

Review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of Saint Lawrence (CFAs 12, 12E, 12F and 19)

Andrew Harbicht, Tobie Surette, and Jean-François Landry

Science Branch
Gulf Region
Gulf Fisheries Centre
Fisheries and Oceans Canada
343 University Avenue
Moncton, N.B., Canada
E1C 5K4

2026

Canadian Data Report of Fisheries and Aquatic Sciences 1474



Canadian Data Report of Fisheries and Aquatic Sciences

Data reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of the series reflects the broad interests and policies of Fisheries and Oceans Canada, namely, fisheries management, technology and development, ocean sciences, and aquatic environments relevant to Canada.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The correct citation appears above the abstract of each report. Each report is abstracted in the data base *Aquatic Sciences and Fisheries Abstracts*.

Data reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and Environment, Fisheries and Marine Service Data Reports. The current series name was changed with report number 161.

Rapport statistique canadien des sciences halieutiques et aquatiques

Les rapports statistiques servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des rapports statistiques reflètent la vaste gamme des intérêts et politiques de Pêches et Océans Canada, notamment la gestion des pêches, la technologie et le développement, les sciences océaniques et l'environnement aquatique, au Canada.

Les rapports statistiques ne sont pas préparés pour une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact figure au haut du résumé de chaque rapport. Les rapports à l'industrie sont résumés dans la base de données *Résumés des sciences aquatiques et halieutiques*.

Les rapports statistiques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement d'origine dont le nom figure sur la couverture et la page du titre.

Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Canadian Data Report of
Fisheries and Aquatic Sciences 1474

2026

Review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of
Saint Lawrence (CFAs 12, 12E, 12F and 19)

by

Andrew Harbicht, Tobie Surette, and Jean-François Landry

Science Branch
Gulf Region
Gulf Fisheries Centre
Fisheries and Oceans Canada
343 University Avenue
Moncton, N.B., Canada
E1C 5K4

© His Majesty the King in Right of Canada, as represented by the Minister of the Department of Fisheries and Oceans, 2026

This work is licensed under the [Open Government Licence](#)

Cat. No. Fs97-13/1474E-PDF ISBN 978-0-660-98245-8 ISSN 1488-5395

Correct citation for this publication:

Harbicht, A., Surette, T., and Landry, J.-F. 2026. Review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of Saint Lawrence (CFAs 12, 12E, 12F and 19). Can. Data Rep. Fish. Aquat. Sci. 1474: vi + 25 p.

TABLE OF CONTENTS

| | |
|---------------------------------|----|
| LIST OF TABLES | iv |
| LIST OF FIGURES | iv |
| ABSTRACT..... | v |
| RÉSUMÉ | vi |
| 1. INTRODUCTION | 1 |
| 2. METHODS | 1 |
| 2.1. FISHERY LOGBOOK DATA..... | 1 |
| 2.2. CATCH PER UNIT EFFORT..... | 2 |
| 2.3. AT-SEA OBSERVER DATA..... | 3 |
| 2.4. FISHERY CLOSURES..... | 3 |
| 3. RESULTS AND DISCUSSION | 3 |
| 3.1. FLEET AND SEASON..... | 3 |
| 3.2. QUOTAS AND LANDINGS | 4 |
| 3.3. FISHING EFFORT | 5 |
| 3.4. CATCH PER UNIT EFFORT..... | 5 |
| 3.5. FISHERY CLOSURES..... | 6 |
| 4. CONCLUSION..... | 6 |
| 5. ACKNOWLEDGEMENTS..... | 7 |
| 6. REFERENCES CITED..... | 7 |
| 7. TABLES | 8 |
| 8. FIGURES..... | 13 |

LIST OF TABLES

| | |
|---|----|
| Table 1. Number of allocation shares, number of active vessels, season opening and closing dates, last landing dates, revised quotas, and total landings of the snow crab fishery by Crab Fishing Area in the southern Gulf of Saint Lawrence in 2025. | 8 |
| Table 2. Fishery characteristics and at-sea observer coverage by Crab Fishing Area in the southern Gulf of Saint Lawrence snow crab fisheries in 2025. | 9 |
| Table 3. Landings, fishing effort and catch per unit effort from logbooks in the southern Gulf of Saint Lawrence snow crab, <i>Chionoecetes opilio</i> , fisheries (Crab Fishing Areas 12, 12E, 12F and 19) since 1987 (note: landings for 2025 are preliminary)..... | 10 |
| Table 4. Catch per unit effort (kg per trap haul) in Crab Fishing Area 12 by harvester group. ... | 11 |
| Table 5. Seasonal averaged and standardized catch-per-unit-of-effort (kg / trap haul) by year and crab fishing area (CFA). Standard errors are shown in parentheses. | 12 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1. Location of snow crab (<i>Chionoecetes opilio</i>) fishing grounds and Crab Fishing Areas in the southern Gulf of Saint Lawrence. | 13 |
| Figure 2. Size frequency distributions of all male crabs measured during the at-sea sampling (before discarding) in Crab Fishing Areas 12, 12E, 12F and 19 in 2025. The red dashed line indicates the legal size of 95 mm carapace width..... | 14 |
| Figure 3. Snow crab landings (t) in Crab Fishing Areas 12E, 12F, and 19 (upper panel), as well as Crab Fishing Area 12 and the entire southern Gulf of St. Lawrence (lower panel). | 15 |
| Figure 4. Cumulative landings, as a percentage of the crab fishing area's revised quota. | 16 |
| Figure 5. Spatial distribution of landings (t/km ²) in Crab Fishing Areas from the 2021-2025 fishing seasons. | 17 |
| Figure 6. Spatial distribution of fishing effort (traps hauled per km ²) by Crab Fishery Area from the 2021-2025 fishing seasons. | 18 |
| Figure 7. Catch per unit effort (kg/th) by Crab Fishing Area in the southern Gulf of Saint Lawrence based on fishery logbook data. | 19 |
| Figure 8. Weekly catch per unit effort (CPUE) for crab fishing area 12 based on fisheries logbook and landings records. | 20 |
| Figure 9. Weekly catch per unit effort (CPUE) for crab fishing area 12E based on fisheries logbook and landings records. | 21 |
| Figure 10. Weekly catch per unit effort (CPUE) for crab fishing area 12F based on fisheries logbook and landings records. | 22 |
| Figure 11. Weekly catch per unit effort (CPUE) for crab fishing area 19 based on fisheries logbook and landings records. | 23 |
| Figure 12. Spatial distribution of catch per unit effort (kg/th), in the Crab Fishing Areas from 2021-2025 fishing seasons..... | 24 |
| Figure 13. Local area closures of soft/white crab (solid grey area) and for the protection of North Atlantic right whales (hatched area) in 2025. Numbers represent the total number of days grids were closed during the season..... | 25 |

ABSTRACT

Harbicht, A., Surette, T., and Landry, J.-F. 2026. Review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of Saint Lawrence (CFAs 12, 12E, 12F and 19). Can. Data Rep. Fish. Aquat. Sci. 1474: vi + 25 p.

The review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of St. Lawrence (sGSL; Crab Fishing Areas (CFAs) 12, 12E, 12F and 19) is presented. Preliminary landings in the sGSL in 2025 totalled 18,530 t out of a revised quota of 17,964 t. The allowable quota in the Notice to Harvesters was 17,884 t.

For CFA 12 harvesters, landings were 15,236 t (revised quota of 14,729 t). The catch per unit effort (CPUE) values from logbooks decreased in 2025 (52.7 kg per trap haul (kg/th)) compared to 2024 (60.3 kg/th).

In CFAs 12E and 12F, landings were 269 t (revised quota of 259 t) and 1,096 t (revised quota of 1,100 t), respectively. In CFA 12E, CPUE values are lower in 2025 (36.2 kg/th) compared to 2024 (78.3 kg/th). In CFA 12F, CPUE values also decreased in 2025 (79.0 kg/th) compared to 2024 (90.0 kg/th).

In CFA 19, landings reached 1,876 t (revised quota of 1,876 t). The CPUE values for CFA 19 decreased from 136.5 kg/th in 2024 to 113.5 kg/th in 2025.

RÉSUMÉ

Harbicht, A., Surette, T., and Landry, J.-F. 2026. Review of the 2025 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of Saint Lawrence (CFAs 12, 12E, 12F and 19). Can. Data Rep. Fish. Aquat. Sci. 1474: vi + 25 p.

La revue de 2025 de la pêche au crabe des neiges, *Chionoecetes opilio*, dans le sud du golfe du Saint-Laurent (sGSL ; zones de pêche au crabe (ZPC) 12, 12E, 12F et 19) est présentée. Les débarquements préliminaires dans le sGSL en 2025 ont atteint 18 530 t sur un quota révisé de 17 964 t. Le quota alloué dans l’Avis aux pêcheurs était de 17 884 t.

Pour les pêcheurs de la ZPC 12, les débarquements ont atteint 15 236 t (quota révisé de 14 729 t). La prise par unité d’effort (PUE) selon les carnets de bord a diminué en 2025 (52,7 kg par casier levé (kg/cl) comparativement à 2024 (60,3 kg/cl).

Dans les ZPC 12E et 12F, les débarquements ont atteint 269 t (quota révisé de 259 t) et 1 096 t (quota révisé de 1 100 t), respectivement. Dans la ZPC 12E, la PUE a diminué en 2025 (36,2 kg/cl) par rapport à celle de 2024 (78,3 kg/cl). Dans la ZPC 12F, la PUE a diminué en 2025 à 79,0 kg/cl, par rapport à 2024 (90,0 kg/cl).

Dans la ZPC 19, les débarquements étaient de 1 876 t sur un quota révisé de 1 876 t. La PUE de la ZPC 19 a diminué par rapport à 2024 (136,5 kg/cl), à 113,5 kg/cl en 2025.

1. INTRODUCTION

Snow Crab (*Chionoecetes opilio*) has been commercially harvested in the southern Gulf of St. Lawrence (sGSL) since the mid-1960s. There are currently four Crab Fishing Areas (CFAs) in the sGSL: 12, 12E, 12F, and 19 (Figure 1), with CFA 12 being the largest in terms of area, number of participants, and landings.

The fishing season in CFAs 12, 12E, and 12F generally begins as soon as the sGSL is free of ice in April or May and continues until the end of June or when the area quota is reached. In CFA 19, the fishing season normally starts in July and ends in September or when the quota is reached. The number of traps per licence varies by harvester group and CFA. Conical traps are set mainly on mud or sand-mud bottoms at depths ranging from 50 to 280 m. Fishery management is based on quotas and effort controls, including trap allocations, trap dimensions, and season length. Only hard-shelled males with a carapace width (CW) of at least 95 mm are commercially harvested, and the landing of female crabs is prohibited.

There are two buffer zones within the sGSL where fishing is prohibited: one is located between the southern edge of CFA 19 and CFA 12, and another is located along the northern edge of CFA 19 and CFA 12F. A third area, a one-nautical-mile strip of CFA 12 along the western boundary of CFA 19, has a delayed opening, beginning on June 1st. During the season, the fishery is subject to local area closures to limit the bycatch of soft-shell crabs, as well as closures to mitigate the risk of entanglement of North Atlantic Right Whales (NARW) in snow crab fishing gear. Large-scale closures from either source can result in significant shifts in fleet fishing effort, particularly earlier in the fishing season.

2. METHODS

2.1. FISHERY LOGBOOK DATA

Data on reported landings and fishing effort (number of trap hauls) were obtained from fishery logbooks and dockside monitoring data and compiled by the Department of Fisheries and Oceans (DFO) Statistics Branches of the Quebec and Gulf Regions. Prior to 2025, these data were transmitted to DFO through dockside monitoring companies; however, beginning in 2025, harvesters must submit entries directly using an electronic (e-log) application. Science staff subsequently review these records to verify, correct, or remove erroneous records.

Post-processing included corrections to fishing dates, fishing coordinates, and reported landings through cross-validation among multiple data sources. In particular, reported fishing locations were evaluated by comparing logbook coordinates with vessel monitoring system (VMS) records. Daily catch estimates were adjusted according to the ratio of estimated landings per trip to per-trip landing records from the dockside monitoring program. When inconsistencies or errors were identified, records were corrected where possible or removed when corrections could not be reliably made.

Erroneous effort-related values (e.g., soak time) were replaced with values derived from vessel-specific median estimates where appropriate. Records were discarded entirely when issues were identified with the reported number of traps.

2.2. CATCH PER UNIT EFFORT

Empirical catch per unit effort (CPUE) values for 2025 were calculated as the ratio of reported daily catch to fishing effort (number of traps). Only logbook records with reliable effort information were retained for empirical CPUE estimation. Overall, approximately 16 % of records were discarded in 2025, an increase relative to 2024 (3 %). Dropped records were distributed across all CFA, ranging from 5 % in 12F to 28 % in CFA 12E and consisted of records with improbably low catches (< 10 kg, 33 %), or records with incomplete or missing effort details (66 %). Among records that passed the verification step, coordinate corrections (based on vessel monitoring system tracks) were made to 12 %, more than twice that of 2024 (5 %), while soak time corrections were made to 0.5 %, less than half that of 2024 (1.3 %).

Seasonal CPUE values were then calculated for each fishing area by dividing the aggregated landings and effort values from logbook records that permitted CPUE calculation. Seasonal CPUE values were subsequently used to produce a more comprehensive estimate of total effort by dividing the total annual landings (including records without reliable effort information) within each fishing area by the corresponding seasonal CPUE estimate. For comparative purposes, mid-term (2011–2025) and long-term (1998–2025) mean CPUE values were also calculated.

To assess the spatial distribution of landings, effort, and CPUE, the former two were aggregated over the season according to location (rounded to a 20th of a degree) and a localized seasonal CPUE value was calculated for each 0.05 degree grid. The resulting spatial grids were then plotted over a map of the fishing areas.

Standardized CPUE was defined as the model-predicted mean catch per trap, evaluated seven days after the opening of the fishery and at a standardized soak time of 36 hours, for an average vessel within each CFA. Day 7 was selected as the reference point to minimize the influence of elevated CPUE values typically observed immediately following fishery openings. A standard soak time of 36 hours was chosen as an intermediate value between the shorter soak times typically observed in CFA 19 (1-2 days) and the longer soak times characteristic of CFAs 12, 12E and 12F (3 days).

Nonlinear relationships were assumed between log-transformed landings and both the fishing day and soak time. Variation among fishing vessels was accounted for by including vessel identity as a random effect on the intercept, while the number of traps was included as an offset term. Formally, this statistical model was specified as:

$$\ln L_{ijz} = \alpha_z + s_f(d_{ij}) + s_f(t_{ij}) + v_j + \ln n_{ij} + \varepsilon_{ijz}$$

Where L_{ijz} is the recorded landings for fishing vessel i , logbook entry j , in CFA z . The model components include CFA-specific intercepts (α_z); smoothing splines over fishing day ($s_f(d_{ij})$) and soak times day ($s_f(t_{ij})$) for fishing fleet f ; a vessel-level random effect v_j , where $v_j \sim N(0, \sigma_v^2)$; an offset term for the number of traps fished ($\ln n_{ij}$); and a normally distributed residual error term $\varepsilon_{ijz} \sim N(0, \sigma^2)$.

Two fishing fleet groupings were assumed: one comprising CFAs 12, 12E and 12F, and a second comprising CFA 19. Analyses were conducted on an annual basis using Generalized Additive Mixed Models (GAMM) implemented in R using the *mgcv* package, (version 1.9,

Wood 2017). Data collected prior to 2017 were excluded from model fitting due to data quality issues.

2.3. AT-SEA OBSERVER DATA

Since 1990, DFO has implemented an observer sampling program onboard commercial vessels to collect data on the size composition of males caught, discarding, and crab carapace hardness and condition (Hébert et al. 2021).

2.4. FISHERY CLOSURES

Newly moulted crabs, known as soft/white crabs, have low commercial value due to their lower meat content. Discarding these vulnerable crabs can result in mortality of commercial-sized soft/white-shelled crabs. No formal soft-shell protocol was enforced by DFO in 2025, instead, efforts were made among harvesters to identify and avoid areas where soft/white crabs were abundant.

Local area closures are also implemented to minimize the risk of entanglement of North Atlantic right whales (NARW) in fishing gear, a concern since 2017. With fewer than 384 NARW remaining worldwide, the Government of Canada continues to take action to protect this species (Pettis and Hamilton 2025). Since 2018, protective measures have focused on reducing entanglement risks with fishing gear as well as vessel collisions.

Protective measures for 2025 included both temporary and season-long NARW fishing area closures (DFO 2023). Upon detection of a NARW, either visually or acoustically, a region consisting of nine 10×10 -minute grids, centered on the whale's location, was temporarily closed to non-tended fixed-gear fisheries. In the event that a NARW is detected again within days 9–15 of the temporary closure, the area switched to a seasonal closure remaining in effect until November 15, 2025. If no NARW were re-detected during a temporary closure, the area was re-opened to fishing after day 15. A minimum of two surveillance flights with no NARW detections was required before reopening a temporarily closed area to fishing.

3. RESULTS AND DISCUSSION

3.1. FLEET AND SEASON

The sGSL snow crab fishery in 2025 had a total of 433 quota allocation shares, which were fished by 417 active vessels during the season. Table 1 provides a breakdown of allocation shares, the number of vessels, and season lengths by CFA. Fishing began on April 5th in CFAs 12, 12E, and 12F, and on July 10th in CFA 19. CFAs 12, 12E, and 12F closed on June 30th, while CFA 19 closed on September 10th.

Observer sea-sampling coverage is presented in Table 2. In CFA 12, observers conducted 114 trips, sampling a total of 906 traps and measuring 31,518 crabs. Catch size composition for 2025 is shown in , where the average carapace width in CFA 12 was 104.7 mm, and sub-legal crabs accounted for 19.7 % of catches before discarding. In 2025, trap soak time in CFA 12 averaged 77 hours, which was an 8.9 % decrease compared to the 82 hours observed in 2024 and a 2.4 % increase relative to the 73 hours observed in 2023.

No at-sea observer trips were conducted within CFA 12E in 2025 due to low fishing effort levels within this fishing area. The mean trap soak time in 2025 for CFA 12E was 92 hours, a 67.7 % increase relative to 2024 (55 hours), and a 100.5 % increase compared to 2023 (46 hours).

In CFA 12F, observers covered 14 trips, sampling 100 traps and measuring 3,628 crabs. Catch size composition for 2025 is shown in , where the average carapace width was 112.4 mm, and sub-legal crabs accounted for 6.4 % of catches before discarding. In 2025, soak time in CFA 12F (83 hours) was 2.3 % lower than in 2024 (85 hours) and 2.5 % higher than in 2023 (81 hours).

Observer sea-sampling in CFA 19 consisted of 36 trips, with 131 traps sampled and 4,530 crabs measured. Catch size composition for 2025 is shown in , where the average carapace width was 108.4 mm, and sub-legal crabs accounted for 14.2 % of catches before discarding. In 2025, soak time in CFA 19 (32 hours) was 10.9 % lower than in 2024 (36 hours) and 7.0 % higher than in 2023 (30 hours).

3.2. QUOTAS AND LANDINGS

Snow crab landings from the sGSL were low in the early 1970s but increased more than threefold from 1975 to 1982. There were four periods of landings exceeding 20,000 tonnes (t): 1981 to 1986, 1994 and 1995, 2002 to 2009, and 2012 to 2024, representing the longest period in the time series (Figure 3).

The revised quota was set at 17,964 t for the 2025 fishery (Table 1), a reduction of 27 % relative to 2024. For reasons of annual quota adjustments, reconciliations, and re-distribution of the scientific quota among CFAs, the revised quota does not necessarily correspond to the Total Allowable Catch (TAC) set at the start of the fishing season. This quota includes 450 t set aside to finance stock assessment activities in 2025 (under the Section 10 agreement of the *Fisheries Act* collaborative agreement). Preliminary landings of sGSL snow crab as a whole in 2025 were 18,530 t, with 15,236 t landed in CFA 12, 269 t in CFA 12E, 1,096 t in CFA 12F, and 1,876 t in CFA 19 (Table 3).

Overall, quotas were reached prior to the end of the fishing season in all CFAs (Table 1). In CFAs 12 and 12E, the quota was reached after nine weeks (Figure 4), with fishing activities terminating by June 13th and June 8th respectively. In CFA 12F, the quota was reached after 12 weeks, from April 5th to July 1st while in CFA 19, the quota was reached after 3 weeks, on August 1st. In the case of CFAs 12, 12F, and 19, the active fishing period was among the shortest in recent years.

The spatial distribution of snow crab landings from 2021 to 2025 (Figure 5) is relatively constant from year to year with only minor shifts in the amount of crabs landed from each area among years. From 2024 to 2025, the source of landings remained spatially constant in the Baie des Chaleurs, American bank, and Shediac Valley regions. The distribution of landings from around the Bradelle bank thinned but no such pattern emerged in the Magdalen Channel. North of the Magdalen islands, in CFAs 12E and 12F, there was a slight expansion westward and eastward respectively. Landings were relatively absent from the former CFA 18, south of CFA 19, while within CFA 19, the distribution of landings was similar to previous years, with the bulk of landings occurring along the southern portion of this fishing area.

3.3. FISHING EFFORT

Total fishing effort in the sGSL in 2025 was 327,081 trap hauls (th), representing a 46.1% decrease from the record high of 606,504 th in 2020 and an 18.8% decrease from 2024 (402,947 th, Table 3). Effort was 23.0% below the long-term (1998–2025) average of 424,559 th and 22.4% below the mid-term (2011–2025) average of 421,505 th.

In CFA 12, effort ranged from 161,148 th in 2010 to 556,780 th in 2020. In 2025, 289,239 th were fished, a 22.7% decrease compared to 374,043 th in 2024. This represents a 24.1% decline relative to the long-term average (380,933 th) and a 24.9% decline relative to the mid-term average (384,883 th).

CFA 12E effort ranged from 1,825 th in 2010 to 10,074 th in 2006. Effort in 2025 was 7,437 th, a 187.4% increase over 2,588 th in 2024, 51.2% above the long-term average (4,920 th) and 81.2% above the mid-term average (4,104 th).

CFA 12F effort ranged from 4,437 th in 2002 to 23,163 th in 2014. In 2025, 13,873 th were fished, a 12.7% decrease from 15,896 th in 2024. This represents an 11.0% increase relative to the long-term average (12,496 th) and an 8.3% decrease relative to the mid-term average (15,128 th).

Effort in CFA 19 ranged from 10,420 th in 2024 to 56,517 th in 2004. In 2025, 16,532 th were fished, a 58.7% increase from 2024, but 36.9% below the long-term average (26,210 th) and 4.9% below the mid-term average (17,389 th).

The spatial distribution of fishing effort since 2021 is shown in Figure 6. Effort patterns closely matched those of landings. In the Baie des Chaleurs, effort remained relatively stable, while in the Shediac Valley it shifted slightly northward. Effort increased in the eastern Bradelle Valley but decreased south of the Magdalen Islands and along the Cape Breton Channel. As in previous years, little effort occurred in the area immediate south of CFA 19, former CFA 18.

3.4. CATCH PER UNIT EFFORT

Seasonal CPUE values by CFA are presented in Table 3 and Figure 7. In CFA 12, seasonal CPUE declined 12.7% to 52.7 kg/th in 2025 from 60.3 kg/th in 2024. This represents a 12.2% decrease relative to the mid-term average (60.0 kg/th) and a 5.3% decrease relative to the long-term average (55.6 kg/th). Within the season, empirical CPUE was below the nine-year average but aligned with recent years by the end of the active fishing period (~day 40, Figure 8).

Examining seasonal CPUE by harvester groups in CFA 12 (Table 4) shows an overall 10% decline from 2024 to 2025. Declines were largest among new entrants (-23%) and traditional area 25–26 harvesters (-21%), followed by traditional area 12 harvesters (-13%) and First Nation harvesters (-4%). In contrast, traditional area 18 harvesters experienced a 12% increase, consistent with high interannual variability in this area due to the small size of this harvester group.

In CFA 12E, seasonal CPUE declined 53.8% to 36.2 kg/th in 2025 from 78.2 kg/th in 2024. This represents a 33.7% decrease relative to the mid-term average (54.6 kg/th) and a 23.2% decrease relative to the long-term average (47.1 kg/th). Empirical CPUE remained among the lowest observed in recent years throughout the season (Figure 9).

In CFA 12F, seasonal CPUE decreased 12.2% to 79.0 kg/th in 2025 from 90.0 kg/th in 2024, but remained 32.0% above the mid-term average (59.9 kg/th) and 36.6% above the long-

term average (57.9 kg/th). Empirical CPUE in CFA 12F fell within the range observed in recent years (Figure 10).

In CFA 19, seasonal CPUE declined 16.9% to 113.5 kg/th in 2025 from 136.5 kg/th in 2024, representing a 16.3% decrease relative to the mid-term average (135.6 kg/th) but a 2.8% increase relative to the long-term average (110.4 kg/th). CPUE started below average at the beginning of the season but reached the recent-year mean by the second week (Figure 11).

Spatial patterns of seasonal CPUE from 2021 to 2025 are shown in Figure 12. In 2025, CPUE in CFA 12 was lower than in 2024, with the highest values at the northern end of the Shediac Valley and near the East Bradelle Valley. CPUE in CFA 12E was consistent with previous years, while in CFA 12F, CPUE increased in the northwest corner relative to 2024. CPUE in CFA 19 remained substantially higher than in all other areas of the sGSL, including the northern tip of Cape Breton.

Standardized CPUE generally mirrored seasonal CPUE in previous years but was lower across all CFAs in 2025 except 12E (Table 5). Differences between seasonal and standardized CPUE, particularly in CFA 19, reflect the steep decline in empirical CPUE early in the season, relatively low stock densities (Surette and Chassé 2026 [in press]), and smaller quotas. In CFA 19, fishers reached 80% of their quota within 7–10 days of opening.

Although CPUE is expected to scale to some extent with commercial crab density, CPUE indices are more sensitive to variation than fishery-independent survey indices. Empirical CPUE is not subject to standardized monitoring protocols and does not account for factors influencing catch rates (Maggs et al. 2016). While the standardization applied here adjusts for some nuisance factors, such as soak time and fishing day, other sources of variation, including changing fishing practices and spatial targeting by harvesters, were not accounted for. Consequently, interpreting commercial biomass from CPUE alone remains challenging and contributes little to survey-based biomass assessments.

3.5. FISHERY CLOSURES

Local area closures for the protection of North Atlantic Right Whales (NARW) in 2025 are shown in Figure 13. Numbers in each grid cell indicate the total number of days that areas were closed during the fishery.

Closures due to NARW began in the sixth week of the fishery, with a temporary closure in CFA 12 on May 17 in the Shediac Valley. This was followed by a temporary closure in the East Bradelle Valley (CFAs 12 and 12E) on May 20. Large portions of CFA 12 were closed for a significant portion of the season; however, because quotas were reached early, closures only affected three weeks of the active fishing period in CFA 12 and two weeks in CFA 12E.

No NARW-related closures occurred in CFAs 12F or 19. Additionally, no local area closures were implemented for soft-shelled crabs in 2025.

4. CONCLUSION

As in 2024, the 2025 snow crab fishery in the sGSL opened in early April, with quotas reached in all CFAs. The spatial distribution of landings remained similar to 2024, while CPUE values declined across all four CFAs.

CPUE for a given year may be correlated with biomass estimated from the preceding survey; however, factors unrelated to crab abundance including environmental conditions, local area closures, fishing gear, and fishing practices, can obscure this relationship.

No soft/white crab closures were issued in 2025. Local area closures to protect North Atlantic Right Whales were limited and occurred relatively late in the season, primarily in the western and northern sections of CFAs 12 and 12E.

5. ACKNOWLEDGEMENTS

The authors would like to thank D. Gagnon, M. McWilliams, and Y. Larocque from DFO Gulf Region for verifying and validating the observer data as well as F. Akaishi and R. Allain for their editorial contributions.

6. REFERENCES CITED

- DFO. 2023. Fishery Management Measures: North Atlantic Right Whales. Available from <https://www.dfo-mpo.gc.ca/fisheries-peches/commercial-commerciale/atl-arc/narw-bnan/management-gestion-eng.html>.
- Hébert, M., Surette, T., Landry, J.-F., and Moriyasu, M. 2021. Review of the 2019 snow crab (*Chionoecetes opilio*) fishery in the southern Gulf of Saint Lawrence (Areas 12, 19, 12E, and 12F). *Can. Sci. Advis. Secr. Res. Doc.* **2021/012**.
- Maggs, J.Q., Mann, B.Q., Potts, W.M., and Dunlop, S.W. 2016. Traditional management strategies fail to arrest a decline in the catch-per-unit-effort of an iconic marine recreational fishery species with evidence of hyperstability. *Fish. Manag. Ecol.* **23**(3–4): 187–199. doi:10.1111/fme.12125.
- Pettis, H.M., and Hamilton, P.K. 2025. 2024 Annual Report Card. North Atlantic Right Whale Consortium.
- Surette, T., and Chassé, J. 2026. Southern Gulf of St. Lawrence (CFAs 12, 12E, 12F and 19) Snow Crab (*Chionoecetes opilio*) Stock Assessment in 2025. *Can. Sci. Advis. Secr. Res. Doc.* **2026/XXX**.
- Wood, S.N. 2017. *Generalized Additive Models*. In 2nd edition. Chapman and Hall/CRC, New York, NY. Available from <https://doi.org/10.1201/9781315370279>.

7. TABLES

Table 1. Number of allocation shares, number of active vessels, season opening and closing dates, last landing dates, revised quotas, and total landings of the snow crab fishery by Crab Fishing Area in the southern Gulf of Saint Lawrence in 2025.

| Characteristics | CFA 12 | CFA 12E | CFA 12F | CFA 19 | Southern Gulf |
|--------------------------------|---------------|----------------|----------------|---------------|----------------------|
| Allocation shares | 242 | 4 | 32 | 155 | 433 |
| Active vessels | 284 | 3 | 22 | 108 | 417 |
| Season opening date | April 5 | April 5 | April 5 | July 10 | - |
| Season closing date | June 30 | June 30 | June 30 | September 10 | - |
| Last day of landings | June 13 | June 8 | July 1 | August 1 | - |
| Revised quota (t) ¹ | 14,729 | 259 | 1,100 | 1,876 | 17,964 ² |
| Landings (t) | 15,236 | 269 | 1,096 | 1,876 | 18,530 |

¹ For reasons of annual quota adjustments, reconciliations, and re-distribution of the scientific quota among Crab Fishing Areas, the revised quota does not necessarily correspond to the TAC in the notice to harvesters.

² Quota includes 450 t set aside to finance the stock assessment activities in 2025 (under Section 10 of the *Fisheries Act*).

Table 2. Fishery characteristics and at-sea observer coverage by Crab Fishing Area in the southern Gulf of Saint Lawrence snow crab fisheries in 2025.

| Characteristics | CFA 12 | CFA 12E | CFA 12F | CFA 19 |
|-------------------------------|---------------|----------------|----------------|---------------|
| Fishing effort (traps hauled) | 289,239 | 7,437 | 13,873 | 16,532 |
| Fishing trips | 1,998 | 22 | 164 | 869 |
| Trips with observers | 114 | 0 | 14 | 36 |
| Traps sampled by observers | 906 | 0 | 100 | 131 |
| Crab sampled | 31,518 | 0 | 3,628 | 4,530 |

Table 3. Landings, fishing effort and catch per unit effort from logbooks in the southern Gulf of Saint Lawrence snow crab, *Chionoecetes opilio*, fisheries (Crab Fishing Areas 12, 12E, 12F and 19) since 1987 (note: landings for 2025 are preliminary).

| Year | Landings (t) | | | | Total | Effort (number of traps hauled) | | | | Total | Catch per unit effort (kg / trap haul) | | | |
|-------------------|---------------------|-----|-------|-------|--------|---------------------------------|--------|--------|--------|---------|--|-----|-----|-----|
| | 12 | 12E | 12F | 19 | | 12 | 12E | 12F | 19 | | 12 | 12E | 12F | 19 |
| 1987 | 11,782 | - | - | 1,151 | 12,933 | 449,293 | - | - | 37,987 | 487,280 | 26 | - | - | 30 |
| 1988 | 12,355 | - | - | 1,337 | 13,692 | 528,844 | - | - | 22,794 | 551,638 | 23 | - | - | 59 |
| 1989 | 7,882 | - | - | 1,334 | 9,216 | 356,442 | - | - | 29,978 | 386,420 | 22 | - | - | 45 |
| 1990 | 6,950 | - | - | 1,333 | 8,283 | 254,578 | - | - | 28,422 | 283,000 | 27 | - | - | 47 |
| 1991 | 10,019 | - | - | 1,337 | 11,356 | 326,671 | - | - | 16,733 | 343,404 | 31 | - | - | 80 |
| 1992 | 11,235 | - | - | 1,678 | 12,913 | 362,967 | - | - | 17,140 | 380,107 | 31 | - | - | 98 |
| 1993 | 14,336 | - | - | 1,678 | 16,014 | 344,698 | - | - | 18,204 | 362,902 | 42 | - | - | 92 |
| 1994 | 19,995 | - | - | 1,672 | 21,667 | 390,833 | - | - | 24,495 | 415,328 | 51 | - | - | 68 |
| 1995 | 19,944 | 217 | 317 | 1,575 | 22,053 | 416,890 | 4,033 | 11,561 | 24,854 | 457,338 | 48 | 54 | 27 | 63 |
| 1996 | 15,978 | 164 | 238 | 1,342 | 17,722 | 318,796 | 2,714 | 5,604 | 24,583 | 351,697 | 50 | 60 | 42 | 55 |
| 1997 | 15,413 | 163 | 287 | 1,386 | 17,249 | 303,286 | 4,695 | 6,390 | 21,930 | 336,301 | 51 | 35 | 45 | 63 |
| 1998 | 11,136 | 161 | 290 | 1,988 | 13,575 | 243,339 | 5,624 | 6,035 | 31,232 | 286,230 | 46 | 29 | 48 | 63 |
| 1999 | 12,682 | 159 | 290 | 1,979 | 15,110 | 289,003 | 5,415 | 5,072 | 19,088 | 318,578 | 44 | 29 | 57 | 104 |
| 2000 | 15,046 | 150 | 291 | 3,225 | 18,712 | 436,782 | 6,528 | 5,136 | 55,977 | 504,423 | 35 | 23 | 57 | 64 |
| 2001 | 13,819 | 155 | 378 | 3,910 | 18,262 | 326,382 | 6,700 | 5,736 | 46,251 | 385,069 | 42 | 23 | 63 | 89 |
| 2002 | 21,869 | 165 | 378 | 3,279 | 25,691 | 544,454 | 2,916 | 4,437 | 43,662 | 595,469 | 40 | 57 | 85 | 72 |
| 2003 | 16,898 | 345 | 817 | 3,103 | 21,163 | 337,960 | 5,471 | 10,460 | 29,952 | 383,843 | 50 | 63 | 78 | 104 |
| 2004 | 26,626 | 349 | 806 | 3,894 | 31,675 | 484,991 | 6,277 | 10,775 | 56,517 | 558,560 | 55 | 56 | 75 | 69 |
| 2005 | 32,363 | 449 | 479 | 2,827 | 36,118 | 508,053 | 5,571 | 5,112 | 41,512 | 560,248 | 64 | 81 | 94 | 68 |
| 2006 | 25,934 | 411 | 787 | 1,989 | 29,121 | 402,702 | 10,074 | 14,079 | 23,566 | 450,421 | 64 | 41 | 56 | 84 |
| 2007 | 23,243 | 220 | 370 | 3,034 | 26,867 | 353,775 | 5,914 | 12,252 | 42,553 | 414,494 | 66 | 37 | 30 | 71 |
| 2008 | 20,911 | 187 | 431 | 2,929 | 24,458 | 370,762 | 9,232 | 15,504 | 38,388 | 433,886 | 56 | 20 | 28 | 76 |
| 2009 | 20,896 | 67 | 309 | 2,370 | 23,642 | 433,527 | 4,653 | 14,045 | 33,193 | 485,418 | 48 | 14 | 22 | 71 |
| 2010 | 7,719 | 50 | 420 | 1,360 | 9,549 | 161,148 | 1,825 | 14,335 | 11,138 | 188,446 | 48 | 27 | 29 | 122 |
| 2011 | 8,618 | 76 | 313 | 1,701 | 10,708 | 162,604 | 2,413 | 9,631 | 12,761 | 187,409 | 53 | 32 | 33 | 133 |
| 2012 | 18,159 | 185 | 706 | 2,906 | 21,956 | 267,044 | 5,623 | 16,890 | 16,317 | 305,874 | 68 | 33 | 42 | 178 |
| 2013 | 22,645 | 204 | 543 | 2,657 | 26,049 | 296,398 | 5,097 | 11,086 | 17,890 | 330,471 | 76 | 40 | 49 | 149 |
| 2014 | 19,674 | 178 | 882 | 3,745 | 24,479 | 317,689 | 3,765 | 23,163 | 25,407 | 370,024 | 62 | 47 | 38 | 147 |
| 2015 | 23,080 | 192 | 510 | 2,129 | 25,911 | 339,912 | 2,918 | 13,351 | 14,703 | 370,884 | 68 | 66 | 38 | 145 |
| 2016 | 19,499 | 144 | 381 | 1,701 | 21,725 | 304,624 | 2,796 | 8,667 | 11,937 | 328,024 | 64 | 52 | 44 | 143 |
| 2017 | 39,825 | 203 | 684 | 2,944 | 43,656 | 553,125 | 3,333 | 9,421 | 20,616 | 586,495 | 72 | 61 | 73 | 143 |
| 2018 | 20,769 | 260 | 1,183 | 2,048 | 24,260 | 469,887 | 5,579 | 17,120 | 13,120 | 505,706 | 44 | 47 | 69 | 156 |
| 2019 | 27,554 | 224 | 1,166 | 2,763 | 31,707 | 496,468 | 3,415 | 18,083 | 24,518 | 542,484 | 56 | 66 | 65 | 113 |
| 2020 | 24,554 | 234 | 1,084 | 2,284 | 28,156 | 556,780 | 5,098 | 22,168 | 22,458 | 606,504 | 44 | 46 | 45 | 102 |
| 2021 | 21,423 ¹ | 223 | 592 | 2,241 | 24,479 | 363,136 | 5,314 | 18,612 | 18,384 | 405,446 | 57 | 56 | 59 | 121 |
| 2022 | 27,620 ¹ | 197 | 1,173 | 2,671 | 31,661 | 537,820 | 2,509 | 15,240 | 23,690 | 579,259 | 51 | 79 | 77 | 113 |
| 2023 | 32,084 ¹ | 291 | 1,329 | 1,700 | 35,404 | 444,480 | 3,678 | 13,718 | 12,088 | 473,964 | 72 | 79 | 97 | 141 |
| 2024 | 22,560 | 203 | 1,431 | 1,422 | 25,616 | 374,043 | 2,588 | 15,896 | 10,420 | 402,947 | 60 | 78 | 90 | 137 |
| 2025 ² | 15,236 | 269 | 1,096 | 1,876 | 18,530 | 289,239 | 7,437 | 13,873 | 16,532 | 327,081 | 53 | 36 | 79 | 113 |
| 2011 – 2025 | 22,887 | 206 | 872 | 2,319 | 26,283 | 384,883 | 4,104 | 15,128 | 17,389 | 421,505 | 60 | 55 | 60 | 136 |
| 1998 – 2025 | 21,159 | 213 | 683 | 2,524 | 24,578 | 380,933 | 4,920 | 12,496 | 26,210 | 424,559 | 56 | 47 | 58 | 110 |

¹Total landings in Crab Fishing Area 12 include landings allocated to Crab Fishing Areas 12E (2021, 2022, 2023) and 12F (2021) that were fished in Crab Fishing Area 12.

² Landings and effort values are preliminary.

Table 4. Catch per unit effort (kg per trap haul) in Crab Fishing Area 12 by harvester group.

| Year | Traditional CFA 12 | Traditional CFA 18 | Traditional CFA 25-26 | First Nations | New entrants |
|-------------|-------------------------------|-------------------------------|----------------------------------|--------------------------|-------------------------|
| 2001 | 43.5 | - | 62.7 | 38.8 | 32.3 |
| 2002 | 42.3 | - | 45.2 | 33.8 | 31.0 |
| 2003 | 50.5 | 66.0 | 43.6 | 51.4 | 45.6 |
| 2004 | 55.5 | 64.4 | 63.9 | 55.8 | 48.4 |
| 2005 | 66.2 | 70.3 | 80.2 | 64.5 | 50.3 |
| 2006 | 68.7 | 66.2 | 79.8 | 59.7 | 53.8 |
| 2007 | 69.4 | 61.4 | 66.2 | 65.8 | 54.4 |
| 2008 | 57.3 | 77.3 | 54.6 | 56.0 | 49.3 |
| 2009 | 46.6 | 76.7 | 48.3 | 49.8 | 48.7 |
| 2010 | 48.7 | 36.3 | 54.0 | 45.2 | 51.0 |
| 2011 | 54.3 | 53.3 | 46.6 | 50.9 | 51.6 |
| 2012 | 67.7 | 133.1 | 66.0 | 67.8 | 60.5 |
| 2013 | 77.0 | 114.5 | 71.1 | 75.4 | 69.6 |
| 2014 | 62.1 | 88.6 | 53.4 | 61.4 | 57.8 |
| 2015 | 70.1 | 78.9 | 61.6 | 66.0 | 61.1 |
| 2016 | 64.6 | 69.6 | 71.0 | 61.8 | 61.5 |
| 2017 | 77.6 | 77.8 | 76.4 | 65.0 | 65.7 |
| 2018 | 43.4 | 84.5 | 45.5 | 42.5 | 43.5 |
| 2019 | 58.2 | 72.8 | 56.3 | 52.5 | 47.1 |
| 2020 | 42.9 | 61.9 | 54.2 | 46.5 | 41.5 |
| 2021 | 60.0 | 60.2 | 76.4 | 52.6 | 51.1 |
| 2022 | 50.1 | 79.0 | 52.7 | 45.9 | 55.8 |
| 2023 | 71.8 | 111.5 | 83.4 | 67.7 | 69.8 |
| 2024 | 61.9 | 53.5 | 67.1 | 56.8 | 57.8 |
| 2025 | 53.8 | 60.2 | 53.1 | 54.4 | 44.4 |

Table 5. Seasonal averaged and standardized catch-per-unit-of-effort (kg / trap haul) by year and crab fishing area (CFA). Standard errors are shown in parentheses.

| Year | CFA 12 | | CFA 12E | | CFA 12F | | CFA 19 | |
|-------------|---------|---------------|---------|----------------|---------|---------------|---------|----------------|
| | Average | Std. | Average | Std. | Average | Std. | Average | Std. |
| 2017 | 72 | 78.4 (2.0) | 60.9 | 54.7 (8.3) | 72.6 | 47.8 (3.1) | 142.8 | 148.0 (5.5) |
| 2018 | 44.2 | 41.6 (1.1) | 46.6 | 45.8 (7.0) | 69.1 | 60.4 (3.7) | 156.1 | 140.1 (5.2) |
| 2019 | 55.5 | 57.5 (1.3) | 65.7 | 44.8 (7.1) | 64.5 | 67.6 (3.9) | 112.7 | 126.6 (4.6) |
| 2020 | 44.1 | 42.7 (1.2) | 45.9 | 49.6 (9.6) | 45.2 | 46.3 (3.2) | 101.7 | 97.1 (4.3) |
| 2021 | 57.4 | 55.3 (1.4) | 55.7 | 49.4 (8.2) | 59.1 | 54.3 (3.4) | 121 | 112.3 (4.5) |
| 2022 | 51.4 | 56.5 (1.5) | 78.5 | 72.0 (15.2) | 76.4 | 70.6 (5.3) | 112.6 | 117.0 (4.7) |
| 2023 | 72.2 | 71.6 (1.9) | 79.1 | 57.9 (10.5) | 96.9 | 69.4 (5.5) | 140.6 | 72.2 (4.0) |
| 2024 | 60.3 | 53.6 (1.5) | 78.3 | 65.0 (14.4) | 90 | 73.6 (6.1) | 136.5 | 81.9 (4.1) |
| 2025 | 52.7 | 35.7 (1.8) | 36.2 | 39.8 (17.6) | 79 | 47.3 (6.9) | 113.5 | 59.6 (4.0) |

8. FIGURES

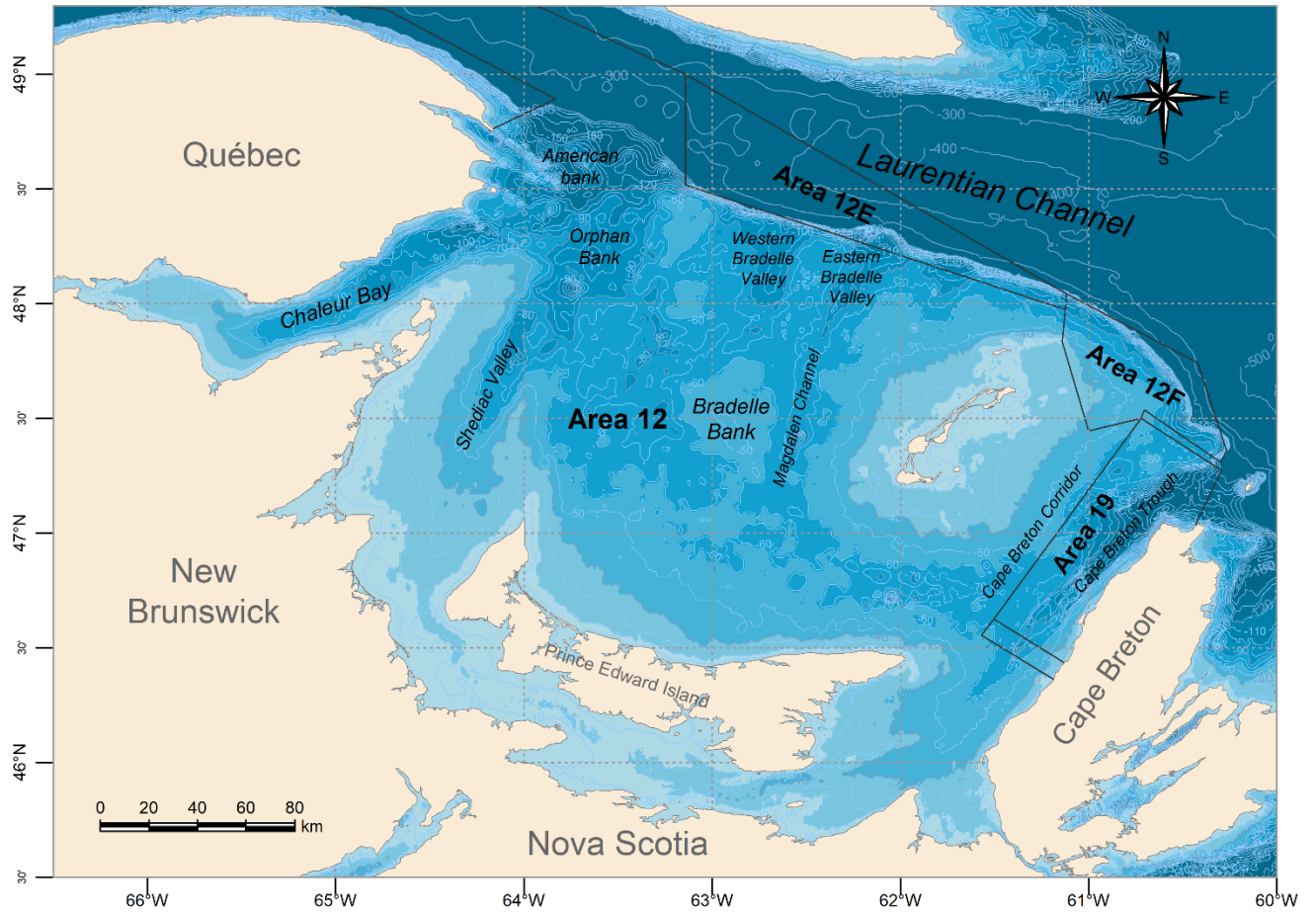


Figure 1. Location of snow crab (*Chionoecetes opilio*) fishing grounds and Crab Fishing Areas in the southern Gulf of Saint Lawrence.

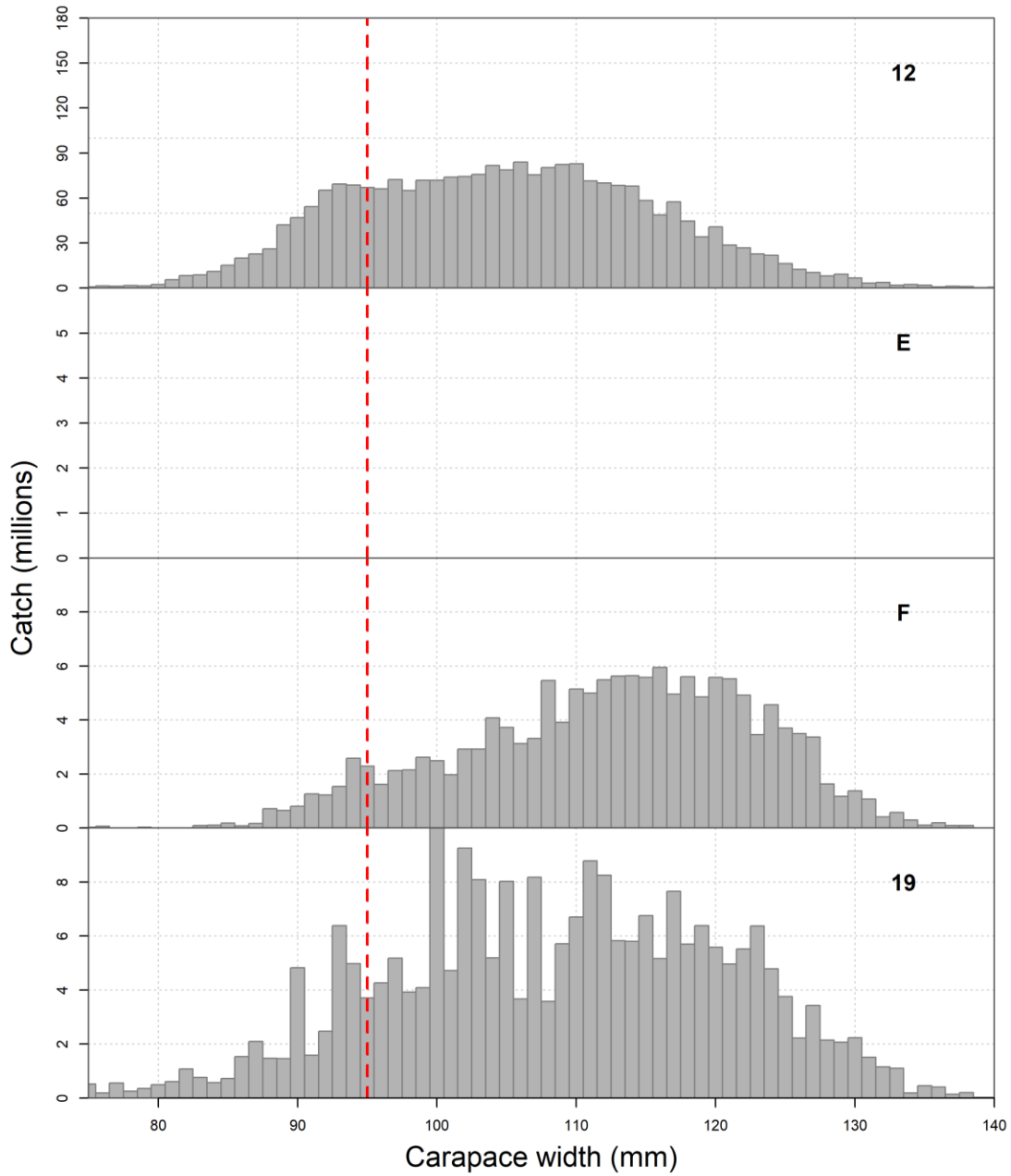


Figure 2. Size frequency distributions of all male crabs measured during the at-sea sampling (before discarding) in Crab Fishing Areas 12, 12E, 12F and 19 in 2025. The red dashed line indicates the legal size of 95 mm carapace width.

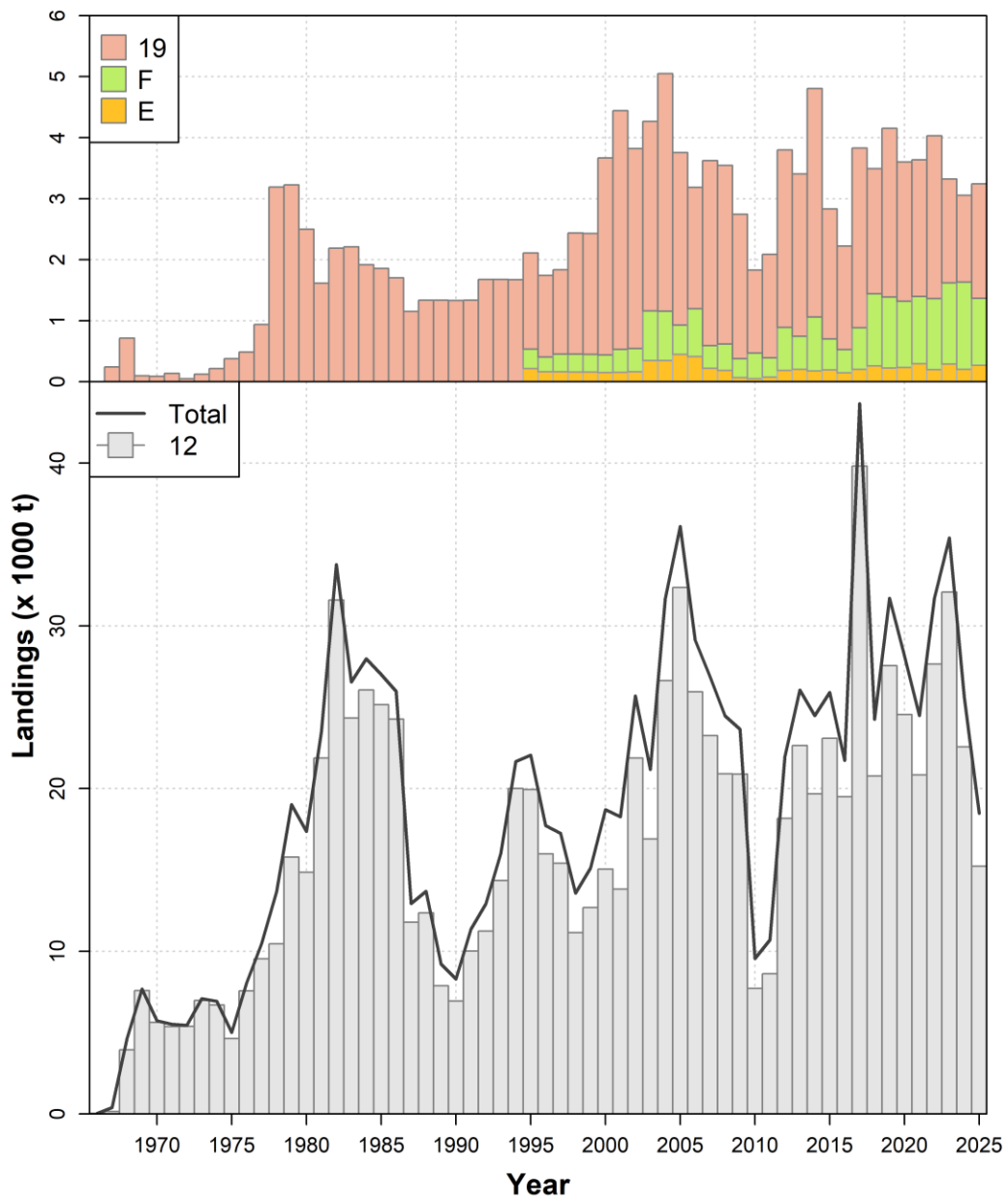


Figure 3. Snow crab landings (t) in Crab Fishing Areas 12E, 12F, and 19 (upper panel), as well as Crab Fishing Area 12 and the entire southern Gulf of St. Lawrence (lower panel).

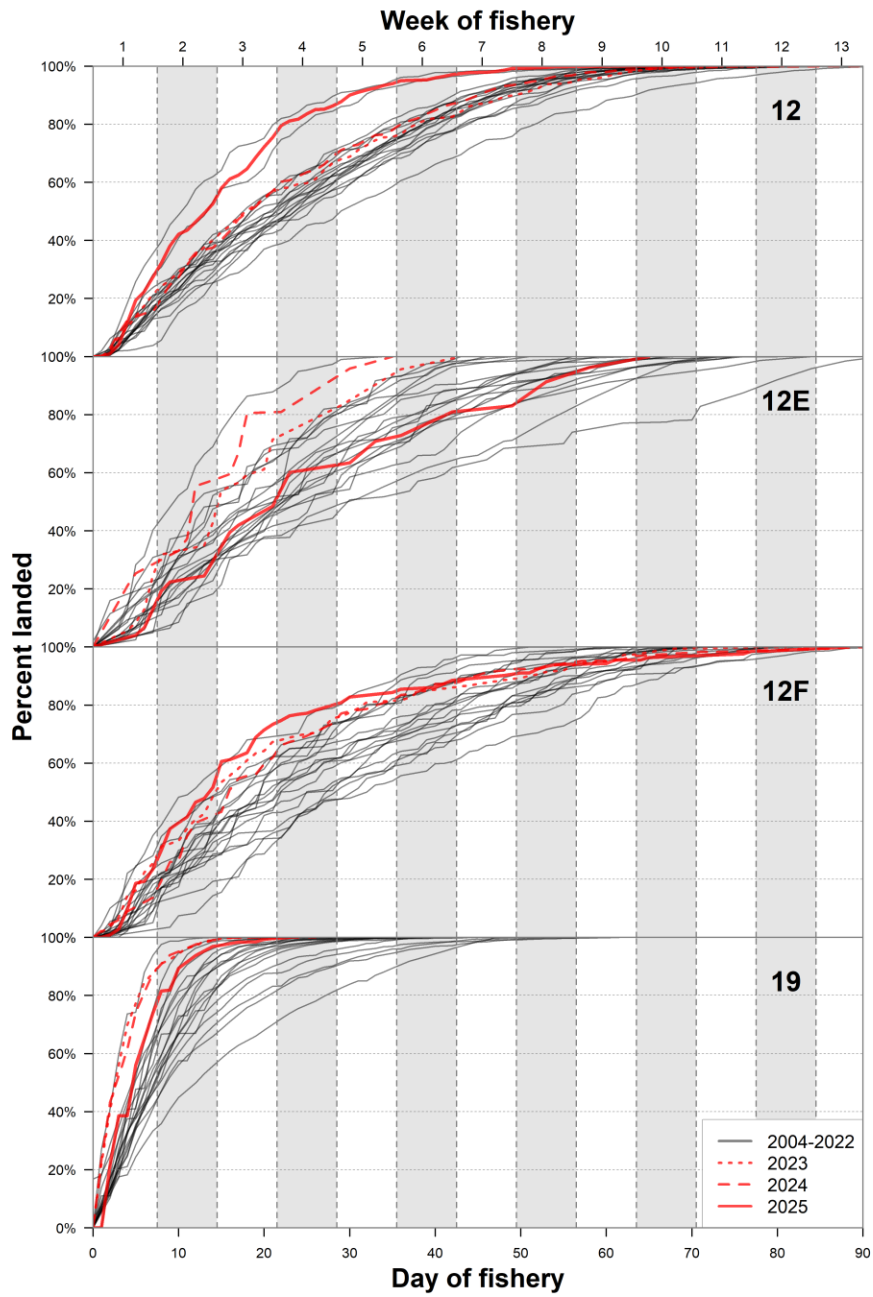


Figure 4. Cumulative landings, as a percentage of the crab fishing area's revised quota.

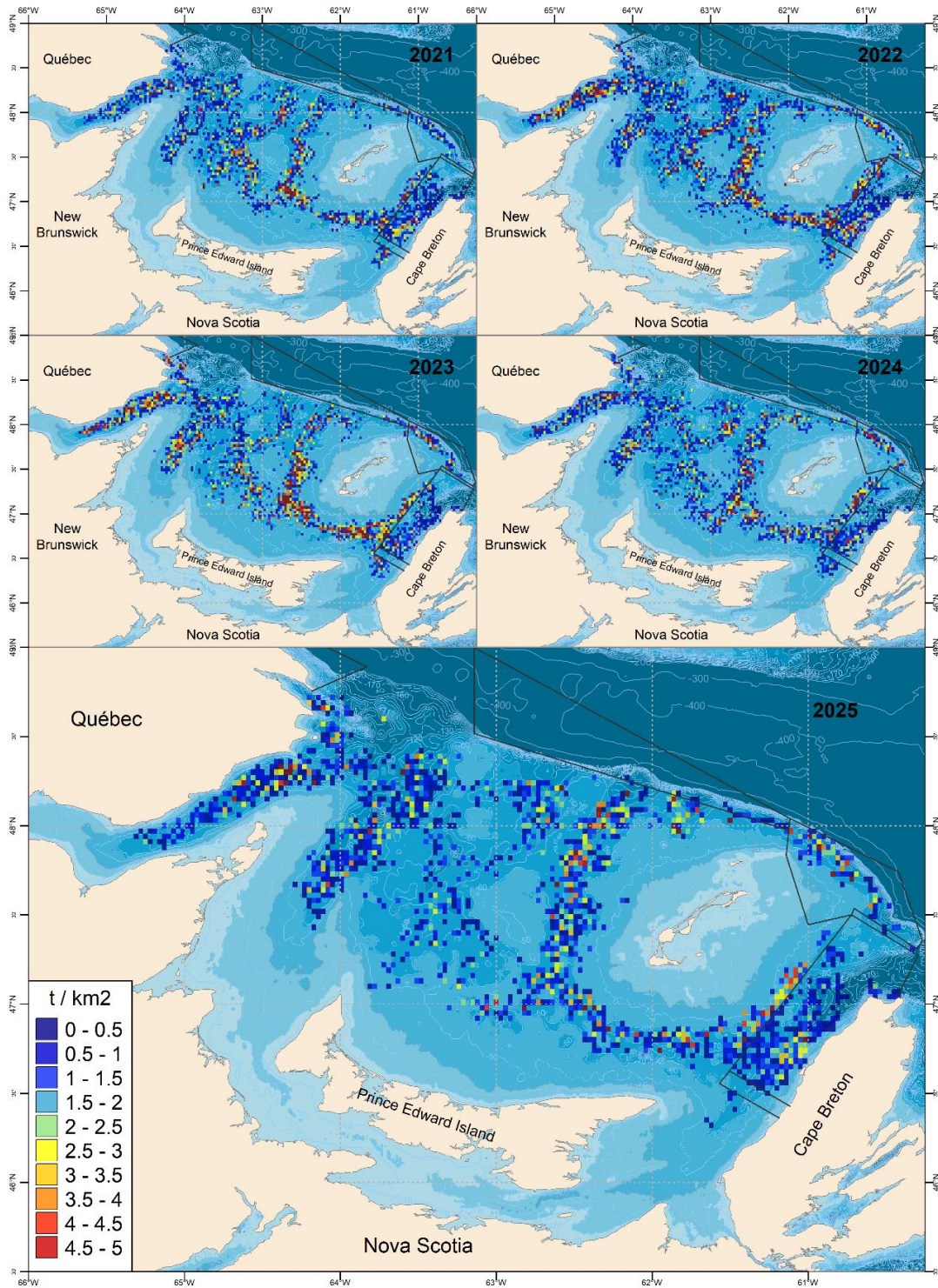


Figure 5. Spatial distribution of landings (t/km²) in Crab Fishing Areas from the 2021-2025 fishing seasons.

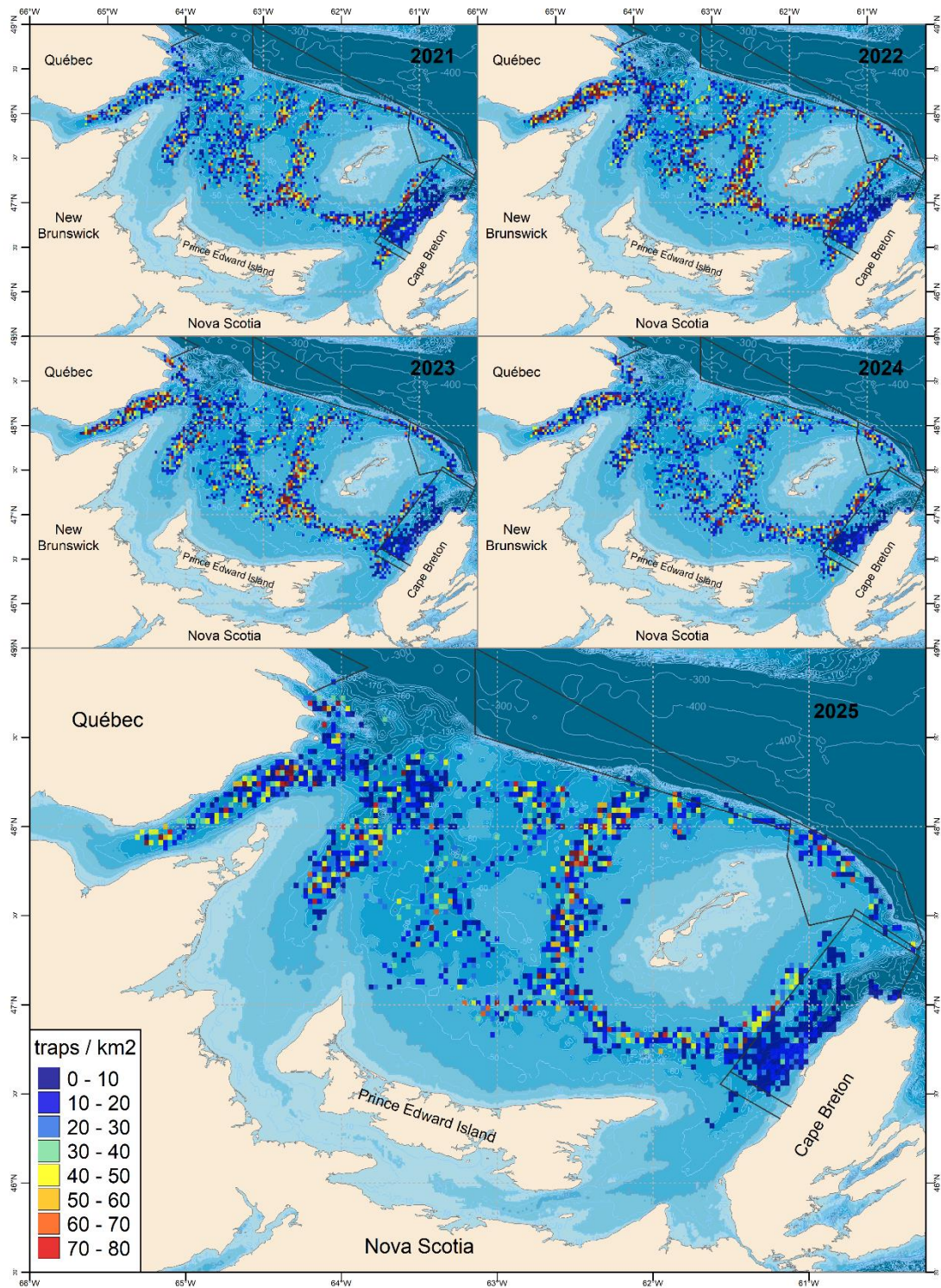


Figure 6. Spatial distribution of fishing effort (traps hauled per km²) by Crab Fishery Area from the 2021-2025 fishing seasons.

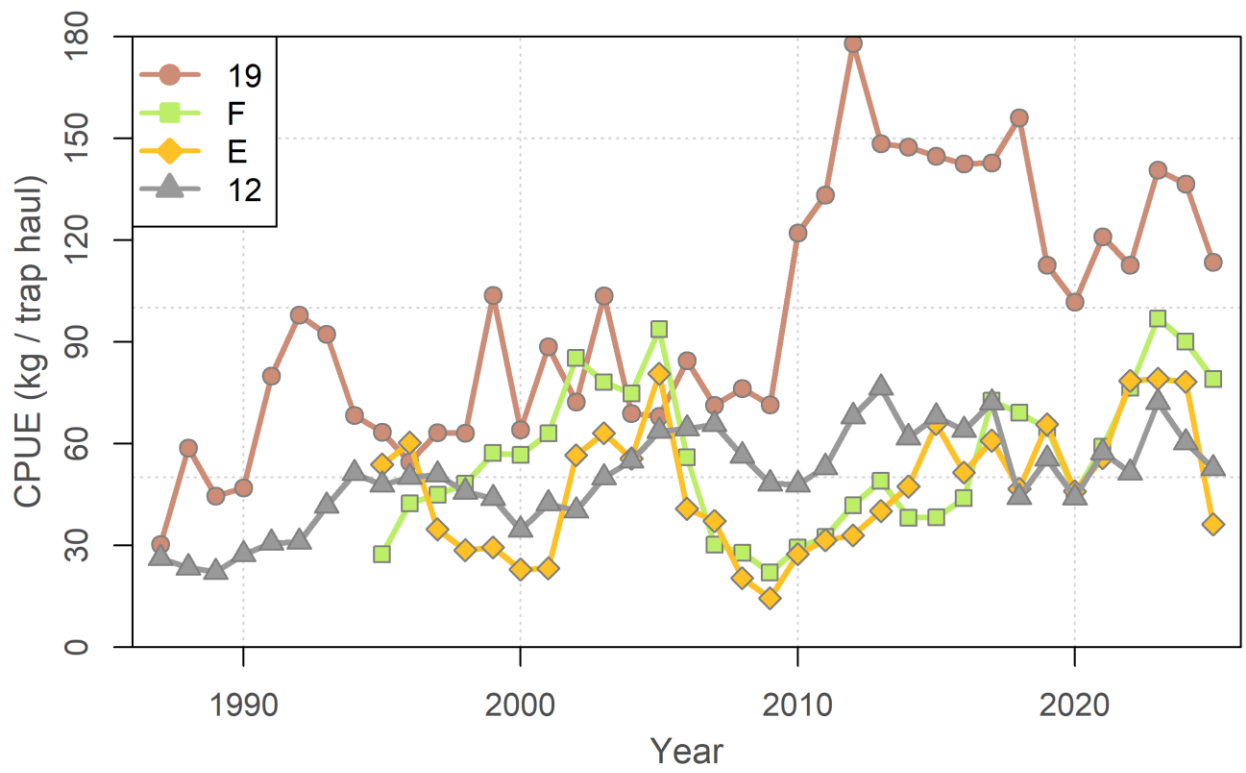


Figure 7. Catch per unit effort (kg/th) by Crab Fishing Area in the southern Gulf of Saint Lawrence based on fishery logbook data.

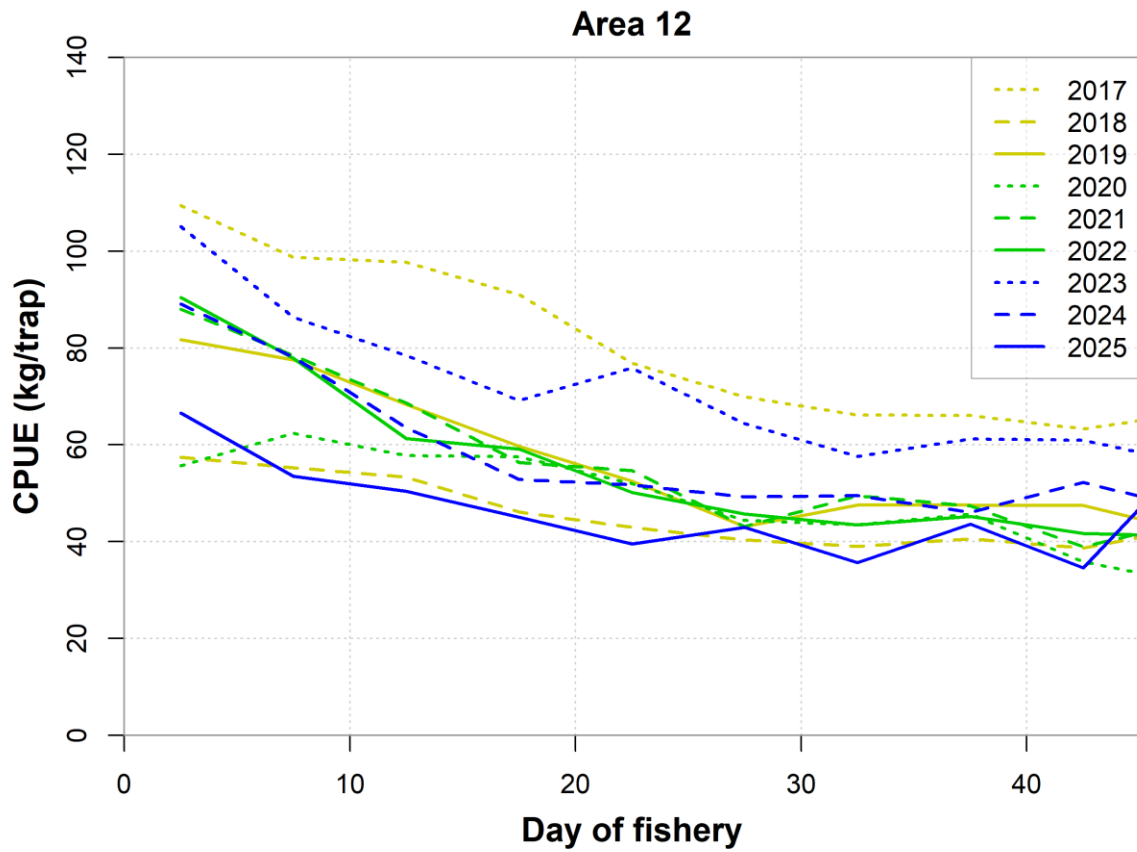


Figure 8. Weekly catch per unit effort (CPUE) for crab fishing area 12 based on fisheries logbook and landings records.

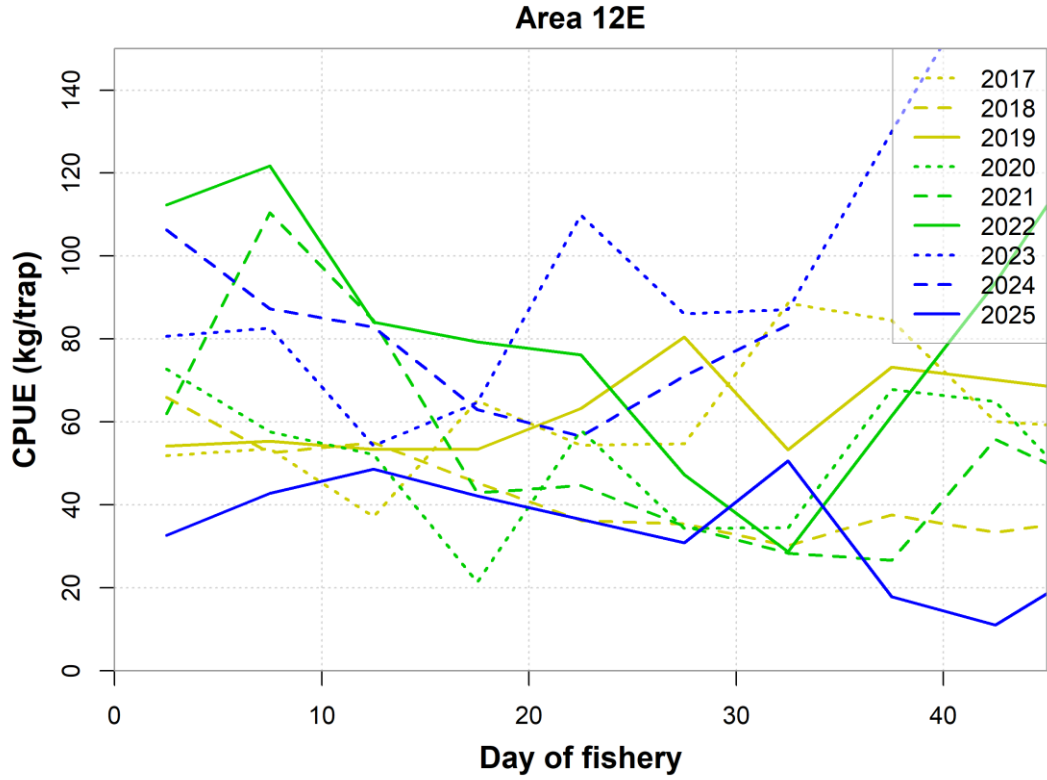


Figure 9. Weekly catch per unit effort (CPUE) for crab fishing area 12E based on fisheries logbook and landings records.

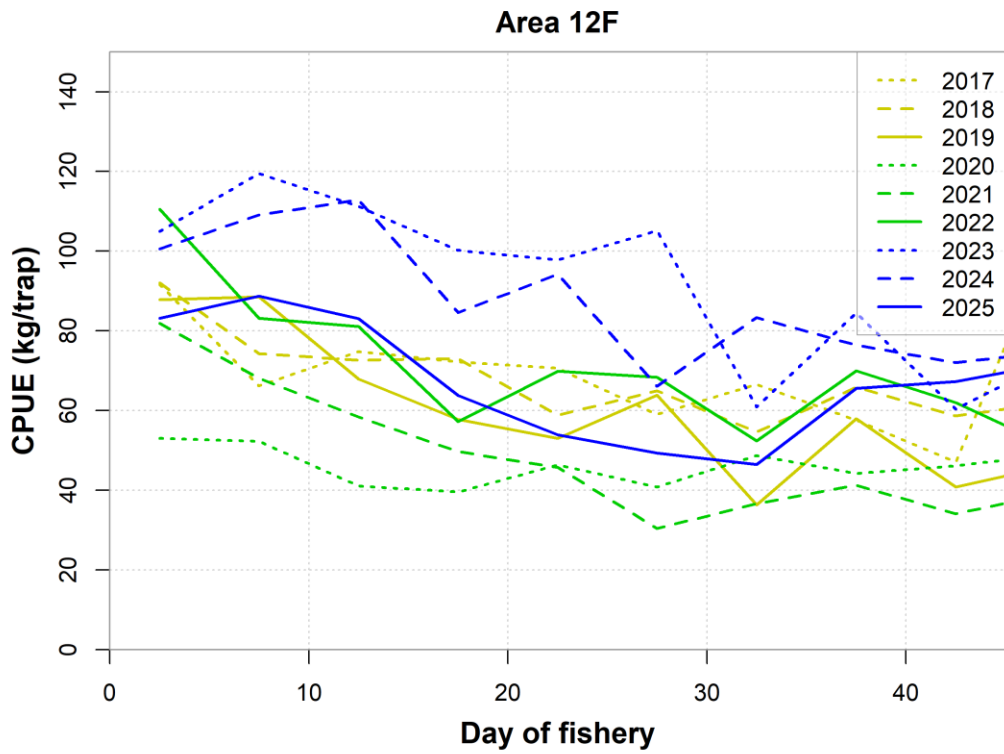


Figure 10. Weekly catch per unit effort (CPUE) for crab fishing area 12F based on fisheries logbook and landings records.

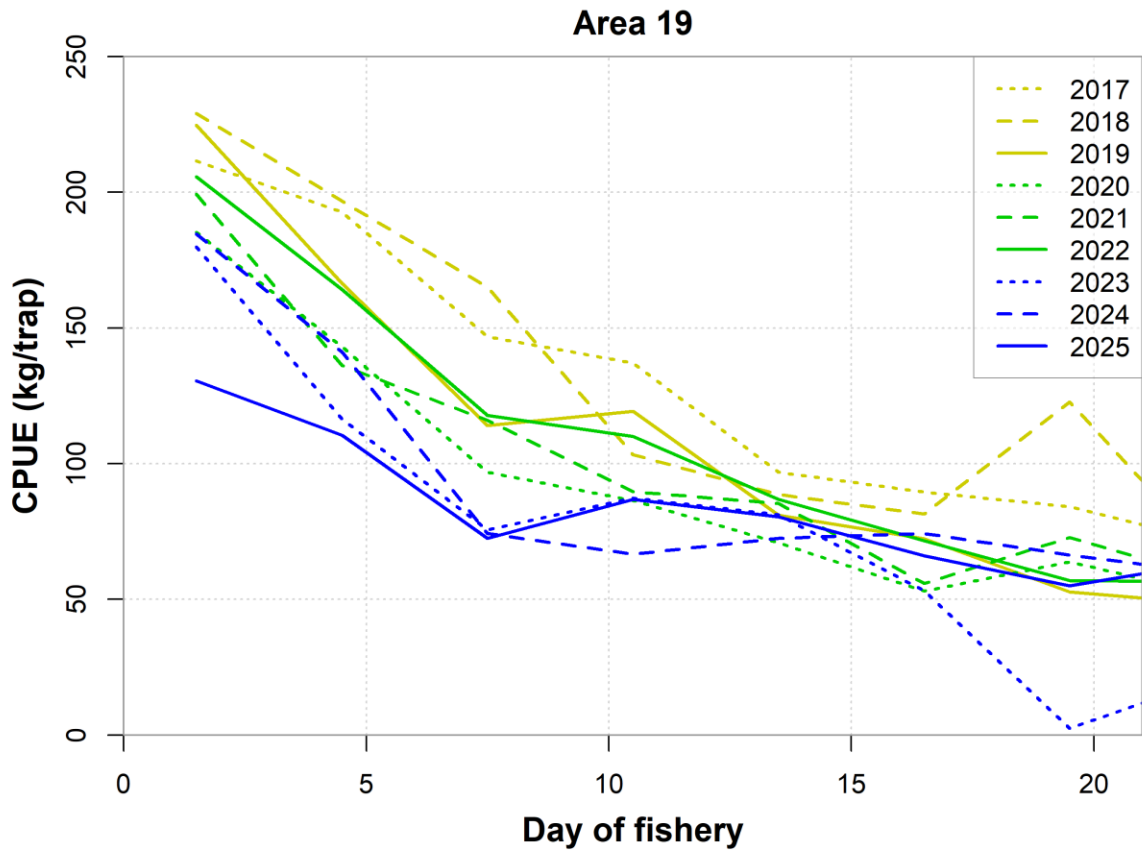


Figure 11. Weekly catch per unit effort (CPUE) for crab fishing area 19 based on fisheries logbook and landings records.

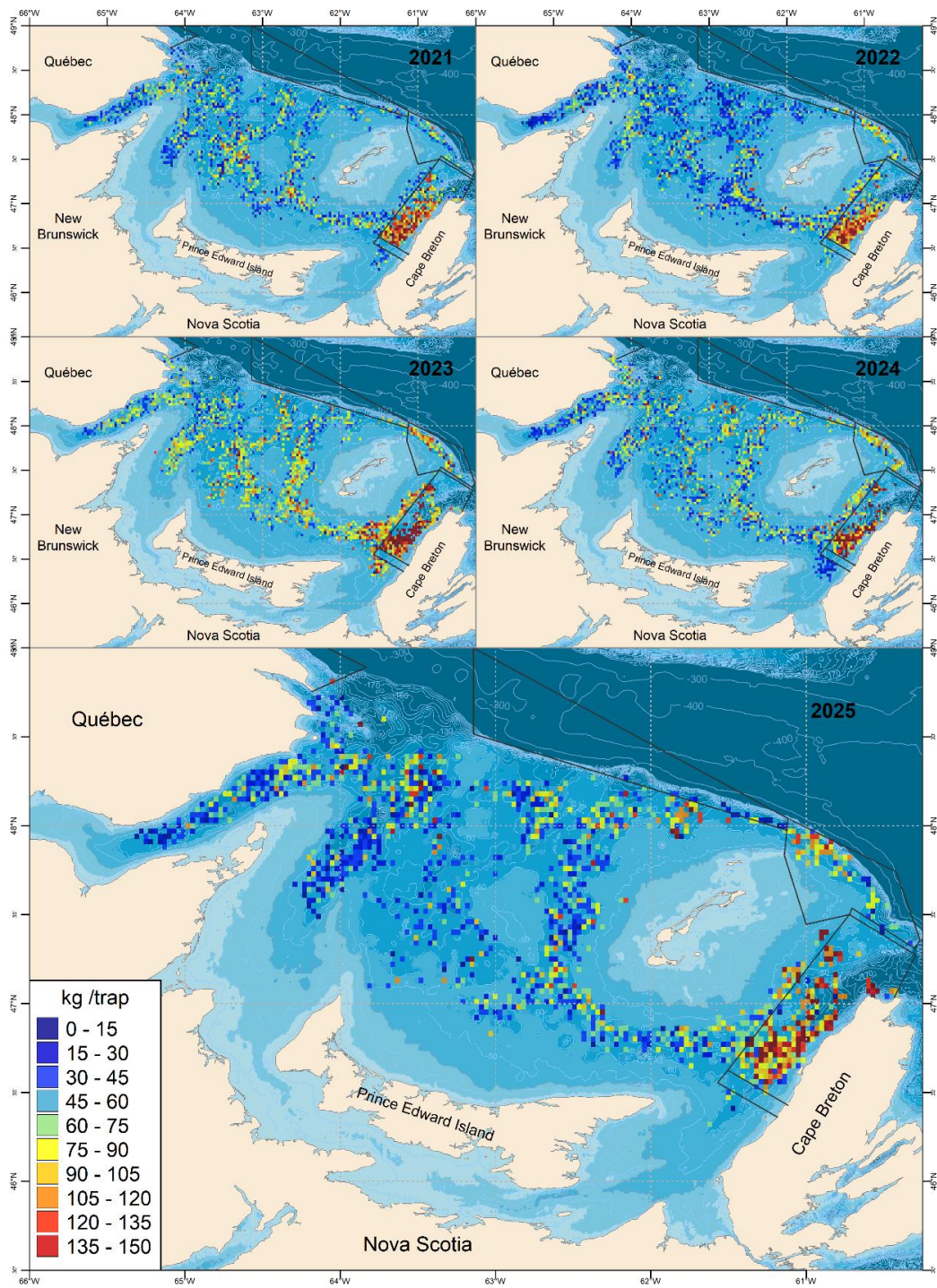


Figure 12. Spatial distribution of catch per unit effort (kg/th), in the Crab Fishing Areas from 2021-2025 fishing seasons.

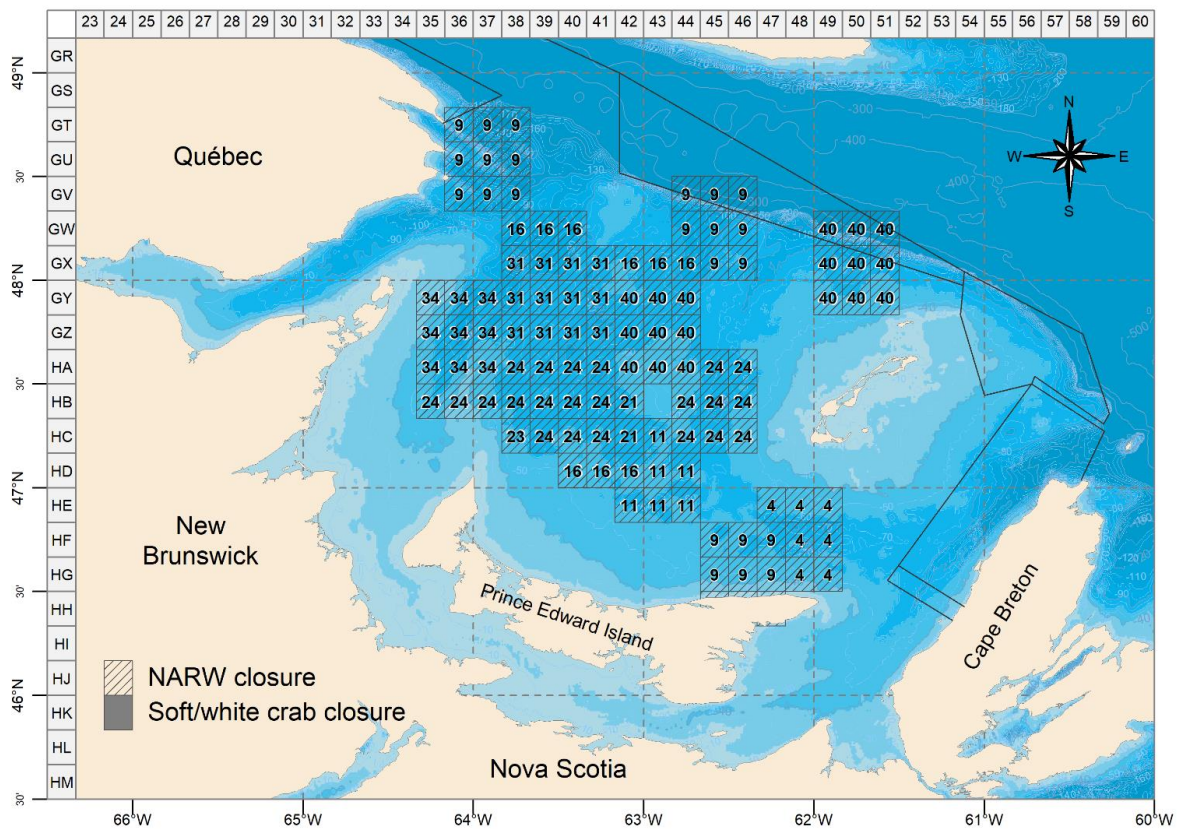


Figure 13. Local area closures of soft/white crab (solid grey area) and for the protection of North Atlantic right whales (hatched area) in 2025. Numbers represent the total number of days grids were closed during the season.