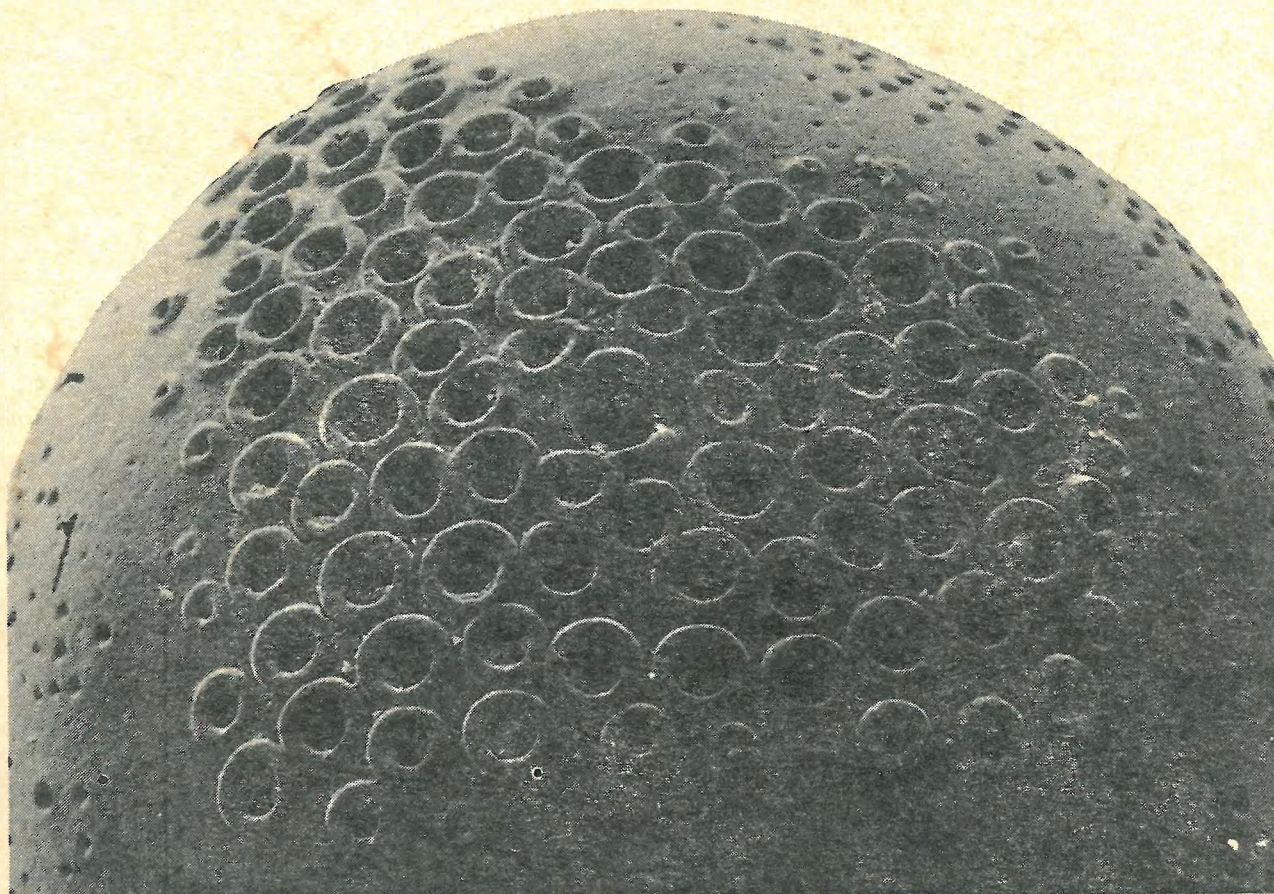


**DISTRIBUTION PATTERNS AND TAXONOMY
OF BENTHIC FORAMINIFERA IN THE
LIZARD ISLAND REEF COMPLEX,
NORTHERN GREAT BARRIER REEF, AUSTRALIA**



4-1

ANNEXES

UNIVERSITE DE LIEGE - C.A.P.S. - LABORATOIRE DE BIOSEDIMENTOLOGIE

**THESE DE DOCTORAT
EN SCIENCES GEOLOGIQUES ET MINERALOGIQUES, 1987**

Jan BACCAERT

RBINS



8374434-40

C35257

LIST OF ANNEXES

ANNEX 1 : Circular diagrams per sample

ANNEX 2 : Procentual cumulative diagrams
(with localisation map)

ANNEX 3 : Sample localisation map

ANNEX 4 : Echosounding tracks

ANNEX 5 : Synoptic diagram

A N N E X 1

Circular diagrams per sample

LEGEND

Smaller diagram (upper part of page) : shows the procentual composition of the representative, quartiled sample ($>74 \mu\text{m}$) as to its content of the three groups of grains of foraminiferal origin (see Ch. 2, Part 1), viz. DF or DET FOR (= identified tests, entire or broken tests which can be identified up to species level); FR or FRAGMENTS (test fragments which can be identified up to the genus level); INDET (= unidentified test fragments, generally smaller, detrital grains presumably resulting from fragmentation and erosion of foraminiferal tests). The numerical values of these three groups (converted to 1 g of representative sample $>74 \mu\text{m}$) are given in the upper left corner of the page, below the sample n° and the water depth. The addition of the three numbers yields the total (T) number of detrital grains of foraminiferal test origin in 1 gram of sample $>74 \mu\text{m}$.

List of abbreviations in FR : T = arenaceous test fragments; MIL = miliolids (other than those indicated explicitly); R or ROT = rotaliids (other than those indicated explicitly); PEN = Peneroplis; SO = Sorites; AS = Amphisorus; MA = Marginopora; ALV = Alveolinella; AM = Amphistegina; BA = Baculogypsina; CA = Calcarina; HET = Heterostegina; OP = Operculina.

Larger diagram (lower part of page) : shows procentual composition of the DET FOR part of sample (identified tests) as to its content of foraminiferal taxa. The innermost circle shows the relative proportions of the three foraminiferal suborders; the middle circle circumscribes the generic proportions whereas the inner circle circumscribes the specific proportions. Species not reaching 1% are grouped under the designation "OTHER".

L241

COCONUT FRINGING REEF FLAT

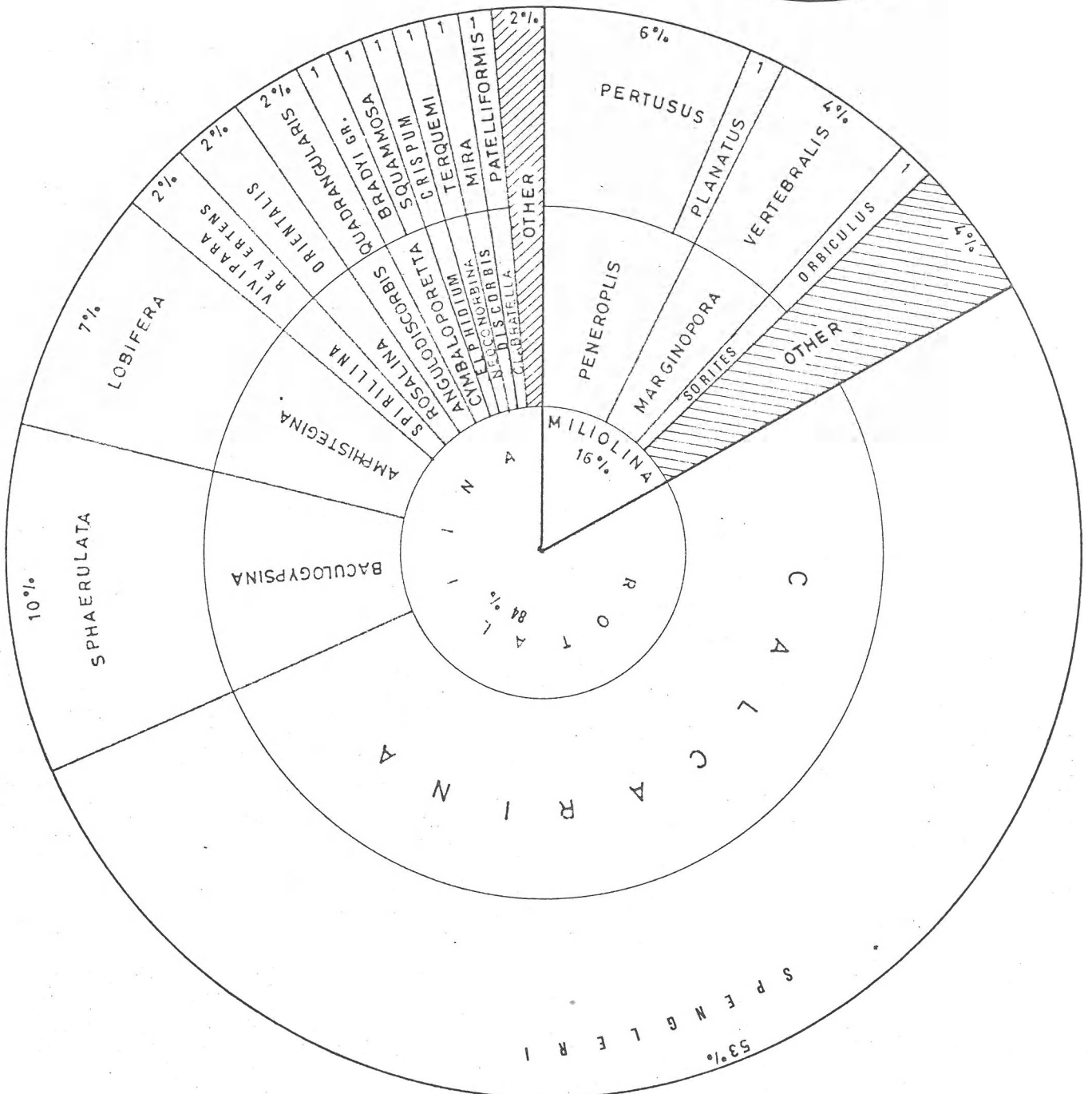
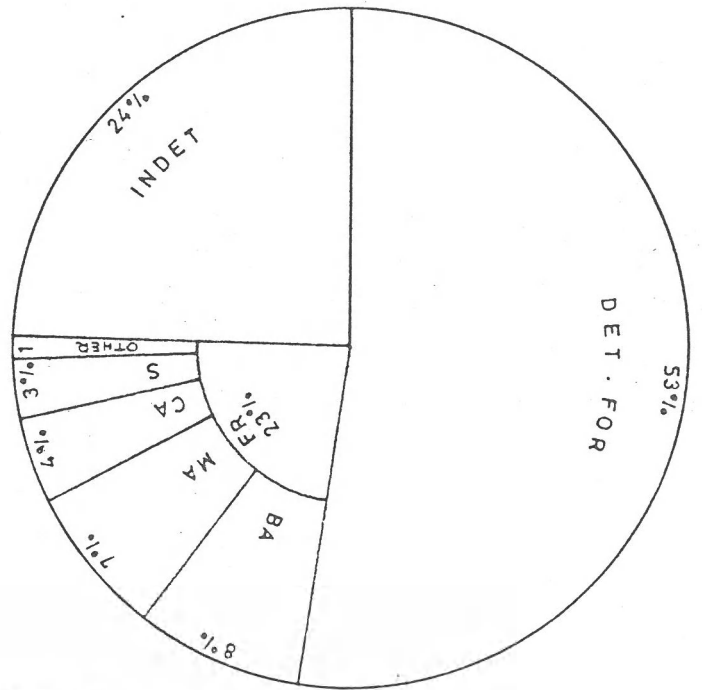
Intertidal

df/g = 1231

fr/g = 526

indet/g = 567

T/g = 2333



L 242

COCONUT FRINGING REEF (BEACH)

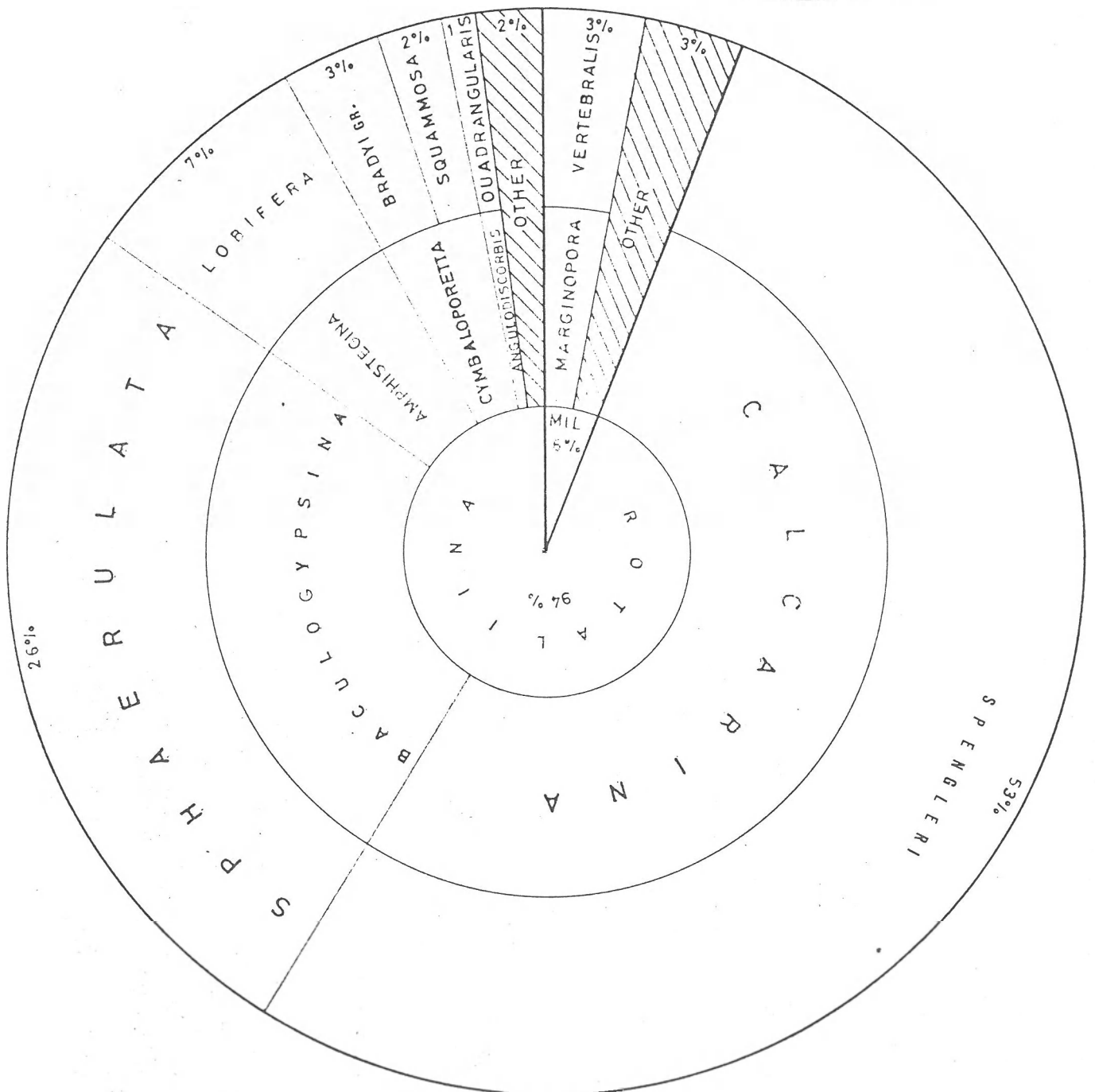
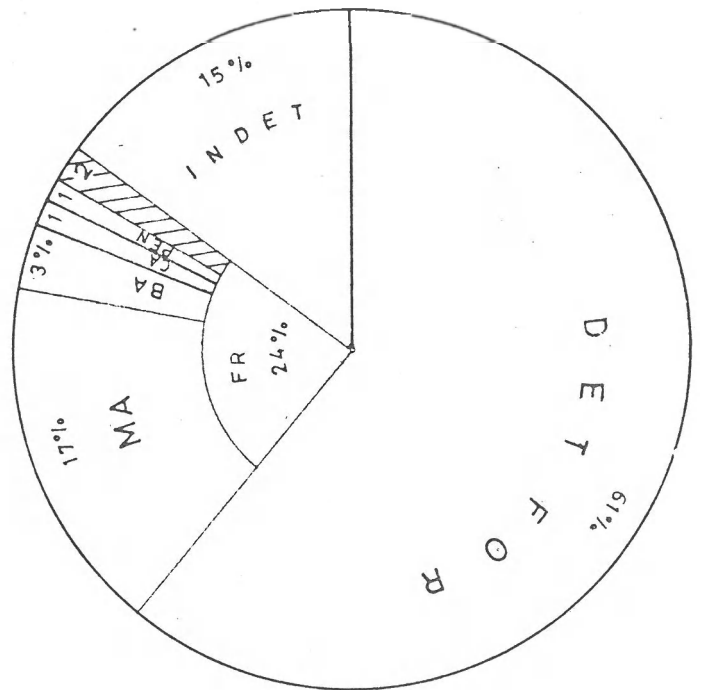
Intertidal

df/g = 512

fr/g = 201

indet/g = 131

T/g = 844



L 243 b

COCONUT FRINGING REEF FLAT

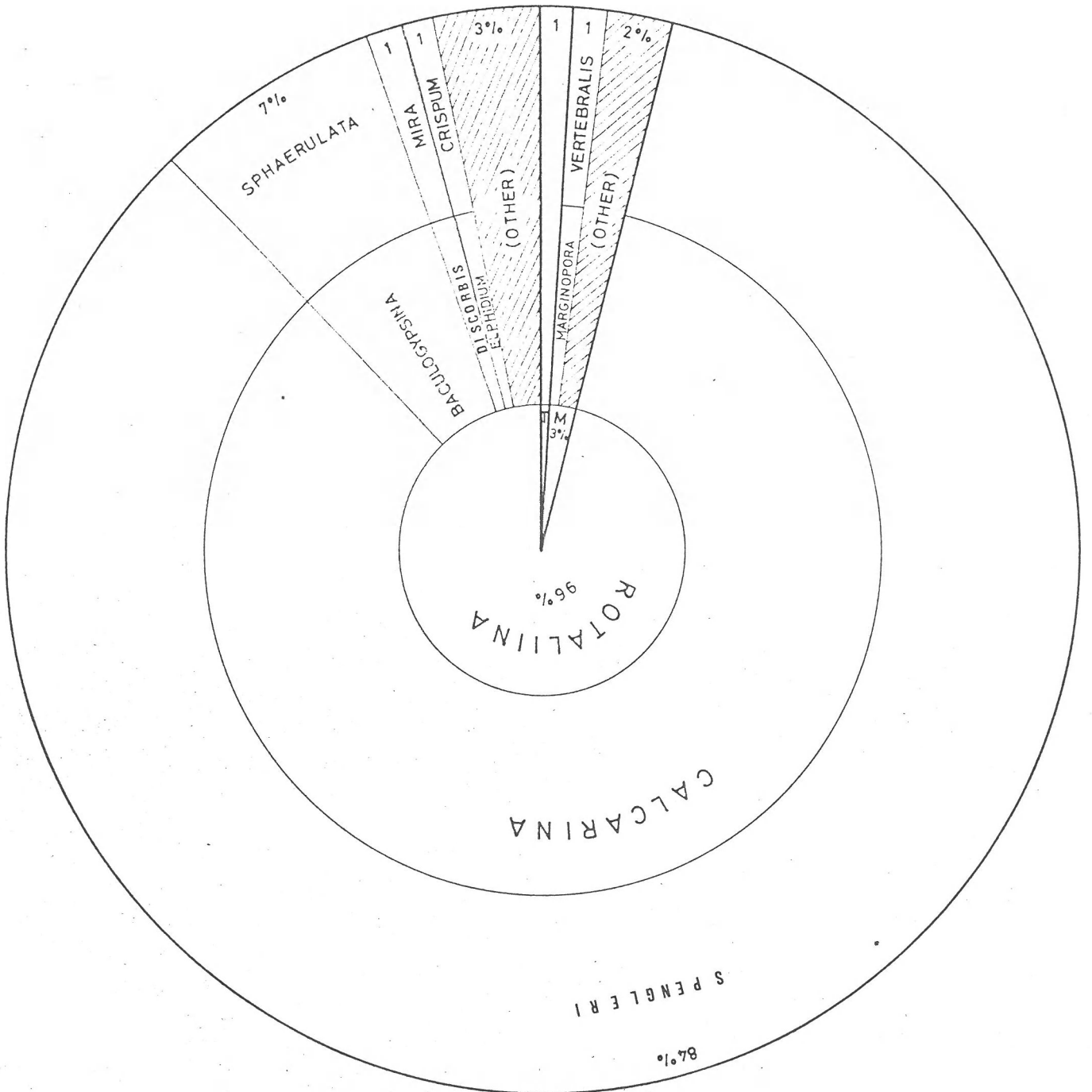
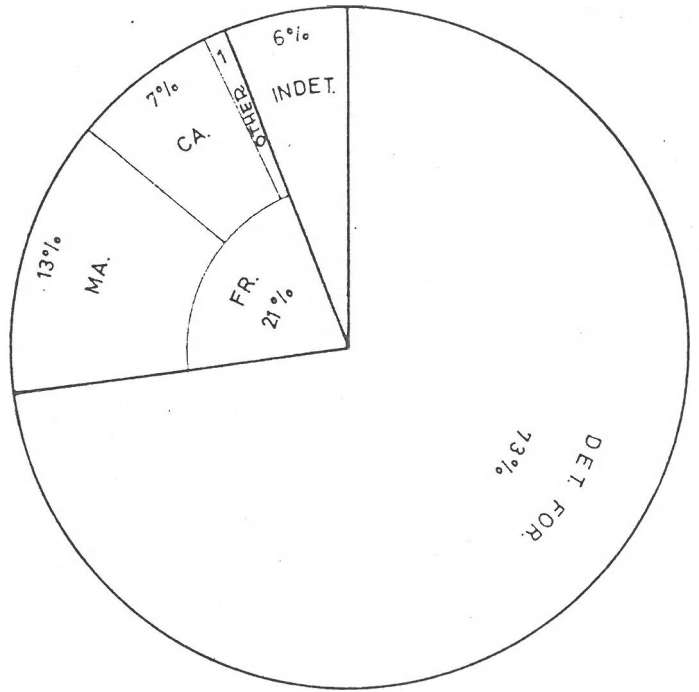
Intertidal

df/g = 846

fr/g = 245

indet/g = 73

T/g = 1164



L 244 b

COCONUT FRINGING REEF FLAT

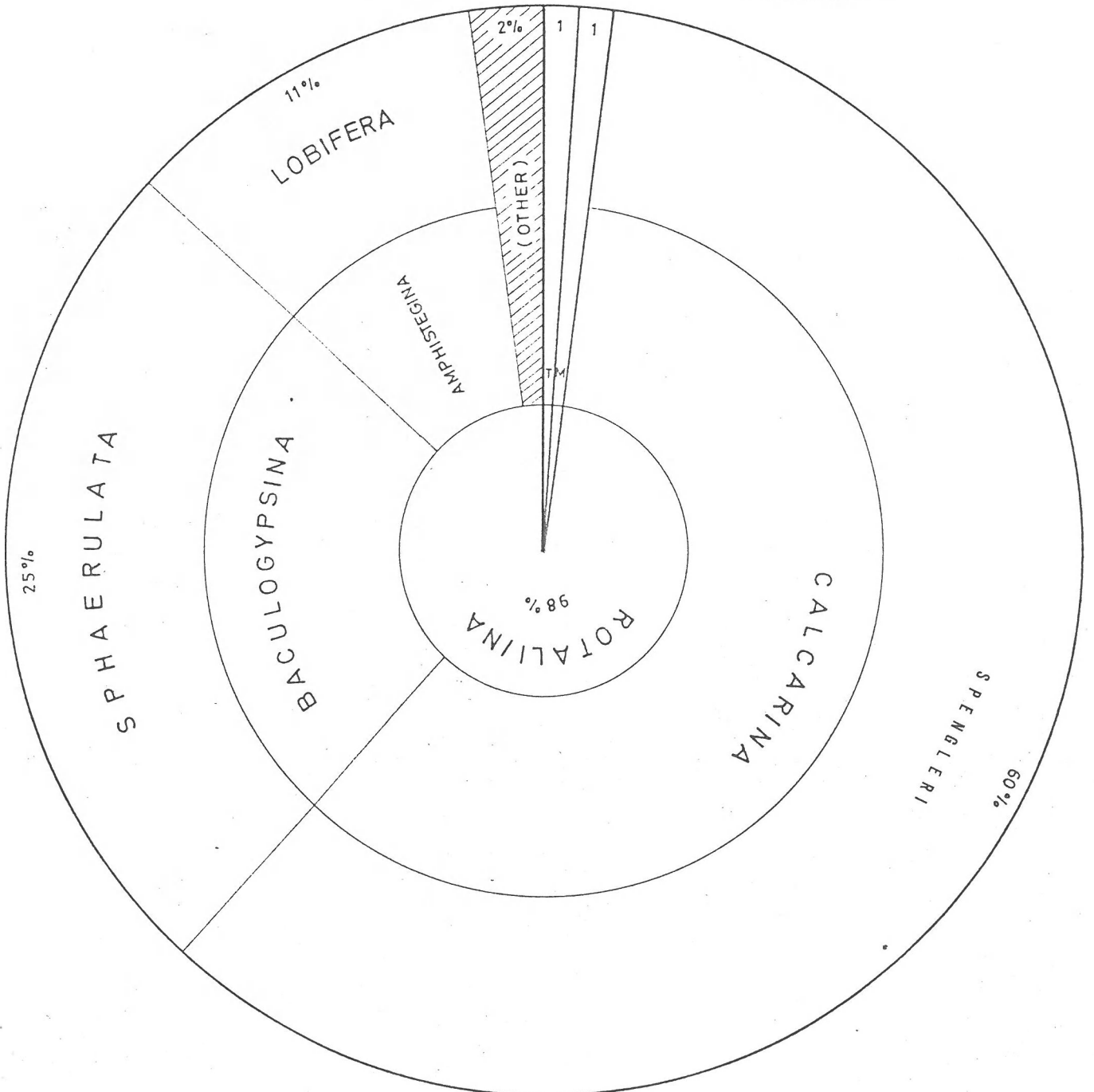
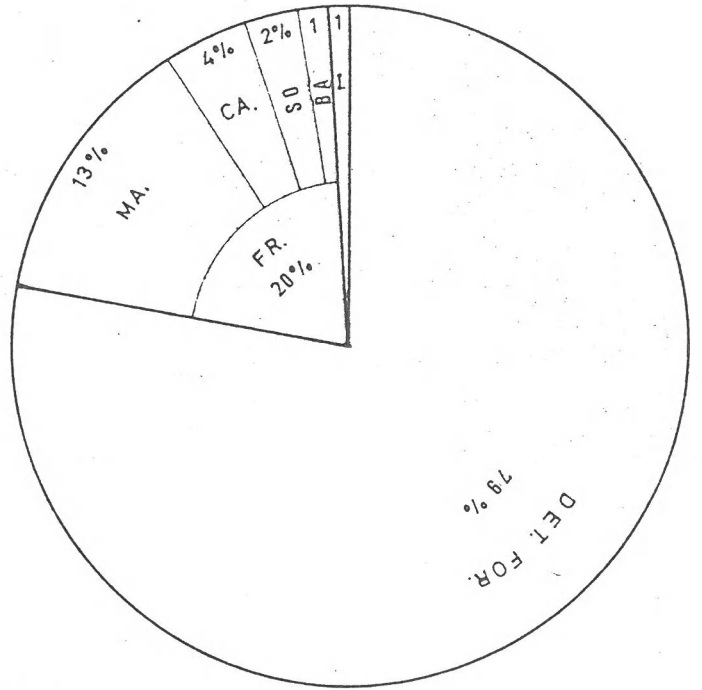
Intertidal

df/g = 892

fr/g = 240

indet/g = 6

T/g = 1138



L 245

COCONUT FRINGING REEF FLAT

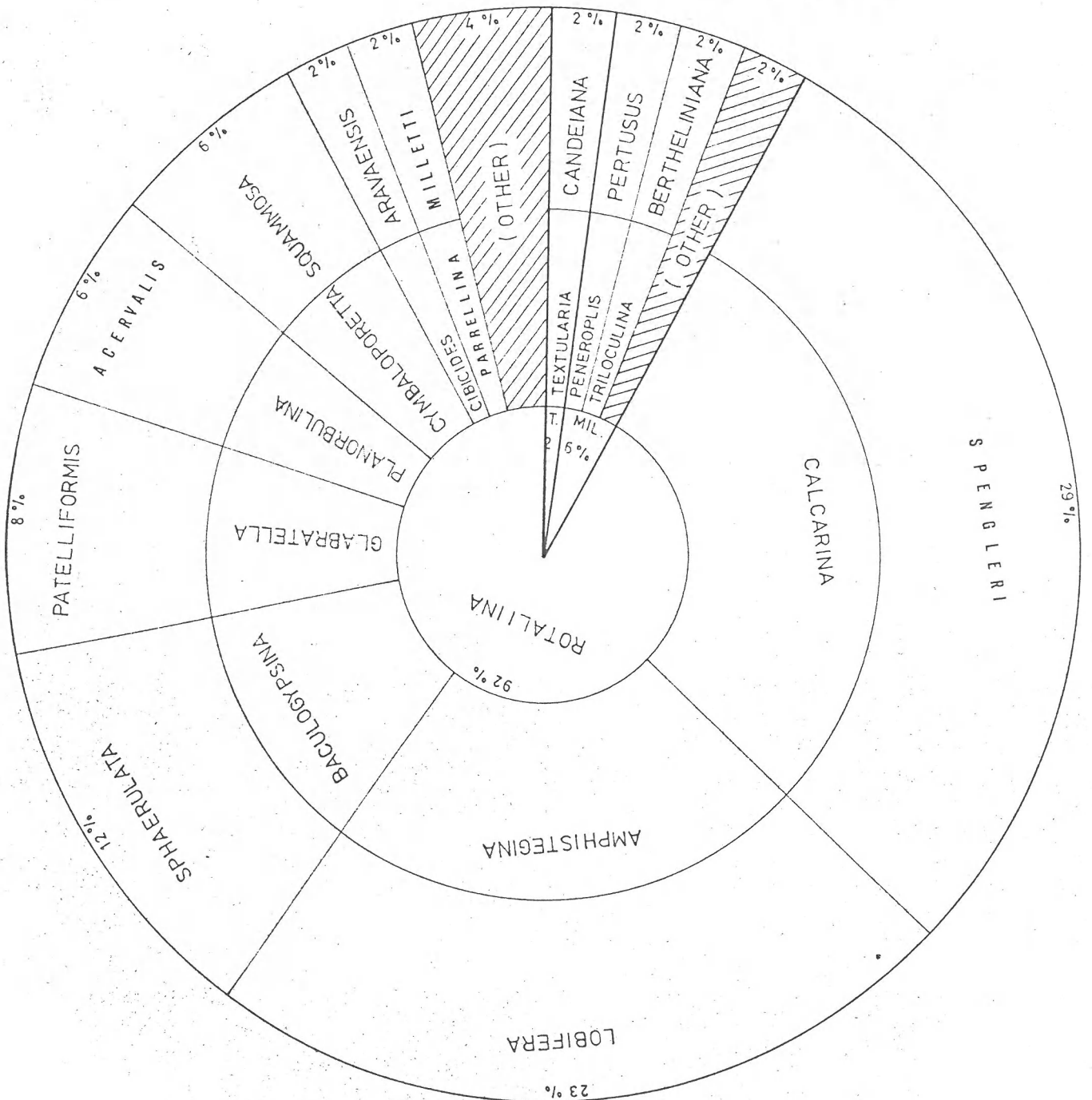
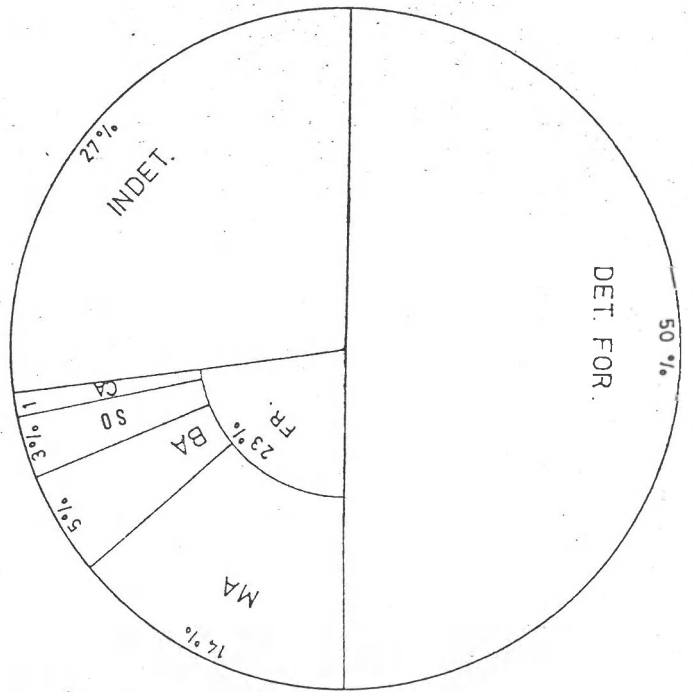
Intertidal

df/g = 488

fr/g = 225

indet/g = 263

T/g = 976

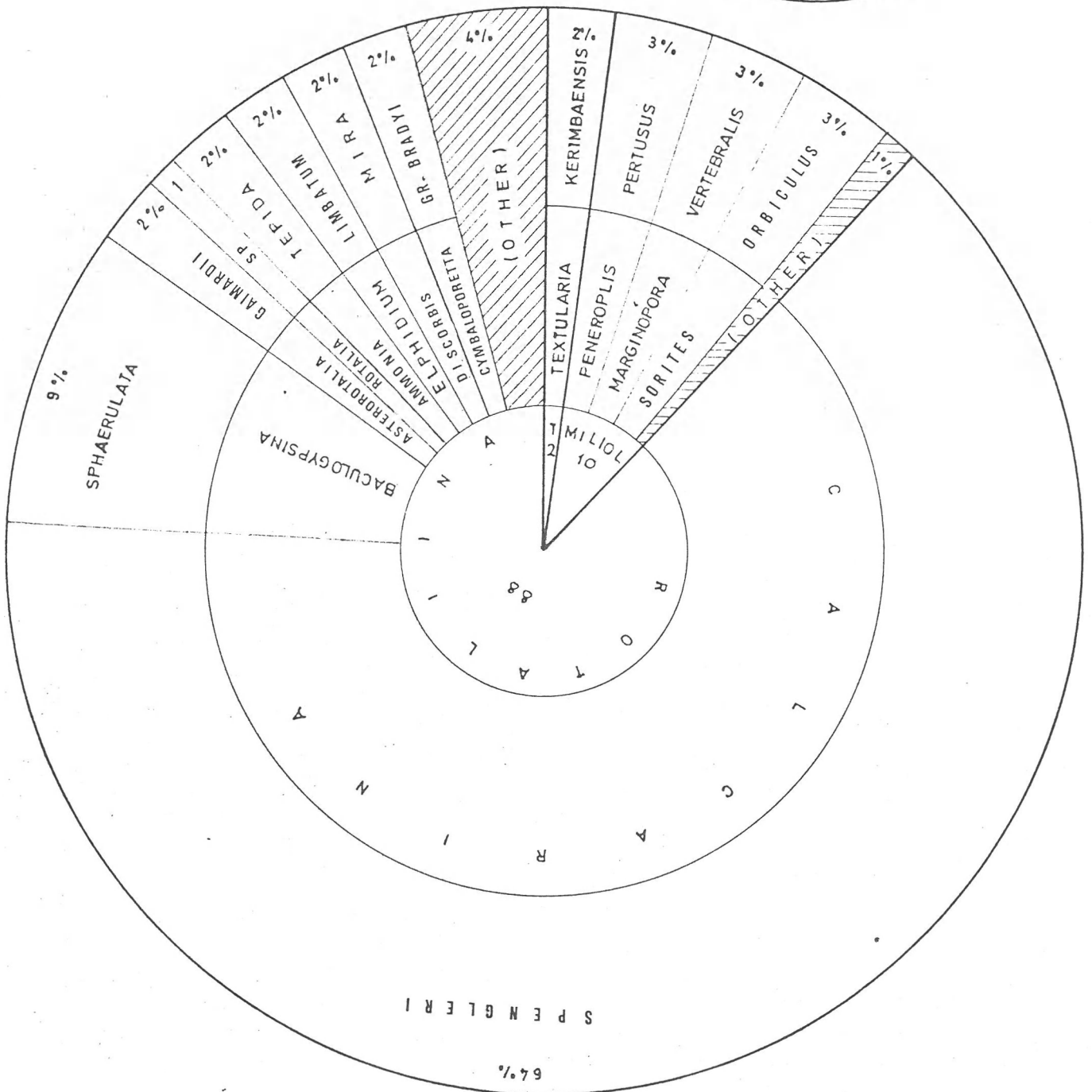
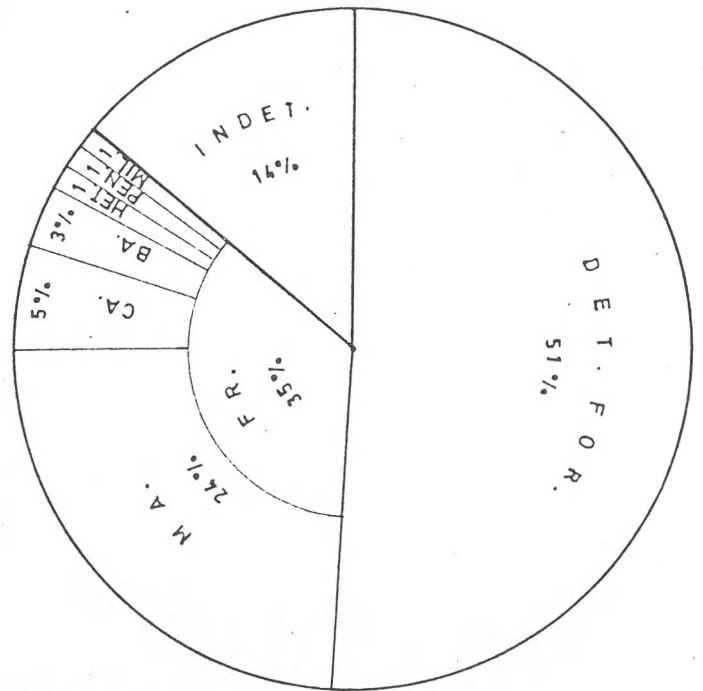


L 246

COCONUT FRINGING REEF FLAT

Intertidal

df/g = 237
 fr/g = 160
 indet/g = 65
 T/g = 462



L 247 b

COCONUT FRINGING REEF FLAT

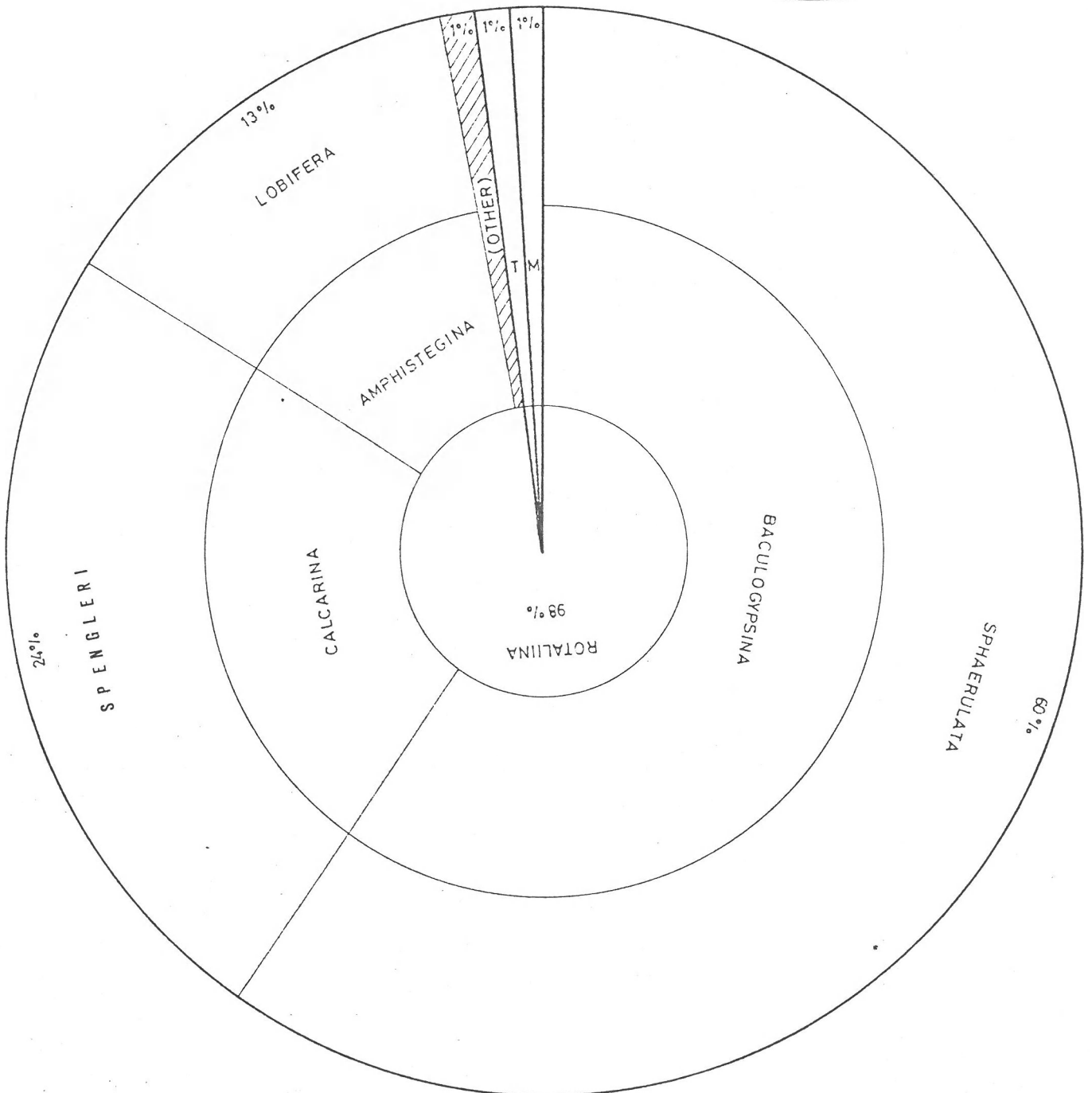
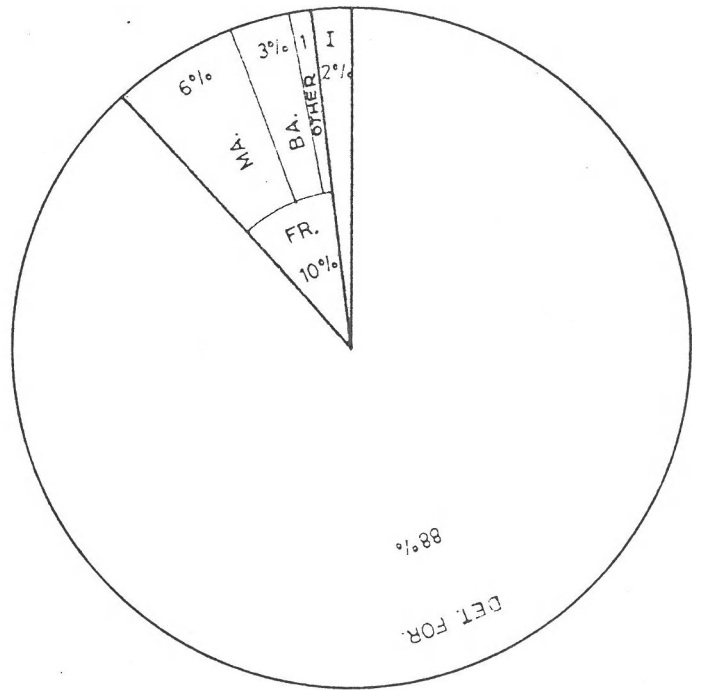
Intertidal

df/g = 390

fr/g = 45

indet/g = 9

T/g = 444



L 248

COCONUT FRINGING REEF FLAT

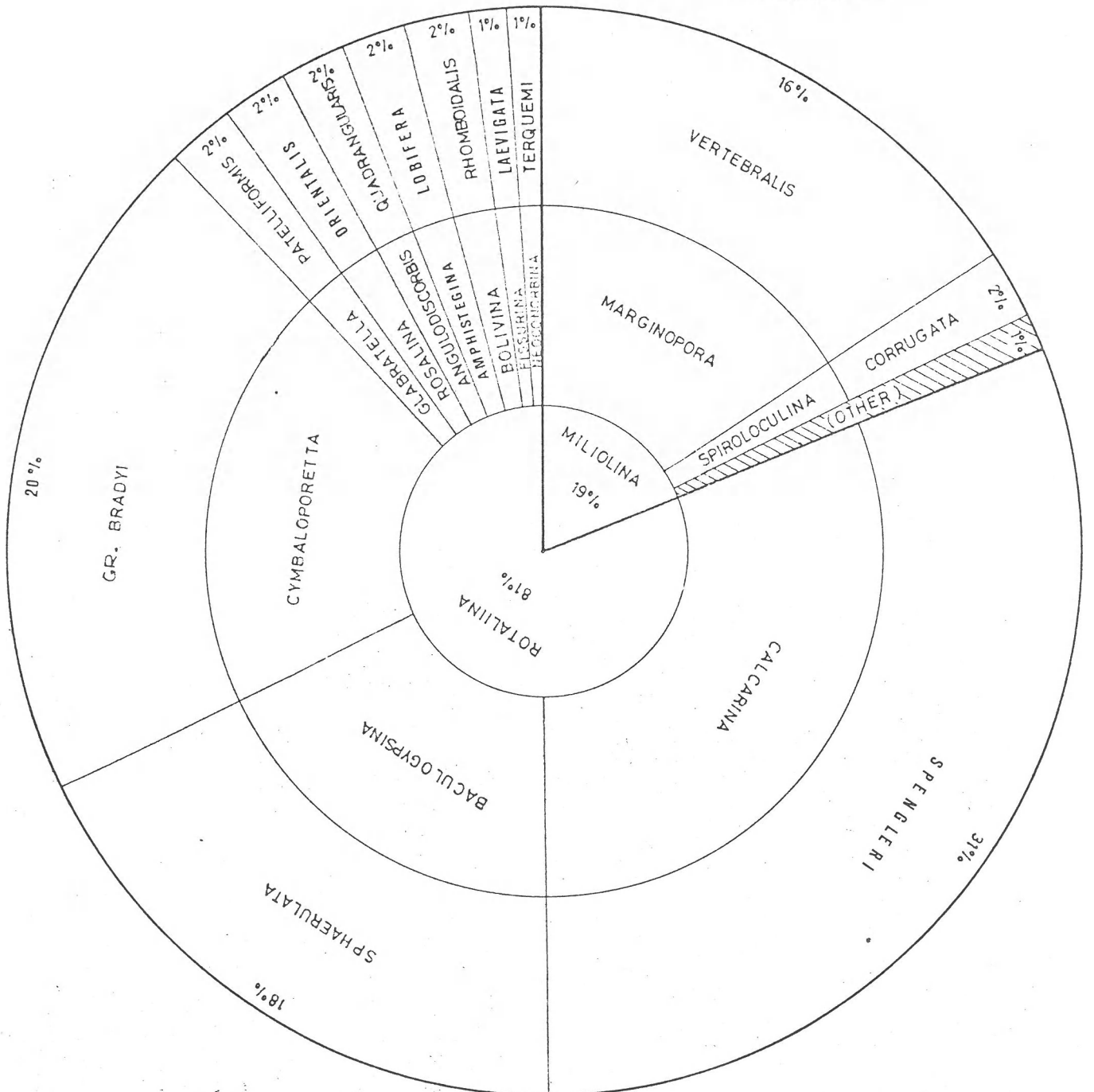
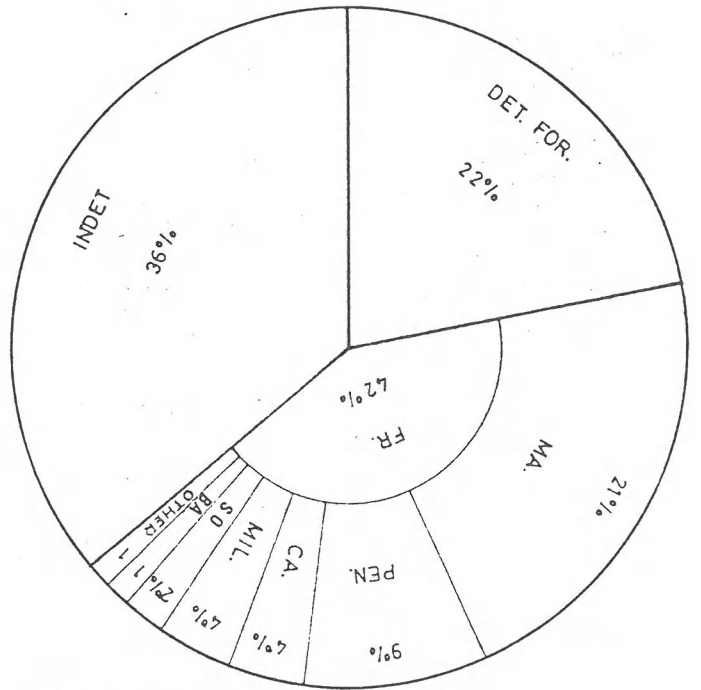
Intertidal

df/g = 217

fr/g = 409

indet/g = 349

T/g = 975

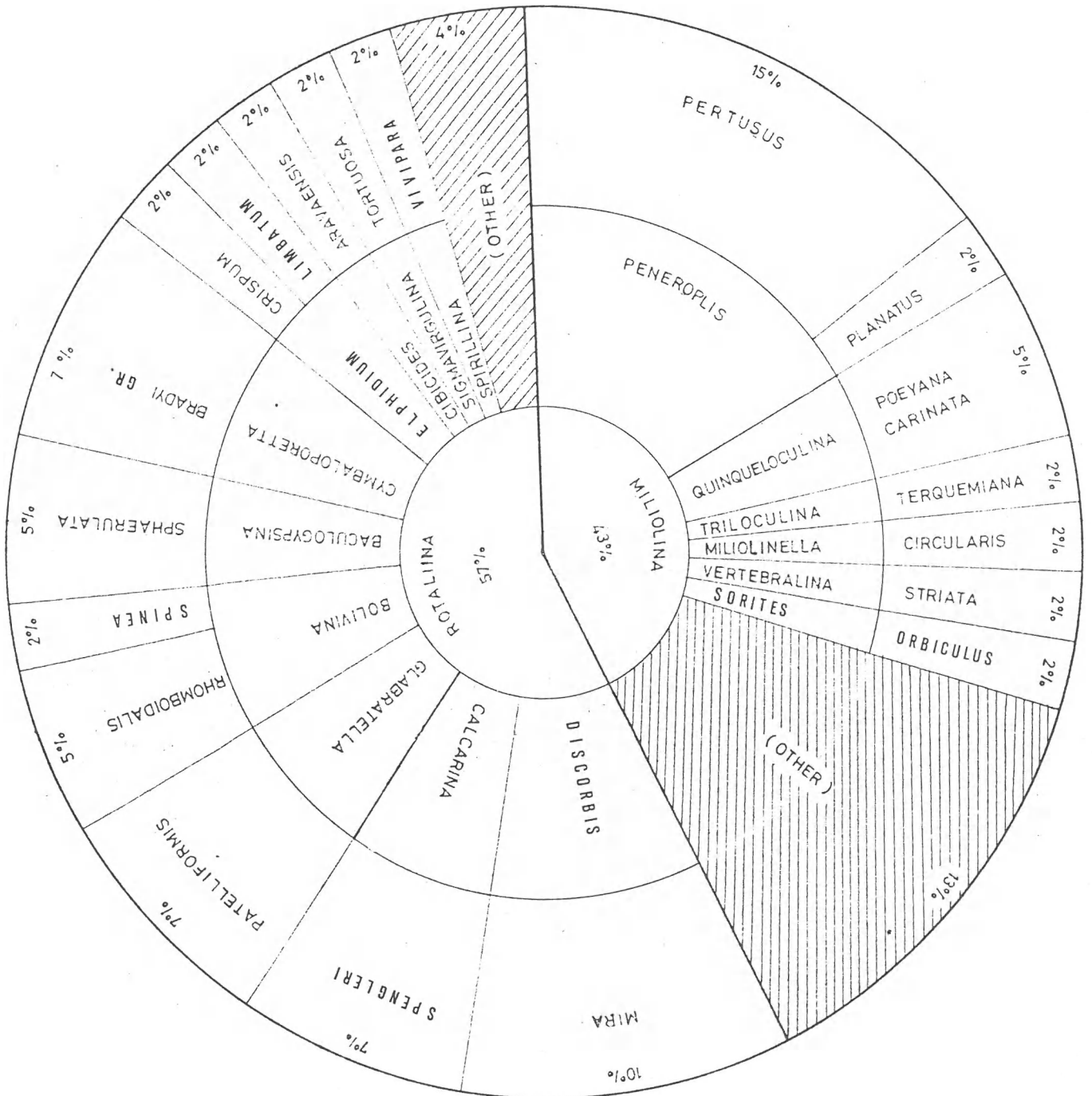
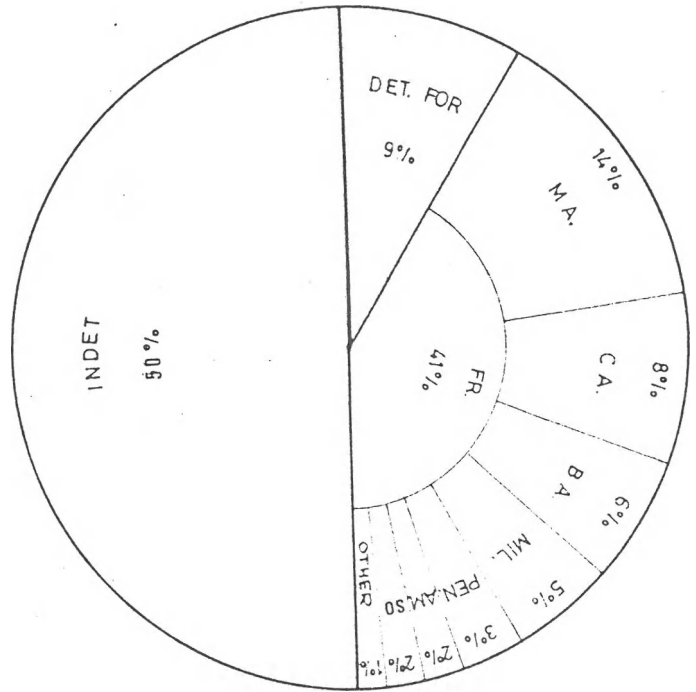


L 249

COCONUT FRINGING REEF FLAT

Intertidal

df/g = 690
fr/g = 3017
indet/g = 3466
T/g = 7273



L 250

COCONUT FRINGING REEF FLAT

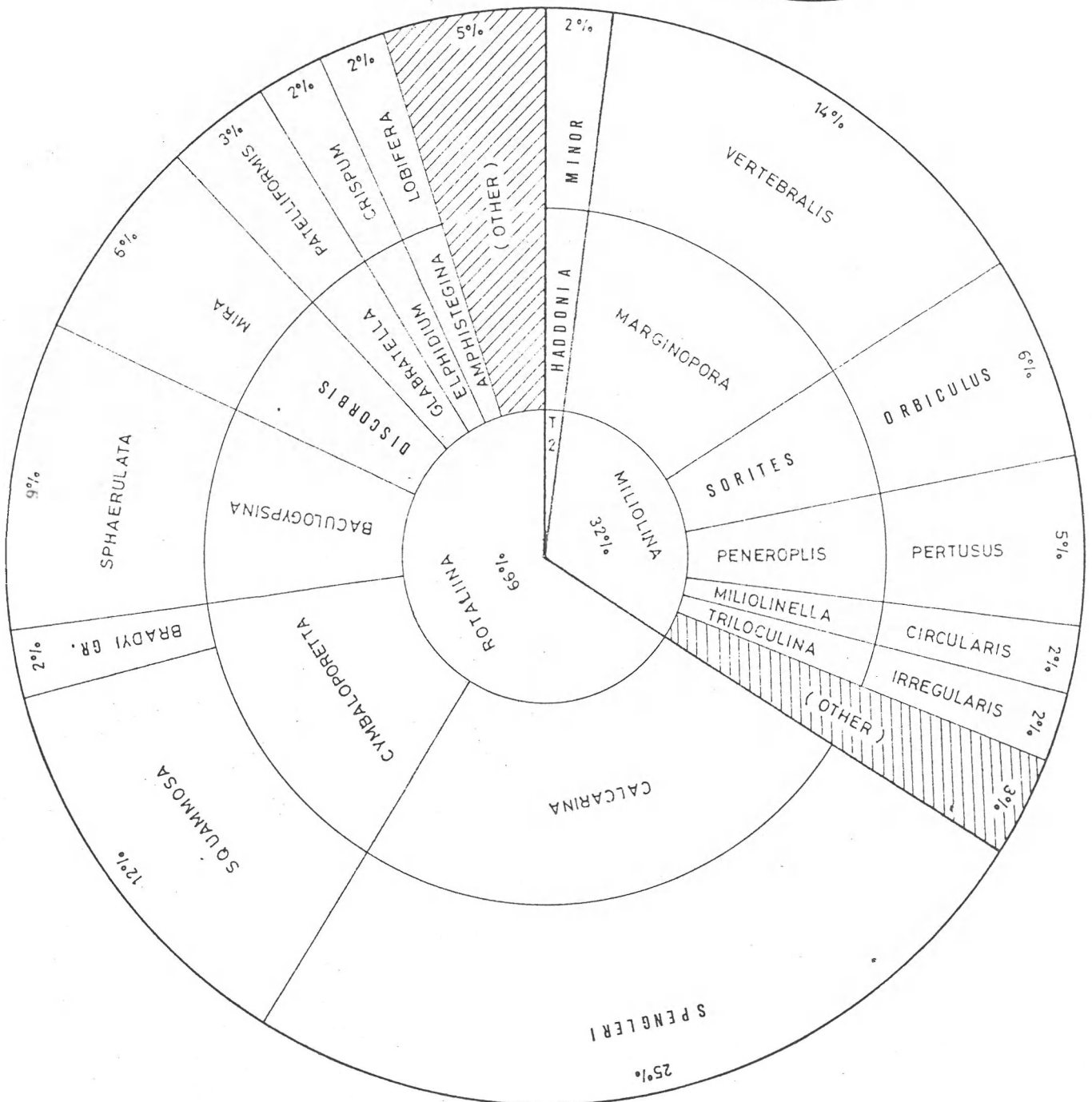
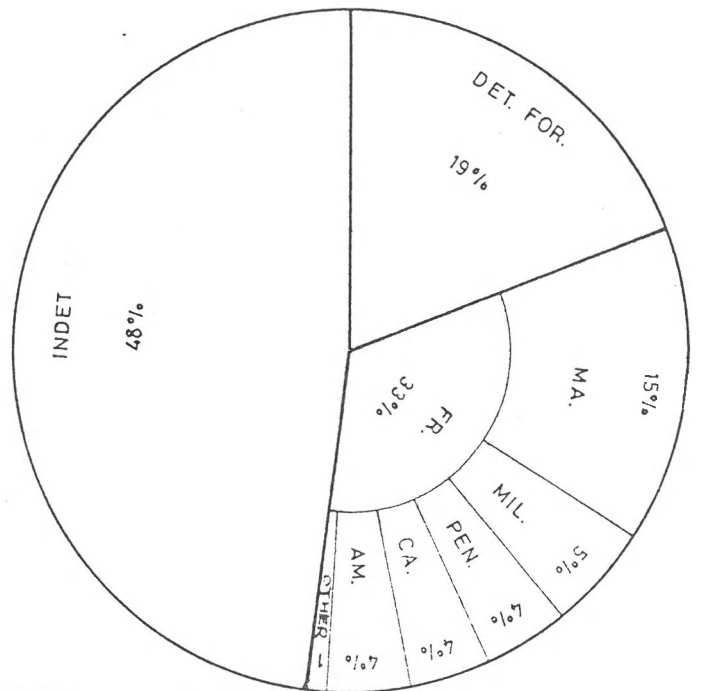
Intertidal

df/g = 378

fr/g = 643

indet/g = 927

T/g = 1968



L 251 b

COCONUT FRINGING REEF FLAT

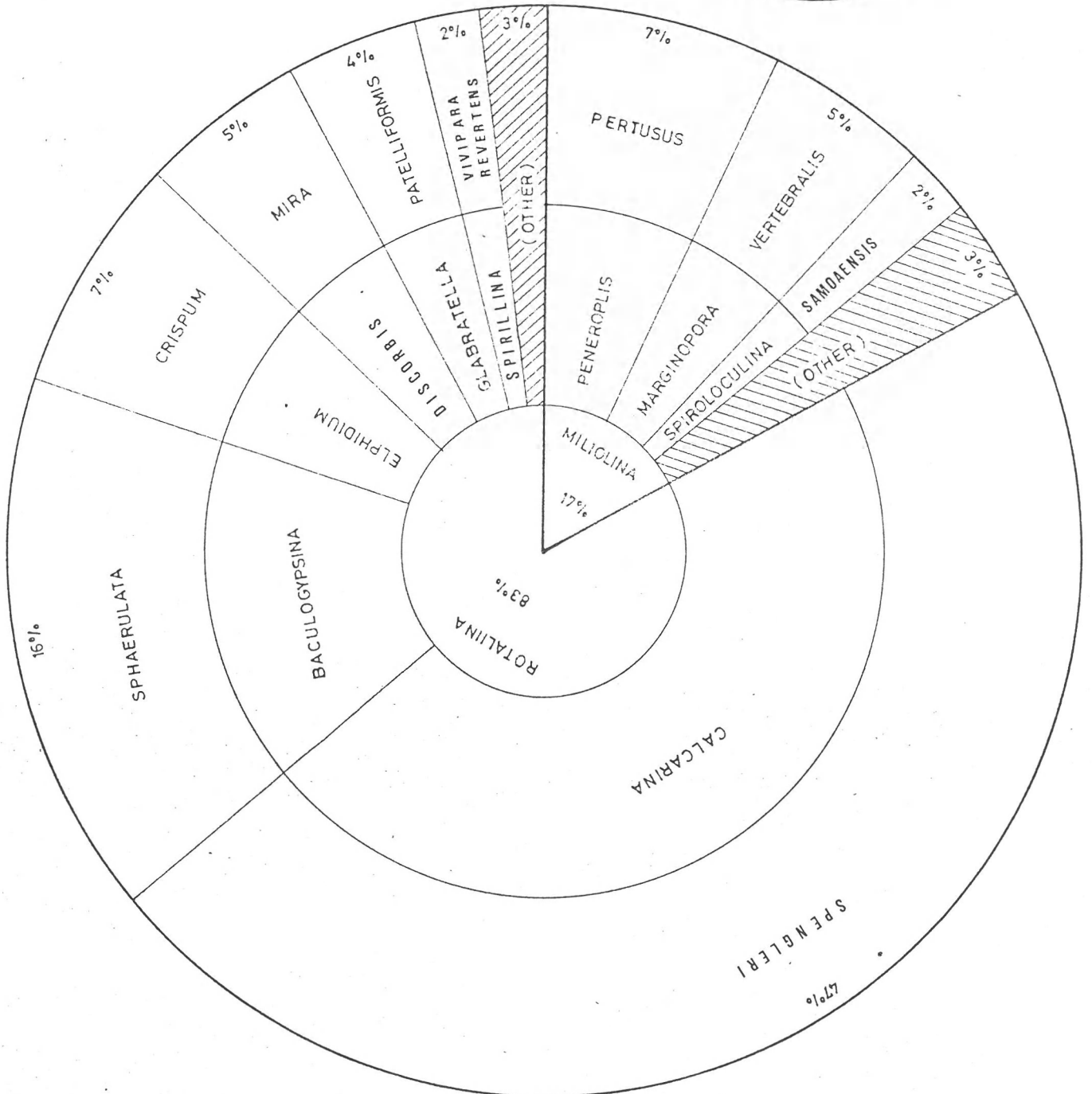
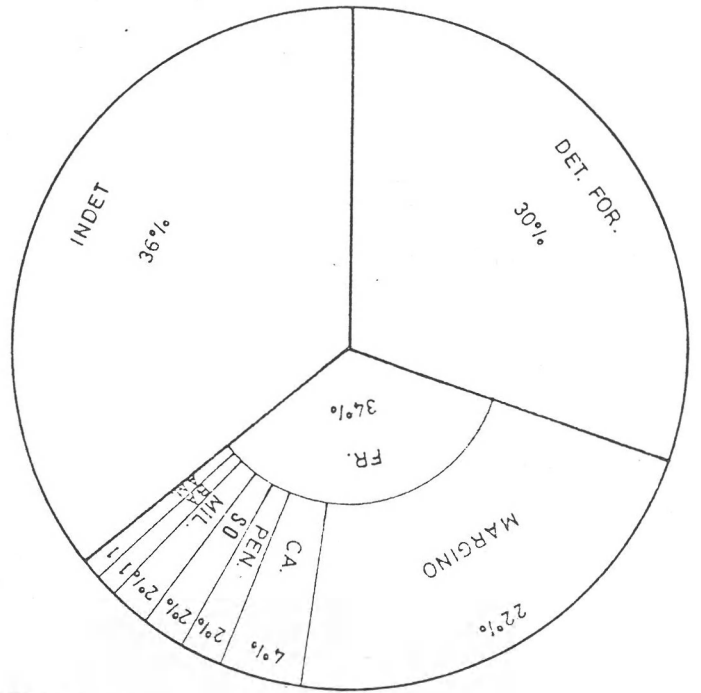
Intertidal

df/g = 287

fr/g = 327

indet/g = 352

T/g = 966



L 252

COCONUT FRINGING REEF FLAT

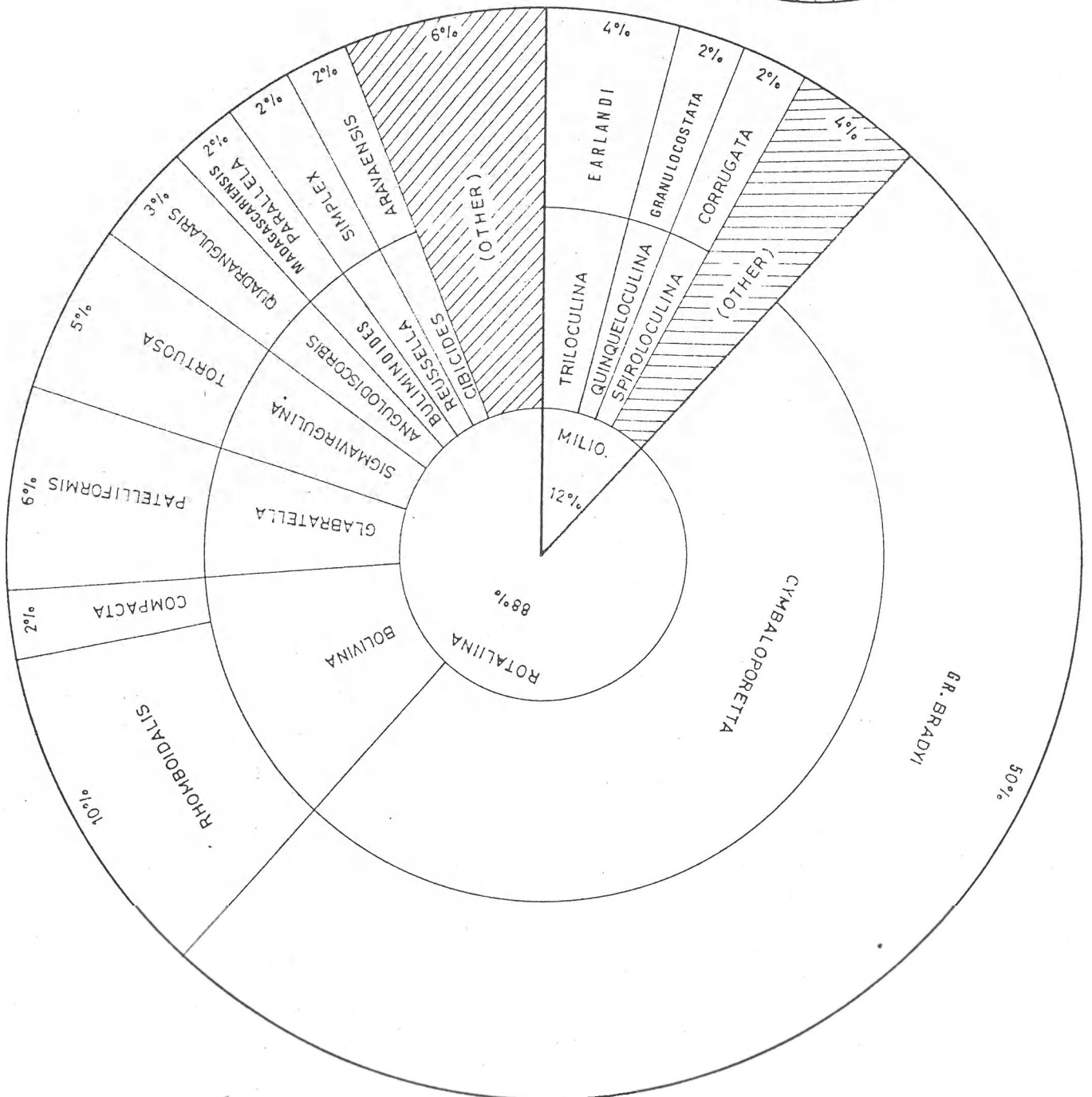
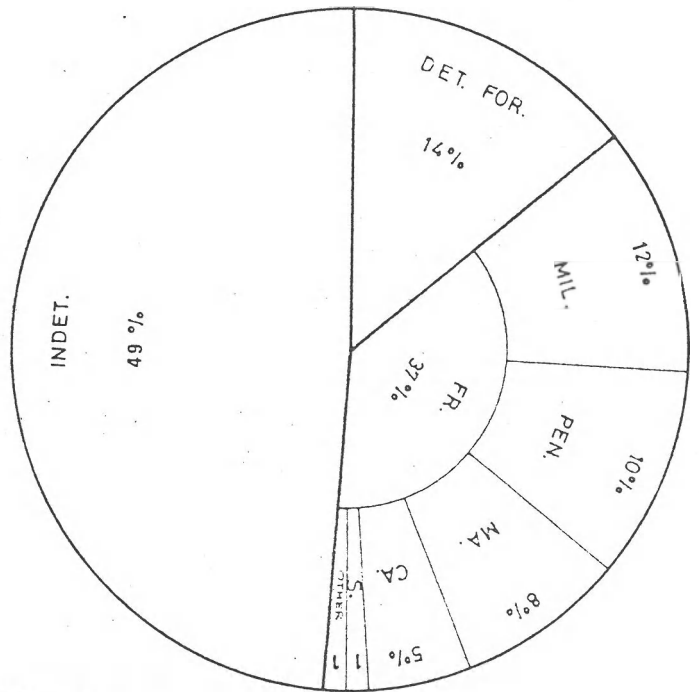
Intertidal

df/g = 5230

fr/g = 13473

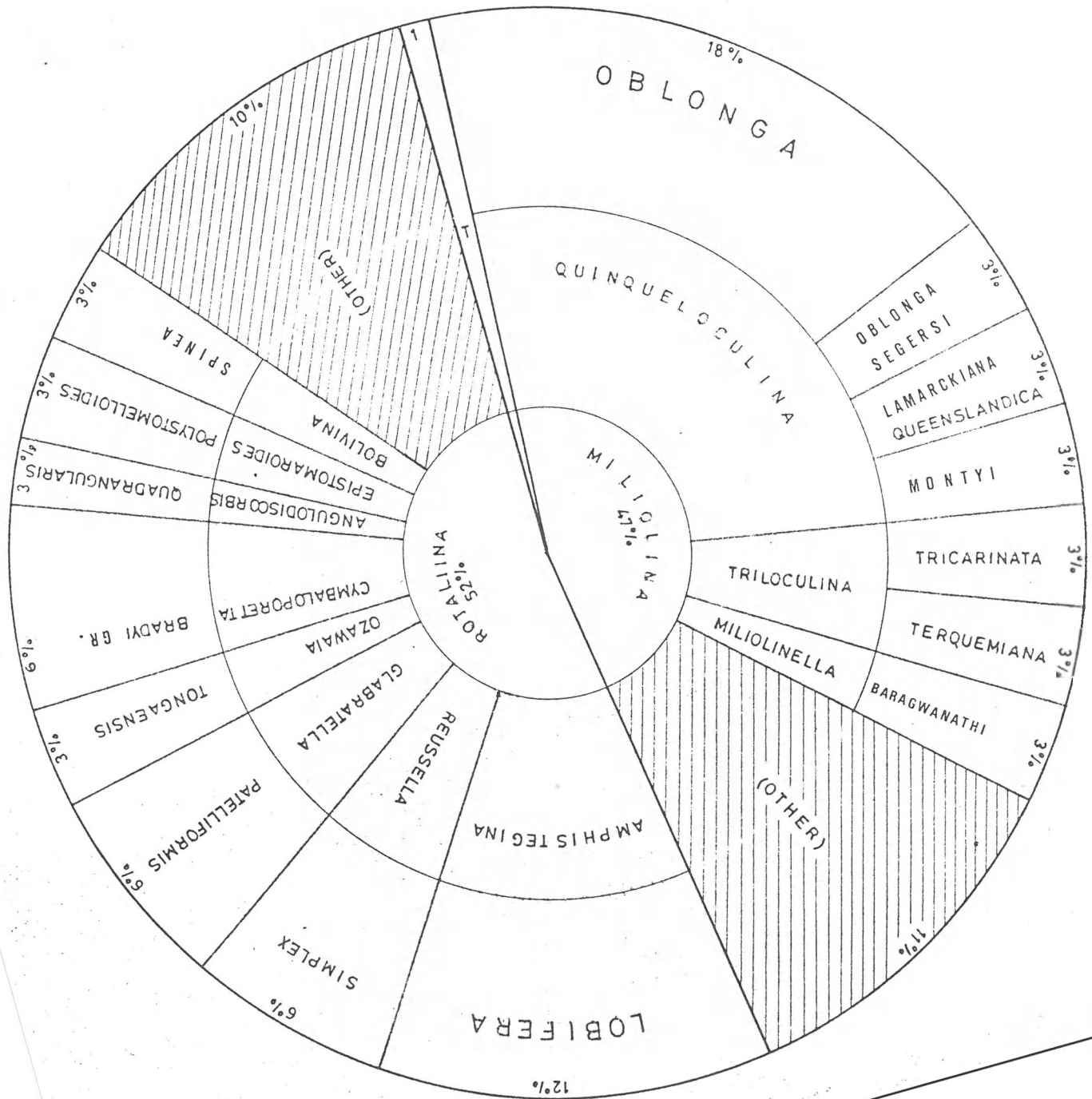
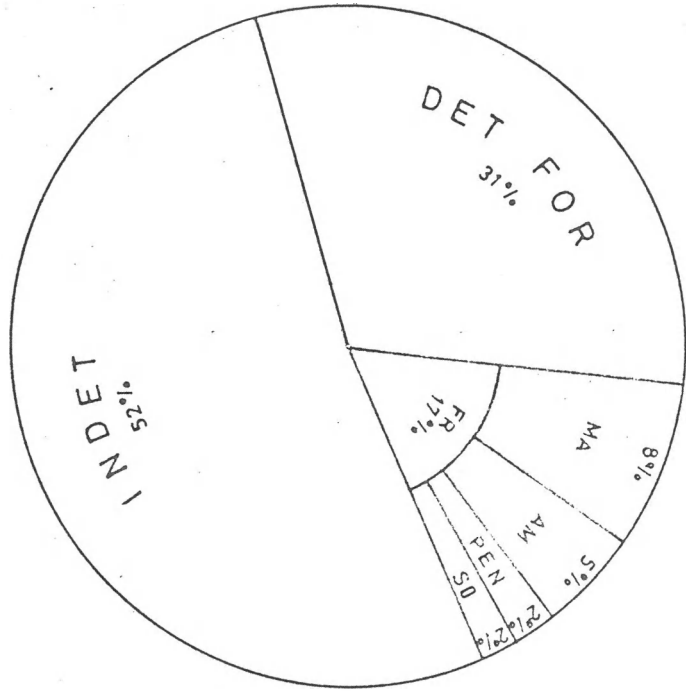
indet/g = 17490

T/g = 36193



L 253
WINDWARD BARRIER

- 1 m = 123
 af/g = 67
 fr/g = 208
 indet/g = 398
 T/g



L 254

WINDWARD BARRIER

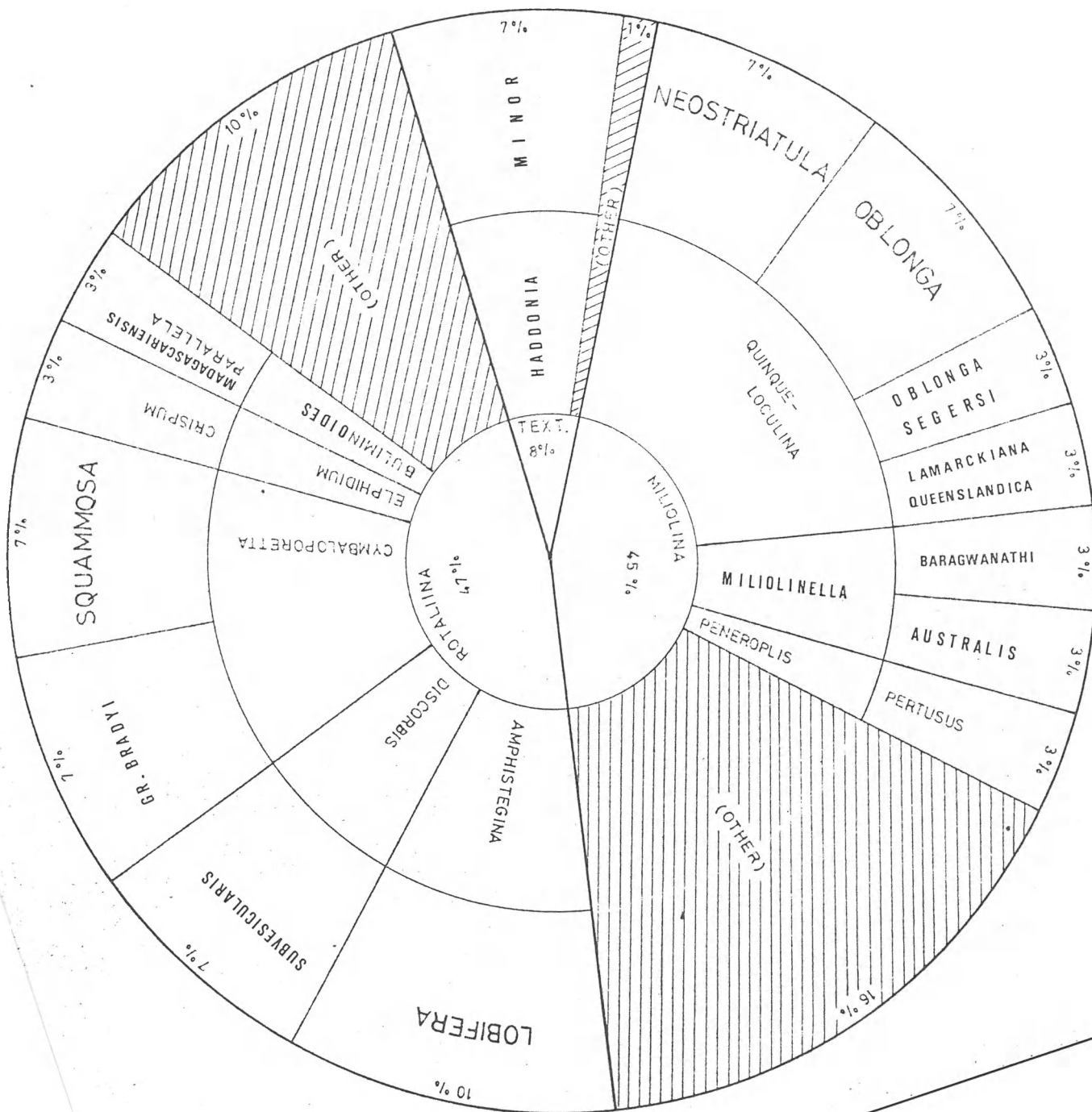
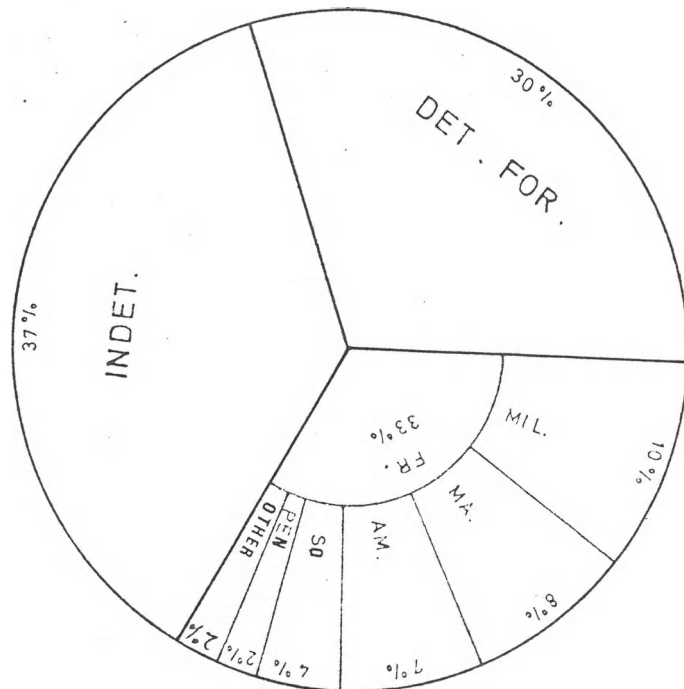
Intertidal

df/g = 318

fr/g = 350

indet/g = 382

T/g = 1050



L 255 b

WINDWARD BARRIER

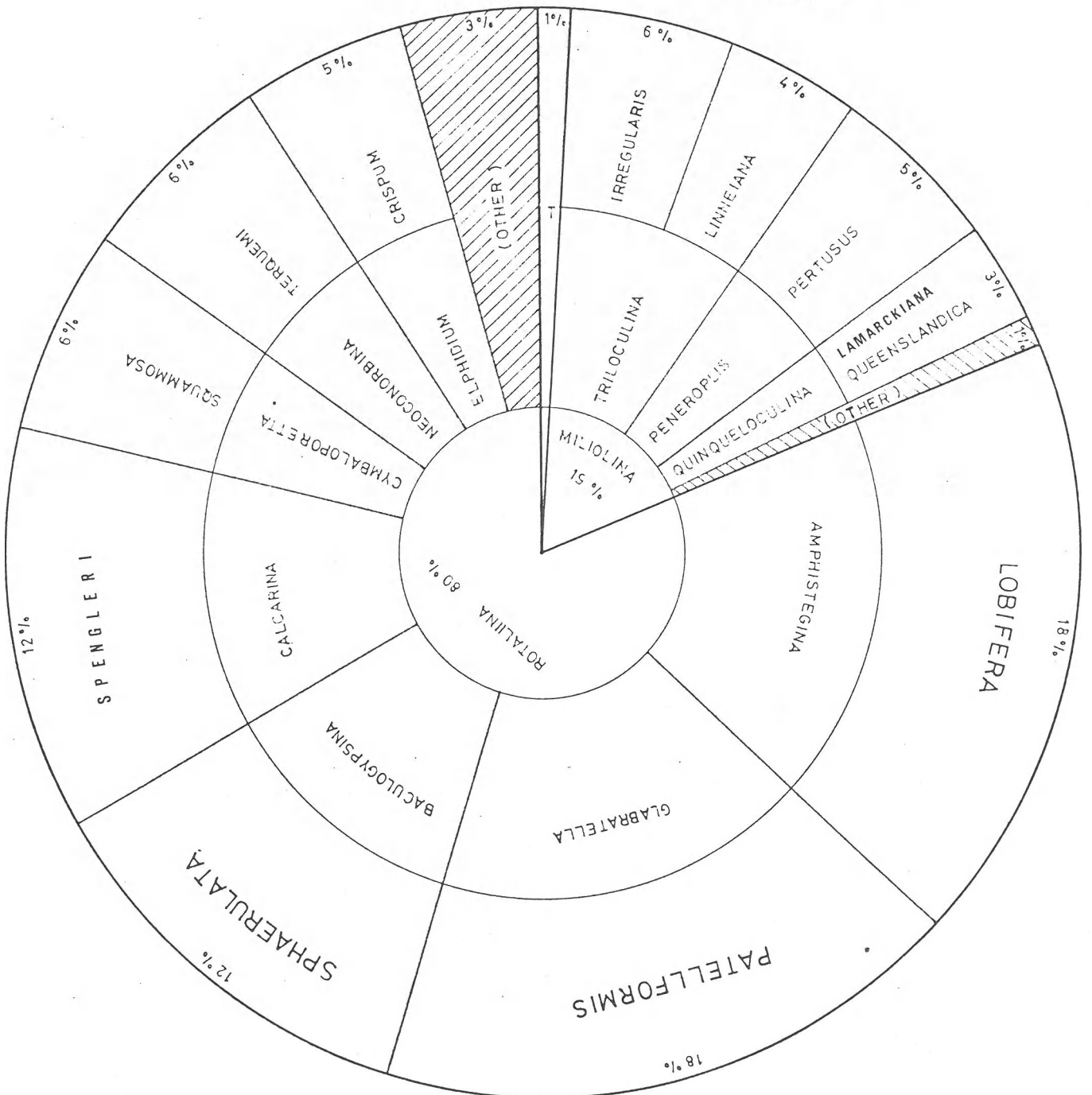
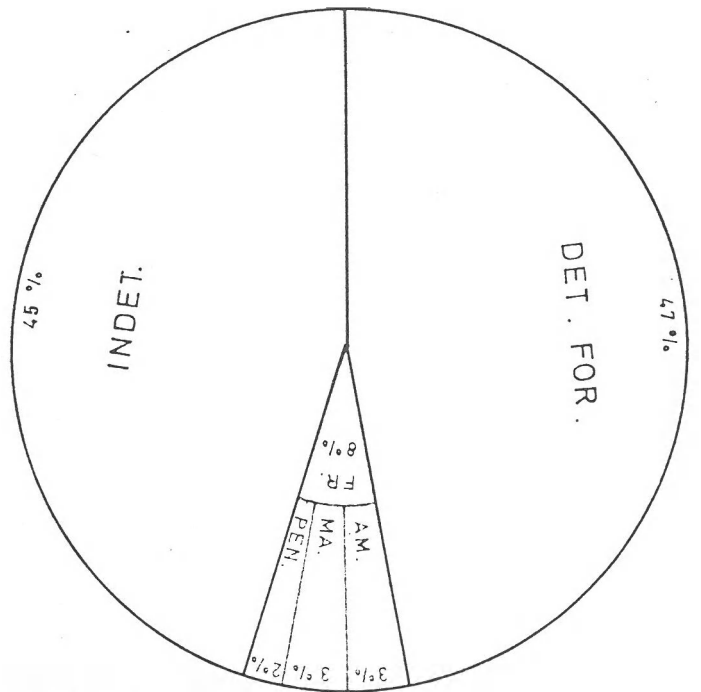
Intertidal

df/g = 408

fr/g = 72

indet/g = 384

T/g = 864



L 256

WINDWARD BARRIER

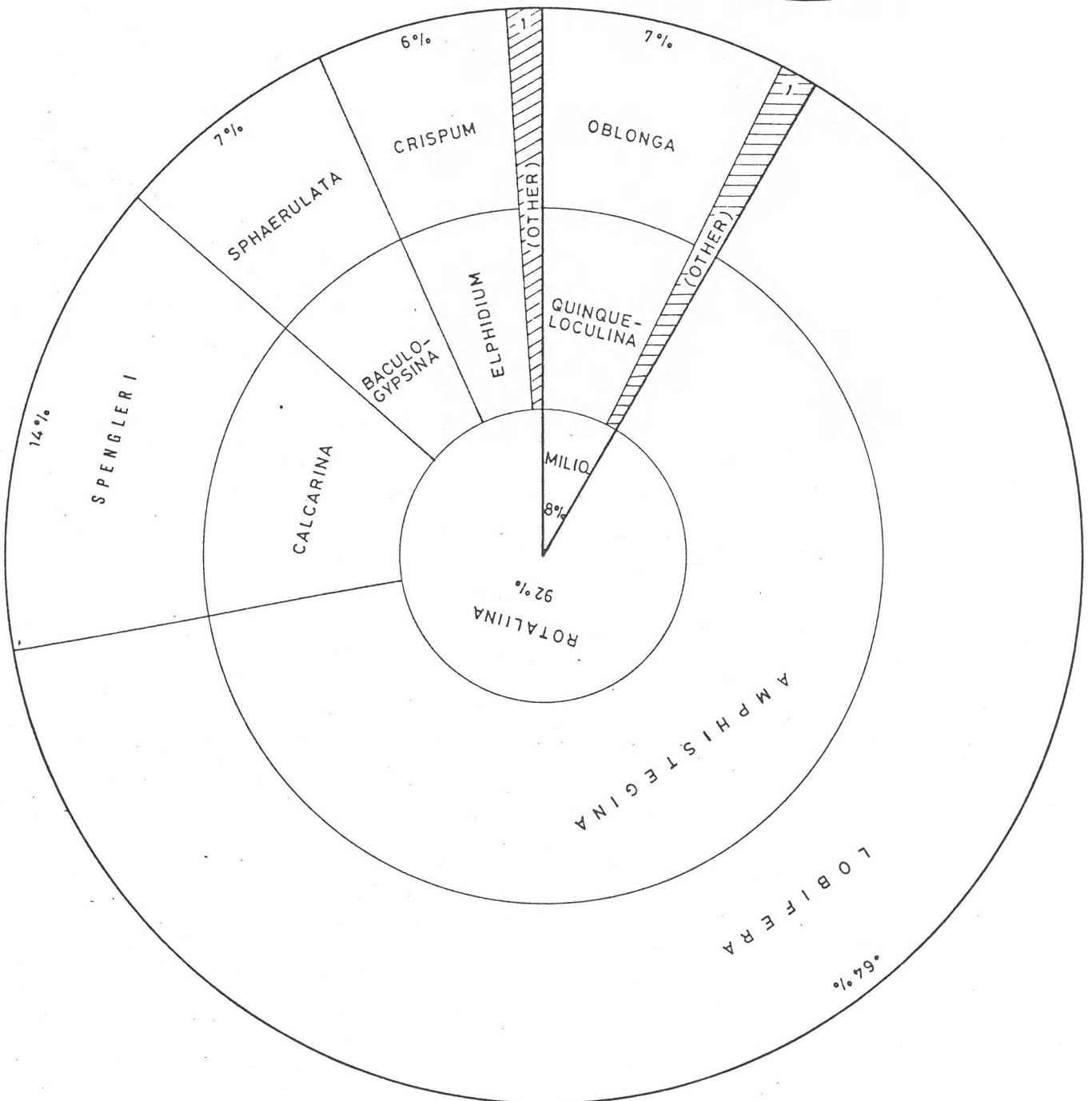
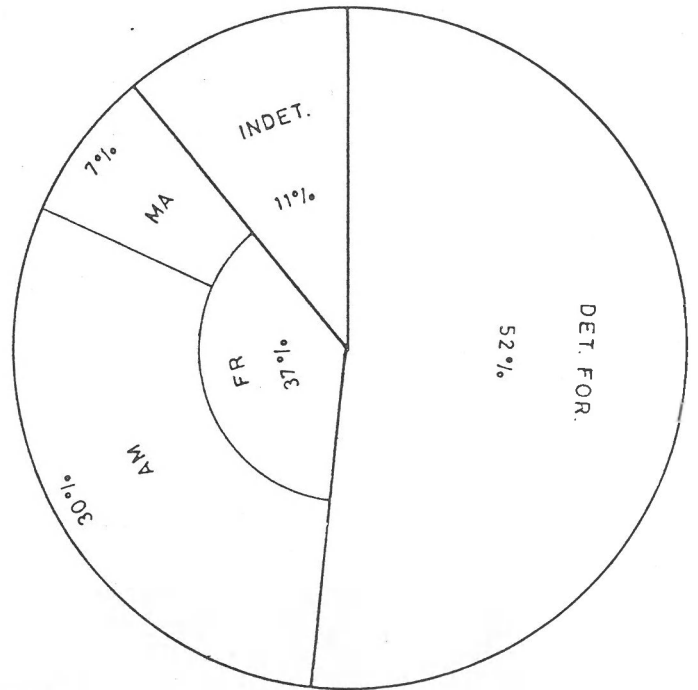
Intertidal

df/g = 52

fr/g = 37

indet/g = 11

T/g = 100



L 257

WINDWARD BARRIER

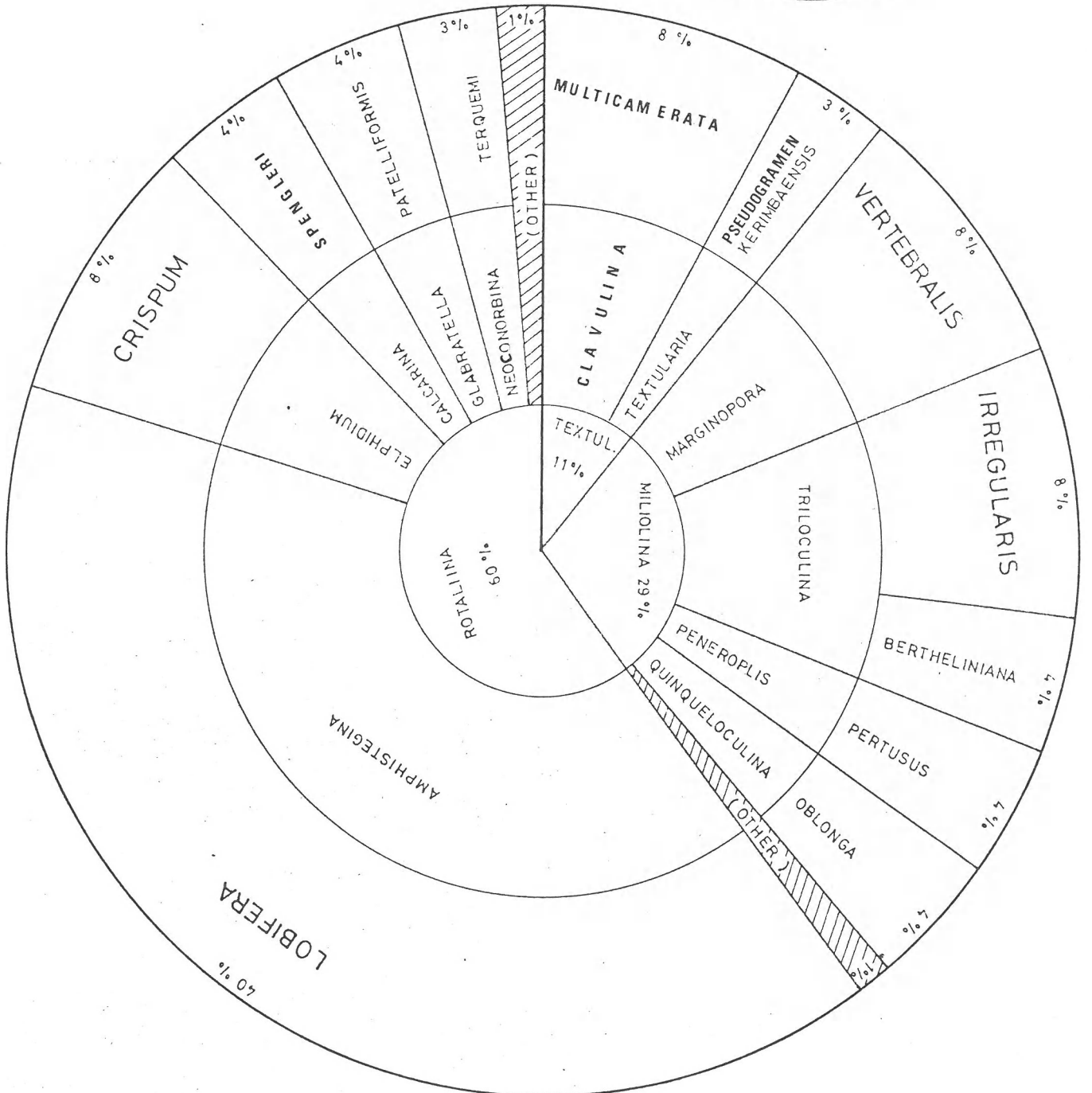
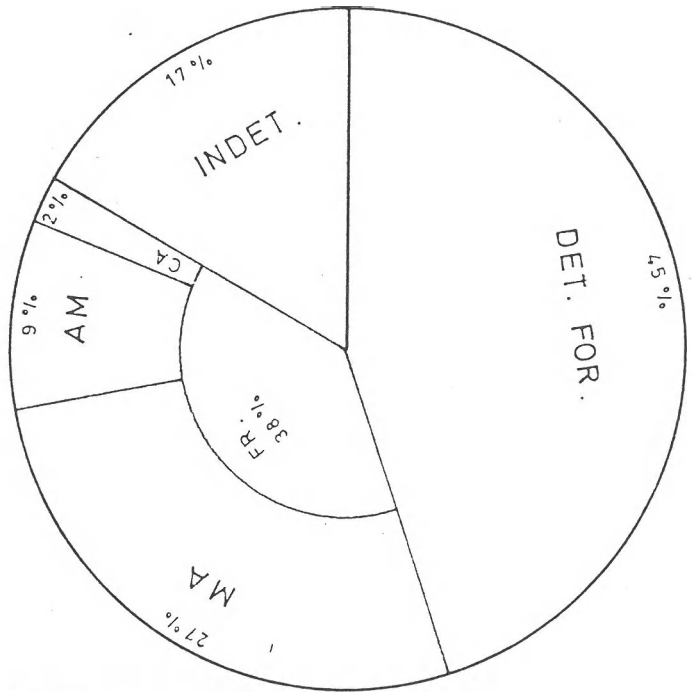
Intertidal

df/g = 275

fr/g = 231

indet/g = 99

T/g = 605



L 258

WINDWARD BARRIER

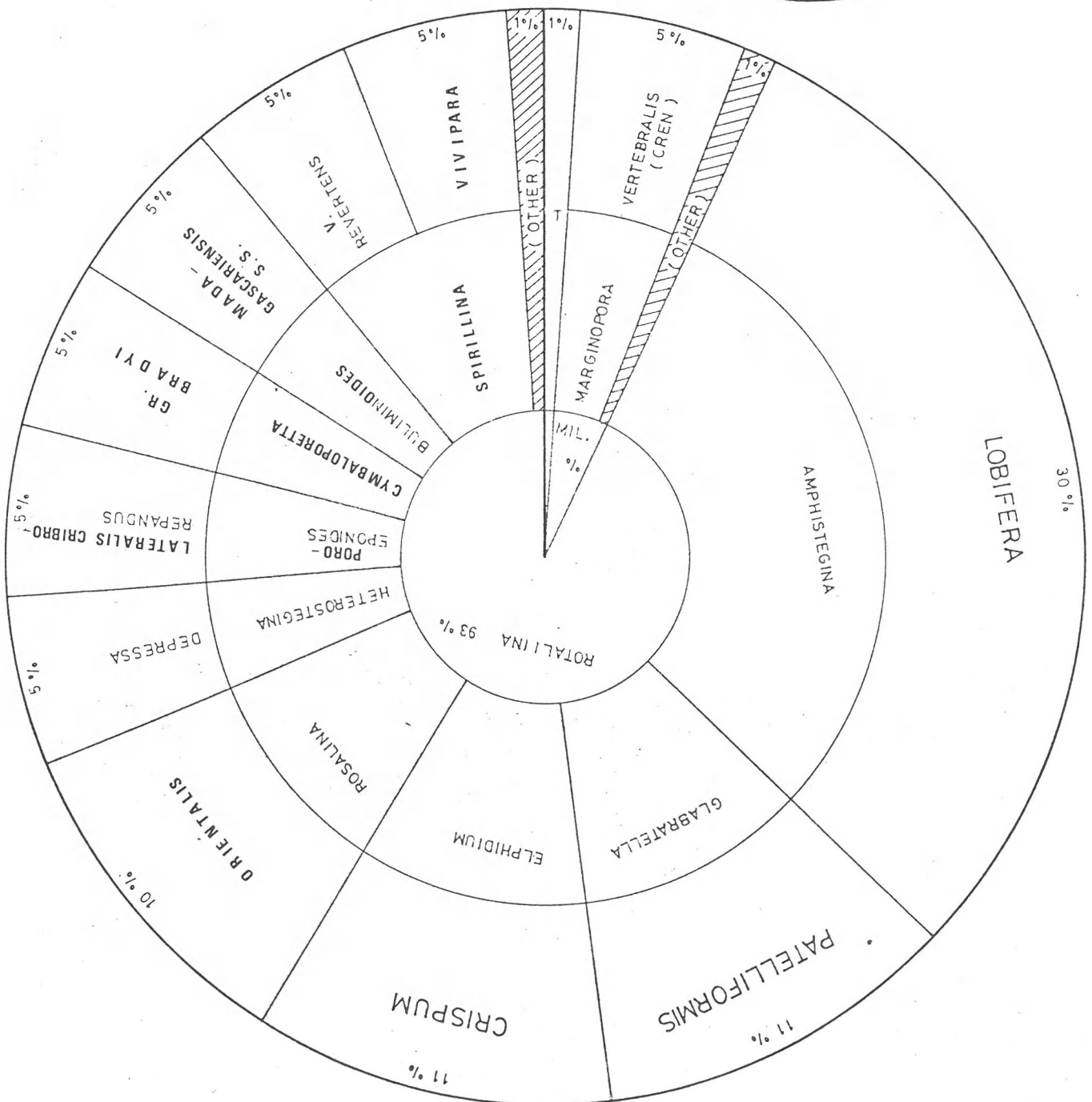
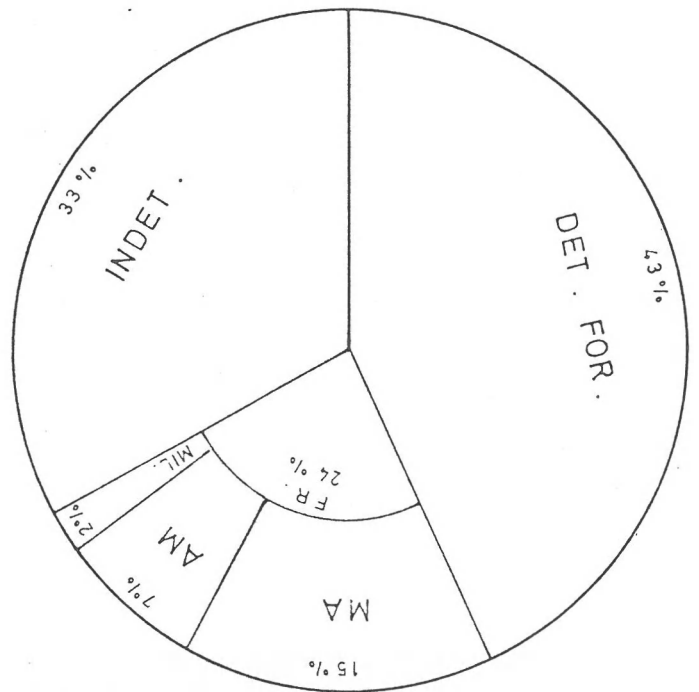
Intertidal

df/g = 177

fr/g = 97

indet/g = 133

T/g = 407



L 259 b

WINDWARD BARRIER

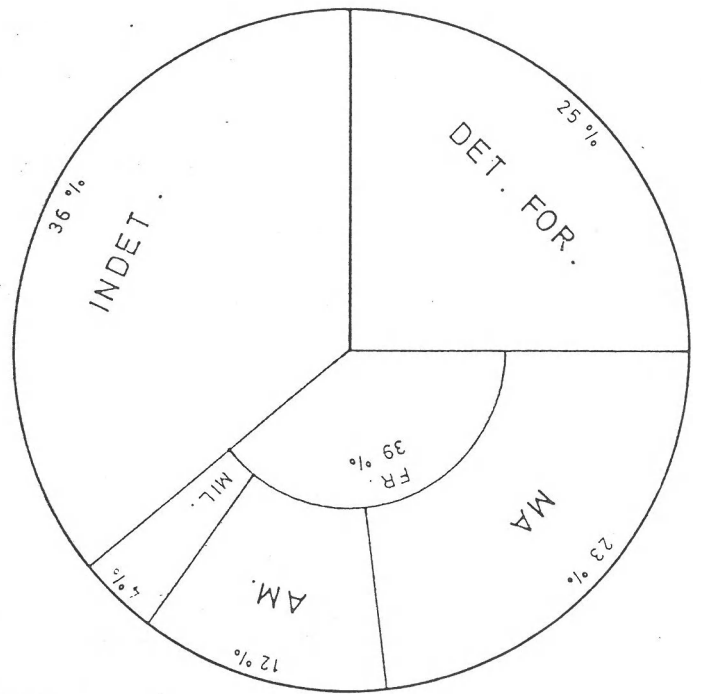
Intertidal

df/g = 277

fr/g = 39

indet/g = 208

T/g = 398



L 260

WINDWARD BARRIER

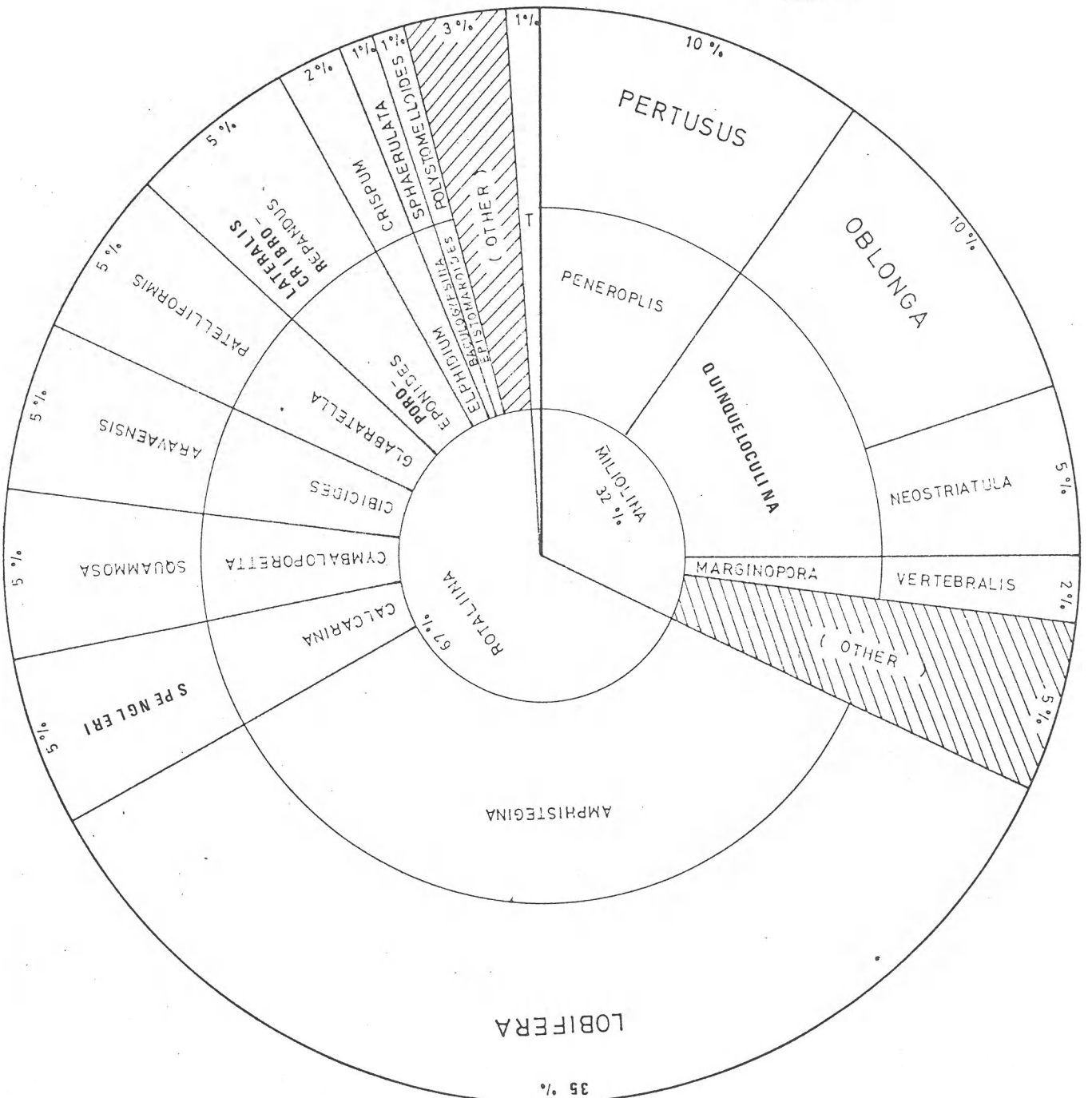
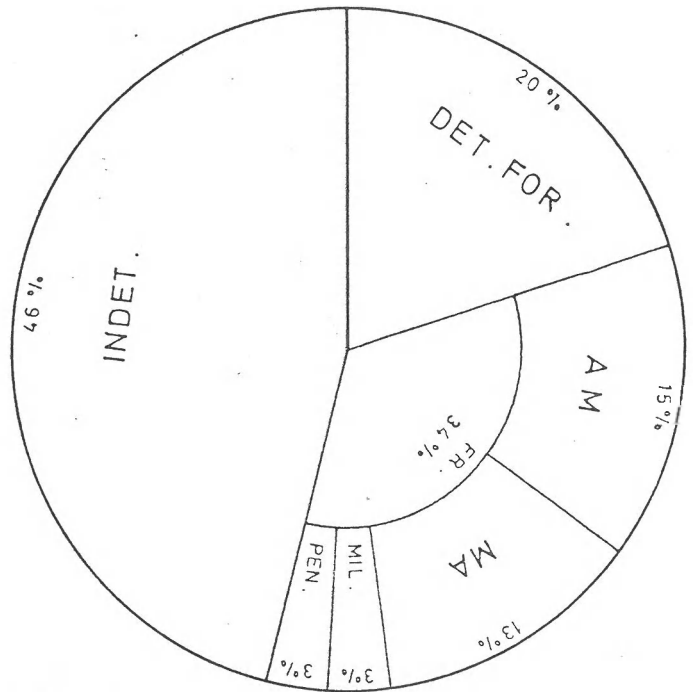
Intertidal

df/g = 490

fr/g = 809

indet/g = 1103

T/g = 2402



L 261

WINDWARD BARRIER

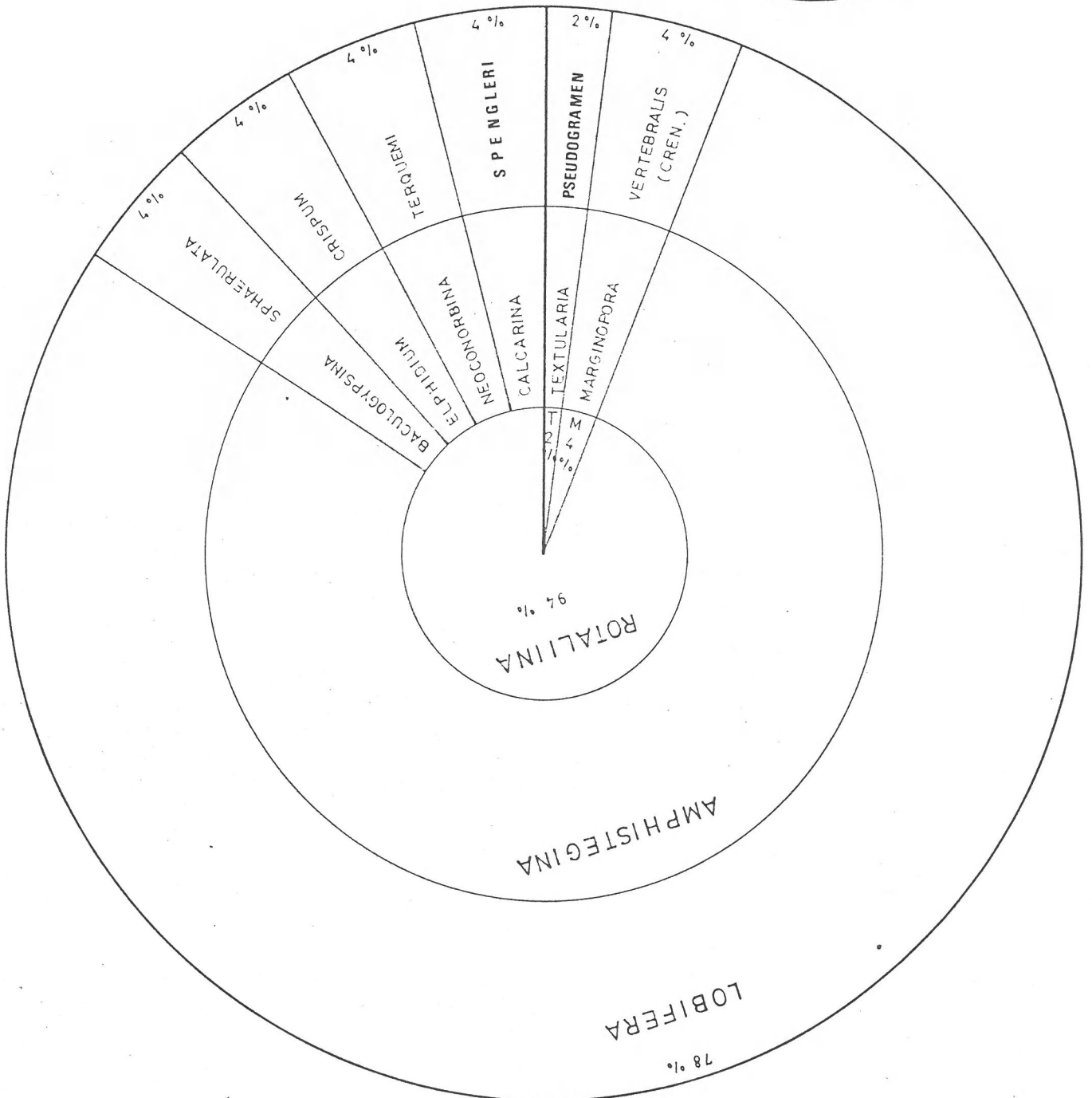
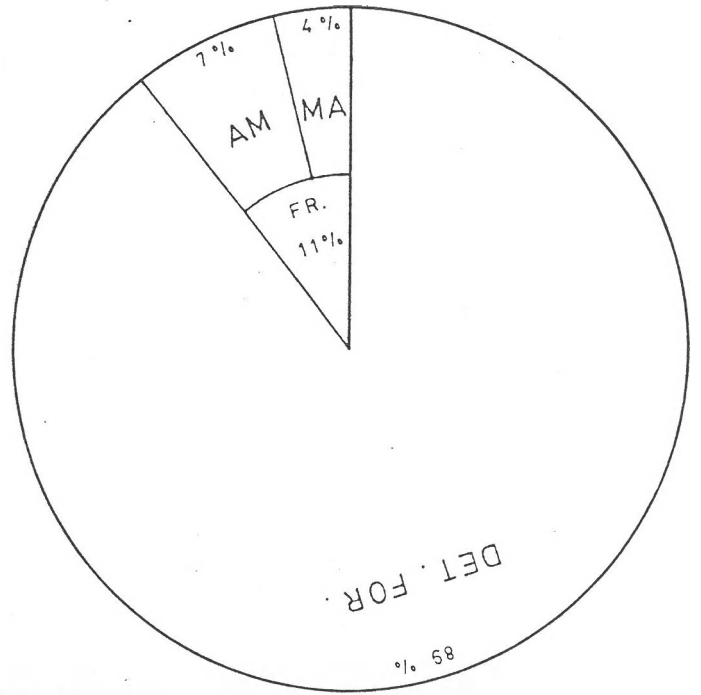
Intertidal

df/g = 109

fr/g = 14

indet/g = -

T/g = 123



L 262

SOUTHERN BARRIER

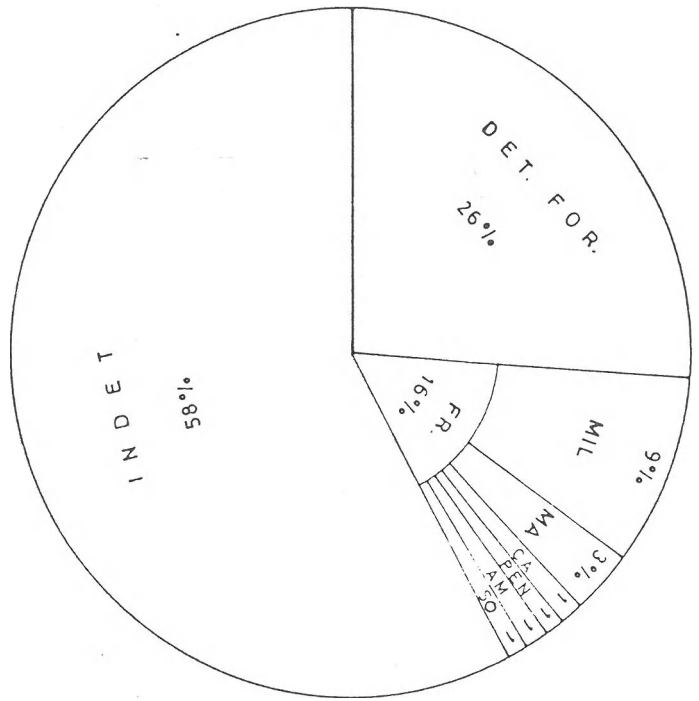
Intertidal

df/g = 133

fr/g = 81

indet/g = 288

T/g = 502



L 263

SOUTHERN BARRIER

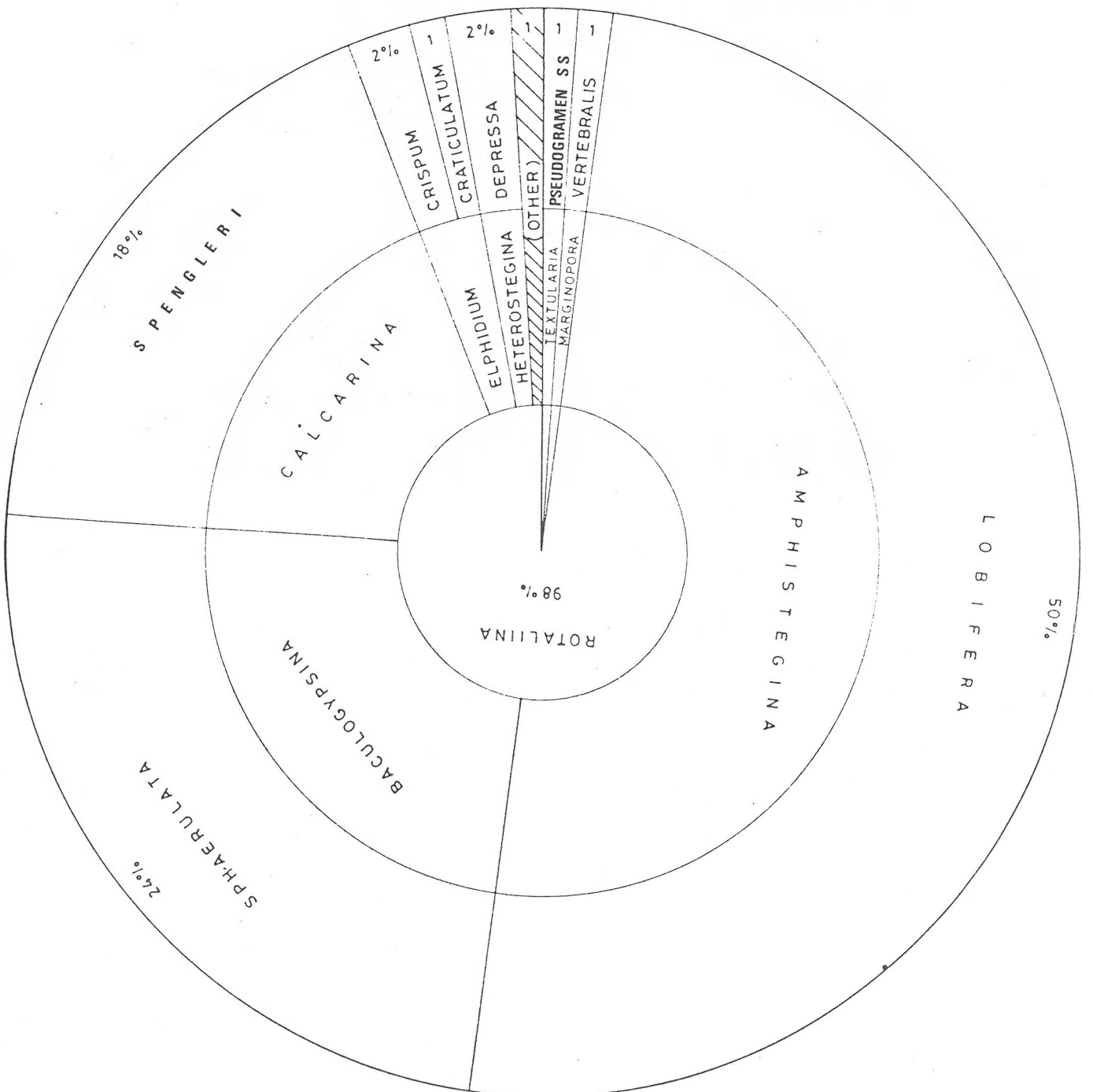
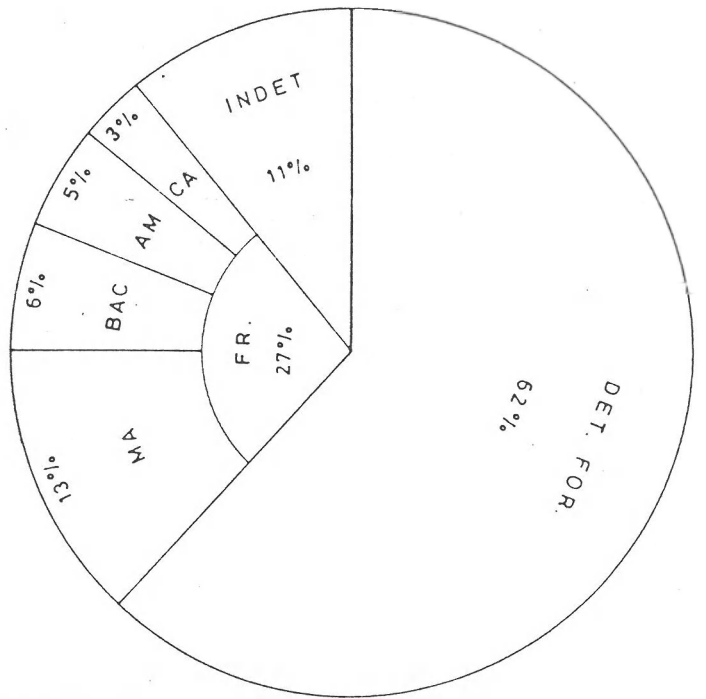
Intertidal

df/g = 155

fr/g = 68

indet/g = 27

T/g = 250

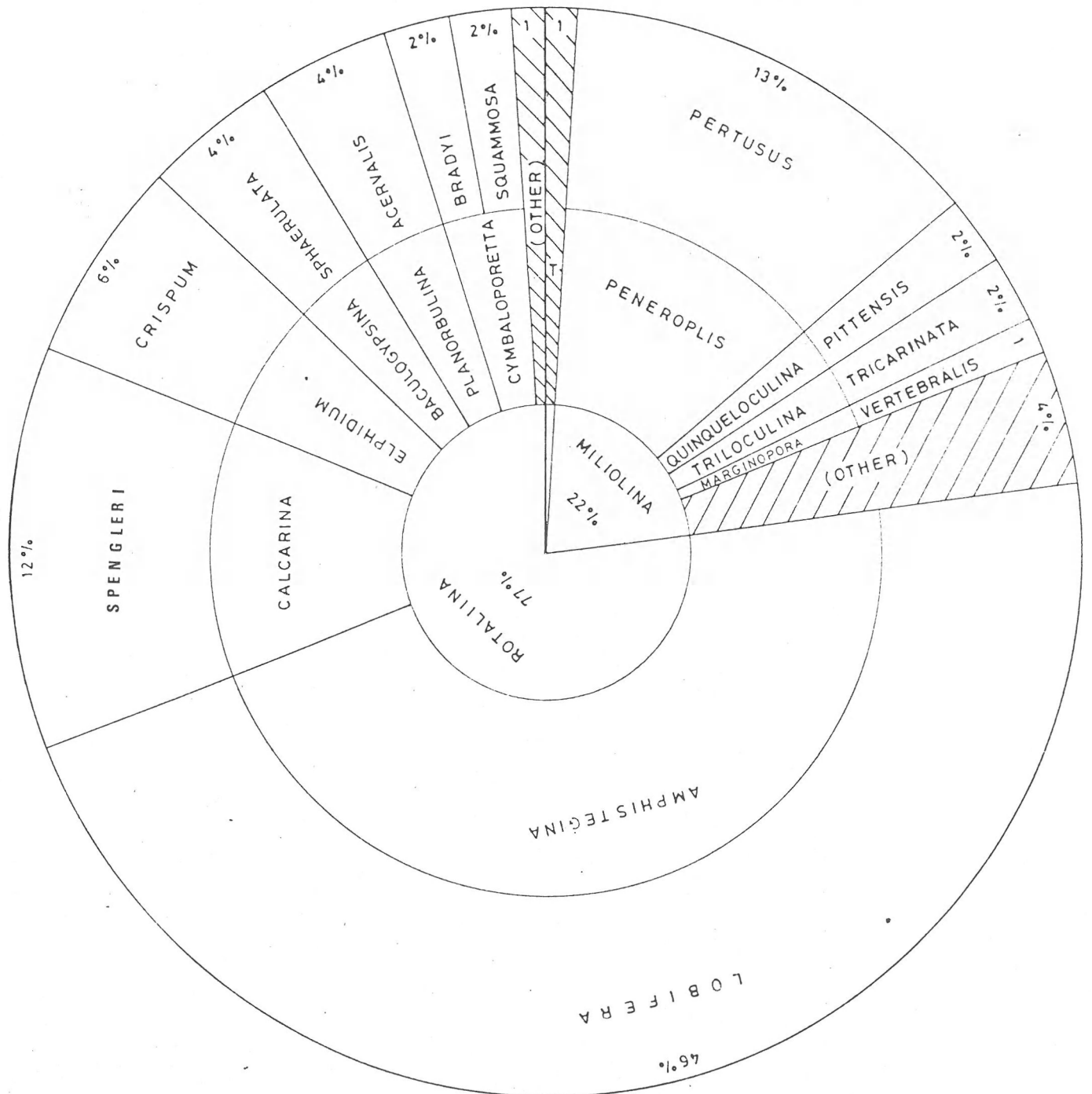
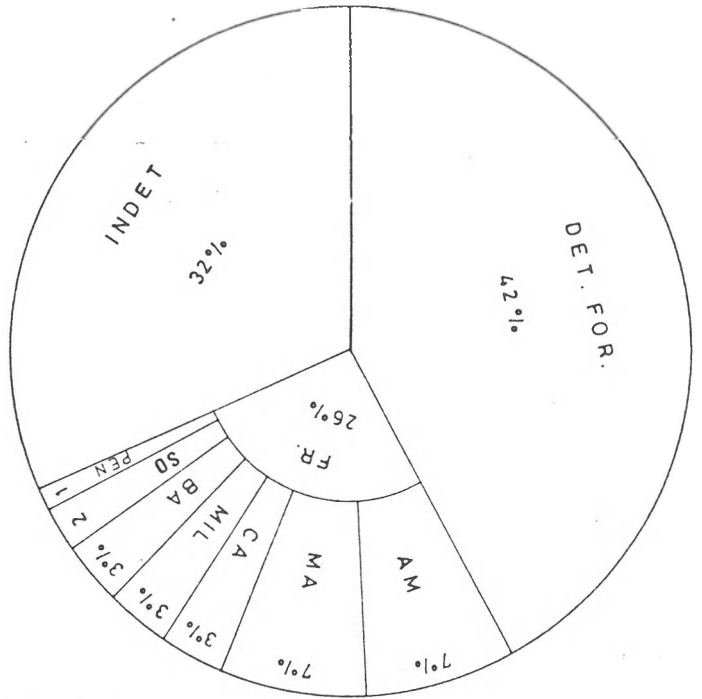


L 264

SOUTHERN BARRIER

Intertidal

df/g = 430
 fr/g = 265
 indet/g = 339
 T/g = 1034



L 265 b

SOUTHERN BARRIER

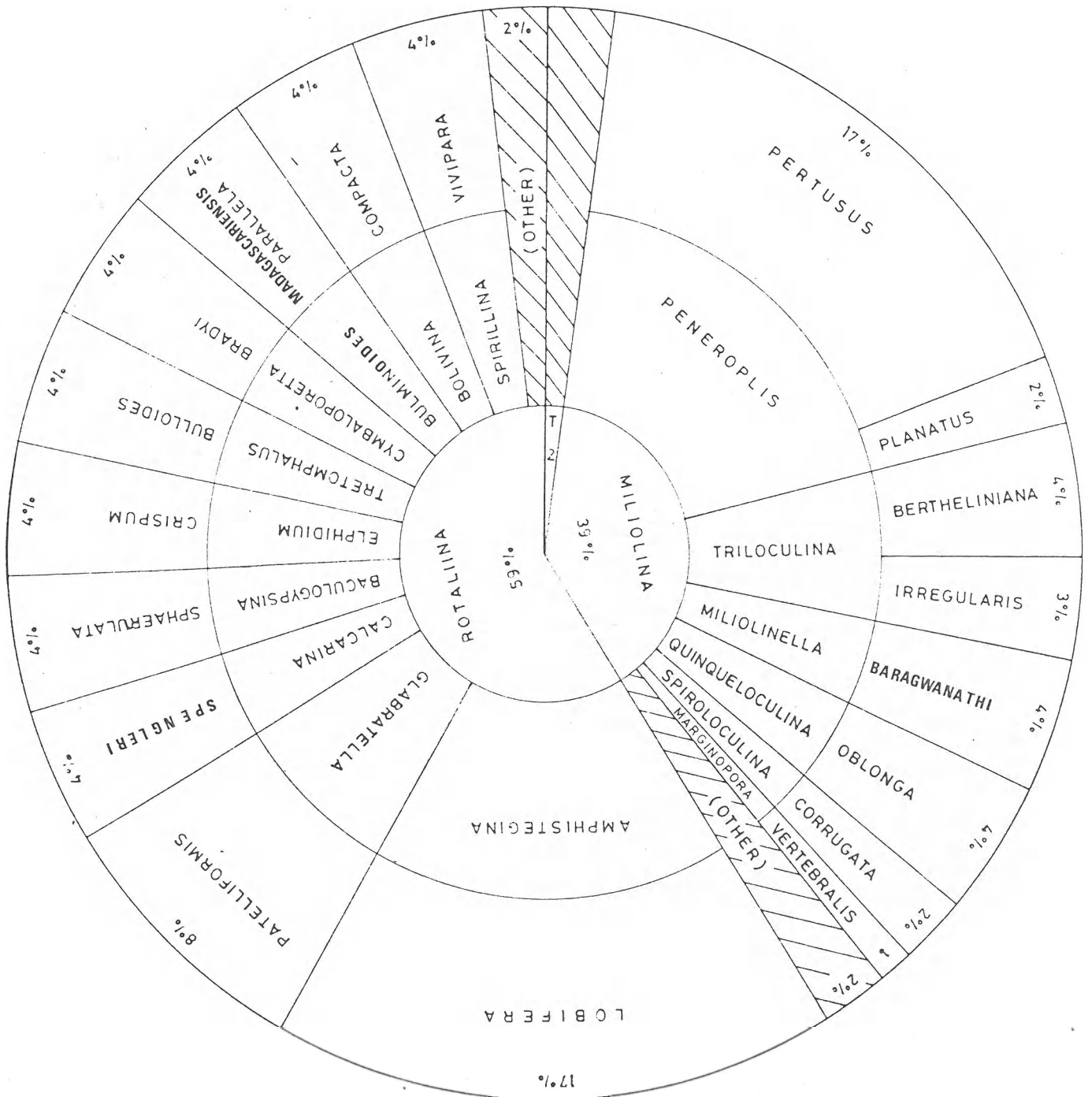
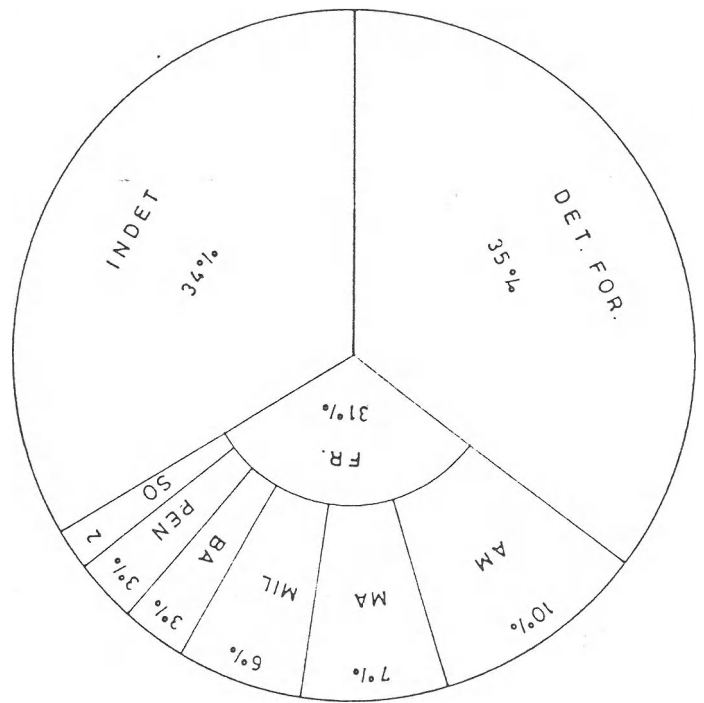
Intertidal

df/g = 500

fr/g = 438

indet/g = 479

T/g = 1417



L 266

SOUTHERN BARRIER

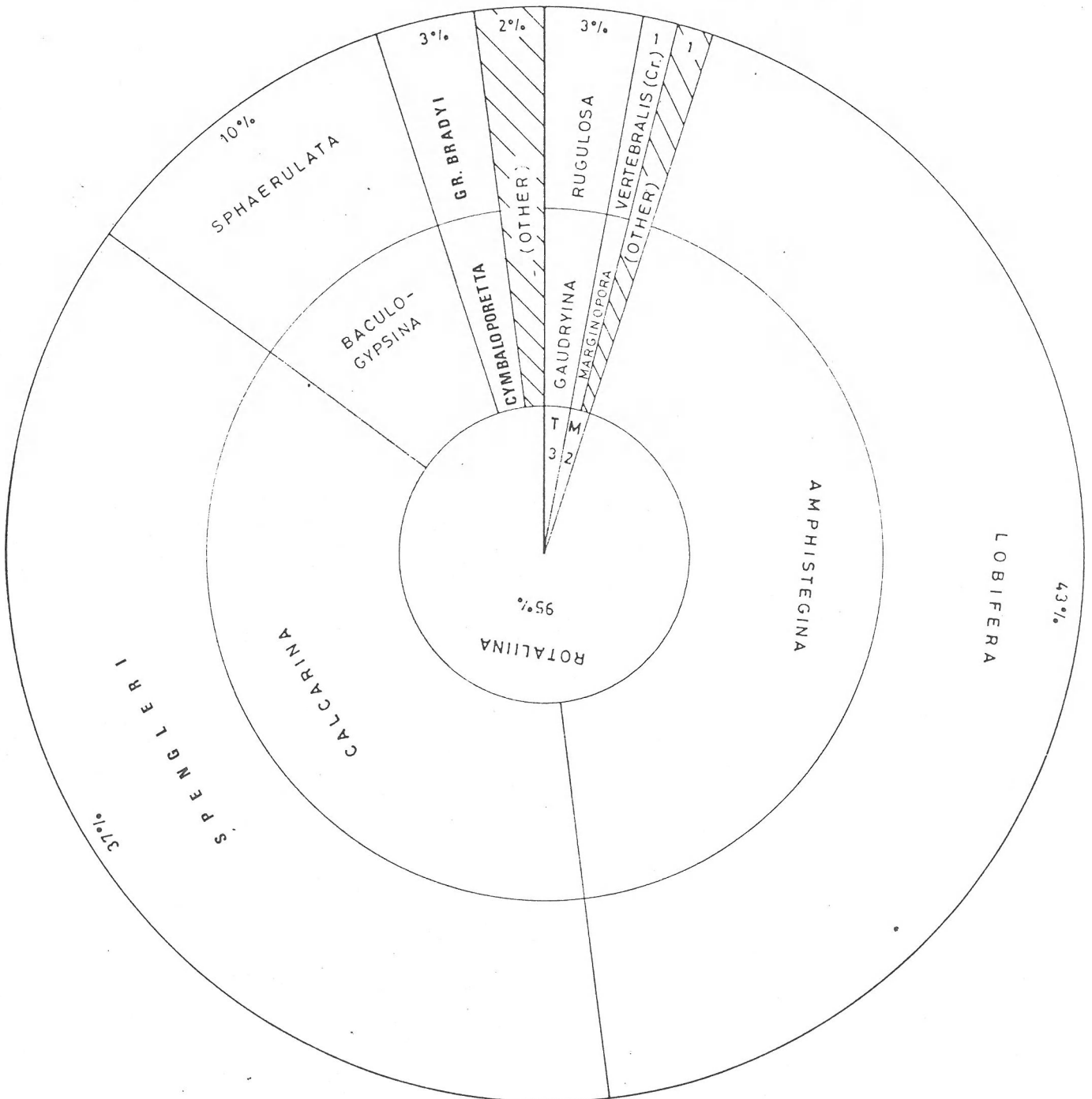
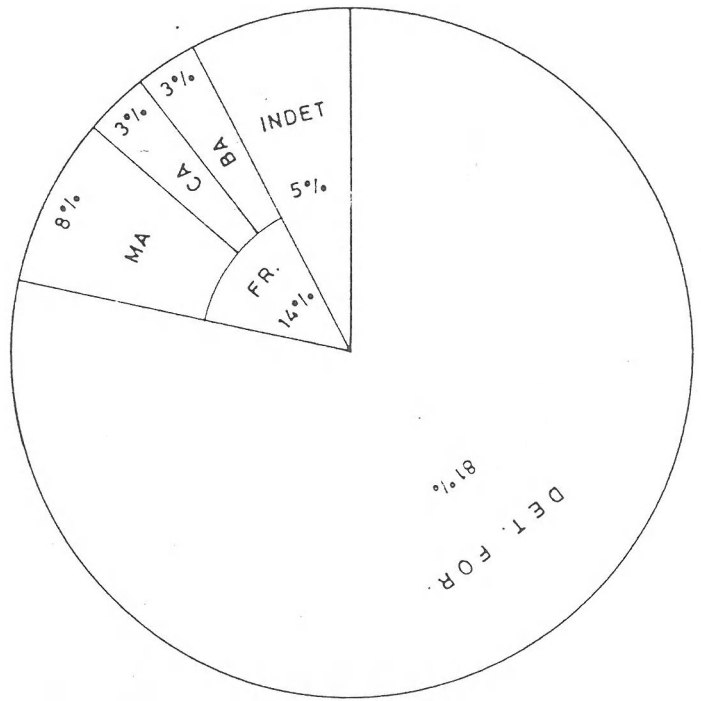
Intertidal

df/g = 119

fr/g = 20

indet/g = 8

T/g = 147



L 161

INTERNAL FLAT

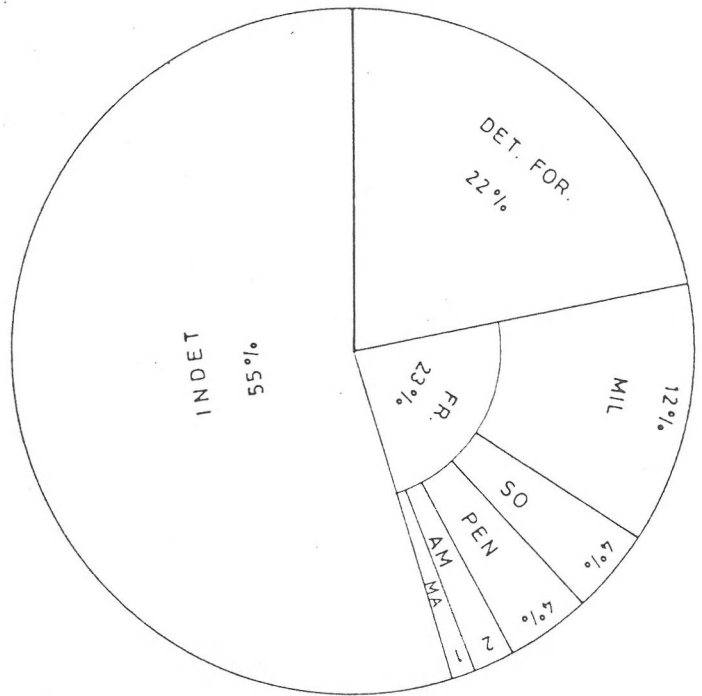
- 3,5 m

df/g = 103

fr/g = 107

indet/g = 255

T/g = 465



L 162

INTERNAL FLAT

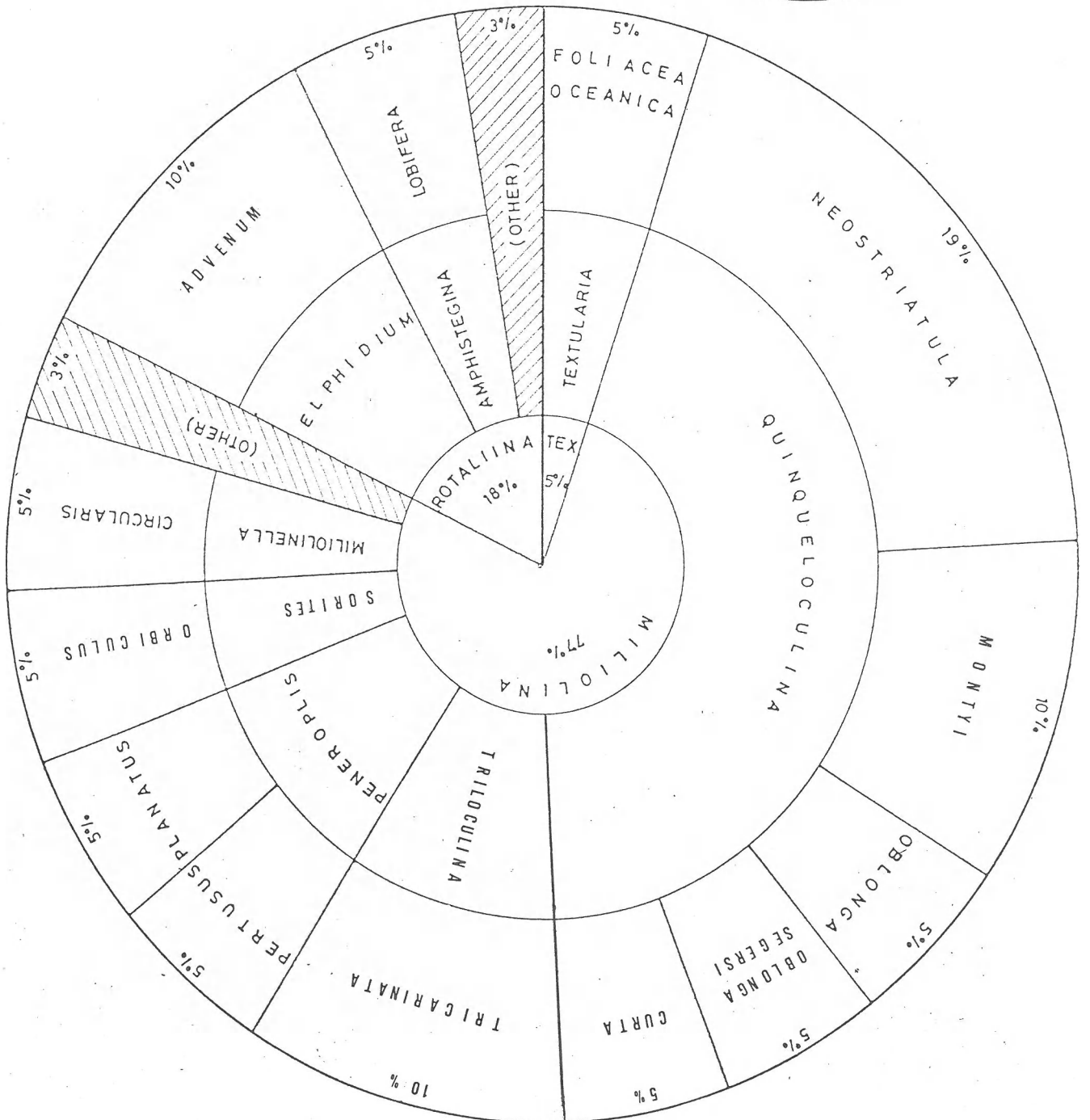
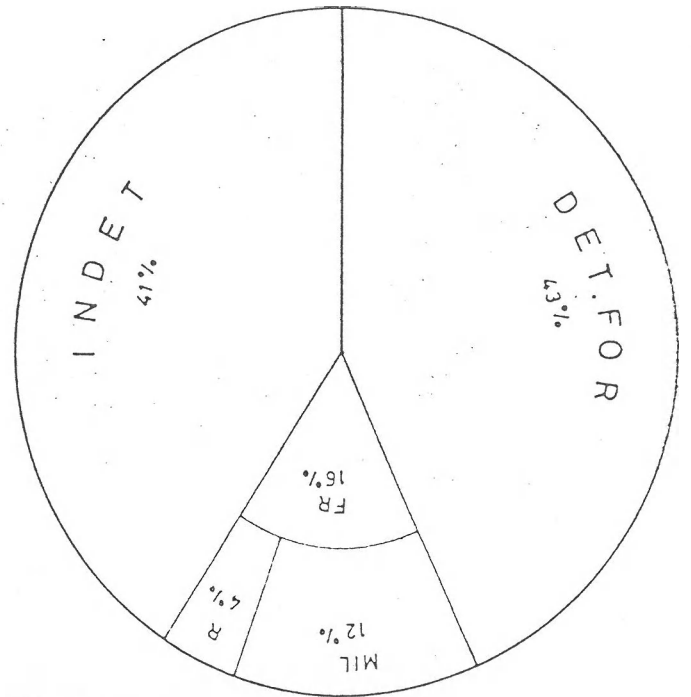
- 2,2 m

df/g = 167

fr/g = 64

indet/g = 159

T/g = 390



L 170

INTERNAL FLAT

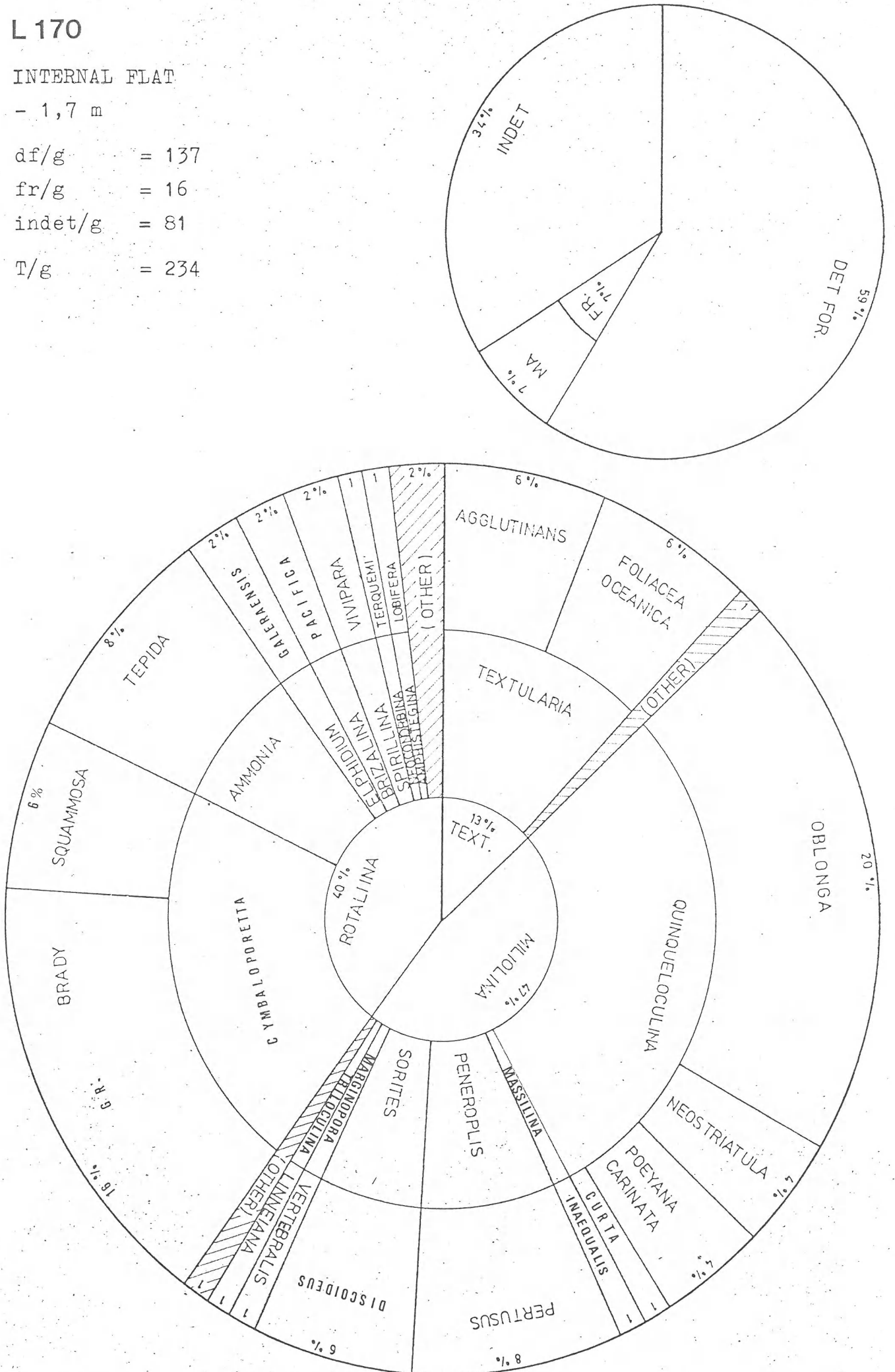
- 1,7 m

df/g = 137

fr/g = 16

indet/g = 81

T/g = 234



L 171

INTERNAL FLAT

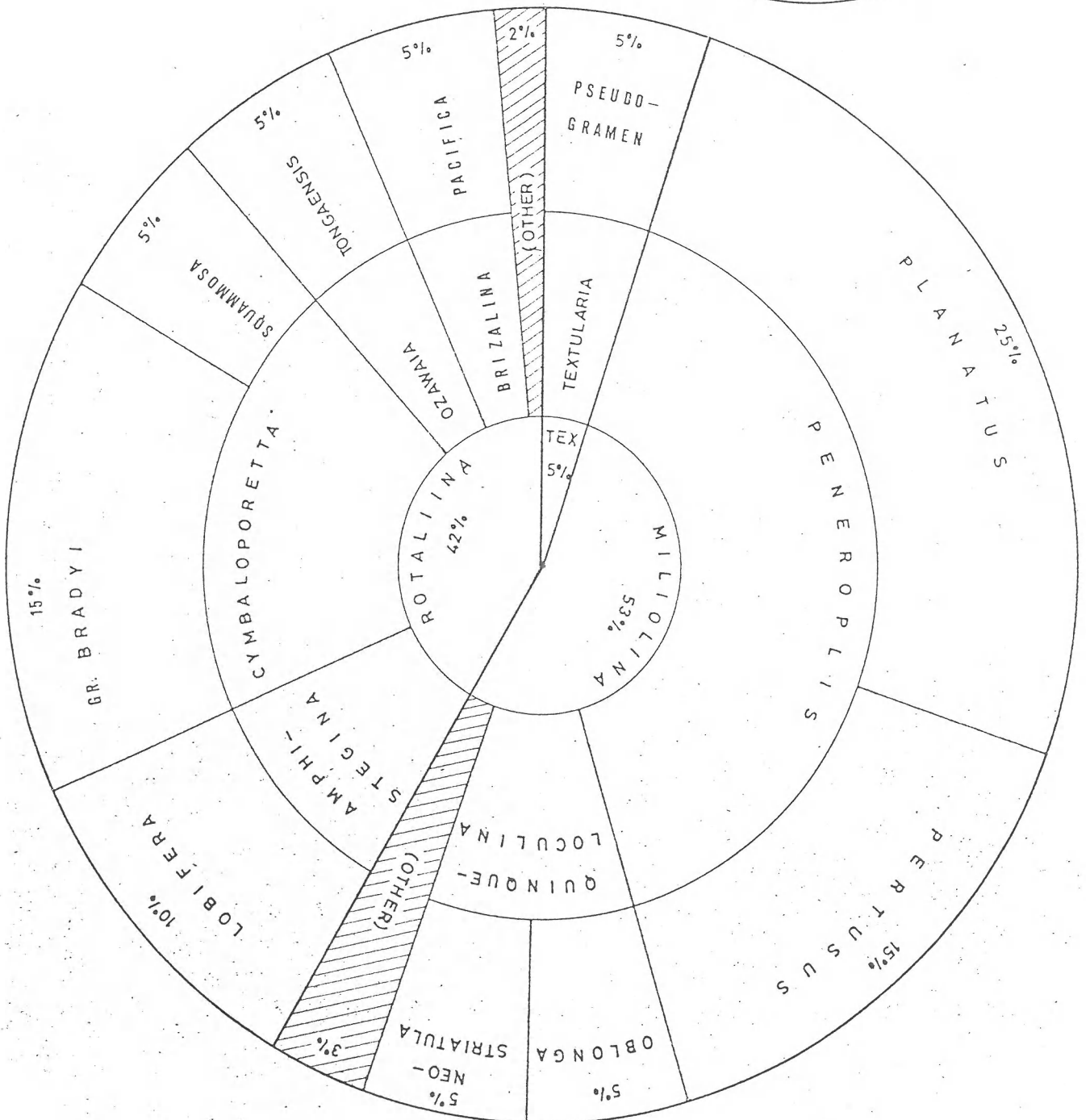
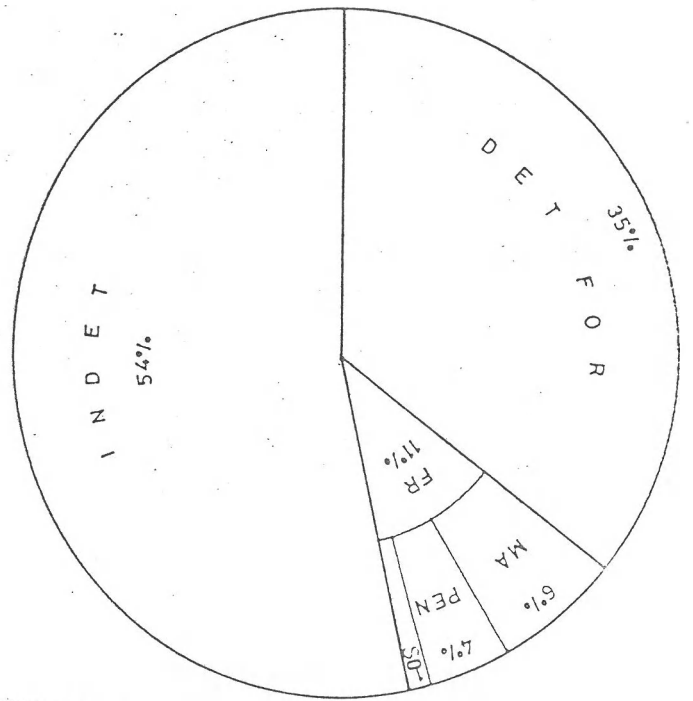
- 1,7 m

df/g = 30

fr/g = 9

indet/g = 46

T/g = 85



L 144

SANDY SHOAL

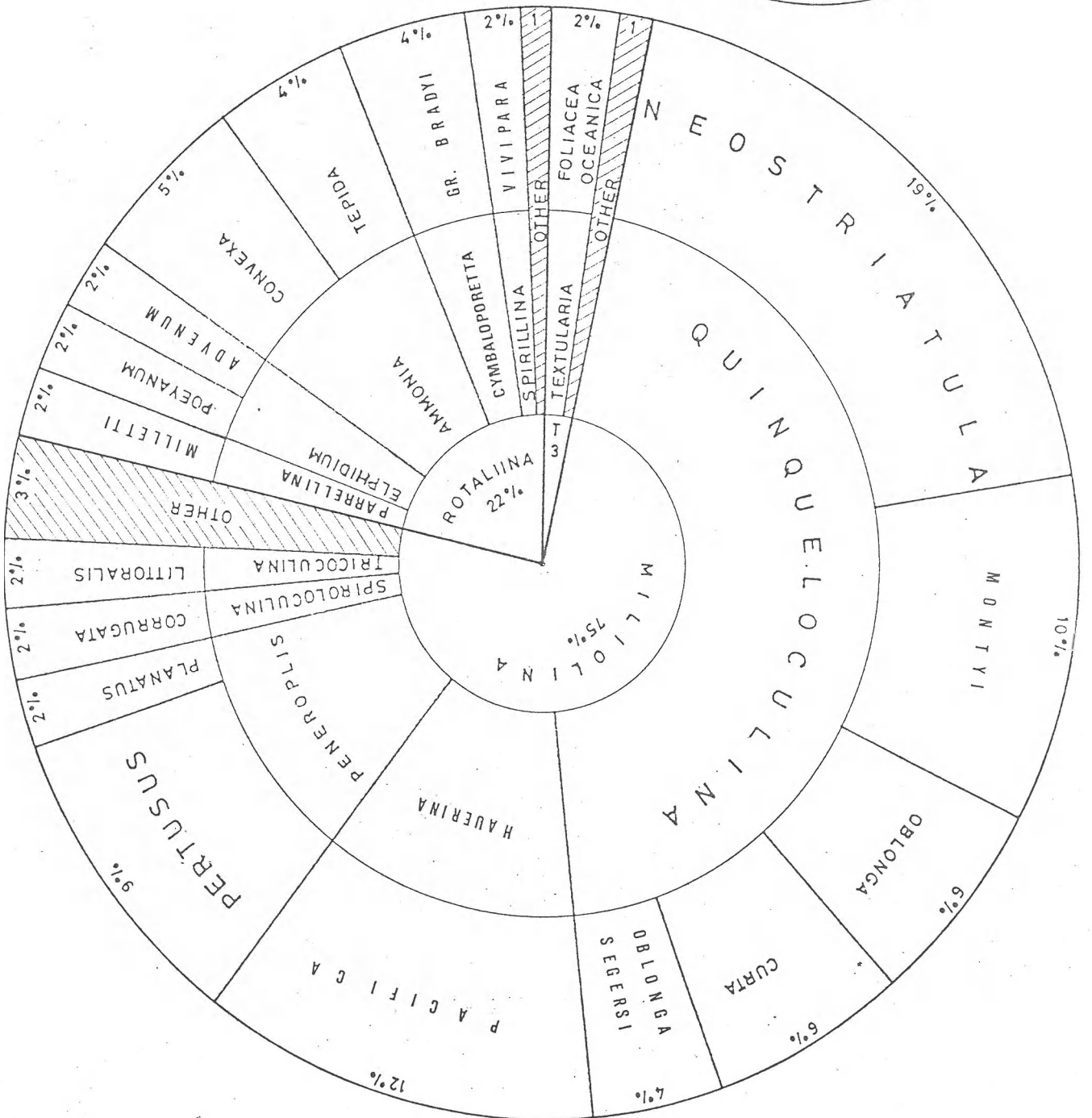
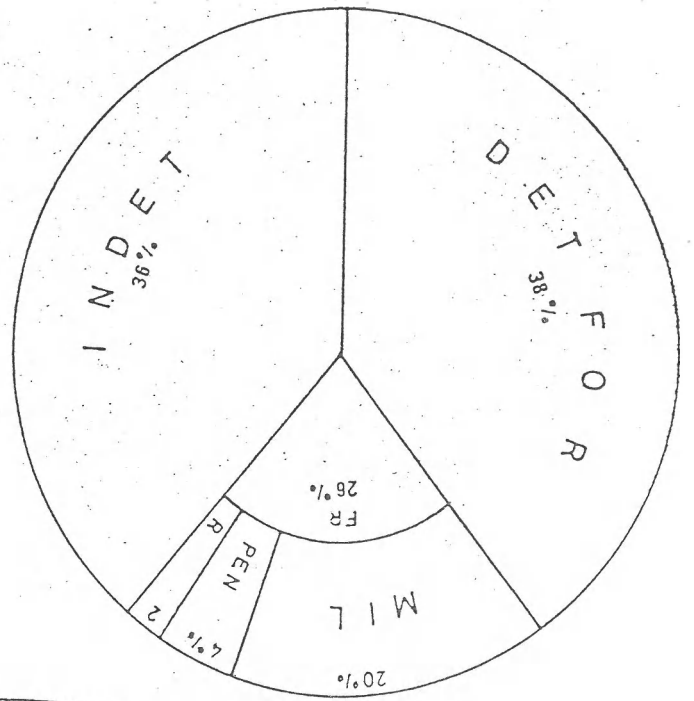
- 3 m

df/g = 176

fr/g = 94

indet/g = 173

T/g = 443



L 145

SANDY SHOAL

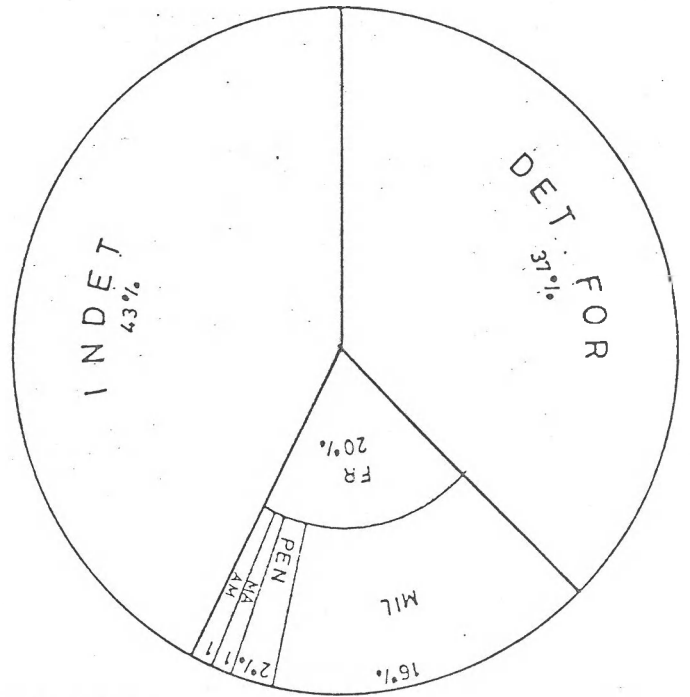
- 1,8 m

df/g = 278

fr/g = 150

indet/g = 322

T/g = 750



L 146

SANDY SHOAL

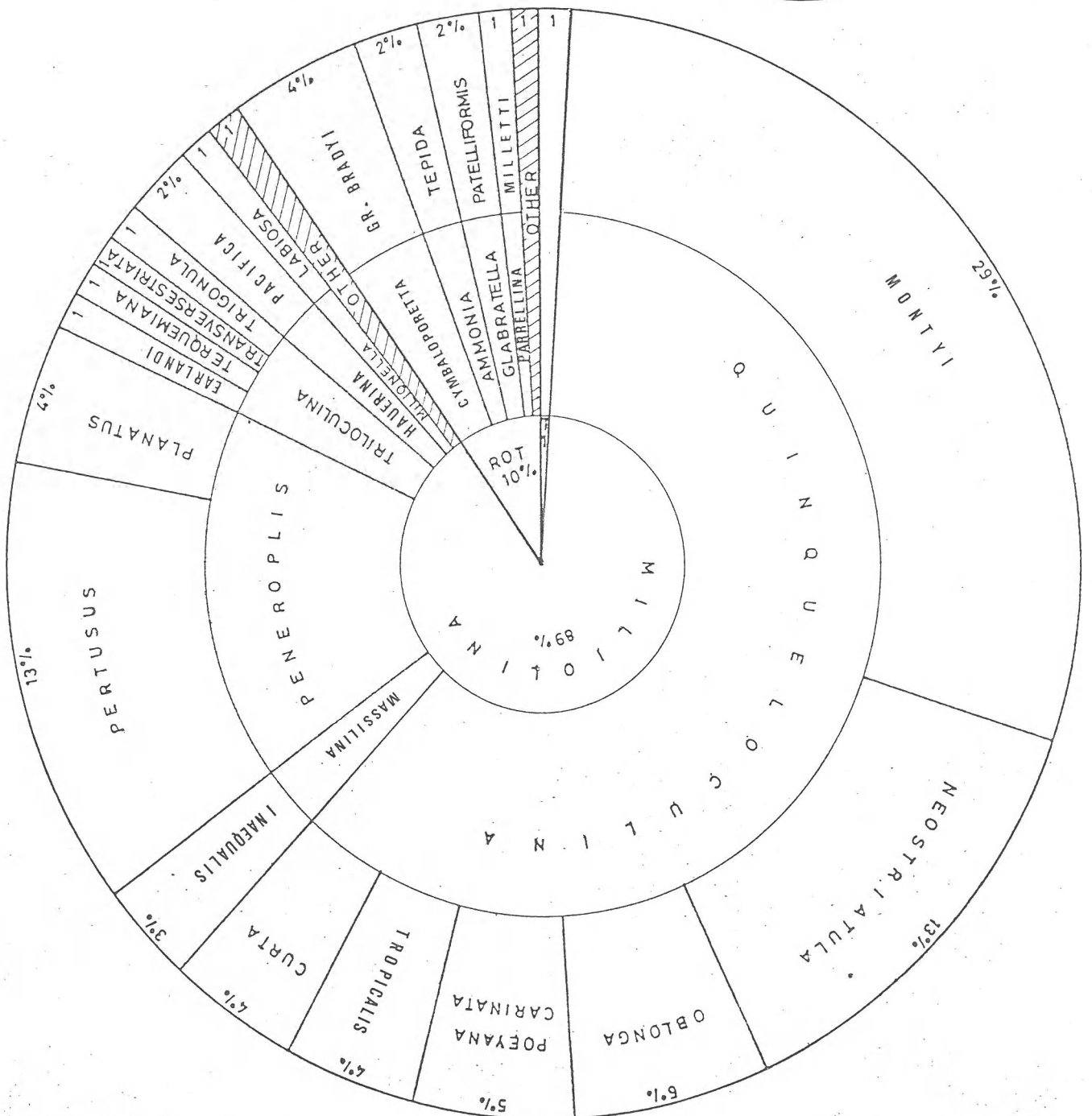
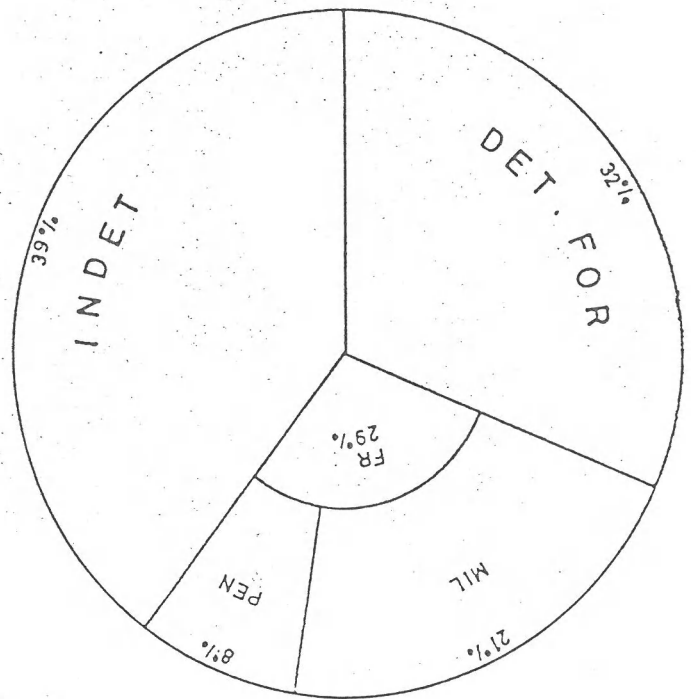
- 1,5 m

df/g = 359

fr/g = 334

indet/g = 449

T/g = 1142



L 149

SANDY SHOAL

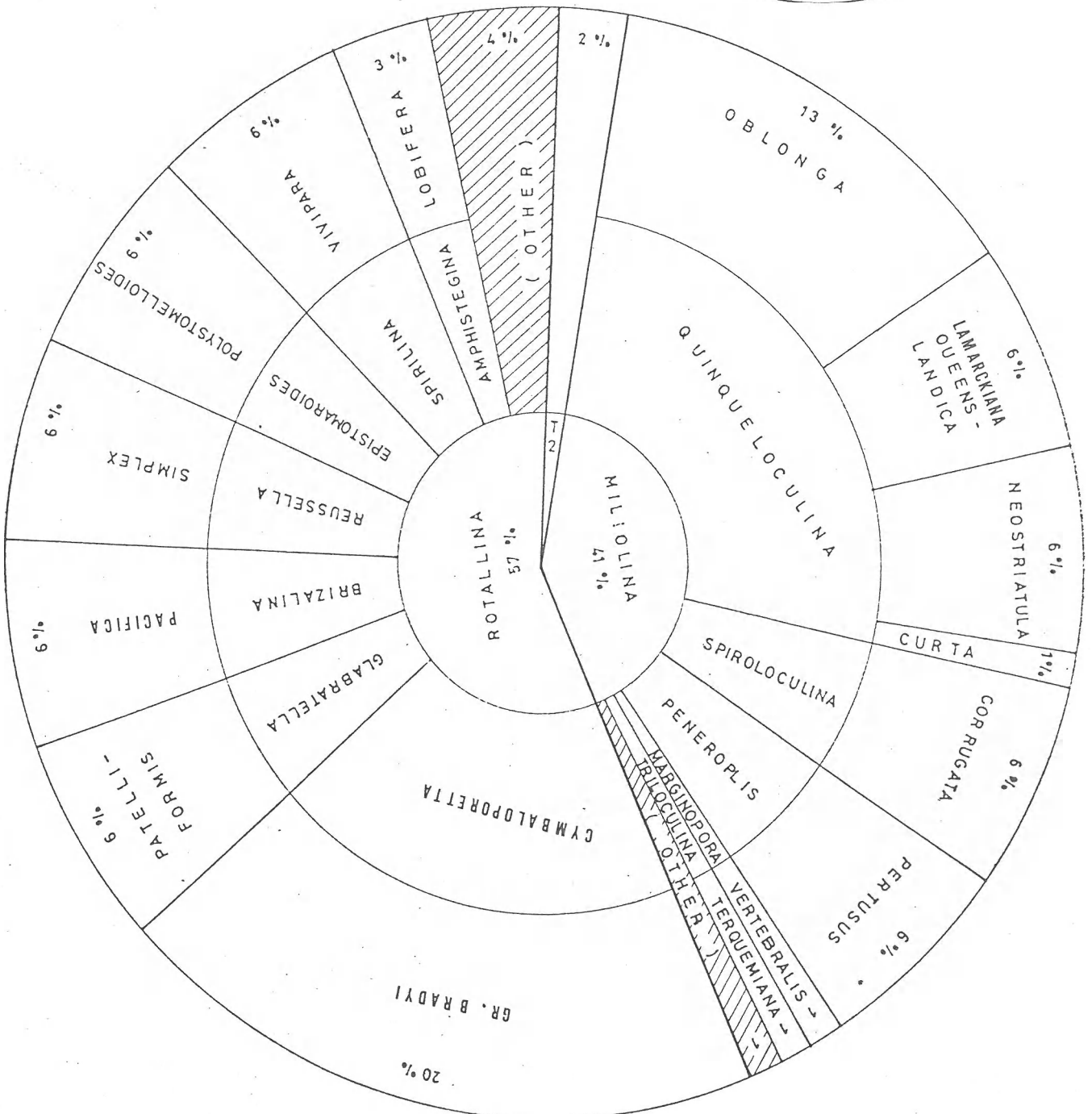
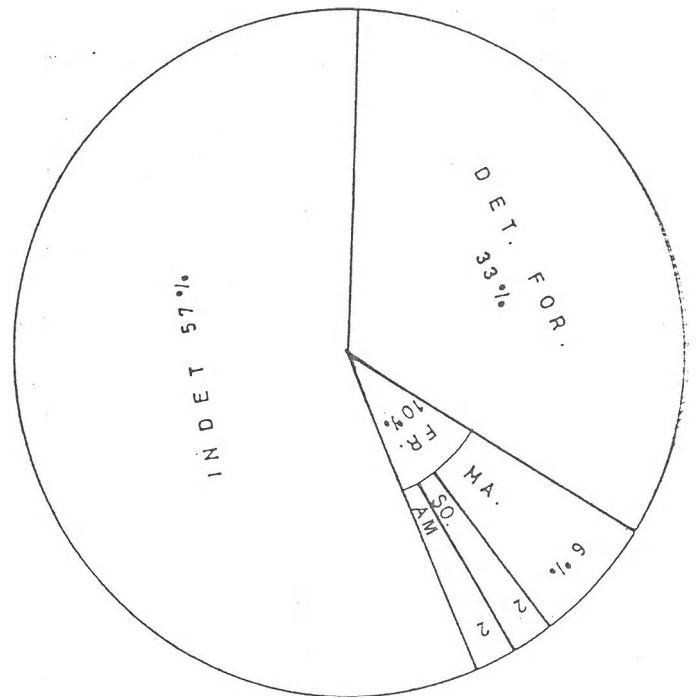
- 1,5 m

df/g = 115

fr/g = 34

indet/g = 202

T/g = 351



L 150

SANDY SHOAL

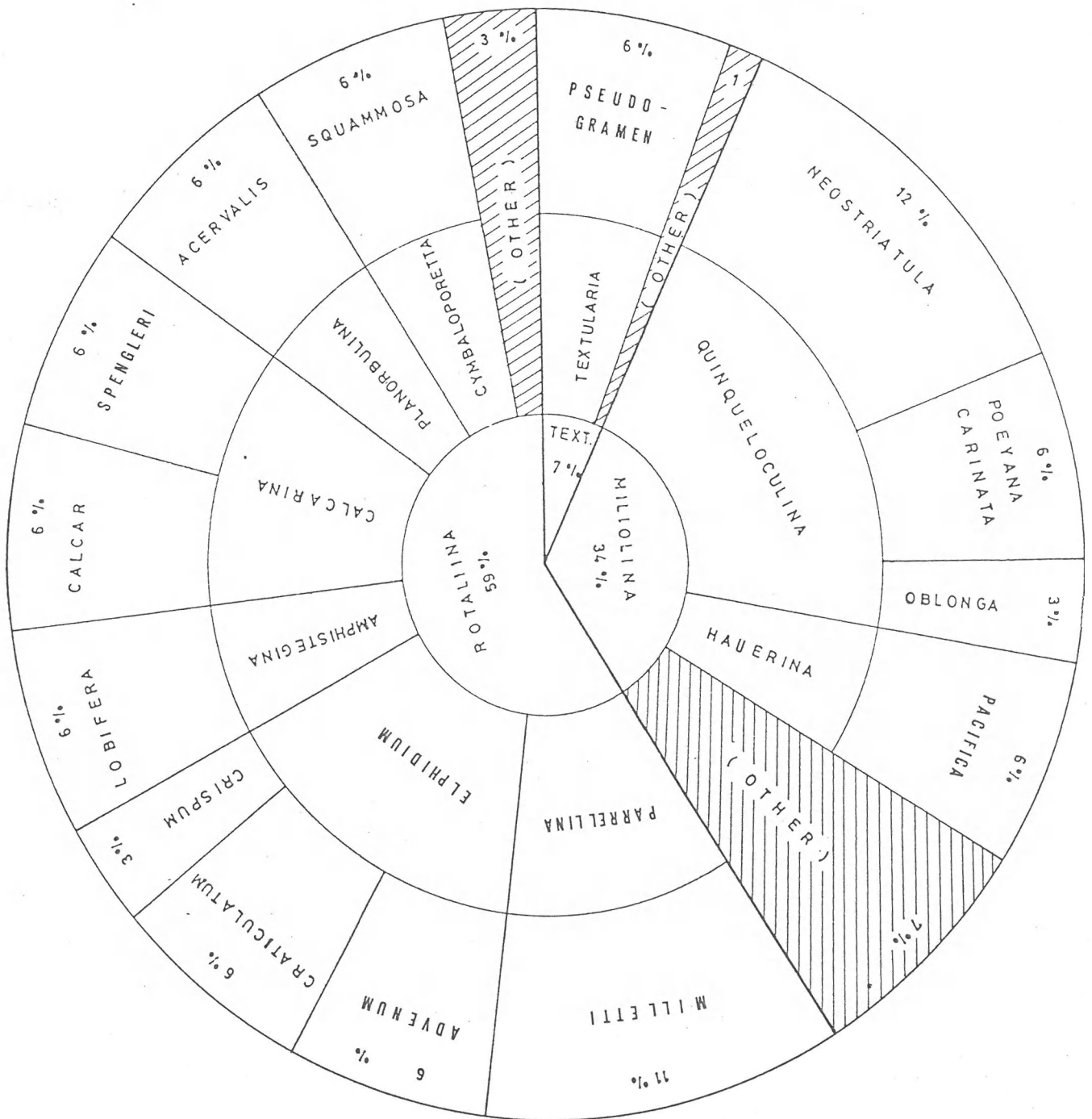
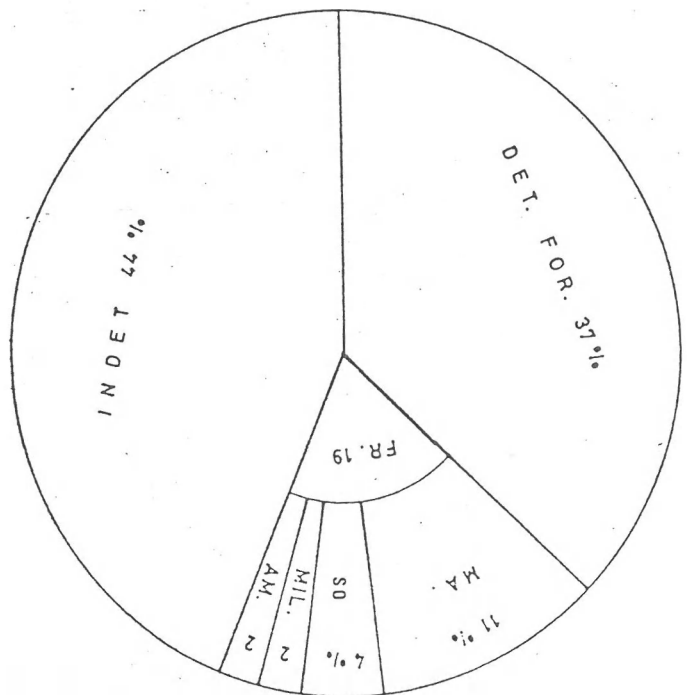
- 1,8 m

df/g = 77

fr/g = 39

indet/g = 90

T/g = 206



L 271 a

SANDY SHOAL

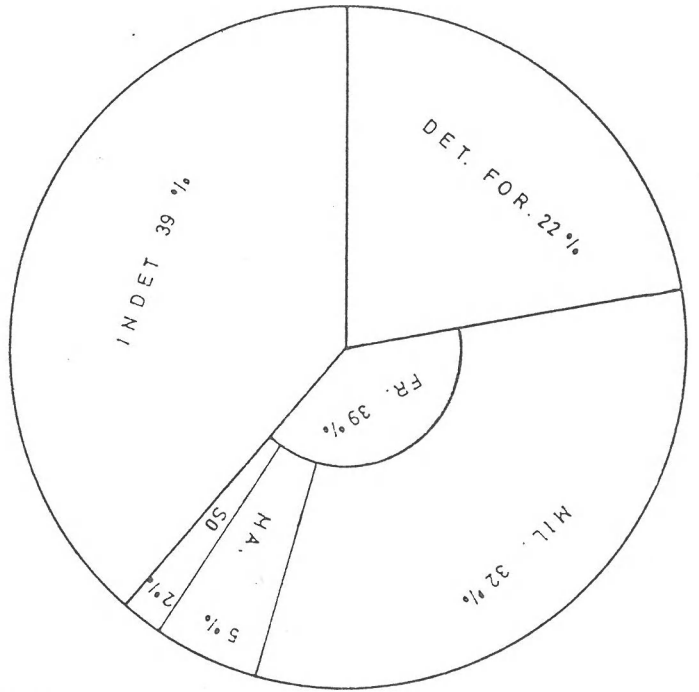
- 1,5 m

df/g = 56

fr/g = 98

indet/g = 98

T/g = 252



L 272

SANDY SHOAL

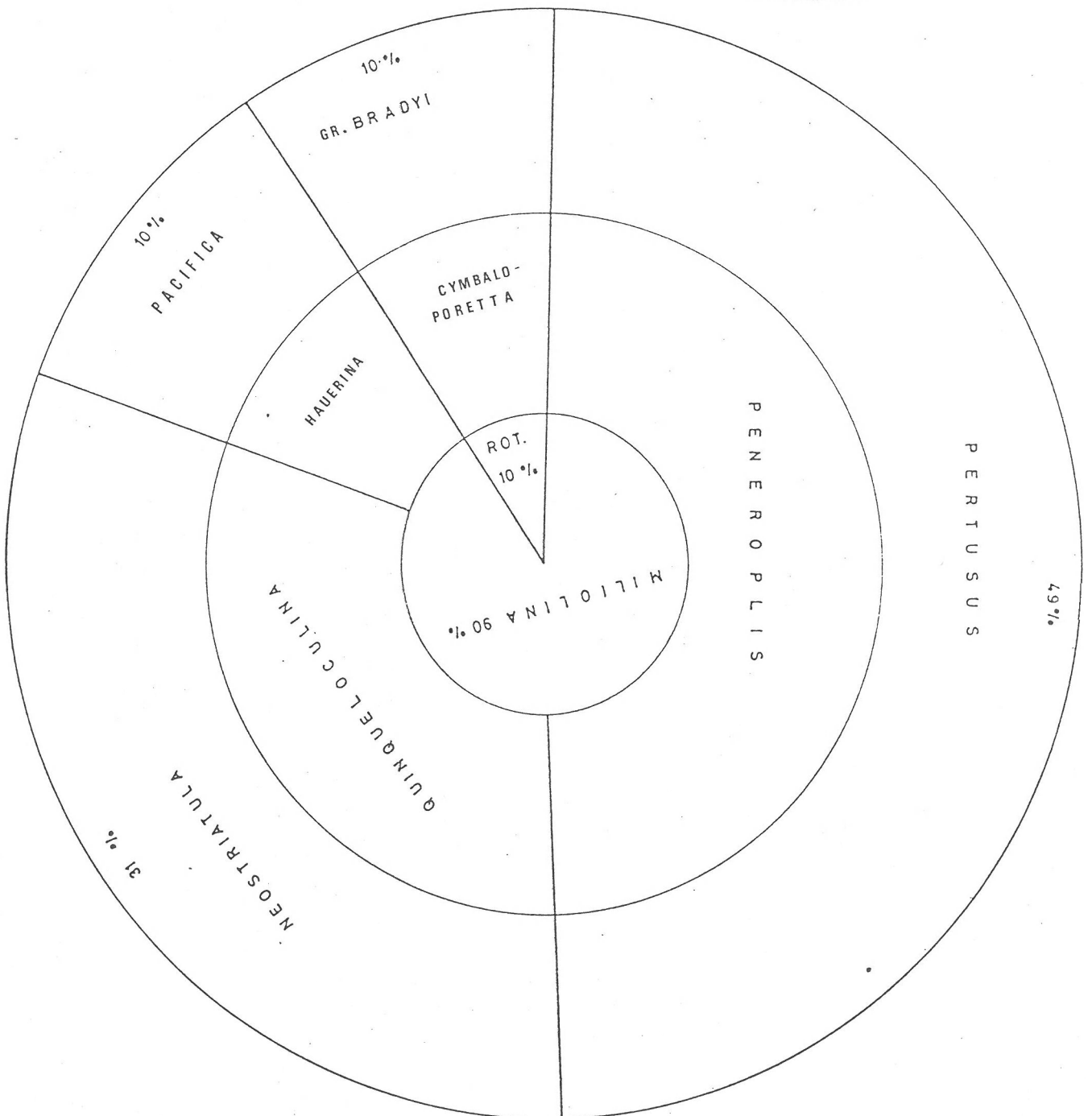
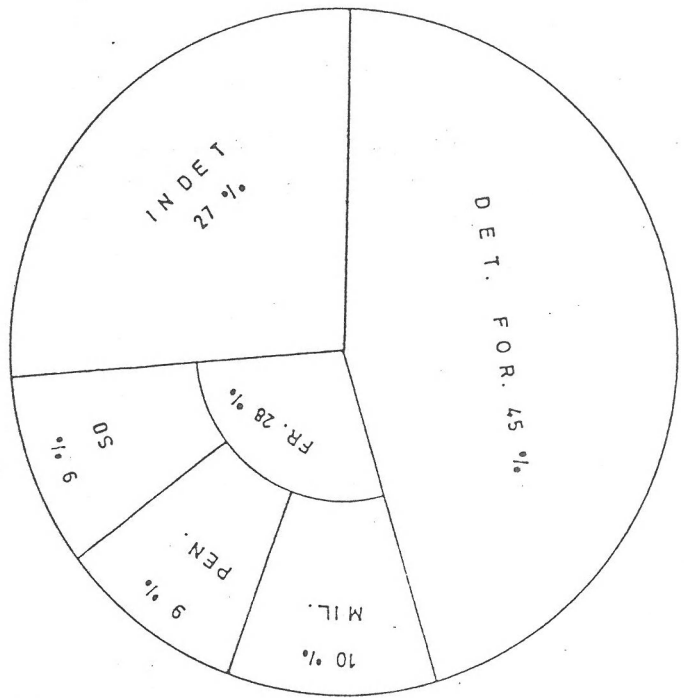
Intertidal (beach)

df/g = 21

fr/g = 13

indet/g = 13

T/g = 47



L 273

PATCHREEFS

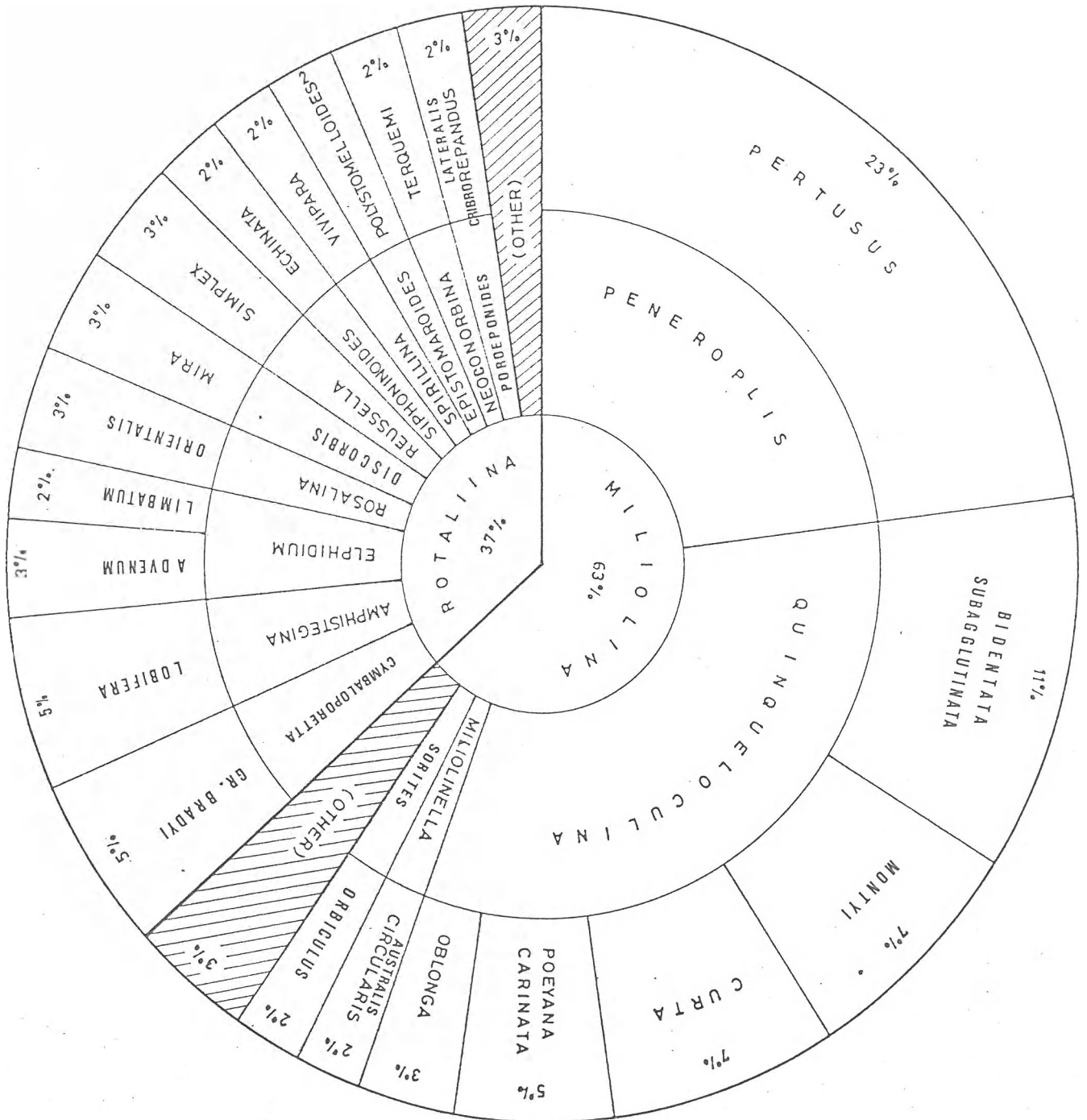
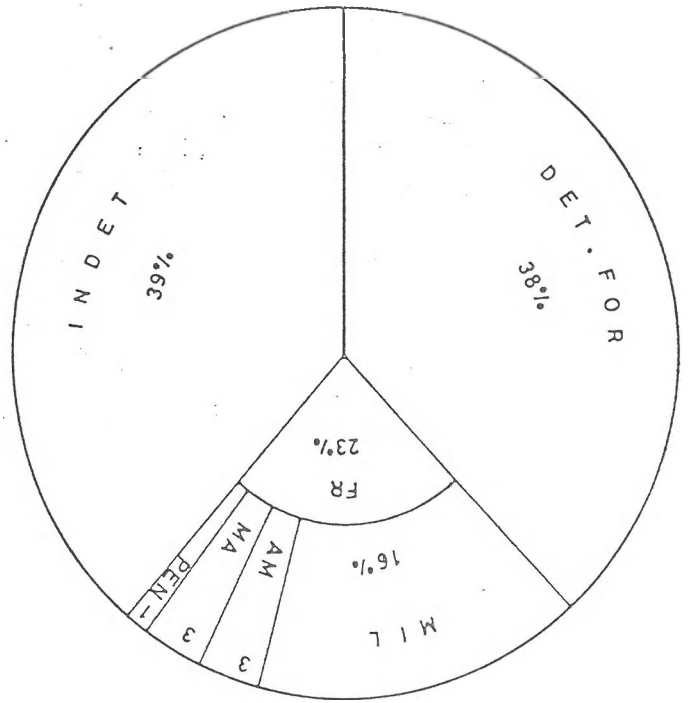
- 1,2 m

df/g = 287

fr/g = 171

indet/g = 292

T/g = 750



L 274

PATCHREEFS

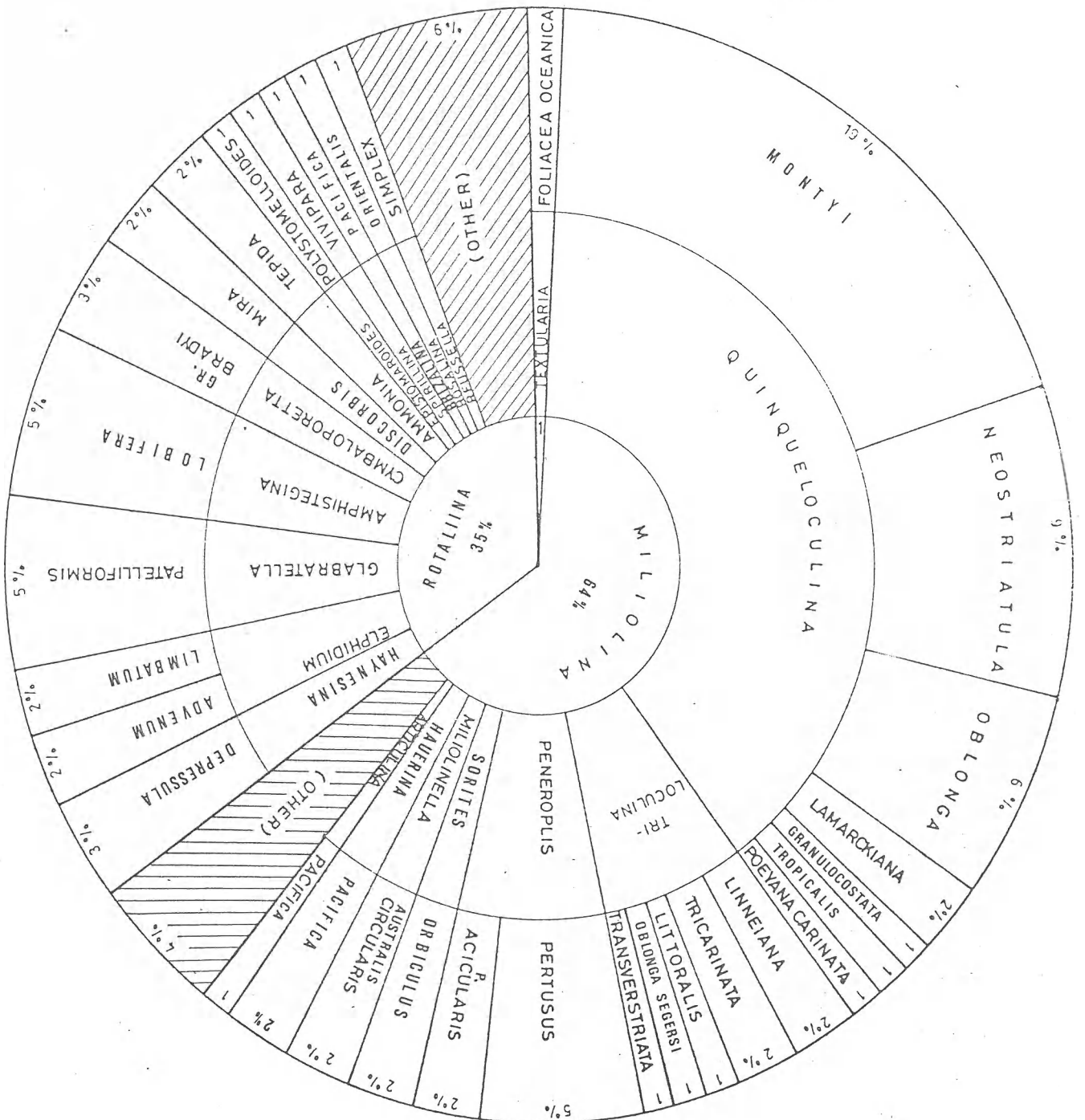
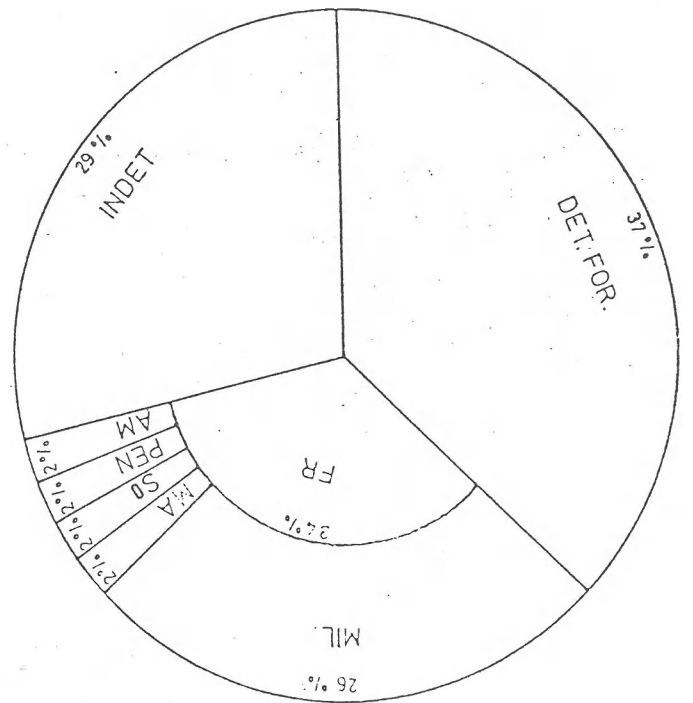
- 2,5 m

df/g = 350

fr/g = 323

indet/g = 273

T/g = 946



L 275

PATCHREEFS

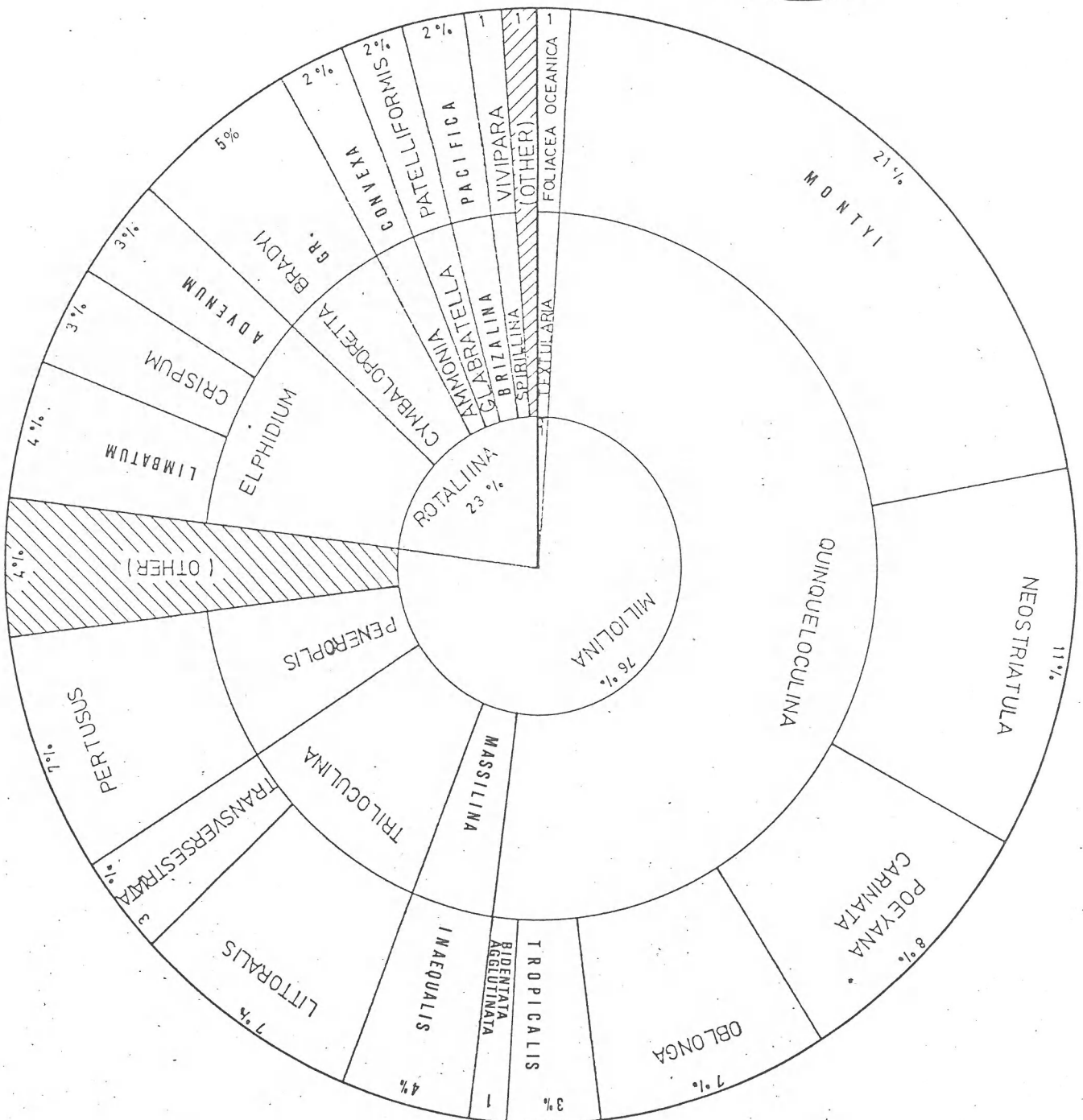
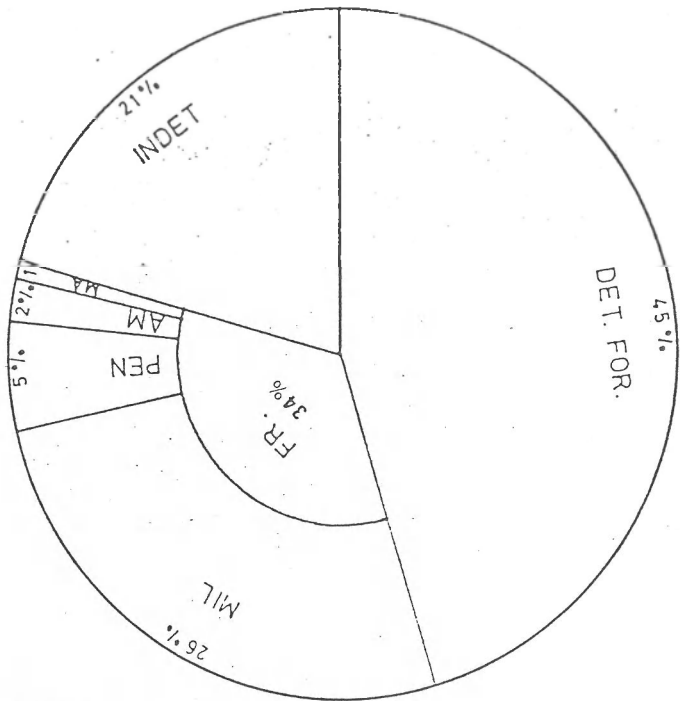
- 3 m

df/g = 441

fr/g = 331

indet/g = 211

T/g = 983



L 276 b

PATCHREEFS

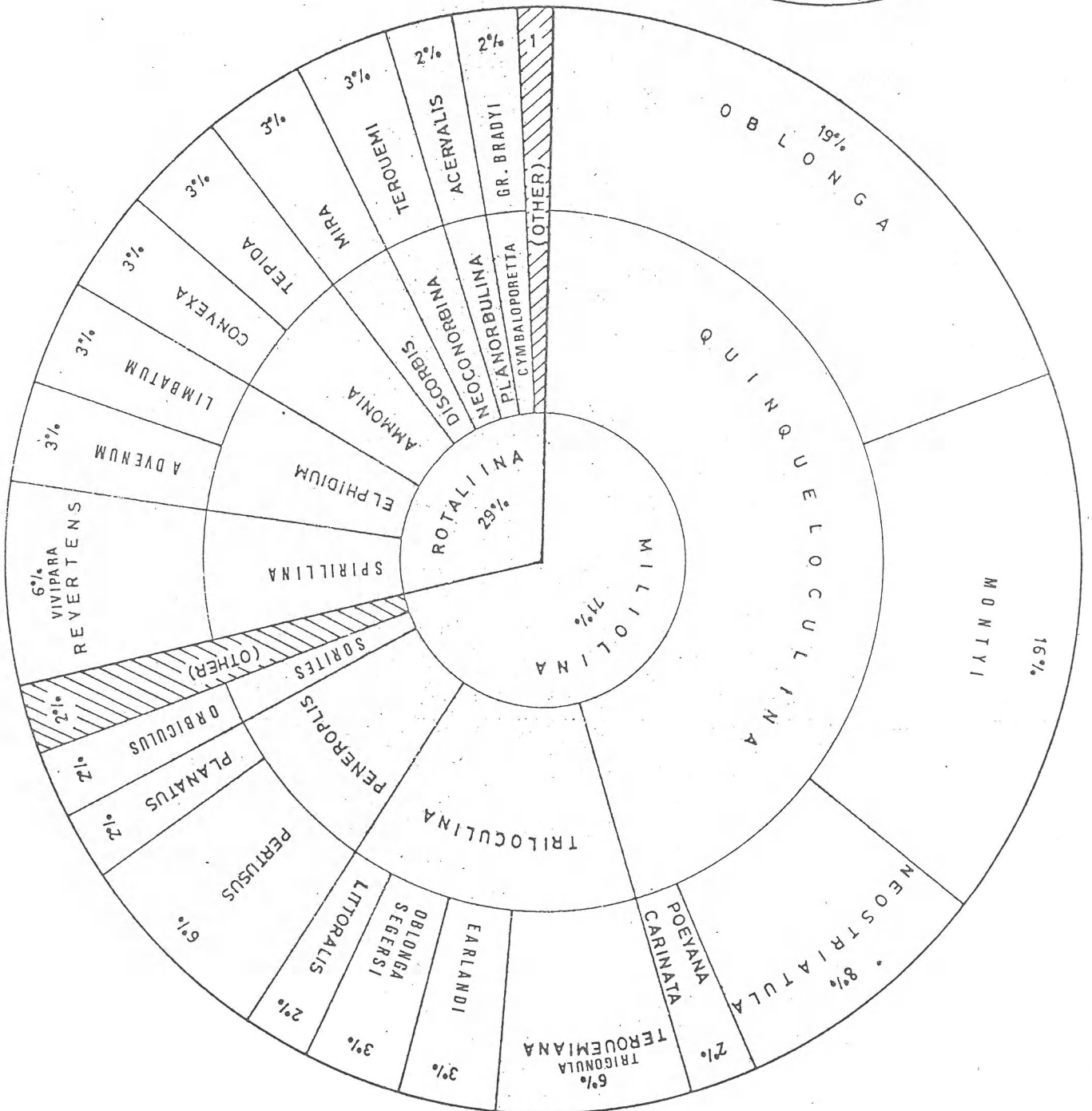
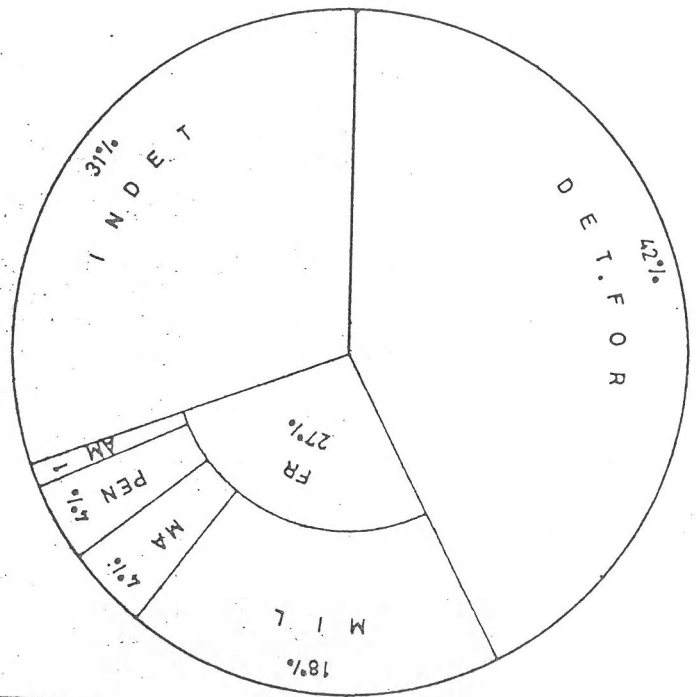
- 1 m

df/g = 180

fr/g = 114

indet/g = 128

T/g = 422



L 277

PATCHREEFS

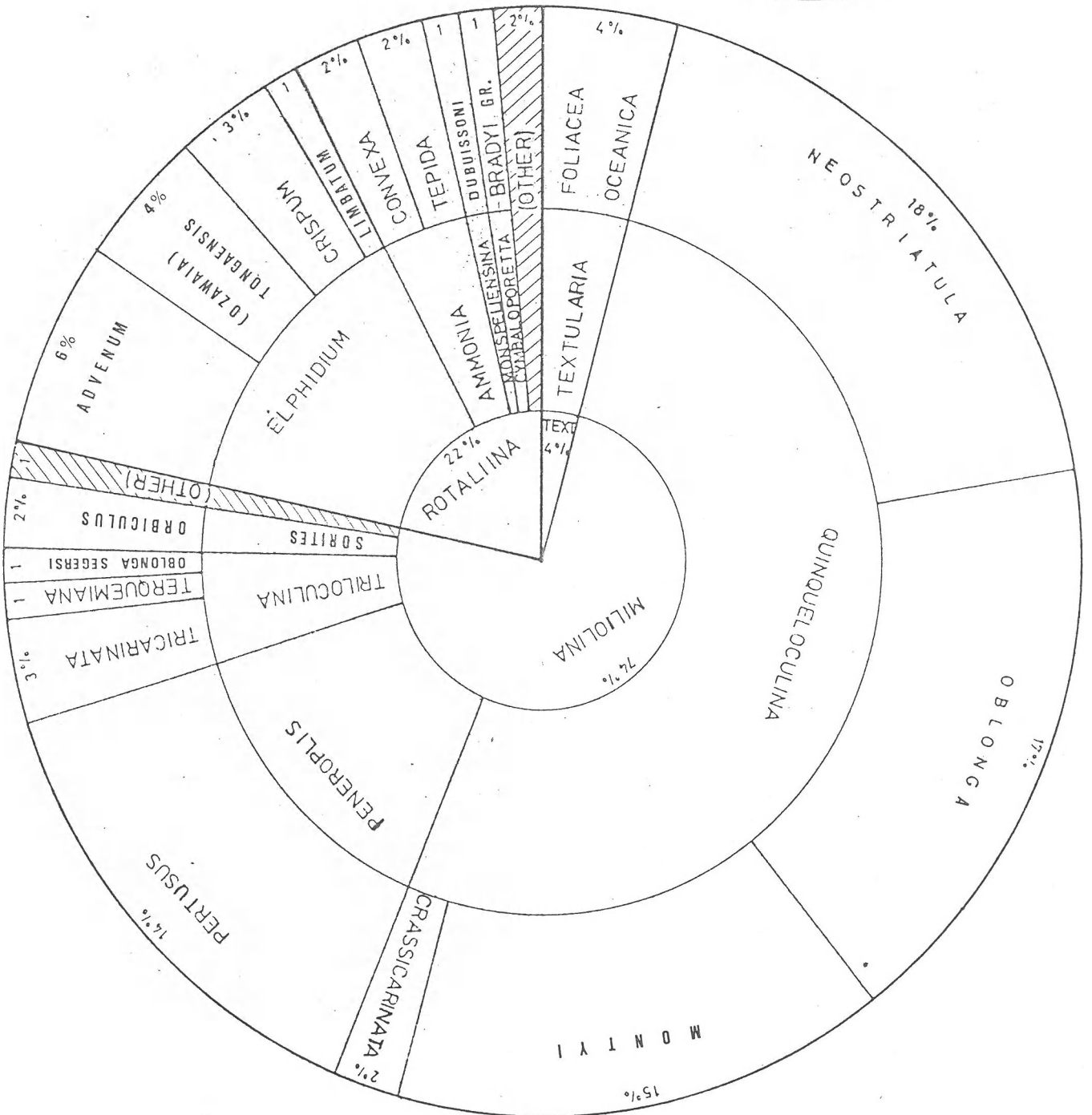
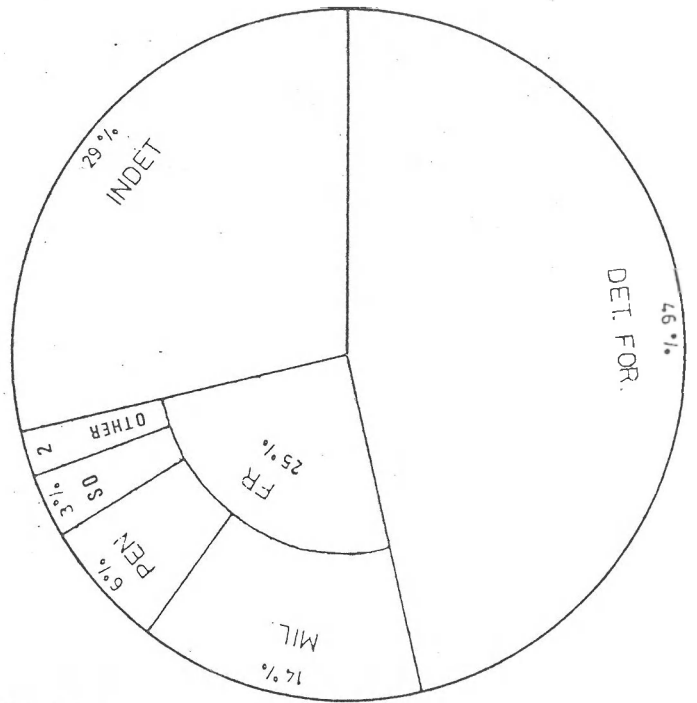
- 2,5 m

df/g = 243

fr/g = 130

indet/g = 155

T/g = 528



L 278 d

PATCHREEFS

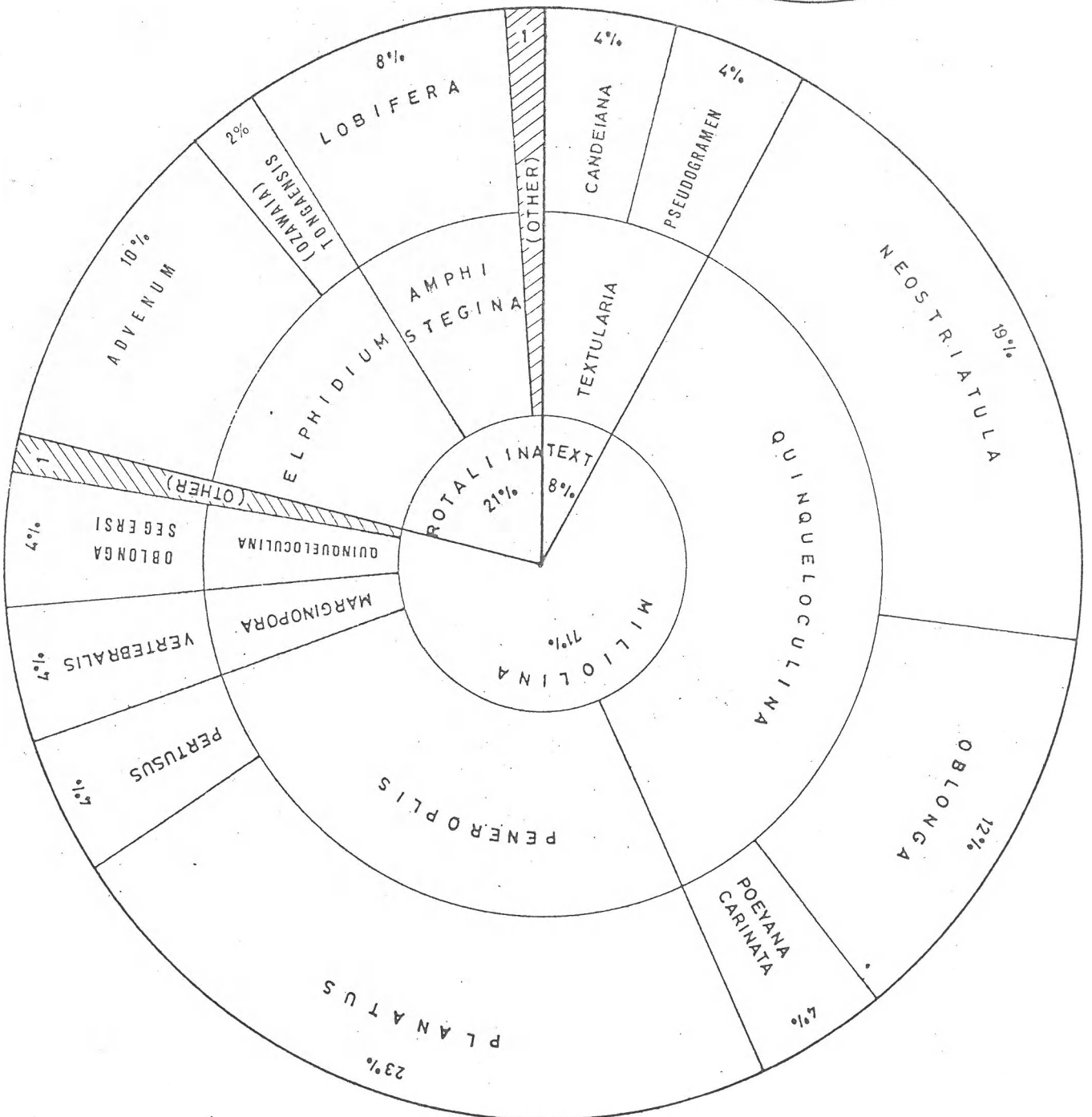
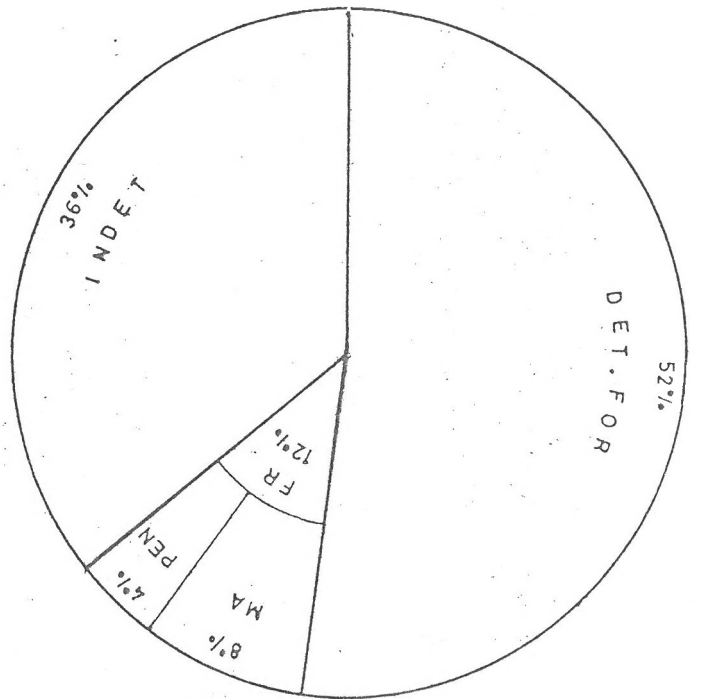
- 10 cm (LT)

df/g = 213

fr/g = 49

indet/g = 147

T/g = 409



L 160

PATCHREEFS

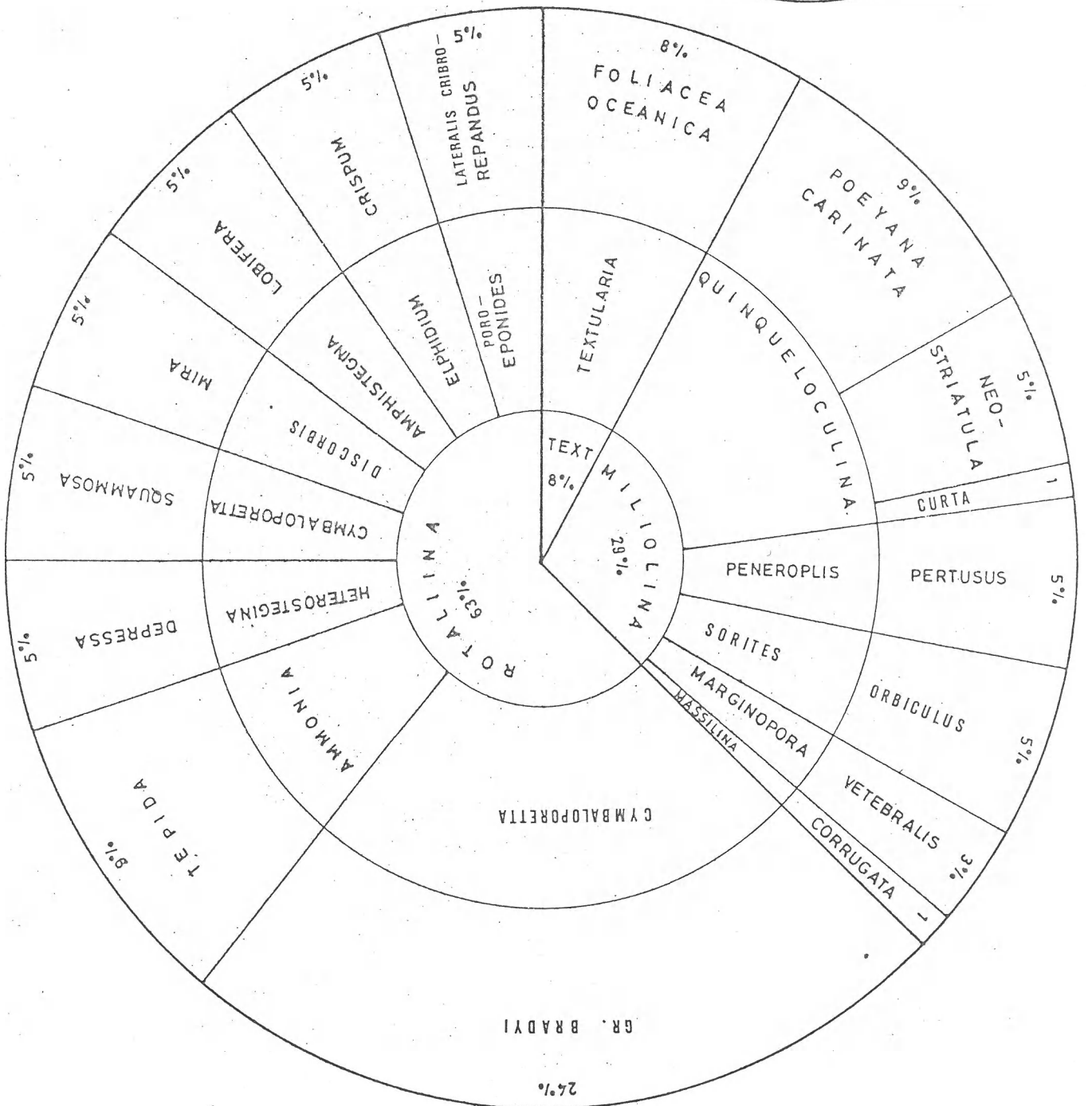
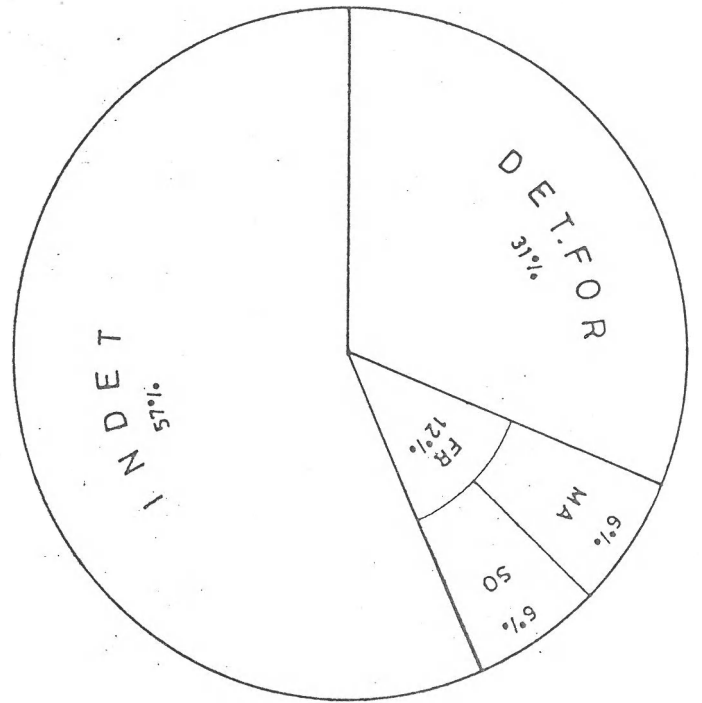
- 2,5 m

df/g = 273

fr/g = 104

indet/g = 494

T/g = 871



L 157

PATCHREEFS

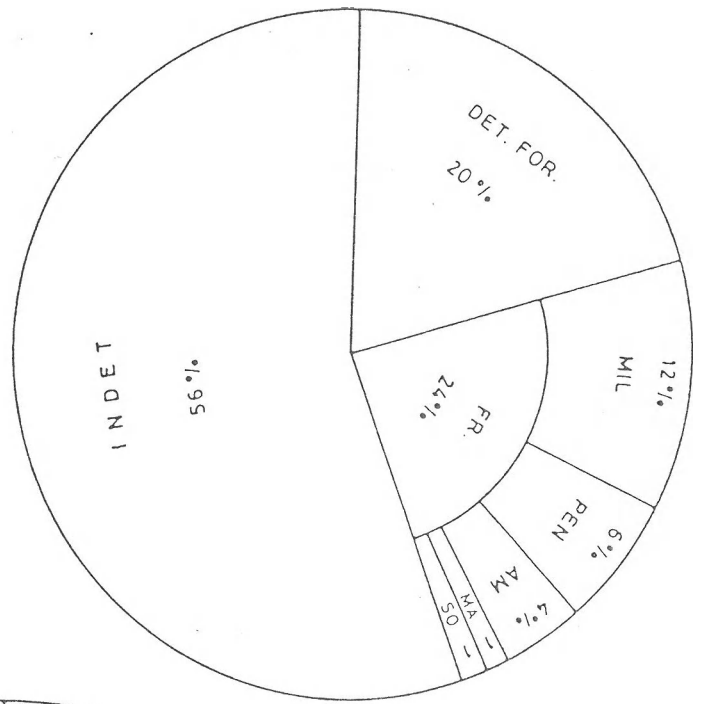
- 3 m

df/g = 302

fr/g = 358

indet/g = 849

T/g = 1509



L 154

PATCHREEFS

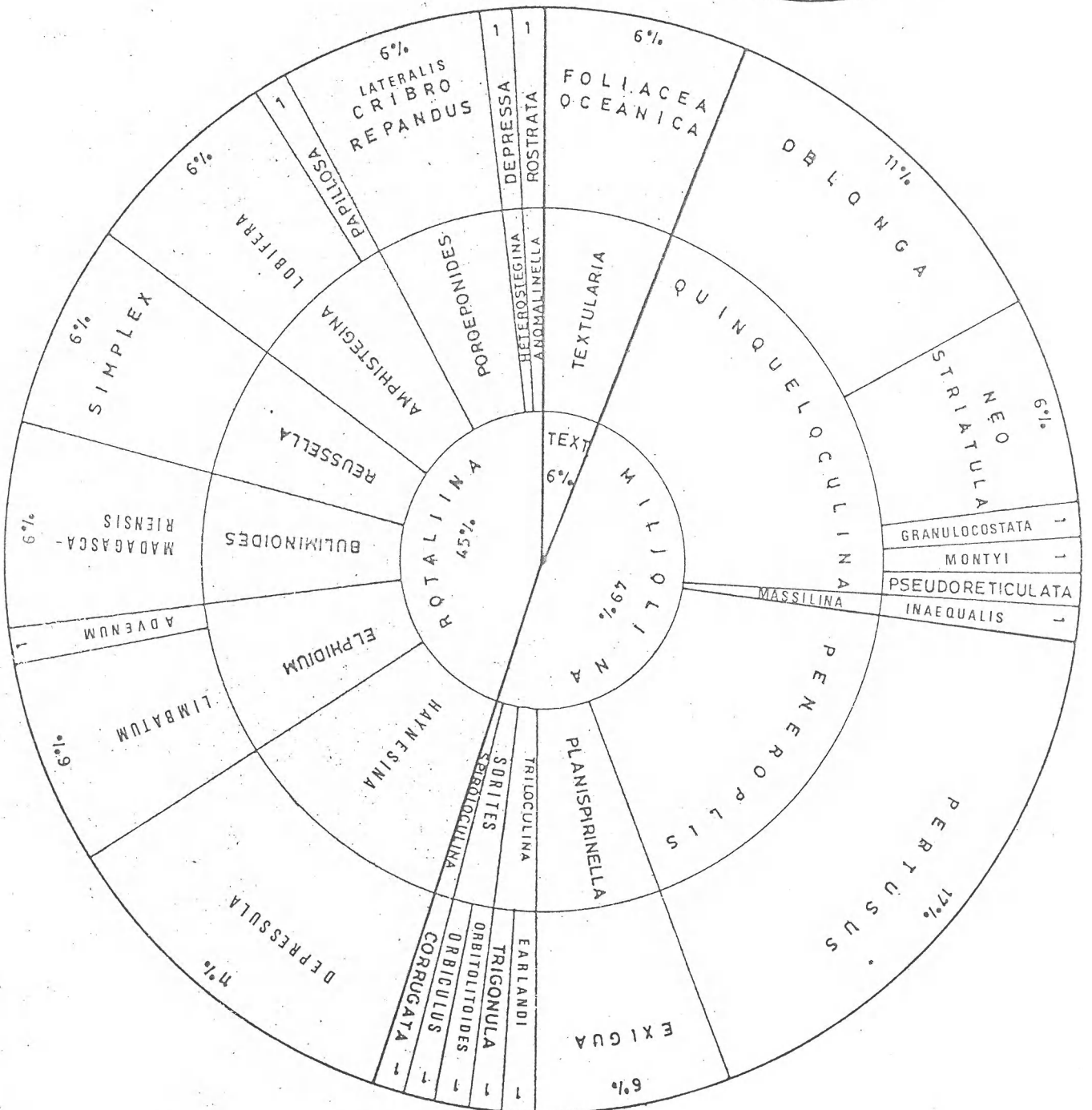
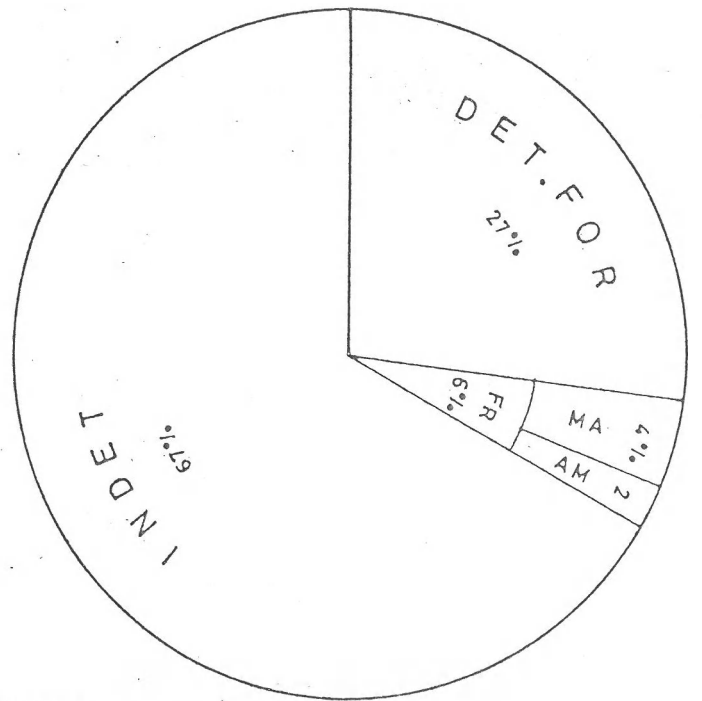
- 6 m

df/g = 435

fr/g = 97

indet/g = 1065

T/g = 1597



L 155

PATCHREEFS

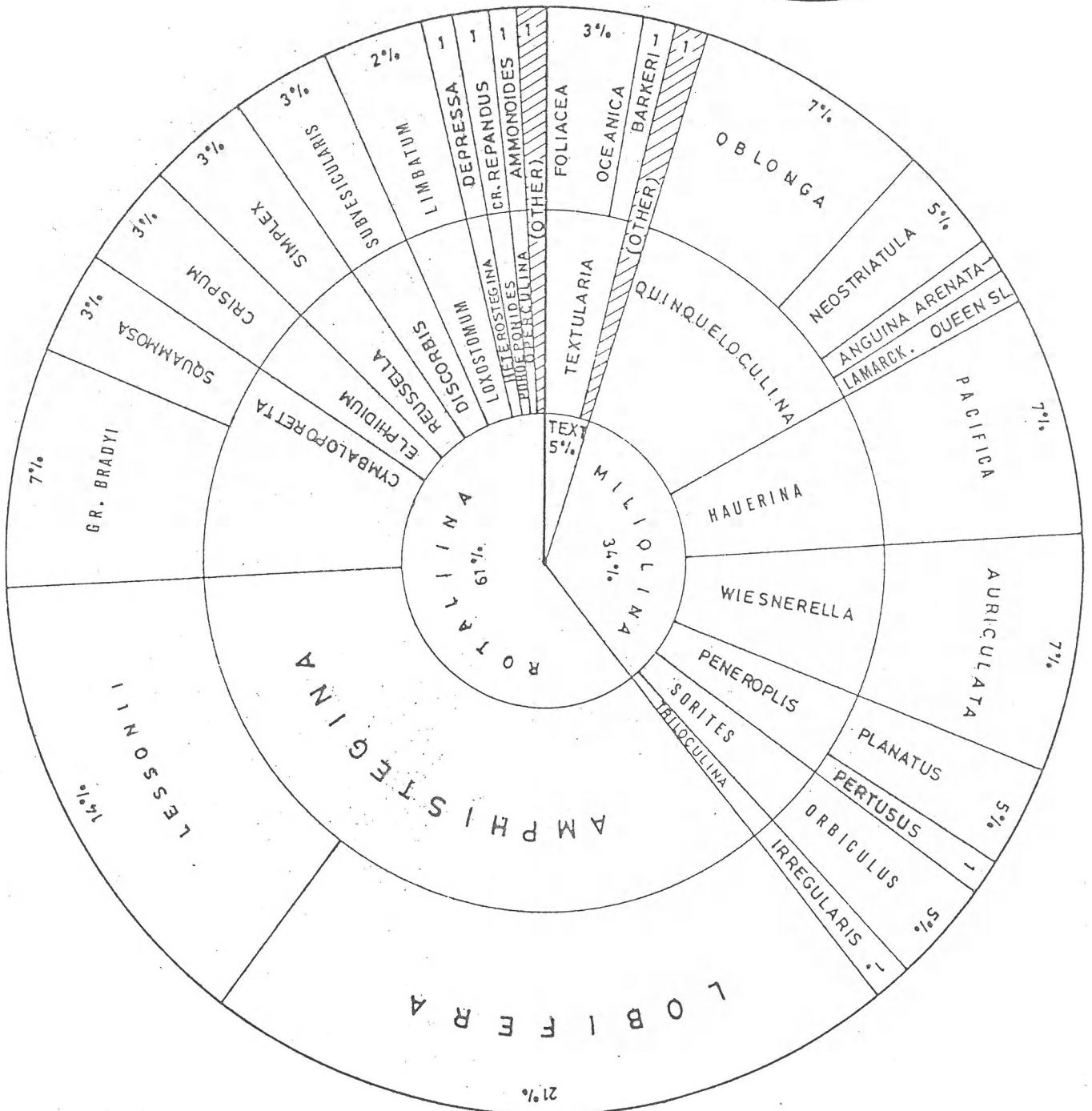
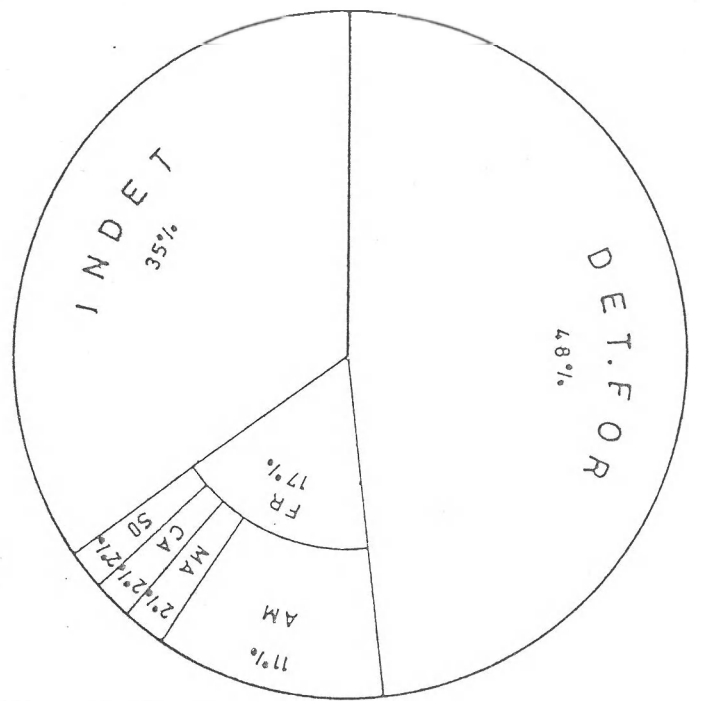
- 10 m

df/g = 769

fr/g = 265

indet/g = 557

T/g = 1591



L 100

PATCHREEFS

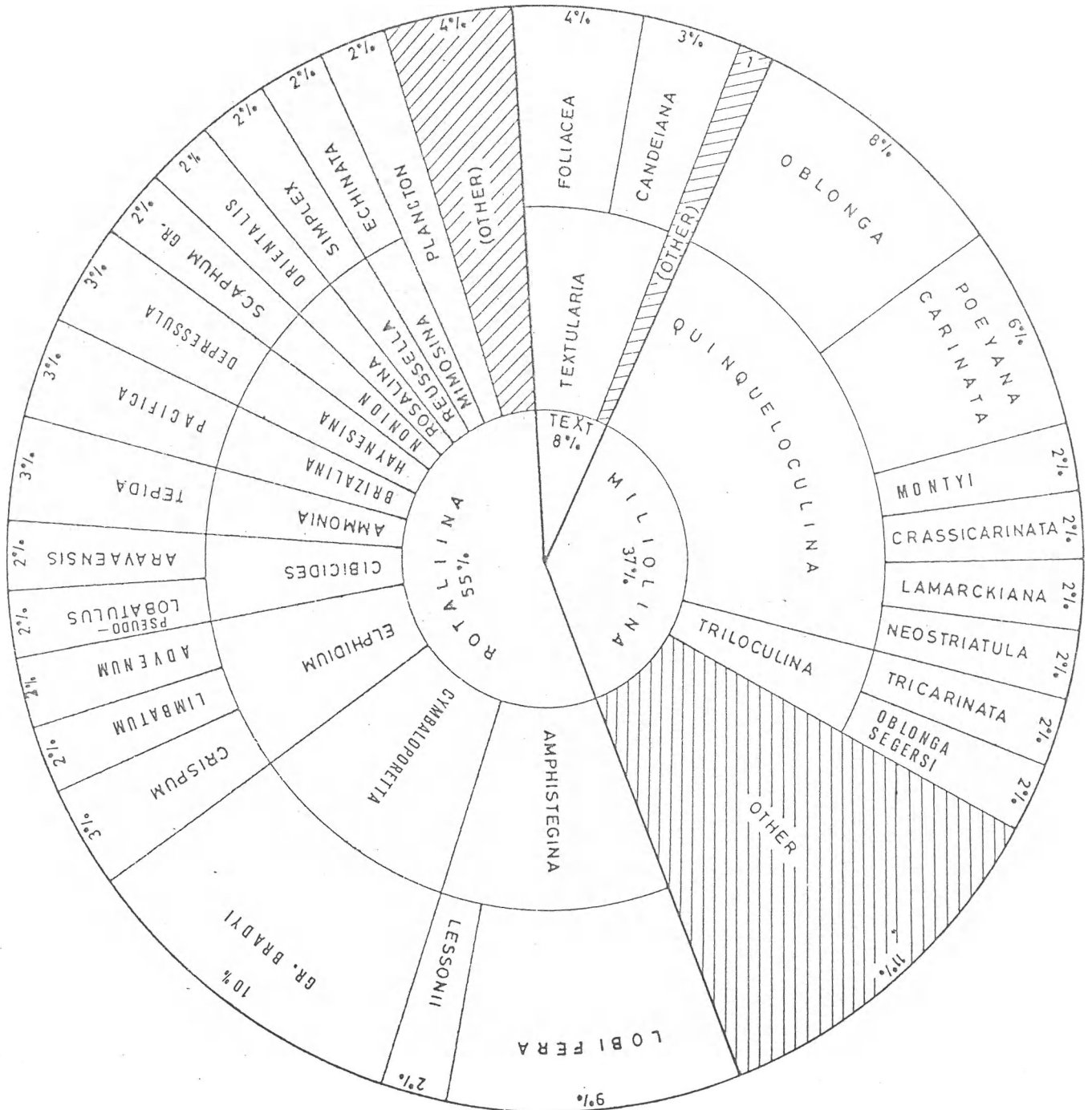
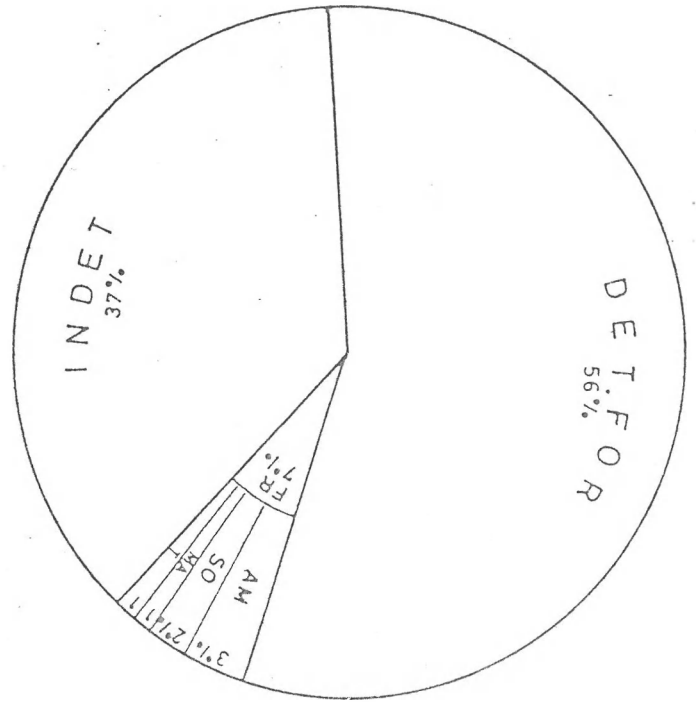
- 10 m

df/g = 896

fr/g = 115

indet/g = 597

T/g = 1608



L 102

PATCHREEFS

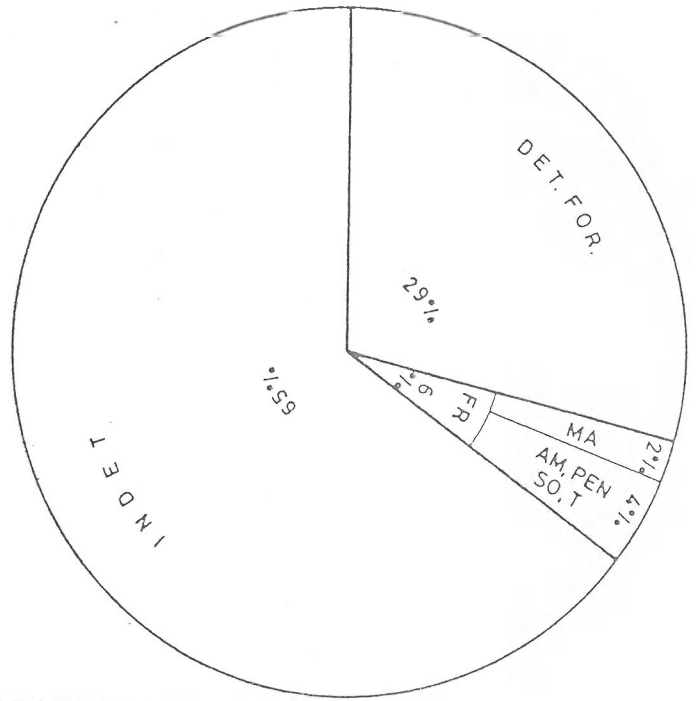
- 6 m

df/g = 665

fr/g = 133

indet/g = 1525

T/g = 2323



L 105

PATCHREEFS

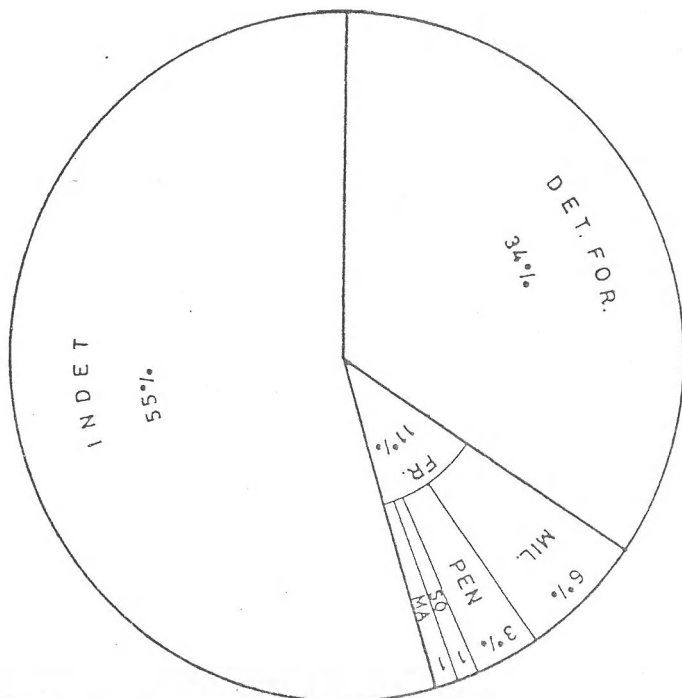
- 9 m

df/g = 81

fr/g = 25

indet/g = 132

T/g = 238



L 289 b

PATCHREEFS

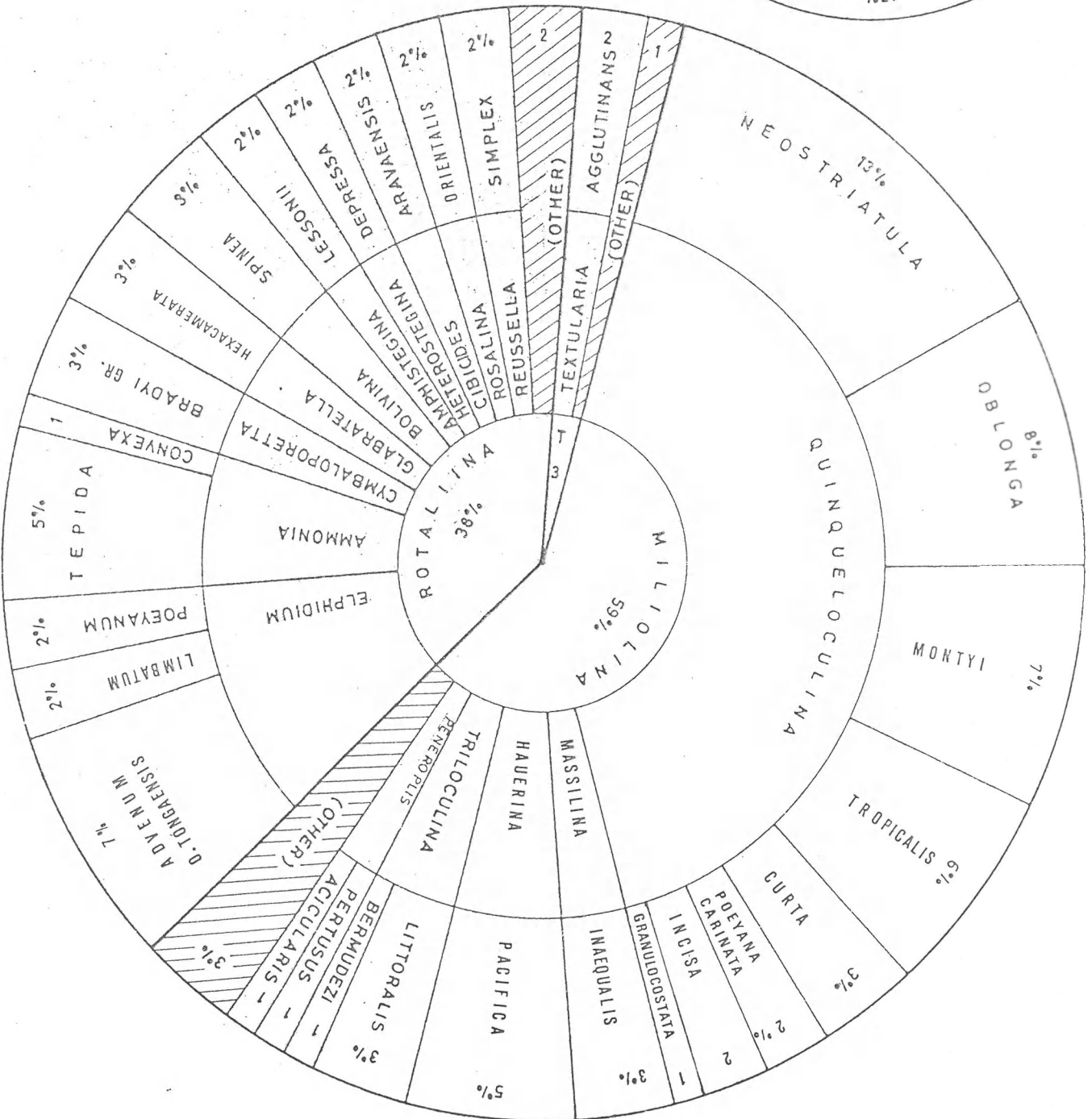
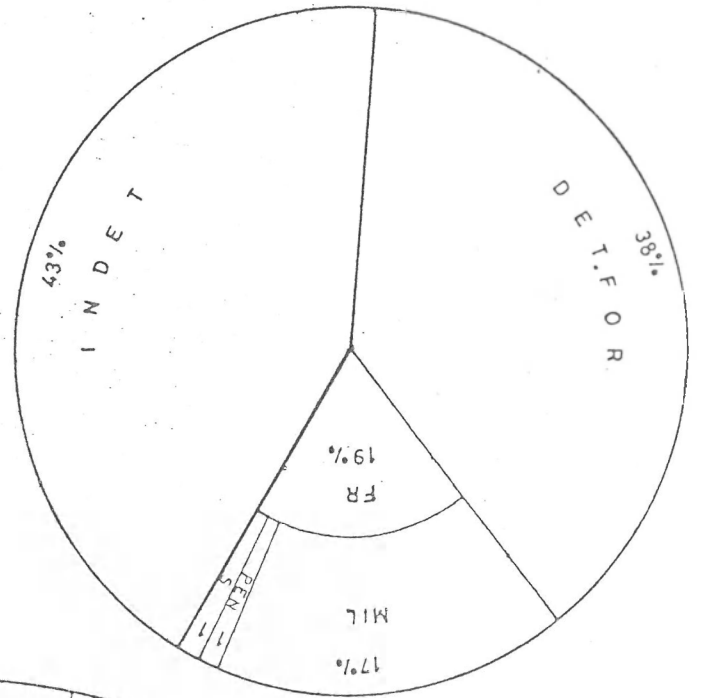
- 3,5 m

df/g = 722

fr/g = 376

indet/g = 802

T/g = 1900



L 291

PATCHREEFS

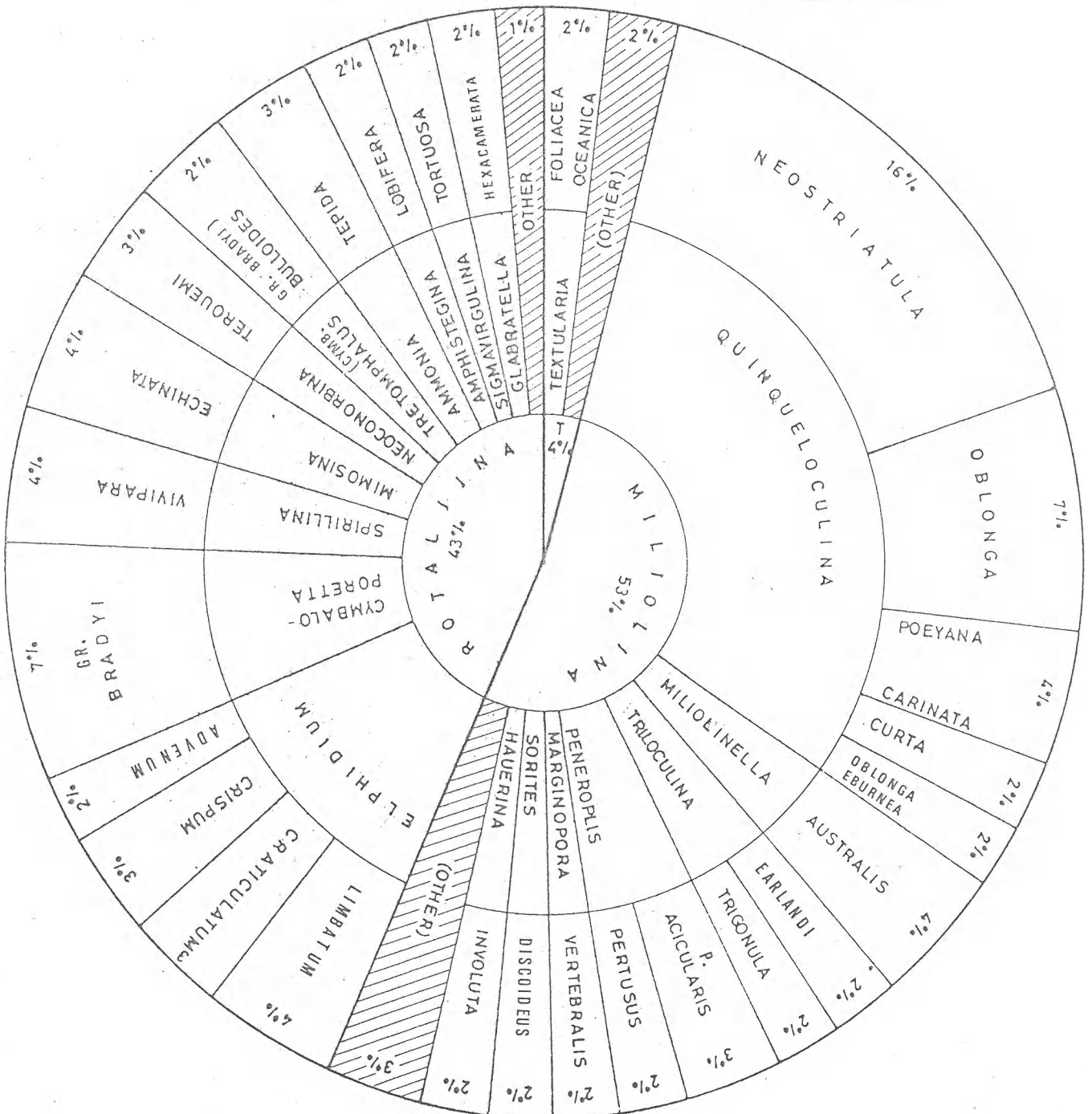
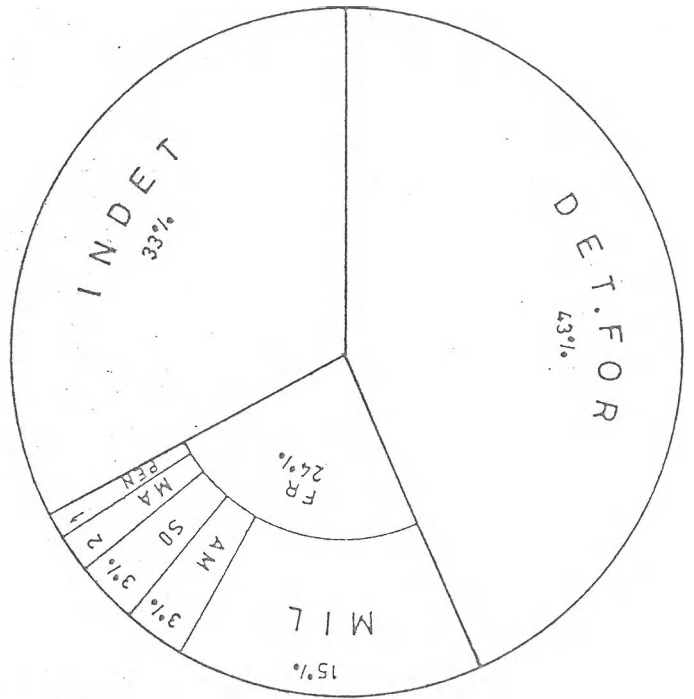
- 4 m

df/g = 152

fr/g = 85

indet/g = 115

T/g = 352



L 122

LAGOON

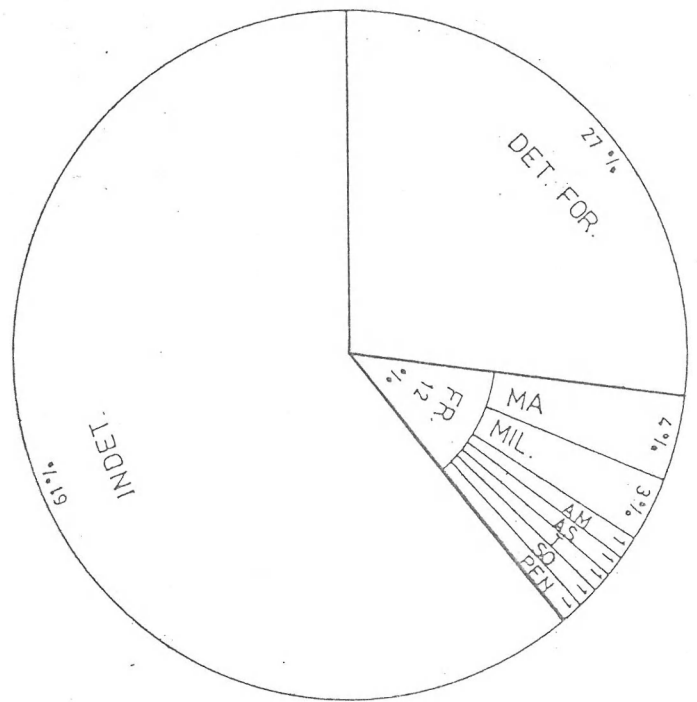
- 6,4 m

df/g = 251

fr/g = 118

indet/g = 576

T/g = 945



L 123

LAGOON

- 9 m

df/g = 814

fr/g = 66

indet/g = 2791

T/g = 3671



L 124

LAGOON

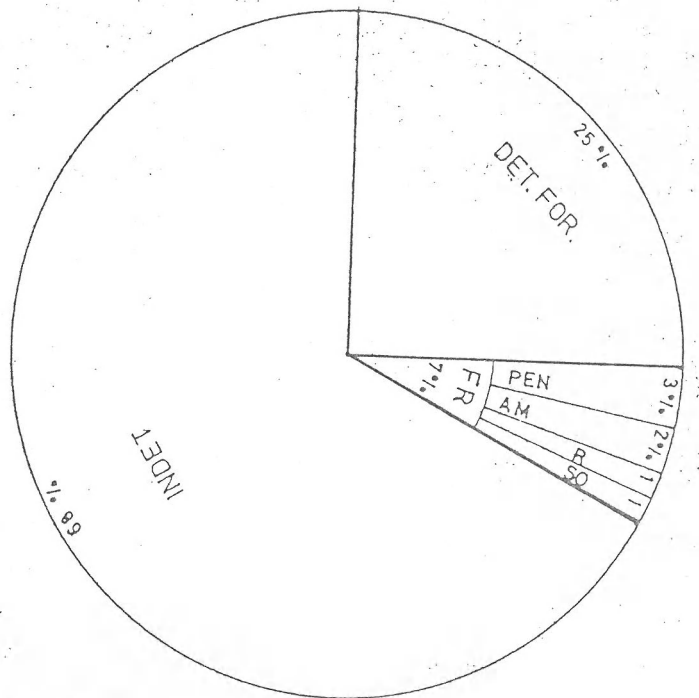
- 8,2 m

df/g = 481

fr/g = 128

indet/g = 1348

T/g = 1957



L 126

LAGOON

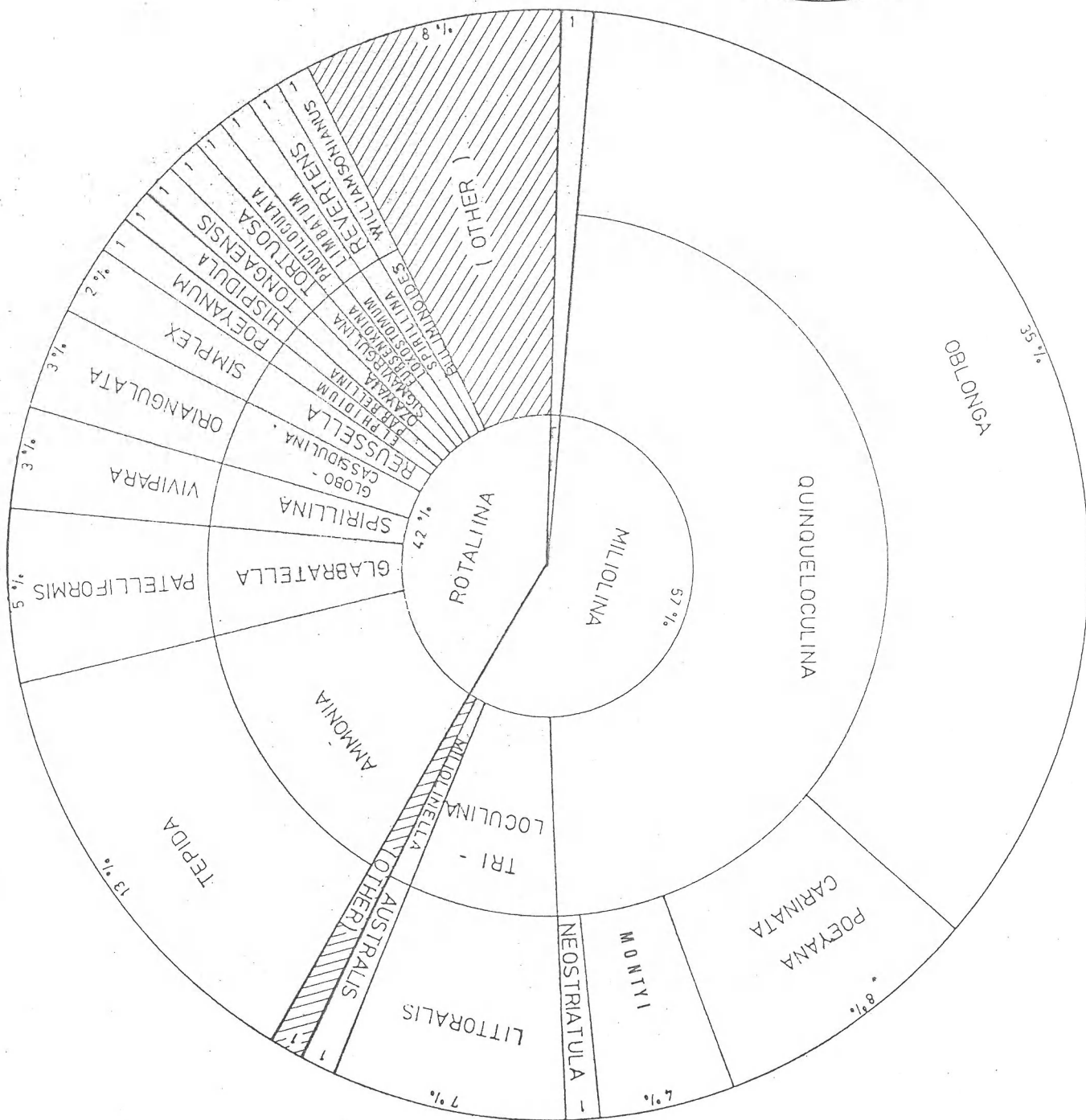
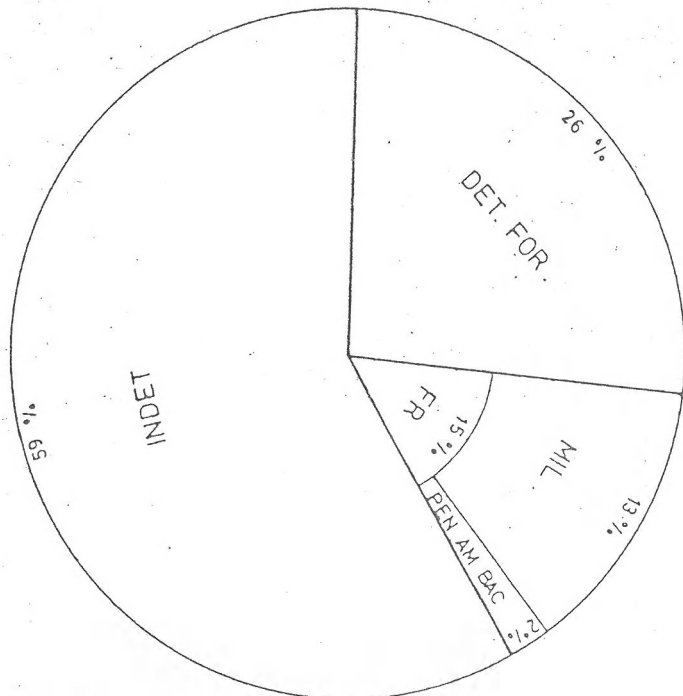
- 9,5 m

df/g = 3443

fr/g = 2005

indet/g = 7715

T/g = 13165



L 129

LAGOON

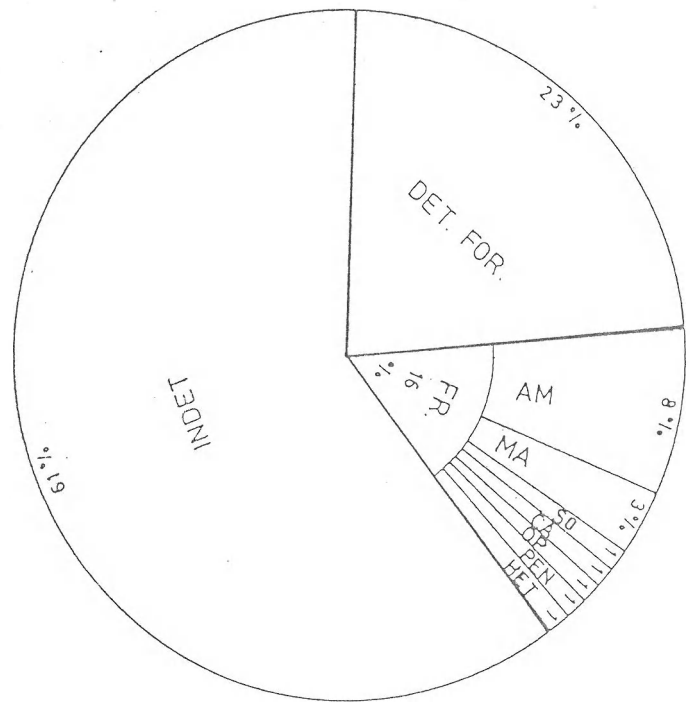
- 4,7 m

df/g = 473

fr/g = 329

indet/g = 1255

T/g = 2057



L 130

LAGOON

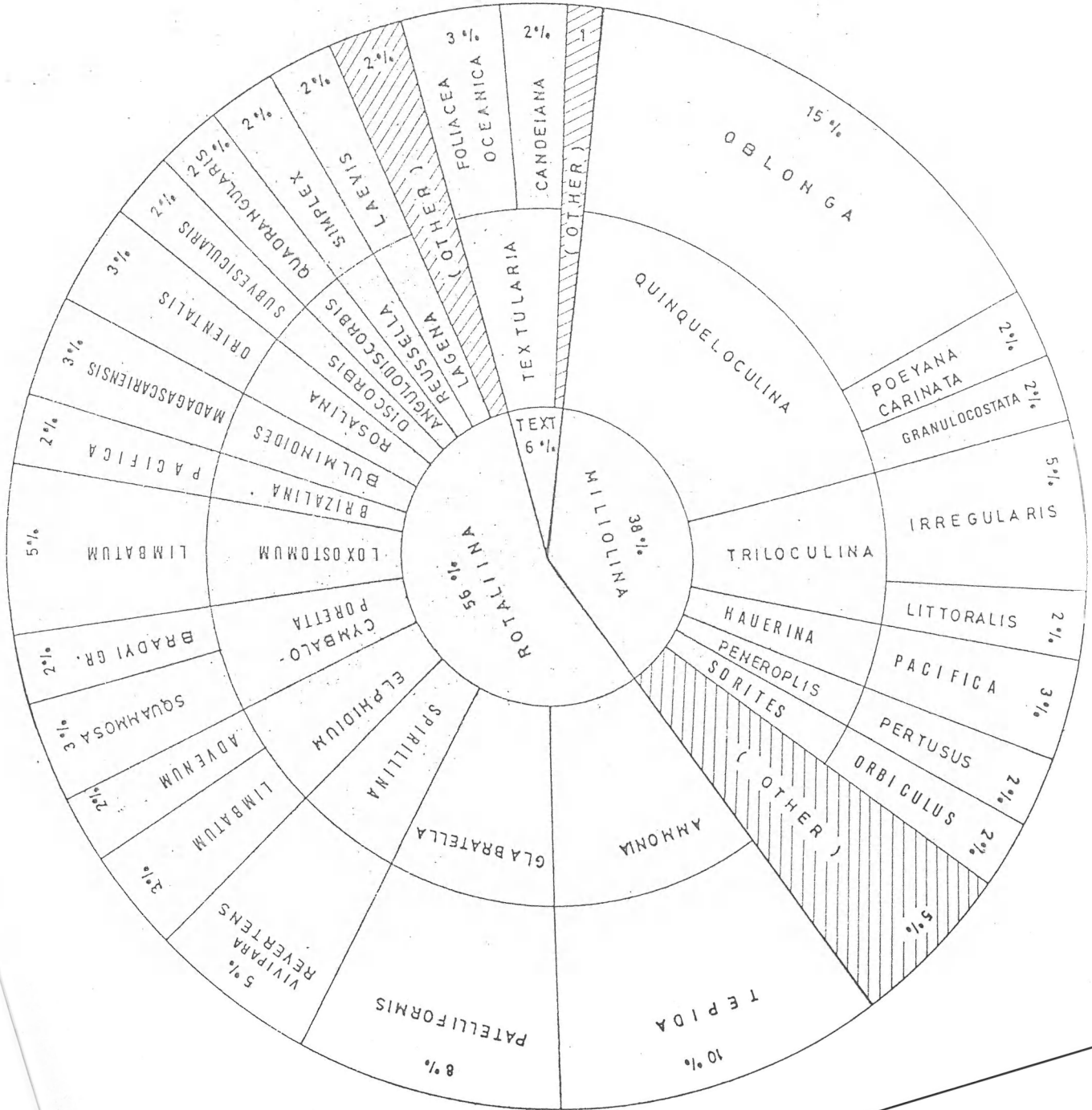
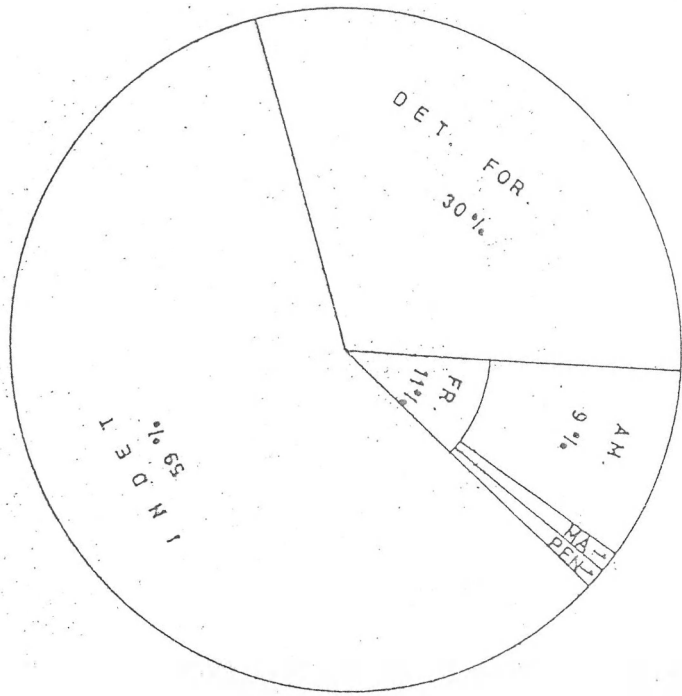
- 7,6 m

df/g = 739

fr/g = 263

indet/g = 1429

T/g = 2431



L 131

LAGOON

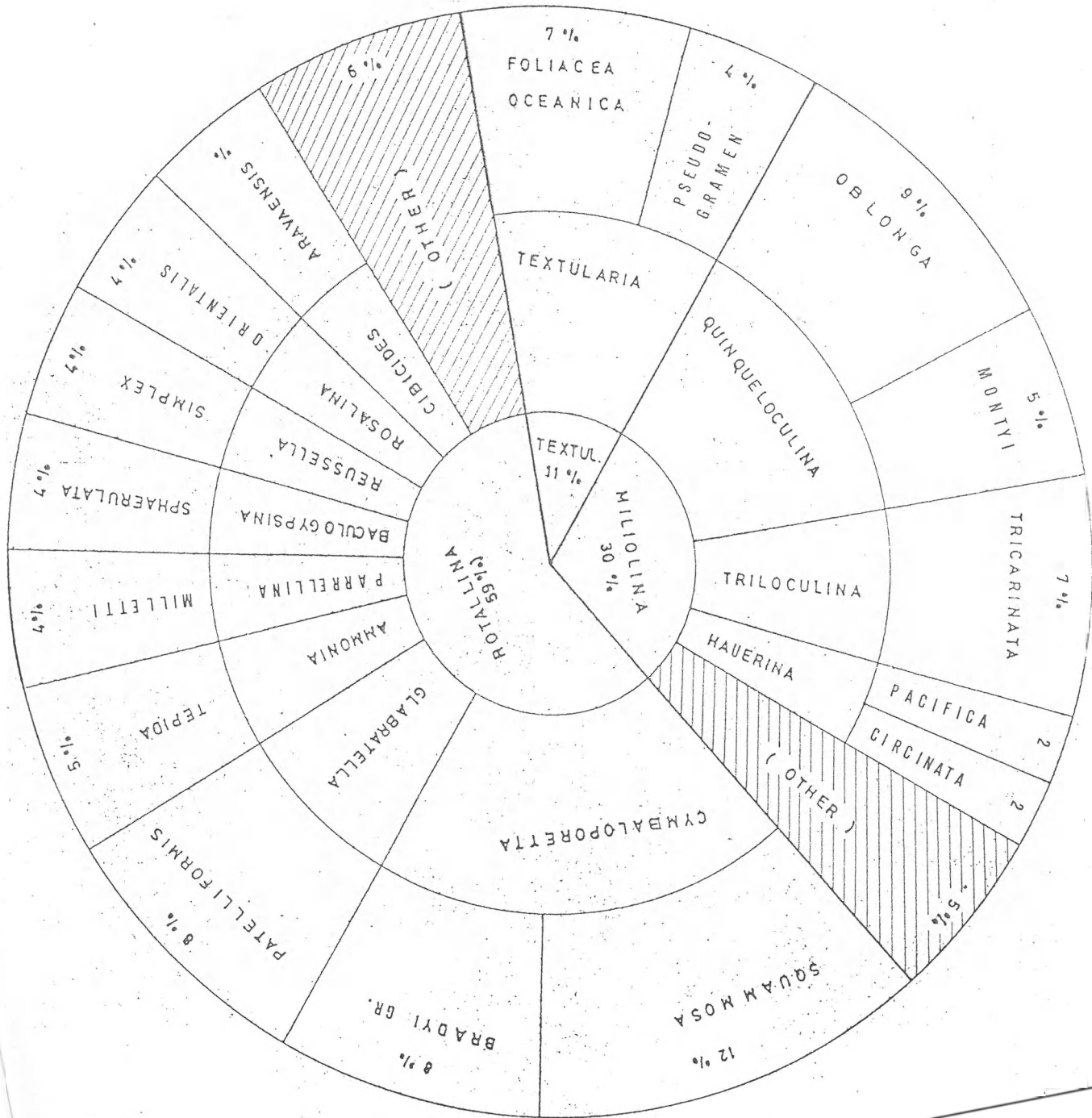
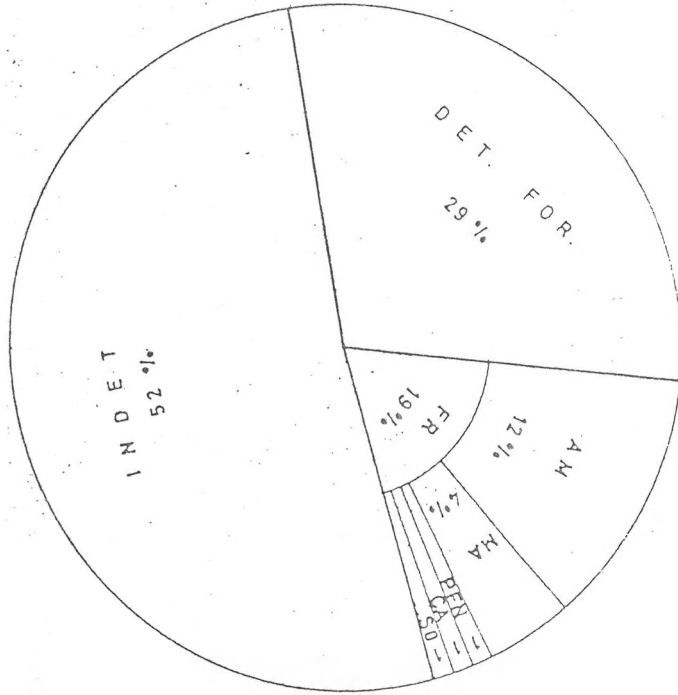
- 4,8 m

df/g = 476

fr/g = 317

indet/g = 864

T/g = 1657



L 134

LAGOON

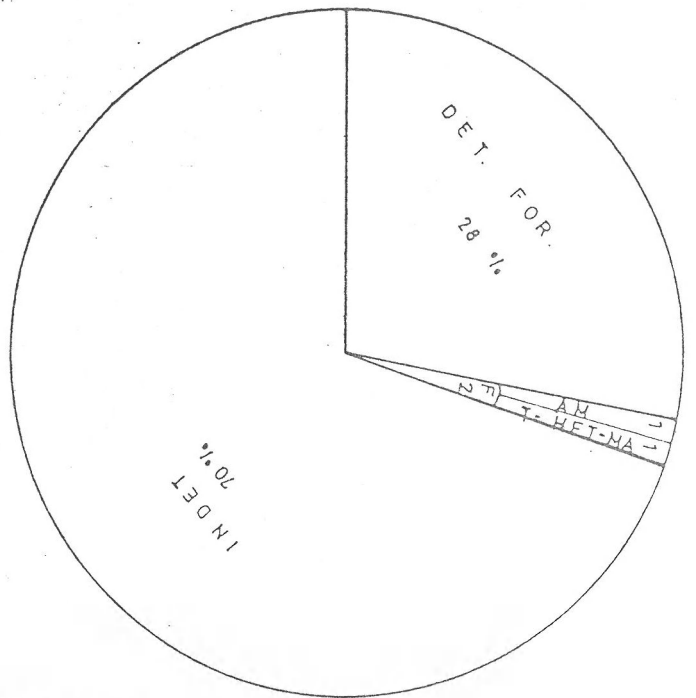
- 7 m

df/g = 1842

fr/g = 131

indet/g = 4720

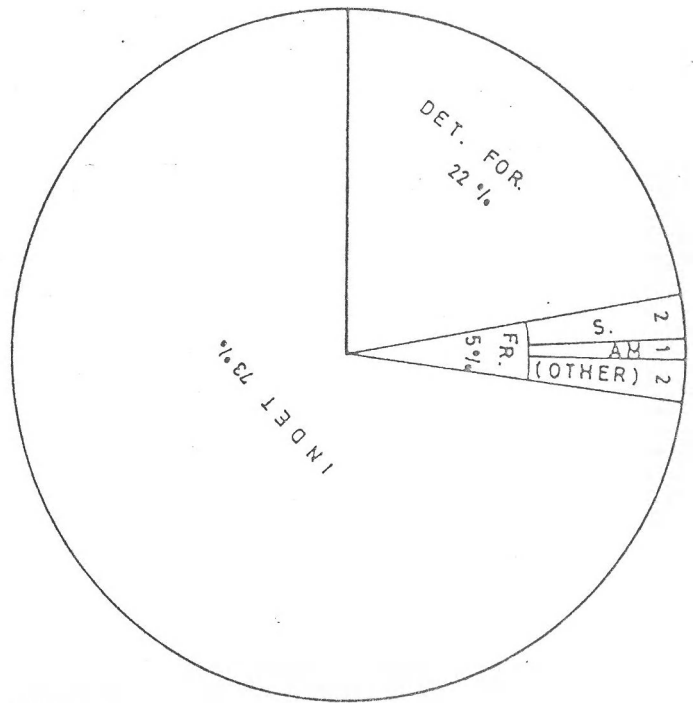
T/g = 6693



L 136

LAGOON
- 7,6 m

df/g = 776
fr/g = 166
indet/g = 2649
T/g = 3591



L 139

LAGOON

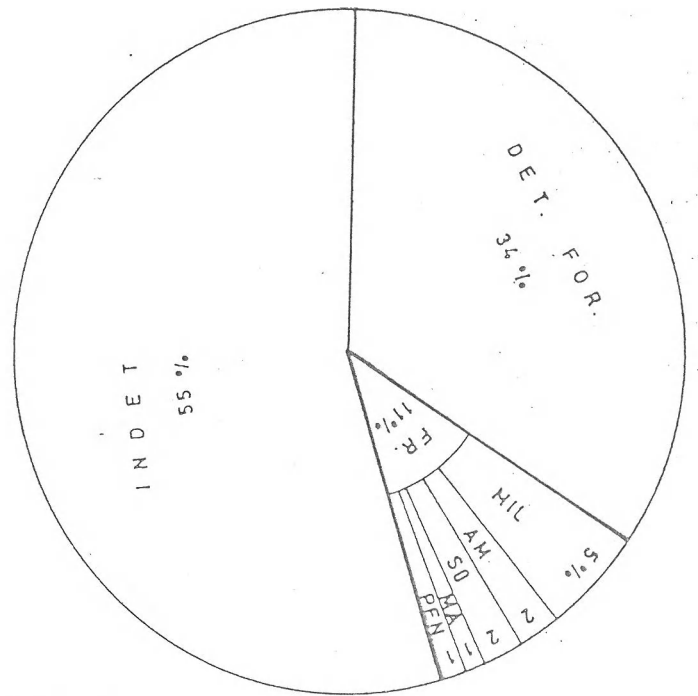
- 2,1 m

df/g = 587

fr/g = 183

indet/g = 935

T/g = 1705



L 151

LAGOON

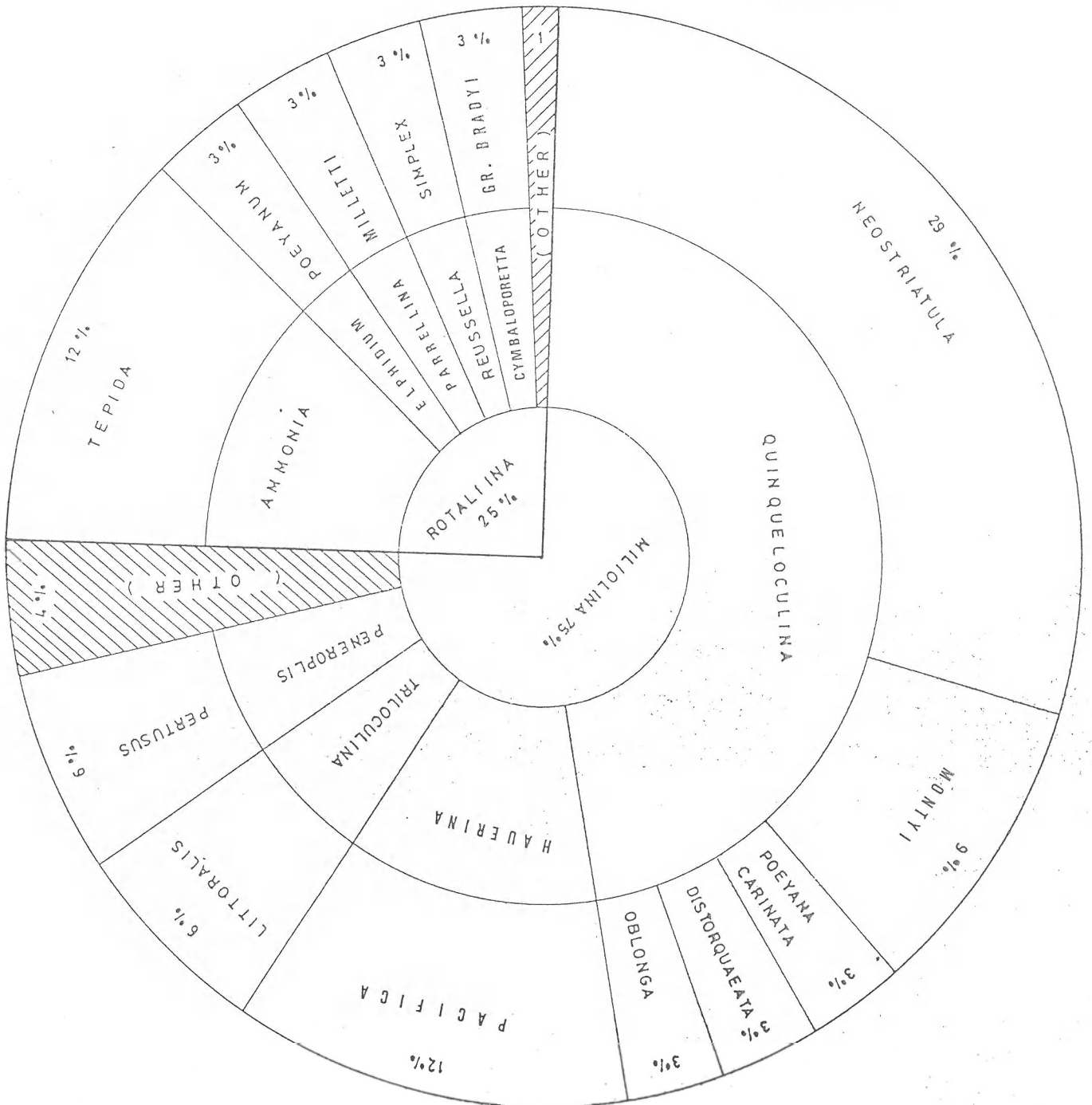
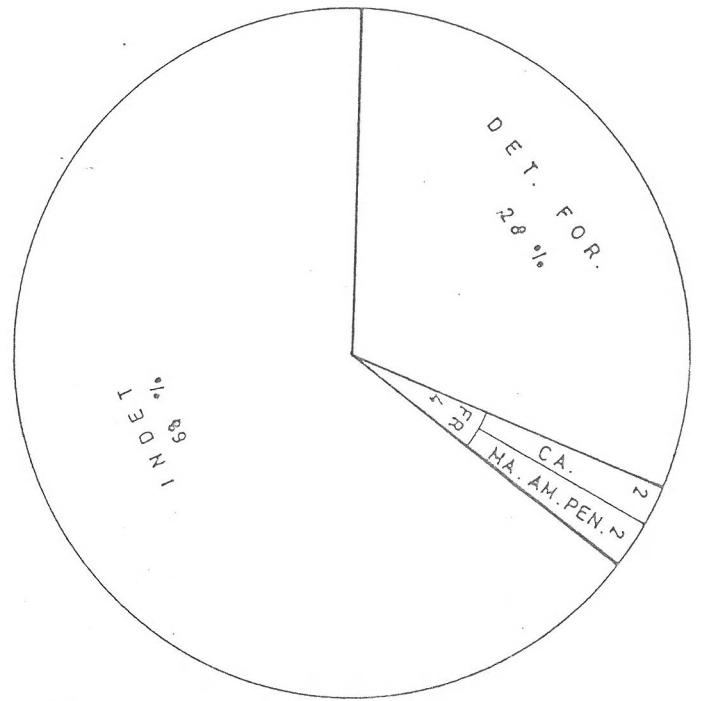
- 3,7 m

df/g = 342

fr/g = 50

indet/g = 845

T/g = 1237



L 121

LAGOON

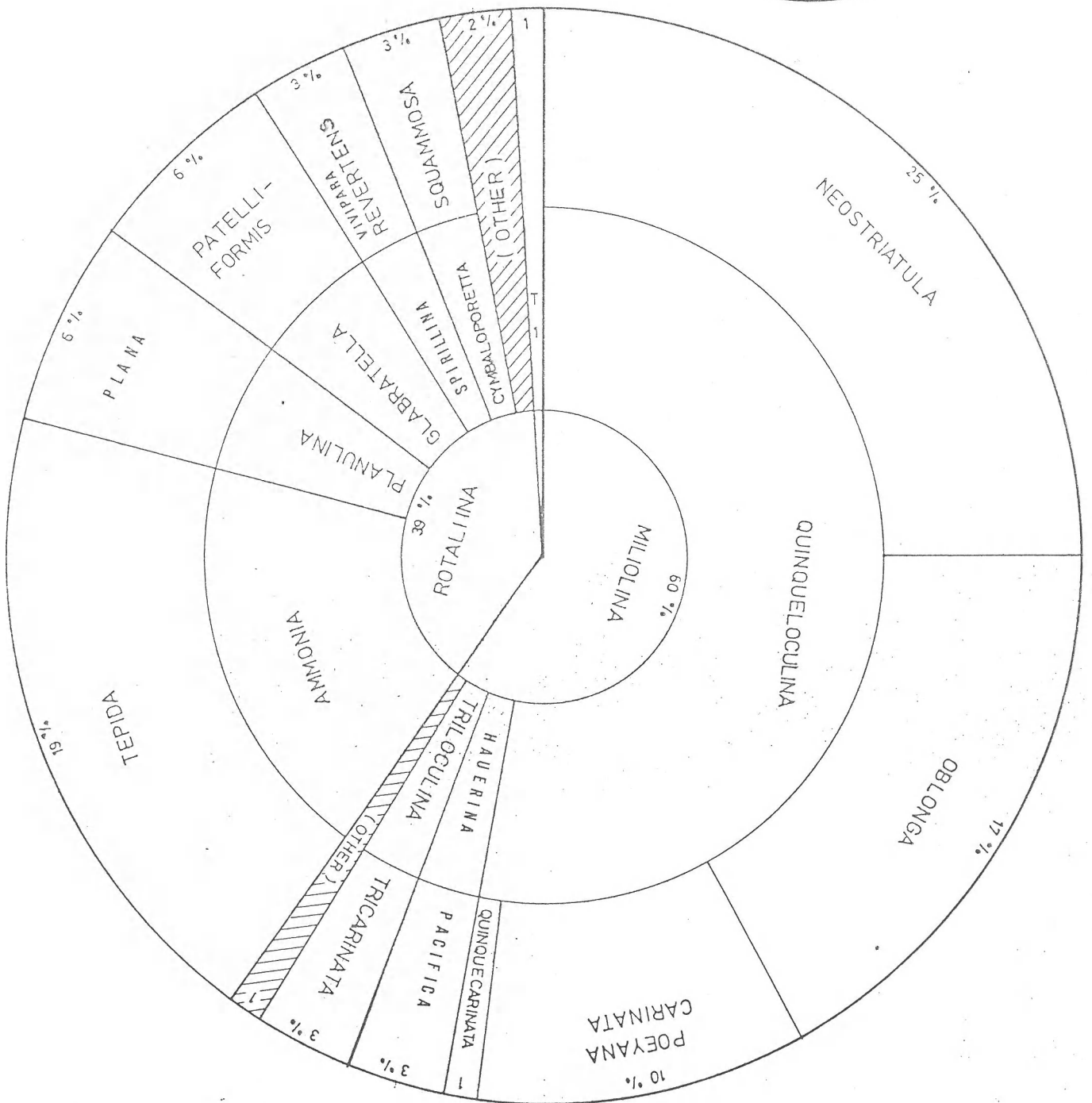
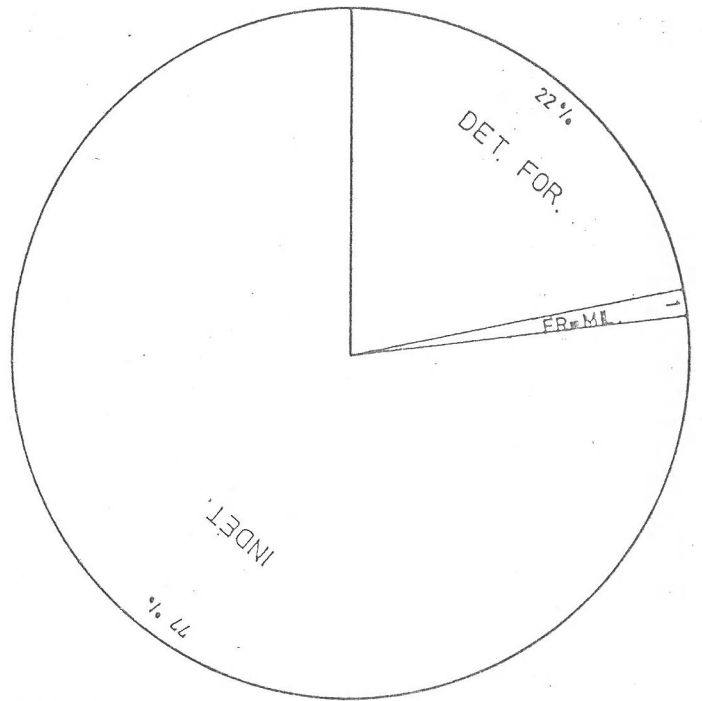
- 7,9 m

df/g = 992

fr/g = 41

indet/g = 3553

T/g = 4586



L 120

LAGOON ENTRANCE

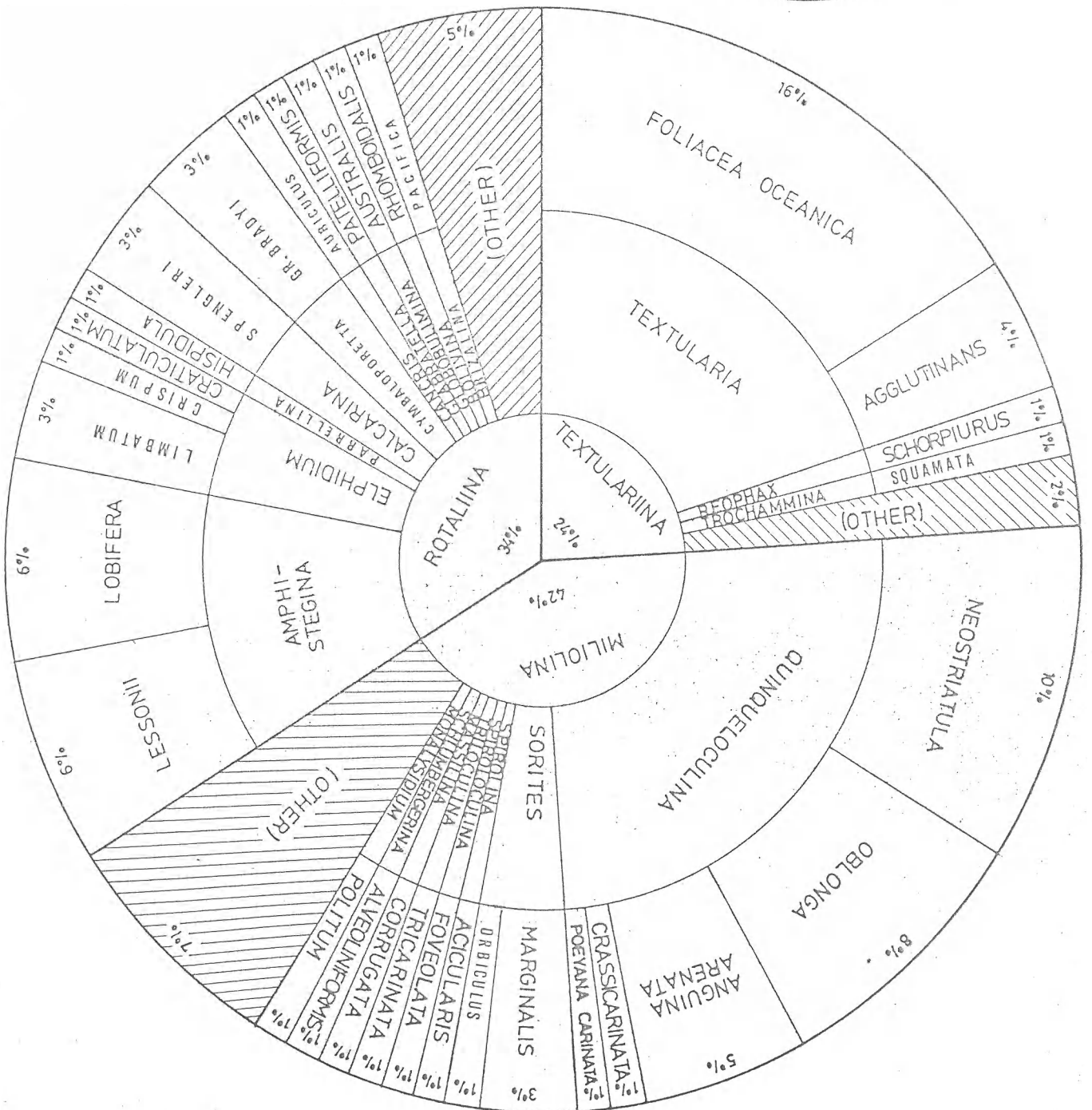
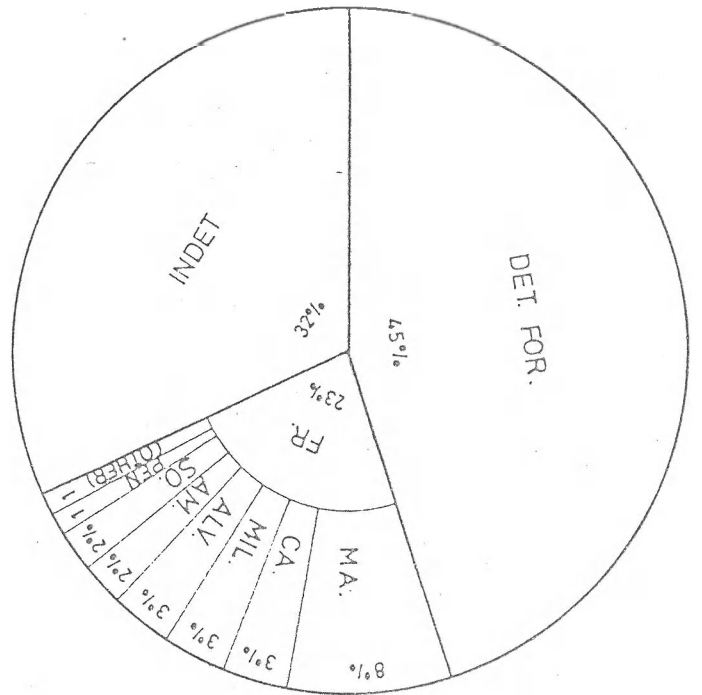
- 16,7 m

df/g = 247

fr/g = 126

indet/g = 172

T/g = 545



PERIREEFAL AREA (N)

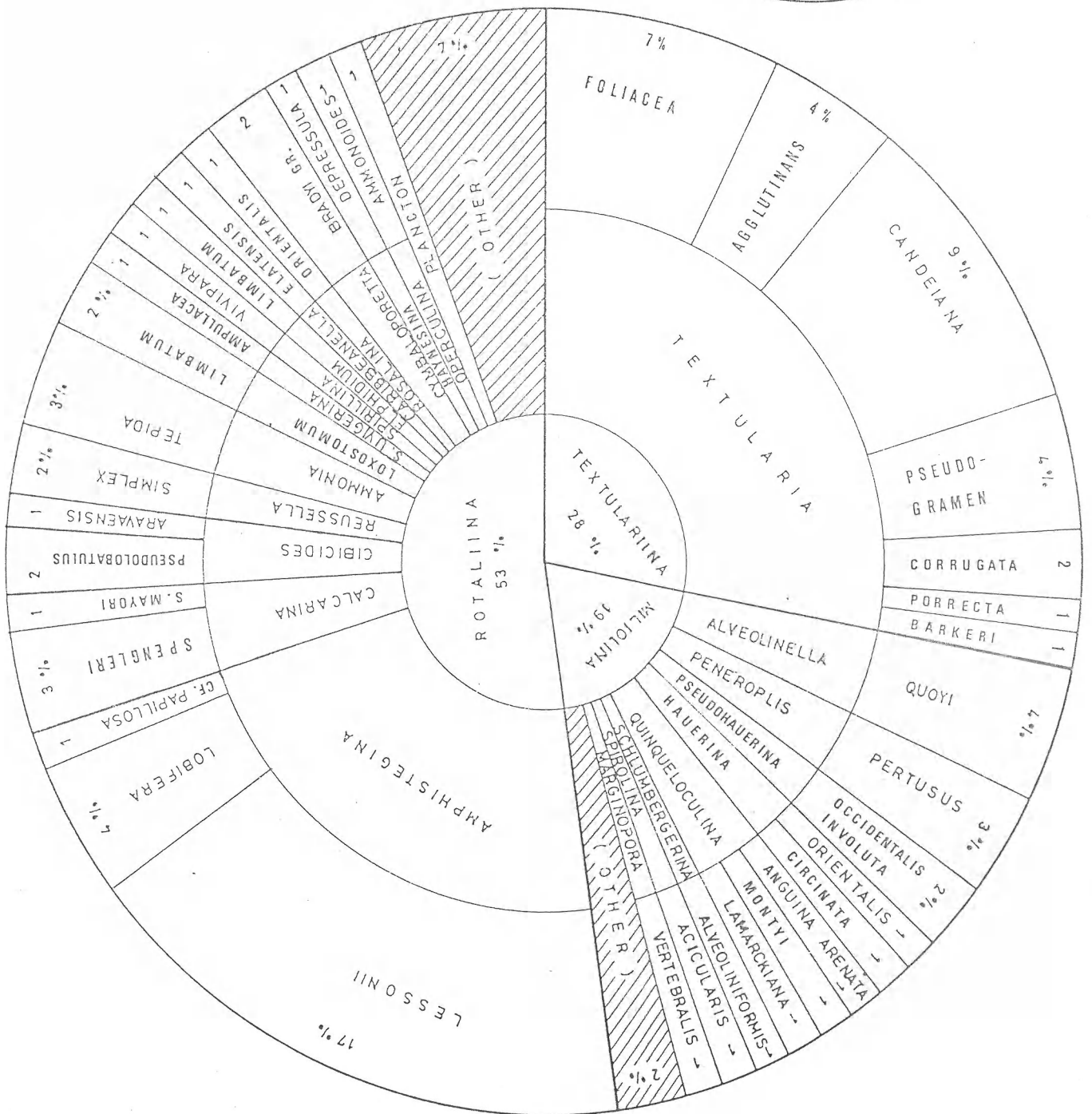
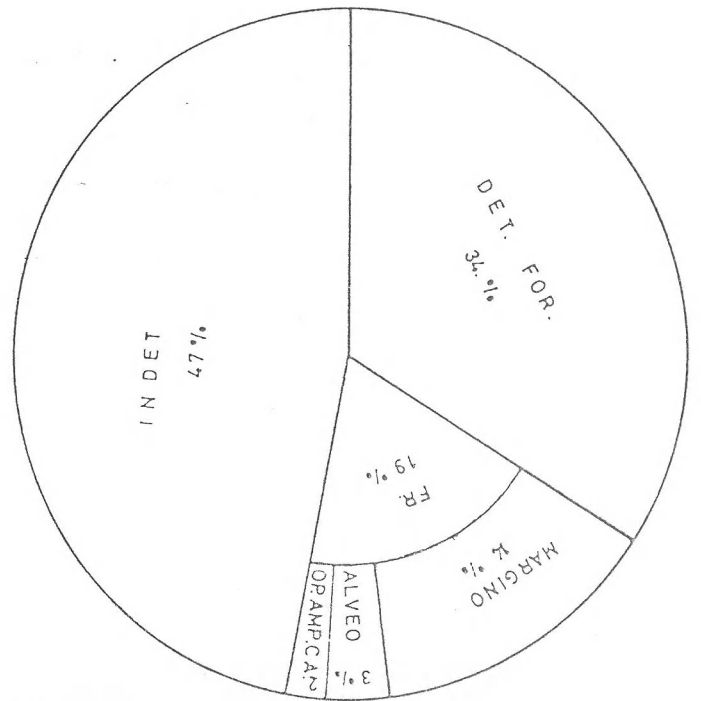
- 16 m

df/g = 1823

fr/g = 1047

indet/g = 2509

T/g = 5379



PERIREEFAL AREA (N)

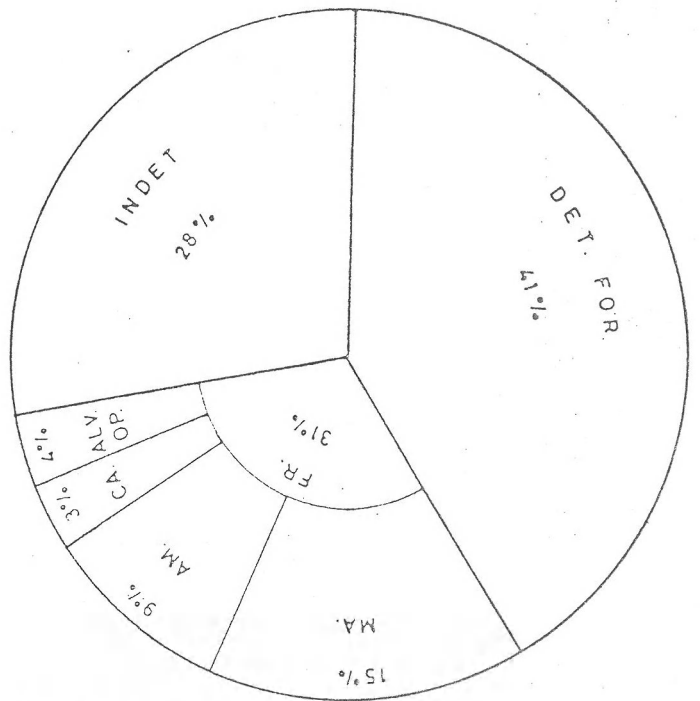
- 25 m

df/g = 2808

fr/g = 2106

indet/g = 1985

T/g = 6899



L 56

PERIREEFAL AREA (N)

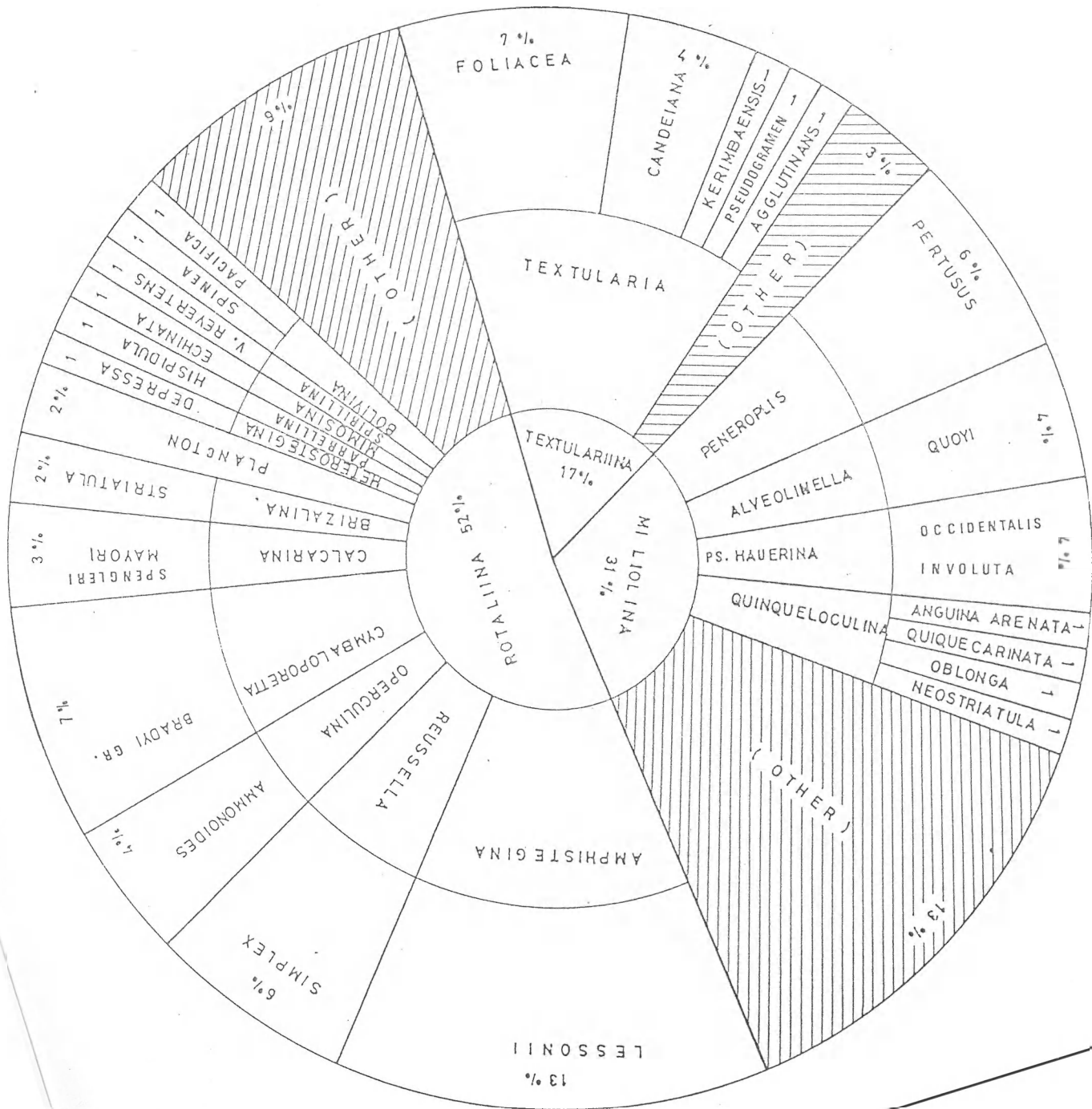
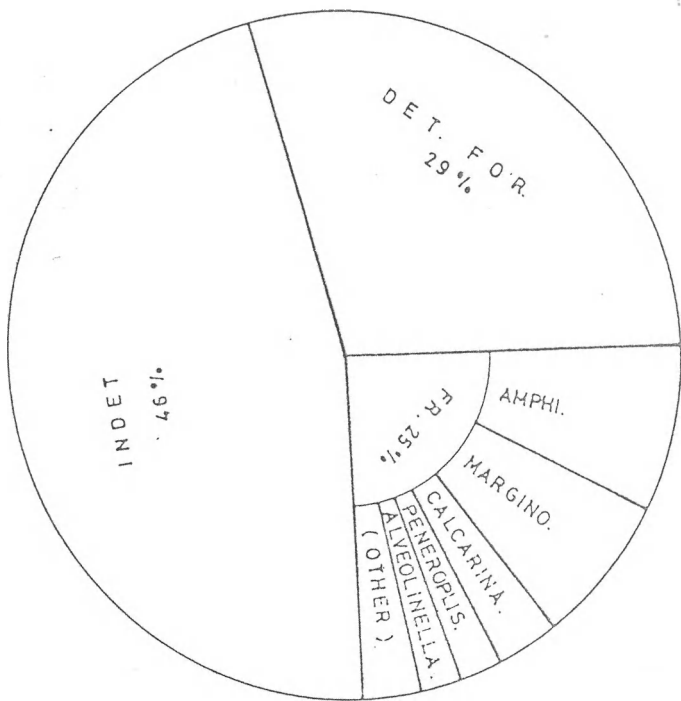
- 22 m

af/g = 2182

fr/g = 1847

indet/g = 3391

T/g = 7420



L 59

PERIREEFAL AREA (NE)

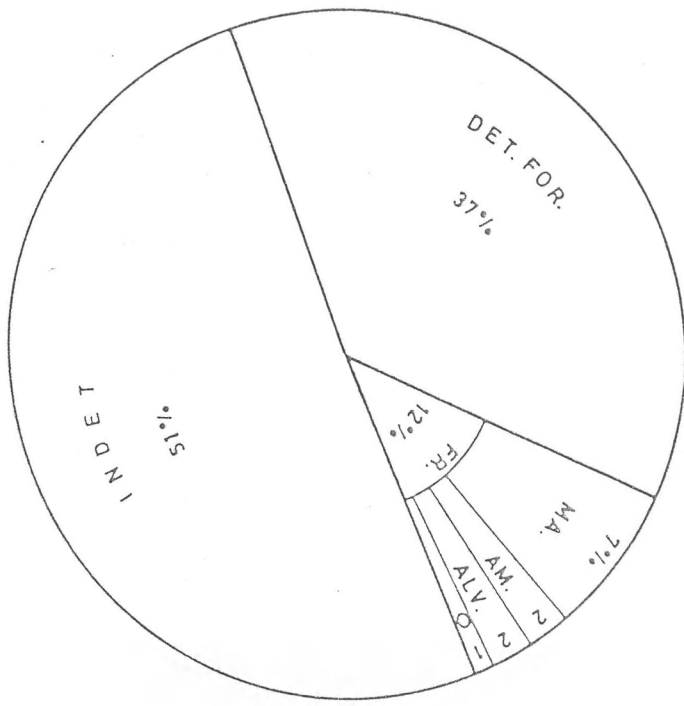
- 26 m

df/g = 1484

fr/g = 469

indet/g = 2109

T/g = 4062



L 60

PERIREEFAL AREA (NE)

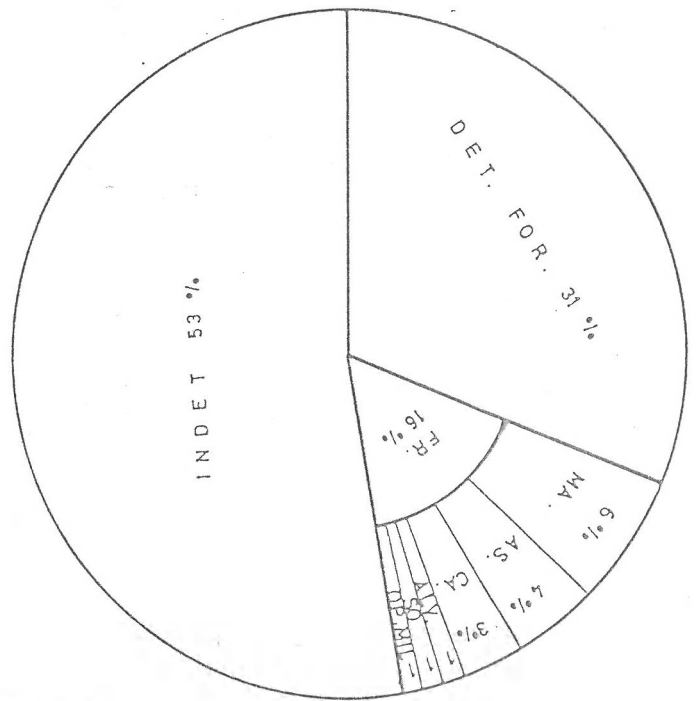
- 21 m

df/g = 3874

fr/g = 1978

indet/g = 6505

T/g = 12357



L 62

PERIREEFAL AREA (NE)

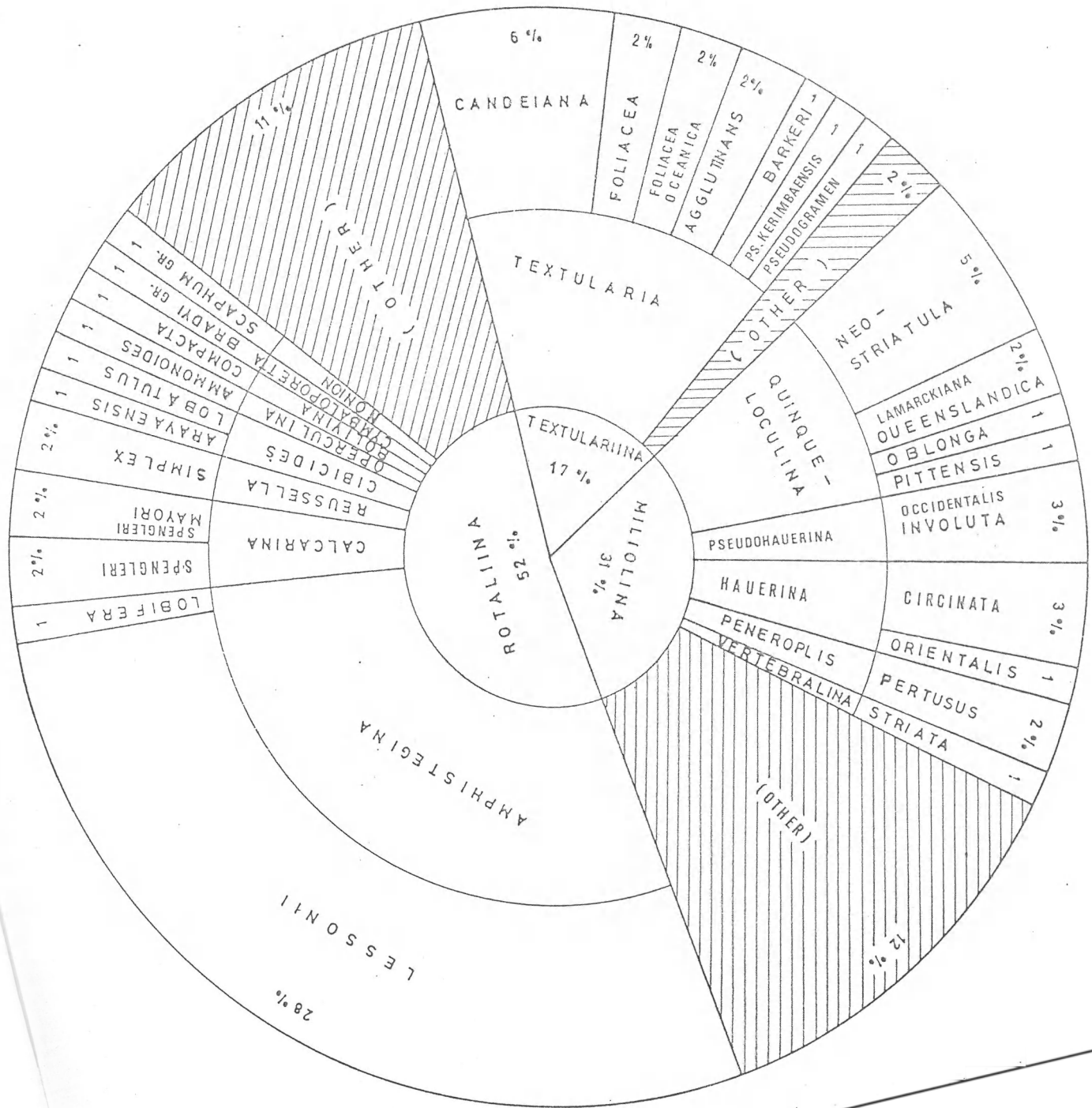
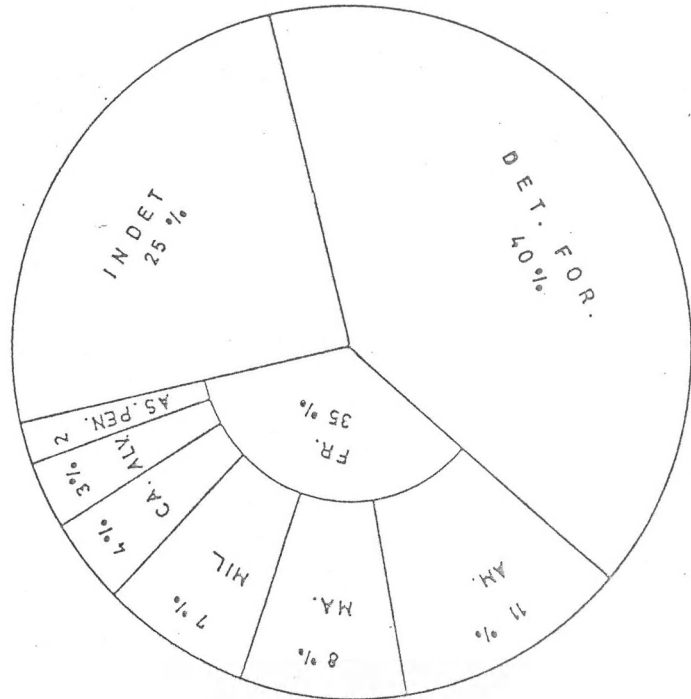
- 21 m

df/g = 1928

fr/g = 1673

indet/g = 1245

T/g = 4846



PERIREEFAL AREA (NE)

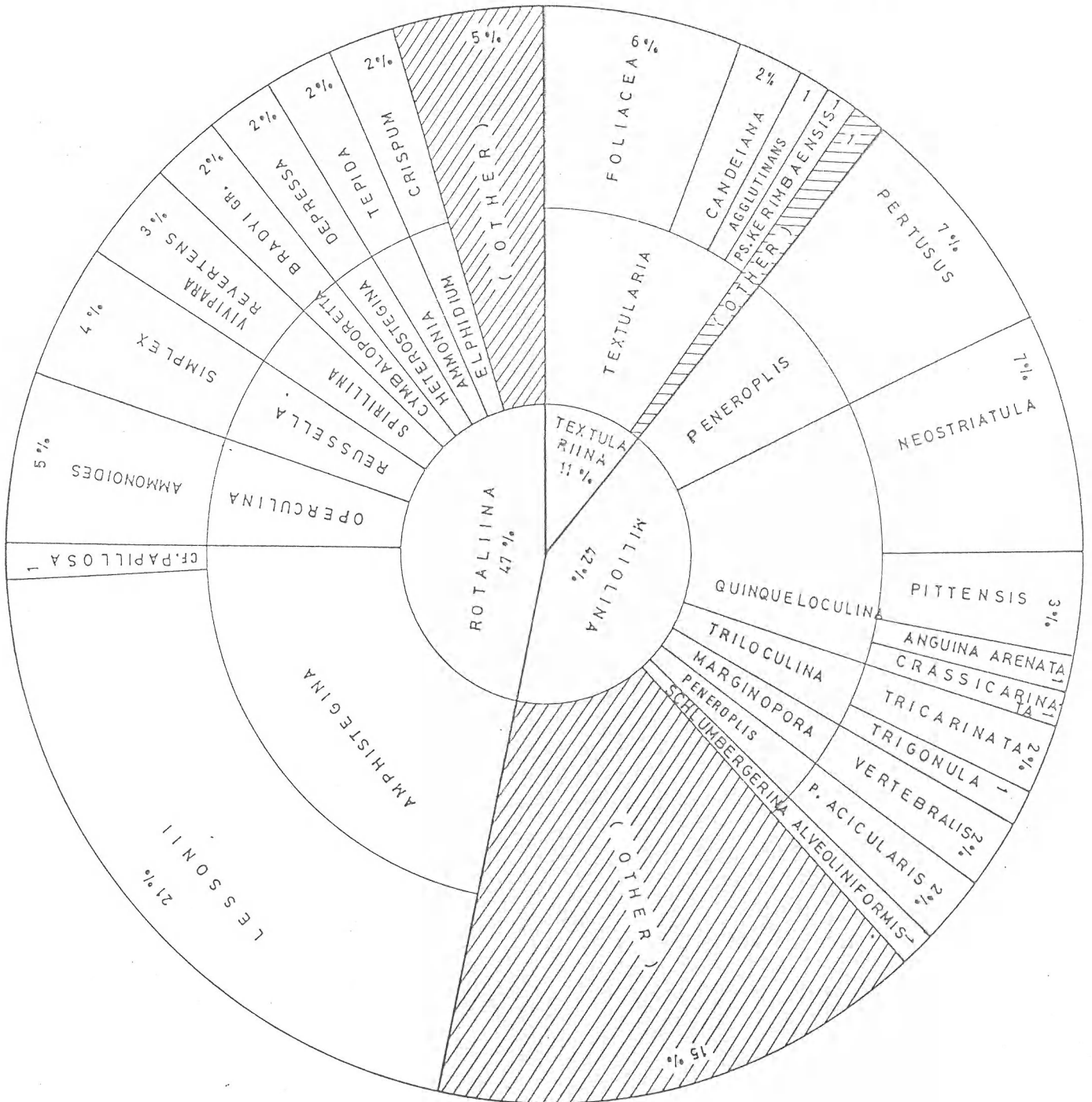
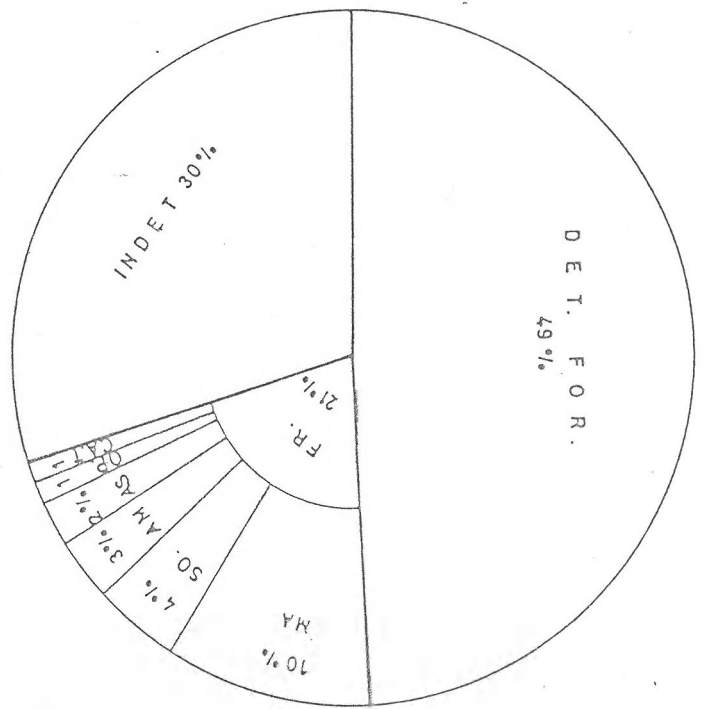
- 21 m

df/g = 1439

fr/g = 606

indet/g = 871

T/g = 2916



L 65

PERIREEFAL AREA (E)

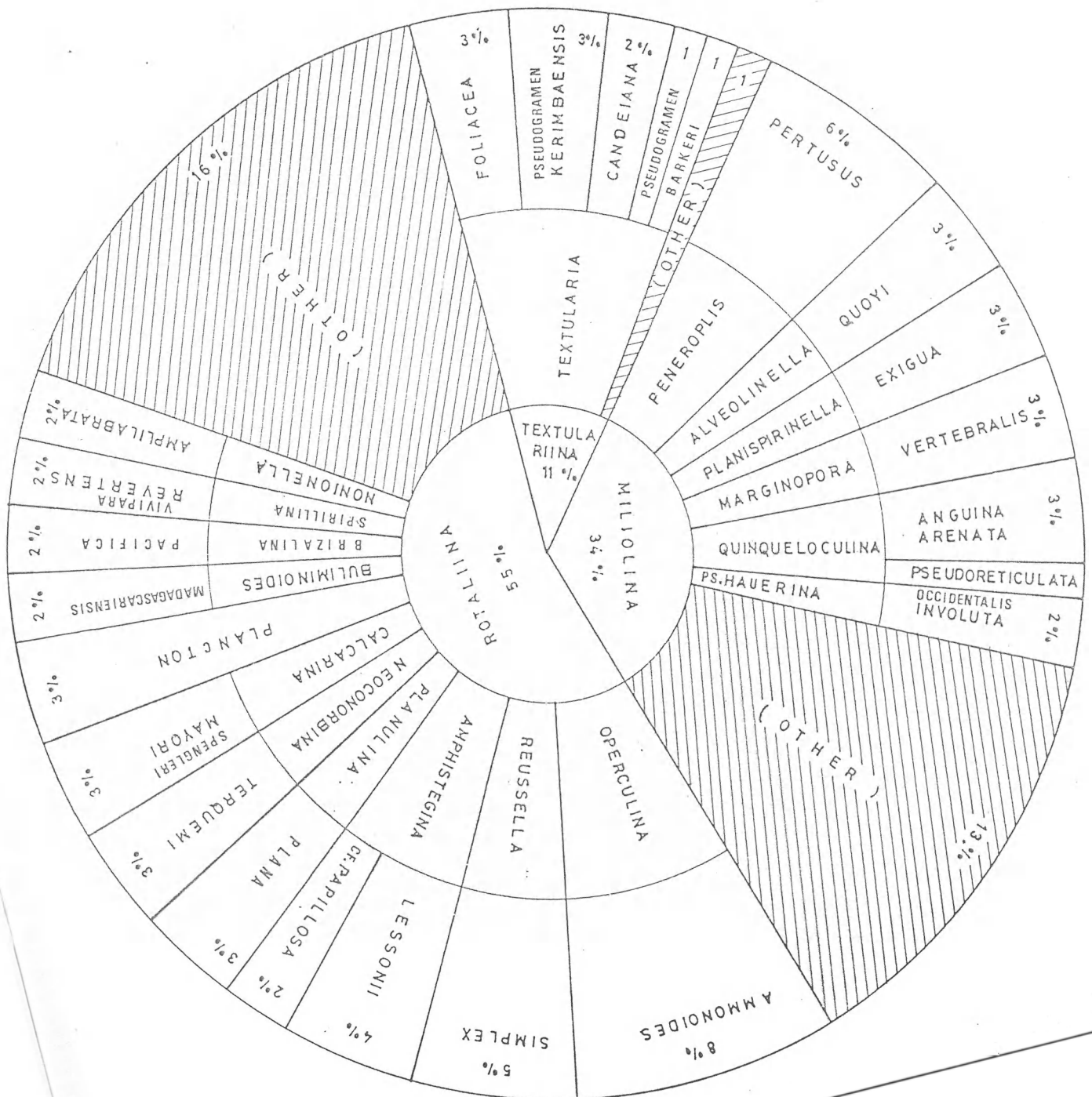
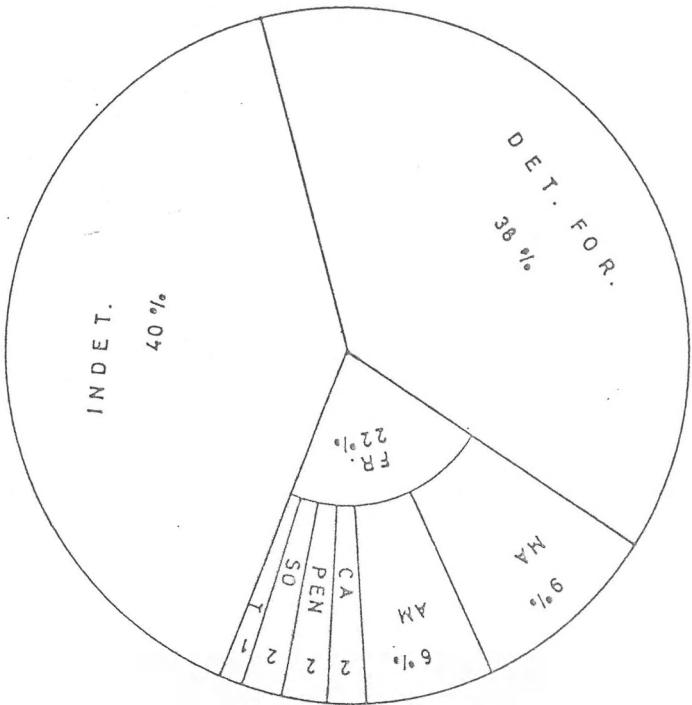
- 32 m = 1149

df/g = 665

fr/g = 1239

indet/g = 3053

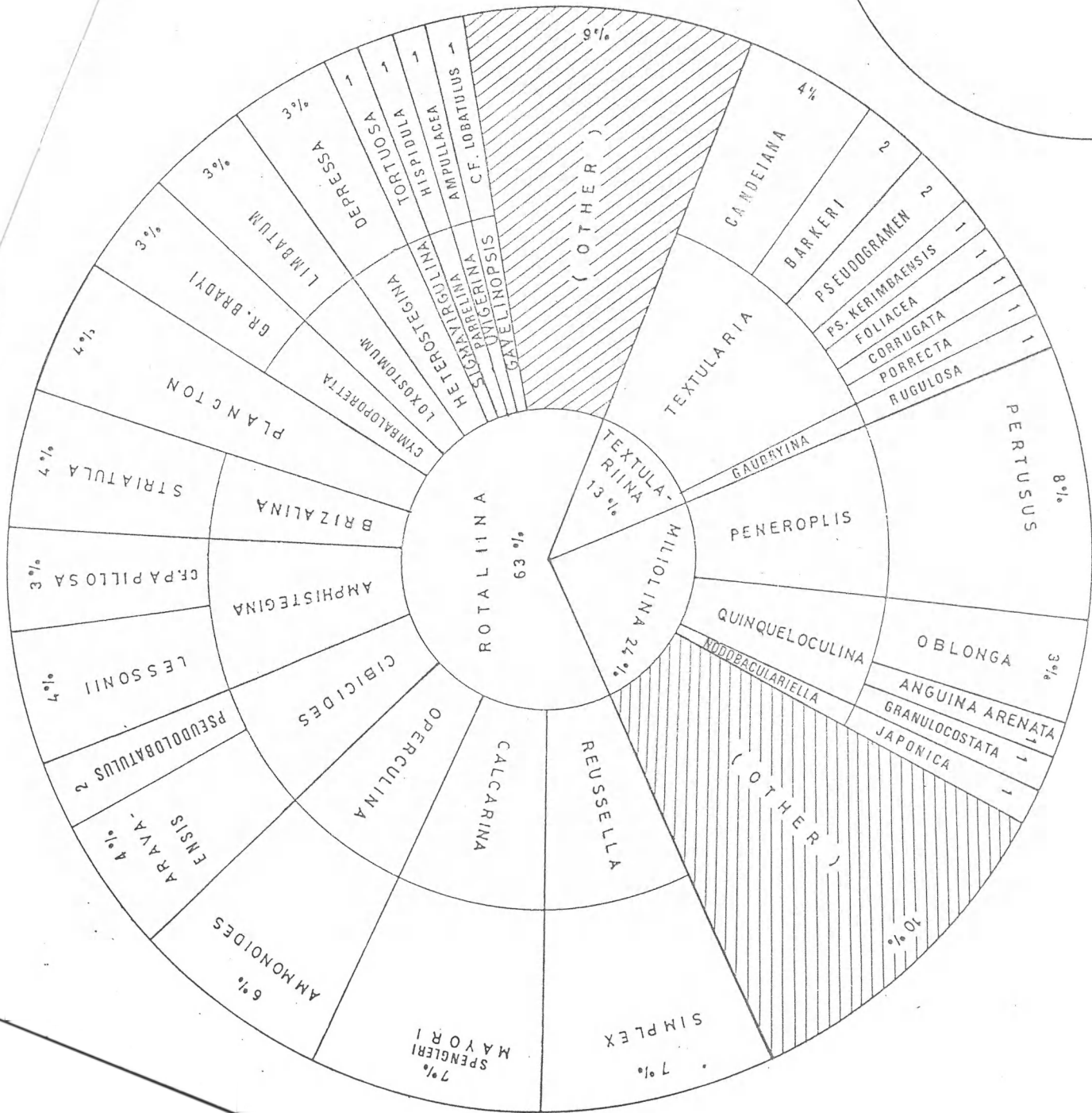
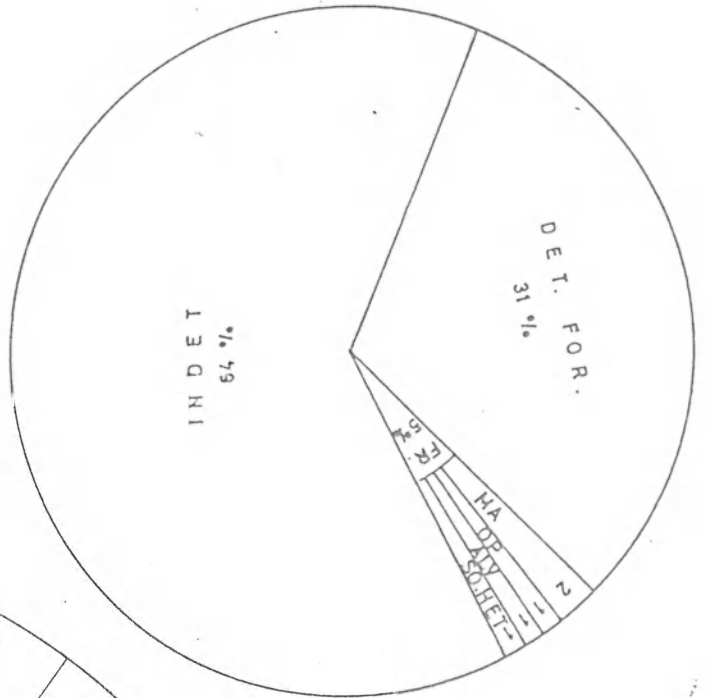
T/g



L 67

PERIREEFAL AREA (E)
- 31 m

df/g = 786
fr/g = 131
indet/g = 1583
T/g = 2500



L 71

PERIREEFAL AREA (SE)

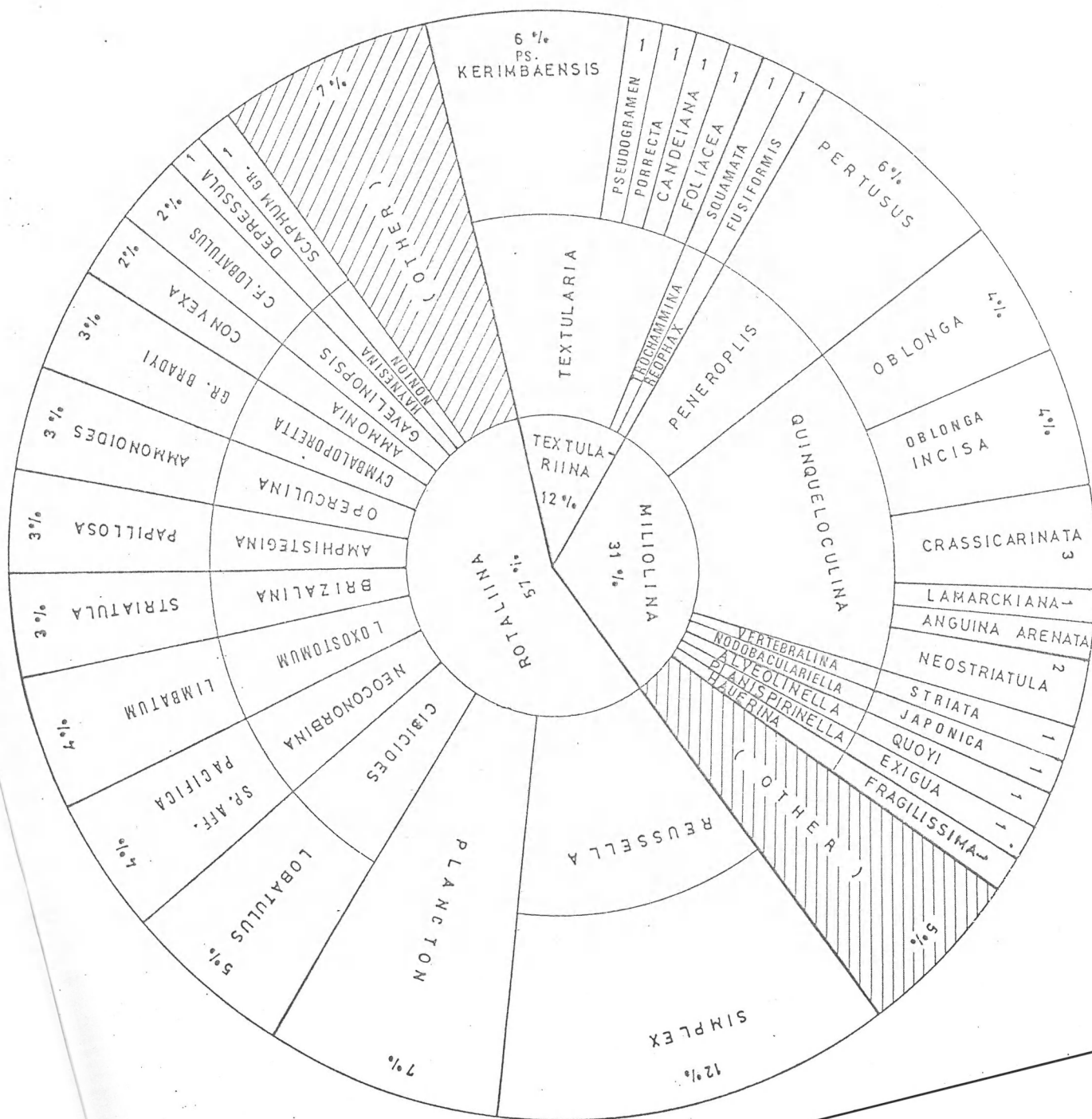
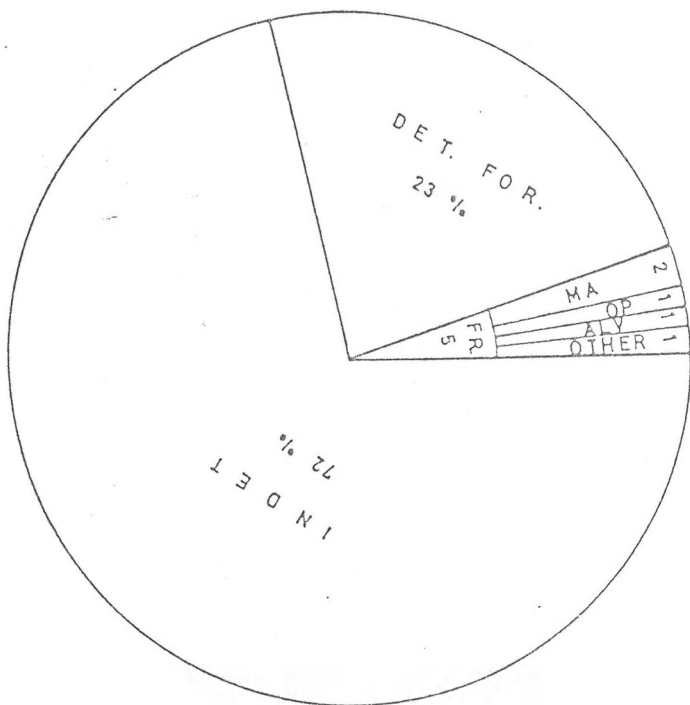
- 31 m

df/g = 440

fr/g = 102

indet/g = 1338

T/g = 1881



L 72

PERIREEFAL AREA (SE)

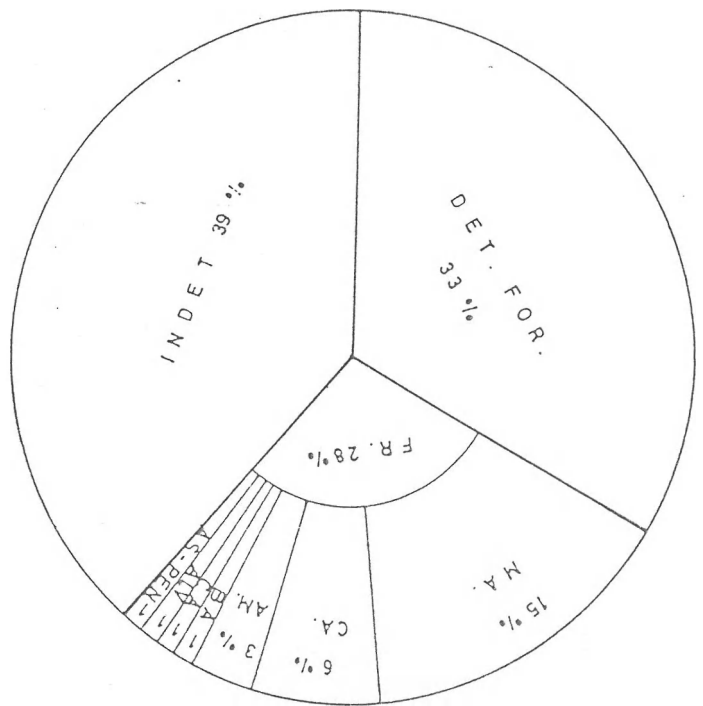
- 12 m (Terrace)

df/g = 482

fr/g = 417

indet/g = 567

T/g = 1475



PERIREEFAL AREA (SE)

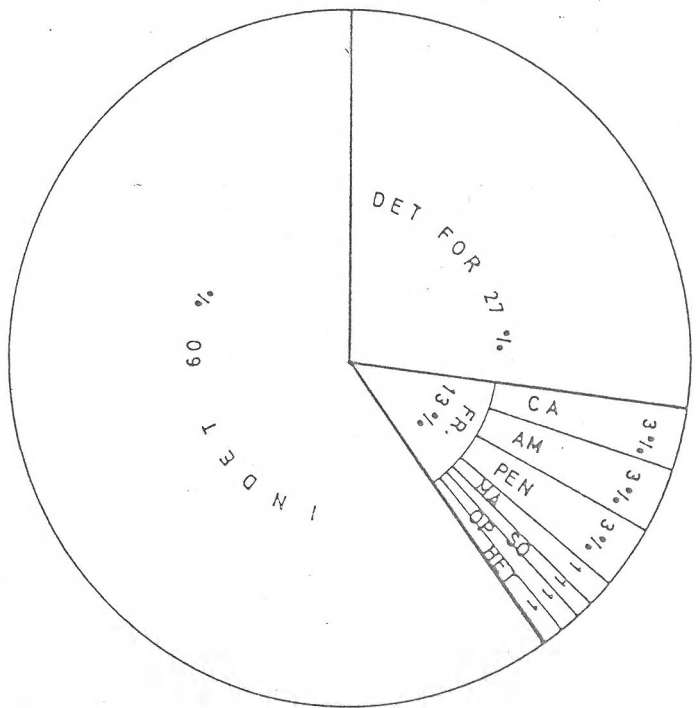
- 27 m

df/g = 51

fr/g = 24

indet/g = 117

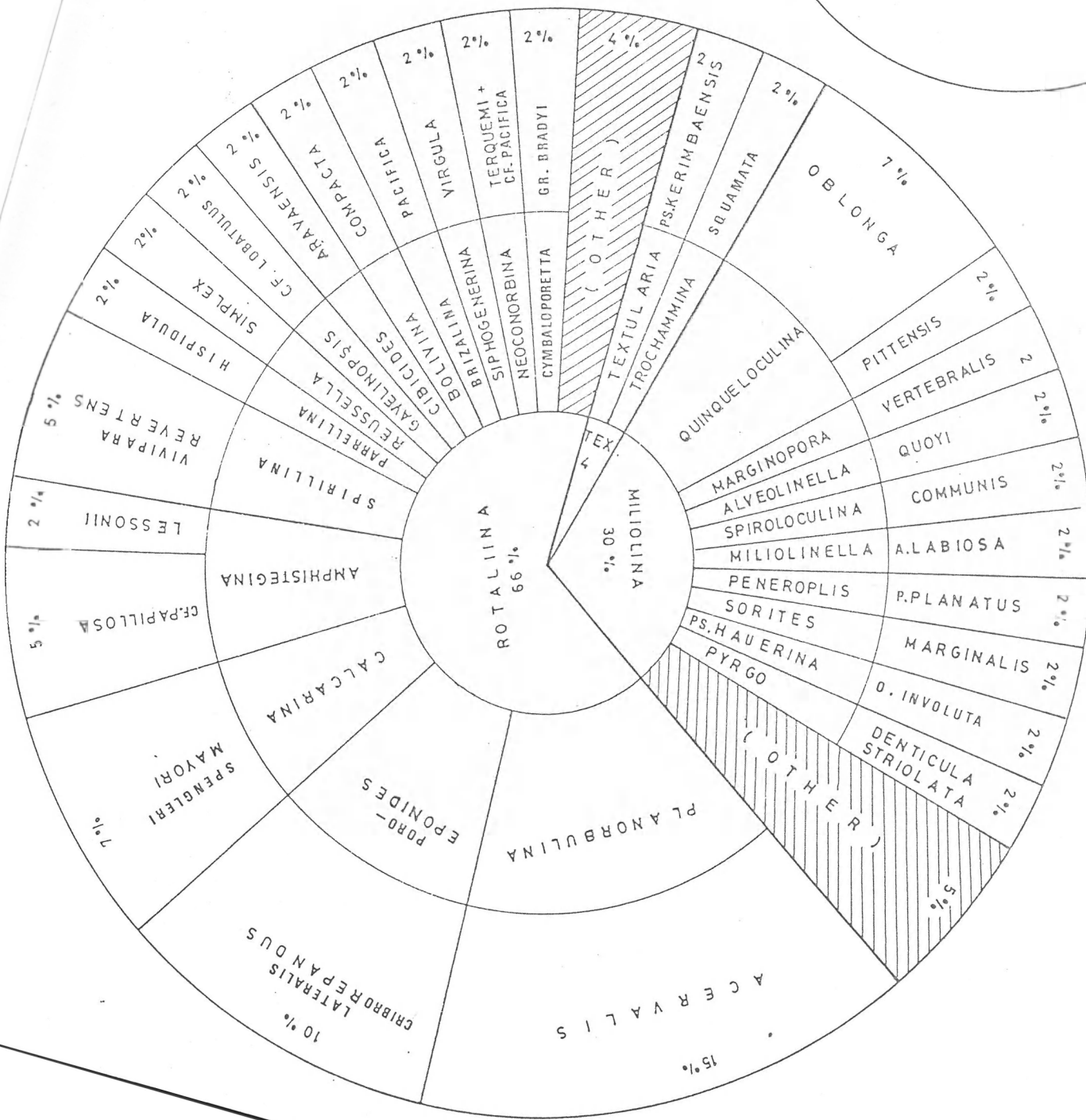
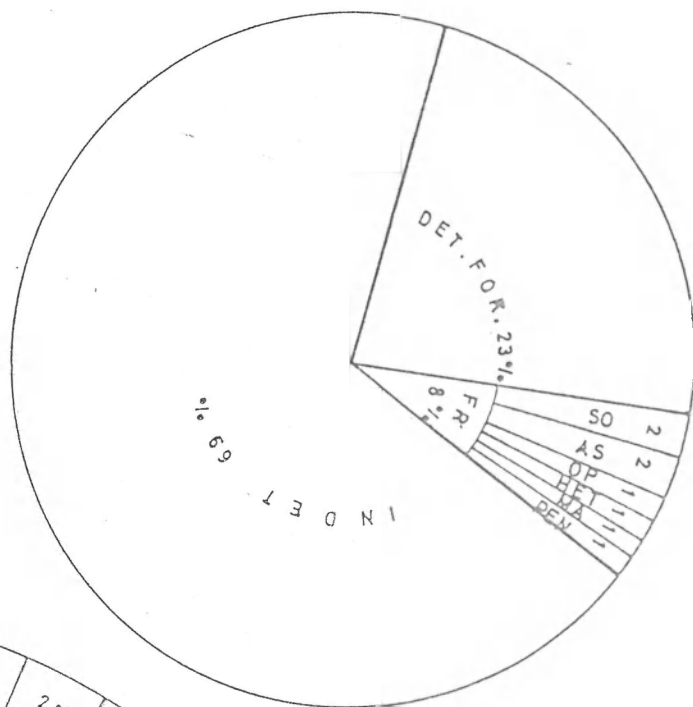
T/g = 192



L 77

PERIREEFAL AREA (SE)
 - 22 m

df/g = 43
 fr/g = 14
 indet/g = 127
 T/g = 184



L 81

PERIREEFAL AREA (SE)

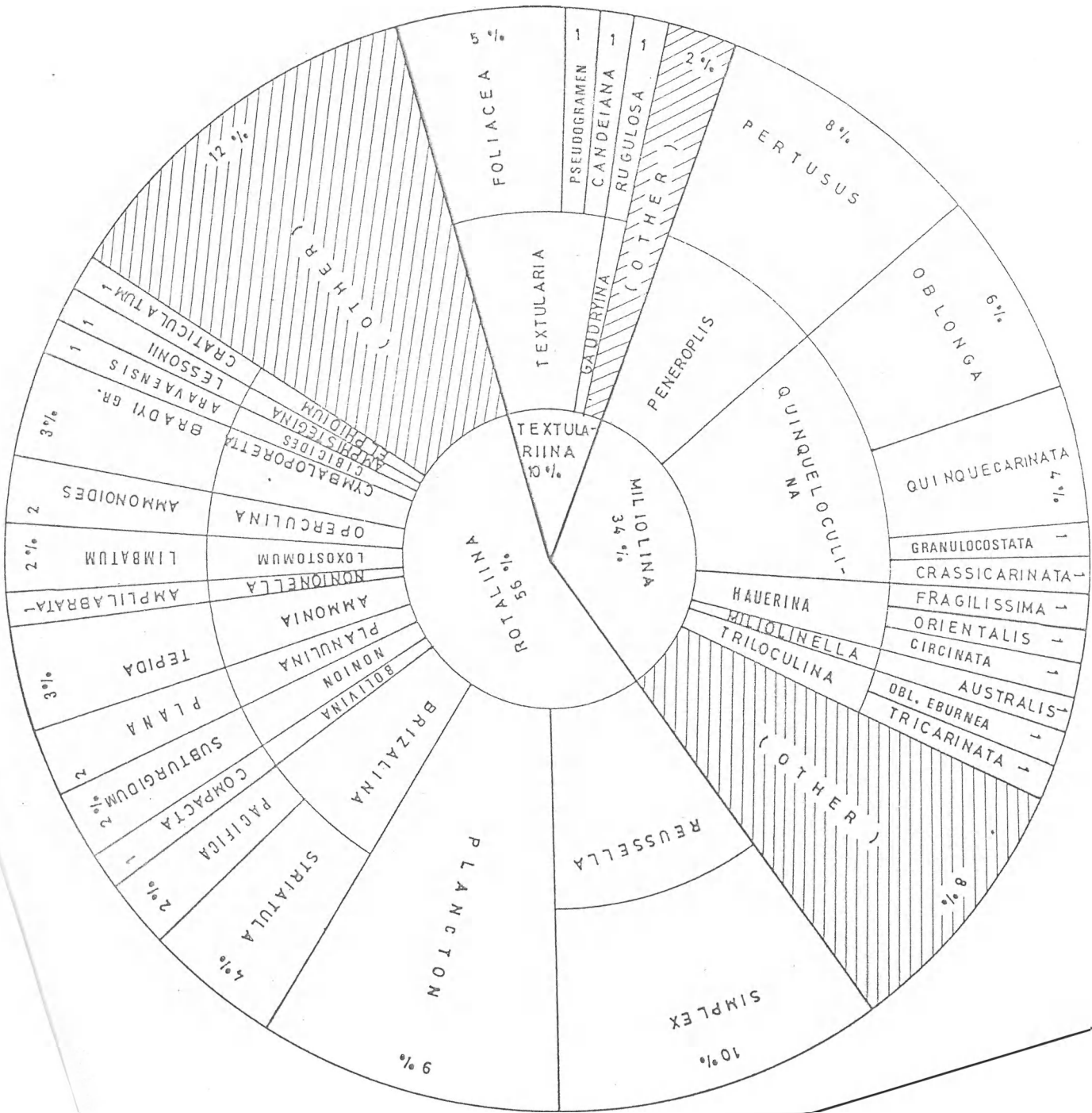
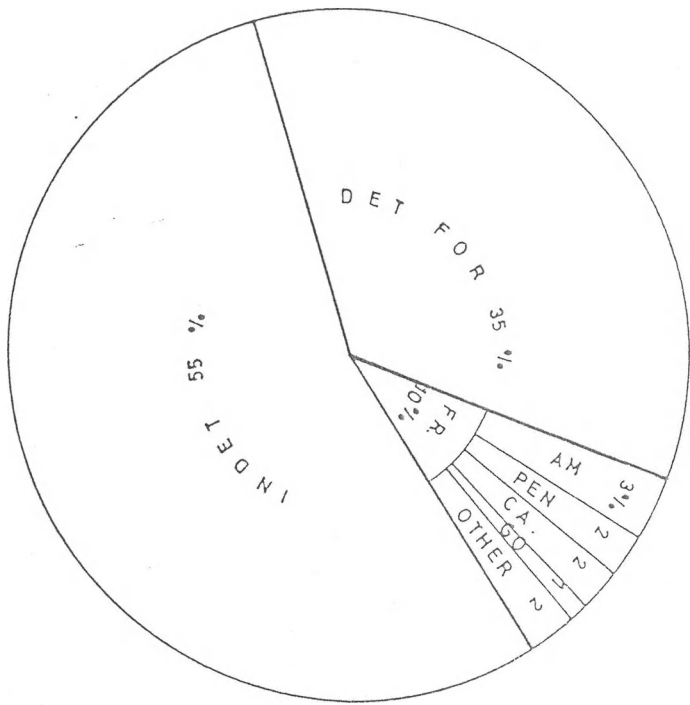
- 30 m

df/g = 2564

fr/g = 763

indet/g = 3957

T/g = 7284



L 82

PERIREEFAL AREA (SE)

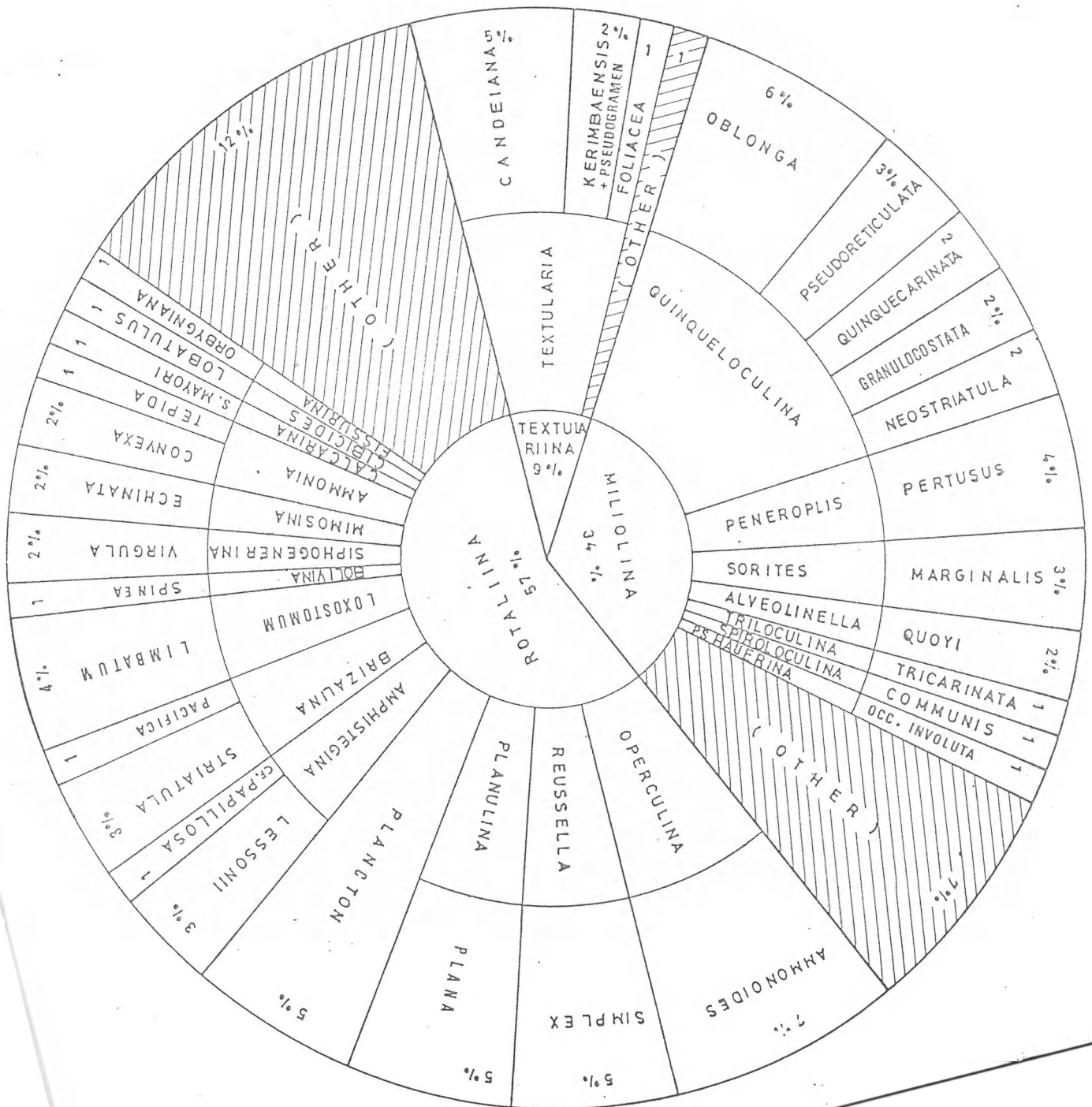
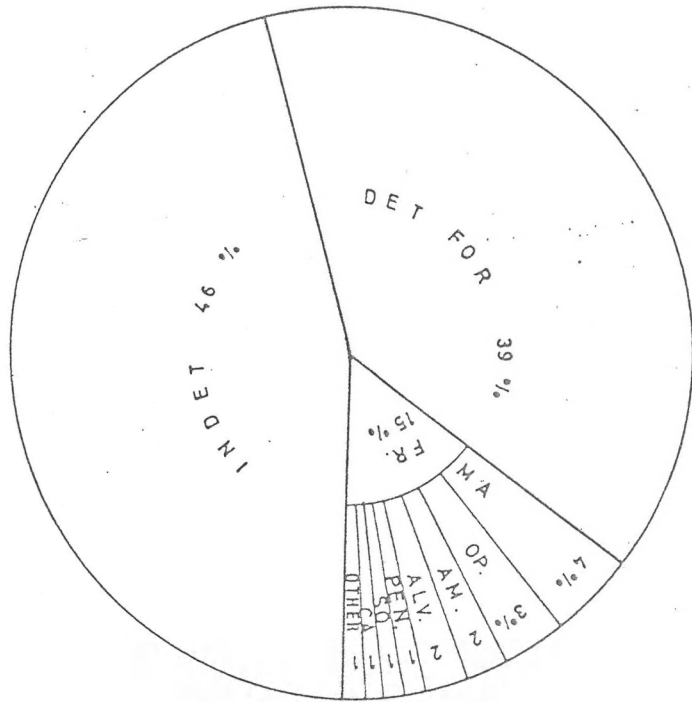
- 26 m

df/g = 4005

fr/g = 1542

indet/g = 4764

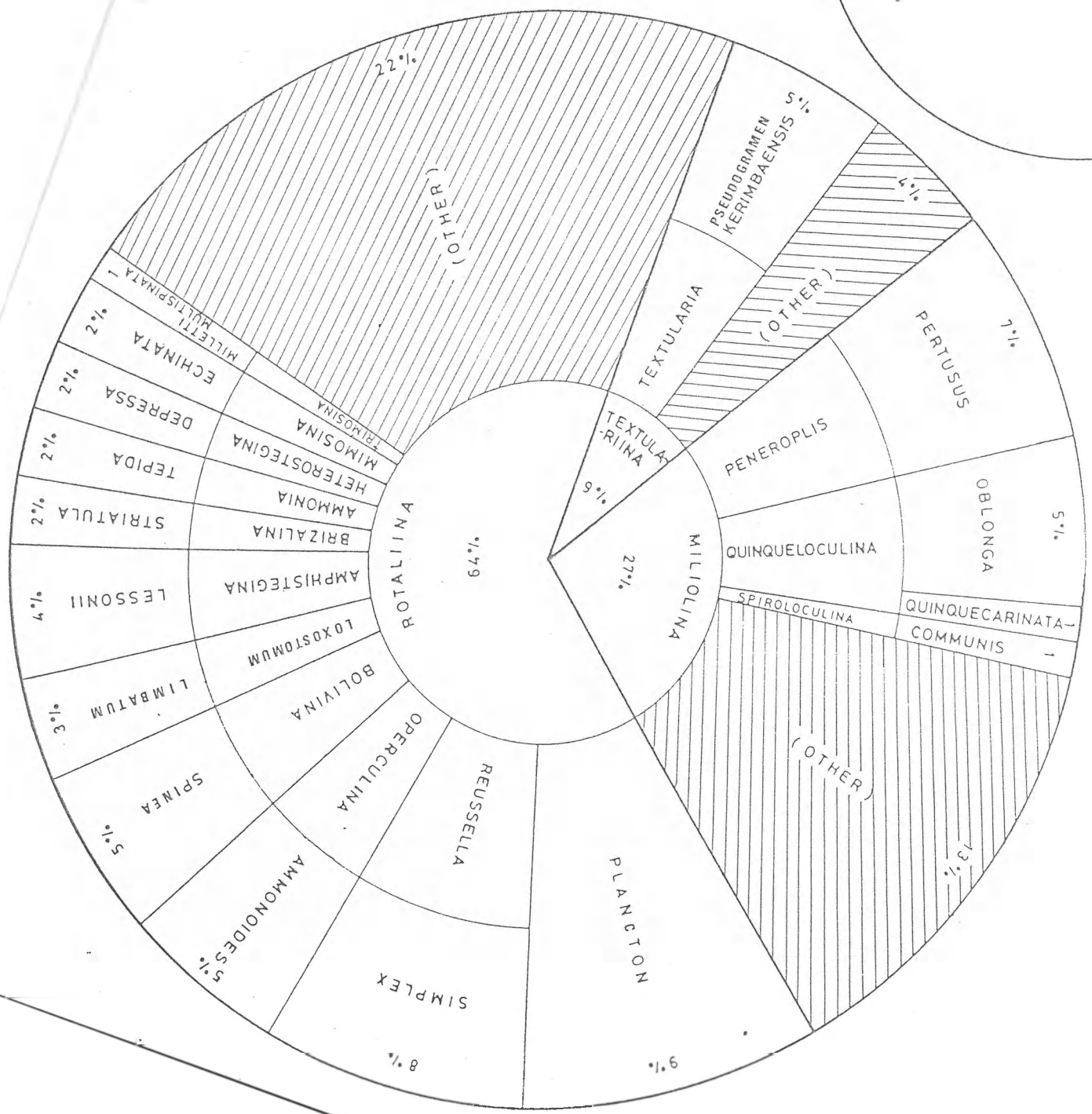
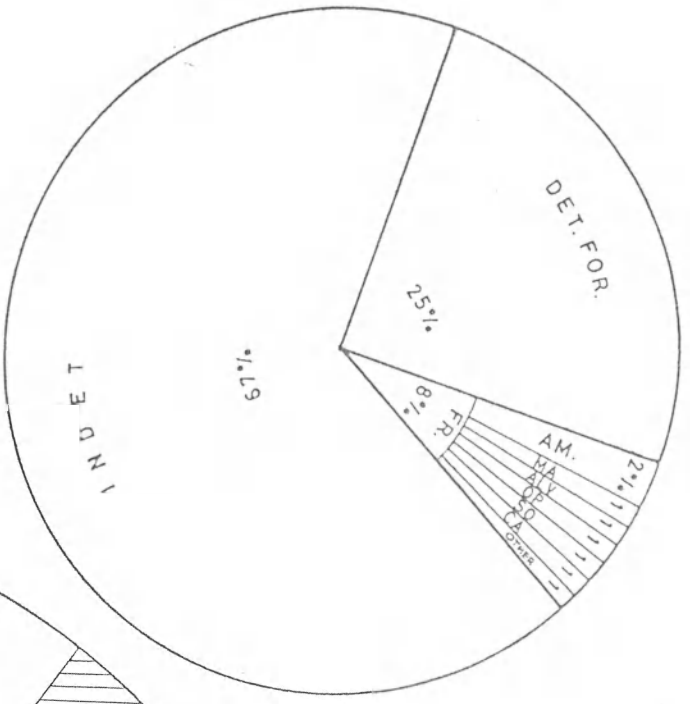
T/g = 10311



L 84

PERIREEFAL AREA (SE)
- 31 m

df/g = 1783
fr/g = 580
indet/g = 4815
T/g = 7178



L 86

PERIREEFAL AREA (SE)

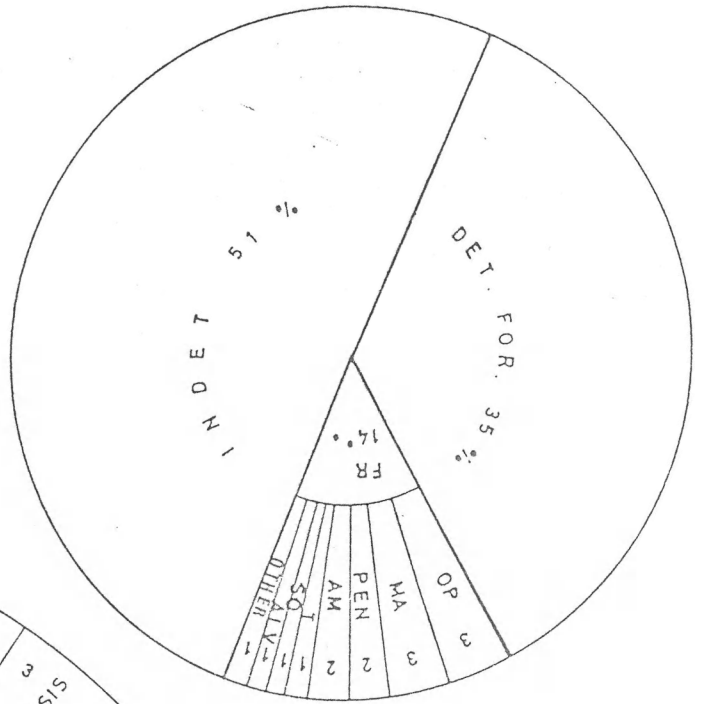
- 26 m

df/g = 7315

fr/g = 2930

indet/g = 10696

T/g = 20941



L 90

PERIREEFAL AREA (S)

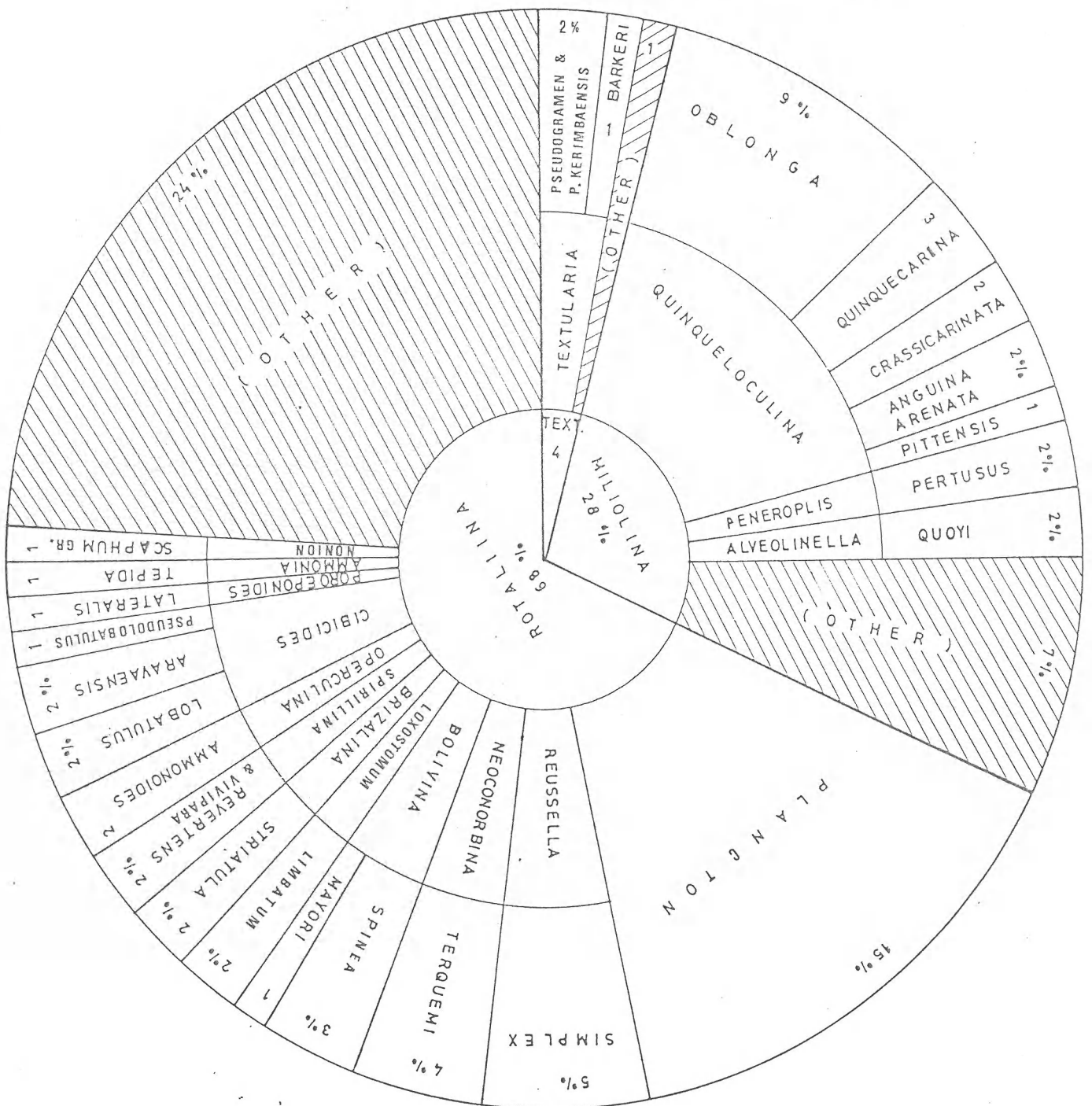
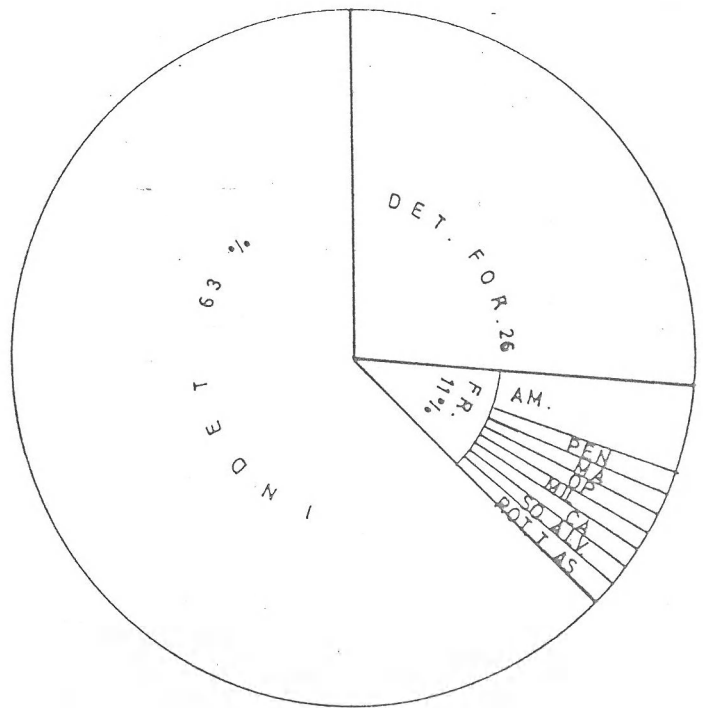
- 29 m

df/g = 1060

fr/g = 454

indet/g = 2574

T/g = 4088



PERIREEFAL AREA (S)

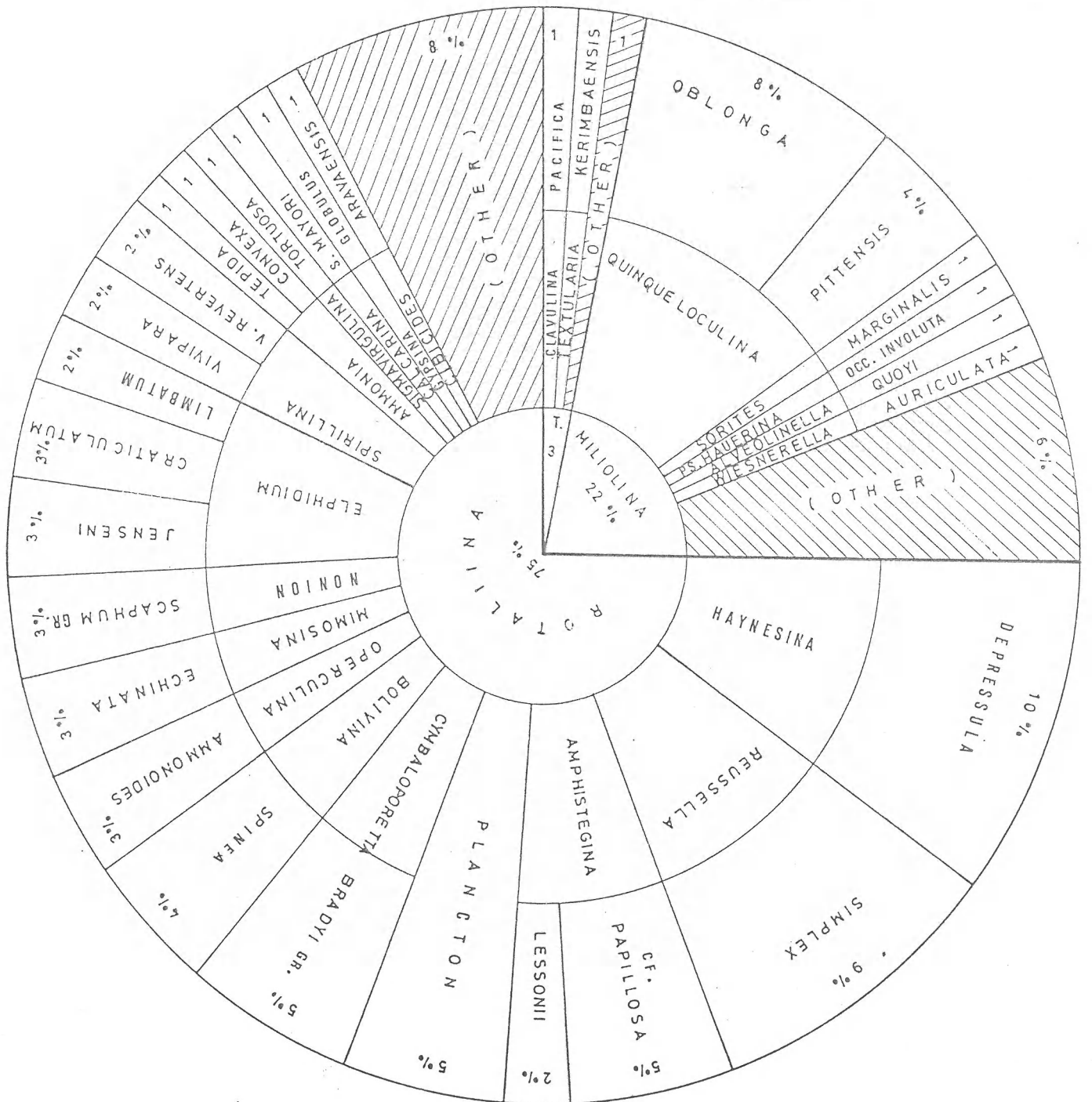
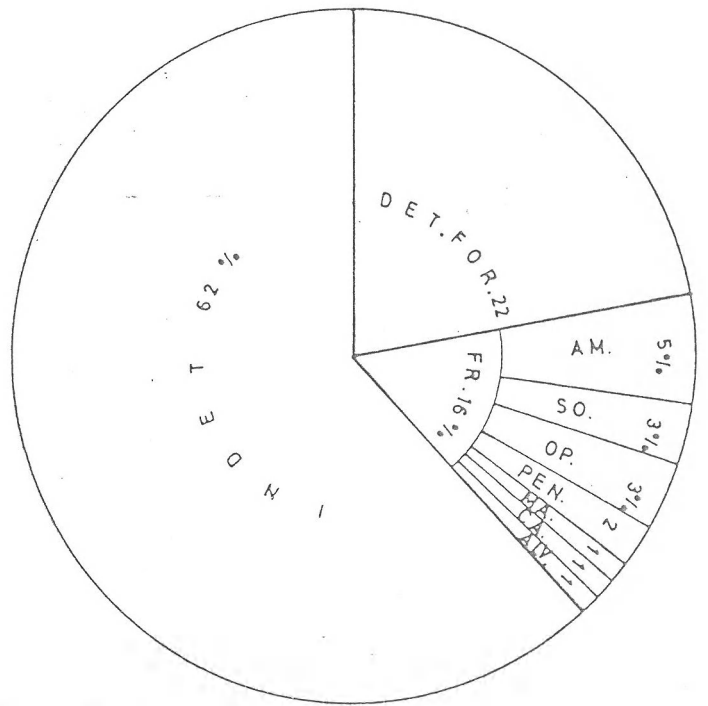
- 27 m

df/g = 2500

fr/g = 1801

indet/g = 6915

T/g = 11216



L 94

PERIRREEFAL AREA (SW)

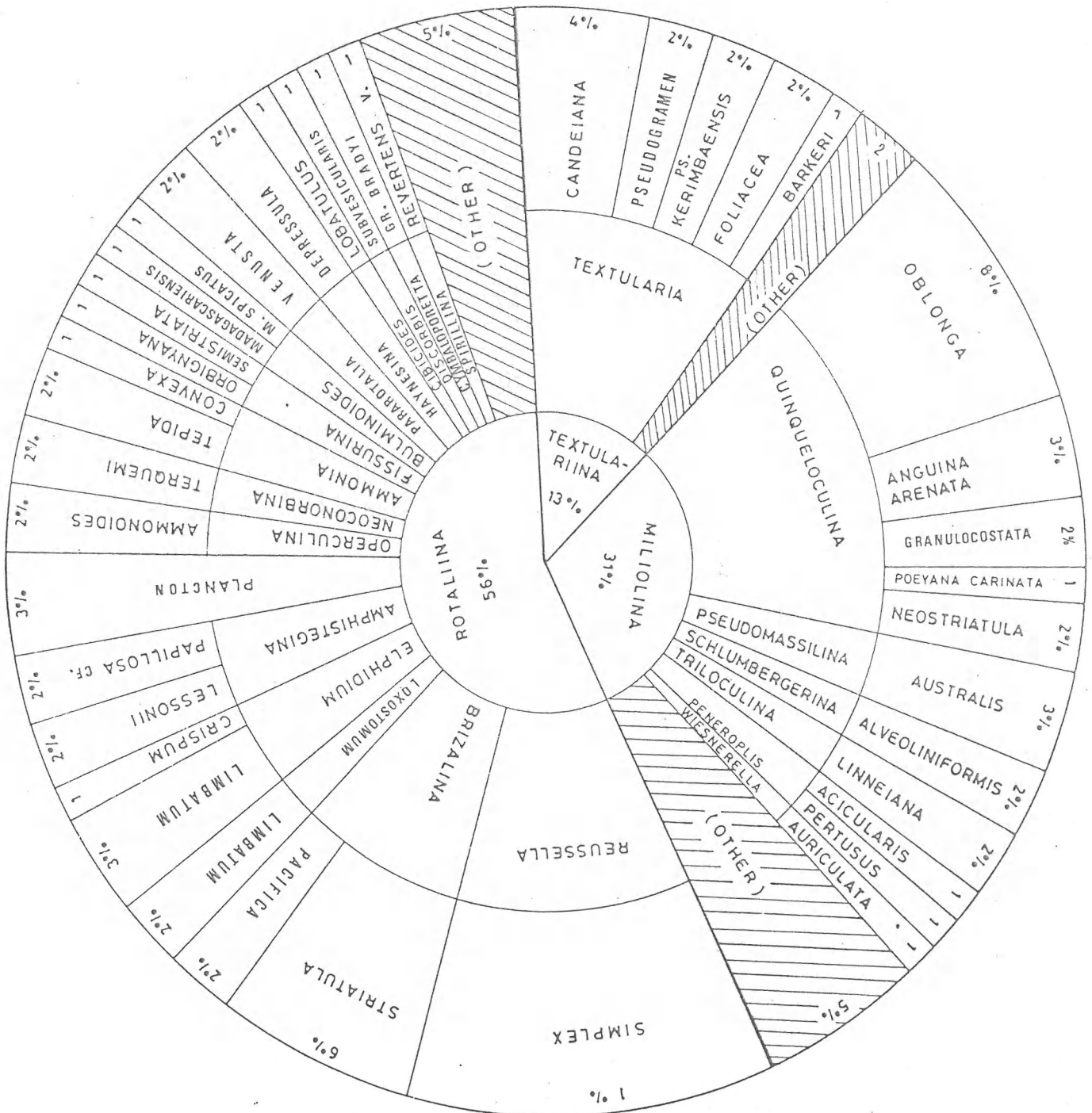
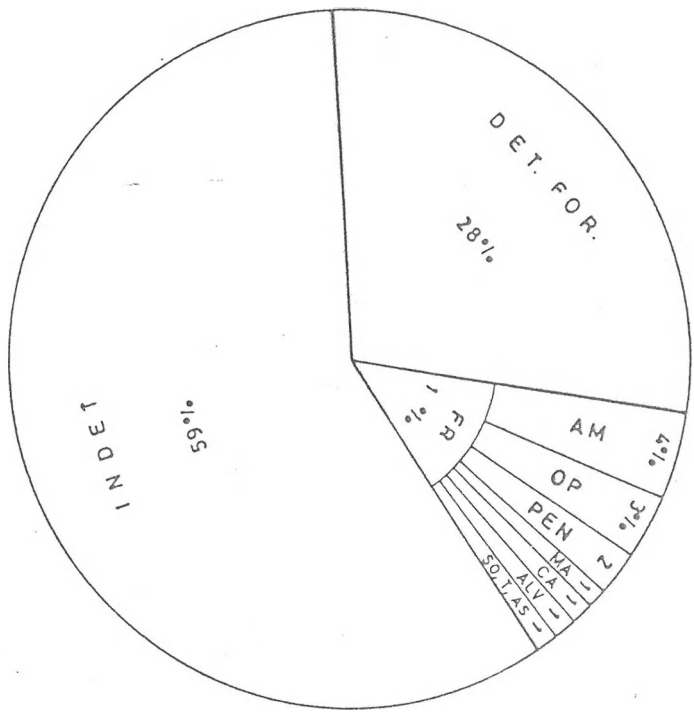
- 25 m

df/g = 2951

fr/g = 1310

indet/g = 6144

T/g = 10405



PERIREEFAL AREA (W)

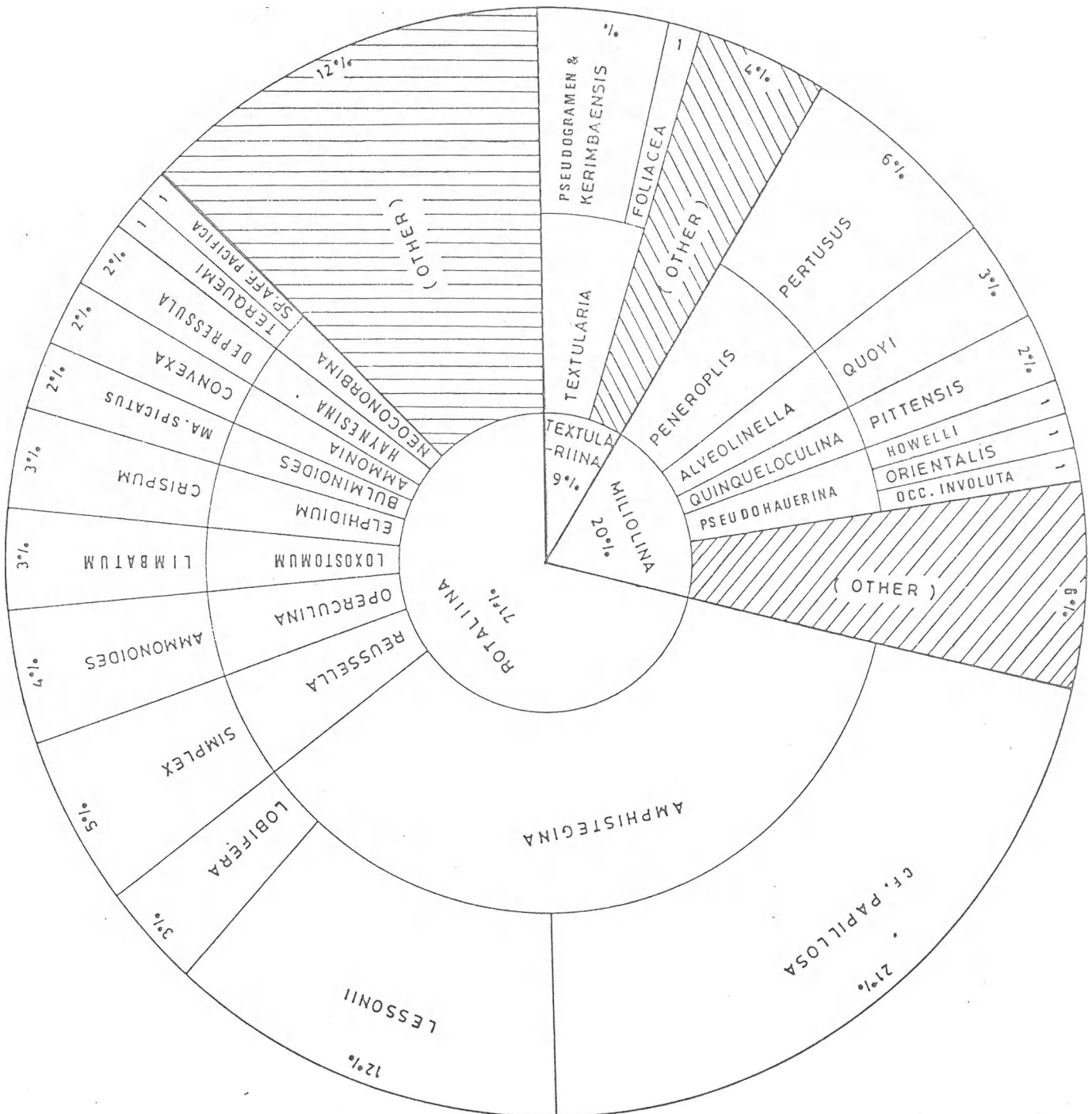
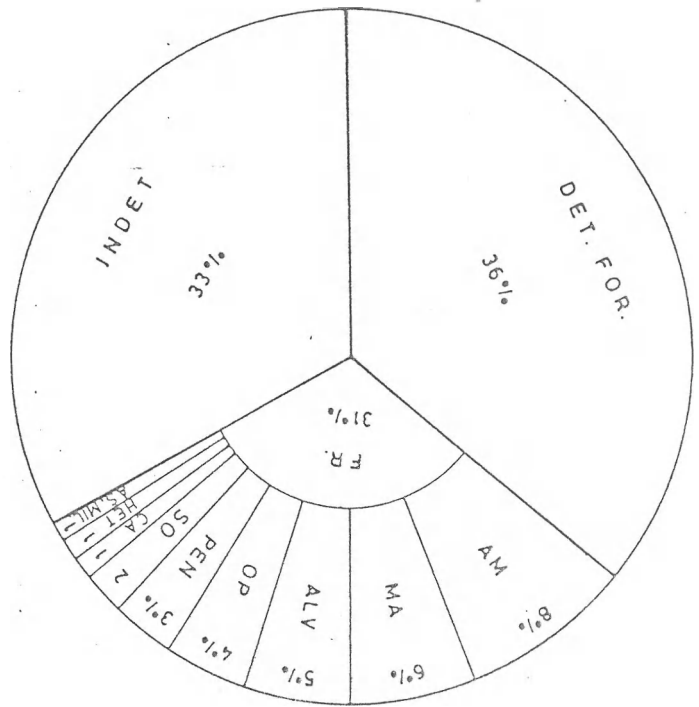
- 25 m

df/g = 323

fr/g = 281

indet/g = 297

T/g = 901



L 106

PERIREEFAL AREA (NW)

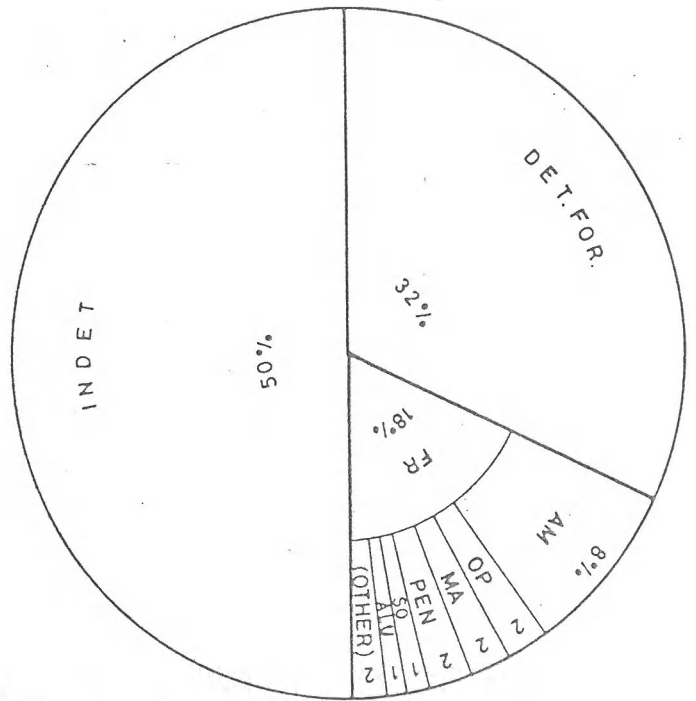
- 18 m

df/g = 1560

fr/g = 855

indet/g = 2464

T/g = 4879



PERIREEFAL AREA (NW)

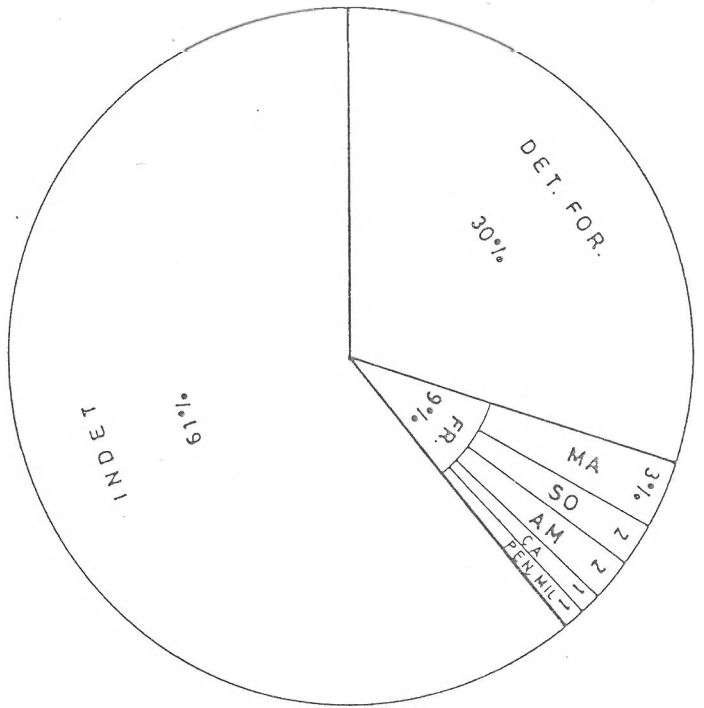
- 11 m

df/g = 972

fr/g = 278

indet/g = 1983

T/g = 3233



L 109

PERIREEFAL AREA (NW)

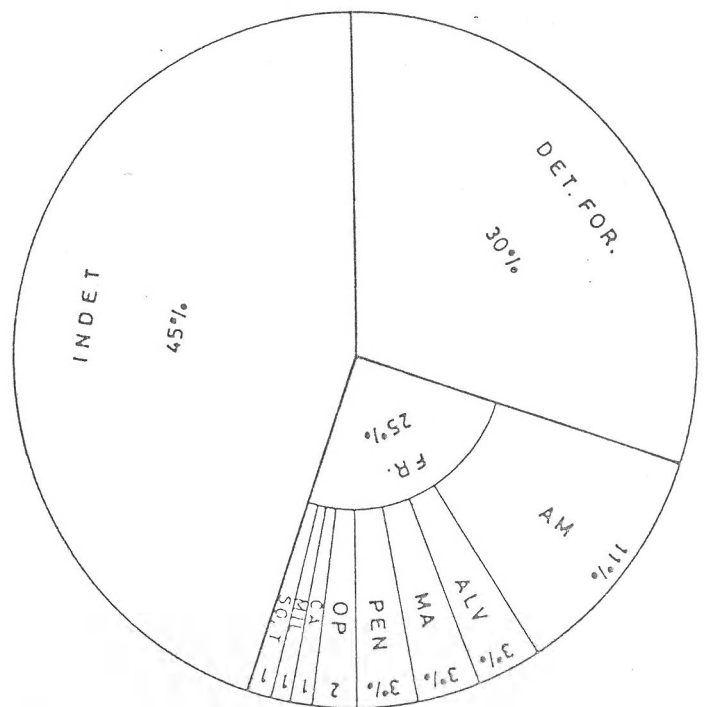
- 21 m

df/g = 2779

fr/g = 2296

indet/g = 4169

T/g = 9244



L 110

PERIREEFAL AREA (NW)

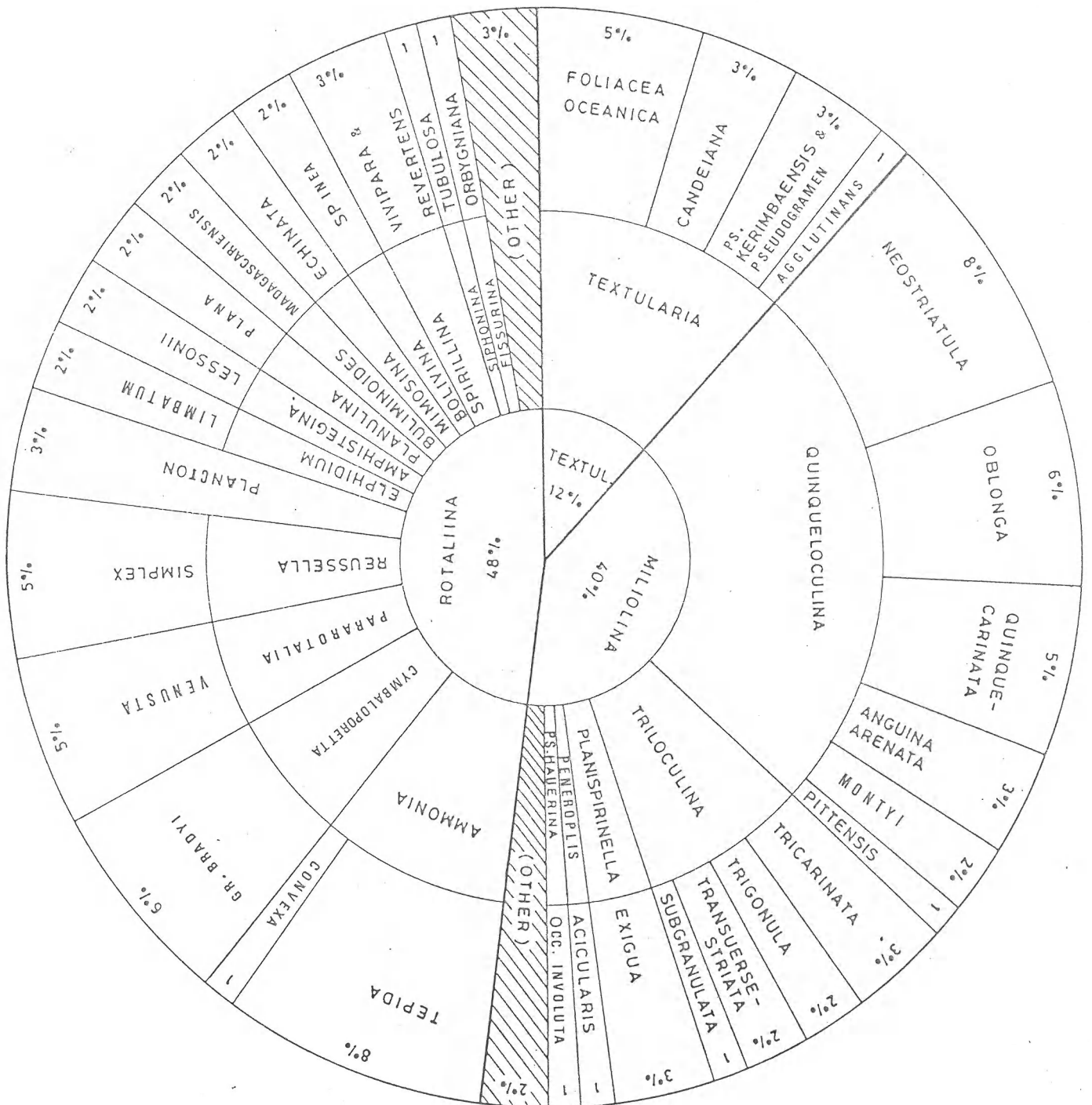
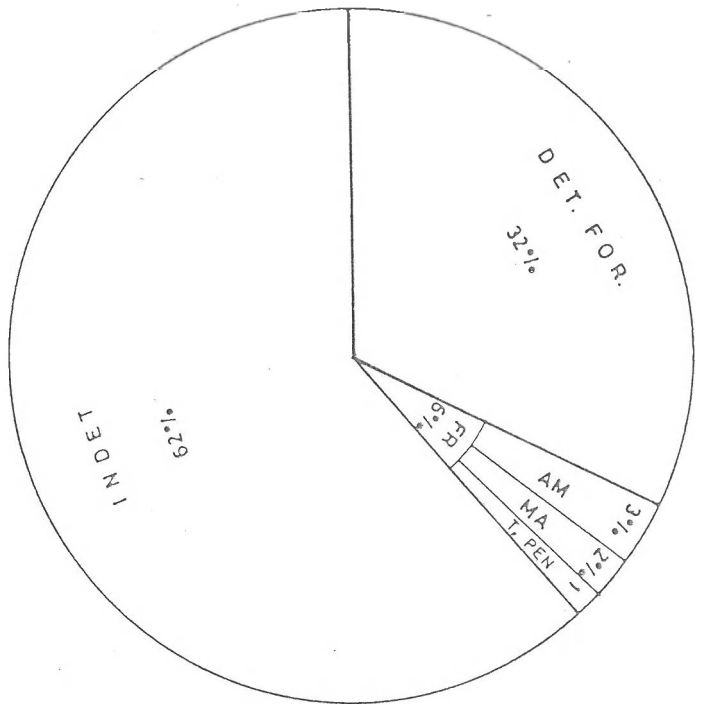
- 15 m

df/g = 422

fr/g = 77

indet/g = 813

T/g = 1312



PERIREEFAL AREA (NW)

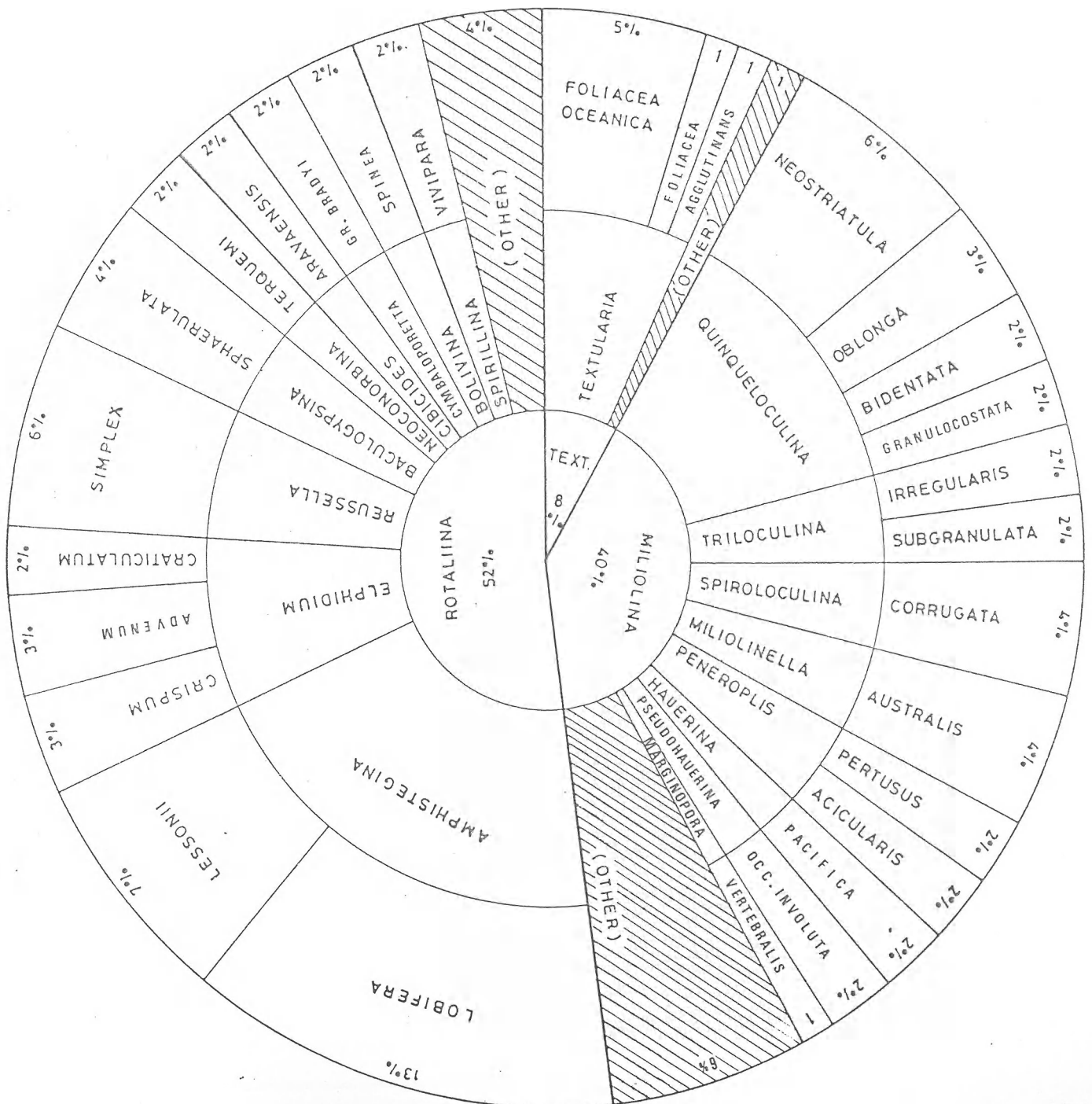
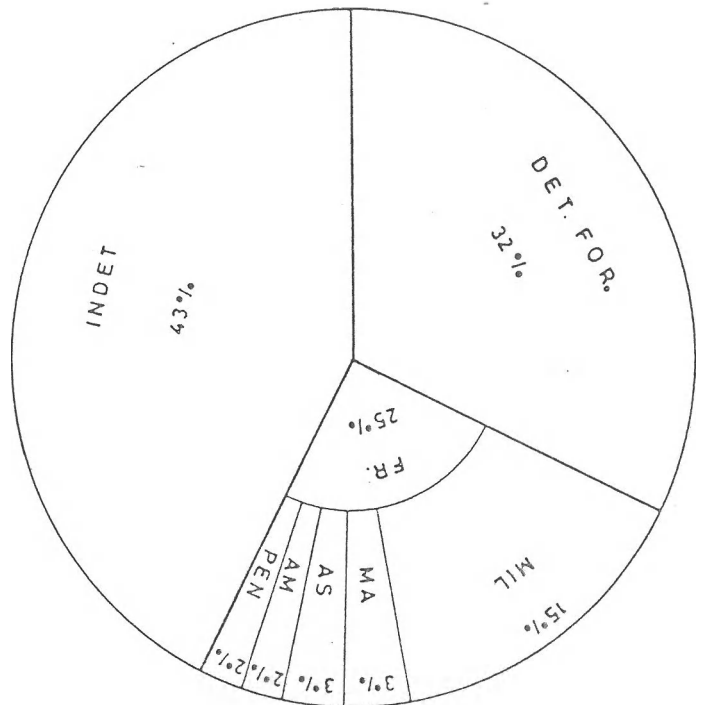
- 12 m

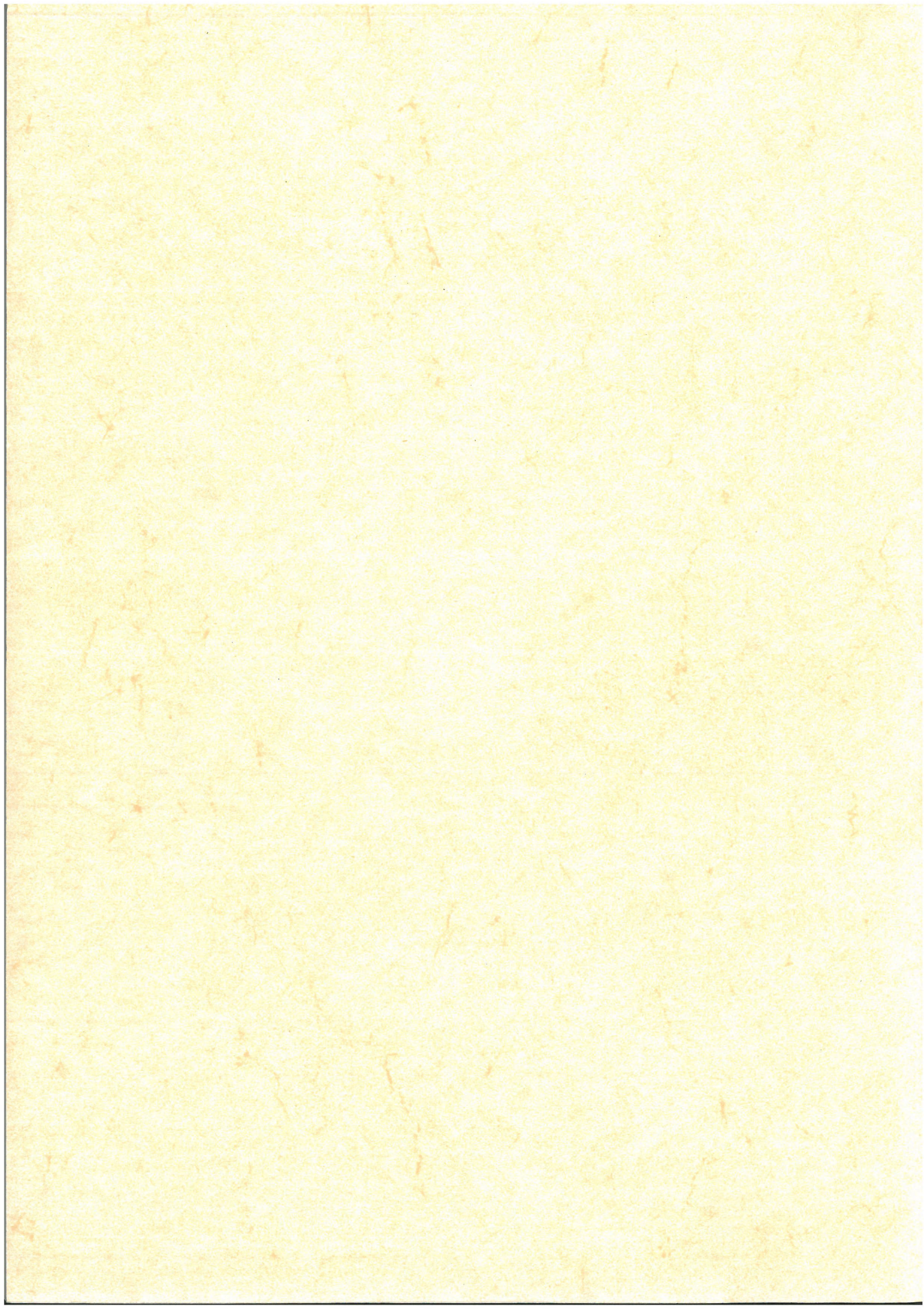
df/g = 331

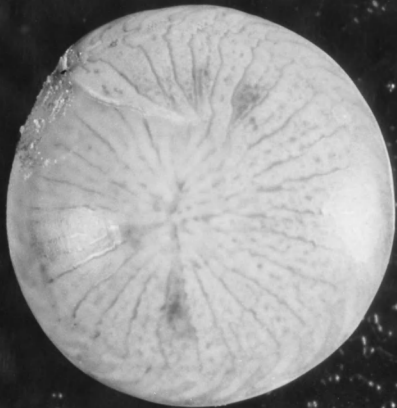
fr/g = 253

indet/g = 436

T/g = 1020













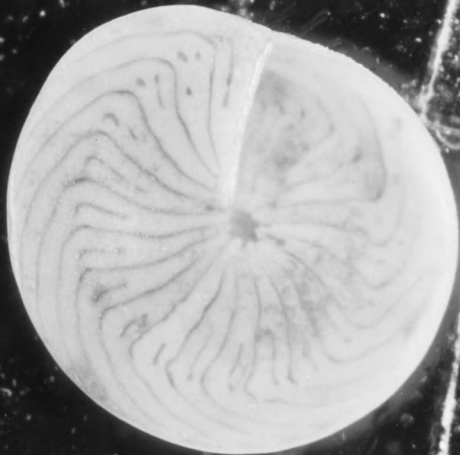


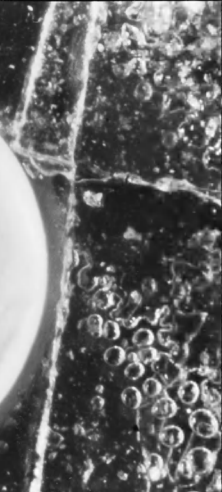




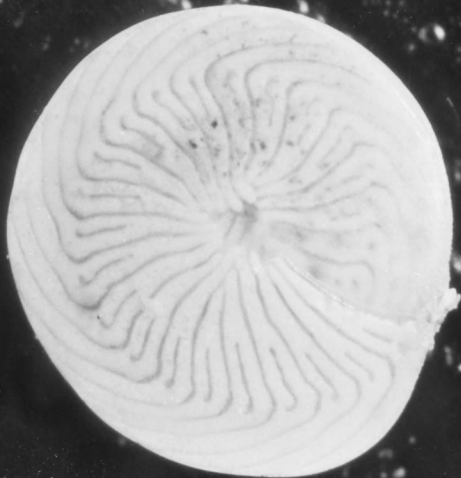








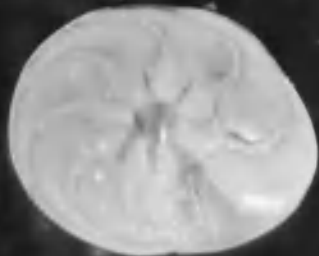


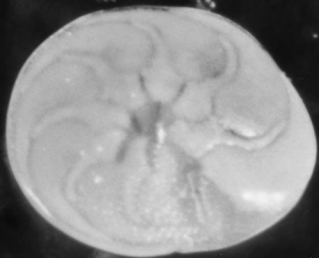






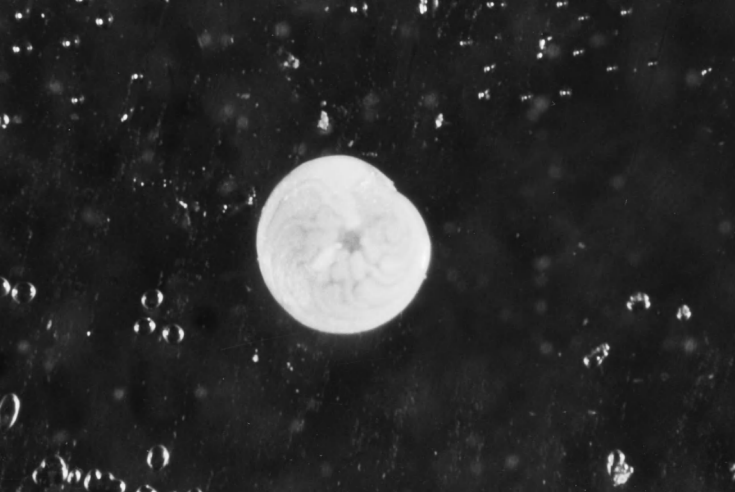




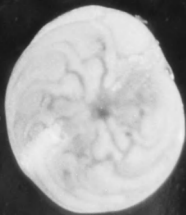


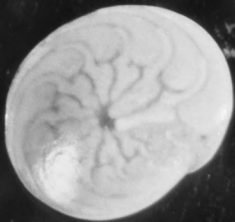












Calligraphy on a dark background, possibly a page from a manuscript or a piece of paper. The text is written in a cursive, flowing style, likely in Arabic or Persian script. The visible characters include "Calligraphy" and "2020".





