

A REVIEW OF SEA TURTLE MITIGATION MEASURES ACROSS THE FIVE TUNA RFMO AND OTHER FISHERIES MANAGEMENT ORGANIZATIONS

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SUMMARY

This document compiles the currently active mitigation measures across the five Tuna Regional Fishery Management Organizations (tRFMO) that manage fisheries targeting tuna and tuna-like species worldwide, as well as across other Regional Fishery Bodies (RFB) in the Atlantic Ocean and adjacent seas whose areas of competence also include the high seas.

RÉSUMÉ

Ce document compile les mesures d'atténuation actuellement en vigueur au sein des cinq organisations régionales thonnières de gestion des pêches (ORGP thonnières) qui gèrent les pêcheries ciblant les thonidés et les espèces apparentées dans le monde entier, ainsi qu'au sein d'autres organisations régionales des pêches dans l'océan Atlantique et les mers adjacentes dont les domaines de compétence incluent également la haute mer.

RESUMEN

En este documento se compilan las medidas de mitigación actualmente activas en las cinco Organizaciones Regionales de Ordenación Pesquera de túnidos (OROP de túnidos) que gestionan las pesquerías que se dirigen a los túnidos y especies afines a nivel mundial, así como en las Organizaciones Regionales de Pesca (ORP) en el océano Atlántico y mares adyacentes, cuyas zonas de competencia incluyen también alta mar.

KEYWORDS

Bycatch, Regional Fishery Management Organizations - RFMO, Regional Fishery Bodies - RFB, mitigation measures, sea turtles.

1. Tuna Regional Fishery Management Organizations (tRFMOs)

Due to the concerns on the status of sea turtles worldwide and the possible negative effects of fishing on these populations, in the last decade several Regional Fishery Bodies (RFBs) have taken conservation measures to address sea turtle interactions with marine fisheries. This document compiles the mitigation measures of the five Tuna Regional Fishery Management Organizations (tRFMOs) that manage fisheries targeting tuna and tuna-like species worldwide: the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Inter-American Tropical Tuna Commission (IATTC), the Indian Ocean Tuna Commission (IOTC), and the Western and Central Pacific Fisheries Commission (WCPFC) (**Figure 1**). The currently active conservation measures across these organizations regarding sea turtles conservation are listed in **Table 1**.

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2. Other Regional Fishery Bodies (RFB) in the Atlantic Ocean and adjacent Seas

According to the Fishery Governance Fact Sheets from the FAO Fisheries and Aquaculture Department (<http://www.fao.org/fishery/rfb/search/en>), besides those 5 tRFMOs across the oceanic areas, there are 8 other Regional Fishery Bodies (RFB) in the Atlantic Ocean whose areas of competence also include the “high seas”, but whose mandates do not include fisheries for tunas and tuna-like fishes (**Figure 2**). These include the Fishery Committee for the Eastern Central Atlantic (CECAF), the General Fisheries Commission for the Mediterranean (GFCM), the International Council for the Exploration of the Sea (ICES), the North West Atlantic Fisheries Organization (NAFO), the North Atlantic Salmon Conservation Organization (NASCO), the North East Atlantic Fisheries Commission (NEAFC), the South East Atlantic Fisheries Organization (SEAFO), and the Western Central Atlantic Fishery Commission (WECAFC) (**Table 2**).

A search for sea turtle mitigation measures was also carried out on those RFBs in the Atlantic Ocean. Some of these RFBs also address turtle bycatch as part of their overall fisheries management schemes, namely the GFCM, NAFO, SEAFO and WECAFC, and those Recommendations are listed in **Table 3**. A summary of the recommendations and resolutions regarding sea turtle bycatch mitigation measures across the five t-RFMOs, as well as on other RFMOs with relevance for the ICCAT area are listed in **Table 4**.

3. FAO Guidelines

According to the FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations (FAO Fisheries Department 2009), there are five major RFMOs with management responsibilities for fisheries that interact with sea turtles. Those include the ICCAT, IOTC, IATTC and WCPFC at an Oceanic level, and at a more regional level the GFCM for the Mediterranean Sea.

Still according to these FAO Guidelines, there are currently also three multilateral agreements with the primary responsibility of regional sea turtle conservation. These agreements - the *Inter-American Convention for the Protection and Conservation of Sea Turtles* (IAC), the *Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia* (IOSEA MoU) and the *Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa* (West Africa MOU) - address the range of sea turtle conservation and protection issues and incorporate provisions to address interactions with fisheries. Those agreements do not have fisheries management authority, but carry obligations for member states to take by-catch related actions for areas under their jurisdiction.

The FAO Fisheries Department (2009) Guidelines recognize that the Illegal, Unregulated and Unreported (IUU) Fishing may pose a threat to sea turtles because IUU vessels are unlikely to employ measures to reduce sea turtle interactions and mortality. However, several RFBs have taken steps to effectively reduce IUU fishing, including instituting requirements for Vessel Monitoring Systems (VMS), managing lists of authorized (approved) and illegal vessels, port and at-sea inspection programmes, and trade documentation programmes.

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Table 1. List of active Recommendations and Resolutions regarding sea turtle bycatch mitigation measures of the five Tuna Regional Fishery Management Organizations (tRFMOs). CCSBT = Commission for the Conservation of Southern Bluefin Tuna; IATTC = Inter-American Tropical Tuna Commission; ICCAT = International Commission for the Conservation of Atlantic Tunas, IOTC = Indian Ocean Tuna Commission, WCPFC = Western and Central Pacific Fisheries Commission.

<i>tRFMO</i>	<i>Date</i>	<i>Rec/Res</i>	<i>Title</i>
CCSBT	(Upd) Oct 2011	Rec-11-10	Recommendation to Mitigate the Impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna
IATTC	Jun 2004	Res-C-04-07	Resolution on a Three-Year Program to Mitigate the Impact of Tuna Fishing on Sea Turtles
IATTC	Jun 2006	Res-C-04-05 REV 2	Consolidated Resolution on Bycatch
IATTC	Jun 2007	Res-C-07-03	Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles
IATTC	Jul 2011	Res-C-11-08	Resolution on Scientific Observers for Longline Vessels
ICCAT	2005	Res-05-08	Resolution by ICCAT on Circle Hooks
ICCAT	2010	Rec-10-09	Recommendation by ICCAT on the By-catch of sea Turtles in ICCAT Fisheries
ICCAT	2010	Rec-10-10	Recommendation by ICCAT to Establish Minimum standards for Fishing Vessel Scientific Observer Programs
ICCAT	2011	Rec-11-10	Recommendation by ICCAT on Information Collection and Harmonization of Data on Bycatch and Discards in ICCAT Fisheries
IOTC	2005	Rec-05-08	Recommendation on Sea Turtles
IOTC	2009	Res-09-06	Resolution on Marine Turtles
IOTC	2011	Rec-11-06	Recommendation Concerning the Recording of Catch and Effort by Fishing Vessels in the IOTC Area of Competence
WCPFC	Dec 2004	CMM 2004-04	Resolution on Conservation and Management Measures
WCPFC	Dec 2008	CMM 2008-03	Conservation and Management of sea Turtles
WCPFC	Apr 2010		WCPFC Guidelines for the Handling of Sea Turtles

Table 2. Regional Fishery Bodies (RFB) of the Atlantic Ocean and adjacent Seas whose mandates do not include fisheries for tuna and tuna-like species, but whose area of competence also includes the high seas. It is also specified the type of each RFB, depending whether they have a management or an advisory (scientific and/or management) mandate.

<i>RFB</i>	<i>Name</i>	<i>Mandate</i>
CECAF	Fishery Committee for the Eastern Central Atlantic	Advisory
GFCM	General Fisheries Commission for the Mediterranean	Management
ICES	International Council for the Exploration of the Sea	Advisory
NAFO	North West Atlantic Fisheries Organization	Management
NASCO	North Atlantic Salmon Conservation Organization	Management
NEAFC	North East Atlantic Fisheries Commission	Management
SEAFO	South East Atlantic Fisheries Organization	Management
WECAFC	Western Central Atlantic Fishery Commission	Advisory

Table 3. List of active Recommendations and Resolutions regarding sea turtle bycatch of other Regional Fishery Bodies (RFB) of the Atlantic Ocean whose mandates also include the “high seas” but not fisheries for tunas and tuna-like species. GFCM = General Fisheries Commission for the Mediterranean, NAFO = Northwest Atlantic Fisheries Organization, SEAFO = South East Atlantic Fisheries Organization. The general FAO (Food and Agriculture Organization of the United Nations) Guidelines to reduce sea turtle mortality are also listed.

<i>RFB</i>	<i>Date</i>	<i>Rec/Res</i>	<i>Title</i>
FAO	2009	Dec 200	Guidelines to Reduce Sea Turtle Mortality in Fishing Operations.
GFCM	2011	Rec-35-2011-4	Recommendation on the incidental by-catch of sea turtles in fisheries in the GFCM competence area.
GFCM	2011	Rec-35-2011-7(d)	ICCAT recommendation [10-09] on the by-catch of sea turtles in ICCAT fisheries.
NAFO	Sep 2006	Res-1-06 NAFO/FC Doc. 06/7	Resolution to Reduce Sea Turtle Mortality in NAFO Fishing Operations.
SEAFO	2009	CM-14-09	Conservation Measure 14/09: To Reduce Sea Turtle Mortality in SEAFO Fishing Operations.

Table 4. Summary of Recommendations and Resolutions regarding sea turtle bycatch mitigation measures across the five t-RFMOs and other RFMOs with relevance for the ICCAT area.

<i>Topic</i>	<i>CCSBT</i>	<i>IATTC</i>	<i>ICCAT*</i>	<i>IOTC</i>	<i>WCPFC</i>	<i>GFCM</i>	<i>NAFO</i>	<i>SEAFO</i>
Implementation of FAO Guidelines to reduce sea turtle mortality in fishing operations (FAO-Sea turtles)	Rec-11-10	Res-C-07-03		Rec-05-08 Res-09-06	CMM 2008-03		Res-1-06	CM-14-09
Comply with all current binding and recommendatory measures adopted by IOTC, ICCAT and WCPFC	Rec-11-10					Rec-35-2011-7(d): ICCAT Rec-10-09 Res-05-08		
Implementation of fisheries management measures that mitigate incidental taking and mortality of sea turtles		Res-C-07-03			CMM 2004-04	Rec-35-2011-4	Res-1-06	CM-14-09
Fishermen to promptly release unharmed sea turtles in any fishery		Res-C-04-05 REV2	Rec-10-09			Rec-35-2011-4 Rec-35-2011-7(d)		
Collect and provide the Commission with all detailed data on bycatch and mortality of sea turtles	Rec-11-10	Res-C-07-03 Res-C-04-07 Res-C-04-05 REV2	Rec-10-09 (no later than 2012); Rec-10-10; Rec-11-10	Res-09-06 Res-11-06	CMM 2004-04	Rec-35-2011-4 Rec-35-2011-7(d)	Res-1-06	CM-14-09
Implement observer programs		Res-C-07-03	Rec-10-10					
Ensure minimum of 5% observer coverage of fishing effort in each of the pelagic longline (ICCAT also purse seine, baitboat)		(from 2013) Res-C-11-08	Rec-10-10					
Educate and train crews of vessels in techniques for safe handling turtles		Res-C-04-07 Res-C-04-05 REV2	Rec-10-09	Res-09-06	CMM 2008-03	Rec-35-2011-4		
Require specific measures for encircled or entangled sea turtles, avoid its capture and carry and employ necessary equipment for the prompt release of unharmed sea turtles (purse seine, longlines, other)		Res-C-04-05 REV2 Res-C-07-03	Rec-10-09	Res-09-06	CMM 2008-03	Rec-35-2011-4 (not later than 2013) Rec-35-2011-7(d)		
Conduct research and undertake fishing trials to determine the feasibility and effectiveness of measures to reduce the bycatch, injury, and mortality (FAD design, circle hook, etc..)		Res-C-04-07 Res-C-07-03	Rec-10-09 Rec-10-10 Res-05-08 (Circle hook)	Res-09-06	CMM 2008-03	Rec-35-2011-7(d)		
Operators required implementing at least one of the 3 mitigation methods: large circle hooks, use only whole finfish bait, any other reviewed measure (only applied to vessels fishing for swordfish in shallow sets).					CMM 2008-03			

* For ICCAT “recommendations (Rec)” are binding, while “resolutions (Res)” are not binding

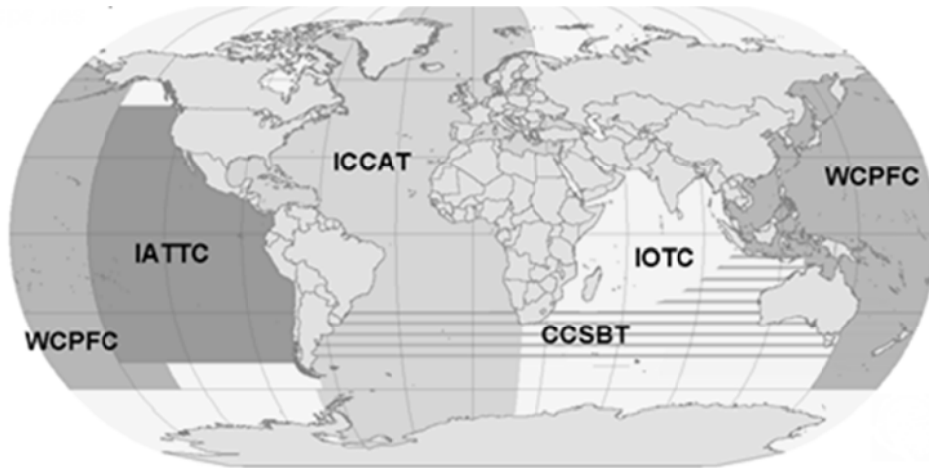


Figure 1. Convention areas of the tuna Regional Fisheries Management Organizations, specifically the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Indian Ocean Tuna Commission (IOTC), the Inter-American Tropical Tuna Commission (IATTC), and the Western and Central Pacific Fisheries Commission (WCPFC). Source: http://ec.europa.eu/fisheries/cfp/international/rfmo/index_en.htm

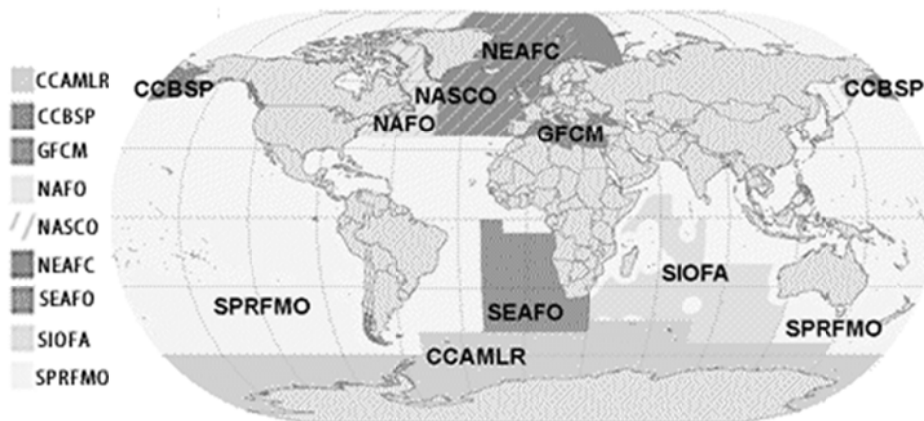


Figure 2. Convention areas of the Regional Fisheries Management Organizations with management mandates for fisheries, not including fisheries for tunas and tuna-like fishes. In the Atlantic, these include the General Fisheries Commission for the Mediterranean (GFCM), the North West Atlantic Fisheries Organization (NAFO), the North Atlantic Salmon Conservation Organization (NASCO), the North East Atlantic Fisheries Commission (NEAFC), the South East Atlantic Fisheries Organization (SEAFO). There are three additional RFMOs in the Atlantic Ocean that are not included in the map as they have advisory mandates. Those include the Fishery Committee for the Eastern Central Atlantic (CECAF), the International Council for the Exploration of the Sea (ICES) and the Western Central Atlantic Fishery Commission (WECAFC). Source: http://ec.europa.eu/fisheries/cfp/international/rfmo/index_en.htm