

Université Caen
-2-FIGURES.

DOSSIER

ETUDE DE LA POLLUTION EN BAIE DE SEINE

SECTEUR DE ST-VAAST à LUC SUR MER

SYLVAND J.
SYLVAND B.

1976

DÉPARTEMENT ENVIRONNEMENT
LITTORAL ET GESTION DU MILIEU
MARIN

ETUDE DE LA POLLUTION EN BAIE DE SEINE

SECTEUR DE SAINT-VAAST-LA-HOUGUE A LUC-SUR-MER.

Etude réalisée au Laboratoire Maritime de Luc-sur-Mer, sous la Direction Scientifique de M.le Professeur Pierre LUBET, Directeur du Laboratoire de Zoologie de l'Université de Caen, Directeur du Laboratoire Maritime de Luc-sur-Mer.

Jeanne SYLVAND

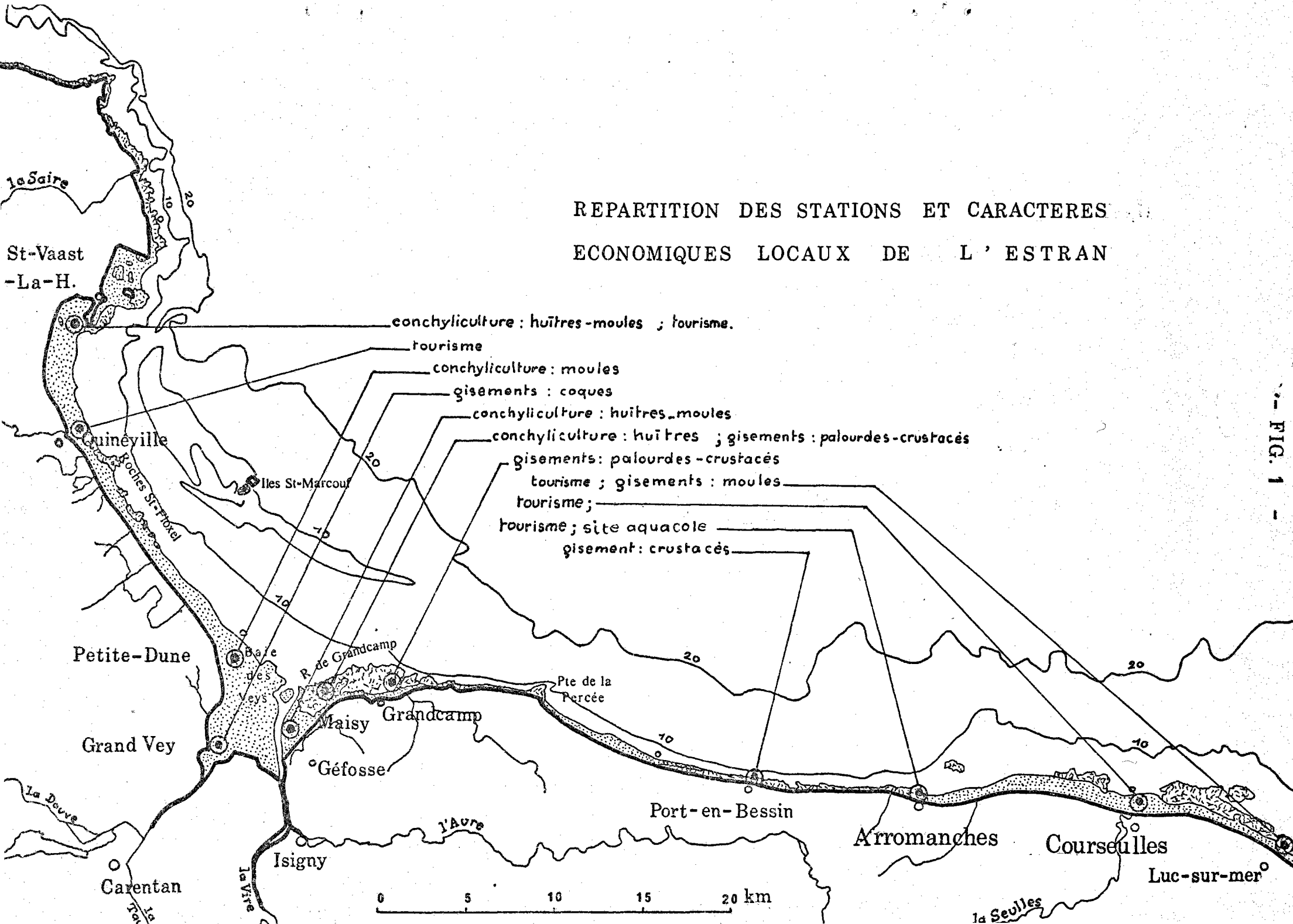
Bernard SYLVAND.

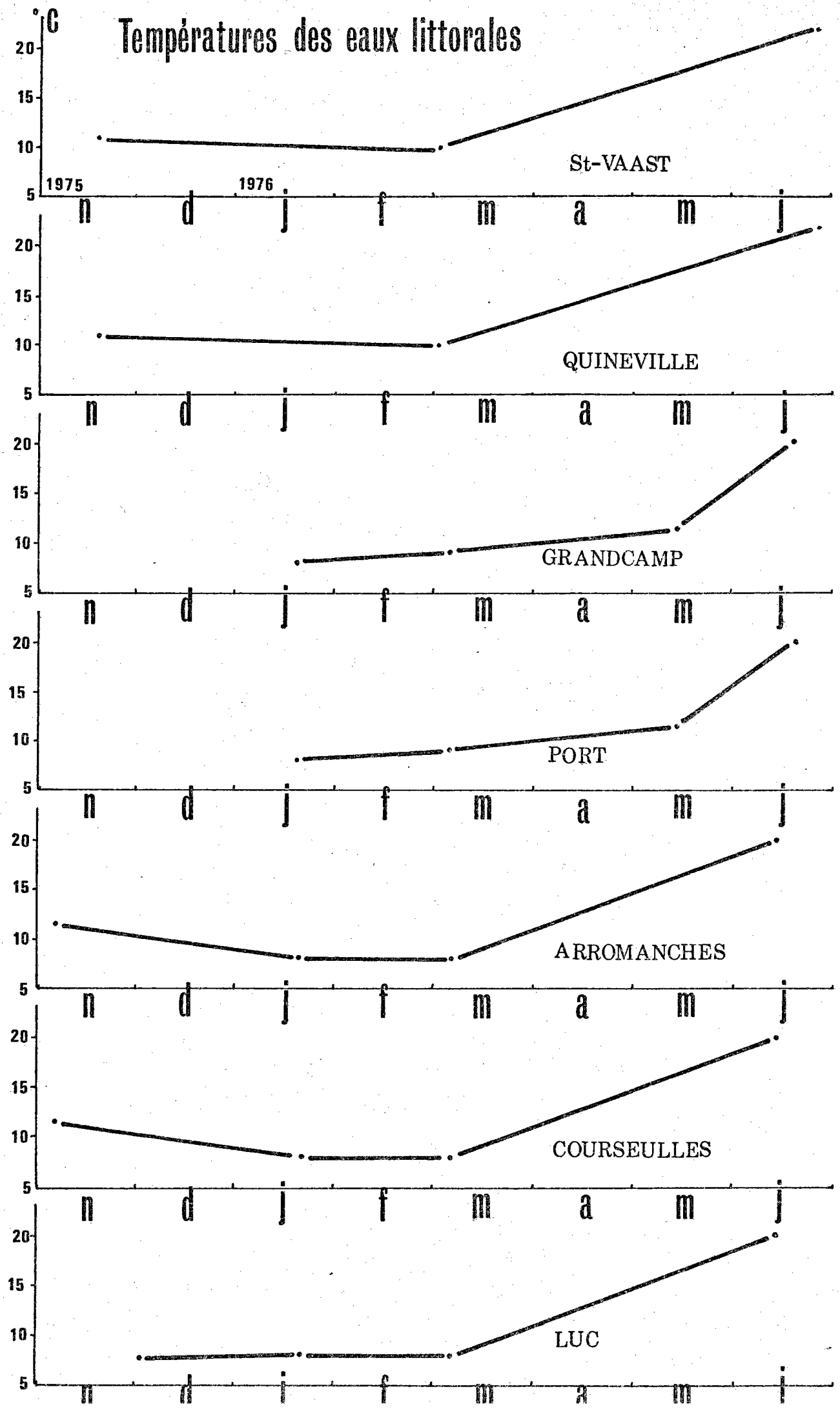
Contrat CNEOXO 75/1276

Paru Decembre 1976.

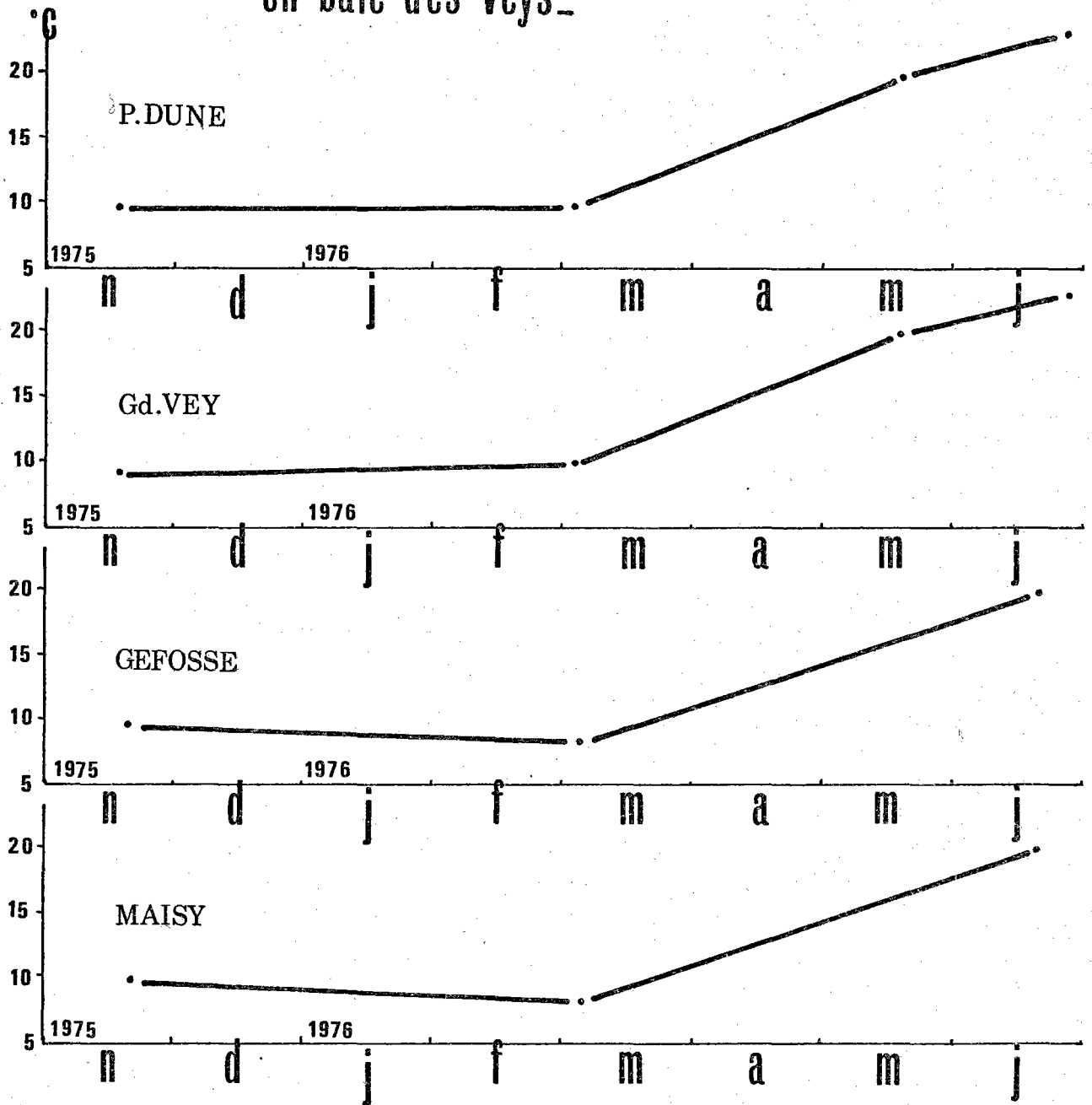
REPARTITION DES STATIONS ET CARACTERES
ECONOMIQUES LOCAUX DE L'ESTRAN

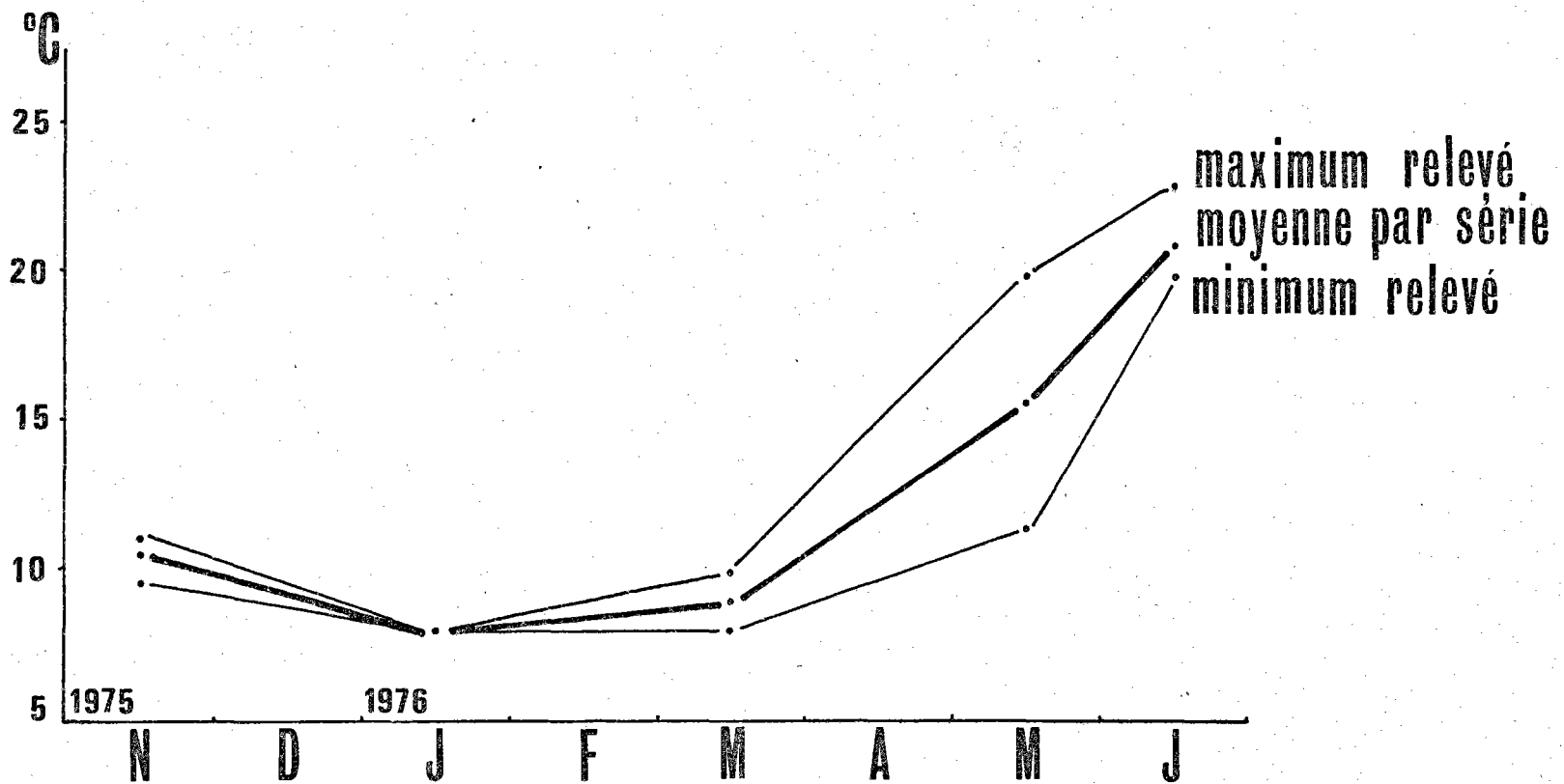
FIG. 1





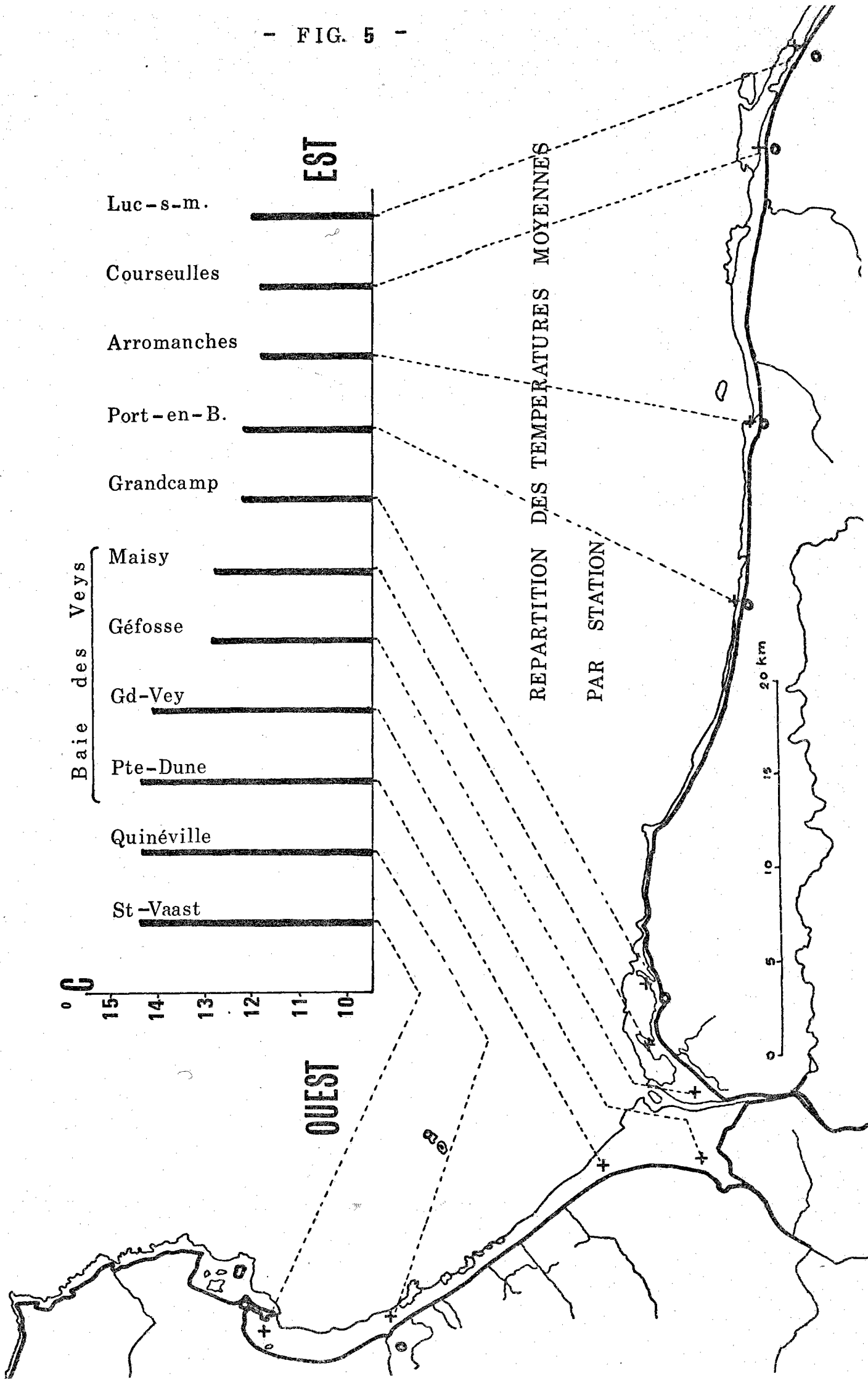
Températures des eaux littorales en baie des Veys.



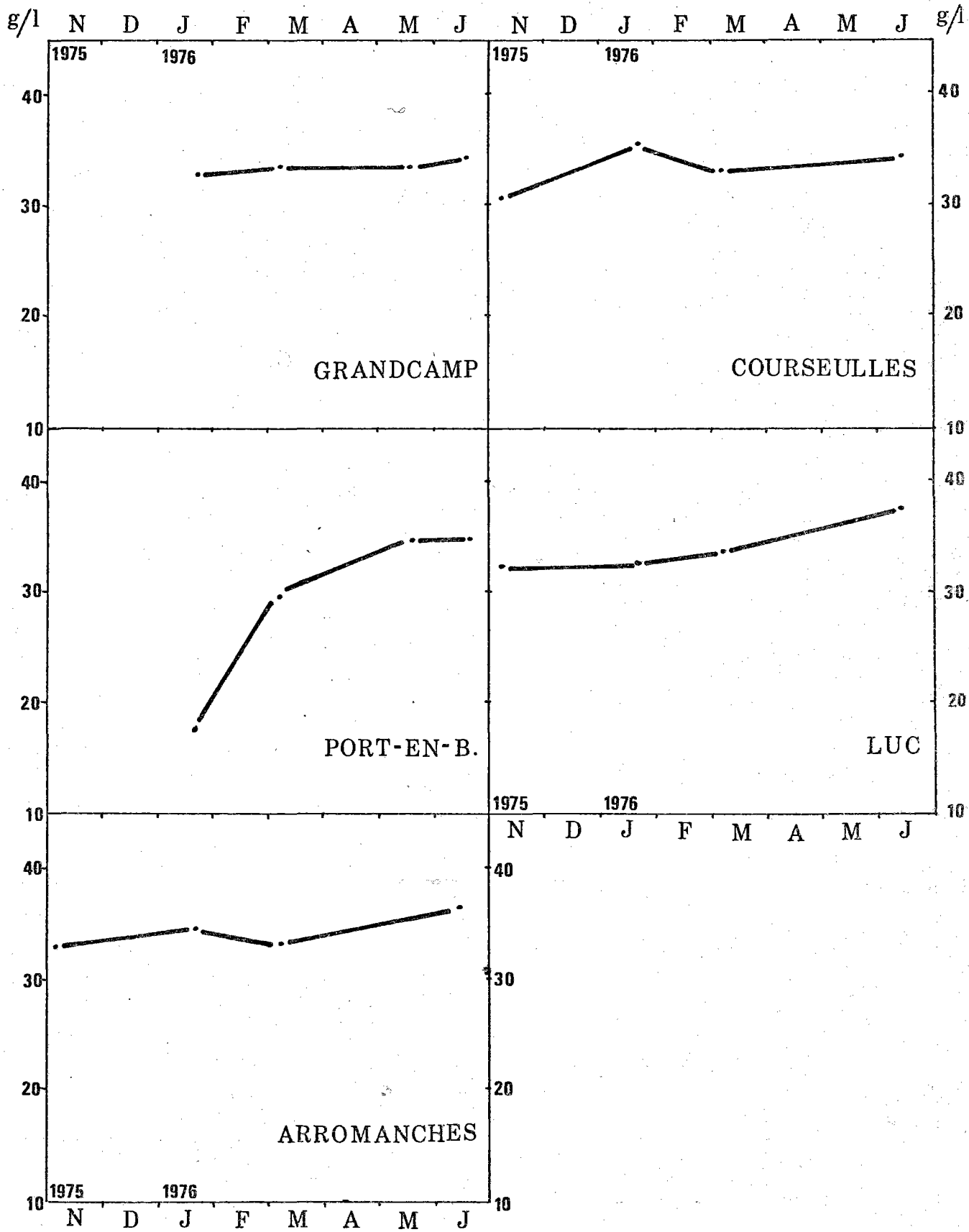


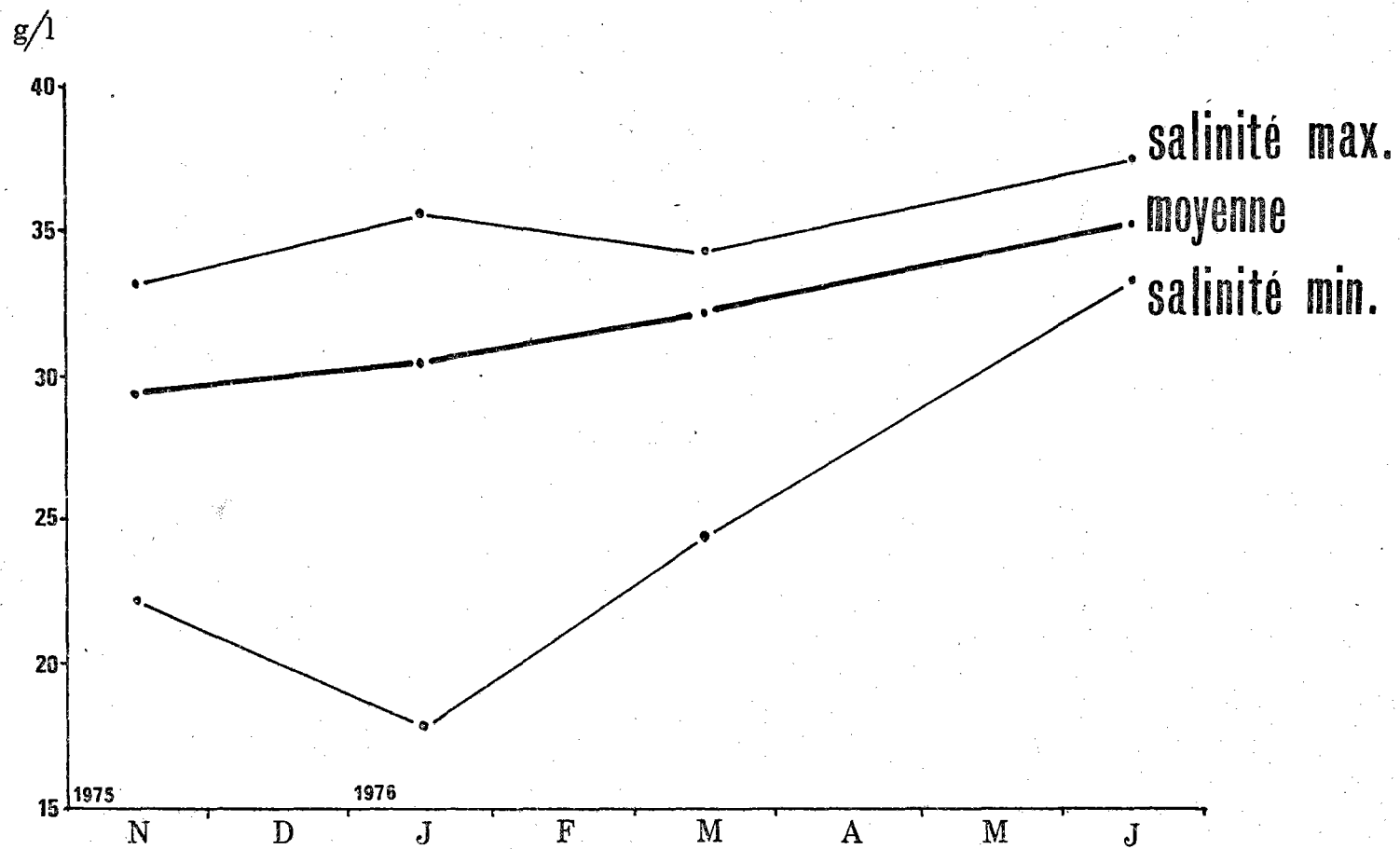
Variations thermiques des eaux littorales.

- FIG. 5 -

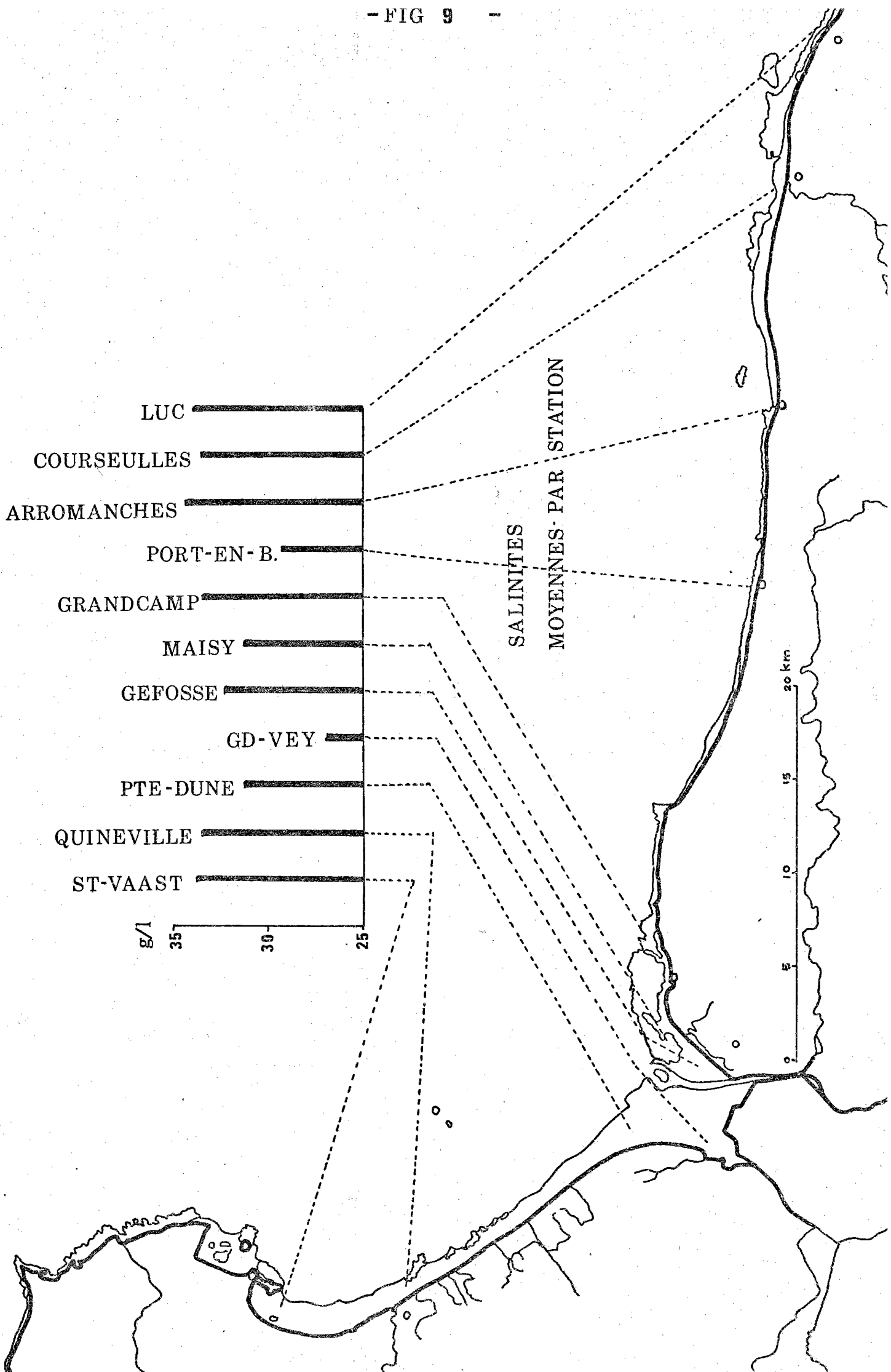


Salinités.

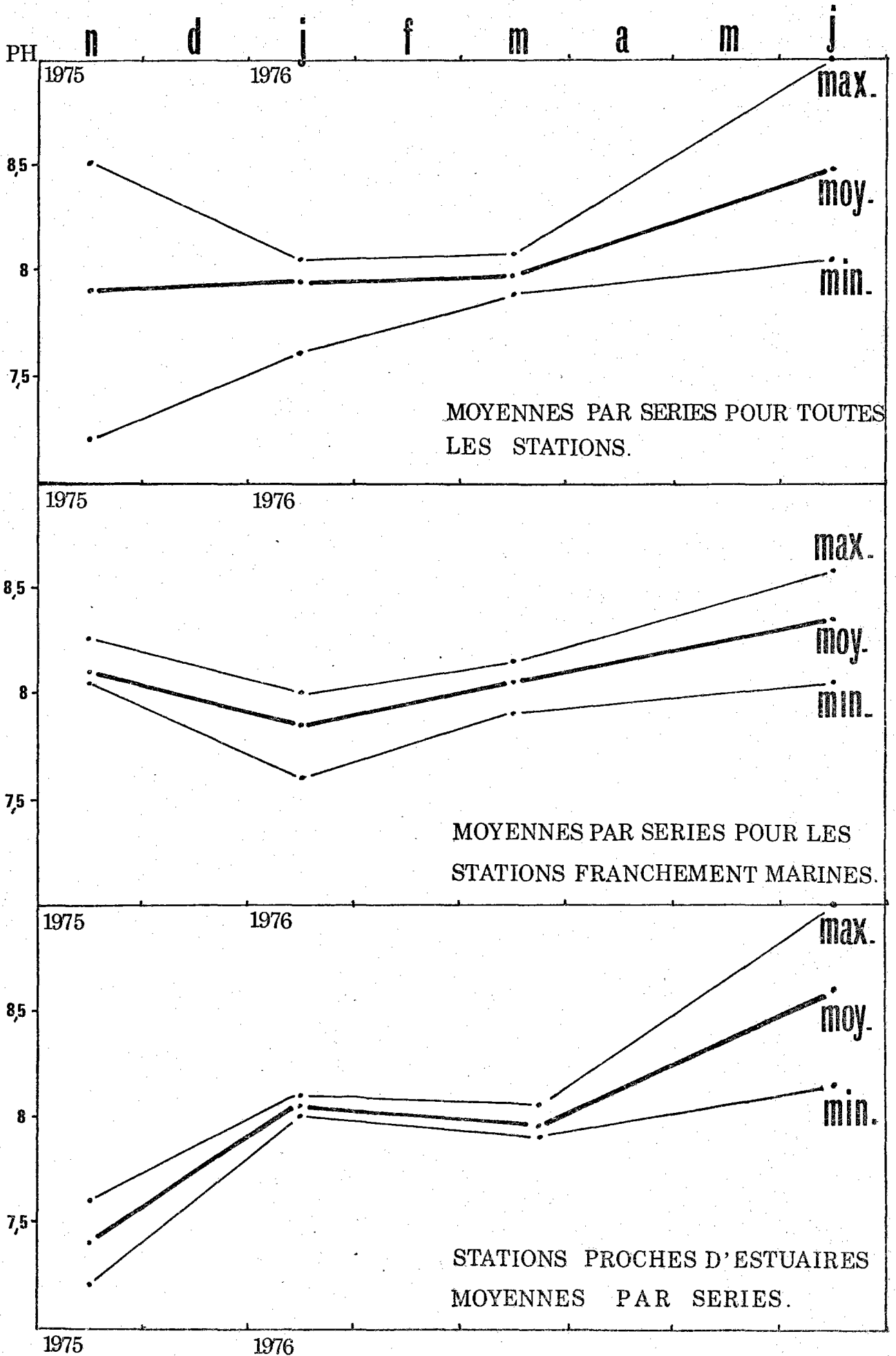


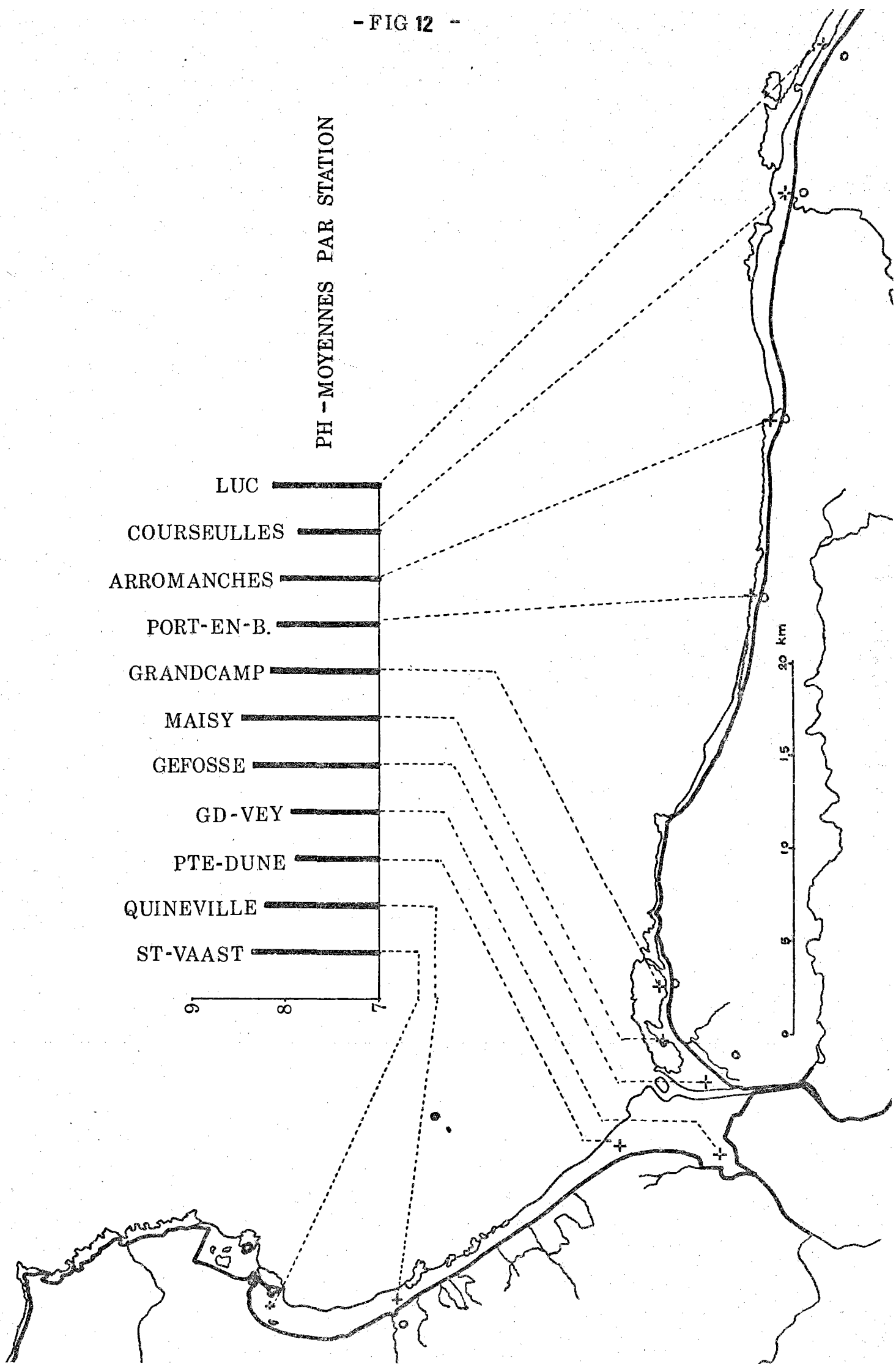


Salinités - moyennes par séries



PH





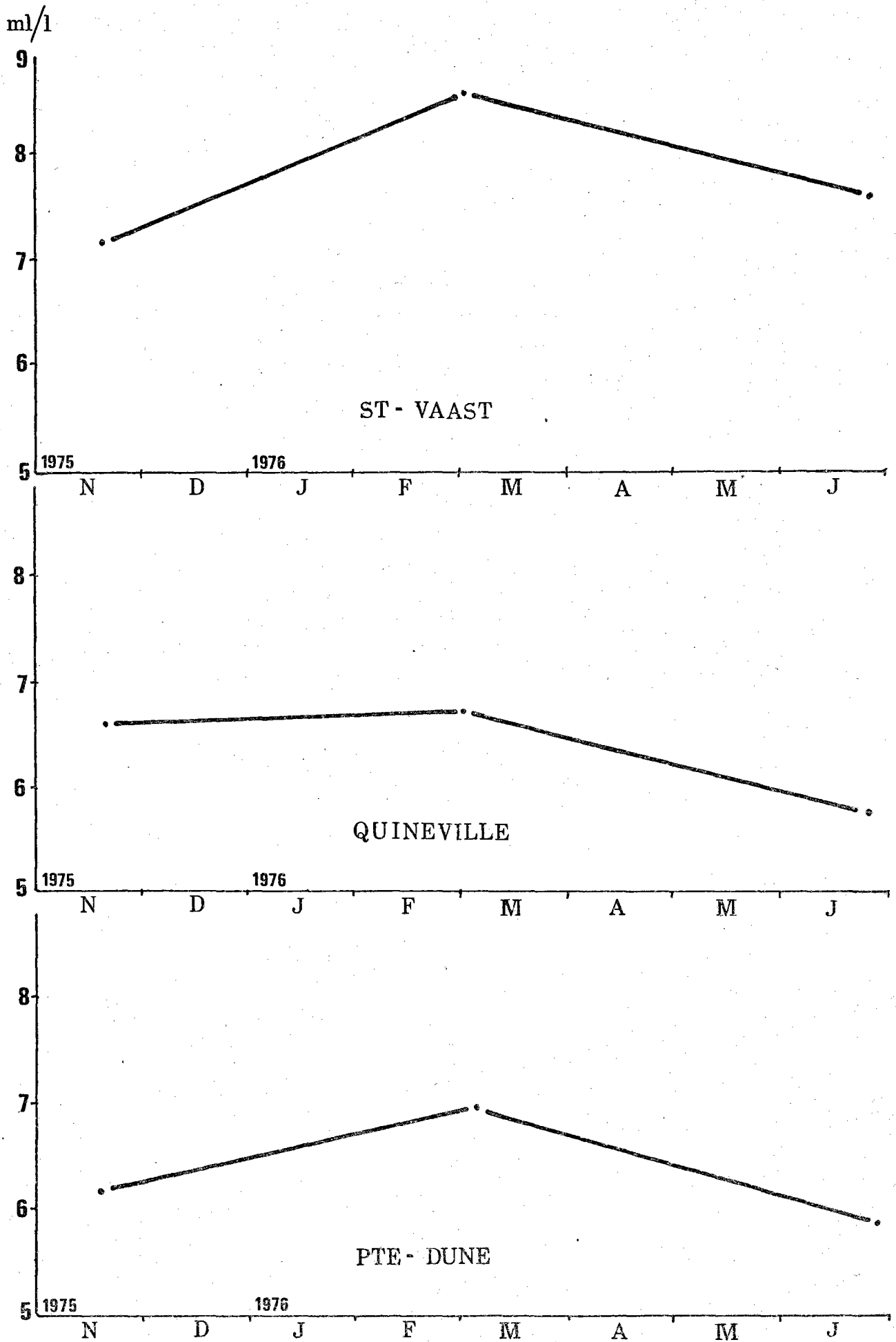
PH - MOYENNES PAR STATION

- LUC
- COURSEULLES
- ARROMANCHES
- PORT-EN-B.
- GRANDCAMP
- MAISY
- GEFOSSE
- GD-VEY
- PTE-DUNE
- QUINEVILLE
- ST-VAAST

20 km
15
10
5

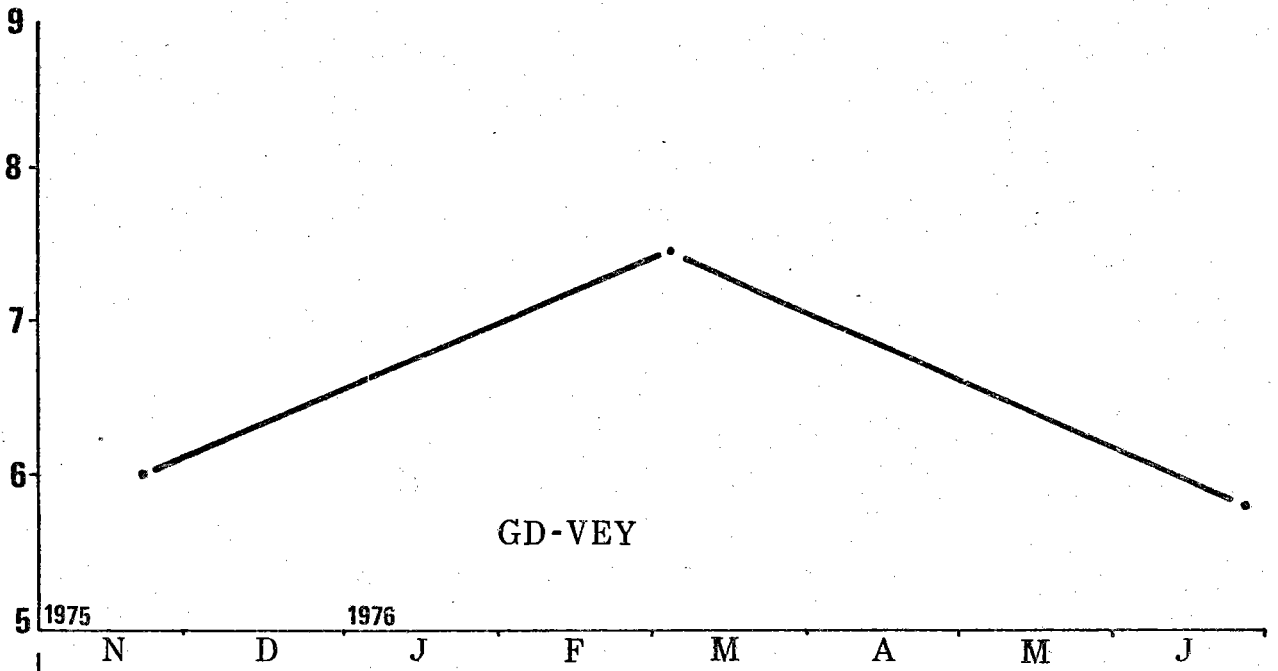
9 8 7

OXYGENE dissous

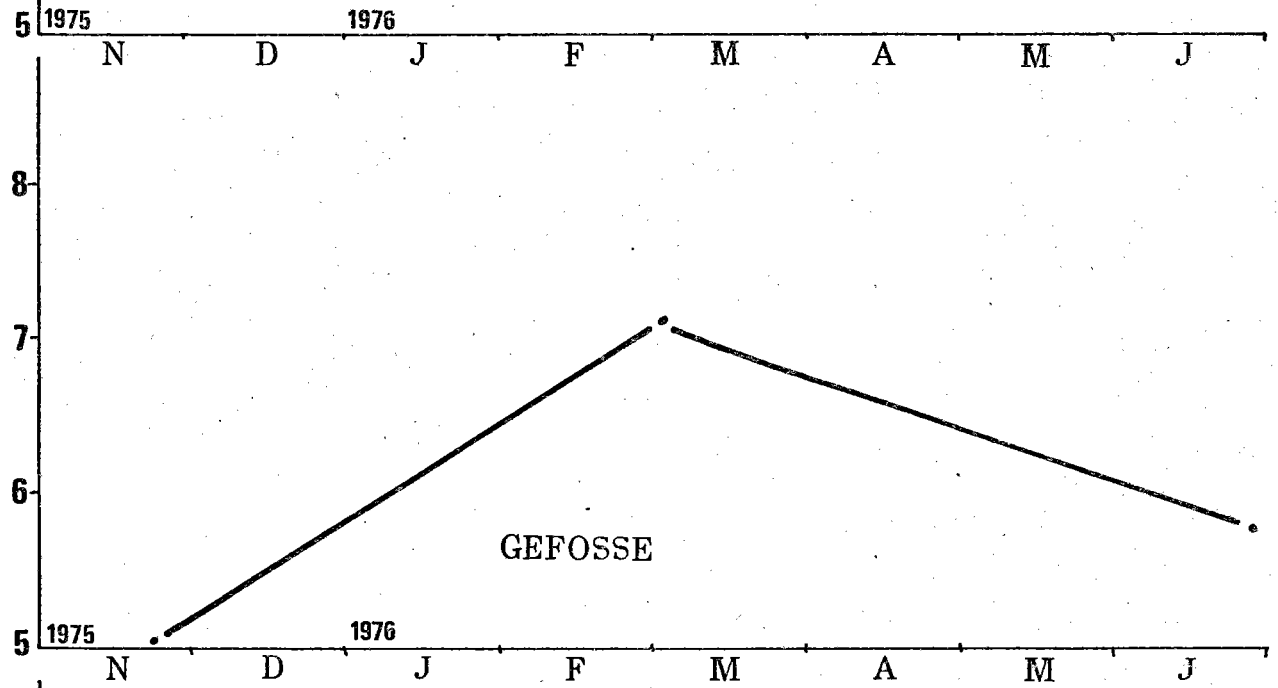


Oxygène dissous

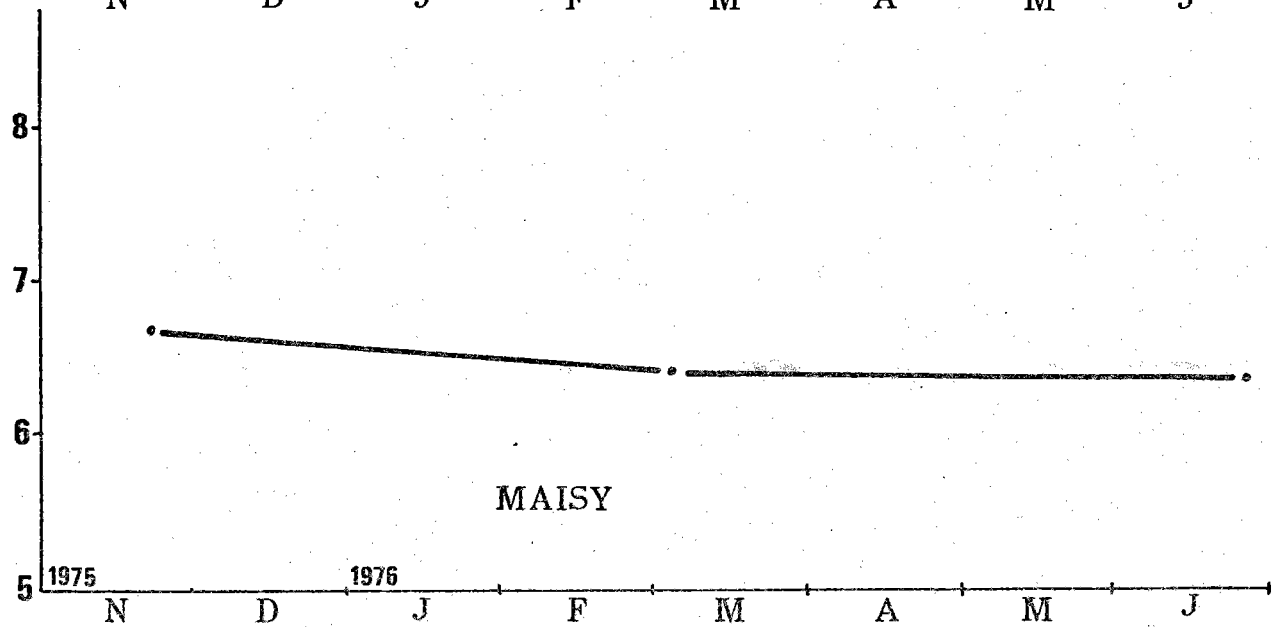
ml/l



GD-VEY

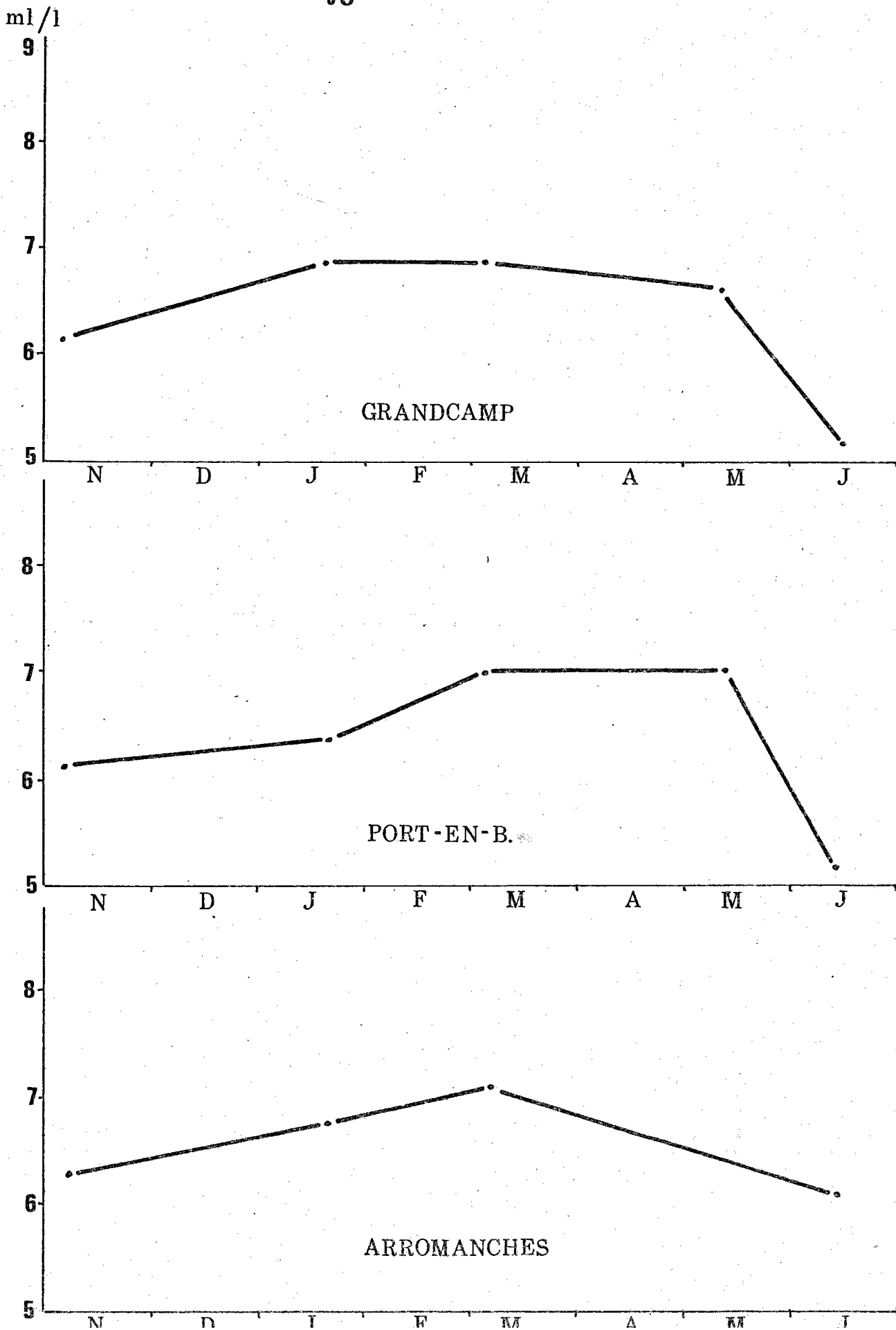


GEFOSSE

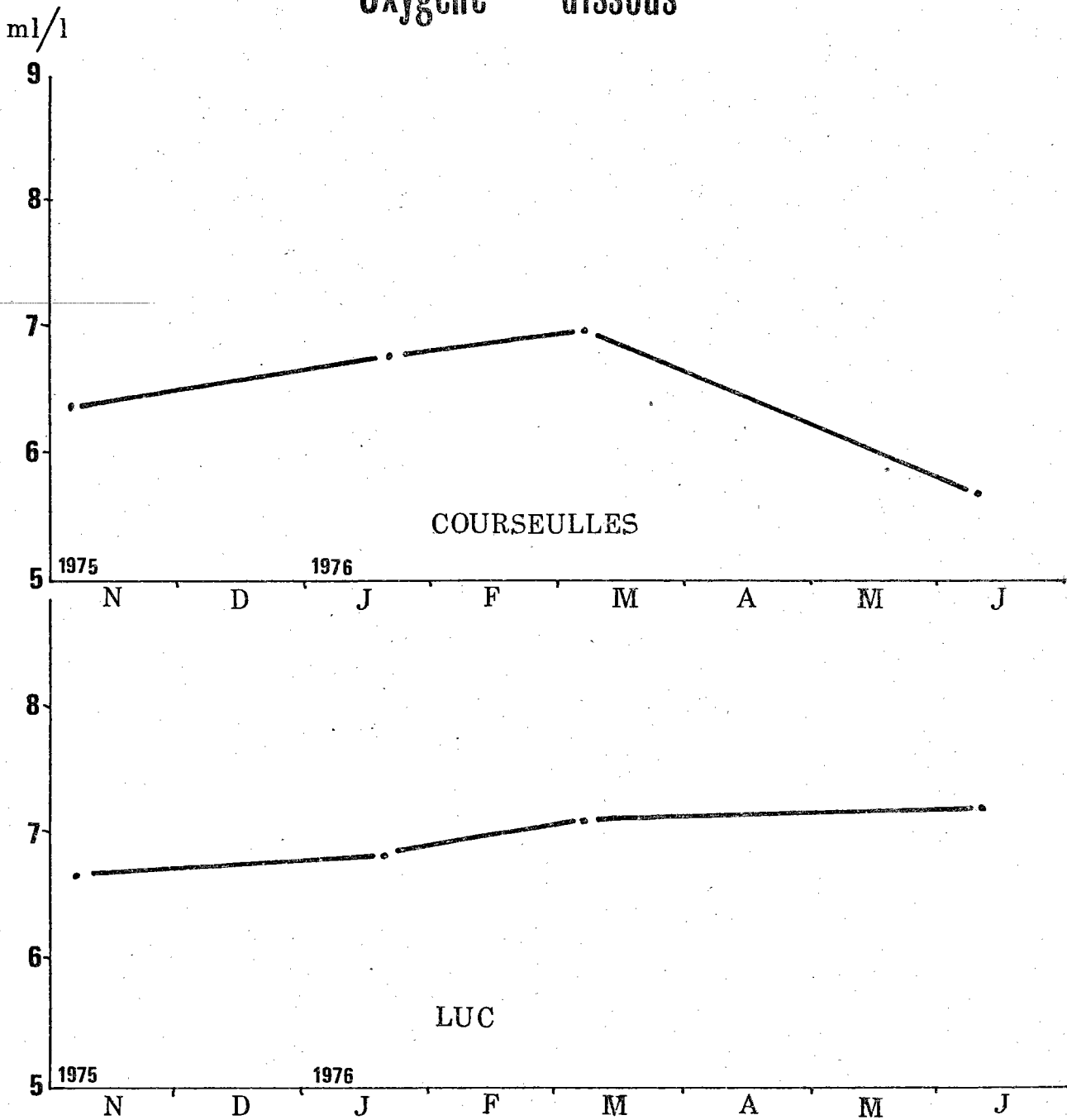


MAISY

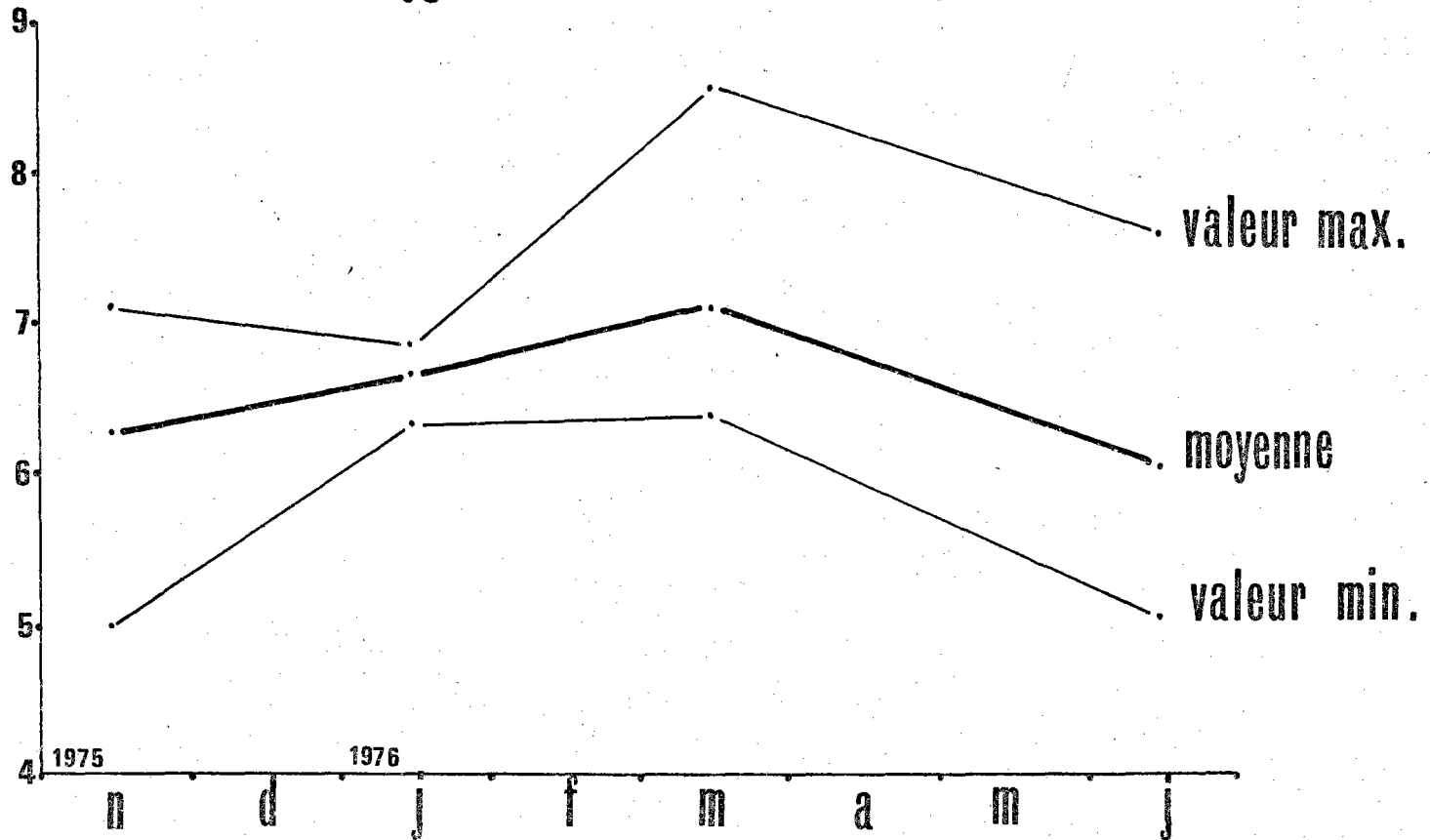
Oxygène dissous



Oxygène dissous

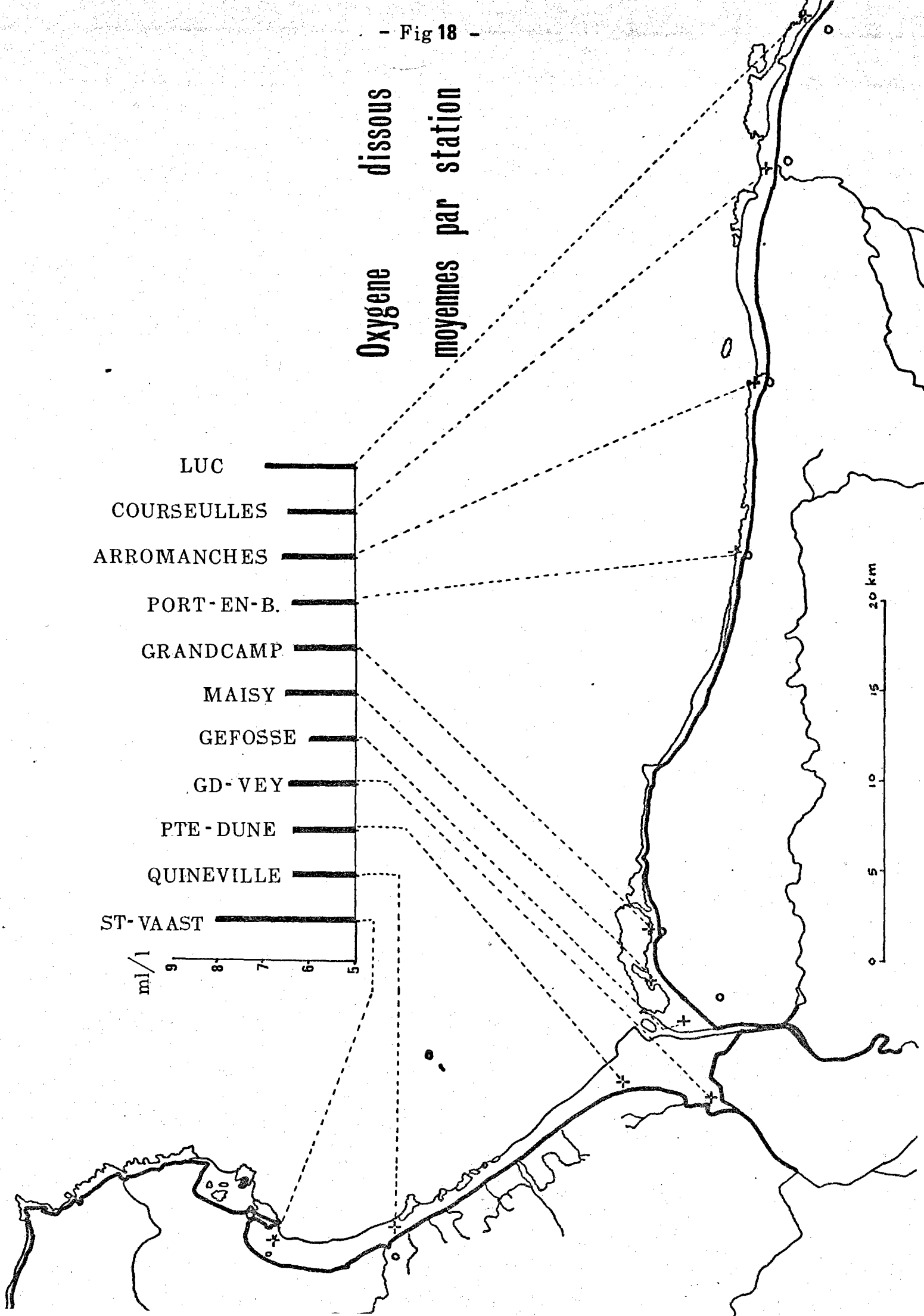
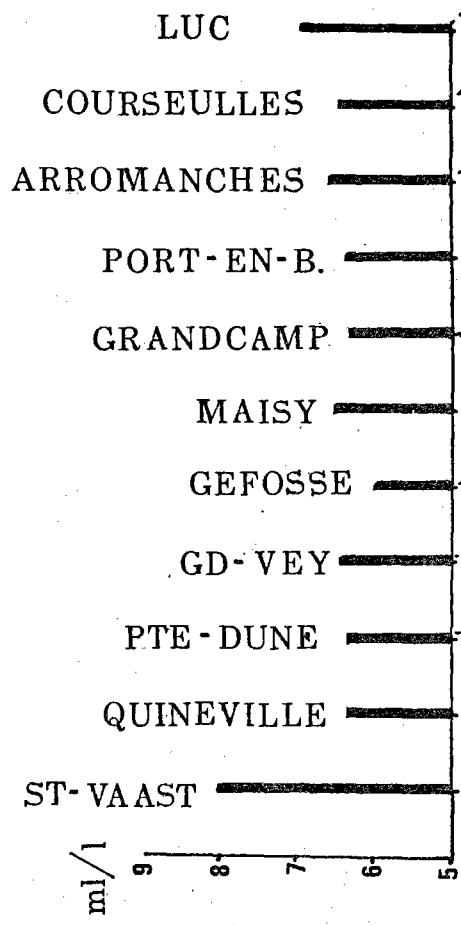


Oxygène dissous - moyennes par séries

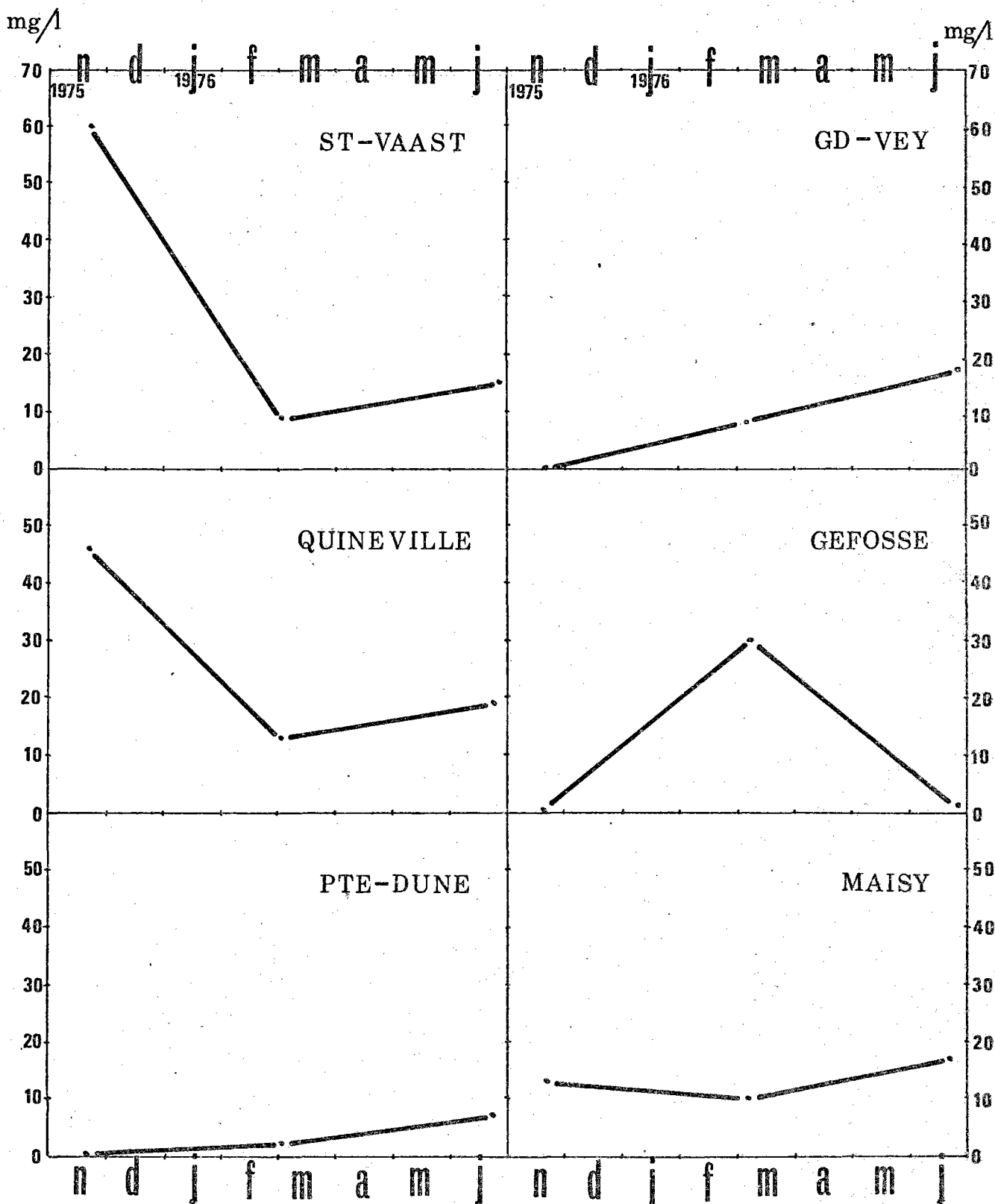


- Fig 18 -

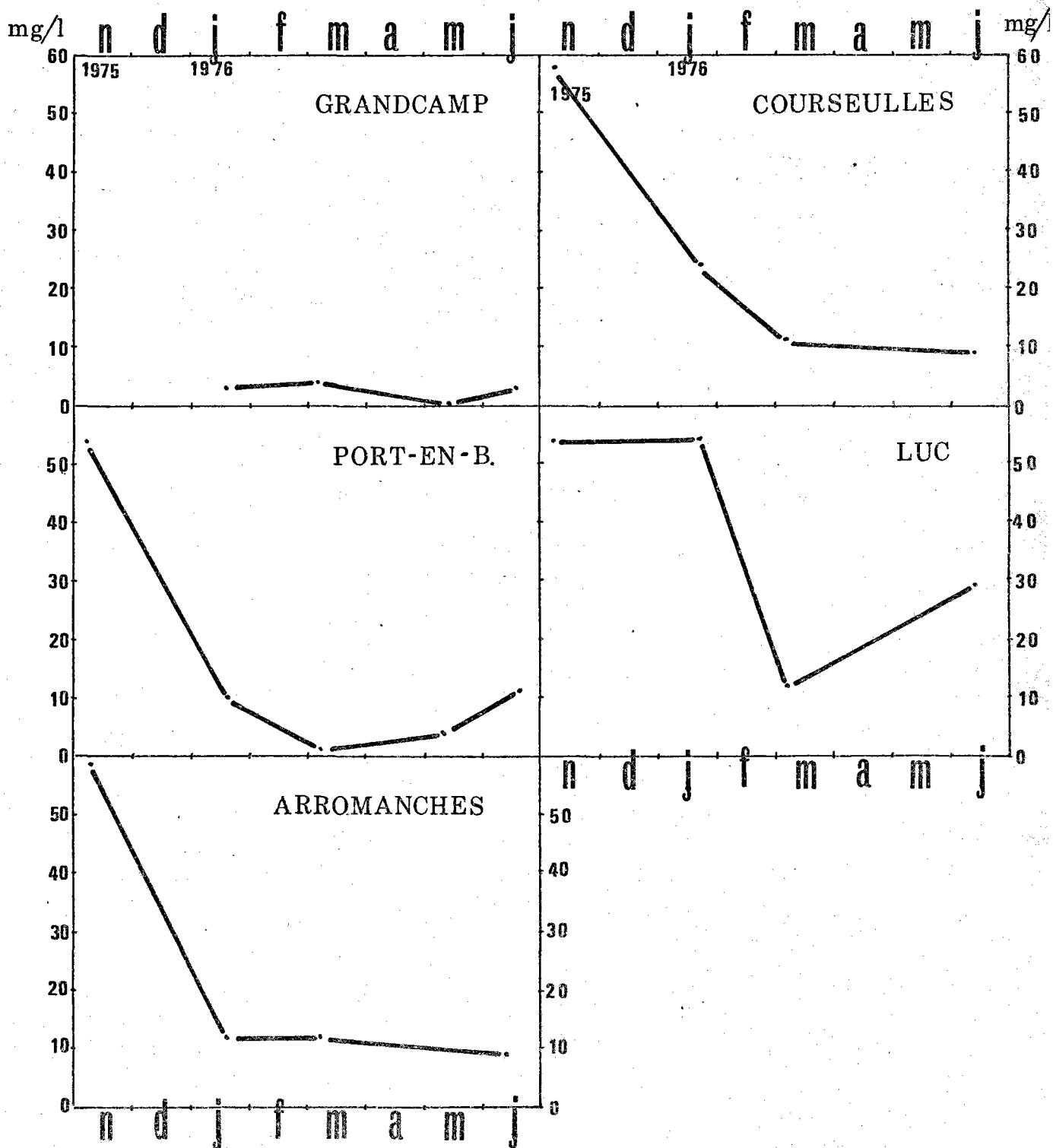
Oxygene
dissous
moyennes
par station

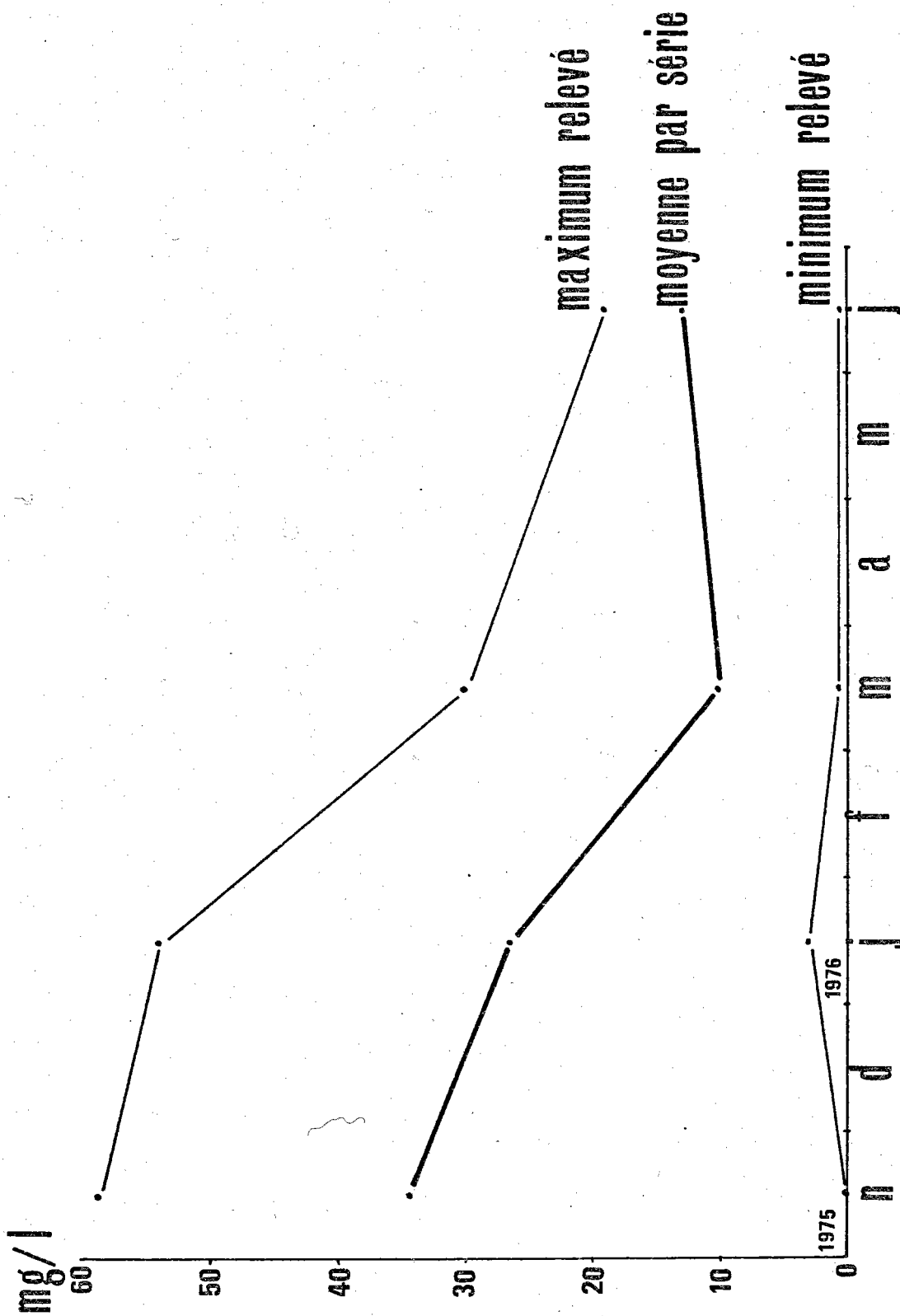


D. C. O.



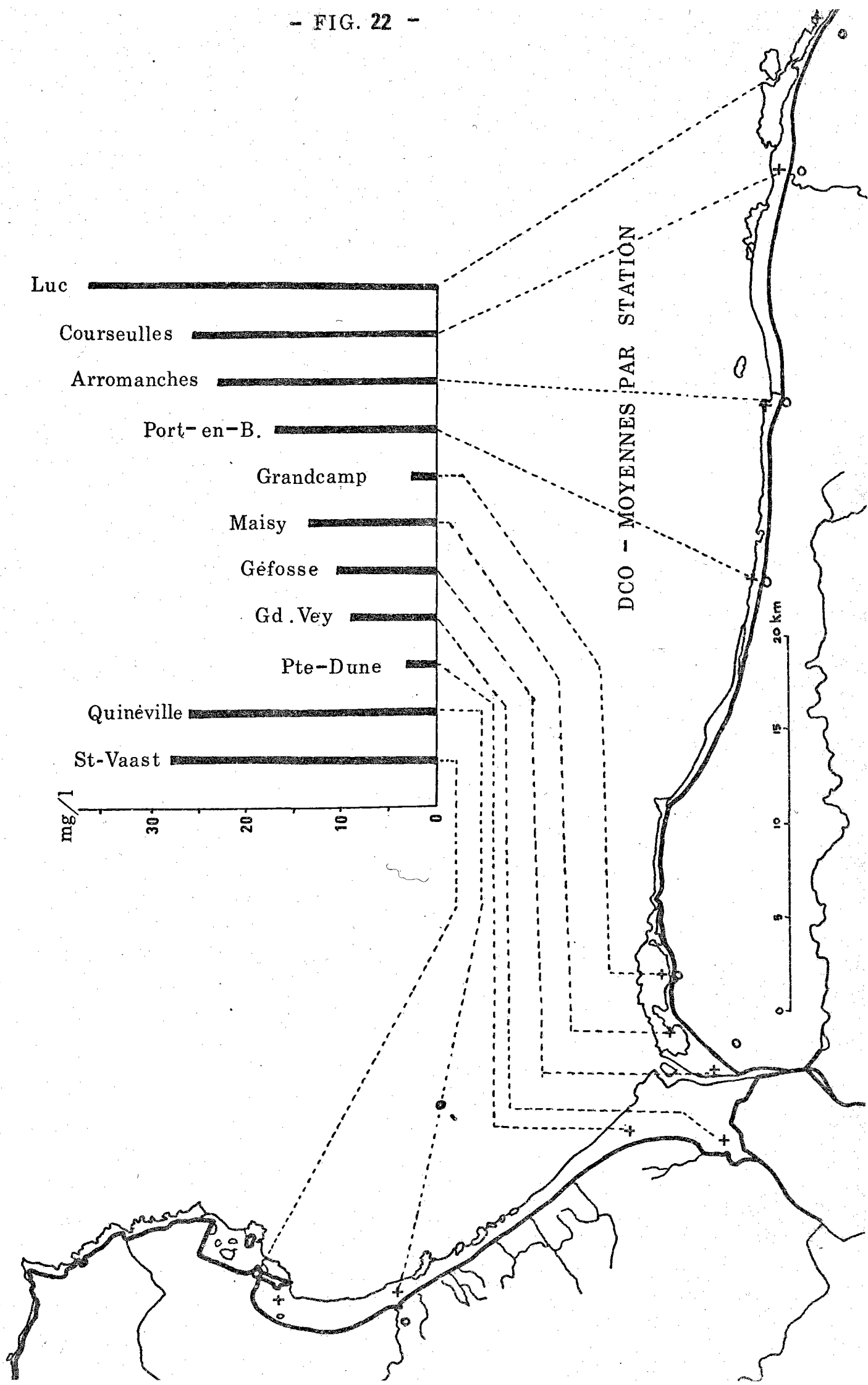
D. C. O.

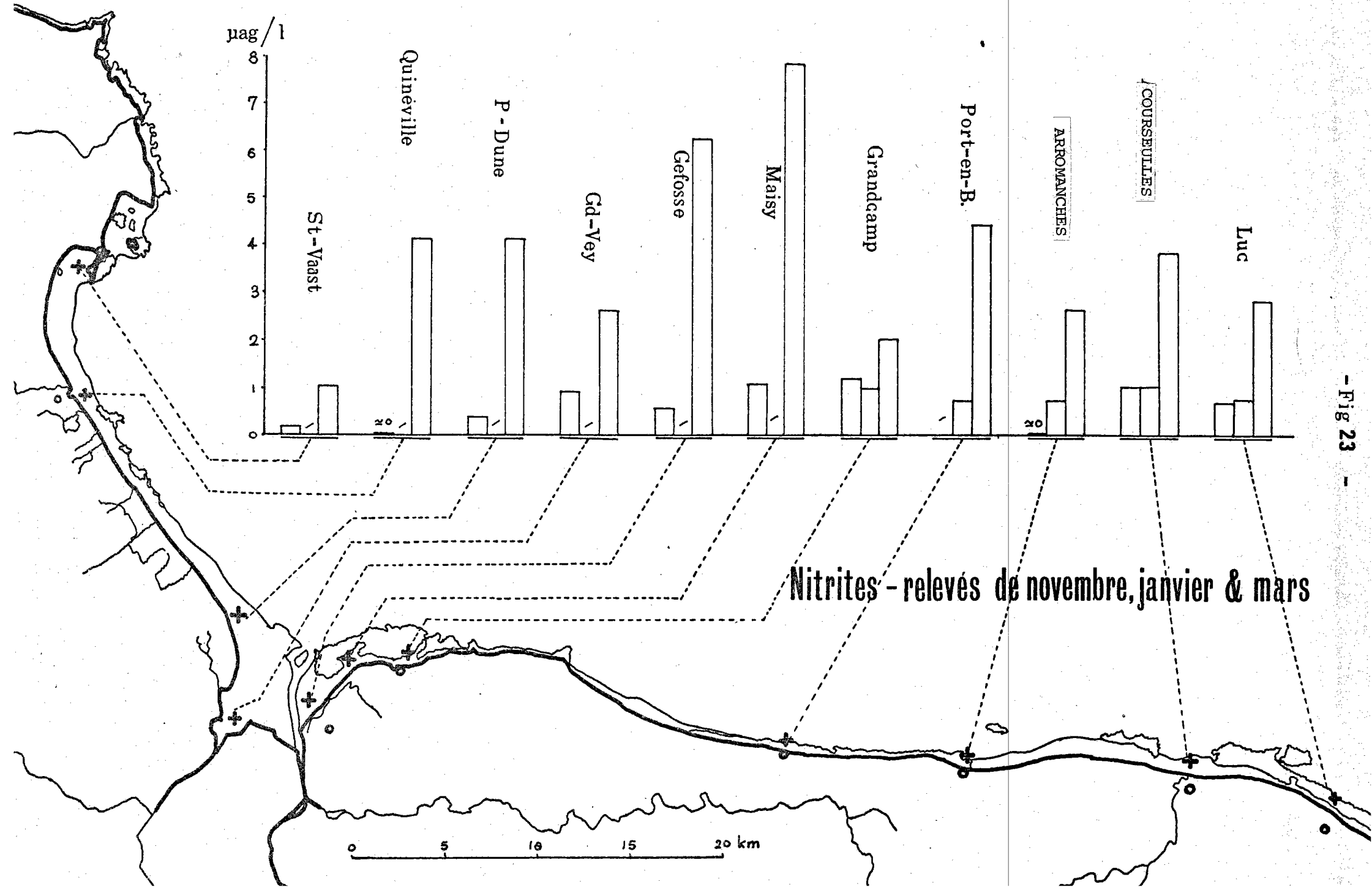




D.C.O.

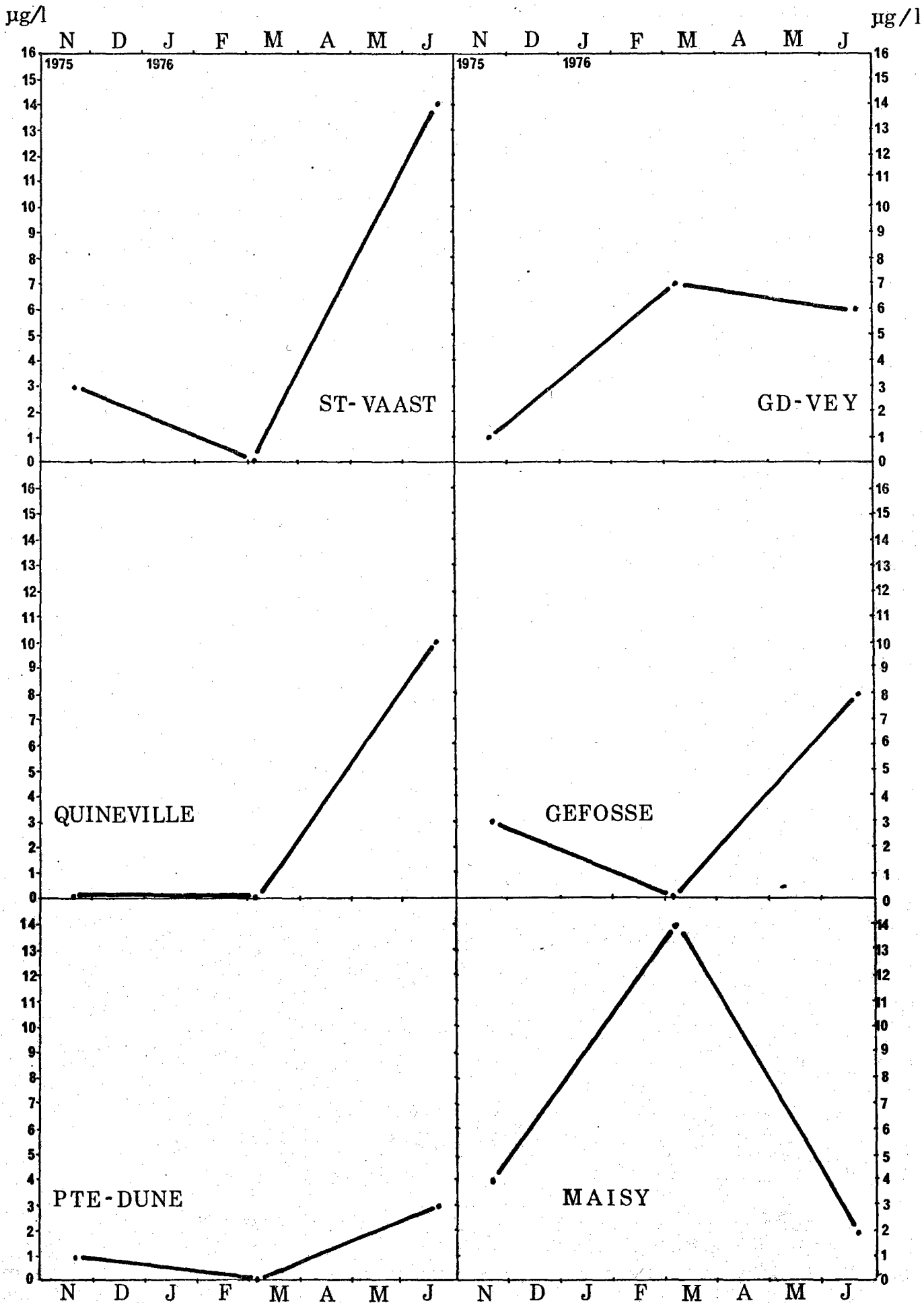
- FIG. 22 -



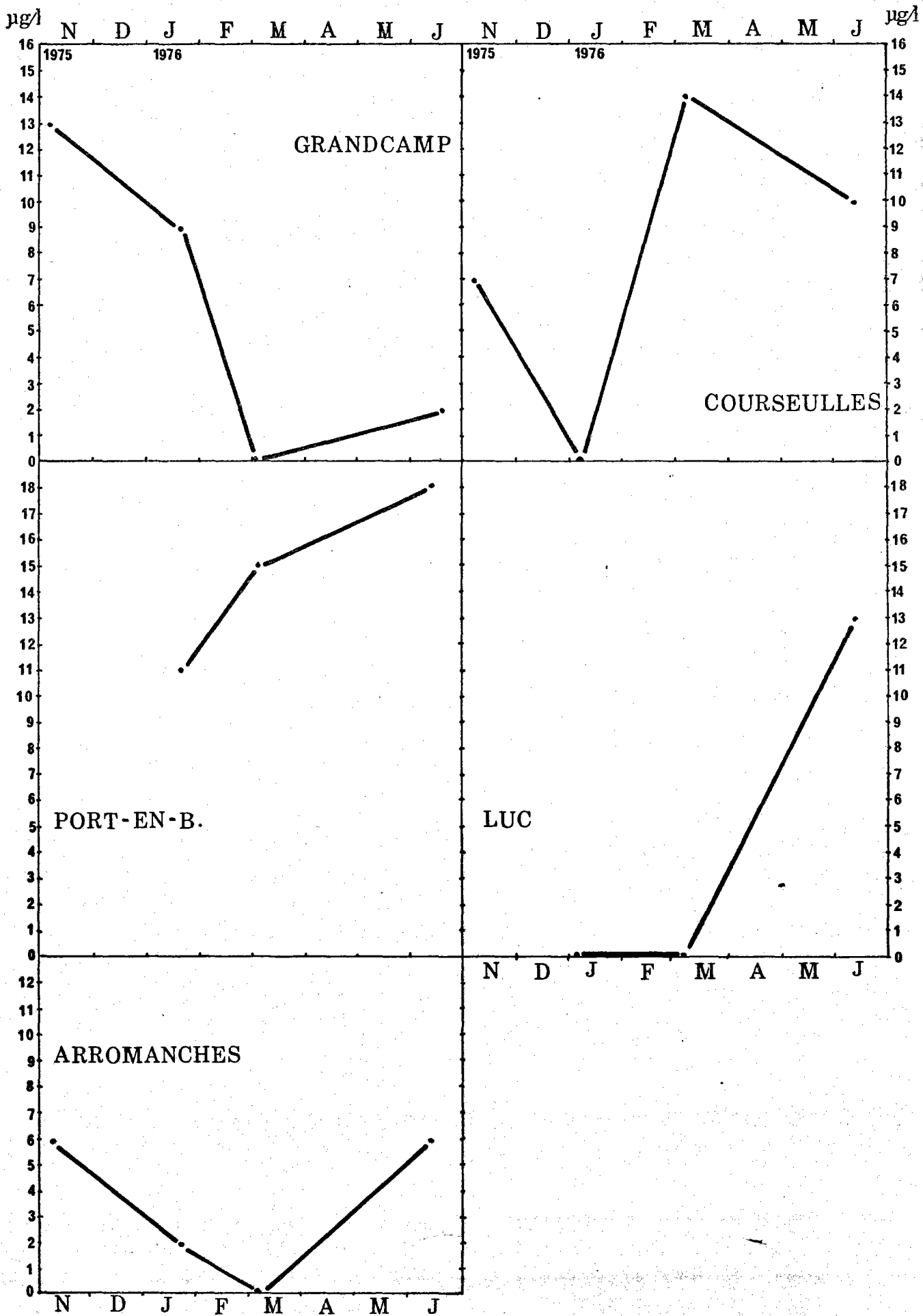


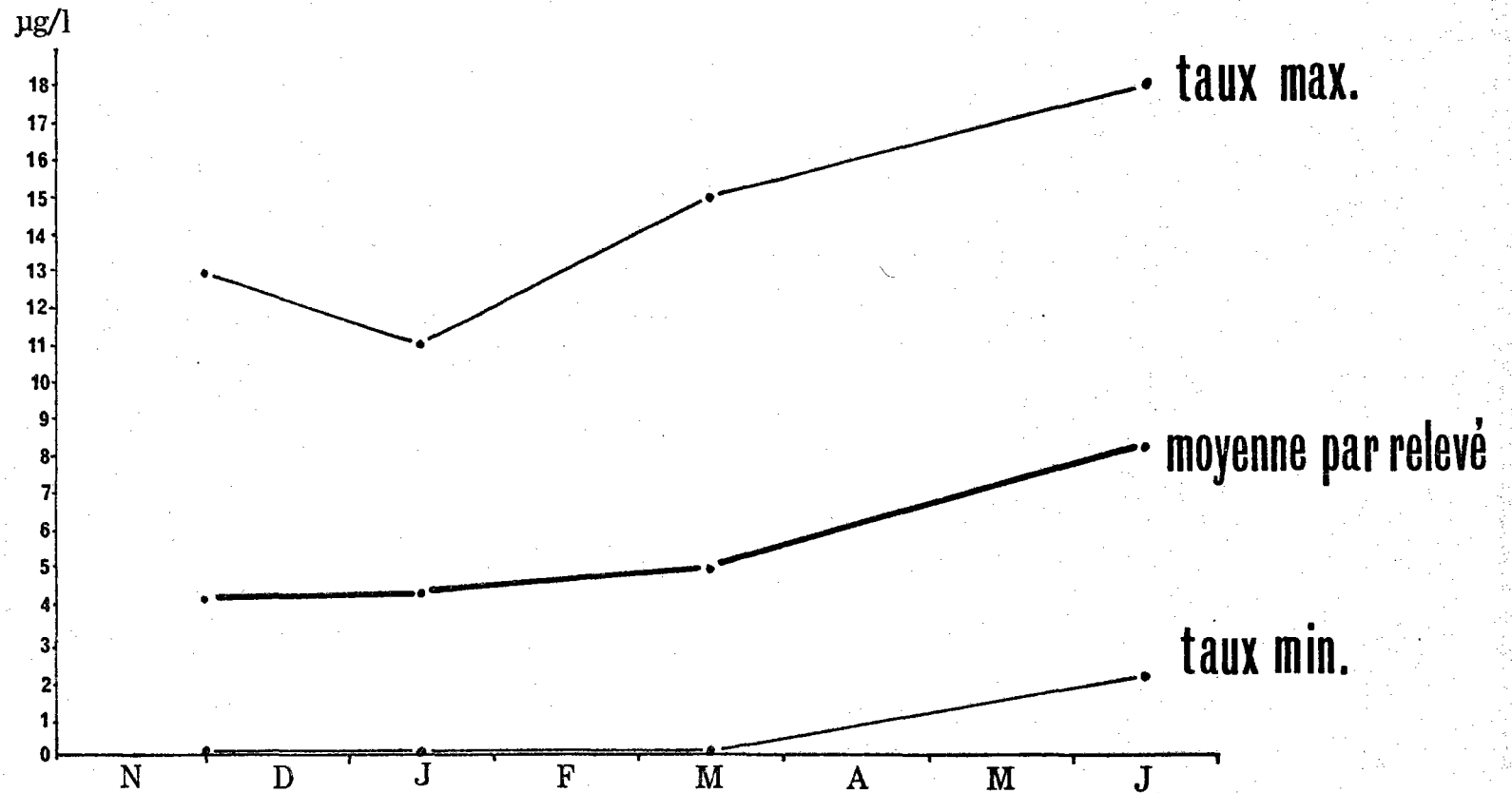
- Fig 23 -

Détergents anioniques



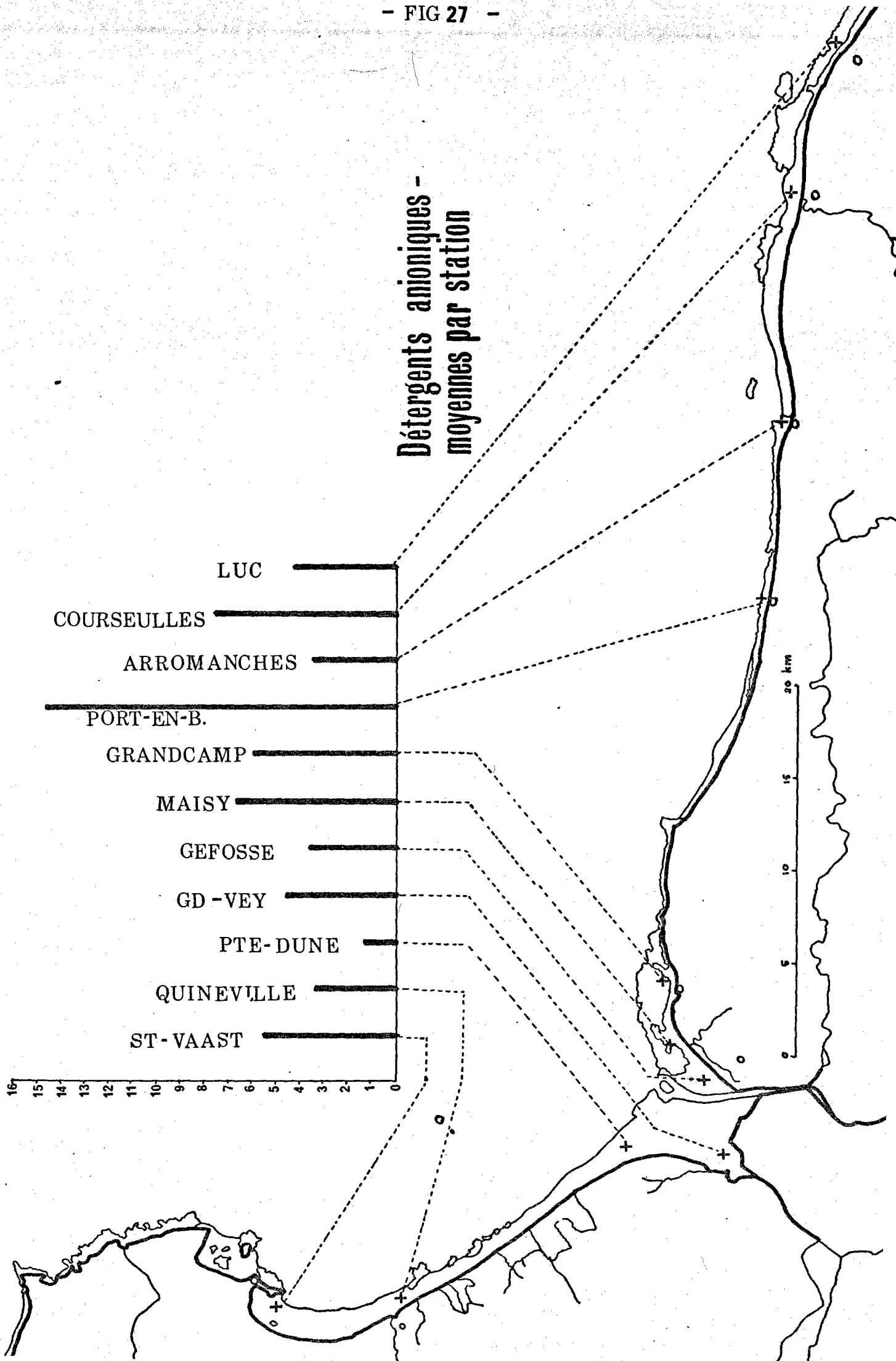
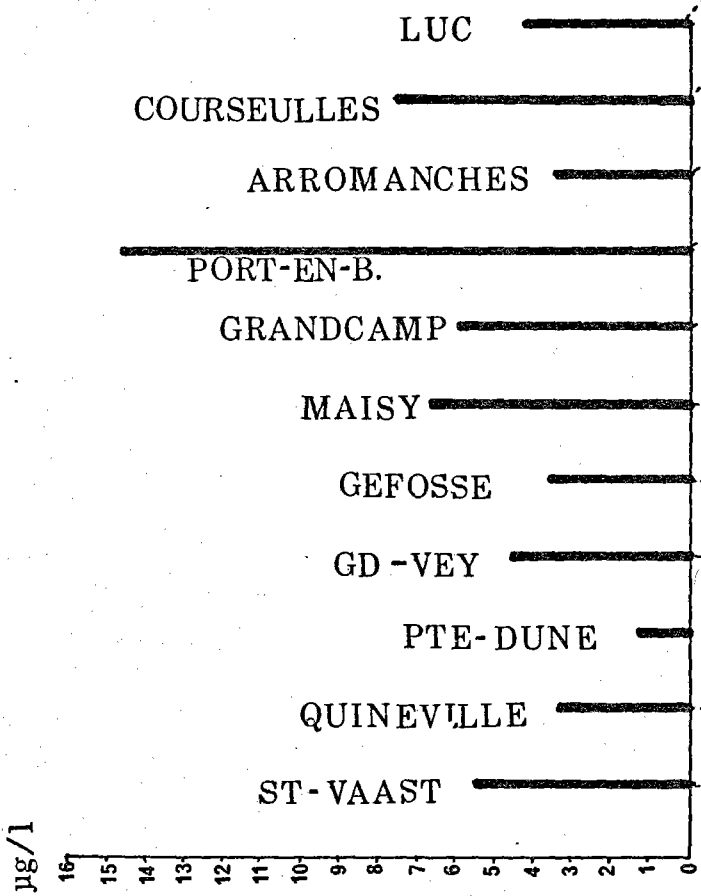
Détergents anioniques

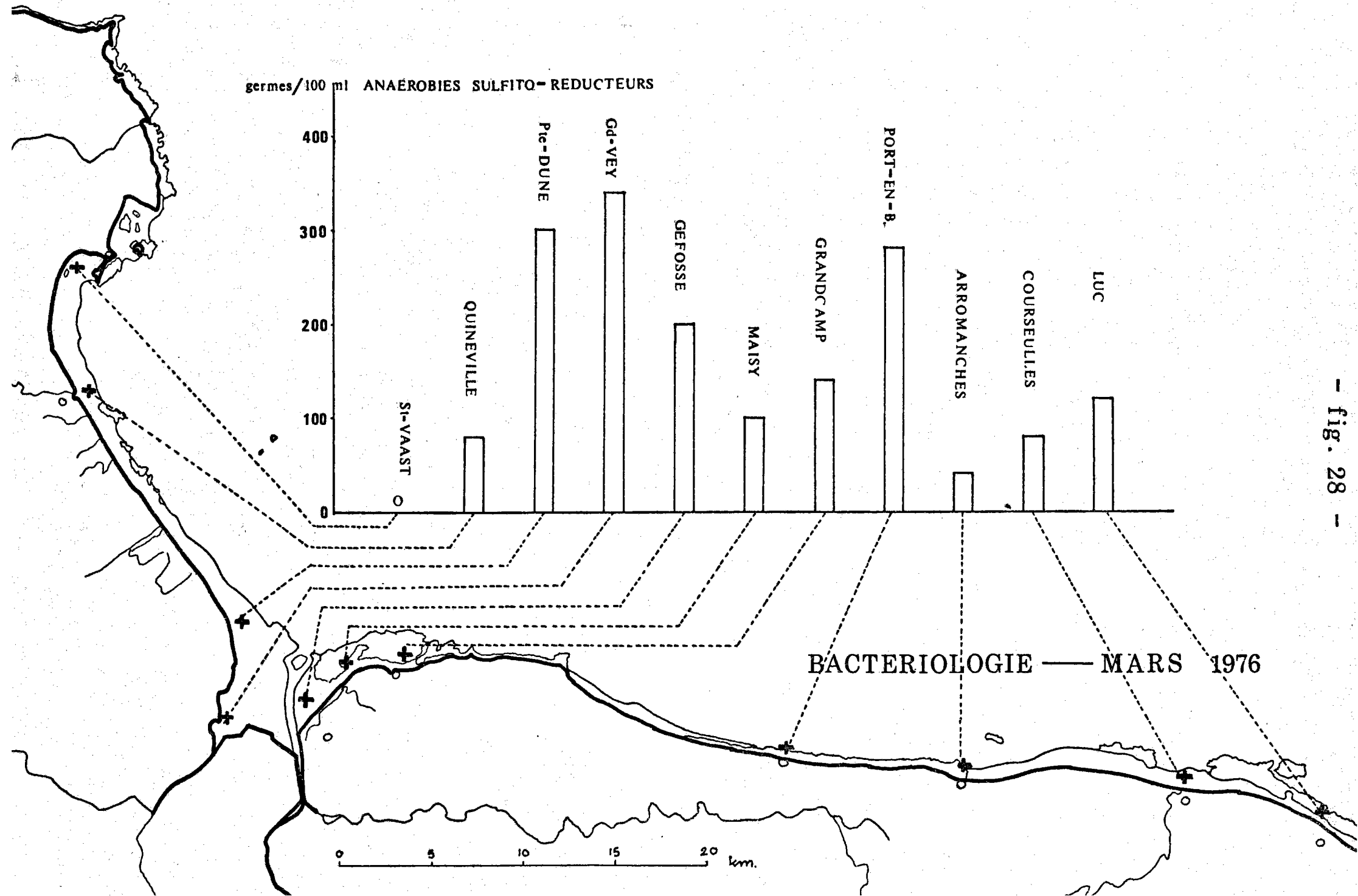




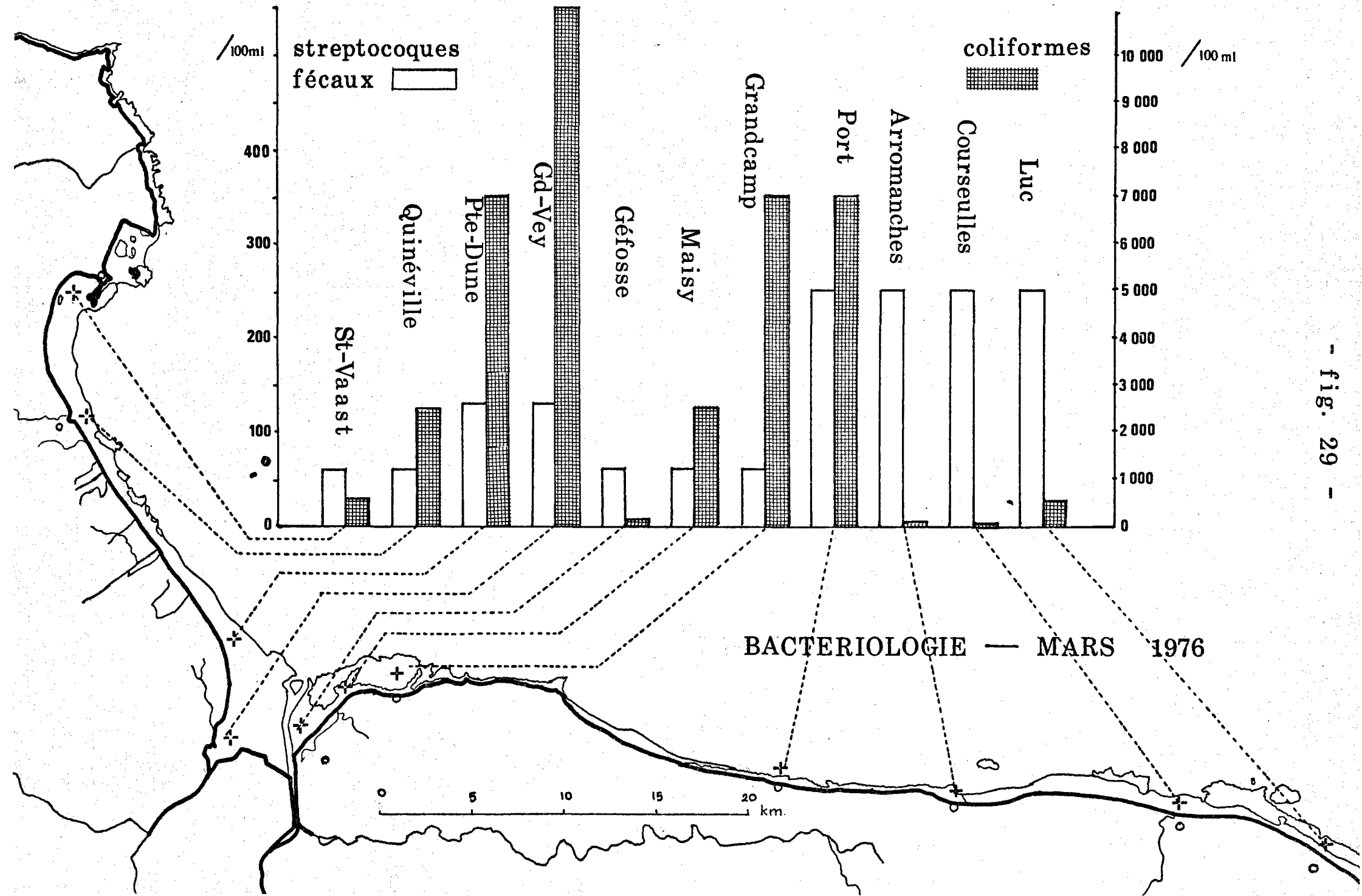
Détergents anioniques

Détergents anioniques -
moyennes par station





- fig. 28 -



- fig. 29 -

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | Nitrites ug/l | Détergents anioniques ug/l | DATE | |
|------------------|-------------------|-----------------|--------|--------------------------------|----------------|------------------|----------------------------------|------|----|
| | St-Vaast | 11 | 33,67 | - | 7,168 | 60 | 0,165 | 3 | 20 |
| | Quinéville | 11 | 31,745 | - | 6,60 | 46 | 0 | 0 | 20 |
| Baie des Veys | Petite Dune | 10 | 27,57 | - | 6,172 | 0 | 0,35 | 1 | 19 |
| | Grand Vey | 9,5 | 22,14 | - | 6,01 | 0 | 0,90 | 1 | 19 |
| | Géfosse | 10 | 27,90 | - | 5,01 | 0 | 0,63 | 3 | 21 |
| | Maisy | 10 | 24,70 | - | 6,67 | 13 | 1,05 | 4 | 21 |
| | Grandcamp | - | - | 7,6 | 6,13 | - | 1,184 | 13 | 3 |
| | Port en B. | - | - | 8,09 | 6,10 | 54 | - | - | 4 |
| | Arromanches | 11,5 | 33,03 | 8,09 | 6,26 | 59 | 0 | 6 | 4 |
| | Courseulles | 11,5 | 30,79 | 7,2 | 6,35 | 58 | 1,0 | 7 | 4 |
| | Luc s/Mer | - | 32,39 | 8,5 | 6,67 | 54 | 0,649 | - | 4 |
| | MOYENNES | 10,56 | 29,33 | 7,90 | 6,29 | 34,4 | 0,496 | 4,22 | |

Temps couvert, mer peu agitée.

- TABLEAU 1 -

| | | |
|-----------|-------------------|------|
| | Température °C | pH |
| Luc s/Mer | 7,5 | 8,02 |

- ISOLE - 1 DECEMBRE 1975 -

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | Nitrites ug/l | Détergents anioniques ug/l | DATE | Temps couvert mer agitée | |
|--------------|-------------------|---|------|--------------------------------|----------------|------------------|----------------------------------|------|-----------------------------|--|
| St-Vaast | | | | | | | | | | |
| Quinéville | | | | | | | | | | |
| Petite Dune | | | | | | | | | | |
| Grand Vey | | | | | | | | | | |
| Géfosse | | | | | | | | | | |
| Maisy | | | | | | | | | | |
| | | S O R T I E S A N N U L E E S P A R S U I T E | | | | | | | | |
| | | d e s I N T E M P E R I E S | | | | | | | | |
| Grandcamp | 8 | 32,70 | 8,00 | 6,84 | 3,0 | 1 | . | 22 | | |
| Port en Bes. | 8 | 17,97 | 7,62 | 6,34 | 10,1 | 0,7 | . | 23 | | |
| Arromanches | 8 | 34,63 | 8,00 | 6,74 | 12,0 | 0,7 | . | 23 | | |
| Courseulles | 8 | 35,59 | 8,06 | 6,74 | 24,0 | 1 | . | 23 | | |
| Luc s/Mer | 8 | 32,39 | 7,93 | 6,79 | 54,0 | 0,7 | . | 22 | | |
| MOYENNES | 8 | 30,66 | 7,92 | 6,69 | 20,62 | 0,82 | | | | |

- TABLEAU 2 -

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | Nitrites uag/l | Détergents anioniques ug/l | DATE |
|--------------|-------------------|-----------------|------|--------------------------------|----------------|-------------------|----------------------------------|------|
| St-Vaast | 10 | 33,99 | 8,14 | 8,55 | 9 | 1 | 0 | 1 |
| Quinéville | 10 | 33,67 | 8,04 | 6,60 | 13 | 4,1 | 0 | 1 |
| Petite Dune | 10 | 31,10 | 7,90 | 6,98 | 2 | 4,1 | 0 | 3 |
| Grand Vey | 10 | 24,38 | 7,90 | 7,45 | 8 | 2,6 | 7 | 3 |
| Géfosse | 8,5 | 32,07 | 7,94 | 7,102 | 30 | 6,2 | . | 4 |
| Maisy | 8,5 | 34,31 | 7,90 | 6,404 | 10 | 7,8 | 14 | 4 |
| Grandcamp | 9 | 33,35 | 8,02 | 6,87 | 4 | 2 | 0 | 4 |
| Port en Bess | 9 | 29,51 | 7,90 | 6,98 | 1 | 4,4 | 15 | 4 |
| Arromanches | 8 | 33,35 | 7,98 | 7,08 | 12 | 2,6 | 0 | 6 |
| Courseulles | 8 | 33,35 | 8,00 | 6,97 | 11 | 3,8 | 14 | 6 |
| Luc s/Mer | 8 | 33,67 | 8,02 | 7,08 | 12 | 2,8 | 0 | 6 |
| MOYENNES | 9 | 32,07 | 7,98 | 7,10 | 10,18 | 3,76 | 5 | |

Beau temps, mer belle.

- TABLEAU 3 -

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | DATE | |
|--------------|-------------------|-----------------|------|--------------------------------|----------------|------|-----------------------------------|
| Petite Dune | 20 | 36,24 | 7,35 | . | . | 18 | Beau temps, mer peu agitée. |
| Grand Vey | 20 | 36,24 | 7,45 | . | . | 18 | |
| Grandcamp | 12 | 33,35 | . | 6,60 | 0 | 12 | Temps couvert, mer peu agitée. |
| Port en Bes. | 11,5 | 34,95 | . | 7,0 | 4 | 12 | |

- TABLEAU 4 -

- SERIE PARTIELLE de MAI 1976 -

- TABLEAU 5 -

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | Détergents anioniques ug/l | DATE | | |
|----------------|-------------------|-----------------|-------|--------------------------------|----------------|----------------------------------|------|----|---------------------------|
| Baie des Veyrs | St-Vaast | 22 | 33,67 | 8,55 | 7,58 | 15 | 14 | 28 | Beau temps, mer belle |
| | Quinéville | 22 | 35,27 | 8,35 | 5,75 | 19 | 10 | 28 | |
| | Petite Dune | 23 | 34,63 | 8,30 | 5,87 | 7 | 3 | 29 | |
| | Grand Vey | 23 | 34,31 | 8,40 | 5,81 | 17 | 6 | 29 | |
| | Géfosse | 20 | 36,55 | 8,70 | 5,75 | 1 | 8 | 17 | Beau temps, m.belle |
| | Maisy | 20 | 34,95 | 9,00 | 6,36 | 17 | 2 | 17 | |
| | Grandcamp | 20 | 34,31 | 9,00 | 5,16 | 3 | 2 | 16 | Brume mer bel- le |
| | Port en B. | 20 | 34,63 | 8,70 | 5,16 | 16 | 18 | 16 | |
| | Arromanches | 20 | 36,55 | 8,07 | 6,04 | 9 | 6 | 10 | Beau temps, mer belle |
| | Courseulles | 20 | 34,31 | 8,15 | 5,70 | 9 | 10 | 10 | |
| Luc s/Mer | 20 | 37,51 | 8,20 | 7,20 | 29 | 13 | 10 | | |
| MOYENNES | 20,9 | 35,15 | 8,49 | 6,03 | 12,91 | 8,36 | | | |

| | Température °C | Salinité g/l | pH | O ₂ dissous ml/l | D.C.O. mg/l | Nitrites uag/l | Détergents anioniques ug/l |
|-------------|-------------------|-----------------|------|--------------------------------|----------------|-------------------|----------------------------------|
| St Vaast | 14,33 | 33,78 | 8,35 | 7,77 | 28,0 | 0,58 | 5,67 |
| Quinéville | 14,33 | 33,56 | 8,20 | 6,32 | 26,0 | 2,05 | 3,33 |
| Petite Dune | 14,33 | 31,10 | 7,88 | 6,34 | 3,0 | 2,23 | 1,33 |
| Grand Vey | 14,17 | 26,94 | 7,92 | 6,42 | 8,3 | 1,75 | 4,67 |
| Géfosse | 12,83 | 32,17 | 8,32 | 5,95 | 10,3 | 3,42 | 3,67 |
| Maisy | 12,83 | 31,32 | 8,45 | 6,48 | 13,3 | 4,43 | 6,67 |
| Grandcamp | 12,33 | 33,45 | 8,16 | 6,32 | 2,5 | 1,39 | 6,0 |
| Port en B. | 12,13 | 27,37 | 8,08 | 6,32 | 17,02 | 2,55 | 14,67 |
| Arromanches | 11,88 | 34,39 | 8,04 | 6,53 | 23 | 1,10 | 3,50 |
| Courseulles | 11,88 | 33,51 | 7,85 | 6,44 | 25,5 | 1,93 | 7,75 |
| Luc s/Mer | 12,0 | 33,99 | 8,13 | 6,94 | 33,25 | 1,38 | 4,33 |

- TABLEAU 6 -

- MOYENNES des PARAMETRES par STATION -
NOVEMBRE 1975 - JUIN 1976

| STATIONS | ANAEROBIES SULFITO-REDUC- TEURS Germes/100 ml | COLIFORMES | | STREPTOCOQUES PECAUX | | FLORE TOTALE/100ml. |
|--------------|--|----------------|------------------|----------------------|------------------|------------------------|
| | | Germes/100 ml. | Qualité d'eau | Germes/100 ml. | Qualité d'eau | |
| St-Vaast | 0 | 600 | I | 60 | G-I | 22 000 |
| Quinéville | 80 | 2 500 | I | 60 | G-I | 10 000 |
| Petite Dune | 300 | 7 000 | I | 130 | Insalubre | 60 000 |
| Grand Vey | 340 | 11 000 | Insalubre | 130 | Insalubre | 17 000 |
| Géfosse | 200 | 130 | G | 60 | G-I | 4 000 |
| Maisy | 100 | 2 500 | I | 60 | G-I | 26 000 |
| Grandcamp | 140 | 7 000 | I | 60 | G-I | 12 000 |
| Port en Bes. | 280 | 7 000 | I | 250 | Insalubre | 3 000 |
| Arromanches | 40 | 60 | G | 250 | Insalubre | 9 000 |
| Courseulles | 80 | 60 | G | 250 | Insalubre | 3 000 |
| Luc sur Mer | 120 | 600 | I | 250 | Insalubre | 1 400 |

- TABLEAU 7 -