

Historical database: French Fishery National Statistics from 1901 to 1979

English Channel crustacean fisheries report

Morgane Amelot¹

¹Ifremer, Laboratoire Ressources Halieutiques de Port-en-Bessin, Avenue du Général de Gaulle, 14 520 Port-en-Bessin, France

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Objectives

The MECANOR² FEAMP project (2020-2023) focused on the eastern English Channel whelk and crustacean trap fisheries. An historical approach has been developed to collect information on three crustacean species' (lobster, *Homarus gammarus*, edible crab, *Cancer pagurus*, and spider crab, *Maja brachydactyla*) past dynamics. To achieve these objectives the annual reports from the French National Fishery Statistics have been banked to analyse fisheries trends. This banking was adapted by sequences to follow changes in spatial scale and species identification precisions. The following document informs choices that have been made when creating this database to ease its use.

Database structure

Coastal fishery

When available, banked production data by species included : the catch, the total raw economical value of the catch, fisherman number, fishing boat number, fishing gear economical value, fishing season.

Beach fishery

When available, banked production data by species included : the catch, the total raw economical value of the catch, fisherman number, fishing gear economical value, fisherman mean income.

Banked data format

- The year (numeric): **AN (YEAR)** '1900', '1901', etc.
- The fishery type (character): **TYPE (TYPE)** 'COTIERE' (coastal fishery) or 'A PIED' (beach fishery)
- Fishing area (character): **REGION (REGION)** 'Manche Mer du Nord' (English Channel and North Sea); **ARRONDISSEMENT (DISTRICT)** 'Premier arrondissement' (first district), 'Deuxième arrondissement' (second district); **QUARTIER (QUARTIER)** 'Boulogne sur Mer', 'Fecamp', 'Le Havre', etc.; **PORT (HARBOUR)** 'Boulogne sur Mer', 'Saint Pierre en Port', 'Fecamp', etc.
- The identification levels (character): **ESPECE_NIV1 (SPECIES_LEVEL1)** 'Crustaces' (Crustaceans); **ESPECE_NIV2 (SPECIES_LEVEL2)** 'Homards et Langoustes' (Lobsters and spiny lobsters) or 'Autres crustaces' (other crustaceans); **ESPECE_NIV3 (SPECIES_LEVEL3)** 'Homards' (Lobster), 'Crabes et araignees' (Crabs and spider crabs) or 'Divers crustaces' (various crustaceans); **ESPECE_NIV4 (SPECIES_LEVEL4)** 'Homards' (Lobsters), 'Tourteau' (Edible crabs) ou 'Araignees' (spider crabs)
- The total catch by year (numeric): **QUANTITE (QUANTITY)**
- The total catch by year unit (character): **QUANTITE_UNITE (QUANTITY_UNIT)** 'Kg', 'T'
- The annual profit associated to the total catch by year (numeric): **PRIX (PRICE)**
- The annual profit unit (character): **PRIX_UNITE (PRICE_UNIT)** 'Fr' for the old franc, 'Nfr' for new franc.
- The number of fishermen who were involved in the annual catch (numeric): **NB_PECHEUR (FISHERMAN_NUMBER)**
- The number of boat that were involved in the annual catch (numeric): **NB_BATEAU (BOAT_NUMBER)**
- The season when the fishery took place (character) : **EPOQUE (PERIOD)**, 'T' (All year around), 'Ja' (January), 'Fe' (February), 'Mr' (March), 'Av' (April), 'Ma' (May), 'Ju' (June), 'Jl' (July), 'Ao' (August), 'Se' (September), 'Oc' (October), 'No' (November), 'De' (December)

Format and temporal changes :

Fishery statistical reports followed a relatively consistent schematic through time.

- (1) An introduction, including general considerations, followed by several tables on the production, fleet and commercial exchanges on a national level.
- (2) Fleet presentation by quartier and fishing harbour.
- (3) Detailed production values, seasonality, gain and effort by fishery type (High Sea fishery, Offshore fishery, Coastal fishery, Freshwater fishery and Beach fishery), quartiers, harbours and species groups.
- (4) The production and gains associated to oyster farming and mussel farming by quartier and harbour.
- (5) After 1901, a « various information » section including boat building, losses and general fish market yields was included.

The spatial extent and the identification levels changed with time and are presented by temporal sequences to ease the database understanding. Furthermore, a figure which summarising the coastal fishery spatial extent has been added at the end of this document (Figure 1).

Sequence 1 (1900-1912)

Spatial definition

Total spatial extent

During this period the English Channel was split into districts. The first district spanned from Dunkerque's quartier (started in Dunkerque's harbour) to Cherbourg's quartier (ended in Port-Bail's harbour), covering the whole study area. Consequently, only this district has been banked in the database.

Species definition

Coastal fishery

In coastal fishery the production has been reported for lobsters and spiny lobsters together, and for all other crustaceans (edible crab, crabs, spider crabs, etc.) together. Other categories did exist (shrimps) but have not been reported since they did not concern any species of interest for this project.

Beach fishery

During this period the species identification has been made with the same level of precision for coastal and beach fisheries. It allowed for the report of two categories, one for lobsters and spiny lobsters, the second for all other crustaceans, apart from shrimps. From 1907 to 1908 and 1910 to 1912, lobsters have been reported apart from spiny lobsters by beach fisheries.

Sequence 2 (1913-1915)

Spatial definition

Total spatial extent

During this period the English Channel and North Sea french region was not divided in districts or quarters, and covered the coastal area from Dunkerque to Roscoff. This spatial extent was larger than the focus region of this project. For these three years coastal and beach fisheries have not been reported with the same spatial extent. Indeed, the landed quantity attributed to the « other port » category for coastal fishery is comprised between 36 and 85 % of the total landed quantities during this period. However, these landings only represented 17 % to 1 % of the total landings for beach fishery. Consequently, the entire region has been reported for coastal fishery. However, beach fishery has only been reported from Boulogne sur Mer to Portbail.

Species definition

Coastal fishery

The coastal fishery production data has been reported for lobsters and spiny lobsters together until 1915, and for other crustaceans (crabs, edibles crabs, spider crabs, etc.) together. In 1915, the edible crabs as well as the lobsters were reported on a species specific level. Other sections did exist for crustaceans (shrimps) but they were not reported in the database since they were of no interest for this project.

Beach fishery

During this period species identification for beach fishery has been reported on a species specific level for the lobster while the other crustacean species have been reported all together (except for shrimps).

Sequence 3 (1916-1923)

Spatial definition

Total spatial extent

During this period the English Channel and North Sea region was divided in districts for the coastal fishery. The first district covered the coastal area from Dunkerque to Rouen, the second district started in Honfleur and ended in Cancale, the third district started in Saint Malo and ended in Le Conquet. Only the first and the second district have been included in the database, they covered already a larger area than the focus region. The same spatial extent has been used for beach fishery.

Species definition

Coastal fishery

In coastal fishery edible crab as well as lobsters were reported on a species specific level. An other category including the spider crab and the other crabs did exist. Informations on other crustaceans

were available (shrimps) but not reported in the database since they were of no interest for this project.

Beach fishery

During this period the identification level of beach fishery reported lobsters and spiny lobsters together and other crustaceans (apart from shrimps) together. Once again all crustaceans apart from shrimps were added to the database.

Sequence 4 (1924-1958)

Spatial definition

Total spatial extent

During this period the English Channel and North Sea was not divided in districts for the coastal fishery. The spatial extent started in Dunkerque and ended in Saint Servan. It included a larger area than the focus area. The beach fishery was only reported at the region level.

Species definition

Coastal fishery

For coastal fishery edible crabs as well as lobsters were reported on a species specific level, and another category that included all other crabs and spider crabs did exist. After 1948, edible crabs were again reported with other crabs and spider crabs. Other sections were available for shrimps but were not reported in the database since they were of no interest for the project. After 1954, crabs and spider crabs were reported together, apart from other crustaceans.

Beach fishery

During this period the species identification in beach fishery did report lobsters and spiny lobsters together and all other crustaceans (apart from shrimps) together. After 1948, lobsters were reported with all other crustaceans

Sequence 5 (1959-1979)

Spatial definition

Total spatial extent

During this period the English Channel and North Sea region was divided in districts for the coastal fishery. The spatial extent of Le Havre district started in Dunkerque and ended in Cherbourg. It covered the entire study area, only this district has been used. The beach fishery was no longer reported.

Species definition

Coastal fishery

For coastal fishery crabs and spider crabs were reported together, while lobsters were reported on a species specific level. Finally an « other crustaceans » category existed with all other crustaceans apart from shrimps. After 1973 all crustaceans were reported on a species specific level.

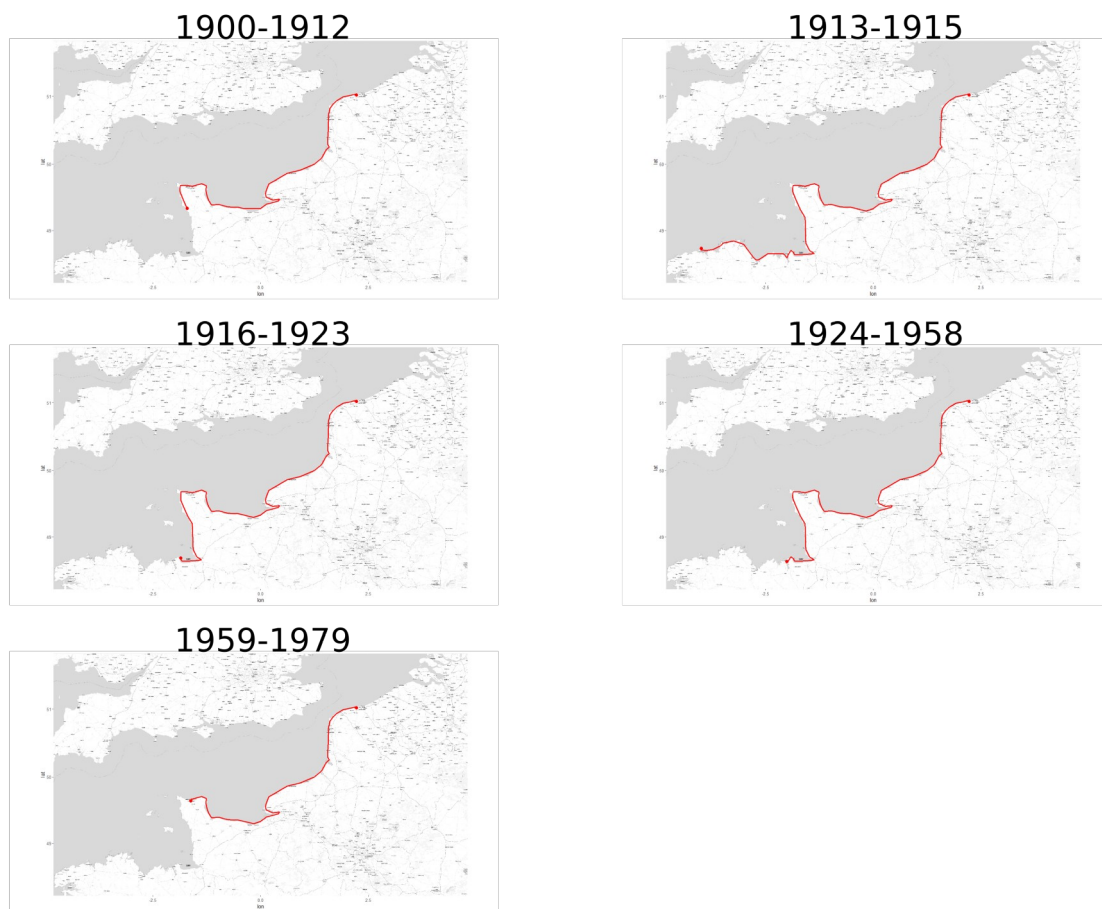


Figure 1 : Spatial extent maps for the different time sequences from 1900 to 1979. In red the full extent of area considered by our temporal sequences.