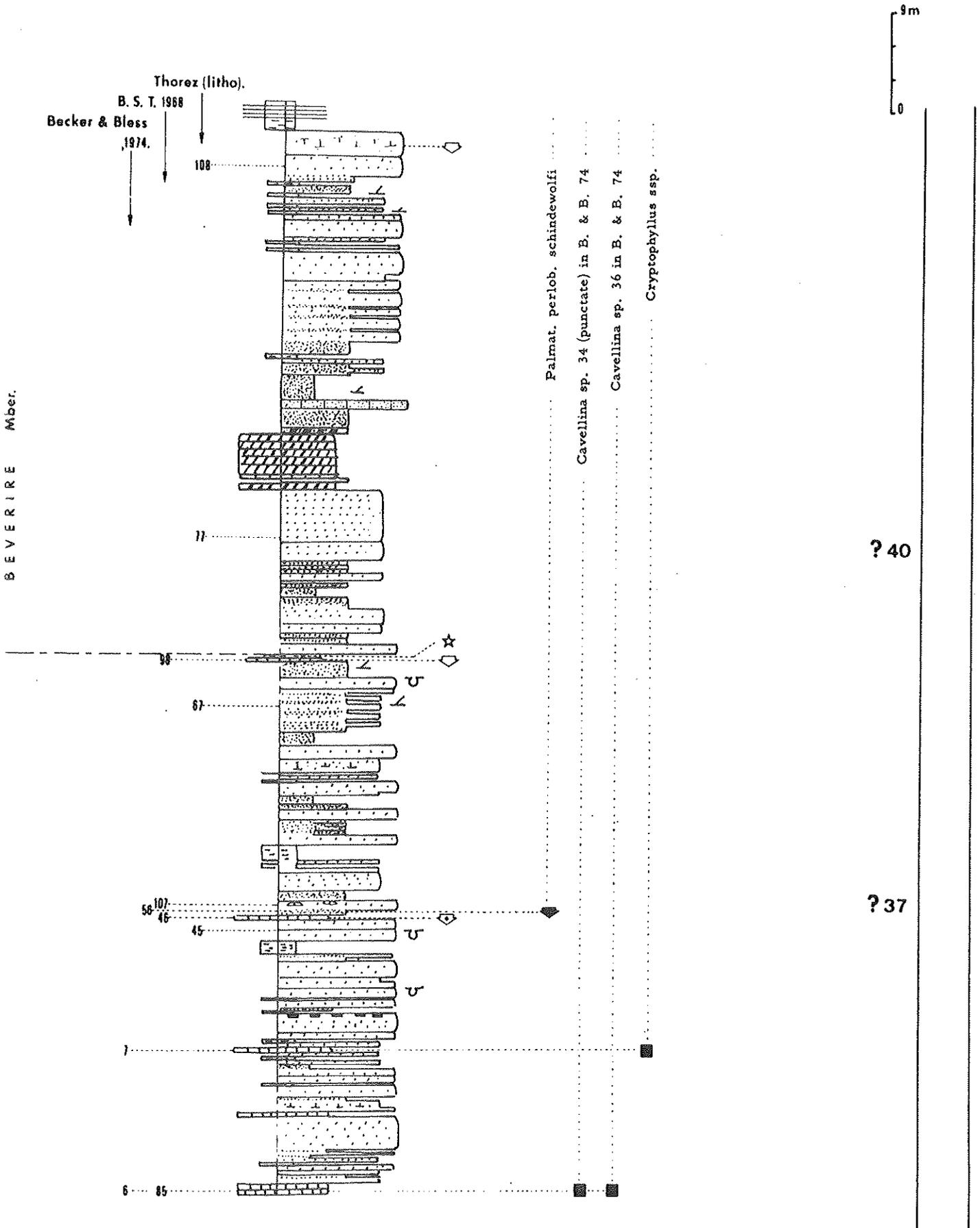
Dia (Mgm 32-36)

1965. J. BOUCKAERT, W. ZIEGLER & J. THOREZ, Mém. Expl. Cartes Géolog. et Min. Belgique, 5 : Esneux 177
 1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-texte I
 1974. G. BECKER, M. J. M. BLESS, Public. Symp. Namur, Serv. Géol. Belgique



COMBLAIN-LA-TOUR

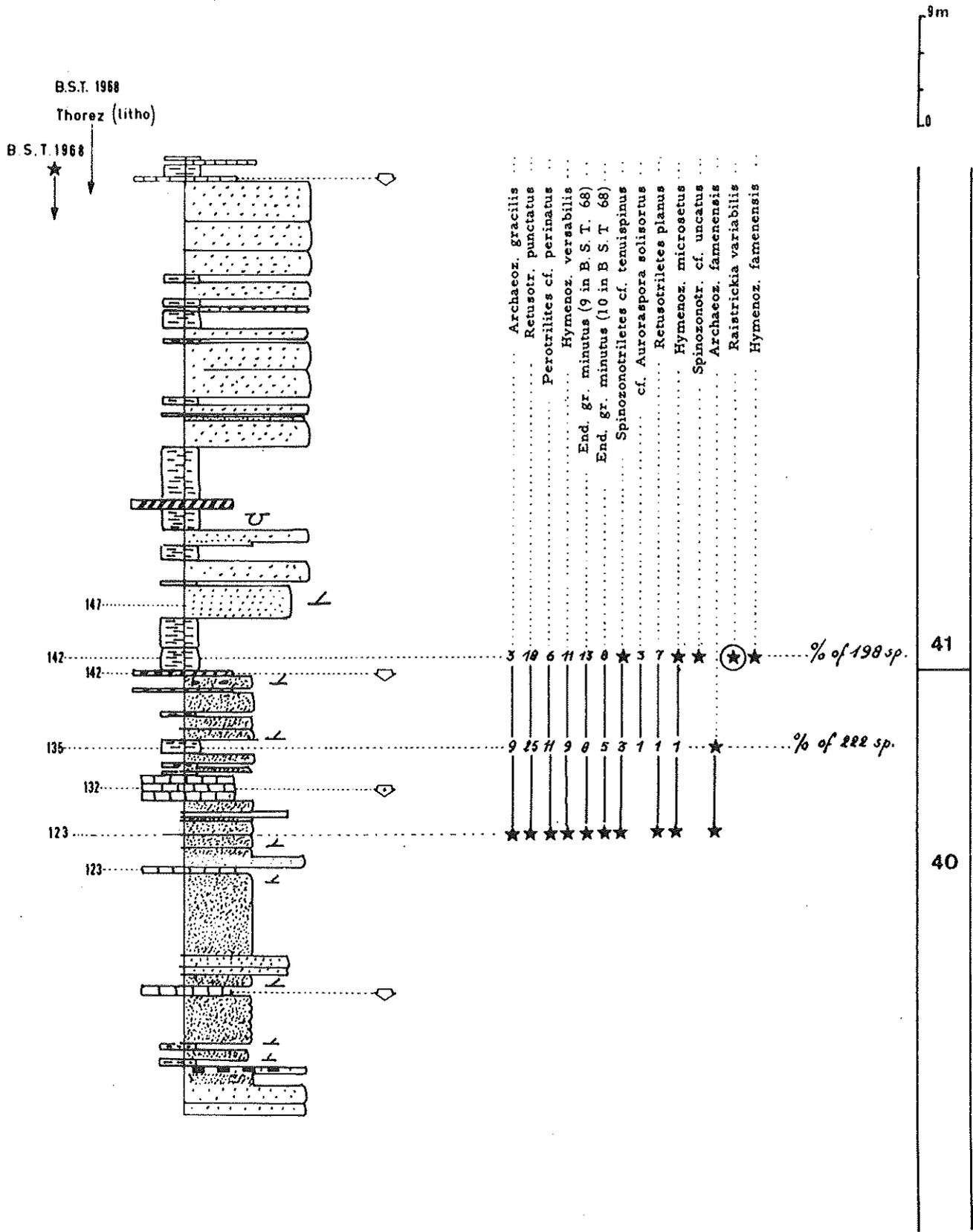
D ① b (Mgm 37-40)



COMBLAIN-LA-TOUR

D ① C (Mgm 40-41)

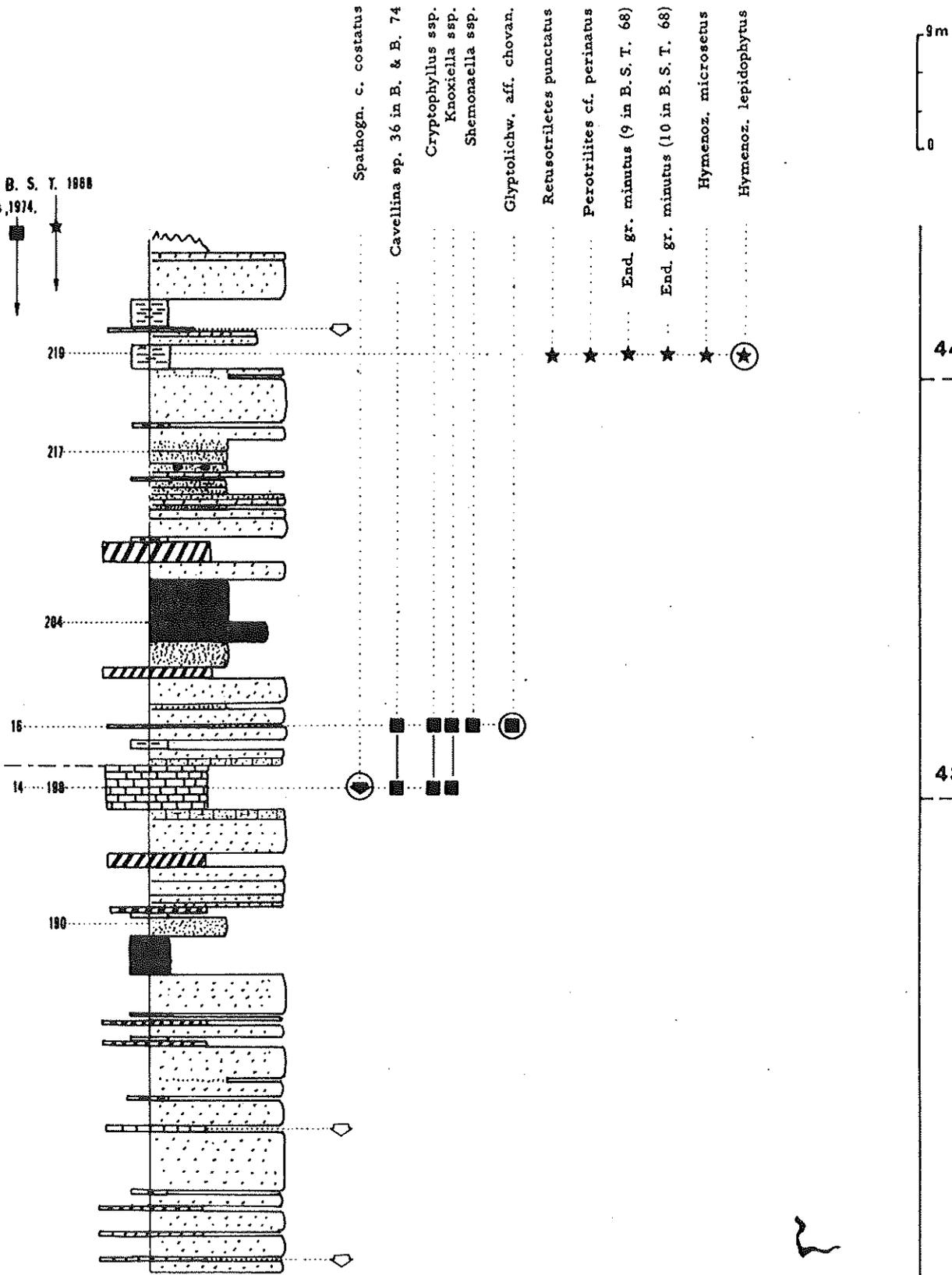
MONFORT Fm. BEVERIRE Mber



COMBLAIN-LA-TOUR

D 1 d Mgm(43-44)

Becker & Bless, 1974.
B. S. T. 1968



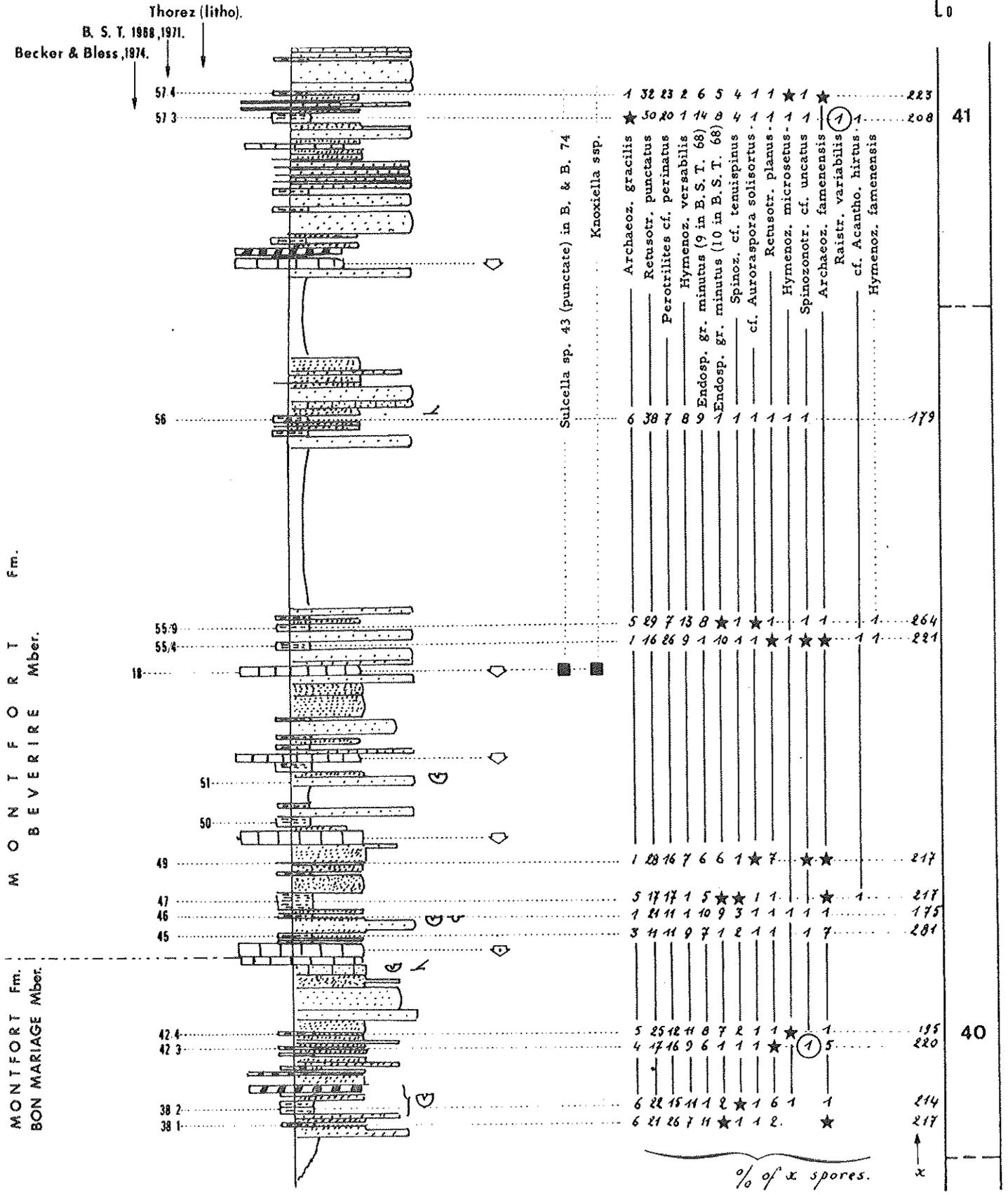
BEVERÉ Mber

2

COMBLAIN-AU-PONT—Left bank
"BEVERIRE"

D ② a (Mgm 40-41)

1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-teate I.
1971. J. BOUCKAERT, M. STREEL & J. THOREZ, Coll. Strat. Carb. Univ. Liège (1970), 55 : p. 40
1974. G. BECKER & M. J. M. BLESS, Public. Symp. Namur, Serv. Geol. Belgique



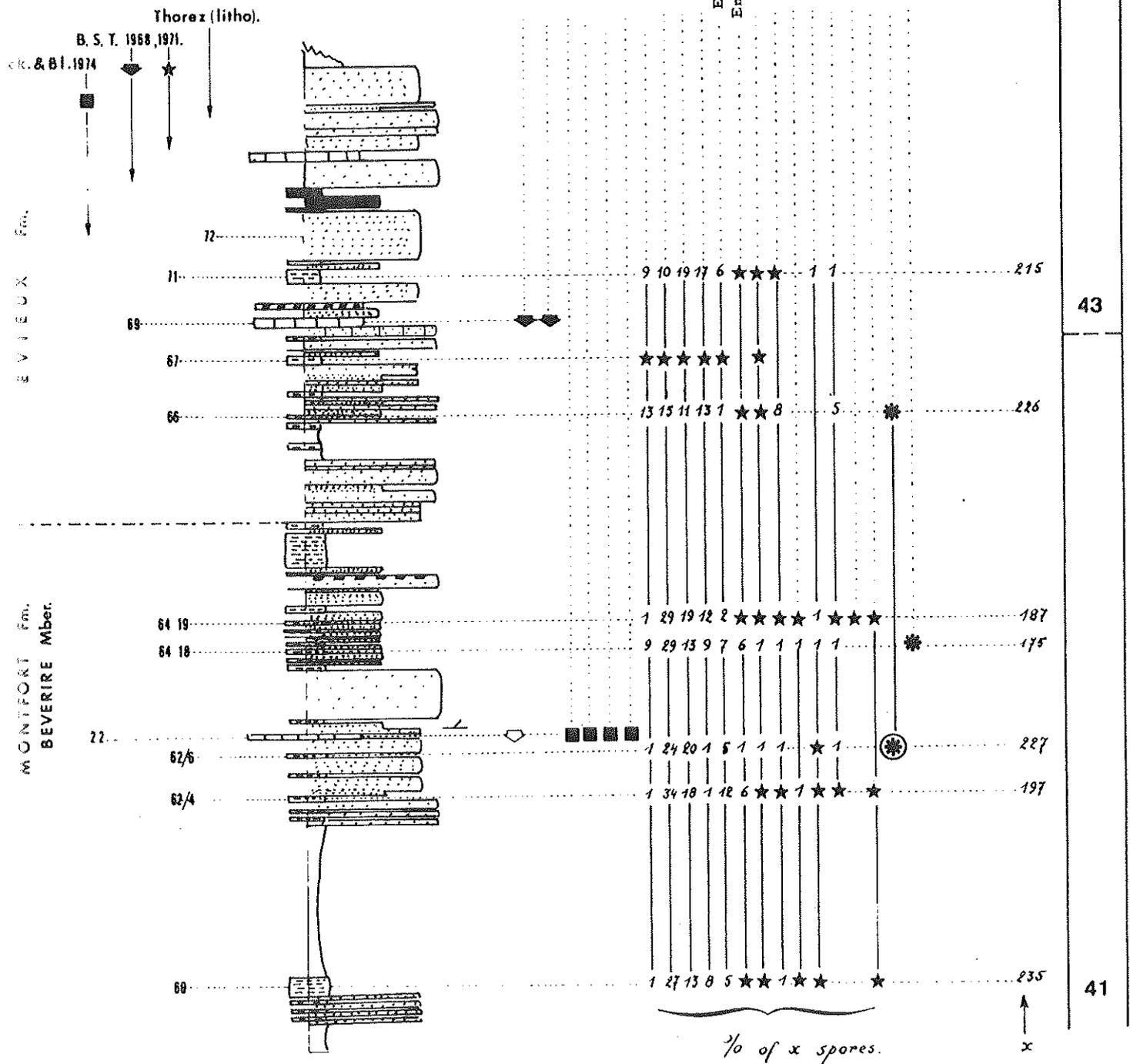
MONTFORT Fm.
BON MARIAGE Mber.

MONTFORT Fm.
BEVERIRE Mber.

COMBLAIN-AU-PONT—Left bank
"BEVERIRE"

D(2)b (Mgm 41-43)

- Sp. aculeatus
- Pol. communis
- Cavellina sp. 36 in B. & B. 74
- Cryptophyllus ssp.
- Knoxiella ssp.
- Shermonaella ssp.
- Archaeoz. gracilis
- Retusotr. punctatus
- Perotrilites cf. perinatus
- Hymenoz. versabilis
- End. gr. minutus (9 in B. S. T. 68)
- End. gr. minutus (10 in B. S. T. 68)
- Spinozontriletes cf. tenuispinus
- cf. Aureoaspora solisortus
- Retusotrilites planus
- Hymenoz. microsetus
- Spinozonotr. cf. uncaus
- Archaeozonotr. famensis
- Raistrickia variabilis
- Gorgonispheer. winslowii
- Tornacia sarjeanti



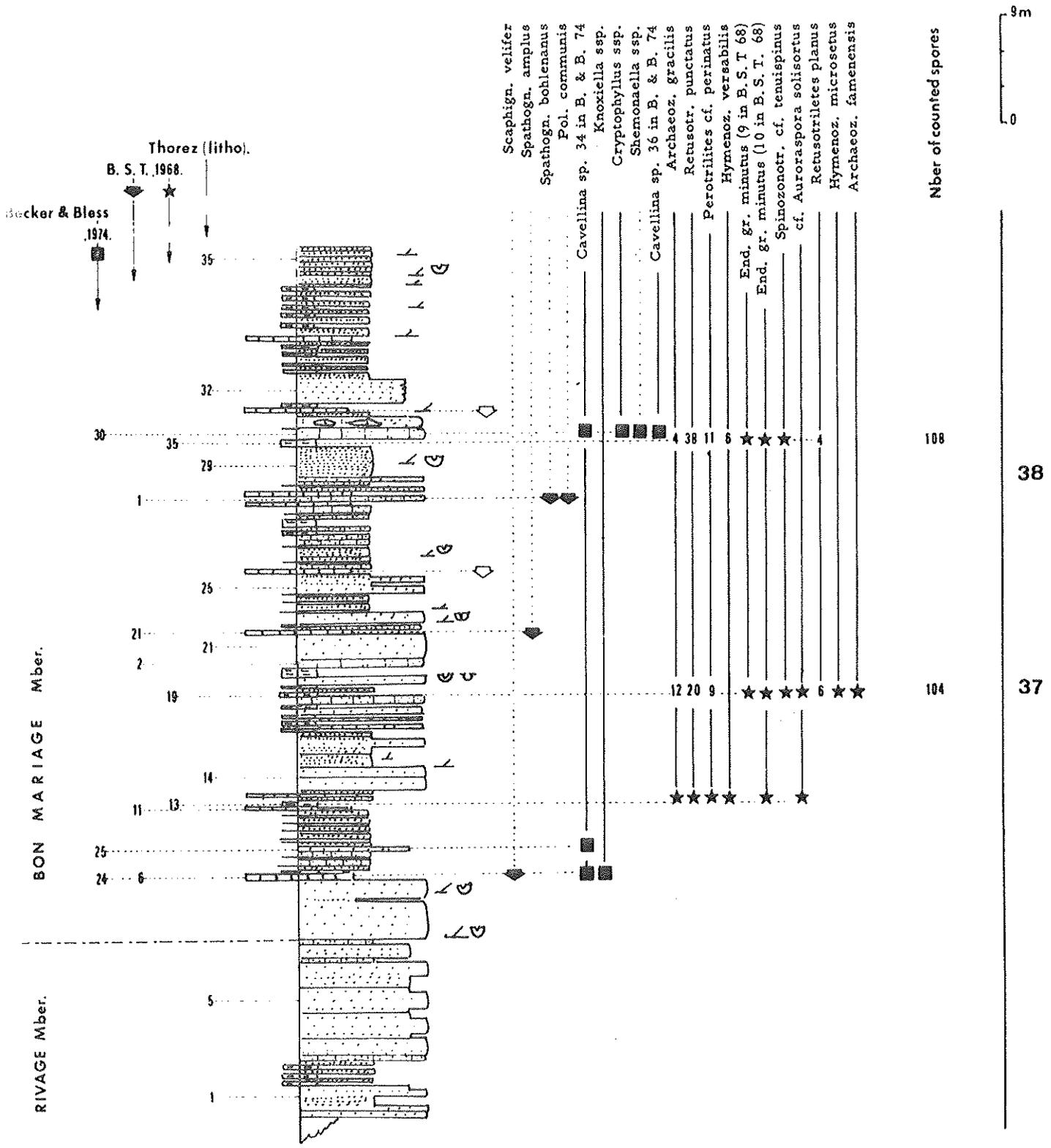
% of x spores.

x

COMBLAIN-AU-PONT—Right bank "BON MARIAGE"

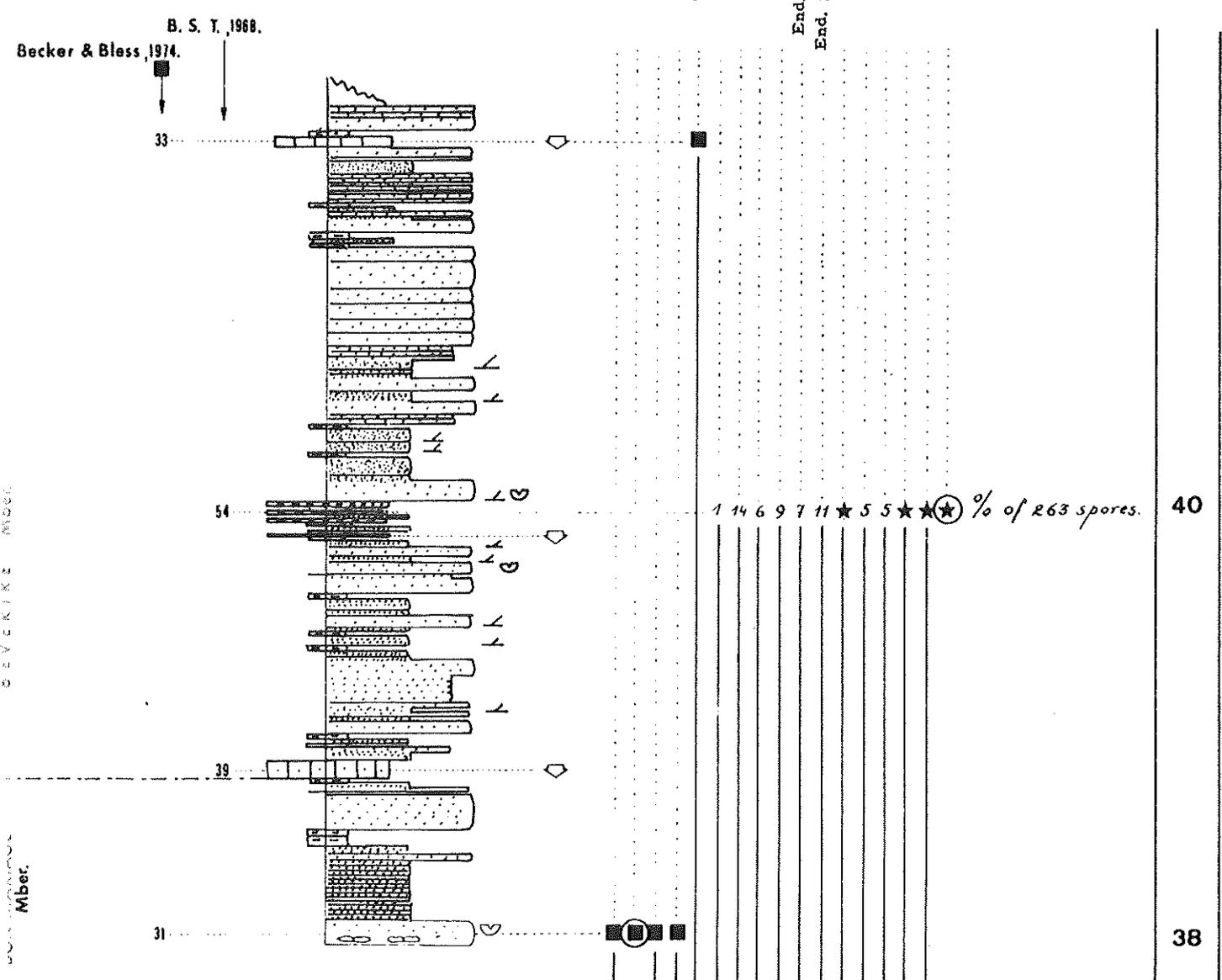
D ③ a (Mgm 37-38)

1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Geol. Belgique, 91 : hors-texte I.
1974. G. BECKER & M. J. M. BLESS. Public. Symp. Namur : Serv. Geol. Belgique



COMBLAIN-AU-PONT—Right bank
"BON MARIAGE"

D ③ b (Mgm 38-40)



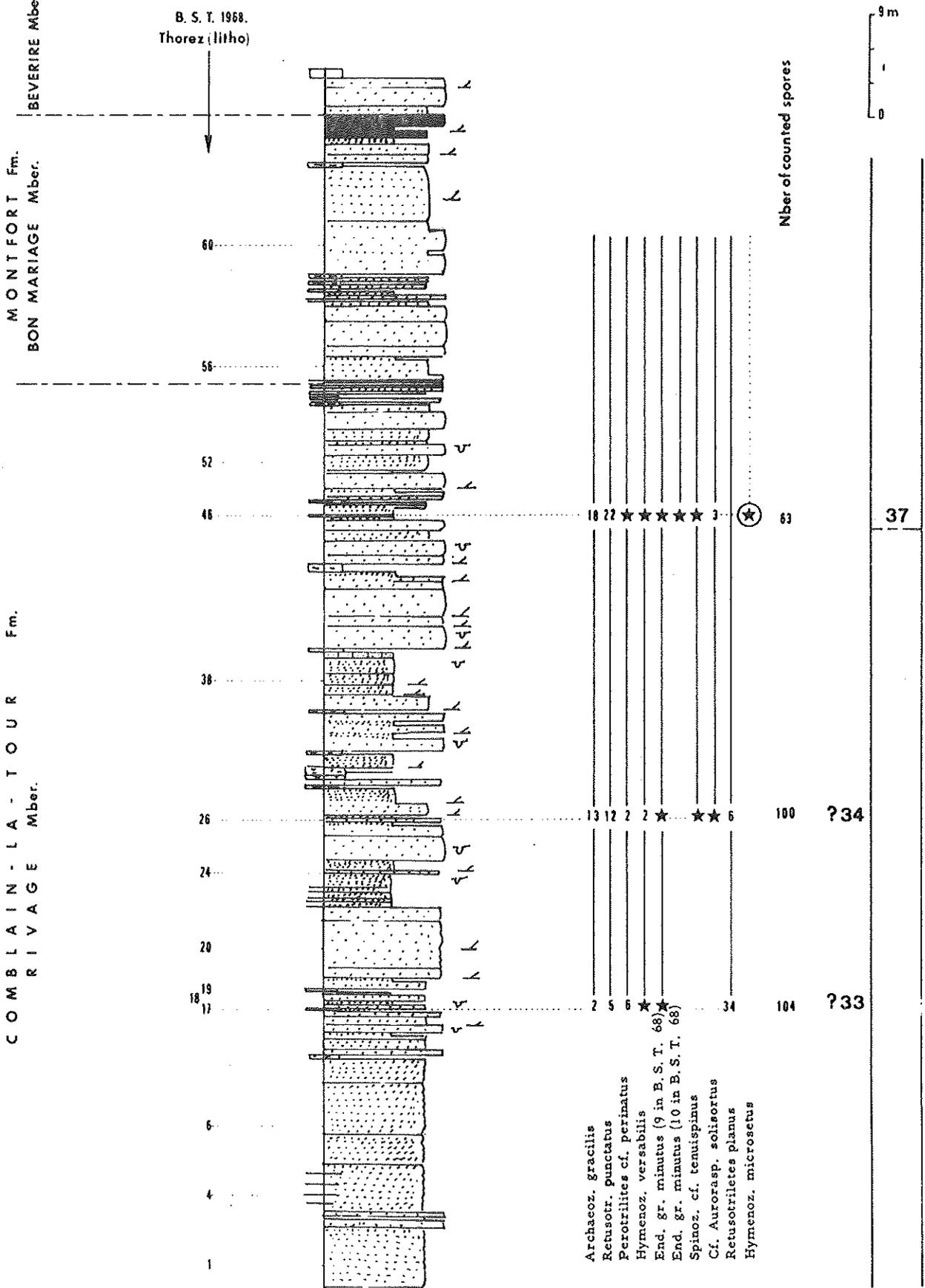
- Cavellina sp. 34 in B. & B. 74
- Sulcella sp. 43 in B. & B. 74
- Cryptophyllus sp. Knoxiella sp.
- Cavellina sp. 36 in B. & B. 74
- Archaeoz. gracilis
- Retusotr. punctatus
- Perotriles cf. perinatus
- Hymenoz. versabilis
- End. gr. minutus (9 in B. S. T. 68)
- End. gr. minutus (10 in B. S. T. 68)
- Spinoz. cf. tenuispinus
- cf. Auroraspp. solisortus
- Retusotriles planus
- Hymenoz. microsetus
- Archaeoz. famensis
- Hymenoz. famensis

Mber.

RIVAGE GARE

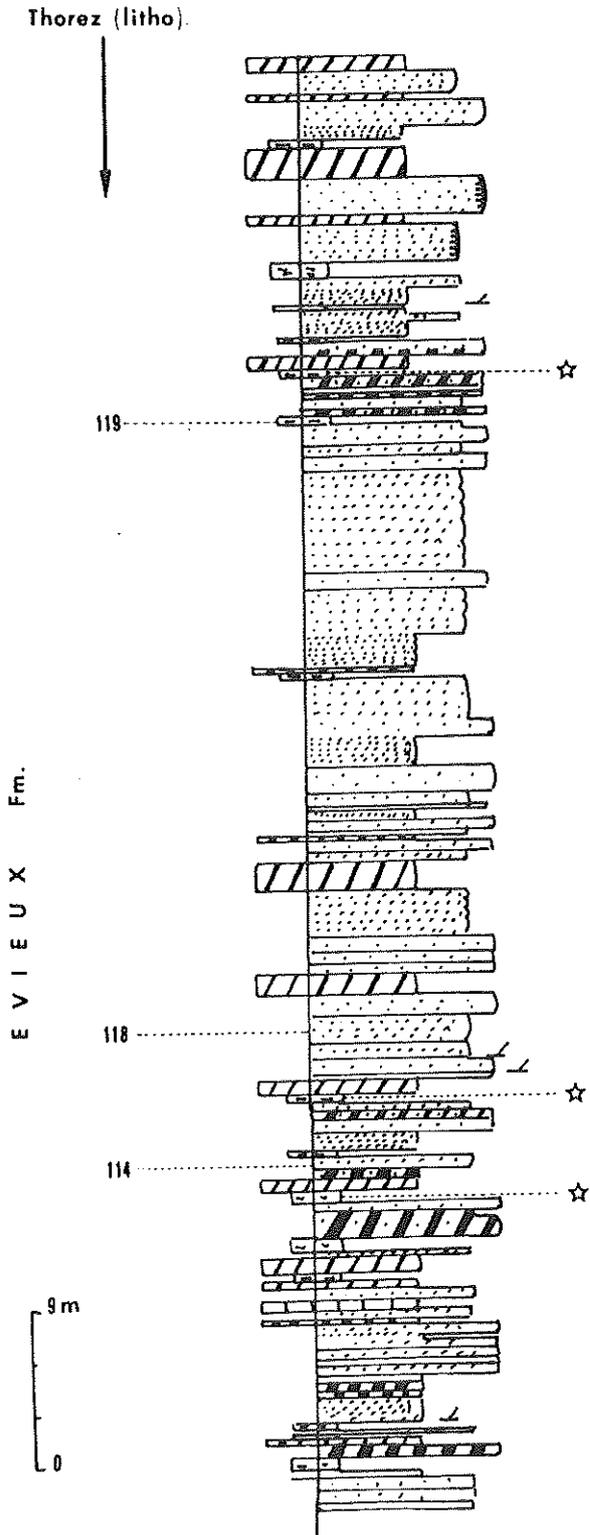
D ⊕ a (Mgm 33-37)

1964. R. CONIL, Mém. Acad. Roy. Belg., Cl. Sc., Mém. 4^e, 2, XV, 4, pp. 46-50, pls. IV-XI
 1965. B. MAMET, G. MORTELMANS & P. SARTENAER, Bull. Soc. belge Géol., LXXIV; fig. 2. IV
 1966. M. STREEL, Ann. Soc. Géol. Belgique, 89, 3, p. 65, h. t. II
 1967. L. FRANSSEN, Ann. Soc. Géol. Belgique, 90, pp. 571-580, h. t.
 1968. M. STREEL, C. R. 6è congr. carb. Sheffield, 1, pp. 3-18
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 1971. J. BOUCKAERT, R. CONIL, A. DELMER, E. GROESSENS, G. MORTELMANS, H. PIRLET, M. STREEL, J. THOREZ, Prof. Paper, Serv. Géol., n° 2, p. 6.
 1974. G. BECKER, M. J. M. BLESS, Public Symposium Namur.



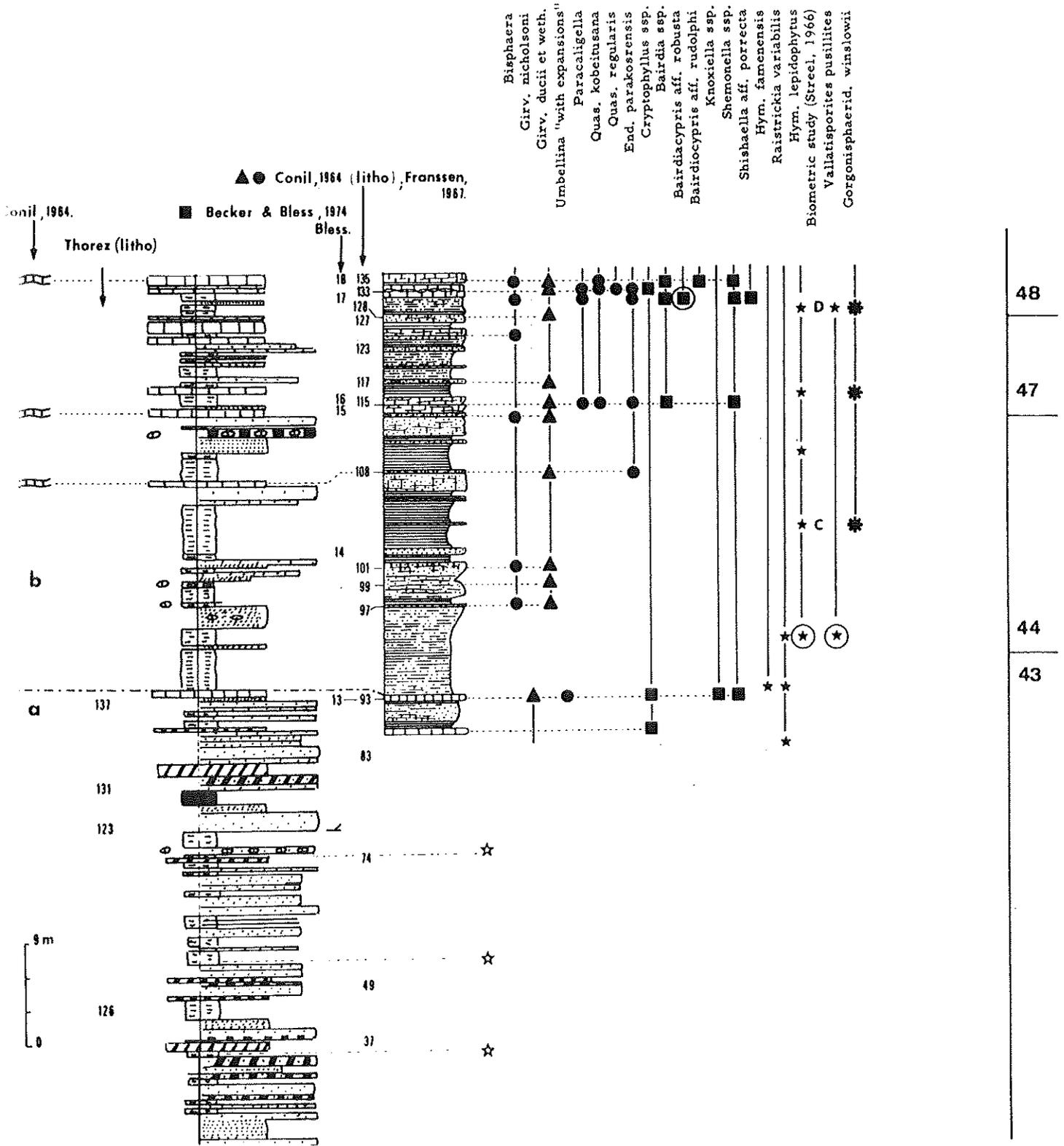
RIVAGE GARE

D④c



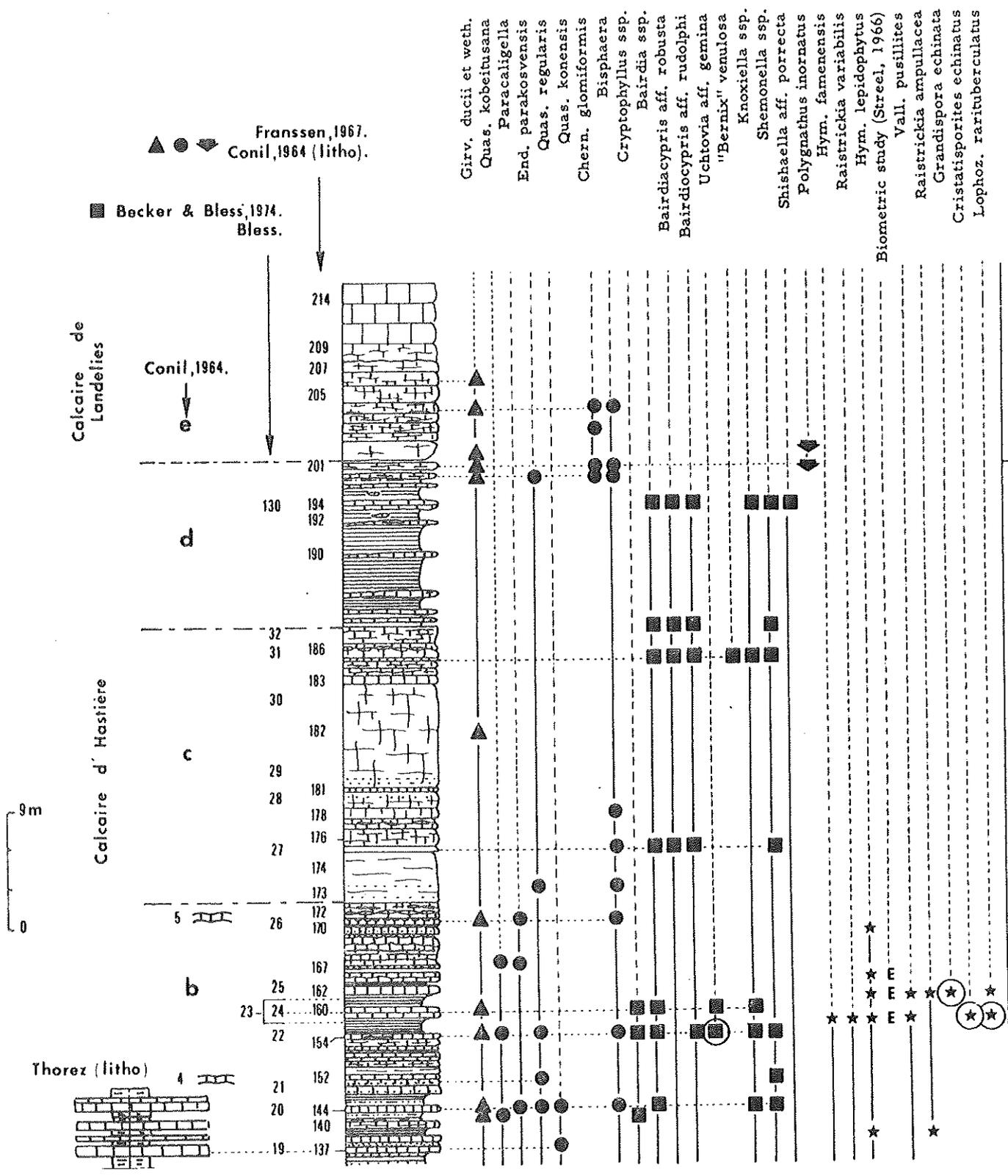
RIVAGE GARE

D④d (Mgm 43-48)



RIVAGE GARE

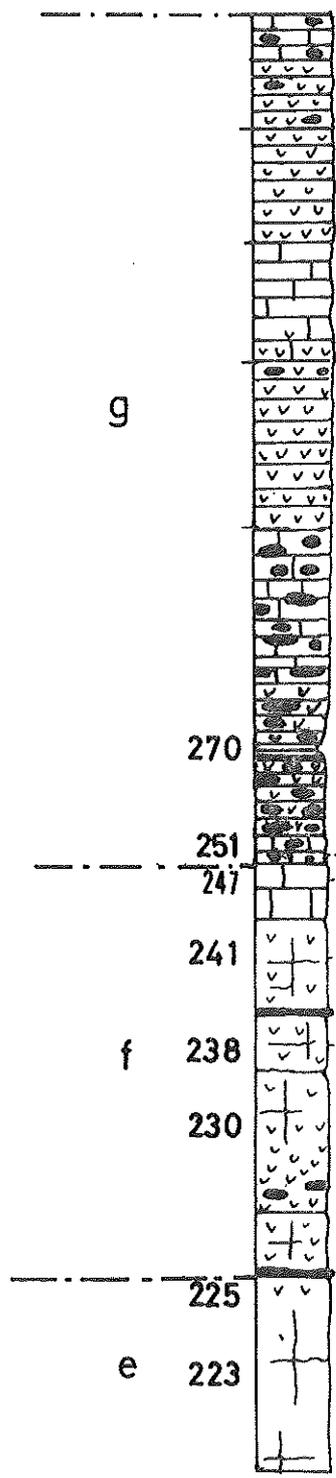
D④e (M gm 48-56)



D④ f (M.g.m.56-59)

Calcaire d'Ivoir

Calcaire de Koyseux



- *Bisphaera*
- *Chernyshinella*
- *Palaeosp. tchernyshinensis*
- *Baitug. tchernyshinensis*
- *Endo. paraukrainica*
- *Siphonodella* sp.
- *End. parak. clavaesepta*
- *Siph. obsoleta*

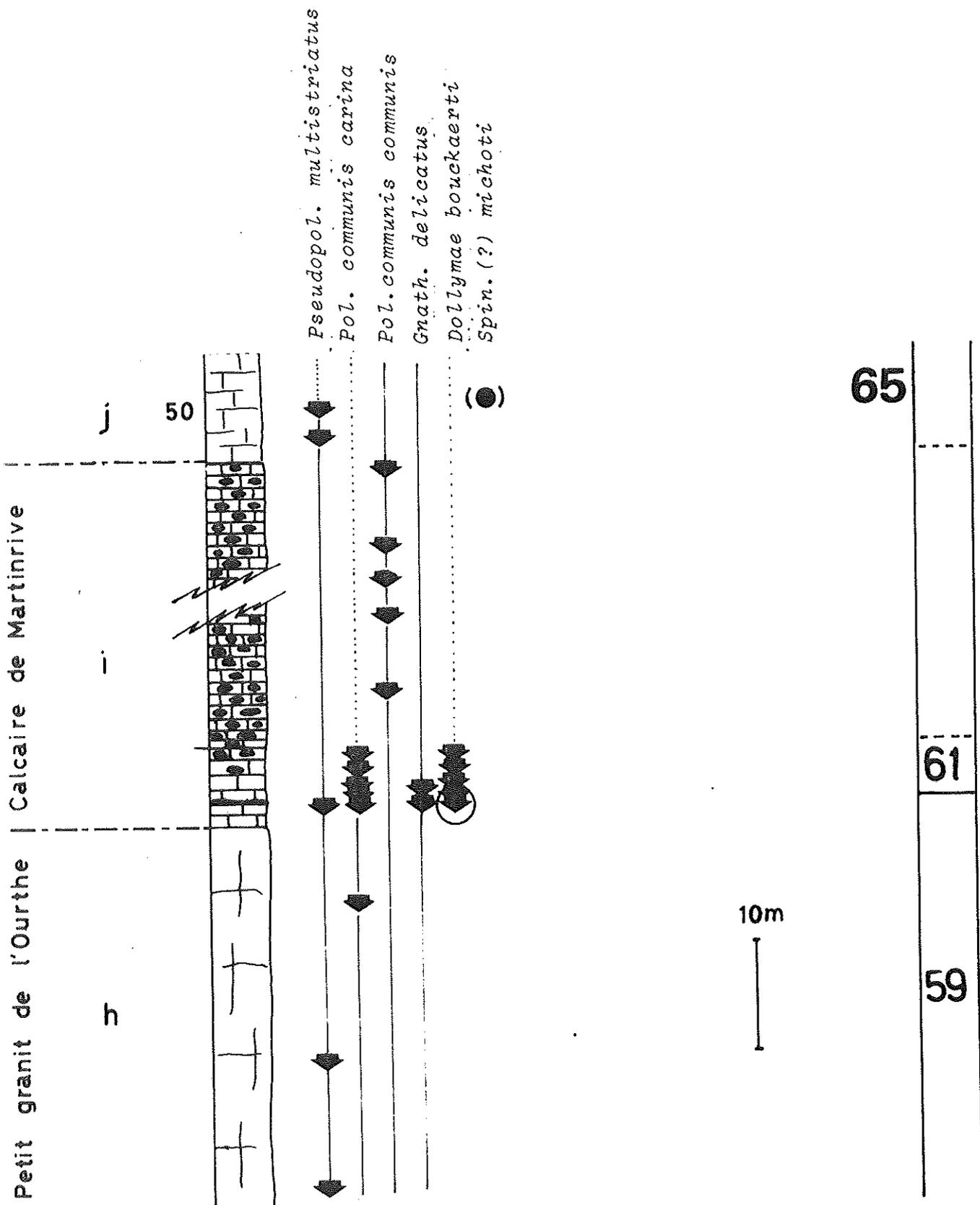
59

57

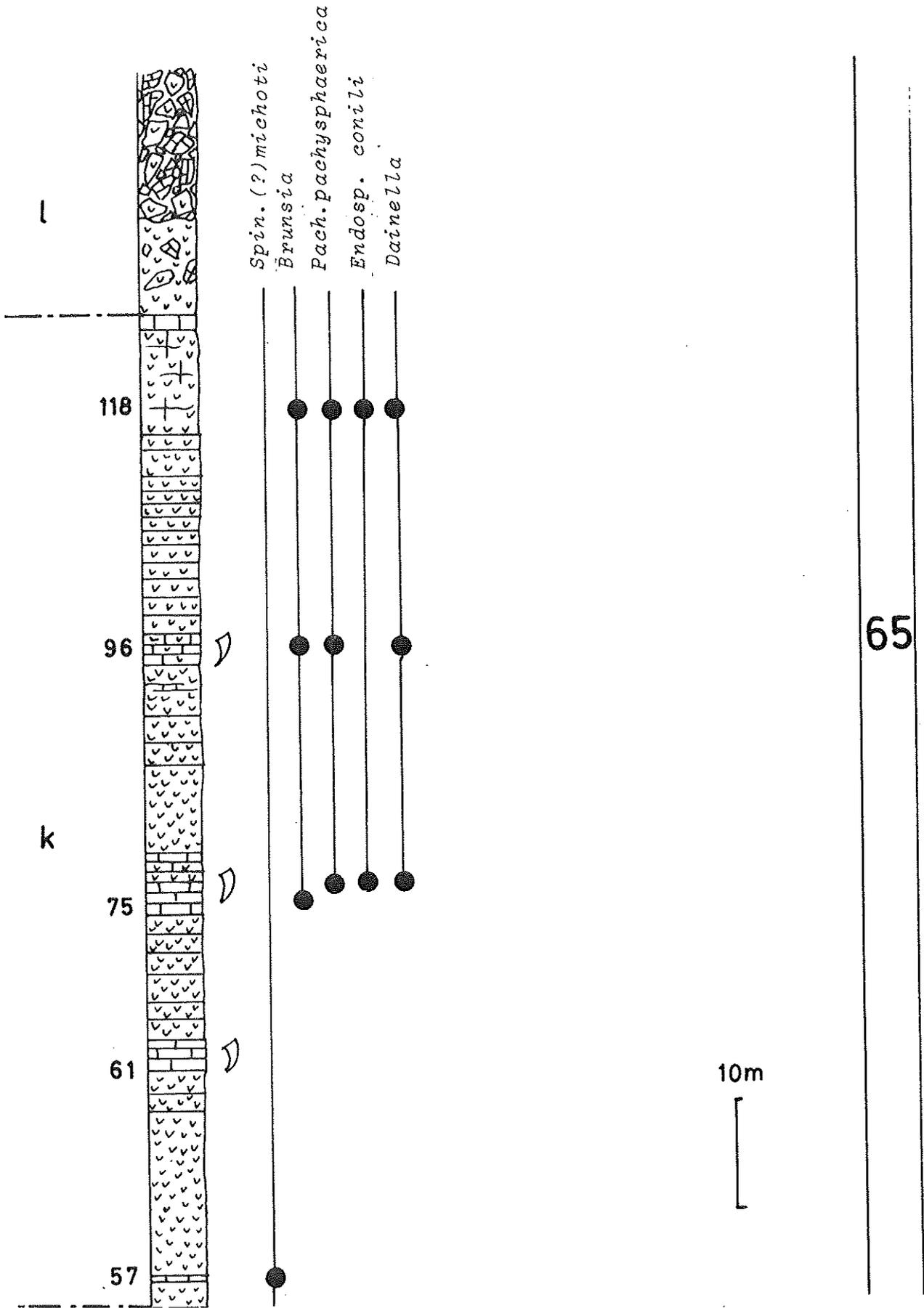
56

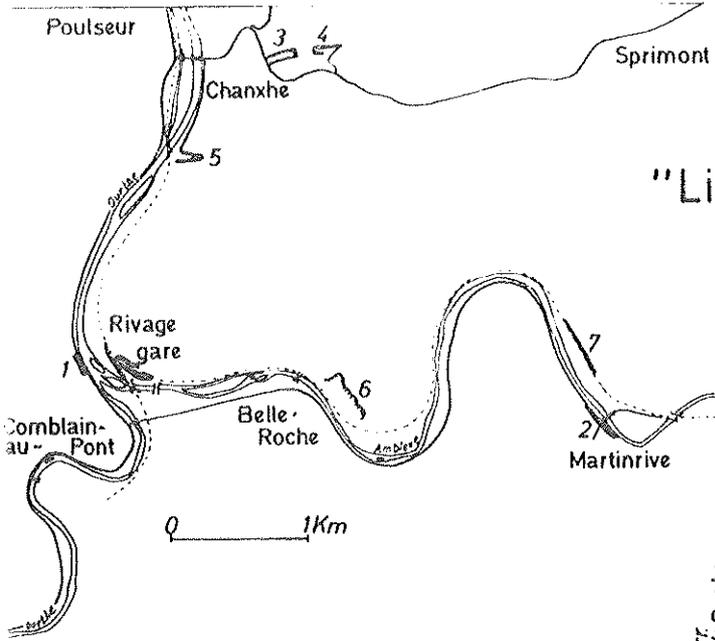


D④g(M.g.m.60-65)



D④h (M.g.m.65)





"Limite Tn-V dans la vallée de l'OURTHE,,

Dossiers SERV.GEOL.
Pl. ESNEUX 147 E

- 1 : 318
- 2 : 650
- 3 : 199
- 4 : 200
- 5 : 210
- 6 : 356
- 7 : 219

DOLOMIE
DE
SOVET

0 10m

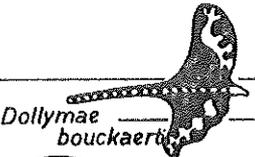
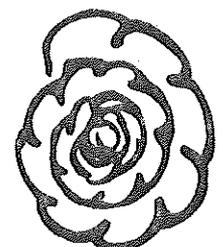
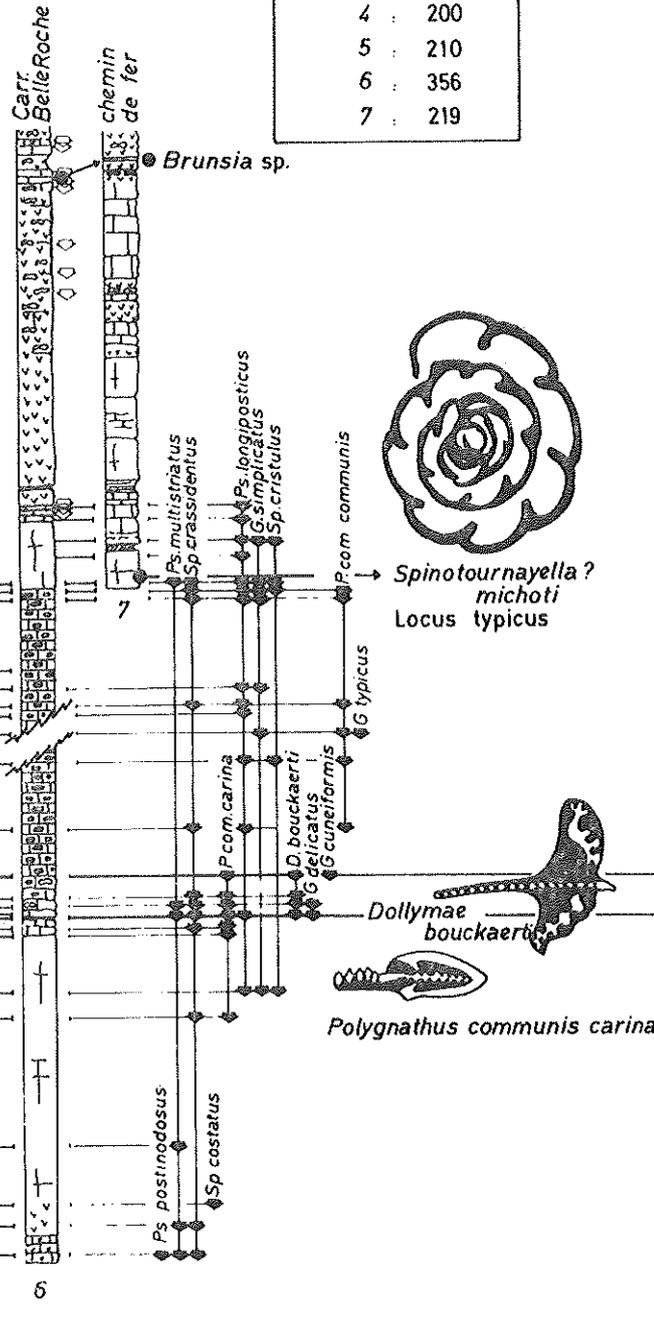
CALCAIRE
DE
MARTINRIVE

ENCRINITE
DE
L'OURTHE

CALCAIRE
D'YVOIR

FORMATION DU
BOCQ

Tourneyella sp.
Endothyra ex.gr. *latispiralis*
inédit A.F. HARDY



Spinotournayella?
michoti
Locus typicus

Dollymae
bouckaerti

Polygnathus communis
carina

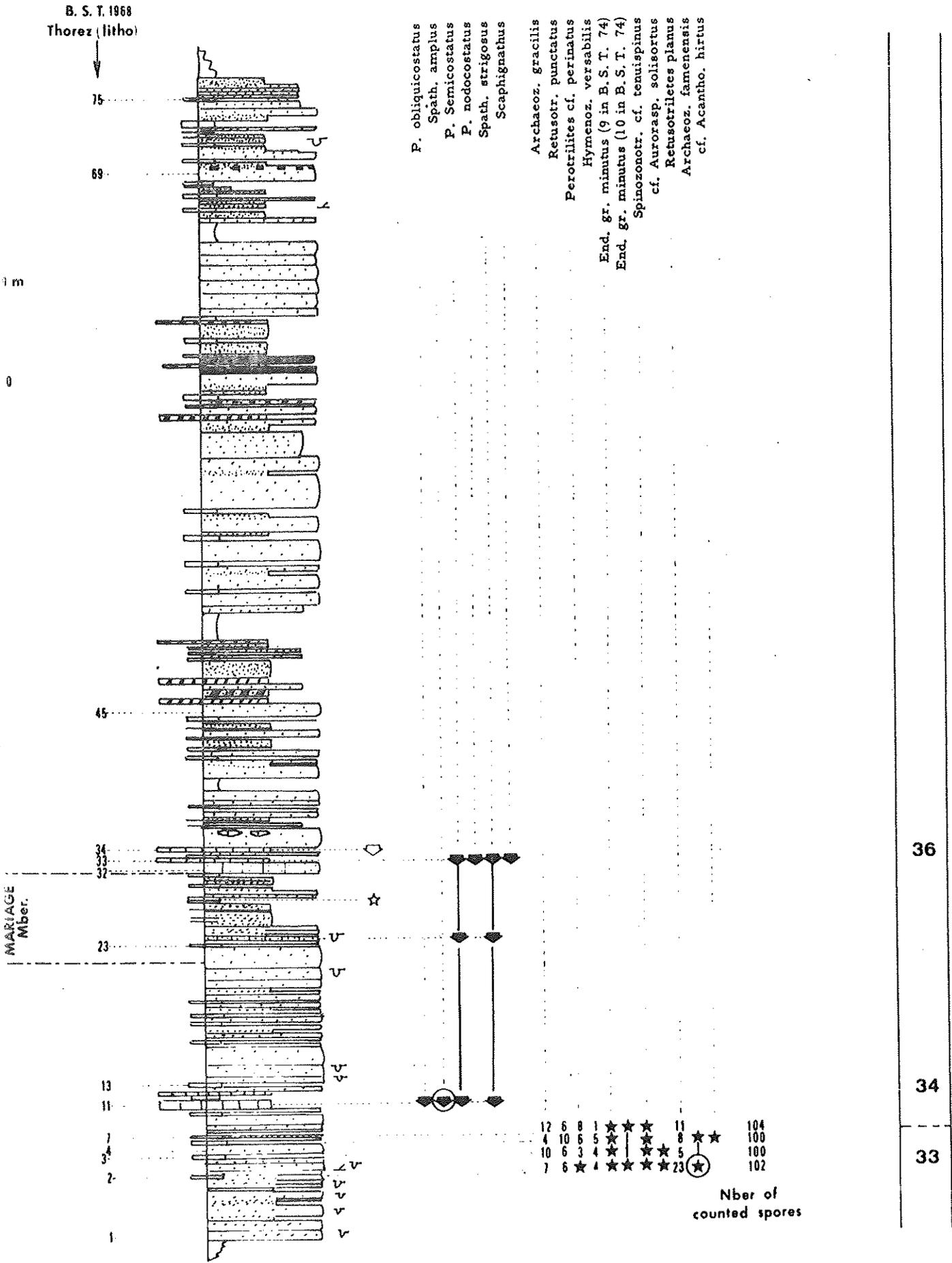
61

59

RIVAGE CARRIERE

D 5 (Mgm 33-36)

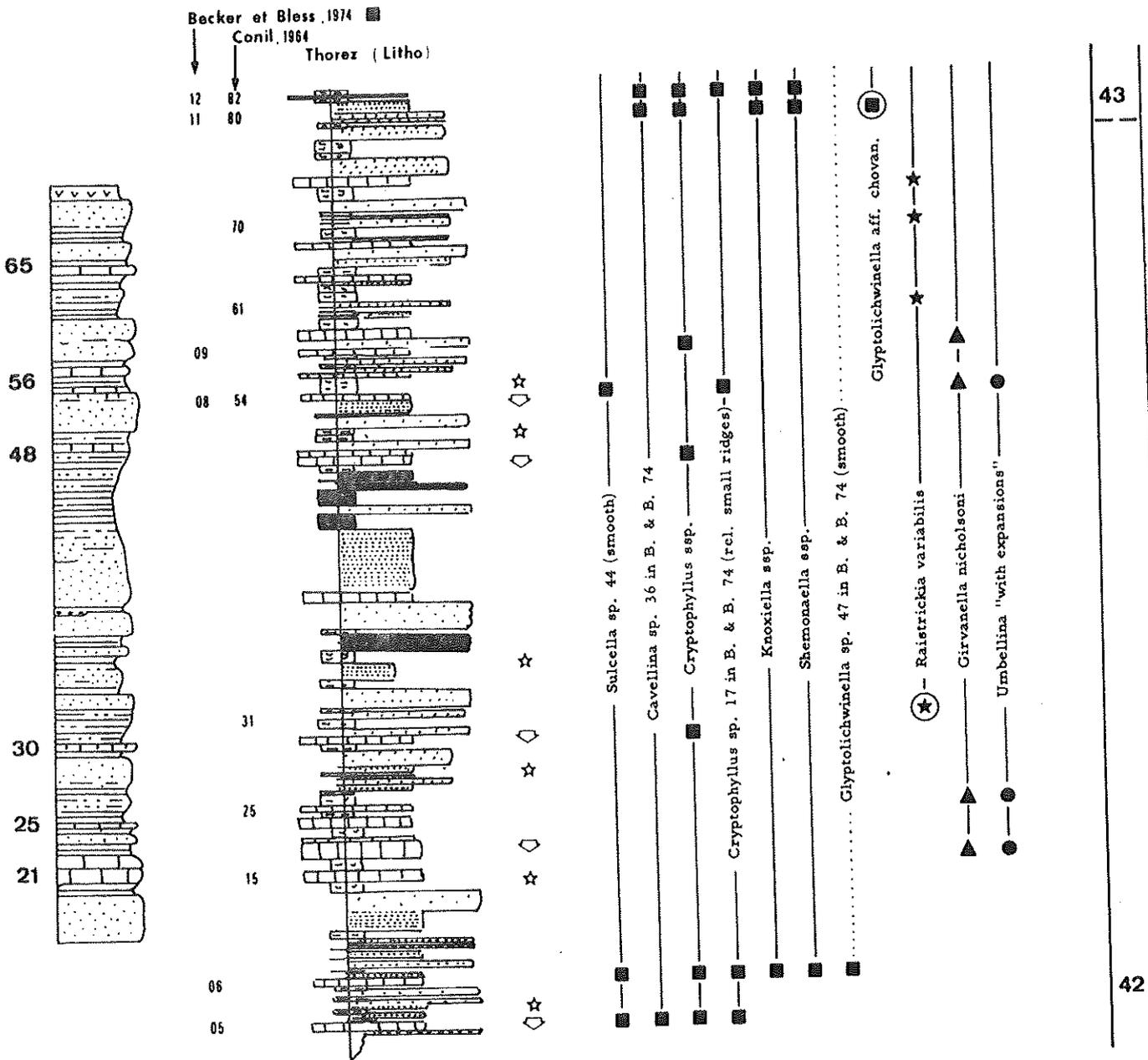
1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 hors-texte I.



CHANXHE

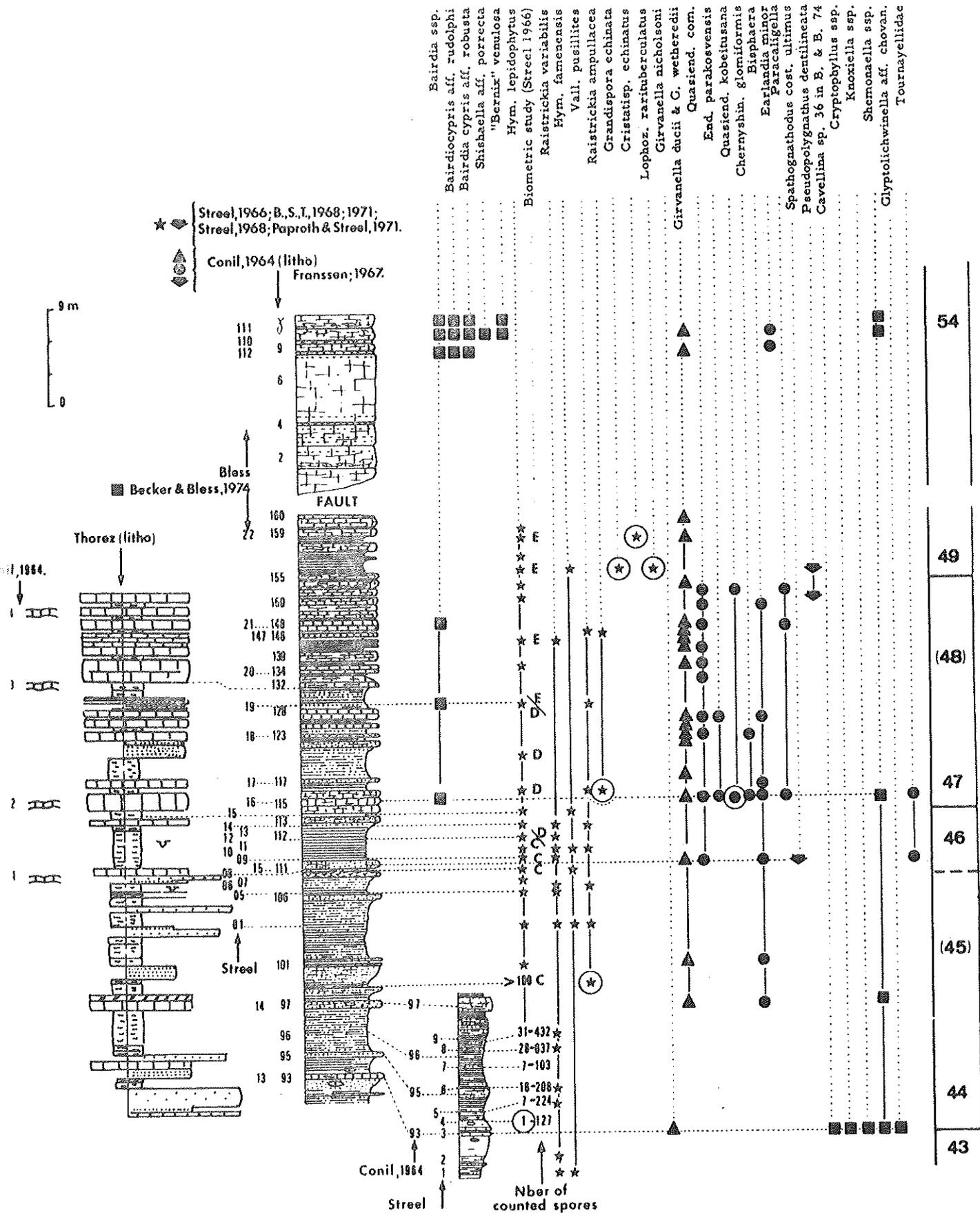
D⊙a(M gm 42-43)

1964. R. CONIL, Mém. Acad. Roy. Belg., Cl. Sc., Mém. 4^e, 2, XV, 4, pp. 50-51, pls. III-IX.
 1966. M. STREEL, Ann. Soc. Géol. Belgique 89, 3, p. 65, h.t.II
 1967. L. FRANSEN, Ann. Soc. Géol. Belgique 90, pp. 571-580, h.t.
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 1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91, h.t.I.
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 1971. J. BOUCKAERT, M. STREEL, J. THOREZ, Coll. Strat. Carb. Liège (1970), p. 42-43.
 1971. J. BOUCKAERT, R. CONIL, A. DELMER, E. GROESSENS, G. MORTELMANS, H. PIRLET, M. STREEL, J. THOREZ, Prot. Paper, Serv. Géol., n° 2, p. 6.
 1974. G. BECKER, M. J. M. BLESS, Public Symposium Namur.



CHANXHE

Dob (Mgm 43-54)

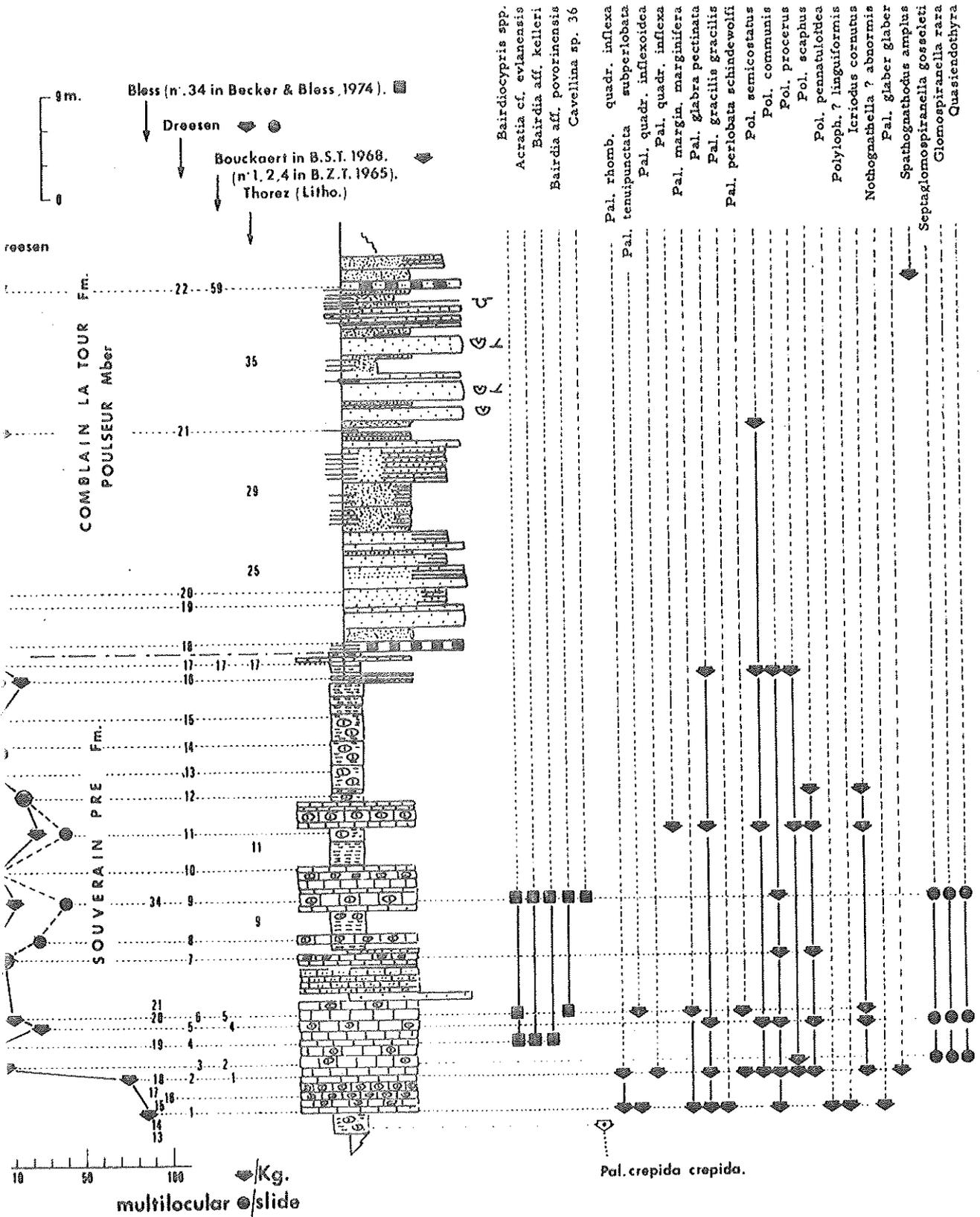


54
49
(48)
47
46
(45)
44
43

POULSEUR ROUTE

D ⑦ (M g m 32-34)

1965. J. BOUCKAERT, W. ZIEGLER, J. THOREZ, *Mém. Expl. Cartes Géol.*, 5, p. 15 : Eaneux exp. n° 181
 1967. J. BOUCKAERT, R. CONIL, J. THOREZ, *Bull. Soc. belge Géologie*, 75, p. 161
 1968. J. BOUCKAERT, M. STREEL, J. THOREZ, *Ann. Soc. Géol. Belgique*, 91, hors-texte 1.
 1974. G. BECKER, M. J. M. BLESS, *Public. Symposium Namur*.



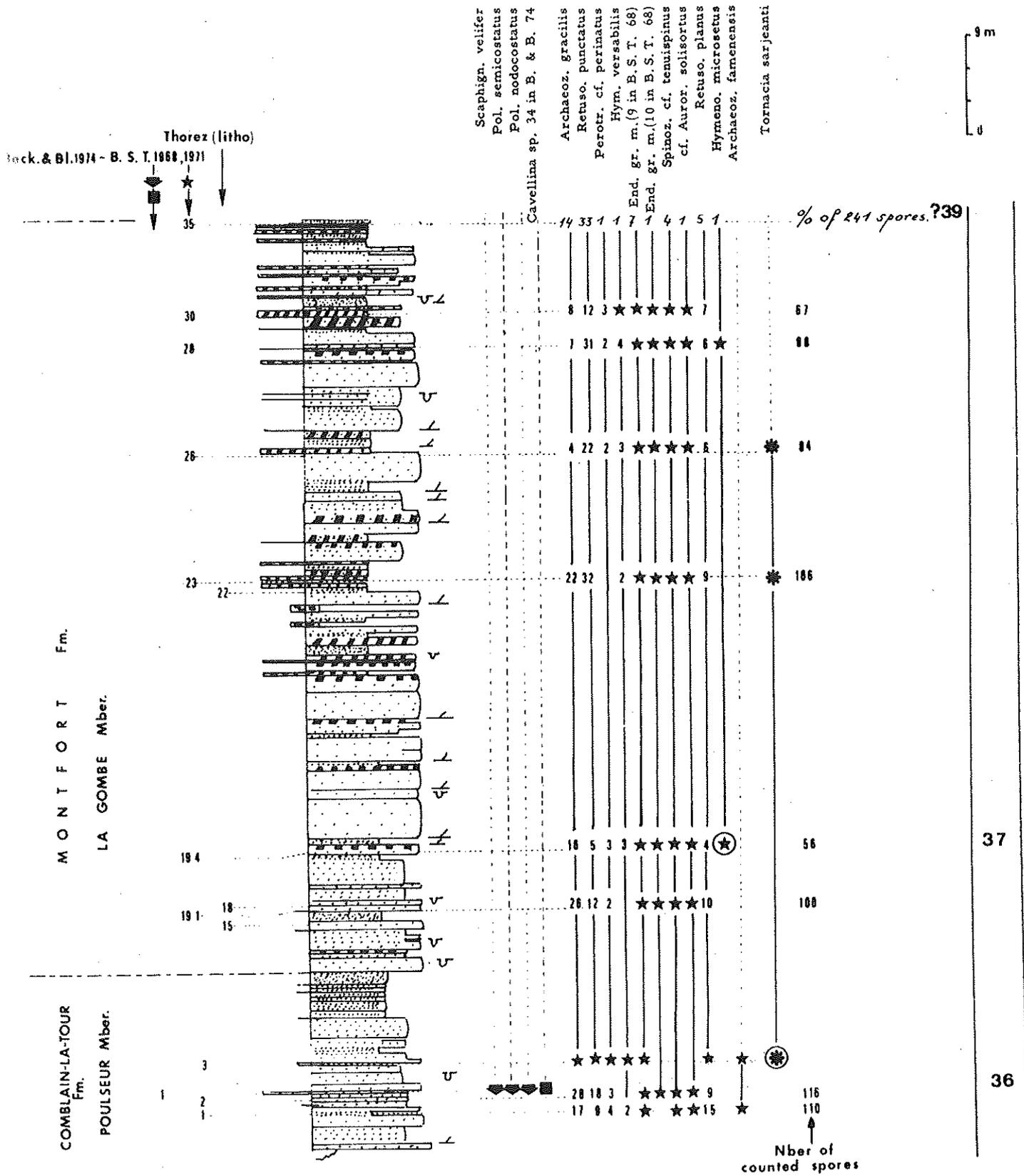
34

32

LA GOMBE - MONTFORT

D 6 a (Mgm 36-?39)

1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-texte I.
 1971. J. BOUCKAERT, M. STREEL & J. THOREZ, Coll. Strat. Carb. Univ. Liège (1970), 55 : p. 36.
 1974. G. BECKER & M. J. M. BLESS, Public. Symp. Namur. Serv. Géol. Belgique.

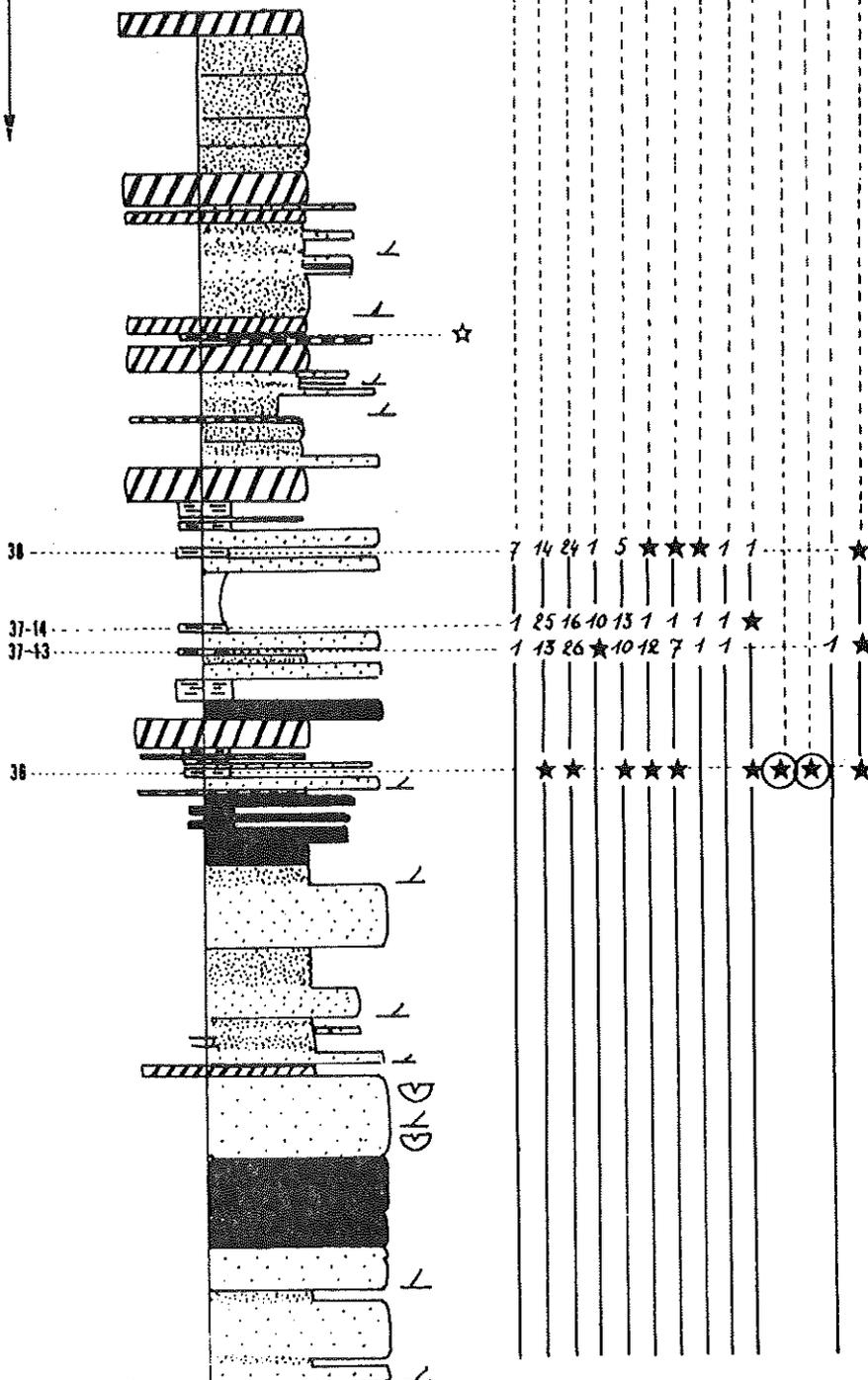


LA GOMBE – MONTFORT

D**⊙**b (Mgm 40)

- Archaeoz. gracilis
- Retuso. punctatus
- Pero. cf. perinatus
- Hym. versabilis
- End. gr. m. (9 in B.S.T. 68)
- End. gr. m. (10 in B.S.T. 68)
- Spinoz. cf. tenuispinus
- cf. Auror. solisortus
- Retuso. planus
- Hymeno. microsetus
- Spinoz. cf. uncatatus
- Hymeno. famenensis
- cf. Acantho. hirtus
- Archaeoz. famenensis

B. S. T., 1968.
Thorez (litho).



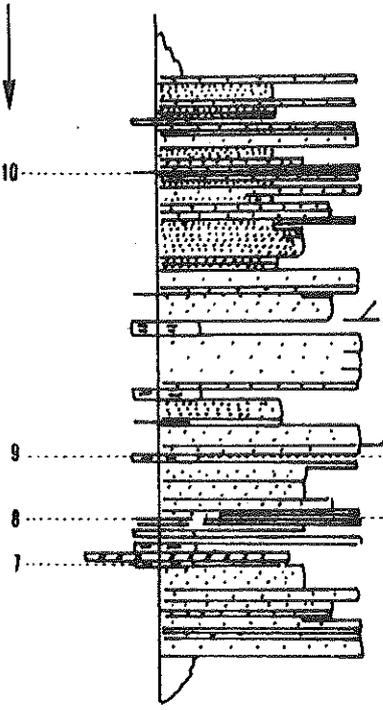
40

POULSEUR CHATEAU

D⁹ (Mgm 41)

- Archaeoz. gracilis
- Retusotrilites punctatus
- Perotrilites cf. perinatus
- Hymenoz. versabilis
- End. gr. minutus (9 in B.S.T. 68)
- End. gr. minutus (10 in B.S.T. 68)
- Spinozonotr. cf. tenuispinus
- cf. Aurorasp. solisortus
- Retusotrilites planus
- Spinozonotr. cf. uncatatus
- Archaeoz. famenensis
- Raistrickia variabilis
- Hymenoz. famenensis

oz (Uned.)

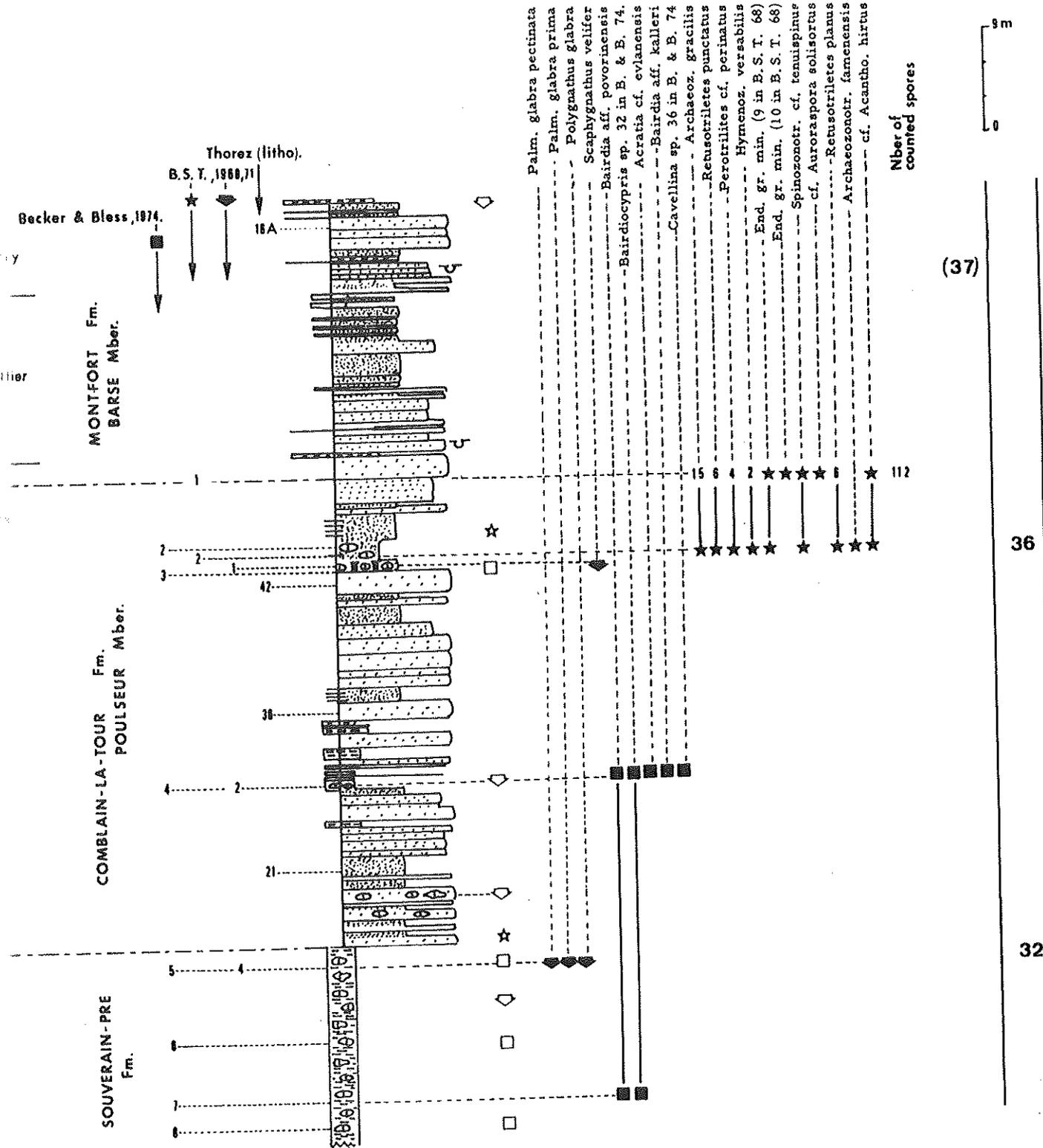


1	13	23	8	1	1	4	★	1	★	6	1	% of 230 spores.	
8	13	34	2	1	13	★	★	1	1	1	1	★	% of 213 spores.

SOUVERAIN-PRE (GARE-FLAGOTTIER ROAD-QUARRY)

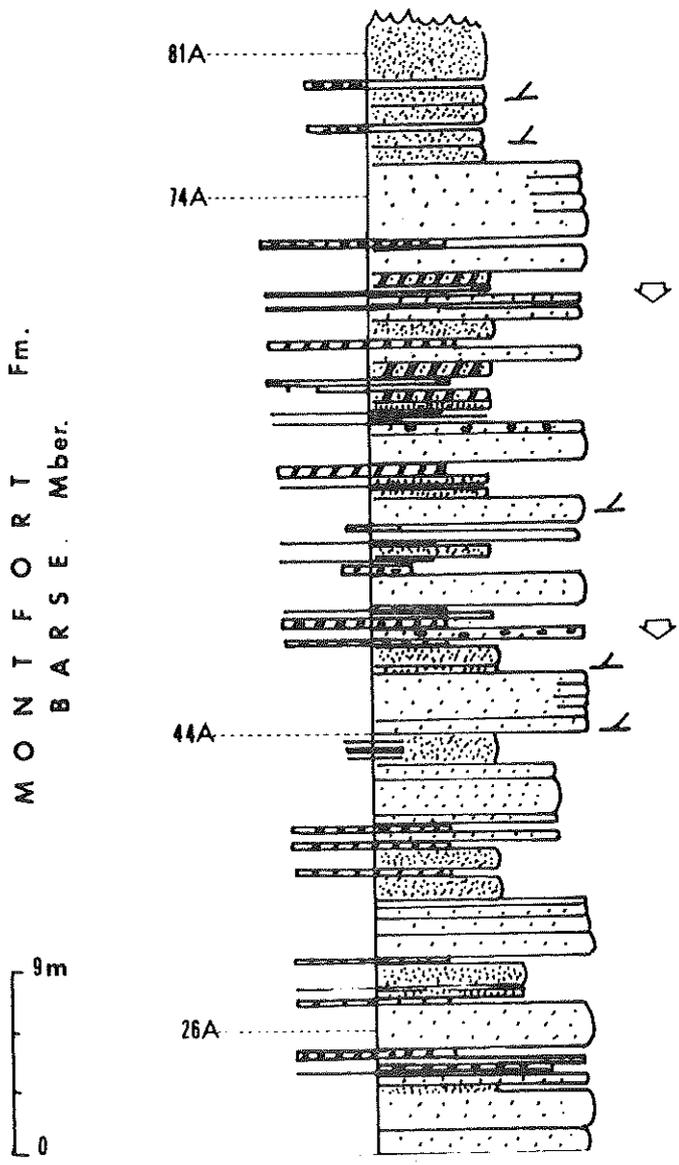
D¹⁰a (Mgm 32-37)

1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-texte I.
 1971. J. BOUCKAERT, M. STREEL & J. THOREZ, Coll. Strat. Carb. Univ. Liège (1970), 55 : p. 34
 1974. G. BECKER & M. J. M. BLESS, Pubic. Symp. Namur, Serv. Géol. Belgique.

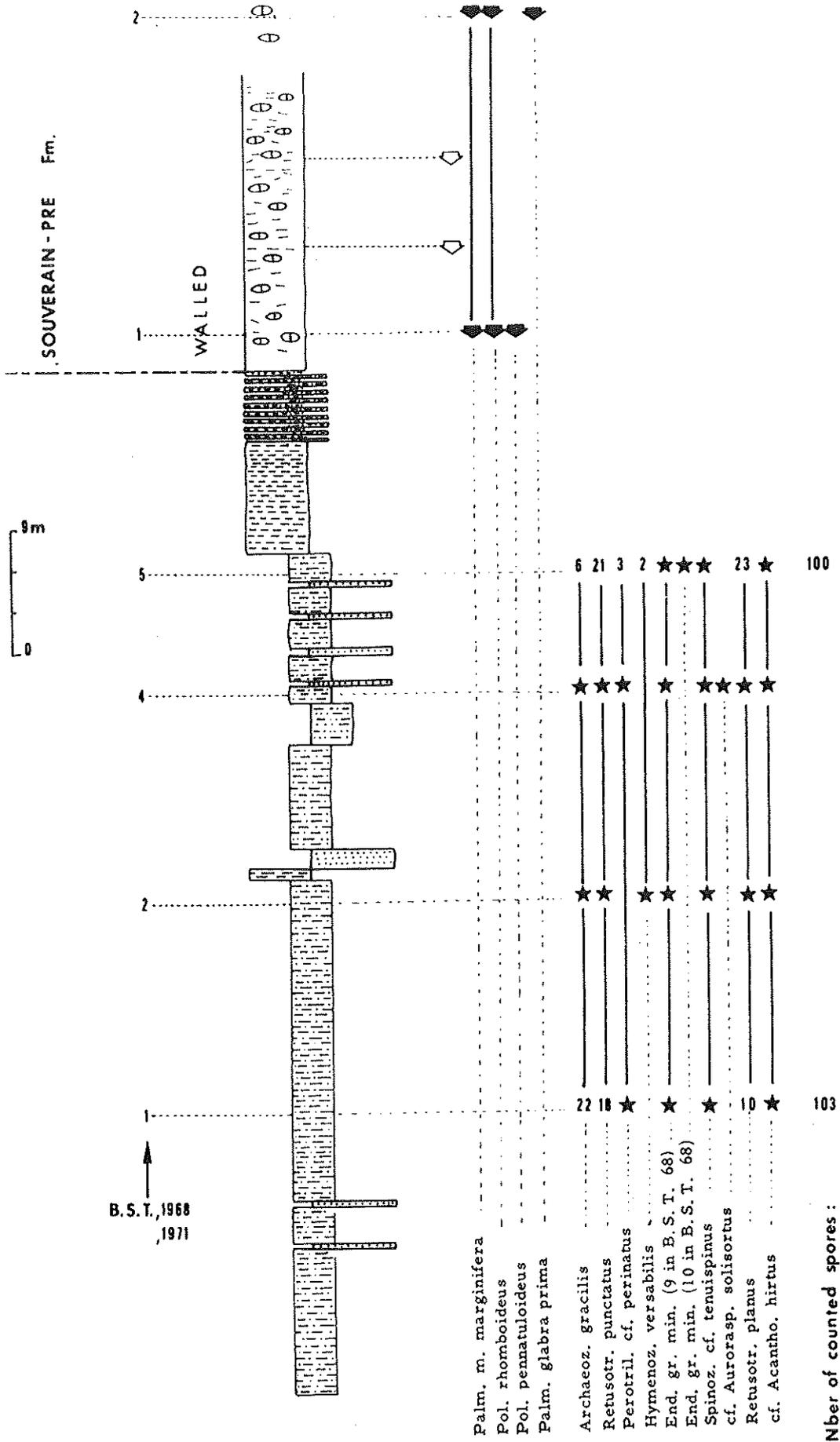


SOUVERAIN-PRE (QUARRY)

D⑩b



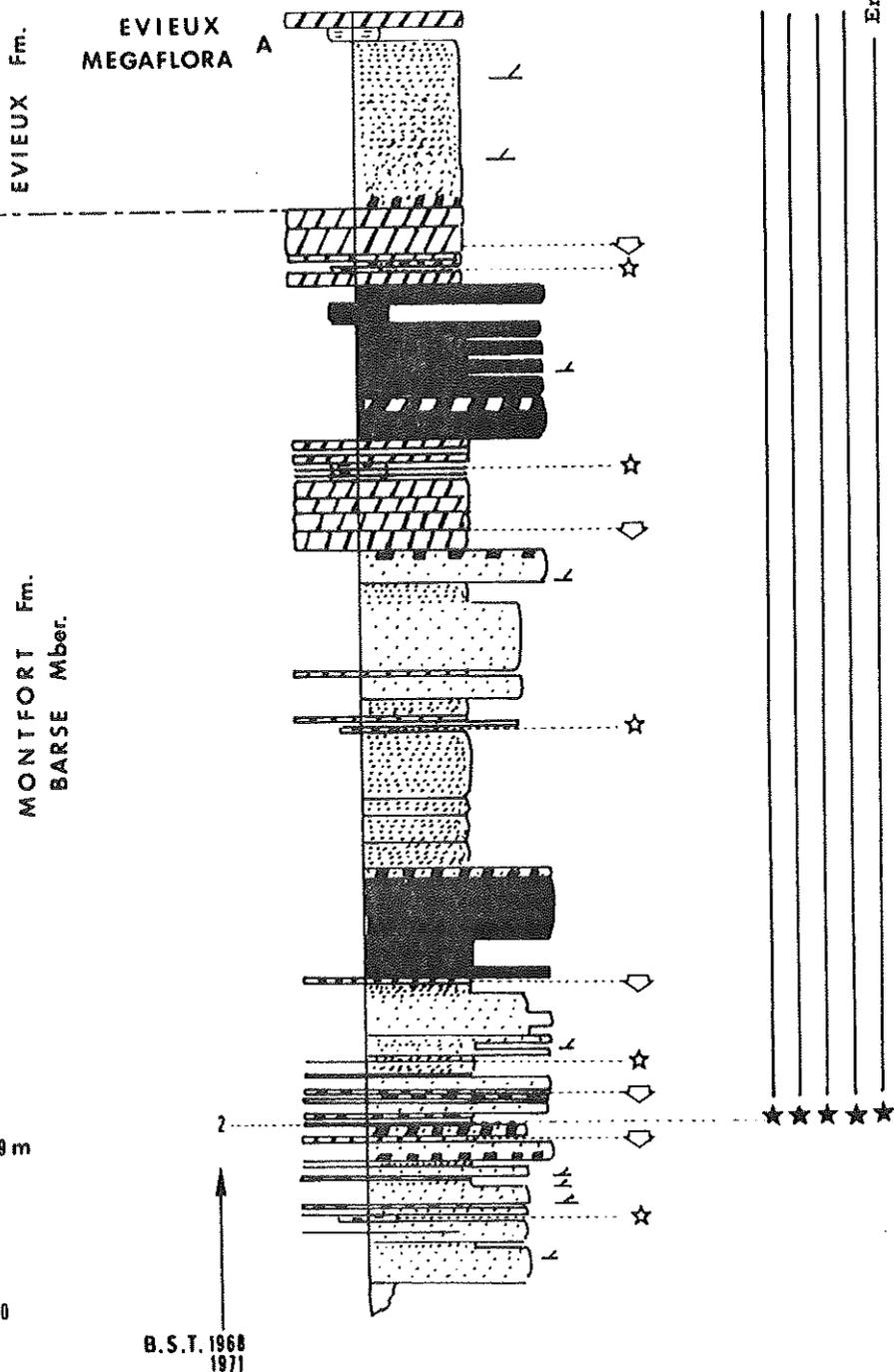
1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-texte I.
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EVIEUX

D¹²a (Mgm ?36-37)

1968. J. BOUCKAERT, M. STREEL & J. THOREZ, Ann. Soc. Géol. Belgique, 91 : hors-texte I.
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?37

?36

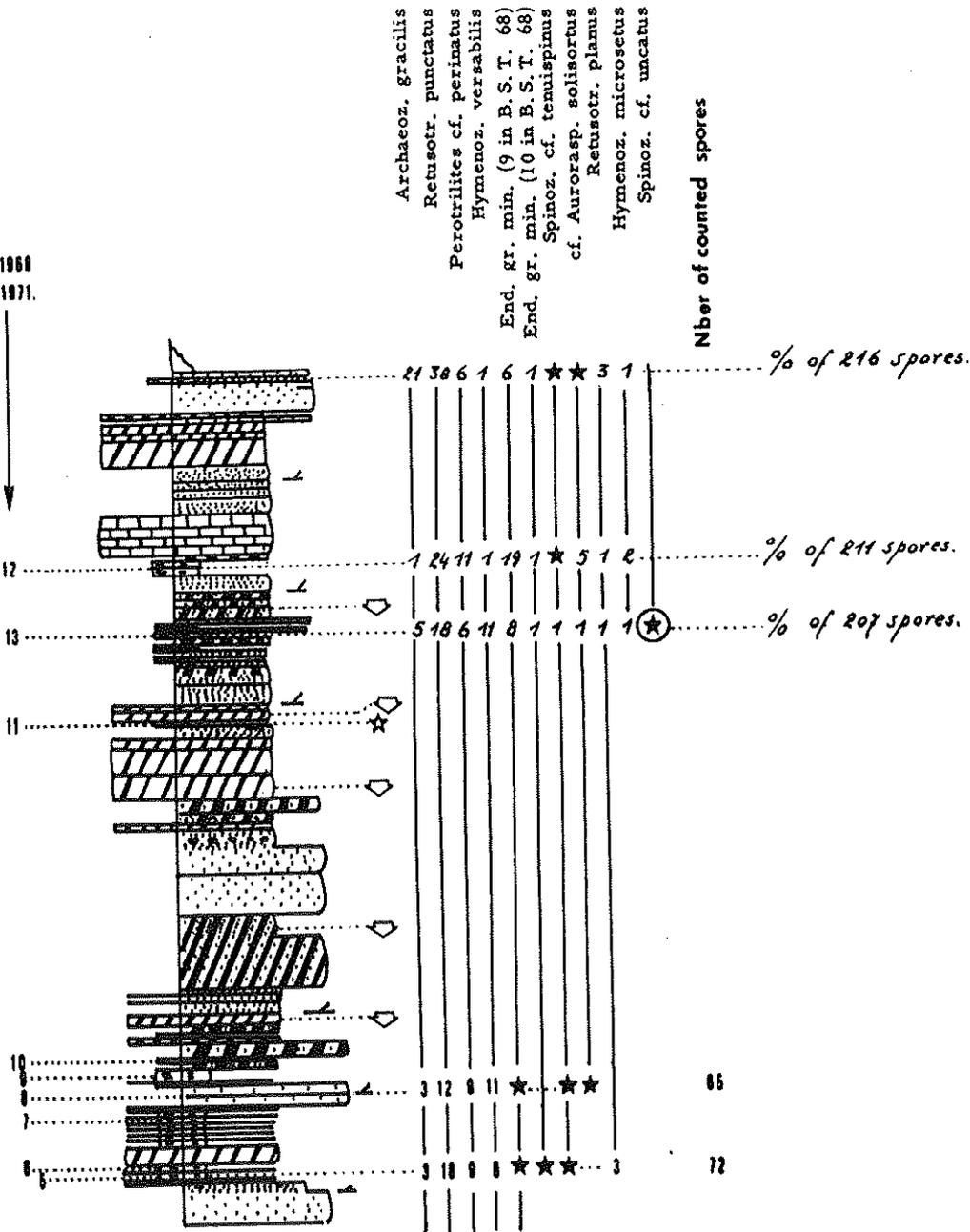
EVIEUX

D⁽¹²⁾b (Mgm ?38-40)

B. S. T. 1968
1971.

EVIEUX
MEGAFLORA B

EVIEUX Fm.



40

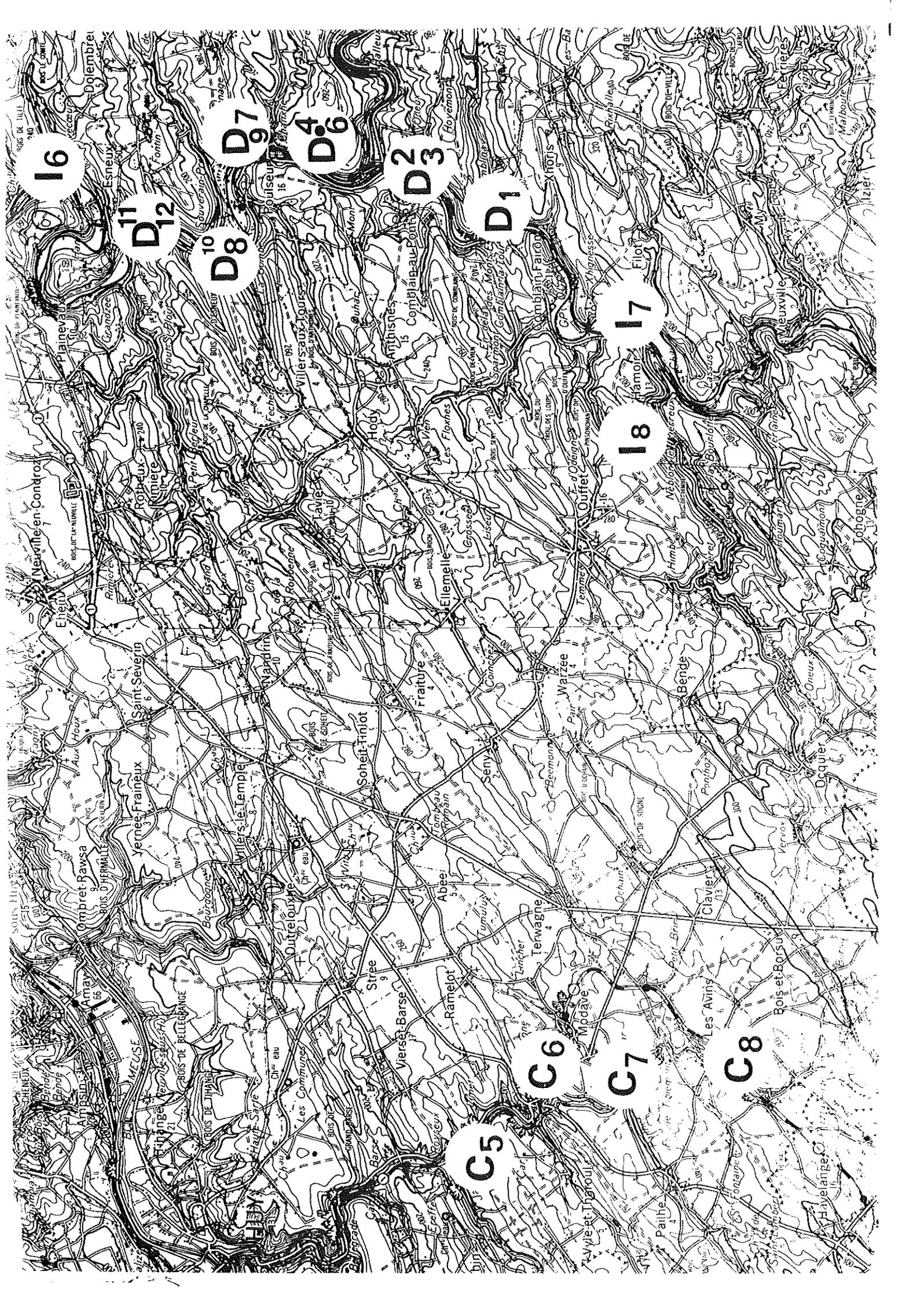
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I6

D11

D10

D7

D4

D6

D3

D1

I7

I8

C5

C6

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C8