## Notice to Fish Harvesters

## UPDATE TO THE CONDITIONS OF LICENCES RELATED TO THE MANDATORY COLOUR SCHEME FOR GEAR MARKING IN EASTERN CANADA

Fisheries and Oceans Canada (DFO) - The Department wishes to inform the fishing industry that the conditions of licences have been updated to include a new option when using a rope with integrated coloured yarns.

The new conditions of licences related to the use of rope with integrated coloured yarns for gear marking states the following: The integrated coloured yarns must be throughout the full length of the rope OR when using segments of rope with integrated coloured yarns, the segments must not be less than 2 meters in length and must be in the same locations as the sequences.

The attached version 5.0 of the document titled "Gear Marking Eastern Canada - for non-tended fixed gear fisheries, crab trap fisheries and lobster trap fisheries - Mandatory Colour Scheme" is enclosed for reference.

## For additional information

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## GEAR MARKING EASTERN CANADA <br> for non-tended fixed gear fisheries, crab trap fisheries and lobster trap fisheries MANDATORY COLOUR SCHEME

In February 2019, Fisheries and Oceans Canada announced that gear marking was mandatory in 2020 in all non-tended fixed-gear fisheries, as well as crab trap and lobster trap fisheries.

Mandatory gear marking consists of specific colours that must be used to correctly identify fishing ropes in different fisheries, regions and sub-regions in Canada. It allows to support Canada's efforts to address lost gear and marine mammal entanglements, and to distinguish between US and Canadian gear involved in marine mammal entanglements.

Gear marking requirements are mandatory for all ropes used to attach fishing gear to a buoy or any other floating apparatus used in the fishery (vertical line).

Approved gear marking methods are :

- interlacing coloured twine sections within existing rope (see picture in Annex 1)
- integrated coloured yarns throughout the full length of the rope (see picture in Annex 2)

Each method and mandatory colour scheme that applies are detailed below.

## METHODS AUTHORIZED

## Interlacing coloured twine sections within existing rope

The gear marking requirement consisting of interlacing different coloured twine sections within existing rope must be implemented as follows:
a) the first colour is to identify specific Region - to be interlaced on the same segment of rope as the second colour.
b) the second colour is to identify target Species - to be interlaced on the same segment of rope as the first colour.
c) for lobster and snow crab fisheries only, a third colour to mark different fishing areas must be interlaced. The third colour must be interlaced immediately before or after the segment of rope containing the first two colours. The third colour must not be interlaced within the same segment containing the first and second colour.

The above coloured twine markings together ( $\mathrm{a}, \mathrm{b}, \mathrm{c}$ ) represent a sequence. Coloured twine markings must be permanently interlaced within the rope. Each coloured twine must be a minimum of 15 cm in length when interlaced. At a minimum, sequences are required at :

- the top, middle and bottom of the vertical line or,
- in a few specific fisheries, within every 27.4 metres throughout the length of the rope.


## - Top, middle and bottom specification:

When inserting coloured twine markings at the top, middle and bottom, the rope used to attach a buoy to the fishing gear must have a minimum of three sequences dispersed on the rope in the following manner:

- Sequence \#1 (i.e. top marking)
- within two metres of the buoy
- Sequence \#2 (i.e. middle marking)
- When using rope shorter than 30 metres:
- the marking must be further than three metres from the buoy and further than three meters from the fishing gear
- When using rope with a length of 30 metres or more:
- the marking must be further than 12 metres from the buoy and further than 12 metres from the fishing gear
- Sequence \#3 (i.e. bottom marking)
- within two metres of the fishing gear
- $\quad 27.4$ meters specification:

When inserting coloured twine markings within every 27.4 meters of existing rope, the rope used to attach a buoy to the fishing gear must have a minimum of three sequences of markings dispersed on the rope.

## Rope with integrated coloured yarns throughout its full length

For the purpose of this option:

- yarn is defined as the product of two or more fibers spun together;
- strand is defined as the product of two or more yarns spun together;
- strands twisted or plaited together form a rope.
(Rope components are presented in Annex 3)
UPDATED- Use of a rope with integrated coloured yarns throughout its full length is permitted or the use of segments of rope with integrated coloured yarns is permitted under the conditions that the segments are not less than 2 meters in length and follows the requirements specified within the conditions of licences related to the sequences (i.e. if the segment covers one of the top, middle or bottom sequences, twine markings are not required on that sequence), however it has to comply with the following specific requirements:
- the integrated coloured yarns representing the regional and species colours has to be interlaced within the same strand of a rope in order to reflect the corresponding colour combination;
- when a fishing area colour applies, the integrated coloured yarn representing the fishing area has to be interlaced within a different strand than the regional and species strand;
- the colour of the rope has to contrast with the integrated coloured yarns;
- no additional colours are permitted in the rope.

If a fishery does not currently have fishing area specific markings, before using this option fish harvesters should be mindful that fishing area specific markings may be introduced to fisheries other than snow crab and lobster in the future. This will affect the integrated coloured yarns configuration required in the rope for fisheries that do not currently have fishing area specific markings only.

EASTERN CANADA MANDATORY COLOUR SCHEME - Region and Specie colours

|  | GLF - blue |  | MAR - black |  | NL - red |  | QC - green |  | Multi-region fishery ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Toad crab | X | purple ${ }^{4}$ |  |  | X | purple | X | purple ${ }^{4}$ |  |
| Rock crab | $\mathbf{X}$ | blue* | $\mathbf{X}$ | blue | X | blue | X | blue |  |
| Lobster | X | yellow | X | yellow | X | yellow | X | yellow |  |
| Whelk | X | white | $\mathbf{X}$ | white | X | white | X | white |  |
| Snow crab | X | orange | X | orange | X | orange | X | orange | $\mathbf{X}$ orange |
| Gillnet - small pelagic | X | grey | $\mathbf{X}$ | grey | X | grey | X | grey |  |
| Gillnet - groundfish | X | brown | $\mathbf{X}$ | brown | X | brown | X | brown |  |
| Longline | X | pink | X | pink | $\mathbf{X}$ | pink | X | pink |  |
| Squid - trap |  |  |  |  | X | green |  |  |  |
| Cod - trap/pot |  |  |  |  | X | red* |  |  |  |
| Small pelagic - trap |  |  |  |  | X | yellow / black pattern ${ }^{2}$ |  |  |  |
| Shrimp trap |  |  | $\mathbf{X}$ | green |  |  |  |  |  |
| Hagfish |  |  | $\mathbf{X}$ | black* |  |  |  |  |  |
| Red crab |  |  | X | red |  |  |  |  |  |
| Jonah crab |  |  | $\mathbf{X}$ | purple |  |  |  |  |  |
| LFA 41 |  |  | $\mathbf{X}$ | Red/white pattern ${ }^{2}$ |  |  |  |  |  |
| Scientific licences ${ }^{3}$ | X | black / white pattern ${ }^{2}$ | $\mathbf{X}$ | black / white pattern ${ }^{2}$ | X | black / white pattern ${ }^{2}$ | X | black / white pattern ${ }^{2}$ |  |

*Blue \& blue, black \& black and/or red \& red combination means there should be two distinct strands of the same colour interlaced within the same rope section (one single strand is not acceptable)

1 "Multi-region fishery" is specific to instances of inter-regionally managed fisheries, where each Region is wholly responsible for managing their own fleet but they share the exact same fishing area, licence conditions, and so on, as another fleet in another Region. Each Region issues the same licence conditions to their harvesters. A common base colour was given to ensure a regional division was not created within a shared industry.
${ }^{\mathbf{2}}$ Pattern strand is necessary as no other solid colours are available. The selected fisheries must use a twine that contains a two colour pattern on one of the single strands (white/black pattern, red/white pattern, etc). This is to be used in addition to the Regional colour. See Annex 4 for a pamphlet showing examples of twine colours such as a red/white pattern strand colour (named "Oh Canada" in pamphlet).

3 "Scientific licence" colour scheme implementation is subject to regional analysis to determine when it applies.
${ }^{4}$ Exceptions exist in toad crab for Gulf and Quebec Regions. Refer to the next pages to view exceptions.

## EASTERN CANADA MANDATORY COLOUR SCHEME - Fishing area colours (third colour)

## For lobster, snow crab, and others as applicable

The colour scheme of each lobster and snow crab fishing area in Eastern Canada, as well as a few noted exceptions, is detailed per region in the next few pages.

The double stacked cells represent the regional colour (top) and species colour (bottom), with the single cell immediately to their right representing the fishing area colour.

Additional notes:

- Areas showing "none" in the single cell means that a third colour is not applied.
- Some licence holders hold licences to fish for the same species in multiple fishing areas within the same Region. Unless otherwise specified, the category "Multiple areas" includes these fish harvesters only. This was done so markings do not have to be interchanged between fishing areas.


## GULF REGION

## Lobster fishing area colours

| 23 |  | 24 |  | 25 |  | 26A |  | 26B |  | Multiple areas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| blue | red | blue | green | blue | none | blue | white | blue | black | blue | yellow |
| yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |

## Snow Crab fishing area colours

| 12 |  | 12E |  | 12F |  | 19 |  | Multiple areas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| yellow | none | yellow | yellow | yellow | blue | blue | green | blue | yellow |
| orange |  | orange |  | orange |  | orange |  | orange |  |

## Toad crab fishing area colour

| 24 |  |
| :---: | :---: |
| blue | white |
| orange |  |

## MARITIMES REGION

Lobster fishing area colours

| 27 |  | 28 |  | 29 |  | 30 |  | 31A |  | 31B |  | 32 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| black | blue | black | grey | black | brown | black | yellow/black pattern | black | pink | black | purple | black | white |
| yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |


| 33 |  | 34 |  | 35 |  | 36 |  | 38 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black | orange | black | none | black | green | black | red | black |  |
| Yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |


| 41 |  | multiple areas |  |
| :---: | :---: | :---: | :---: |
| black |  | black |  |
| red/white pattern | none | yellow | yellow |

Snow crab fishing area colours

| North-ENS |  | 23 |  | 24 |  | 4x |  | Multiple areas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| black | none | black <br> orange | green | black <br> orange | black | black <br> orange | blue | black | yellow |
| orange |  |  |  |  |  |  |  | orange |  |

## NEWFOUNLAND \& LABRADOR REGION

Lobster fishing area colours

| 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red | $\begin{aligned} & \text { red/white } \\ & \text { pattern } \end{aligned}$ | red | black/white pattern | red | yellow /black pattern | red | orange | red | green | red | black | red | brown |
| yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |


| 10 |  | 11 |  | 12 |  | 13A |  | 13B |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red | grey | red | none | red | red | red | blue | red | yellow |
| yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |


| 14A |  | 14B |  | 14C |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red |  |  |  |  |  |  | white | red | purple | red | pink |
|  |  |  | yellow |  |  |  |  |  |  |  |  |

## Snow crab management area colours

| 2J North |  | 2J South |  | 3A |  | 3B, 3C, 3BC |  | 3D |  | 4 |  | 5A |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red | blue | red | blue | red | black/white pattern | red | yellow/black pattern | red | black/blue pattern | red | yellow/green pattern | red | red/white pattern |
| orange |  | orange |  | orange |  | orange |  | orange |  | orange |  | orange |  |


| 6A |  | 6B |  | 6C, 8A |  | 9A |  | 3LNO < 65' |  | 3NO > 65' |  | 11E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red | pink/blue pattern | red | red/green pattern | red | orange | red | black | red | purple | red | grey | red | pink |
| orange |  | orange |  | orange |  | orange |  | orange |  | orange |  | orange |  |


| 11W |  | 10A Inner |  | $\begin{gathered} \hline \text { 10A Outer, 10B, } \\ 11 \mathrm{~S} \end{gathered}$ |  | Outside 8 mile |  | Area 12 inshore |  | 13 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| red | red | red | brown | red | white | red | yellow | red | green | red | none |
| orange |  | orange |  | orange |  | orange |  | orange |  | orange |  |

## Lobster fishing area colours

| 15 |  | 16 |  |  |  | 18 |  | 19 |  | 20A |  | 20B |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| green | red | green | green | green | black | green | blue | green | brown | green | white | green | grey |
| yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  | yellow |  |


| 21 |  | 22 |  | Multiple areas |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| green | orange | green | none | green | yellow |
| yellow |  | yellow |  | yellow |  |

## Snow crab fishing area colours

| 12 |  | 12A |  | 12B |  | 12C |  | 12E |  | 12F |  | 13 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| yellow | none | green | green | green | blue | green | pink | yellow | yellow | yellow | blue | green | none |
| orange |  | orange |  | orange |  | orange |  | orange |  | orange |  | orange |  |


| 14 |  | 15 |  | 16 |  | 16A |  | 17 |  | Multiple areas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| green | white | green | orange | green | red | green | none | green | black | green | yellow |
| orange |  | orange |  | orange |  | orange |  | orange |  | orange |  |

## Toad crab fishing area colour

| 12 |  |
| :---: | :---: |
| yellow | purple |
| orange |  |

ANNEX 1
Interlacing coloured twine within existing rope
Figure A - Colour combo identifying Region and Species as per colour scheme this is Quebec (green), snow crab (orange) interlaced on same rope section


Figure B - Colour combo identifying Region, Species and Fishing Area Region \& species interlaced on same section of rope, Fishing area on subsequent section of rope as per colour scheme this would be Quebec (green), snow crab (orange), CFA 12A (green)


ANNEX 2

## New rope with Integrated coloured yarns

Colour combo identifying Region, Species and Fishing Area throughout full length of rope:

- Region \& species coloured yarns interlaced on same strand
- Fishing area coloured yarn interlaced on a subsequent strand as per colour scheme this would be Maritimes' region lobster (black \& yellow), LFA 35 (green)


Close up:


ANNEX 3
Rope components


ANNEX 4
Colour Chart

Canadian company pamphlet showing twine colours and patterns:


