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**A Review of the Provision of Scientific Advice
in the Western and Central Pacific Fisheries Commission**

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Commission**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Overview of the WCPFC Convention and the WCPFC.....	4
	A. The WCPFC.....	4
	B. The Subsidiary Bodies of the WCPFC.....	5
	C. The Scientific Service Providers.....	7
	1. The SPC.....	8
	2. The ISC.....	8
III.	Untangling the Institutional Roles within the WCPFC.....	9
	A. The WCPFC’s Decisionmaking Hierarchy.....	11
	1. The Legal Hierarchy of WCPFC Bodies.....	11
	2. The Functional Hierarchy of WCPFC Bodies.....	12
	a. The WCPFC Decisionmaking Process.....	12
	b. The Scientific Committee’s Role in the WCPFC’s Decisionmaking Process....	14
	B. The Authority to Direct the Actions of Other Bodies.....	16
	1. The WCPFC’s Authority to Reject Management Advice.....	16
	2. The WCPFC’s Authority to Enter into Agreements with Independent Bodies.....	17
	a. Defining the WCPFC’s Authority to Enter into Agreements.....	18
	b. Implementing the WCPFC’s Authority to Enter into Agreements.....	19
	3. The Northern Committee’s Authority to Request Information from the ISC.....	20
	4. The WCPFC’s and Scientific Committee’s Authority to Request Information from the ISC.....	20
IV.	Dispute Settlement among Institutions and Members.....	22
	A. Disagreements on Legal Interpretation of the WCPFC Convention or Procedure.....	23
	1. Seeking a Legal Opinion and Adopting a Common Understanding.....	23
	2. Reviewing a WCPFC Decision under Article 20(6).....	24
	3. Requesting the Northern Committee to Reconsider a Matter.....	25
	4. Requesting the Technical and Compliance Committee to Address the Issue.....	25
	B. Dispute Settlement Procedures.....	26
	1. Negotiation, Mediation, and Conciliation.....	27
	2. Ad Hoc Expert Panels.....	28
	3. Arbitration and Judicial Settlement.....	29
	4. Provisional Measures.....	30
	C. Dispute Settlement in Other Treaties.....	30
	1. The Definition of “Whales” under the ICRW.....	30
	2. The Scientific Research Exception under the ICRW.....	31
	3. The Appendix II Listing Criteria under CITES.....	33
V.	Recommendations.....	34
	Appendix 1: Proposed Changes to Rules of Procedure of the Northern Committee.....	36
	Appendix 2: Proposed Changes to the WCPFC–ISC MoU.....	37
	Appendix 3: Proposed Changes to Resolution 2013 on Best Available Science.....	43

A Review of the Provision of Scientific Advice in the Western and Central Pacific Fisheries Commission

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I. Introduction

The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western Pacific Ocean (WCPFC Convention)¹ establishes a Commission, known as the WCPFC, to manage and conserve tuna and other fish stocks of significant financial² and ecological value across a huge swath of the Pacific Ocean—an area covering about twenty percent of Earth’s area.³ Despite being a relatively new regional fisheries management organization (RFMO),⁴ and because of the great value of these fisheries resources and the WCPFC Convention’s broad geographic scope, WCPFC members have disagreed sharply over management measures for tuna, sharks, and other species.

In 2012, for example, the WCPFC’s Scientific Committee reported that Pacific bluefin tuna biomass “is heavily overfished”⁵ and “near historically low levels and experiencing high exploitation rates above all biological reference points (BRPs) commonly used by fisheries managers.”⁶ Nonetheless, the Scientific Committee could not reach consensus on management advice to provide the WCPFC. The “majority view” recommended that “fishing mortality on Pacific bluefin tuna be immediately reduced, especially on juveniles, in order to reduce the risk

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¹ Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, signed Sept. 5, 2000, entered into force June 19, 2004, 40 I.L.M. 277 (2001) [hereinafter Convention].

² “[I]n 2007, the tuna catch in the WCPO was estimated at 2,396,915 tonnes and worth approximately US\$3,895 million. These tuna fisheries represent the primary economic opportunity for many of the region’s small island developing States.” Quentin Hanich et al., *Oceans of Opportunity? The Limits of Maritime Claims in the Western and Central Pacific Region*, in NAVIGATING PACIFIC FISHERIES: LEGAL AND POLICY TRENDS IN THE IMPLEMENTATION OF INTERNATIONAL FISHERIES INSTRUMENTS IN THE WESTERN AND CENTRAL PACIFIC OCEAN 21, 25–26 (Quentin Hanich & Martin Tsamenyi, eds. 2009).

³ WCPFC, Frequently Asked Questions and Brochures, at <http://www.wcpfc.int/frequently-asked-questions-and-brochures>.

⁴ Whereas the WCPFC entered into force in 2000, other RFMOs have been in force for decades. *See, e.g.*, International Convention for the Conservation of Atlantic Tunas, May 14, 1966, 673 U.N.T.S. 63, 20 U.S.T. 2887, available at <http://www.iccat.es/>; Inter-American Tropical Tuna Convention, May 31, 1949, U.S.T. 230, T.I.A.S. 2044, available at <http://www.iattc.org/>; Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, Oct. 24, 1978, 1978 U.S.T. LEXIS 315, *reprinted in* 19 INTERNATIONAL LEGAL MATERIALS 830, available at www.nafo.ca/about/convention.htm; Convention for the Conservation of Antarctic Marine Living Resources, May 20, 1980, T.I.A.S. 10240, *reprinted in* 10 INTERNATIONAL LEGAL MATERIALS 841; available at <http://www.ccamlr.org>.

⁵ WCPFC, SUMMARY REPORT OF THE NINTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE, AUGUST 2013, WCPFC10-2013-17, ¶ 194 (Nov. 13, 2013) [hereinafter SUMMARY REPORT OF THE SCIENTIFIC COMMITTEE’S NINTH REGULAR SESSION].

⁶ *Id.* at ¶ 195.

of recruitment collapse and allow the spawning stock to rebuild.”⁷ Japan, however, could not support the “majority view,” stating that the Scientific Committee did not have competence to provide advice on this species, which is designated as a northern stock subject to advice from the WCPFC’s Northern Committee.⁸ Instead, Japan supported the “minority view,” endorsed by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), which provides scientific and management advice to the Northern Committee regarding northern stocks.⁹ A number of other members responded to Japan by arguing that the Scientific Committee provides “scientific advice for all WCPFC stocks”¹⁰ and “does not exist to simply endorse the work of another group.”¹¹ Substantively, the majority and minority views differed significantly. While the minority view also called for “further reductions in fishing mortality, especially for juvenile fish,” it called for “strengthening the monitoring of recruitment to comprehend the trend of recruitment in a timely manner”¹² rather than allowing spawning levels to rebuild.

These disagreements arise due to the WCPF Convention’s ambiguous text, which lacks clarity with respect to the roles of the WCPF Convention’s subsidiary bodies and providers of scientific advice. For example, in advising the WCPFC on the management of “northern stocks,” those stocks found north of twenty degrees north latitude, some WCPFC members argue that the Northern Committee should have sole authority to advise the WCPFC;¹³ others argue that the Scientific Committee also has a role to play.¹⁴ In addition, the WCPFC has agreements with the

⁷ *Id.* at ¶ 196.

⁸ Japan specifically noted that

Given that the current framework of management of the northern stocks, namely that NC formulates the draft CMM based on the conservation advice from ISC, is working quite well, the recommendations from ISC should be sufficient for the work of the Commission; it is not necessary for SC to revise nor restate conservation advice made by ISC. This is why Japan supports the advice that states SC endorsed the conservation advice put forward by ISC.

Id. at ¶ 198.

⁹ See Memorandum of Understanding between the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific, at Part I (Dec. 2005) [hereinafter WCPFC–ISC MoU].

¹⁰ SUMMARY REPORT OF THE SCIENTIFIC COMMITTEE’S NINTH REGULAR SESSION, *supra* note 5, at ¶ 200 (summarizing the statement of Australia).

¹¹ *Id.* at ¶ 201 (summarizing the statement of PNG, Palau and Cook Islands).

¹² *Id.* at ¶ 196.

¹³ Japan, for example, has stated that

the recommendations from ISC should be sufficient for the work of the Commission; it is not necessary for SC to revise nor restate conservation advice made by ISC. This is why Japan supports the advice that states SC endorsed the conservation advice put forward by ISC.

Id. at ¶ 198.

¹⁴ Australia, for example, has stated that

the role of SC (consistent with the Convention and its objective) is to provide scientific advice in respect of Pacific bluefin tuna. Australia’s position is that scientific advice for all WCPFC stocks comes from SC.

Id. at ¶ 200.

Secretariat of the Pacific Community (SPC) and the ISC to provide scientific advice and, in the case of SPC, scientific data.¹⁵ Again, disagreements exist over the respective roles of the ISC, the Northern Committee, and the Scientific Committee to provide advice or recommend management measures concerning northern stocks. In addition, the SPC and ISC overlap in providing scientific information to the subsidiary bodies.¹⁶ At times, these bodies have provided fundamentally different advice on how to manage stocks in the Convention Area, leading to disputes over which body should be giving advice to the WCPFC and over whose advice the WCPFC must rely on.

Despite these disputes and unusual provisions of the WCPF Convention, the WCPF Convention is, in fact, clear that the Scientific Committee has the authority to review the assessments and other work of the providers of scientific information,¹⁷ review the results of research and analysis on target and non-target species,¹⁸ and make recommendations to the WCPFC concerning conservation and management of all stocks in the Convention area.¹⁹ This gives the Scientific Committee the authority and the duty to review the work of the ISC and the recommendations of the Northern Committee. Given the contentious and political nature of this issue disputes, it is less clear how the WCPFC can clearly resolve this issue.

To determine how scientific advice should be provided to the WCPFC, this paper assesses the WCPF Convention and other documents establishing the WCPFC, subsidiary bodies, and relationships with providers of scientific information. Section II begins by briefly introducing the WCPF Convention and describing the basic functions of the WCPFC, subsidiary bodies, and providers of scientific information. Section III identifies the legal hierarchies of these institutions as well as their roles in providing oversight of other convention bodies. This section concludes that the Scientific Committee has an important role to play in ensuring that the WCPFC receives the best available scientific information and reviewing the assessments of the ISC and the recommendations of the Northern Committee. In light of the ongoing disputes over the Scientific Committee's role, Section IV reviews the WCPFC Convention's mechanisms for dispute settlement. It also describes how disputes in other conventions have been resolved. Section V concludes by recommending specific revisions to rules of procedure for the Northern Committee, the MoU between the WCPFC and the ISC, and the WCPFC's resolution on best available science.

¹⁵ See generally WCPFC–ISC MoU, *supra* note 9.

¹⁶ See, e.g., WCPFC, SUMMARY REPORT OF THE EIGHTH REGULAR SESSION OF THE NORTHERN COMMITTEE, SEPTEMBER 2012 ¶ 36 (2012) (stating that Japan and ISC showed concern that the ISC and SPC may be performing duplicative work in assessing the status of blue sharks.).

¹⁷ WCPF Convention, *supra* note 1, at art. 12(2)(b).

¹⁸ *Id.* at art. 12(2)(d).

¹⁹ *Id.* at art. 12(2)(g).

II. Overview of the WCPF Convention and the WCPFC

The WCPF Convention is a multilateral agreement with a goal to “ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific Ocean.”²⁰ The WCPF Convention, which currently includes twenty-six members,²¹ seven participating territories,²² and ten cooperating non-members,²³ establishes the WCPFC to adopt conservation and management measures for all stocks of highly migratory fish stocks, such as tunas, billfish, and other species except sauries,²⁴ found in the Convention Area.²⁵ The Convention Area covers almost twenty percent of Earth’s surface,²⁶ ranging from Australia and the east Asian seaboard (excluding the South China Sea) in the west to east of Hawaii in the east. The southern boundary borders the Southern Ocean at sixty degrees south latitude and the northern boundary reaches to Alaska and the Bering Sea.²⁷ To fulfill its conservation and management goals, the WCPF Convention also establishes subsidiary bodies to provide scientific advice, make recommendation to the WCPFC, and assist with implementation.

A. The WCPFC

The WCPFC, which includes all fishing entities that have agreed to be bound by the WCPF Convention,²⁸ is the decisionmaking body of the WCPF Convention and is charged with

²⁰ *Id.* at art. 2.

²¹ The members are Australia, Canada, China, Cook Islands, European Union, Federated States of Micronesia, Fiji, France, Indonesia, Japan, Kiribati, Republic of Korea, Republic of Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Chinese Taipei, Tonga, Tuvalu, United States of America, and Vanuatu. WCPFC, About WCPFC, at <http://www.wcpfc.int/about-wcpfc>. Indonesia recently became the twenty-sixth member of the WCPFC. New Zealand, *Paper Prepared by the Depositary, New Zealand*, WCPFC10-2013-06. ¶¶ 1–2 (Nov. 20, 2013).

²² The participating territories are American Samoa, Commonwealth of the Northern Mariana Islands, French Polynesia, Guam, New Caledonia, Tokelau, and Wallis and Futuna. WCPFC, About WCPFC, at <http://www.wcpfc.int/about-wcpfc>.

²³ The cooperating non-members are Belize, Democratic People’s Republic of Korea, Ecuador, El Salvador, Mexico, Panama, Senegal, St Kitts and Nevis, Thailand, and Vietnam. *Id.* The website has not yet been updated to reflect Indonesia’s ratification of the Convention, making it a full member of the WCPFC. *See* New Zealand, *Paper Prepared by the Depositary, New Zealand*, WCPFC10-2013-06. ¶¶ 1–2 (Nov. 20, 2013).

²⁴ WCPF Convention, *supra* note , at art. 3(3). The Convention defines highly migratory fish as “all fish stocks of the species listed in Annex 1 of the 1982 Convention occurring in the Convention Area, and such other species of fish as the Commission may determine.” Convention, *supra* note , at art. 1(f).

²⁵ *Id.* at arts. 3(3), 9(1).

²⁶ WCPFC, Frequently Asked Questions and Brochures, *supra* note 3.

²⁷ Specifically, the Convention’s jurisdiction ranges “[f]rom the south coast of Australia due south along the 141° meridian of east longitude to its intersection with the 55° parallel of south latitude; thence due east along the 55° parallel of south latitude to its intersection with the 150° meridian of east longitude; thence due south along the 150° meridian of east longitude to its intersection with the 60° parallel of south latitude; thence due east along the 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence due north along the 150° meridian of west longitude.” WCPF Convention, *supra* note 1, at art. 3(1). A map of the convention area can be found at WCPFC, Convention Area Map, at <http://www.wcpfc.int/convention-area-map>.

²⁸ WCPF Convention, *supra* note 1, at art. 9(2) & Annex I.

ensuring the conservation and management of fish stocks in the Convention Area.²⁹ To implement its conservation and management duties, the WCPFC meets once a year to determine catch limits for target species within the Convention Area and adopt other conservation and management measures (CMMs) for target and non-target species.³⁰ These CMMs may include setting quotas and size limits for particular species, restricting the types and sizes of vessels allowed to fish, establishing geographical areas and times of year during which fishing may or may not occur, and specifying the technology that fishing operations may use.³¹ The WCPFC must also encourage conservation and cooperation among WCPFC members; establish CMMs for non-target species; compile, disseminate, and evaluate data; implement international standards for responsible fishing operations; and establish mechanisms to monitor enforcement of CMMs.³² In addition, the WCPFC must consider reports and recommendations of the Scientific Committee and Technical Compliance Committee “on matters within their respective areas of competence”³³ when setting total allowable catch or total level of fishing efforts.³⁴

Further, the WCPFC’s members must provide annual data and information as required by the WCPFC, information on steps taken to implement CMMs, information concerning fishing activities in the Convention Area, and measures for regulating fishing activities.³⁵ The WCPFC Convention also creates a regional observer programme to collect verified catch data and other scientific and management information and to monitor the implementation of CMMs adopted by the WCPFC.³⁶ This program involves the use of impartial observers and ensures the WCPFC receives sufficient data on catch levels.³⁷

B. The Subsidiary Bodies of the WCPFC

The WCPFC Convention establishes three subsidiary bodies to aid the WCPFC in carrying out its functions: the Scientific Committee, the Technical and Compliance Committee, and the Northern Committee.³⁸ Each subsidiary body makes recommendations to the WCPFC within their “respective areas of competence.”³⁹ Based on these recommendations, the WCPFC makes conservation and management decisions to achieve the WCPFC Convention’s goals.⁴⁰

²⁹ *Id.* at arts. 9–10.

³⁰ *Id.* at art. 10(1)–(3). Items may be included in the agenda for discussion and adoption based simply on a proposal from any WCPFC member, as well as from a recommendation of the Scientific Committee, Technical and Compliance Committee, and the Executive Director of the Secretariat. WCPFC, Rules of Procedure, as adopted at the Inaugural Session, ¶ 2 (Dec. 2004).

³¹ *Id.* at art. 10(2).

³² *Id.* at art. 10(1).

³³ *Id.* at art. 10(5).

³⁴ *Id.* at art. 10(3).

³⁵ *Id.* at art. 23.

³⁶ *Id.* at art. 28(1).

³⁷ *Id.* at art. 28.

³⁸ *Id.* at art. 11(1) and (7). The WCPFC also established the standing Finance and Administration Committee (FAC) as a subsidiary body pursuant to Article 11(6) of the WCPFC Convention. WCPFC, REPORT OF THE THIRD REGULAR SESSION OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN, DECEMBER 2006, ¶ 181 (2007). The FAC, however, is unrelated to the scope of this paper.

³⁹ WCPFC Convention, *supra* note 1, at art. 11(1).

⁴⁰ *Id.* at art. 10(5), 11(7).

The *Scientific Committee* ensures that the WCPFC has the “best scientific information available.”⁴¹ To provide such information, the Scientific Committee “review[s] the assessments, analyses, other work, and recommendations prepared for the Commission by the scientific experts prior to the consideration of such recommendations by the Commission.”⁴² Then, the Scientific Committee provides “information, advice and comments” about the results of research and analyses of target and non-target stocks in the Convention Area.⁴³ The Scientific Committee also recommends a research plan to the WCPFC, encourages coordination of scientific research in the Convention Area, reports to the WCPFC on its findings on the status of stocks in the Convention Area, and “make[s] reports and recommendations to the Commission as directed, or on its own initiative, on matters concerning the conservation and management of and research on . . . species in the Convention Area.”⁴⁴

The *Technical and Compliance Committee* provides the WCPFC with technical advice on implementation of CMMs.⁴⁵ In particular, Technical and Compliance Committee ensures implementation of CMMs by the members by monitoring compliance, and it makes additional recommendations if further cooperative measures are necessary.⁴⁶ To carry out these functions, the Committee investigates matters referred to it by the WCPFC.⁴⁷ It also makes recommendations to the WCPFC on, among other things, fishing gear and technology that fishing operations may use (in consultation with the Scientific Committee), priorities and objectives of the regional observer program (in consultation with the Scientific Committee), and matters relating to monitoring, control, surveillance, and enforcement.⁴⁸ It also provides a forum for exchange of information relating to CMMs adopted by the WCPFC, and receives reports relating to monitoring and investigation of and punishment for violations of the WCPFC Convention.⁴⁹

The *Northern Committee* recommends CMMs to the WCPFC concerning “stocks which occur mostly” in the area north of twenty degrees north latitude.⁵⁰ The WCPFC has identified only three stocks—Pacific bluefin, northern albacore, and the northern stock of swordfish—as occurring primarily in the area north of the twenty degrees parallel of north latitude and designated them as northern stocks within the jurisdiction of the Northern Committee.⁵¹ Based

⁴¹ *Id.* at art. 12(1).

⁴² *Id.* at art. 12(2)(b).

⁴³ *Id.* at art. 12(2)(d). The WCPFC must “tak[e] into account any recommendation of the Scientific Committee” when “engag[ing] the services of scientific experts to provide information and advice on the fishery resource covered by [the] Convention.” *Id.* at art. 13(1). All reports and recommendations prepared by scientific experts “shall be provided to the Scientific Committee”, as well as “reports on the results of [the expert’s] scientific work, advice and recommendations in support of the formulation of conservation and management measures and other relevant matters.” WCPFC Convention, *supra* note 1, at art. 13(2)(d) and 13(5).

⁴⁴ *Id.* at arts. 12(2)(a),(c), (e), and (g).

⁴⁵ *Id.* at art. 14(1).

⁴⁶ *Id.* at art. 14(1).

⁴⁷ *Id.* at art. 14(2).

⁴⁸ *Id.* at art. 14(2).

⁴⁹ *Id.* at art. 14(2).

⁵⁰ *Id.* at art. 11(7); WCPFC Rules of Procedure, *supra* note 30, at Annex I, ¶ 2 (naming of the Northern Committee). The Northern Committee comprises WCPFC members situated north of twenty degrees and members fishing in this area. WCPFC Convention, *supra* note 1, at art. 11(7); WCPFC Rules of Procedure, *supra* note 30, at Annex I, ¶ 1.

⁵¹ WCPFC Rules of Procedure, *supra* note 30, at Annex I, ¶ 5.

on the advice from the Scientific Committee, the WCPFC may add species to the list,⁵² but it has never done so.⁵³

Unlike the Scientific Committee, which has an express mandate to review scientific assessments of any stocks within the purview of the WCPFC, the Northern Committee does not.⁵⁴ Also unlike the Scientific Committee, which is charged with reviewing scientific information and making recommendations to the WCPFC with respect to all stocks within the Convention Area, the Northern Committee may make recommendations with respect to specified “northern” stocks.⁵⁵

C. The Scientific Service Providers

In addition to relying on its subsidiary bodies, the WCPFC may obtain information and advice from scientific experts.⁵⁶ Before contracting with scientific experts, the WCPFC must take into account any recommendation of the Scientific Committee.⁵⁷ All reports and recommendations of scientific experts must be provided to both the Scientific Committee and the WCPFC.⁵⁸ The WCPFC may also make other arrangements for the periodic review of information provided by scientific experts.⁵⁹

The WCPF Convention allows the scientific experts to provide an array of research and analysis in support of the WCPFC’s work. For example, scientific experts may develop stock-specific reference points and assess the status of stocks.⁶⁰ They may also provide the WCPFC and the Scientific Committee with reports and provide advice and recommendation on conservation measures.⁶¹ Using this authority, the WCPFC has entered into agreements with the SPC and the ISC.

⁵² WCPFC Rules of Procedure, *supra* note 30, at Annex I, ¶ 5.

⁵³ See WCPFC, SUMMARY REPORT OF THE NINTH REGULAR SESSION OF THE NORTHERN COMMITTEE, SEPTEMBER 2013, § 2.3 (2013) (summarizing the discussions of the Northern Committee for northern stocks). At its tenth meeting, however, the WCPFC directed the Scientific Committee to determine whether the blue shark qualified as a “northern stock.” WCPFC, SUMMARY REPORT OF THE TENTH REGULAR SESSION OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN, DECEMBER 2013, ¶ 217 (2013).

⁵⁴ Compare Article 12 (establishing the functions of the Scientific Committee) with Article 11(7) of the WCPF Convention and Annex I of the WCPFC’s Rules of Procedure (establishing the functions of the Northern Committee).

⁵⁵ WCPF Convention, *supra* note 1, at art. 11(7)

⁵⁶ The Convention provides that the WCPFC “may engage the services of scientific experts to provide information and advice on the fishery resource covered by this Convention and related matters that may be relevant to the conservation and management of those resources.” *Id.* at art. 13(1).

⁵⁷ *Id.*

⁵⁸ *Id.* at art. 13(5).

⁵⁹ *Id.* at art. 13(4).

⁶⁰ *Id.* at art. 13(2).

⁶¹ *Id.* at art. 13(2). Specifically, experts may: (a) undertake the collection, compilation and dissemination of fisheries data according to agreed principles and procedures established by the Commission, including procedures and policies relating to the confidentiality, disclosure and publication of data;(b) conduct assessments of highly migratory fish stocks, non-target species, and species belonging to the same ecosystem or associated with or dependent upon such stocks, within the Convention Area;(c) assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or dependent upon or associated with the target stocks;(d) assess the potential effects

1. The SPC

The SPC is a regional organization established in 1947⁶² comprising twenty-two Pacific Island countries and territories⁶³ and four original founding countries.⁶⁴ The Pacific Community is a “consultative and advisory body”⁶⁵ that protects, *inter alia*, public health, water resources, fisheries, human rights, and youth and culture to “help Pacific Island people achieve sustainable development.”⁶⁶

The WCPFC’s Memorandum of Understanding (MoU) with the SPC calls on the SPC to provide scientific services, including data management services, to the WCPFC.⁶⁷ Under the MoU and accompanying triennial service agreement, the SPC’s Oceanic Fisheries Programme collects, compiles, and disseminates fisheries data; undertakes regional stock assessments of key target and non-target species; conducts ecosystem analyses; and advises on the WCPFC’s observer program and other strategies to monitor and control fishing activities.⁶⁸ The range of fisheries data collected and compiled by the SPC’s Oceanic Fisheries Programme is immense, and includes annual catch estimates, aggregated catch and effort data, and size composition data.⁶⁹ It also compiles observer data, port sampling data, tagging data, and oceanographic data, and various types of biological data.⁷⁰ Neither the MoU nor the triennial service agreement describes how the SPC will communicate with convention bodies, although some specific elements of the work program specify that WCPFC members may request information from SPC through the Executive Secretary of the Secretariat.⁷¹

2. The ISC

Unlike the SPC which predates the WCPF Convention, the United States and Japan specifically established the ISC in 1995 to provide information on fish stocks to the Northern Committee and the WCPFC.⁷² The purposes of the ISC include “enhancing scientific research and cooperation for conservation and rational utilization of tuna and tuna-like species in the

of proposed changes in the methods or levels of fishing and of proposed conservation and management measures; and (e) investigate such other scientific matters as may be referred to them by the Commission.

⁶² Canberra Agreement Establishing the South Pacific Commission, signed Feb. 6, 1947, entered into force July 29, 1948, *available at* <http://www.spc.int/en/about-spc/history.html>.

⁶³ The Pacific Island Countries include American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna. SPC Website, “Members of the Pacific Community,” <http://www.spc.int/en/about-spc/members.html>.

⁶⁴ Australia, France, New Zealand, and the United States comprise the founding countries. SPC Website, “Members of the Pacific Community,” <http://www.spc.int/en/about-spc/members.html>.

⁶⁵ Canberra Agreement, *supra* note 62, at art. IV(6).

⁶⁶ SPC Website “Welcome to SPC,” <http://www.spc.int/en/about-spc.html>.

⁶⁷ Revised Memorandum of Understanding between the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and the Secretariat of the Pacific Community, 3 (Dec. 7–11, 2009) [hereinafter WCPFC–SPC MoU].

⁶⁸ *Id.* at 3–4.

⁶⁹ REVIEW OF THE PERFORMANCE OF THE WCPFC, WCPFC8–2011/12, § 5.5.1 (Feb. 28, 2012).

⁷⁰ REVIEW OF THE PERFORMANCE OF THE WCPFC, *supra* note 69, at § 5.5.1.

⁷¹ WCPFC–SPC MoU, *supra* note 67, at Annex I, Activity iv.9.

⁷² ISC Website, “Press Release,” http://isc.ac.affrc.go.jp/about_isc/press_release.html.

North Pacific Ocean” and “build[ing] and strengthen[ing] the regional scientific framework for conservation and rational utilization of these species.”⁷³

The WCPFC’s MoU with the ISC calls for the ISC to provide scientific services to the WCPFC regarding northern stocks and bycatch of fish and non-fish species.⁷⁴ Specifically, the Northern Committee “may request” scientific information and advice from the ISC regarding fish stocks. The authority to provide advice regarding fish stocks distinguishes the ISC from the SPC.⁷⁵ The ISC provides this information and advice to the Northern Committee, the WCPFC, and the Scientific Committee.⁷⁶ In addition, the ISC provides its normal committee and working group reports “directly to” the Northern Committee, the WCPFC, and the Scientific Committee.⁷⁷ This information and advice is presented at the annual meetings of the Northern Committee and Scientific Committee and “may be” presented to the WCPFC.⁷⁸ The MoU does not expressly grant the WCPFC or the Scientific Committee the authority to request information from the ISC.

III. Untangling the Institutional Roles within the WCPFC

While the description of the WCPFC’s institutions in Section II appears relatively straightforward, it masks the underlying tension among WCPFC members over the roles of the institutions—and the corresponding challenge of managing this valuable fishery in a sustainable manner. Several recent incidents have brought these concerns to a troubling flashpoint. As described in the introduction, establishing the appropriate fishing mortality rate for Pacific bluefin tuna has been a continuing source of tension among WCPFC members.⁷⁹ Although the ISC’s latest stock assessment estimates the Pacific bluefin tuna population at just 3.6 percent of historic biomass, the Northern Committee recommended a measure that would allow overall catches to rise above levels seen in the last two years—despite recommendations from both the ISC and the Scientific Committee to reduce fishing mortality to limit the risk of further population declines.⁸⁰ Nonetheless, the WCPFC failed to reduce fishing mortality for Pacific bluefin tuna at its December 2013 meeting.⁸¹

⁷³ JERRY AULT, ET AL., REPORT OF THE PEER REVIEW OF FUNCTION, I SC/13/PLENARY/10, § 2.1 (July 2013) [hereinafter ISC PEER REVIEW].

⁷⁴ WCPFC–ISC MoU, *supra* note 9, at Part I.

⁷⁵ According to one report, this authority to give advice on the management of fish stocks directly to the Northern Committee gives the ISC “near-equivalent status” to the Scientific Committee. MRAG, FINAL REPORT ON THE INDEPENDENT REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE AND FUNCTIONS, WCPFC-SC5-2009/GN-WP-7, at § 5.2.1 (May 2009) [hereinafter REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE]. We disagree that the ISC has near-equivalent status to the Scientific Committee. More accurately, the ISC has functions similar to those of the Scientific Committee but its legal status differs markedly from that of the Scientific Committee. *See infra* Section III.A.

⁷⁶ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at Part I, ¶¶ 1, 2.

⁷⁷ *Id.* at Part I, ¶ 3.

⁷⁸ *Id.* at Part I, ¶ 4.

⁷⁹ *See* WCPFC, SUMMARY REPORT OF THE SIXTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE, AUGUST 2010, at ¶ 333 (2011) (noting that in 2010 the Scientific Committee “remained concerned that the impact of the new measure in reversing trends in spawning stock biomass and fishing mortality of this species, particularly on juvenile age classes (ages 0–3), remains to be seen.”); WCPFC, SUMMARY REPORT OF THE SIXTH REGULAR SESSION OF THE NORTHERN COMMITTEE, SEPTEMBER 2010, ¶¶ 17–30 (2011) (summarizing the debate concerning bluefin tuna).

⁸⁰ WCPFC, Conservation and Management Measure 2013-09, preamble, at para. 3 (2013) (noting that the ISC called for a “[f]urther reduction of fishing mortality, especially for juvenile fish is needed to reduce the risk of SSB falling

But Pacific bluefin tuna is not the only flashpoint. In 2011, for example, neither the SPC nor the ISC provided a stock assessment for North Pacific striped marlin. The stock is not a designated “northern stock” but the ISC indicated that it would complete a stock assessment in 2011; it did not.⁸² As a consequence, the Scientific Committee at its seventh meeting recommended an immediate reduction in fishing mortality, to which the WCPFC agreed.⁸³ The WCPFC further recommended that the SPC undertake the stock assessment for North Pacific striped marlin if the ISC failed to provide stock assessment results by the Scientific Committee at its eighth meeting.⁸⁴ WCPFC members “called into question the ability of the ISC process to deliver on this issue,” and they recommended that the SPC perform a new stock assessment in 2012.⁸⁵

Another question of authority recently emerged with respect to the blue shark stock assessment. In 2012, Japan and the ISC noted that the work plans of both the SPC and ISC included an assessment of blue shark populations and expressed concern about duplication of effort if the work was not coordinated.⁸⁶ An ISC representative echoed this concern, and noted that originally the SPC and ISC had agreed that the ISC would undertake assessments of both blue sharks and shortfin mako sharks, but that the position of the SPC appeared to have changed. According to the ISC, the ISC and the WCPFC, along with the Inter-American Tropical Tuna WCPFC, agreed that the ISC would be responsible for undertaking a stock assessment for blue shark stocks in the North Pacific.⁸⁷ Later, however, the SPC stated that it would also assess North Pacific blue shark. The SPC and ISC shared some catch and other information and the two organizations agreed that the blue shark assessment would be a joint SPC-ISC product that the ISC’s shark working group and Plenary would review before submission to the WCPFC.⁸⁸ The SPC, however, did not complete the assessment in time for review by the ISC’s sharking working group.⁸⁹

below its historically lowest level.”); SUMMARY REPORT OF THE NINTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE, *supra* note , at ¶ 196 (noting the majority view that “the fishing mortality on Pacific bluefin tuna be immediately reduced, especially on juveniles, in order to reduce the risk of recruitment collapse and allow the spawning stock to rebuild.”).

⁸¹ Instead, the WCPFC adopted a new CCM calling for a new management objective to ensure the current level of fishing mortality rate “is not increased.” WCPFC, Conservation and Management Measure 2013-09, ¶ 1 (2013). Conservationists called on the WCPFC to reject the Northern Committee’s recommendation with its recommendation that the Northern Committee develop a rebuilding plan for Pacific bluefin tuna for adoption by the WCPFC’s December 2014 meeting with a goal of returning the population to 25 percent of its original population size within the next 10 years. Pew Charitable Trust, Recommendations to the 10th Regular Session of the Western and Central Pacific Fisheries Commission 4 (Nov. 2013).

⁸² REVIEW OF THE PERFORMANCE OF THE WCPFC, *supra* note 69, at § 5.2, pages 145–46.

⁸³ WCPFC, Conservation and Management Measure 2010-01, *Conservation and Management Measure for North Pacific Striped Marlin* (Dec. 2010).

⁸⁴ WCPFC, SUMMARY REPORT OF THE SEVENTH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE, AUGUST 2011, ¶ 51 (2012).

⁸⁵ *Id.* at ¶ 267.

⁸⁶ SUMMARY REPORT OF THE EIGHTH REGULAR SESSION OF THE NORTHERN COMMITTEE, *supra* note 16, at ¶ 36.

⁸⁷ ISC, REPORT OF THE THIRTEENTH MEETING OF THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR TUNA AND TUNA-LIKE SPECIES IN THE NORTH PACIFIC OCEAN: PLENARY SESSION, § 5.1 (July 2013).

⁸⁸ *Id.*

⁸⁹ *Id.*

To ensure the effective management of these valuable fish stocks, the WCPFC must resolve these tensions by identifying clearly the lines of communication and decisionmaking authority, particularly with respect to the northern stocks. This section untangles the lines of communication and decisionmaking established in the WCPF Convention and other relevant agreements among the WCPFC, the Scientific Committee, the Northern Committee, the SPC, and the ISC. In particular, it answers the following questions:

- Which body has the authority to advise the WCPFC about conservation and management measures for the northern stocks—the Scientific Committee or the Northern Committee?
- When the Scientific Committee has concerns about the scientific information provided to the Northern Committee by the ISC, may the Scientific Committee seek additional information or advise the WCPFC to reject a conservation and management measure proposed by the Northern Committee? If it does, then what?

A. The WCPFC’s Decisionmaking Hierarchy

The WCPF Convention clearly establishes a three-tiered legal hierarchy among the convention’s institutions. This is described in Section 1, below. However, the functional hierarchy of the convention’s institutions is not so clearly established. It is this hierarchy that has led to tensions between the Scientific Committee on the one hand and the ISC and Northern Committee on the other hand. This hierarchy, which lies at the heart of this paper, is described in Section 2, below.

1. The Legal Hierarchy of WCPFC Bodies

The WCPF Convention establishes a clear, three-tiered hierarchy for decisionmaking authority among the WCPFC, the subsidiary bodies, and scientific experts such as the SPC and the ISC. The WCPFC sits at the top of the hierarchy. The WCPF Convention specifically makes the WCPFC responsible for adopting the conservation and management measures to further the goals of the WCPF Convention.⁹⁰ It is the only WCPF Convention entity with international legal personality.⁹¹

The three subsidiary bodies—the Scientific Committee, Technical and Compliance Committee, and Northern Committee—sit in the middle. While these three bodies may be on an equivalent hierarchical plane, their roles are distinct, as described in Section II. Moreover, and as described more fully below, the Scientific Committee’s obligation to review assessments, analyses, and recommendations prepared for the WCPFC by scientific experts gives it an important role in overseeing the quality and veracity of information provided to the WCPFC.

The institutions providing scientific services to the WCPFC—the SPC and the ISC—sit at the bottom of the WCPF Convention’s hierarchy. The role of these institutions is not defined by the WCPF Convention. Rather, the WCPFC may enter into contractual or other arrangements

⁹⁰ WCPF Convention, *supra* note 1, at art. 10.

⁹¹ *See id.* at art. 9(6) (describing the WCPFC’s international legal personality).

with institutions to provide specified services to the WCPFC.⁹² In the absence of such arrangements, these institutions have no WCPF Convention-mandated role.

2. The Functional Hierarchy of WCPFC Bodies

While the legal hierarchy of WCPF Convention bodies is clear, the terms of reference included in the foundational documents for these bodies create some confusion as to the functional roles and scope of authority of each body. Despite this confusion, an interpretation of the foundational documents based on their ordinary meaning leaves no doubt that

- (1) the WCPFC has broad, although bounded, authority to make decisions and seek information it believes it needs to make decisions for the conservation and management of fish stocks within the Convention Area, and
- (2) the Scientific Committee has overall responsibility to provide advice to the WCPFC, even when recommendations arise out of the ISC and Northern Committee.

a. The WCPFC Decisionmaking Process

As noted in Section II.A, the WCPFC is the decisionmaking body instructed by the WCPF Convention to adopt conservation and management measures for highly migratory fish stocks in the Convention Area. The WCPFC's discretion to adopt conservation and management measures, however, is bounded by the Convention's geographic scope,⁹³ voting rules,⁹⁴ and other provisions. In addition, the WCPFC must follow a specified decisionmaking approach with respect to northern stocks.⁹⁵

The WCPFC's decisionmaking and voting rules begin to untangle the confusion established by the various foundational documents. As a general matter, the WCPFC makes decisions by consensus.⁹⁶ If the WCPFC cannot agree on an issue, the WCPFC may make a decision on a procedural issue with approval by a voting majority.⁹⁷ With regard to substantive

⁹² *Id.* at art. 9(5) (granting the WCPFC authority to enter into contractual arrangements with relevant institutions to provide expert services necessary for the efficient functioning of the WCPFC and to enable it to carry out effectively its responsibilities under this Convention.); Convention, *supra* note at art. 13(1) (granting the WCPFC the authority to “engage the services of scientific experts to provide information and advice on the fishery resources covered by this Convention and related matters that may be relevant to the conservation and management of those resources.”). *Id.* at art. 22(2) (directing the WCPFC to make “suitable arrangements for consultation, cooperation and collaboration with other relevant intergovernmental organizations.”); *Id.* at art. 22(5) (granting the WCPFC authority to enter into relationship agreements with organizations, “with a view to obtaining the best available scientific and other fisheries-related information to further the attainment of the objective of this Convention and to minimize duplication with respect to their work.”).

⁹³ WCPF Convention, *supra* note 1, at art. 3. *See supra* notes 26–27 and accompanying text.

⁹⁴ WCPF Convention, *supra* note 1, at art. 20. *See infra* Section IV.A.1.

⁹⁵ WCPF Convention, *supra* note 1, at art. 11(7).

⁹⁶ WCPF Convention, *supra* note 1, at art. 20; *see also* WCPFC Rules of Procedure, *supra* note 30, at Rule 22(1).

⁹⁷ WCPF Convention, *supra* note 1, at art. 20(2); *see also* WCPFC Rules of Procedure, *supra* note 30, at Rule 22(2).

This provision applies except where the Convention expressly provides that a decision must be by consensus. If a decision must be by consensus, the WCPFC can appoint a mediator to reconcile differences to reach a consensus. WCPF Convention, *supra* note 1, at arts. 20(1) and 20(4).

issues, the WCPFC may adopt the decision by a “three-fourths majority of those present and voting,”⁹⁸ although some “substantive” decisions require consensus.⁹⁹ When a vote is taken, the three-fourths majority must include both a three-fourths majority of the members of the South Pacific Forum Fisheries Agency and three-fourth majority of non-members of the South Pacific Forum Fisheries Agency that are present and voting.¹⁰⁰ In addition, “in no circumstances shall a proposal be defeated by two or fewer votes in each chamber.”¹⁰¹ However, if the WCPF Convention expressly provides that a decision must be by consensus, the WCPFC may appoint a conciliator to reconcile the differences in order to achieve consensus.¹⁰² All decisions become binding sixty days after the WCPFC adopts them,¹⁰³ at which point members of the WCPFC must implement and enforce the measures.¹⁰⁴

Applying these rules is straightforward with respect to stocks not designated as northern stocks. For these stocks, the SPC evaluates the status of the stocks,¹⁰⁵ which the Scientific Committee uses to provide recommendations to the WCPFC.¹⁰⁶ The WCPFC then uses the process described above to adopt conservation and management measures.

The decisionmaking process differs with respect to northern stocks. For these stocks, the decision of the WCPFC must “be based on any recommendations of the [northern] committee”¹⁰⁷ and the WCPFC “shall not take a decision with regard to any such measure without a recommendation concerning such measure from the Northern Committee.”¹⁰⁸ If the WCPFC does not accept the Northern Committee’s recommendation, it “shall return the matter to the committee for further consideration” and the Northern Committee “shall reconsider the matter in light of the views expressed by the Commission.”¹⁰⁹

As described in Section II.C.2, the Northern Committee may request scientific advice from the ISC. Peculiarly, neither the WCPFC nor the Scientific Committee has that authority, although the ISC must send any information requested by the Northern Committee directly to the WCPFC and the Scientific Committee.¹¹⁰ The WCPFC may, of course, revise its Memorandum of Understanding with the ISC to allow the WCPFC and the Scientific Committee to request information from the ISC, such as the data sets on which the ISC has performed stock

⁹⁸ WCPF Convention, *supra* note 1, at art. 20(2); WCPFC Rules of Procedure, *supra* note 30, at Rule 22(2).

⁹⁹ WCPFC Rules of Procedure, *supra* note 30, at Rule 23. These decisions include, for example, adoption of the budget and amendments to the Convention, among others.

¹⁰⁰ WCPF Convention, *supra* note 1, at art. 20(2).

¹⁰¹ *Id.* at art. 20(2).

¹⁰² *Id.* at art. 20(4). Also, a party that votes against a decision or that is absent during a vote may seek review of any decision by a review panel within thirty days. *Id.* at art. 20(6); *see also Id.* at art. 20(7)–(9) for review procedures.

¹⁰³ *Id.* at art. 20 (5).

¹⁰⁴ *Id.* at arts. 23, 25. members must, for example, collect evidence of and prosecute offenses of such measures, keep records of all vessels authorized to fly their flags and provide these records to the WCPFC, and, where necessary, to board and inspect vessels to ensure that all vessels are following the above stated requirements. *Id.* at arts. 24(6)–(8), 25.

¹⁰⁵ WCPFC–SPC MoU, *supra* note 67, at 3.

¹⁰⁶ WCPF Convention, *supra* note 1, at art. 12(2).

¹⁰⁷ *Id.* at art. 11(7).

¹⁰⁸ WCPFC Rules of Procedure, *supra* note 30, at Annex I(2).

¹⁰⁹ WCPFC Convention, *supra* note 1, at art. 11(7).

¹¹⁰ *See supra* Section II.C.2; *see also* WCPFC–ISC MoU, *supra* note 9, at Part I.

assessments or made recommendations to the Northern Committee. In fact, two independent reviews of the WCPFC have recommended that the WCPFC revise this MoU to do just that,¹¹¹ although the WCPFC has not acted upon these recommendations. Nonetheless, the Scientific Committee has an important role to play in the WCPFC's decisionmaking process with respect to all fish stocks found in the Convention Area, including northern stocks.

b. The Scientific Committee's Role in the WCPFC's Decisionmaking Process

The Scientific Committee has a duty to “review the assessments, analyses, other work and recommendations prepared for the WCPFC by the scientific experts”¹¹² and review the results of research and analyses of target and non-target stocks and associated or dependent species.¹¹³ These duties to review the work of others encompass the work of the ISC, either because the ISC is a body of scientific experts or because the ISC conducts research and analyses on various fish stocks in the Convention Area. In addition, the Scientific Committee has a duty to provide information, advice, and comments on that work¹¹⁴ and make reports and recommendations to the WCPFC, either at the direction of the WCPFC or on its own initiative, on matters concerning the conservation and management of and research on species in the Convention Area.¹¹⁵

As a consequence, the Scientific Committee has the duty to review the work of the ISC and the Northern Committee. In particular, the Scientific Committee should review whether the information used by the Northern Committee and the ISC is based on the best scientific information available. As discussed above, the Scientific Committee must “ensure that the Commission obtains for its consideration the best scientific information available.”¹¹⁶ The WCPFC Convention, WCPFC Rules of Procedure, and WCPFC decisions do not define or require the WCPFC to make decisions based on “best scientific information available,” but the Convention does require the Northern Committee to make recommendations consistent with the “best scientific information available” and other principles of the Convention.¹¹⁷ Thus, the Scientific Committee has the authority and responsibility for determining what constitutes “best scientific information available” generally and for determining whether the WCPFC is receiving the “best available scientific information” from the ISC and Northern Committee. The Scientific Committee could best include a determination of whether the information provided by the Northern Committee or the ISC constitutes the “best available scientific information” in its review of assessments and recommendations from scientific experts or its review of research and analyses of target and other stocks.¹¹⁸

¹¹¹ REVIEW OF THE PERFORMANCE OF THE WCPFC, *supra* note 69, at ¶ 5.6, page 179; REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 4.3.2.1.

¹¹² WCPFC Convention, *supra* note 1, at art. 12(2)(b).

¹¹³ *Id.* at art. 12(2)(d).

¹¹⁴ *Id.* at arts. 12(2)(b).

¹¹⁵ *Id.* at arts. 12(2)(d), (g).

¹¹⁶ *Id.* at art. 12(1).

¹¹⁷ *Id.* at art. 11(7). Notably, the WCPFC's resolution on best available science does not establish standards for what best available science means. WCPFC, Resolution 2012-01, *Resolution on the Best Available Science* (2012).

¹¹⁸ *Id.* at art. 12(2)(b), (d).

The WCPFC should defer to the advice given to it by the Scientific Committee when faced with uncertainty regarding measures recommended by the Northern Committee. However, the WCPF Convention does not require that the WCPFC do so.¹¹⁹

Moreover, the separate structure established by Article 11(7) of the WCPF Convention for the Northern Committee to provide scientific and management advice to the WCPFC for northern stocks does not obviate the duty of the Scientific Committee to provide its own independent advice for northern stocks, as Japan believes.¹²⁰ First, while Article 11(7) provides a role for the Northern Committee with respect to northern stocks, Article 12 of the WCPF Convention clearly directs the Scientific Committee to review the results of research and analyses of “target stocks or non-target or associated or dependent species *in the Convention Area*.”¹²¹ It also directs the Scientific Committee to make reports and recommendations to the WCPFC on matters concerning the conservation and management of and research on “target stocks or non-target or associated or dependent species *in the Convention Area*.”¹²² The Scientific Committee must report to the WCPFC its findings and conclusions on the status of “target stocks or non-target or associated or dependent species *in the Convention Area*.”¹²³ Nowhere does the WCPF Convention limit the authority of the Scientific Committee to species not under the jurisdiction of the Northern Committee. Nowhere does the WCPF Convention limit the jurisdiction to species found south of twenty degrees north latitude, the geographical reference point assigning responsibility to the Northern Committee for recommending conservation and management measures for designated species. Instead, the WCPF Convention *requires* the Scientific Committee to review species found anywhere in the Convention Area.

Second, nowhere does the WCPF Convention prohibit or otherwise prevent the Scientific Committee from reviewing the assessments and recommendations of the Northern Committee or the ISC. Instead, the WCPF Convention requires the Scientific Committee to “review the assessments, analyses, other work and recommendations” prepared by scientific experts such as those of the ISC. The Scientific Committee is also required to review the results of research and analyses of species found in the Convention Area and make reports and recommendations on matters concerning the conservation and management of species in the Convention Area, a duty that requires the Scientific Committee to review recommendations of the Northern Committee. Only by reviewing the recommendations of the Northern Committee, as well as the underlying science provided by the ISC, can the Scientific Committee fulfill its duty to ensure that the WCPFC obtains for its consideration the best scientific information available.¹²⁴

The review function accorded to the Scientific Committee described above does not undermine the role of the Northern Committee or eliminate the WCPFC’s duty to base its decisions with respect to northern stocks on recommendations of the Northern Committee. The

¹¹⁹ For example, while WCPFC members have the obligation to use best available scientific information, the WCPFC does not. *Id.* at art. 5.

¹²⁰ *See supra* note 13 and accompanying text (quoting Japan’s views concerning the roles of the Scientific Committee and Northern Committee with respect to northern stocks); *see also* SUMMARY REPORT OF THE SCIENTIFIC COMMITTEE’S NINTH REGULAR SESSION, *supra* note 5, at ¶ 198.

¹²¹ WCPF Convention, *supra* note 1, at art. 12(2)(d) (emphasis added).

¹²² *Id.* at art. 12(2)(g) (emphasis added).

¹²³ *Id.* at art. 12(2)(d) (emphasis added).

¹²⁴ *Id.* at art. 12.

WCPFC would still receive recommendations for northern stocks from the Northern Committee and the WCPFC would still be required to base its decisions on those recommendations. However, the WCPFC would also have a duty to review the Scientific Committee's assessment of whether the advice provided by the Northern Committee is based on the best scientific information available. If it is not, then the WCPFC must send the recommendation back to the Northern Committee for reconsideration, according to the process described in Article 11(7).

B. The Authority to Direct the Actions of Other Bodies

The description of this legal and functional hierarchy provided above does not necessarily fully describe the ways in which certain bodies may or may not direct the actions of, or request information from, other Convention bodies. The WCPF Convention and the MoUs established between the WCPFC and the SPC and ICS, for example, establish some limits. Based on a review of these documents, this section concludes, first, that the WCPFC has the authority to reject the Northern Committee's management advice and seek reconsideration.¹²⁵ Second, the WCPFC may enter into agreements with scientific experts to request scientific services, and it has the authority to set the terms of those agreements, subject to the terms of the WCPF Convention and the mutual agreement of the other party involved.¹²⁶ Third, the Northern Committee has the power to request scientific information and services from the ISC, but the Commission and the Scientific Committee currently do not.¹²⁷

1. The WCPFC's Authority to Reject Management Advice

As mentioned previously, the WCPFC has the ultimate authority to determine whether a recommended conservation and management measure is appropriate to further the goals of the WCPF Convention.¹²⁸ It is not required to adopt a recommendation from either the Scientific Committee or the Northern Committee.

Although the WCPFC must adopt a conservation and management measure for the northern stocks "based on any recommendations" from the Northern Committee, the WCPFC also has the authority to reject the recommendation.¹²⁹ To reject the measure, the WCPFC must follow the rules for decisionmaking on matters of substance discussed in Section III.A.2.a below. After the WCPFC rejects the Northern Committee's advice and returns the matter to the Northern Committee, the Northern Committee "shall reconsider the matter in light of the views expressed by the Commission."¹³⁰

Consistent with the analysis in Section III.A above, the WCPFC may solicit the advice of the Scientific Committee before sending the matter back to the Northern Committee.¹³¹ In

¹²⁵ *Id.* at art. 11(7).

¹²⁶ *Id.* at art. 9(5).

¹²⁷ WCPFC-ISC MoU, *supra* note 9, at 2.

¹²⁸ WCPF Convention, *supra* note 1, at art. 10(2).

¹²⁹ *Id.* at art. 11(7).

¹³⁰ *Id.* at art. 11(7).

¹³¹ *Id.* at art. 12(2)(g).

addition, the Scientific Committee may make recommendations to the WCPFC concerning recommendations of the Northern Committee on its own accord.¹³²

Moreover, the WCPFC's obligation to base its decisions on recommendations of the Northern Committee does not require the WCPFC to adopt the Northern Committee's recommendation *verbatim*. The Appellate Body of the World Trade Organization has been the leading international forum for interpreting international law over the last ten years. In the 2008 *Hormones II* dispute, the Appellate Body stated that the phrase "based on" does not mean "conform to"; instead, the phrase "based on" implies a rational relationship between two things.¹³³

Apply the Appellate Body's interpretation to the context of the WCPF Convention, the WCPFC may not ignore the recommendation of the Northern Committee if it decides to adopt a conservation and management measure for a northern stock; nor must it adopt the recommendation without alteration. However, the WCPFC must adopt a conservation and management measure that bears some rational relationship to the Northern Committee's recommendation.

2. The WCPFC's Authority to Enter into Agreements with Independent Bodies

The WCPF Convention includes four different provisions that allow the WCPFC to enter into relationships with independent bodies. Because the provisions are redundant, it is difficult to determine exactly how the various provisions differ. Nonetheless, they clearly provide the WCPFC with authority to enter into arrangements to obtain a wide array of information from bodies outside the WCPF Convention regime, authority that the WCPFC has used to enter into arrangements with the SPC and the ISC. Of course, since any agreement is subject to mutual agreement, the WCPFC may not direct independent bodies to undertake specific activities. The agreements could, however, establish an open-ended invitation for one of the WCPF Convention's bodies to request information from a non-WCPF Convention body.

¹³² *Id.*

¹³³ United States–Continued Suspension of Obligations in the EC–Hormones Dispute, Appellate Body Report, WT/DS320/AB/R, ¶ 528 (published Mar. 31, 2008) (adopted Nov. 14, 2008). The Appellate Body was interpreting Article 5.1 of the Agreement on the Application of Sanitary and Phytosanitary Measures, known as the SPS Agreement. The SPS Agreement establishes rules for the establishment and implementation of "SPS measures" such as food safety requirements. Article 5.1 of the SPS Agreement requires SPS measures to be "based on" a risk assessment. The Appellate Body noted that

This does not mean that SPS measure have to "conform to" the risk assessment. Instead, "the results of the risk assessment must sufficiently warrant—that is to say, reasonably support—the SPS measure at stake." Put differently, there must be a "rational relationship" between the SPS measure and the risk assessment.

Id. (citations omitted).

a. Defining the WCPFC’s Authority to Enter into Agreements

Article 9(5) includes the first grant of authority to the WCPFC to enter into agreements with independent bodies. Article 9(5) allows the WCPFC to “enter into contractual arrangements with relevant institutions to provide *expert services* necessary for the efficient functioning of the Commission and to enable it to carry out effectively its responsibilities under [the] Convention.”¹³⁴ Article 9(5) does not stipulate that the expert services must be of a scientific nature, but it does not preclude such services.¹³⁵

Second, Article 13(1) allows the WCPFC to “enter into administrative and financial arrangements” to “engage the services of *scientific experts* to provide information and advice on the fishery resource covered by this WCPF Convention and related matters that may be relevant to the conservation and management of those resources.”¹³⁶ Article 13 does not specify whether or how “contractual arrangements” identified in Article 9(5) differ from “administrative and financial arrangements” of Article 13(1).¹³⁷ Article 13(1) makes clear, however, that the scientific experts are not limited to individuals; the WCPFC must “to the greatest extent possible, utilize the services of existing regional organizations and . . . consult, as appropriate, with any other fisheries management, technical or scientific organization with expertise in matters related to the work of the Commission.”¹³⁸ Thus, the WCPF Convention leaves open the possibility that the WCPFC could consult with the SPC and/or the ISC under Article 13(1).

Article 13(1) more precisely than Article 9(5) specifies the role that experts may play. As directed by the WCPFC and in support of the WCPFC’s work, the scientific experts may conduct scientific research and analyses, develop and recommend to the WCPFC and the Scientific Committee stock-specific reference points, assess the status of stocks against the reference points established by the WCPFC, and provide the WCPFC and Scientific Committee with reports on the results of their scientific work, advice, and “recommendations in support of the formulation of conservation and management measures and other relevant matters,”¹³⁹ and perform other specified tasks.¹⁴⁰ In providing these services, the scientific experts may compile fisheries data¹⁴¹ and may conduct assessments of fish stocks, impacts of various factors (including fishing and other human or environmental factors) on fish stocks, and the impacts of proposed fishing and management changes,¹⁴² among other things.¹⁴³

However, the WCPF Convention provides several important checks on the information provided by Article 13(1) scientific experts. For example, it allows the WCPFC to arrange for

¹³⁴ *Id.* at art. 9(5) (emphasis added).

¹³⁵ *See id.* at art. 9(5).

¹³⁶ *Id.* at art. 13 (1).

¹³⁷ *See id.* at art. 13.

¹³⁸ *Id.* at art. 13(1).

¹³⁹ *Id.* at art. 13(2)(d).

¹⁴⁰ *Id.* at art. 13(2).

¹⁴¹ *Id.* at art. 13(3)(a).

¹⁴² *Id.* at art. 13(3)(b–d).

¹⁴³ *Id.* at art. 13(3)(e).

peer review of this information and advice.¹⁴⁴ In addition, the scientific experts must provide all of their reports and recommendations to the Scientific Committee and the WCPFC.¹⁴⁵ The Scientific Committee must review such reports and recommendations prior to their consideration by the WCPFC and “provide information, advice and comments” on this information “if necessary.”¹⁴⁶

Third, Article 22(2) authorizes the WCPFC to make “suitable arrangements for consultation, cooperation, and collaboration with other relevant intergovernmental organizations” that can help the WCPF Convention meet its objectives, including other tuna-related bodies.¹⁴⁷ The phrase “suitable arrangements” would seem to include both the “contractual arrangements” and “administrative and financial arrangements” covered by Articles 9(5) and 13(1), respectively. Moreover, Articles 9 and 13 allow “contractual arrangements” and “administrative and financial arrangements” with other organizations, including tuna-related bodies.¹⁴⁸ As a result, Article 22(2) appears redundant. Nonetheless, its exclusion of the phrases “scientific experts” or “expert services” may have implications for whether the Scientific Committee has ultimate authority for analyzing the information provided by an organization that has entered into a relationship with the WCPFC under Article 22(2).

Fourth, Article 22(5) authorizes the WCPFC to enter into “relationship agreements” with “other organizations . . . with a view to obtaining the best available scientific and other fisheries related information to further the attainment of the objective of this Convention.”¹⁴⁹ Notably, Article 22(5) specifically authorizes the WCPFC to enter into a “relationship agreement” with the Pacific Community (i.e., the SPC).¹⁵⁰ However, the WCPF Convention is again silent as to whether and how “relationship agreements” differ from other types of arrangements the WCPFC may establish.¹⁵¹

b. Implementing the WCPFC’s Authority to Enter into Arrangements

Using its authority to enter into agreements, the WCPFC has entered into agreements with both the SPC and the ISC. In fact, the WCPFC has entered into several agreements with the SPC, including a Memorandum of Understanding that outlines the general types of scientific services that the SPC provides to the WCPFC,¹⁵² an accompanying triennial service agreement,¹⁵³ and a separate data exchange agreement.¹⁵⁴ The WCPFC has also adopted a

¹⁴⁴ *Id.* at art. 13(4).

¹⁴⁵ *Id.* at art. 13(5).

¹⁴⁶ *Id.* at art. 12(2)(b).

¹⁴⁷ *Id.* at art. 22(2).

¹⁴⁸ *Id.* at art. 9(5) and 13.

¹⁴⁹ *Id.* at art. 22(5).

¹⁵⁰ The Convention states: “[t]he Commission may enter into relationship agreements with the organizations referred to in this article and with other organizations as may be appropriate, such as the Pacific Community . . . with a view to obtaining the best available scientific and other fisheries related information to further the attainment of the objective of this Convention and to minimize duplication with respect to their work.” *Id.* at art. 22(5).

¹⁵¹ *See Id.* at art. 22(5).

¹⁵² *See generally* WCPFC–SPC MoU, *supra* note 67.

¹⁵³ *Id.* at Annex I.

¹⁵⁴ Data Exchange Agreement between the Western and Central Pacific Fisheries Commission and the Secretariat of the Pacific Community (Aug. 27, 2009), at <http://www.wcpfc.int/relations-other-organisations-0>.

Memorandum of Understanding with the ISC to provide, on request, scientific information and advice to the Northern Committee.¹⁵⁵

The WCPFC entered into the Memorandum of Understanding with the SPC to take advantage of the SPC's extensive database and array of scientific information.¹⁵⁶ Under the 2010–2012 triennial services agreement between the WCPFC and SPC, the SPC agreed to provide data management, statistical analysis, stock assessments, management analyses, ecosystem analyses, capacity building of small island developing States, research services, and other advisory and technical services.¹⁵⁷ The SPC also compiles data upon which the WCPFC bases its management decisions. The SPC receives data from both WCPFC members and SPC members.¹⁵⁸ It then compiles this data into stock assessments and research reports that it provides directly to the Scientific Committee.¹⁵⁹ In light of these tasks, an Independent Review of the WCPFC's Transitional Science Structure and Functions notes that the SPC is the WCPFC's "chief scientific services provider" as well as its data service provider.¹⁶⁰

The WCPFC's Memorandum of Understanding with the ISC is more limited, focusing on providing scientific information and advice on northern stocks to the Northern Committee.¹⁶¹ The ISC "enhance[es] scientific research and cooperation for conservation and rational utilization of tuna and tuna-like species in the North Pacific Ocean,"¹⁶² expertise which it uses to provide scientific information and advice to the Northern Committee.

3. Northern Committee's Authority to Request Information from the ISC

As noted in Section II.C.2, the Northern Committee "may request from the ISC scientific information and advice regarding fish stocks (generally [the northern stocks]) for response prior to each meeting of the Northern Committee."¹⁶³ The ISC must provide the requested information to the Northern Committee, the Scientific Committee, and the WCPFC.¹⁶⁴

4. The WCPFC's and Scientific Committee's Authority to Request Information from the ISC

While the Northern Committee may request information from the ISC, neither the Scientific Committee nor the WCPFC may request information from the ISC pursuant to the MoU between the WCPFC and the ISC.¹⁶⁵ This arrangement is problematic because the Scientific Committee is precluded from requesting information it needs to review the

¹⁵⁵ WCPFC–ISC MoU, *supra* note 9, at Part I.

¹⁵⁶ WCPFC–SPC MoU, *supra* note 67, at 2.

¹⁵⁷ WCPFC–ISC MoU, *supra* note 67, at Annex, § 2.

¹⁵⁸ REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 3.3.

¹⁵⁹ REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 3.3.

¹⁶⁰ REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶¶ 3.1, 3.3.

¹⁶¹ WCPFC–ISC MoU, *supra* note 9, at Part I.

¹⁶² ISC PEER REVIEW, *supra* note 73, at 8.

¹⁶³ WCPFC–ISC MoU, *supra* note 9, at Part I, ¶ 1. The agreement states that species for which the Northern Committee may request reoccurring advice from the ISC include North Pacific albacore, Pacific bluefin tuna, swordfish and other billfishes, and by catch (fish and non-fish species). *Id.* at Annex 1.

¹⁶⁴ WCPFC–ISC MoU, *supra* note 9, at Part I, paras. 1, 2.

¹⁶⁵ See generally WCPFC–ISC MoU, *supra* note 9.

assessments and recommendations of the ISC, consistent with its duties under Article 12,¹⁶⁶ including determining whether the information the ISC is using is the best scientific information available.¹⁶⁷ As the subsidiary body charged with reviewing the work of the ISC and with ensuring that the WCPFC obtains the best scientific information available, the Scientific Committee should have the authority to seek information from the ISC. In addition, the data used by the ISC in its stock assessments is not held by the WCPFC or the SPC;¹⁶⁸ it remains with the ISC or its members.¹⁶⁹ As such, the Scientific Committee has been “asked to approve the stock assessments of the ISC and its advice resulting from these . . . but without the ability to fully review the stock assessments.”¹⁷⁰

Three separate independent assessments underscored the need for the WCPFC and Scientific Committee to be able to request information from the Northern Committee. The *Review of the Performance of the WCPFC* expressed its concern that the current framework “prevents a more fluent dialogue between the Commission and the Scientific Committee with the ISC.”¹⁷¹ As a result, it recommended changes to the MoU to allow direct exchanges of scientific information among the ISC, Scientific Committee, and WCPFC.¹⁷²

The WCPFC’s *Independent Review of the Commission’s Transitional Science Structure and Functions* noted the concern of “many” WCPFC members “over the lack of satisfactory review of ISC assessments by the [Scientific Committee] and the perceived closed nature of ISC assessment meetings.”¹⁷³ The Independent Review also suggested that confidence in the ISC’s assessments is undermined because

most [Scientific Committee] participants are not able to be present at the ISC stock assessment working groups, working papers presented to the working groups are not readily available, the data used in assessments are not accessible

¹⁶⁶ See *supra* Section II.B (describing the functions of the Scientific Committee under Article 12). The WCPFC’s Resolution on the Best Available Science also specifically provides that the Scientific Committee will review the work of the ISC and SPC that is prepared for the WCPFC. That Resolution acknowledges the “key role of the Scientific Committee” in “reviewing any relevant assessments, analyses, research or work, as well as recommendations prepared for the WCPFC by SPC–[Oceanic Fisheries Programme] and ISC prior to consideration of such recommendation by the Commission.” WCPFC, *Resolution on the Best Available Science*, *supra* note 117, at ¶ 2(ix).

¹⁶⁷ See *supra* Section II.B (describing the functions of the Scientific Committee under Article 12).

¹⁶⁸ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 4.3.2.1.

¹⁶⁹ ISC PEER REVIEW, *supra* note 73, at ¶ 4.1. This peer review noted that

[d]ata provided for use and held by the ISC remains the property of the ISC. Release of these data to the general public is governed by the policies of the contributor. [Catch-effort and biological data] contain proprietary information and there, shall be made available to contributors and members of the ISC working groups for use in the work of the Working Groups only. They are not to be retained or shared with non-members of the Working Groups.”

Id.

¹⁷⁰ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 5.2.1.

¹⁷¹ REVIEW OF THE PERFORMANCE OF THE WCPFC, *supra* note 69, at § 5.6.

¹⁷² *Id.*

¹⁷³ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 4.3.2.1.

outside of the working groups, and there “is insufficient detail in reports to review the assessments in detail at the [Scientific Committee] meeting.”¹⁷⁴

While no one questioned the scientific quality of the assessments, several WCPFC members emphasized the need for additional review by the Scientific Committee, external peer review, transparency, and validation.¹⁷⁵

Further, the ISC’s *Report of Peer Review of Function*¹⁷⁶ repeatedly warned that the “ISC must stay above the political fray and maintain a strong science focus.”¹⁷⁷ The Peer Review acknowledged the ISC’s recent successes, but also its “setbacks that have the potential to seriously erode the scientific credibility of the organization.”¹⁷⁸ The Peer Review cautioned that “ISC scientists should strictly provide science, the core information to write management plans, but should not be involved in writing them.”¹⁷⁹ Moreover, the Peer Review warned against the reliability and accuracy of the ISC’s data, stating that “[p]ersonal or institutional opinions do not constitute [best available scientific information]” and that “[d]ata that form the basis of stock assessments must absolutely be supported by scientific documentation of substance.”¹⁸⁰ Additionally, the Peer Review stated that “[t]here is great need to improve the evaluation of the accuracy and precision of input parameters and indices that are currently followed”¹⁸¹ and “[t]he process of independent stock assessment reviews will require improved documentation . . . especially in data review . . . [m]ore consistency is required in the quality of peer reviewers for stock assessment reviews that include more experts with sufficient knowledge of tunas and tuna stock assessment methodologies.”¹⁸² It suggested that the ISC standardize statistical analyses and methods across working groups, provide third party training, improve transparency, and standardize data.¹⁸³

All this suggests that the WCPFC’s MoU with the ISC needs to be revised to ensure that the Scientific Committee and the WCPFC have the authority to request information from the ISC. In this way, transparency and confidence in ISC assessments will be improved and the WCPFC can be assured that it is receiving recommendations based on the best scientific information available.

IV. Dispute Settlement among Institutions and Members

With tensions rising and disputes intensifying over decisionmaking authority, the WCPFC and its members may choose to seek formal ways to resolve their disagreements. The

¹⁷⁴ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 5.2.1.

¹⁷⁵ REVIEW OF THE COMMISSION’S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 4.3.2.1.

¹⁷⁶ This Peer Review, which the ISC conducted in 2013, is mandated by the ISC’s Rules of Procedure. A body of three peers with no committee affiliation (but from the member countries) carried out the review. ISC PEER REVIEW, *supra* note 73, at 6.

¹⁷⁷ ISC PEER REVIEW, *supra* note 73, at page 3.

¹⁷⁸ ISC PEER REVIEW, *supra* note 73, at ¶ 3.3.

¹⁷⁹ ISC PEER REVIEW, *supra* note 73, at ¶ 3.3.

¹⁸⁰ ISC PEER REVIEW, *supra* note 73, at ¶ 4.3.

¹⁸¹ ISC PEER REVIEW, *supra* note 73, at ¶ 3.2.

¹⁸² ISC PEER REVIEW, *supra* note 73, at ¶ 3.2.

¹⁸³ ISC PEER REVIEW, *supra* note 73, at ¶ 5.0.

WCPF Convention allows members to resolve their disagreements in several ways. Section A assesses whether a subsidiary body or a member may reject or seek review of a legal interpretation with which it disagrees. As described in Section B, members may, as a last resort, use the WCPF Convention's dispute settlement procedures if an agreement cannot be reached. Finally, Section C reviews disputes in other similarly situated multi-stakeholder international management regimes to identify solutions and best practices for resolving disagreements.

A. Disagreements on Legal Interpretation of WCPF Convention Policy or Procedure

As a general matter, the WCPFC retains absolute authority over the interpretation of WCPF Convention policy or procedure.¹⁸⁴ Thus, if the WCPFC interprets a provision of the WCPF Convention, the subsidiary bodies and the individual members may not reject it or substitute their own legal interpretation because the WCPF Convention does not allow for reservations or exceptions.¹⁸⁵ Each member bears the responsibility to implement and enforce adopted measures.¹⁸⁶

As exemplified by the disputes over bluefin tuna and blue shark, disagreements over legal interpretation may arise in at least three different ways. First, members or the WCPFC may lack a clear understanding and interpretation of a provision of the WCPF Convention, memorandum of understanding, or other document relevant to implementation of the WCPF Convention and its conservation and management measures. Second, an individual member may disagree with an interpretation of the WCPF Convention adopted by the WCPFC. Third, the WCPFC may not agree with the Northern Committee's recommendation. As described below, these disagreements can be addressed by (1) seeking a legal opinion and adopting a common understanding through a decision of conservation and management measure, (2) using the review procedure under Article 20 of the WCPF Convention, and (3) rejecting a recommendation of the Northern Committee and requesting reconsideration of the matter. A fourth option, requesting the Technical and Compliance Committee to review the dispute, does not appear to be viable.

1. Seeking a Legal Opinion and Adopting a Common Understanding

If the provisions of the WCPF Convention or a conservation and management measure are unclear, the parties may, of course, clarify the meaning of terms by adopting an official interpretation. This common practice has been used in many multilateral environmental agreements. For example, the parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora¹⁸⁷ have defined "personal and household effects,"¹⁸⁸ "hunting trophy,"¹⁸⁹ and many other terms¹⁹⁰ through resolutions of the parties. The parties to the U.N. Framework Convention on Climate Change (UNFCCC) have established entire mechanisms

¹⁸⁴ See generally WCPF Convention, *supra* note 1, at art. 9.

¹⁸⁵ WCPF Convention, *supra* note 1, at art. 37.

¹⁸⁶ WCPF Convention, *supra* note 1, at art. 5(j).

¹⁸⁷ Convention on International Trade in Endangered Species of Flora and Fauna, Mar. 3, 1973, 27 U.S.T. 1087; 993 U.N.T.S. 243 (entered into force on July 1, 1975) [hereinafter CITES].

¹⁸⁸ CITES, Resolution Conf. 13.7, *Control of Trade in Personal and Household Effects* (Rev. CoP16).

¹⁸⁹ CITES, Resolution Conf. 12.3, *Permits and Certificates* (Rev. CoP16).

¹⁹⁰ See, e.g., CITES, Resolution Conf. 10.10, *Trade in Elephant Specimens* (Rev. CoP16) (defining "raw ivory" and establishing special mechanisms for controlling illegal trade in ivory and poaching of African elephants).

based on single words or phrases used in the UNFCCC.¹⁹¹ Similarly, the members could adopt a decision that clearly elaborates on the role of the Scientific Committee vis-à-vis the Northern Committee and ISC. In the alternative, the WCPFC could rewrite the MoU between the WCPFC and the ISC and the terms of reference for the Northern Committee. However, given that others have made the same recommendation without the WCPFC acting,¹⁹² the WCPFC is unlikely to reach consensus¹⁹³ to make these changes.

The WCPFC does have other options that may help it reach consensus. In the same way that the WCPFC requested a review of the WCPF Convention¹⁹⁴ and its science arrangements,¹⁹⁵ the WCPFC could seek a legal interpretation, either from the WCPFC's legal officer or from an independent consultant. To implement this approach, the members, acting as the WCPFC, must first adopt a decision to seek a legal interpretation of the WCPF Convention's provisions. Based on that legal interpretation, the WCPFC would then adopt a decision articulating its own legal interpretation, preferably by consensus but, if consensus cannot be achieved, then by a three-fourths majority vote.¹⁹⁶

2. Reviewing a WCPFC Decision under Article 20(6)

When the WCPFC adopts a legal interpretation, as above, or a conservation and management measure, the WCPF Convention allows a member to seek a review of the decision under limited circumstances.¹⁹⁷ Article 20(6) allows a member that voted against a decision or that was absent during the meeting in which the WCPFC adopted the decision to seek a review of the decision by a review panel.¹⁹⁸ To initiate a review, the member must submit a written request for review to the Executive Director within thirty days of the adoption of the decision.¹⁹⁹ The request must allege that the decision is inconsistent with the WCPF Convention or

¹⁹¹ For example, the Parties have defined “afforestation,” “reforestation,” and “deforestation,” and then created accounting rules for determining greenhouse emissions from these activities. See UNFCCC, Decision 11/CMP.1, *Land Use, Land-Use Change and Forestry*.

¹⁹² ISC PEER REVIEW, *supra* note 73, at ¶5.6; REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75, at ¶ 5.2.2.2.

¹⁹³ The WCPF Convention defines consensus as “the absence of any formal objection made at the time the decision was taken.” WCPF Convention, *supra* note 1, at art. 20(1).

¹⁹⁴ REVIEW OF THE PERFORMANCE OF THE WCPFC, *supra* note 69. The WCPFC agreed to conduct a performance review at its fifth regular session. WCPFC, SUMMARY REPORT OF THE FIFTH REGULAR SESSION OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGH MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN, DECEMBER 2008, ¶ 286 (2009).

¹⁹⁵ REVIEW OF THE COMMISSION'S TRANSITIONAL SCIENCE STRUCTURE, *supra* note 75. The WCPFC agreed to conduct a review of the science arrangements at its fourth regular session. WCPFC, SUMMARY REPORT OF THE FOURTH REGULAR SESSION OF THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGH MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN, DECEMBER 2007, ¶ 107 (2007).

¹⁹⁶ WCPF Convention, *supra* note 1, at art. 20(2). The percentage of the vote is determined based on “those [members, cooperating non-members, and participating territories (collectively, CCMs)] present and voting.” In addition, the three-fourths majority must represent three-fourths of those CCMs that are also members of the South Pacific Forum fisheries Agency and three-fourths of the CCMs that are not. The decision to seek a legal interpretation may be considered a “procedural matter” requiring only a simple majority, although if the CCMs disagree as to whether an issue is substantive or procedural then the CCMs must treat the issue as one of substance requiring a three-fourths majority. *Id.*

¹⁹⁷ WCPF Convention, *supra* note 1, at art. 20(6).

¹⁹⁸ *Id.* at art. 20(6).

¹⁹⁹ *Id.* at art. 20(6) & Annex II(1).

“unjustifiably discriminates in form or in fact against the member concerned.”²⁰⁰ For example, if the WCPFC adopts a decision based on a recommendation of the Northern Committee without a review by the Scientific Committee, a member may have an argument that the decision was made inconsistently with the requirements of the WCPF Convention because the Scientific Committee is obligated to make reports and recommendations to the WCPFC on matters concerning the conservation and management of and research on target and non-target stocks in the Convention Area.²⁰¹

Once the member submits the request, “no member of the Commission shall be required to give effect to the decision in question” until the review panel provides the findings and recommendations.²⁰² If the review panel agrees with the WCPFC’s decision, the decision becomes binding in thirty days from when the Executive Director communicates the review panel’s findings.²⁰³ If, however, the review panel recommends that the decision be modified, amended, or revoked, the WCPFC must modify or amend the decision to conform to the panel’s recommendation at the next annual meeting.²⁰⁴ The WCPFC may also decide to revoke the decision with written requests from a majority of the members at a special meeting within sixty days from when the Executive Director communicates the findings.²⁰⁵

3. Requesting the Northern Committee to Reconsider a Matter

The Northern Committee may recommend a measure for a northern stocks based on its own interpretation of the WCPF Convention or the relevant science. As noted in Section III.B.1, the WCPFC retains the authority to return “any matter” to the Northern Committee,²⁰⁶ including the underlying legal interpretation used by the Northern Committee. In such a case, the WCPFC may also seek advice from the Scientific Committee, given the Scientific Committee’s broad duty to provide reports and recommendations on matters concerning conservation and management of species in the Convention Area,²⁰⁷ review assessments and other work of the ISC,²⁰⁸ and ensure that WCPFC obtains the best scientific information available.²⁰⁹ In cases where the WCPFC rejects the Northern Committee’s recommendation, the Northern Committee shall reconsider the matter in light of the WCPFC’s views.²¹⁰

4. Requesting the Technical and Compliance Committee to Address the Issue

As noted in Section II.B, the Technical and Compliance Committee (TCC) is charged with providing technical advice and recommendations relating to the implementation of, and

²⁰⁰ *Id.* at art. 20(6)(a)-(b).

²⁰¹ *Id.* at art. 12(2)(g).

²⁰² *Id.* at art. 20(7).

²⁰³ *Id.* at art. 20(8).

²⁰⁴ *Id.* at art. 20(9).

²⁰⁵ *Id.* at art. 20(9).

²⁰⁶ *Id.* at art. 11(7).

²⁰⁷ *Id.* at art. 12(1).

²⁰⁸ *Id.* at art. 12(2)(b).

²⁰⁹ *Id.* at art. 12(1).

²¹⁰ *Id.* at art. 11(7).

compliance with, conservation and management measures.²¹¹ This provision, could, in theory, allow the TCC to respond to concerns that the Scientific Committee is not providing advice on recommendations provided by the Northern Committee or is not allowed to seek information from the ISC. This matter appears to be within the mandate of the TCC as the failure of the Scientific Committee to make recommendations or obtain information would relate to implementation of conservation and management measures adopted without the Scientific Committee's consideration.

Nonetheless, getting the matter resolved—or even considered—by the TCC appears challenging. First, matters covered by the *Review of the Performance of the WCPFC*, such as clarifying the respective roles of the WCPFC, the Scientific Committee, and the ISC in providing advice and information to the Northern Committee and the Scientific Committee has been delegated to the Scientific Committee, not the TCC.²¹²

Second, it seems unlikely that implementation of a specific conservation and management measure would trigger a discussion of whether the WCPFC should have based its decision on the views of the Scientific Committee or whether the Scientific Committee should be allowed to request information from the ISC. What may be possible is for the TCC to compare, within its discussion of the status of fisheries,²¹³ actual catches versus hypothetical catches had the WCPFC adopted the recommendation of the Scientific Committee. Even if the TCC recommended that the WCPFC adopt the advice of the Scientific Committee, the WCPFC is under no obligation to adopt the TCC's recommendation—just as it is under no obligation to adopt the Scientific Committee's recommendation in the first place.

B. Dispute Settlement Procedures

When the WCPFC has not officially adopted an interpretation of the WCPF Convention policy or procedure, disputes about such interpretation may arise among the members. The WCPF Convention does not provide its own dispute settlement provisions. Instead, it directs members to resolve their disputes using the dispute settlement provisions of the U.N. Fish Stocks Agreement (Fish Stocks Agreement), regardless of whether the member is also party to the Fish Stocks Agreement.²¹⁴ The Fish Stocks Agreement mandates that members “cooperate in order to prevent disputes”²¹⁵ through non-adversarial processes such as negotiation or mediation.²¹⁶ However, if the dispute becomes intractable, members also have the option to use the arbitration

²¹¹ *Id.* at art. 14(1)(a).

²¹² WCPFC, *Recommendations from the WCPFC Performance Review*, WCPFC-TCC8-2012/20_rev 1, p. 33 (Sept. 24, 2012). As such, this issue is expressly excluded from the TCC. WCPFC, *Matrix of Recommendations from the WCPFC Performance Review for the TCC to Consider*, WCPFC-TCC9-2013-20 (Sept. 3, 2013).

²¹³ A review of the past several meetings of the Technical and Compliance Committee shows “Status of Fisheries” to be a standing agenda item.

²¹⁴ *Id.* at art. 31.

²¹⁵ UN Fish Stocks Agreement, *supra* note 221, at art. 28.

²¹⁶ UN Fish Stocks Agreement, *supra* note 221, at art. 27.

or dispute settlement provisions of the U.N. Law of the Sea Convention (UNCLOS) because the Fish Stocks Agreement expressly incorporates the dispute settlement provisions of UNCLOS.²¹⁷

1. Negotiation, Mediation, and Conciliation

Consistent with other international agreements, whether relating to trade,²¹⁸ environment,²¹⁹ or other matters,²²⁰ the WCPF Convention seeks to resolve disputes through non-adversarial means. For that reason, the WCPF Convention, through the Fish Stocks Agreement, directs the members to attempt to resolve their disputes through “negotiation, inquiry, mediation, [or] conciliation.”²²¹

Neither the Fish Stocks Agreement nor UNCLOS provides specific procedures for conducting negotiations. Nonetheless, the members may prefer negotiation to other dispute settlement approaches because negotiations are the least formal and least resource intensive process. When parties negotiate, the parties can converse informally and confidentially because the process does not involve a third party. Moreover, the parties may favor the flexibility to reach a mutually acceptable result tailored to the concerns of parties representing different viewpoints. In other words, they can create a settlement that is not a “win” for one set of members and a “loss” for another set of members.

Mediation and conciliation draw on the expertise of a third party to act as a sounding board for the disputing parties and perhaps also to recommend solutions to the parties.²²² Again, neither the Fish Stocks Agreement nor UNCLOS provides specific procedures for the conduct of mediation and conciliation, although UNCLOS does include guidance on conducting conciliation.²²³ With both mediation and conciliation, the record of the proceedings typically

²¹⁷ UN Fish Stocks Agreement, *supra* note 221, at art. 30(2), (identifying the dispute settlement provisions of Part XV of the U.N. Convention on the Law of the Sea as applying *mutatis mutandis* to disputes relating to highly migratory and straddling fish stocks governed by regional agreements).

²¹⁸ See, e.g., CITES, *supra* note 194, at art. XVIII (entered into force on July 1, 1975) (directing the disputing parties to resolve their dispute through negotiation before seeking arbitration).

²¹⁹ The World Trade Organization’s Understanding on Rules and Procedures Governing the Settlement of Disputes directs disputing parties to resolve their dispute through consultations, good offices conciliation, and mediation before seeking the establishment of a panel to resolve the dispute. Understanding on Rules and Procedures Governing the Settlement of Disputes, Apr. 15, 1994, arts. 4, 5, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, Legal Instruments—Results of the Uruguay Round, 33 I.L.M. 1125 (1994).

²²⁰ See e.g., Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, signed Sept. 18, 1997, 2056 U.N.T.S. 211, art. 10 (entered into force Mar. 1, 1999) (stating that Parties “shall consult and cooperate with each other to settle any dispute that may arise with regard to the application or the interpretation of this Convention.”).

²²¹ U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks: Agreement for the Implementation of the Provisions of this United Nations Convention of the Law of the Sea of 10 December 1982, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Aug. 4, 1995, UNDOC A/Conf.164/37, art. 27 (entered into force Dec. 11, 2001) [hereinafter Fish Stocks Agreement].

²²² Mediation and conciliation are often used interchangeably, although some consider conciliation to be more formal than mediation. See Linda C. Reif, *Conciliation As A Mechanism For the Resolution Of International Economic and Business Disputes*, 14 FORDHAM INT’L L. J. 578, 584 (1990) (stating that “[a] mediation is more informal and the mediator, when making proposals, is expected to construct them based purely on the information provided by the parties.”).

²²³ The United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3, U.N. Doc. A/CONF.62/122, art. 284 & Annex V [hereinafter UN Convention on the Law of the Sea]. While the disputing

remains confidential (unless the parties agree otherwise) and the recommendations of the mediator or conciliator are non-binding.²²⁴

Because UNCLOS prefers conciliation to other compulsory procedures,²²⁵ disputing members are encouraged to resolve the dispute through the conciliation process provided in UNCLOS or another conciliation process.²²⁶ For the conciliation procedure to apply to members, the disputing members must accept the invitation and agree upon a conciliation procedure.²²⁷ Once the parties agree on the procedure, any party may submit the dispute to that procedure,²²⁸ and the parties must follow the procedure to terminate the dispute.²²⁹ However, if the disputing members do not accept the invitation or the parties cannot agree on a conciliation procedure, “the conciliation proceedings shall be deemed to be terminated,” and the members must use another form of dispute settlement.²³⁰

Under the UNCLOS conciliation procedure, a conciliation commission is created to reach “an amicable settlement” among the disputing parties.²³¹ The conciliation commission consists of five members: two appointed conciliators from each of disputing parties, and the fifth is appointed by the other four conciliators to serve as the chairman.²³² Upon examining each party’s claims and objections, the conciliation commission makes proposals to the parties.²³³ Although the conciliation commission’s recommendations are not binding on the parties,²³⁴ the parties can accept a recommendation to terminate the conciliation proceedings.²³⁵ However, if one party rejects the recommendation by written notification to the UN Secretary-General, the conciliation process is terminated,²³⁶ and the parties must use other form of dispute settlement.

2. Ad Hoc Expert Panels

While negotiation, mediation, and conciliation are traditional forms of non-adversarial dispute settlement, the Fish Stocks Agreement also provides for a less well-known approach: the ad hoc expert panel. Under the Fish Stocks Agreement, a member may choose to resolve a dispute that “concerns a matter of a technical nature” through an ad hoc expert panel.²³⁷ Acting as an unbiased third party in a non-binding process, the expert panel “confer[s]” with the

parties may determine the procedures for conducting the conciliation, the UNCLOS provisions describe the composition of the conciliation commission, payment of fees, and other aspects of conciliation. *Id.*

²²⁴ Reif, *supra* note 222, at 586.

²²⁵ UN Convention on the Law of the Sea, *supra* note 223, at art. 286.

²²⁶ UN Convention on the Law of the Sea, *supra* note 223, at art. 284(1).

²²⁷ UN Convention on the Law of the Sea, *supra* note 223, at art. 284(2).

²²⁸ UN Convention on the Law of the Sea, *supra* note 223, at art. 284(2).

²²⁹ UN Convention on the Law of the Sea, *supra* note 223, at art. 284(3).

²³⁰ UN Convention on the Law of the Sea, *supra* note 223, at art. 284(4).

²³¹ UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 6.

²³² UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 3(a)-(d).

²³³ UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 6. The commission submits its recommendations and conclusions in a report to the Secretary-General of the United Nations, who will transmit the report to the parties. *Id.* at Annex V art. 7(1).

²³⁴ UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 7(2).

²³⁵ UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 8.

²³⁶ UN Convention on the Law of the Sea, *supra* note 223, at Annex V art. 8.

²³⁷ UN Fish Stocks Agreement, *supra* note 221, at art. 29.

disputing parties with the aim to resolve the dispute.²³⁸ Although the Fish Stocks Agreement does not define “a matter of a technical nature,”²³⁹ the language of the Fish Stocks Agreement indicates that the use of an ad hoc panel is preferred to binding methods of dispute settlement (e.g., judicial settlement) because it reserves compulsory procedures to situations where the parties cannot reach a settlement through non-binding decisions.²⁴⁰

Within the context of the WCPF Convention, if a matter concerns any issue within the areas of competence of the Scientific Committee or the Technical and Compliance Committee, a member could legitimately argue that such matter is “of a technical nature” that requires the expertise of an ad hoc panel. If the ad hoc expert panel process is used to resolve the dispute over the provision of scientific advice in the WCPFC, the expert panel should consist of independent experts rather than members from the subsidiary bodies to ensure an unbiased resolution to the dispute.

3. Arbitration and Judicial Settlement

If members cannot resolve their dispute through conciliation or negotiation, they may find that a binding procedure is necessary to resolve the dispute. Though formal international proceedings are rare and contentious, it may be the only viable option for members to reach a settlement. In such a case, the members also have the option to submit the dispute to one of four tribunals or courts: the International Tribunal for the Law of the Sea (ITLOS),²⁴¹ the International Court of Justice (ICJ),²⁴² an arbitral tribunal,²⁴³ or a special arbitral tribunal.²⁴⁴ However, the dispute must be submitted to the arbitral tribunal unless the disputing parties have agreed on or accepted the same procedure for the dispute settlement.²⁴⁵ In addition, the court or tribunal may select two or more scientific experts to sit with the court or tribunal without having the right to vote over disputes involving “scientific or technical matters.”²⁴⁶

Because members may agree to submit to a court or tribunal they have not accepted through ratification of UNCLOS, disputing members may consider different characteristics of these courts and tribunals when deciding whether to submit to a court or tribunal’s jurisdiction. Members seeking more control over the dispute resolution procedure may opt to submit to one of the arbitral tribunals because of the tribunals’ greater flexibility compared to ITLOS and ICJ

²³⁸ UN Fish Stocks Agreement, *supra* note 221, at art. 29.

²³⁹ UN Fish Stocks Agreement, *supra* note 221, at art. 29.

²⁴⁰ UN Convention on the Law of the Sea, *supra* note 223, at art. 286.

²⁴¹ This tribunal must be established in accordance with UNCLOS Annex VI. UN Convention on the Law of the Sea, *supra* note 223, at art. 287(1)(a).

²⁴² UN Convention on the Law of the Sea, *supra* note 223, art. 287(1)(b).

²⁴³ This tribunal must be established in accordance with UNCLOS Annex VII. UN Convention on the Law of the Sea, *supra* note 223, at art. 287(1)(c).

²⁴⁴ This tribunal can only be formed for one or more of the categories of disputes specified in UNCLOS Annex VIII. In addition, the tribunal must be constituted in accordance with Annex VIII. UN Convention on the Law of the Sea, *supra* note 223, at art. 287(1)(d).

²⁴⁵ UN Convention on the Law of the Sea, *supra* note 223, at art. 287(4)-(5).

²⁴⁶ The court or tribunal may select the experts “at the request of a party or proprio motu.” UN Convention on the Law of the Sea, *supra* note 223, at art. 289.

procedures.²⁴⁷ For example, when members submit a dispute to an arbitral tribunal, they have control over the composition of the tribunal.²⁴⁸ In addition, they have more control over the questions addressed to the tribunal by avoiding third party interventions.²⁴⁹ On the other hand, if members cannot agree on the dispute settlement procedure, then they may elect to submit the dispute to ITLOS or ICJ and their established procedures.²⁵⁰ Although ITLOS and ICJ have judges with extensive knowledge of law, some commentators have voiced concern that ITLOS judges may only have expertise in the law of the sea rather than in international law generally.²⁵¹ However, ITLOS judges have shown their ability to consider a range of issues covering different aspects of international law.²⁵² In addition, members may decide to bring the dispute to ITLOS instead of the ICJ because ITLOS has fewer cases pending before it, allowing for quicker adjudication.²⁵³

4. Provisional Measures

If members decide to submit the dispute to a court or tribunal, the dispute could last for an extended period of time due to its formal nature. If members are disputing a decision that allows unsustainable harvest of a fish stock, then a drawn out dispute settlement process could cause great harm to the fish stocks.

To “prevent serious harm to the marine environment,” UNCLOS allows a disputing member to request provisional measures, including a court or tribunal imposed injunction of the decision under dispute.²⁵⁴ In fact, upon receiving such a request, the court or the tribunal has authority to prescribe an appropriate provisional measure,²⁵⁵ pending a final decision.²⁵⁶ If the court or the tribunal imposes a provisional measure, the measure is binding on all parties to the dispute²⁵⁷ until circumstances justifying the measure have changed or ceased.²⁵⁸

C. Dispute Settlement in Other Treaties

Although no member has invoked the dispute settlement procedure under the WCPF Convention, other interpretive disputes have arisen under other treaties that may be instructive for resolving disputes under the WCPF Convention. In particular, countries have argued for different interpretations of key terms in CITES and the International Convention for the

²⁴⁷ Samuel J. Zeidman, *Sittin’ on the Dhaka the Bay: The Dispute Between Bangladesh and Myanmar and its Implications for the International Tribunal for the Law of the Sea*, 50 COLUM. J. TRANSNAT’L L. 442, 479 (2012).

²⁴⁸ NATALIE KLEIN, DISPUTE SETTLEMENT IN THE UN CONVENTION ON THE LAW OF THE SEA 56 (James Crawford et al. eds., 2005).

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.* at 472.

²⁵² *Id.*

²⁵³ *Id.* at 477-78.

²⁵⁴ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(1).

²⁵⁵ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(3).

²⁵⁶ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(1).

²⁵⁷ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(6).

²⁵⁸ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(2).

Regulation of Whaling (ICRW).²⁵⁹ This section describes each dispute and analyzes what lessons members can learn in settling disputes under the WCPF Convention.

1. The Definition of “Whales” under the ICRW

The ICRW establishes the International Whaling Commission (IWC) to regulate taking of “whales,” although the ICRW never defines the term.²⁶⁰ Some countries have argued that the IWC only has the authority to regulate the taking of large cetaceans, while others have argued that the definition of “whales” includes small cetaceans.²⁶¹ A dispute arose in 1977 when the IWC’s Scientific Committee recommended that the IWC regulate the taking of bottlenose dolphins, beaked dolphins, pilot whales, and orcas.²⁶² Pro-whaling countries strongly opposed the proposal, asserting that the ICRW does not allow the IWC to regulate catches of small cetaceans.²⁶³ Tension between the members remains to this day because the IWC adopted an “ambiguous resolution” that is “a little more than a pledge” to resolve the dispute sometime in the future.²⁶⁴ This “gentlemen’s agreement” allows the Scientific Committee to review the conservation status of small cetaceans but prohibits the IWC from regulating catches of them.²⁶⁵

The failure to resolve this dispute is one reason why some scholars and others have called the IWC “dysfunctional.”²⁶⁶ While other issues contribute to that view, including the resort to the ICJ to resolve the issue of Japanese scientific research whaling discussed below, the dispute over the meaning of “whales” is a warning signal to the WCPFC that it should use the strategies provided by the WCPF Convention to resolve the dispute over scientific authority. As with the IWC’s concerns regarding the definition of “whales,” Japanese scientific research whaling, and the duration of the moratorium on commercial whaling, WCPFC members remain highly divided. Without a definitive resolution to the issue of which entity has ultimate responsibility for the provision of scientific advice, the WCPFC risks becoming another institution considered to be dysfunctional. In fact, one organization has already placed the WCPFC “in the lowest ranks of other dysfunctional tuna Regional Fisheries Management Offices (RFMOs) that have also

²⁵⁹ International Convention for the Regulation of Whaling, Dec. 2, 1946, 62 Stat. 1716, 161 U.N.T.S. 72, (entered into force Nov. 10, 1948) [hereinafter ICRW], *available at* <http://iwc.int/cache/downloads/1r2jdhu5xtuswsws0ocw04wgcw/convention.pdf> [hereinafter ICRW].

²⁶⁰ ICRW, *supra* note 259, at art. IV.

²⁶¹ William C. Burns, *The International Whaling Commission and the Regulation of the Consumptive and Non-Consumptive Uses of Small Cetaceans: The Critical Agenda for the 1990s*, 13 WIS. INT’L L.J. 105, 127–28 (1994).

²⁶² *See id.* at 127.

²⁶³ *Id.*

²⁶⁴ *Id.* at 128–29.

²⁶⁵ CHAIRMAN’S REPORT OF THE 27TH MEETING (1975-1976), at 25, 480 (1977) (stating that the IWC agreed to recognize, “for administrative purposes,” the list of smaller cetaceans of the world provided in a report of the Subcommittee on Small Cetaceans, but that the issue of managing small cetaceans could be considered at a later time despite the Scientific Committee’s view that there is an “urgent need for an international body to effectively manage stock of all cetaceans not covered by the present IWC Schedule.”). *See also* Int’l Whaling Comm’n, *Small Cetaceans*, INTERNATIONAL WHALING COMMISSION, <http://iwc.int/smallcetacean>.

²⁶⁶ *See, e.g.*, Hope M. Babcock, *Putting a Price on Whales to Save Them: What Do Morals Have to Do with It?*, 43 ENVTL. L. 1, 1 (2013); Joji Morishita & Dan Goodman, *Role and Problems of the Scientific Committee of the International Whaling Commission in Terms of Conservation and Sustainable Utilization of Whale Stocks*, 9 GLOBAL ENVTL. RESEARCH 157, 157 (2005).

failed to adhere to science.”²⁶⁷ If, however, the WCPFC can find an “amicable settlement”²⁶⁸ through conciliation or negotiation, it can provide a model for other international institutions to resolve disputes.

2. The Scientific Research Exception under the ICRW

Large-scale whaling by Japan under the ICRW’s exception for scientific research whaling has been the focus of criticism for years. In 2010, Australia finally turned this criticism into a legal dispute before the ICJ when it challenged Japan’s Antarctic whaling program known as the Second Phase of the Japanese Whale Research Program under Special Permit in the Antarctic (JARPA II).²⁶⁹ Since the 1985-1986 whaling season,²⁷⁰ the IWC has imposed a moratorium on all commercial whaling.²⁷¹ Japan, however, has been granting permits to its nationals, pursuant to Article VIII of the ICRW, to kill whales for scientific research purposes.²⁷² Pursuant to this exception, Japan has killed 2,595 minke whales and 14 fin whales from 2005 through 2009 in the Southern Ocean.²⁷³ Australia, however, contends this killing is not for scientific purposes but rather for commercial purposes;²⁷⁴ Australia thus alleged that Japan was in breach of the duty to implement its obligations under the ICRW in good faith.²⁷⁵

In March 2014, the ICJ ruled that Japan’s whaling program is not performed for “the purposes of scientific research.”²⁷⁶ The ICJ reached this conclusion because Japan failed to provide, among other things, sufficient scientific justification for its sample size²⁷⁷ and for increasing its sample size.²⁷⁸ Japan also failed to explain to the ICJ’s satisfaction why it did not change to its program, which was based on multi-species competition, when it decided not to hunt humpback whales.²⁷⁹

Although adjudication in the ICJ may resolve disputes with finality, the ICJ process lingers for many years, as evidenced by this dispute. The length of time for a dispute resolution leaves many countries dissatisfied, such as the non-whaling nations in IWC, when the dispute involves possible unsustainable killing. The WCPFC members could overcome this problem by requesting provisional measures under UNCLOS,²⁸⁰ as discussed in the previous section.

²⁶⁷ World Wildlife Fund, WCPFC Fails Yet Again to Save South Pacific Tuna Stocks (Dec. 11, 2010), *available at*: <http://wwf.panda.org/?197833/WWF-fails-yet-again-to-save-south-Pacific-tuna-stocks>.

²⁶⁸ UN Convention on the Law of the Sea, *supra* note 223, at Annex V, art. 6.

²⁶⁹ Whaling in the Antarctic (Austl. v. Japan), 2010 I.C.J. 148 ¶ 2 (May 31, 2010), *available at*: <http://www.icj-cij.org/docket/files/148/15951.pdf> [hereinafter Austl. v. Japan Brief].

²⁷⁰ IWC, Commercial Whaling, at <http://iwc.int/commercial>.

²⁷¹ ICRW Schedule ¶10(e), *available at*: <http://iwc.int/cache/downloads/11v6fvjz06f48wc44w4s4w8gs/Schedule-February-2013.pdf>.

²⁷² Int’l Whaling Comm’n, *Special Permit Whaling*, <http://iwc.int/permits>.

²⁷³ Austl. v. Japan Brief, *supra* note 269, at ¶ 12.

²⁷⁴ See Austl. v. Japan Brief, *supra* note 269, at ¶ 34 (placing the word scientific in quotation marks).

²⁷⁵ Austl. v. Japan Brief, *supra* note 269, at ¶ 35-37.

²⁷⁶ Whaling in the Antarctic (Austl. v. Japan: N.Z. Intervening), 2014 I.C.J. ¶227 (March 31, 2014), *available at*: <http://www.icj-cij.org/docket/files/148/18136.pdf> [hereinafter Austl. v. Japan Decision].

²⁷⁷ Austl. v. Japan Decision, *supra* note 276, at ¶ 195.

²⁷⁸ *Id.* at ¶ 196.

²⁷⁹ Austl. v. Japan Decision, *supra* note 276, at ¶ 210.

²⁸⁰ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(1).

However, even provisional measures do not guarantee resource protection because the imposition of provisional measures is left to the discretion of the court or tribunal hearing the dispute.²⁸¹ Moreover, frustrated private citizens may take matters into their own hands if they perceive that the international body is not adequately performing its duties under a treaty. For example, the Sea Shepherd Conservation Society has taken direct action against whalers by confronting and interfering with whaling vessels, claiming that the IWC is not capable of enforcing the moratorium.²⁸² It has expanded its efforts by launching a campaign to protect tuna. The Sea Shepherd Conservation Society has focused its campaign on the International Commission for the Conservation of Atlantic Tunas (ICCAT), alleging that ICCAT and the European Union have failed to protect bluefin tuna.²⁸³ By voluntarily patrolling in Libyan fishing zones and cutting nets of illegal tuna poachers, the Sea Shepherd Conservation Society claims it took the responsibility of “what should be the business of the ICCAT and the EU.”²⁸⁴ Although extreme, this example shows that organizations like the Sea Shepherd Conservation Society may target the WCPFC if disputes are not resolved expeditiously.

3. The Appendix II Listing Criteria under CITES

CITES Parties and organizations have long disputed the interpretation of Appendix II listing criteria under CITES. Specifically, they disagree over the meaning of the word “reducing” as used in Annex 2(a)(B) of Resolution Conf. 9.24, which includes the criteria for listing a species in Appendix II.²⁸⁵ On one hand, the U.N. Food and Agriculture Organization (FAO) argues that “reducing” should have the same meaning as “decline,” which is defined as “a reduction in the abundance, or area of distribution, or area of habitat of a species.”²⁸⁶ On the other hand, many CITES Parties, as well as the CITES Secretariat, argue that “reducing” must be given its ordinary meaning (i.e. to make smaller) because “decline” has its own specific definition.²⁸⁷ Because the parties could not reach agreement on a common interpretation, they made the following compromise: when parties and organizations comment on a proposal to include a species in Appendix II, they must identify on which interpretation of “reducing” they are basing their comments.²⁸⁸

²⁸¹ UN Convention on the Law of the Sea, *supra* note 223, at art. 290(3).

²⁸² Sea Shepherd Conservation Society, *The Whale’s Navy*, available at: <http://www.seashepherd.org/whales/>.

²⁸³ Sea Shepherd Conservation Society, *Sea Shepherd Campaign Status – Operation Blue Rage 2011* (June 23, 2011), available at: <http://www.seashepherd.org/news-and-media/2011/06/23/sea-shepherd-campaign-status-operation-blue-rage-2011-6>.

²⁸⁴ *Id.*

²⁸⁵ The relevant language of CITES is as follows. “A species should be included in Appendix II when, on the basis of available trade data and information on the status of the wild population(s), at least one of the following criteria is met... (B) It is known, or can be inferred or projected, that regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not *reducing* the wild population to a level at which its survival might be threatened by continued harvesting or other influences.” CITES, Resolution Conf. 9.24 (Rev. CoP14), *Criteria for Amendment of Appendices I and II*, Annex 2a (1994) (emphasis added).

²⁸⁶ CITES, *Criteria for the Inclusion of Species in Appendices I and II (Decisions 15.28 and 15.29)*, AC25 Doc. 10, at Annex 2, page 17 (2011).

²⁸⁷ *Id.* at ¶ 15. See also CITES, *Revision of Resolution Conf. 9.24*, SC46 Doc. 14 Annex 3, 56 (2002).

²⁸⁸ CITES, *Criteria for the Inclusion of Species in Appendices I and II*, SC62 Doc. 39, ¶ 4 (2012); CITES, SC62 *Summary Record of the Sixty-second Meeting of the Standing Committee*, ¶ 39 (2012) (recording the Standing Committee “supported the recommendations of the Animals Committee in document SC62 Doc. 39 and stressed the need for Parties to explain clearly which approach they chose for applying Resolution Conf. 9.24 (Rev. CoP15), Annex 2 a, criterion B, when preparing their amendment proposals.”).

Although the compromise functions within the context of proposals to include a species in Appendix II of CITES, a similar compromise may not be feasible in the context of the WCPFC. Because the CITES parties ultimately vote to determine whether a species should be listed in Appendix II, after a consideration of comments and views presented, the use of different standards does not interfere with the ultimate process of listing a species. In contrast, the use of different standards under the WCPFC can create inconsistency among species conservation measures. For example, a discrepancy in conservation measures may arise when one member interprets the WCPFC to require the advice of the Scientific Committee for all conservation measures while another member believes that such advice is not allowed for northern stocks. Therefore, the compromise that CITES parties resorted to cannot be applied to the WCPFC.

V. Recommendations

This paper concludes that the WCPF Convention clearly provides the Scientific Committee with the authority and duty to review the work of science providers and the Northern Committee. Nonetheless, some WCPFC members believe that the WCPFC Convention grants the Northern Committee an autonomous role, free from review by the Scientific Committee. To eliminate the confusion concerning the roles of the Scientific Committee, Northern Committee, and the subsidiary bodies, the members should make three small, but significant modifications to the current arrangements governing communication and decisionmaking among these bodies. These changes will clarify that the Scientific Committee has authority to review scientific information and recommendations of other bodies consistently with Article 12(2) of the WCPF Convention and to ensure that recommendations are based on the best scientific information available.

1. **Revise the Northern Committee's Rules of Procedure.** WCPFC members should revise the Northern Committee's Rules of Procedure²⁸⁹ to allow the Scientific Committee to determine the best available science underlying the Northern Committee's recommendations to the WCPFC. To allow the Northern Committee to utilize the best available science, the Scientific Committee must hold its annual meetings before the Northern Committee. This would allow the Scientific Committee to evaluate the information provided by the ISC to the Northern Committee before the Northern Committee uses the ISC's information to propose conservation and management measures to the WCPFC. However, the Northern Committee currently does not have a required timeframe in which it holds its annual meetings. Thus, the Northern Committee's Rules of Procedure should be modified to ensure that the Northern Committee holds its annual meetings after the Scientific Committee. In addition, the Rules should require the Northern Committee to explain its reasons if the Northern Committee recommends measures that deviate from the Scientific Committee's recommendations. This will allow the WCPFC to make reasoned decisions. Recommended revisions to the Rules of Procedure are included in Appendix 1 below.

2. **Revise the WCPFC's MoU with the ISC.** WCPFC members should revise the WCPFC's MoU with the ISC²⁹⁰ to allow the Scientific Committee to review the data and

²⁸⁹ WCPFC Rules of Procedure, *supra* note 30, at Annex II.

²⁹⁰ WCPFC-ISC MoU, *supra* note 9.

recommendations that the ISC provides to the Northern Committee.²⁹¹ For the Scientific Committee to review effectively the information ISC provides to the Northern Committee, the ISC should provide such information before the Scientific Committee's annual meeting. In addition, the length of time between the ISC providing the information and the Scientific Committee's meeting should be sufficient to allow the Scientific Committee to request additional information as necessary. When the Scientific Committee requests additional information, the request must be for information related to making the best available science determination for the ISC's recommendations to the Northern Committee or to help the Scientific Committee complete an analysis, assessment, or review covered by Article 12. For example, if the ISC provides the information to the Northern Committee two months before the Scientific Committee's annual meeting, the Scientific Committee can determine whether it obtained sufficient information to make the best available science determination. In the case that the Scientific Committee requires additional information, the ISC can provide the additionally requested data one month before the Scientific Committee's annual meeting. Recommended revisions to the MoU are included in Appendix 2 below.²⁹²

3. **Revise the WCPFC Resolution on Best Available Science.** WCPFC members should revise the Resolution on the Best Available Science²⁹³ to ensure that the Scientific Committee is the ultimate authority for ensuring that the best scientific information available is provided to the WCPFC. To accomplish this change, the Resolution should provide for an explicit provision that allows the Scientific Committee to review the scientific data provided by the SPC and the ISC. Moreover, the Resolution should also contain obligation for the Scientific Committee to explain the underlying science and its reasoning if the Committee disagrees with any recommendations made by the SPC or the ISC. By modifying the Resolution as stated above, the Scientific Committee will have the authority to review the science provided by the ISC and SPC as required by the WCPF Convention,²⁹⁴ while maintaining transparency and scientific integrity. Recommended revisions to the Resolution are included in Appendix 3 below.

²⁹¹ The ISC also provides the same information to the Scientific Committee and the WCPFC, as required by the MoU. WCPFC-ISC MoU, *supra* note 9, Part I. However, for the purpose of this section, such information will be referred as information provided to the Northern Committee.

²⁹² The WCPFC Secretariat has proposed similar modifications to the WCPFC-ISC MoU. WCPFC, Draft revision of Memorandum of Understanding (MOU) between WCPFC and ISC, WCPFC-SC5-2009/GN-WP-11 (July 29, 2009). The Northern Committee, however, did not accept the changes. WCPFC, SUMMARY REPORT OF THE FIFTH REGULAR SESSION OF THE NORTHERN COMMITTEE, September 2009, ¶¶ 74–75 (2009).

²⁹³ WCPFC, *Resolution on the Best Available Science*, *supra* note 117.

²⁹⁴ WCPF Convention, *supra* note 1, at art. 12(2)(b).

Appendix 1

Proposed Changes to Annex I of the WCPFC Rules of Procedure

Rules of Procedure Relating to the Northern Committee

Proposed additions indicated with text underlined

Proposed deletions indicated with text ~~strikeout~~

1. The committee established under article 11, paragraph 7, of the Convention shall be called the Northern Committee. Members situated in the Convention area north of 20° north parallel and members fishing in that area shall be members of the Northern Committee. Any member of the Commission not represented on the Committee may send a representative to participate in the deliberations of the Committee as an observer.
2. The Northern Committee shall, by consensus, make recommendations on the formulation of conservation and management measures* in respect of stocks which occur mostly in the area north of 20° north parallel (hereinafter referred to as “northern stocks”). Such recommendations shall relate to the northern stocks in the area north of 20° north parallel. Such recommendations shall be consistent with the general policies and measures adopted by the Commission in respect of the stocks or species in question and with the principles and measures for conservation and management set out in the Convention. Consistent with these principles and measures, in particular the obligation of members to adopt measures based on the best scientific evidence available, the Northern Committee shall submit draft recommendations to the Scientific Committee for its review. If the Northern Committee, after taking into account the advice of the Scientific Committee, submits a recommendation to the Commission that deviates from the advice provided by the Scientific Committee, then it shall provide reasons for deviating from the Scientific Committee’s advice. The Commission shall not take a decision with regard to any such measure without a recommendation concerning such measure from the Northern Committee.
3. The Commission may, however, request the Northern Committee to formulate and send back a recommendation on conservation management measure for a northern stock in such a period of time as the Commission considers appropriate. The Northern Committee shall comply with such request by the Commission.
4. The Northern Committee shall, by consensus, make recommendations on the implementation for the area north of 20° north parallel of such conservation and management measures* as may be adopted by the Commission. Such recommendations shall be consistent with the general policies and measures adopted by the Commission in respect of the stocks or species in question and with the principles and measures for conservation and management set out in the Convention.
5. “Northern stocks” are understood to be northern Pacific bluefin, northern albacore and the northern stock of swordfish. The Commission, based on the advice of the Scientific Committee, shall periodically review and determine whether this list should be revised.

* Conservation and management measures are those provided for in article 10, paragraph 2, of the Convention.

Appendix 2

**Memorandum of Understanding between
The Commission for the Conservation and Management of Highly
Migratory Fish Stocks in the Western and Central Pacific Ocean
and
The International Scientific Committee for Tuna and Tuna-like Species
in the North Pacific Ocean**

(Adopted December 2005)

Proposed additions indicated with text underlined

Proposed deletions indicated with text ~~strikeout~~

Recognizing that, *inter alia*, the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (hereinafter referred to as “the WCPF Commission”):

- Adopts measures to ensure long-term sustainability of highly migratory fish stocks in the Convention Area and promote the objective of their optimum utilization;
- Ensures that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States in the Convention Area, particularly small island developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional, or global;
- Assesses the impacts of fishing, other human activities and environmental factors on target stocks, non-target species, and species belonging to the same ecosystem or dependent upon or associated with the target stocks;
- Collects and shares, in a timely manner, complete and accurate data concerning fishing activities on, *inter alia*, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research programs;
- Establishes a committee, which shall be called the Northern Committee, to make recommendations on the implementation of such conservation and management measures as may be adopted by the Commission for the area north of the 20 parallel of north latitude and on the formulation of such measures in respect of stocks which occur mostly in this area;
- Enters into administrative and financial arrangements as required to utilize scientific services for the purpose of providing information and advice on the fishery resources covered by its Convention and related matters that may be relevant to the conservation and management of those resources and, in order to carry out its functions in a cost-effective manner, shall, to the greatest extent possible, utilize the services of existing regional organizations and shall consult, as appropriate, with any other fisheries management, technical or scientific organization with expertise in matters related to the work of the Commission; and

- Establishes a committee (the Scientific Committee) to ensure that the Commission obtains for its consideration the best scientific information available ~~through~~ by reviewing of research results, assessments, analyses and recommendations; encouraging and promoting cooperation in scientific research; and assessing the status of target or non-target stocks of interest

Recognizing that the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific (hereinafter referred to as “the ISC”):

- Enhances scientific research and cooperation for conservation and rational utilization of the species of tuna and tuna-like fishes which inhabit the North Pacific Ocean during a part or all of their life cycle;
- Creates the scientific groundwork, if at some point in the future, it is decided to create a multilateral regime for the conservation and rational utilization of these species in this region;
- Establishes a central database to support the scientific research of the ISC and continues to consider establishing a permanent Secretariat;
- Establishes subsidiary Working Groups to perform the significant scientific work of the ISC.

The Commission of the WCPFC and the ISC, the participants to this Memorandum of Understanding (“MOU”), have therefore reached the following understanding.

Part I: Provision of Scientific Information and Advice for the Northern Committee

- The Northern Committee may request from the ISC scientific information and advice regarding fish stocks (generally those stocks occurring mostly north of the 20° parallel of north latitude; see Annex 1) for response prior to each meeting of the Northern Committee. This formal request will be transmitted expeditiously to the ISC. The Commission will, if requested, provide data necessary for the scientific analysis to be conducted by the ISC.
- The ISC will provide requested scientific information in accordance with this MOU two (2) one (1) months before the annual meetings of the ~~Scientific Northern~~ Committee. ISC will also provide the requested scientific information to the Commission and the Scientific Committee. This scientific information will follow the standard presented in Annex 2 for standard (recurring) requests or as mutually agreed upon for special requests (see also Part ~~IV~~ below).
- The ISC will provide its normal Committees and Working Group reports, prepared under the Rules and Procedures for the Conduct of the ISC Committee and Subsidiary Bodies, including relevant background reports, directly to the Northern Committee, the Commission, and the Scientific Committee.
- ISC scientific information will be presented at the annual meeting of the Northern Committee and the Scientific Committee, and may be presented to the Commission by the Chair of the ISC, or a designate, and advisors from the ISC Working Groups, as appropriate. The participation costs of the ISC Chair, or designate, and advisers from the

ISC Working Groups will be borne by the Member Governments of the ISC Chair and Working Group advisors.

Part II: Provision of Scientific Information for the Scientific Committee

- Upon reviewing the data submitted from the ISC to the Northern Committee, the Scientific Committee may request from the ISC additional scientific information regarding fish stocks (generally those stocks occurring mostly north of the 20° parallel of north latitude; see Annex 1) to further assess the information and advice submitted to the Northern Committee. This formal request will be transmitted expeditiously to the ISC. The Commission will, if requested, provide data necessary for the scientific analysis to be conducted by the ISC.
- In reviewing the information and advice submitted to the Northern Committee, the Scientific Committee shall review the information and advice provided by the ISC to determine whether the recommendation is based on best available scientific information. If the Scientific Committee requires additional information to make this determination, the Scientific Committee shall request such additional information from the ISC.
- The ISC will provide requested scientific information in accordance with this MOU one (1) month before the annual meetings of the Scientific Committee. ISC will also provide the requested scientific information to the Commission and the Northern Committee. This scientific information will follow the standard presented in Annex 3 for requested information required from ISC by the Scientific Committee or as mutually agreed upon for special requests (see also Part IV below).

Part III H: Framework for Mutual Cooperation

Participants to this MOU will:

- Encourage reciprocal consultations and regular contacts on matters of common interest regarding scientific research on highly migratory tuna and tuna-like resources;
- Regularly exchange relevant meeting reports, information, project plans, documents, and publications regarding matters of mutual interest; and
- Routinely exchange fishery data, in accordance with the rules and procedures for data confidentiality adopted by each organization, to minimize duplicative data collection efforts and enhance fishery monitoring and stock assessment through the use of common data sources.

The Executive Director of the Commission, or designate, including the Chair of the Northern Committee and Chair of the Scientific Committee, will be invited to observe the plenary meetings of the ISC and its Working Groups. The Chair of the ISC, or designate, will be invited to observe the annual meetings of the Commission and meetings of the Northern Committee and Scientific Committee, as well as other subsidiary bodies, as appropriate. The costs of participation will be borne by each Organization respectively.

Part IV H: Finance

- ISC will provide its normal reports and the reports of its Working Groups, as well as standard (recurring) scientific information and advice, without cost to the Commission.
- The Commission will pay, as mutually decided, costs for special scientific advice requested by the Commission.

Part V IV: General Administrative Arrangements

- This MOU becomes effective upon the date of signature of the responsible representatives in both the Commission and ISC.
- This MOU may be modified by written consent of both Commission and ISC and signed by the responsible representative in each organization. The modified MOU becomes effective upon the date of signature of both the responsible representatives of the Commission and ISC.
- If any dispute should arise between the Commission and ISC on the operation of this MOU, both will make every effort to resolve the dispute themselves, or if necessary, by utilizing a mutually decided arbiter.
- Either Commission or ISC may terminate this MOU by providing 30 days written notice to the other of its intention to withdraw from this MOU. Upon termination of the MOU, any funds provided for special, typically non-recurring, scientific advice shall be refunded to the Commission (see Part IV III above).
- A full review of the terms and operation of the MOU and its Annexes will be conducted as soon as practicable after the first full 12 months of operation following its signature by the Commission and the ISC and subsequently every three years.

Part VI V: Signature

Signed on behalf of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean:

<p>Signed: original signed Date: _____ Chair Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific</p>	<p>Signed: _original signed_ _____ Date: _____ Chair International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean</p>
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Annex 1

Provisional list of species and/or stocks in the North Pacific for which the Northern Committee may request standard (recurring) advice from the ISC:

- North Pacific Albacore
- Pacific bluefin tuna
- Swordfish and other billfishes
- By-catch (fish and non-fish) species resulting from the fishing of the northern stocks

Other species may be added to the list with the mutual written concurrence of the Participants to this MOU.

Annex 2

Standard (recurring) advice required from ISC by the Northern Committee:

For tuna and tuna-like species that occur primarily in the North Pacific, the ISC will report annually to the Northern Committee of the WCPFC on:

1. Performance of the monitored fisheries
2. Progress in stock assessment research and future needs
3. Status of stocks
4. Advice on conservation measures
 - a. Management measures needed
 - b. Evaluation of the effectiveness of exiting measures

Any additional ISC tasks needed to support WCPFC will be delineated in annual service agreements established at the outset of each year and in accordance with Part IVH

Annex 3

Requested information required from ISC by the Scientific Committee:

For tuna and tuna-like species that occur primarily in the North Pacific, the ISC will provide to the Scientific Committee of the WCPFC additional information on any of the following:

1. Performance of the monitored fisheries
2. Progress in stock assessment research and future needs
3. Status of stocks
4. Advice on conservation measures
 - a. Management measures needed
 - b. Evaluation of the effectiveness of exiting measures

Any additional ISC tasks needed to support WCPFC will be delineated in annual service agreements established at the outset of each year and in accordance with Part IV.

Appendix 3

Proposed Changes to Resolution 2012–01, Resolution on the Best Available Science

Proposed additions indicated with text underlined

Proposed deletions indicated with text ~~strikeout~~

The Commission for the Conservation and Management of Highly Migratory Fish Stock in the Western and Central Pacific Ocean,

RECOGNIZING the importance of sound scientific advice as the centre piece for the conservation and management of tuna and tuna-like species in the Western and Central Pacific Ocean in line with international law and recommendations and the needs of the WCPFC Scientific Provider;

AWARE that the availability of adequate scientific information is fundamental to carrying out the objectives of the WCPFC Convention laid down in its Article 2;

RECALLING that in accordance with Article 5 of the WCPFC Convention, CCMs shall adopt measures to ensure long-term sustainability of highly migratory fish stocks in the Convention Area based on the best scientific evidence available,

CONSCIOUS of the vulnerability of developing States, in particular SIDS and Territories, which are dependent on the sustainable exploitation of marine living resources, and therefore on availability of best science,

NOTING the role of the Oceanic Fisheries Programme of the Secretariat of the Pacific Community (SPC-OFP) which is contracted to provide independent scientific advice;

NOTING the role the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) which provide scientific advice for the northern stocks;

FURTHER NOTING the role of the Scientific Committee was established by the Convention to ensure that the Commission obtains for its consideration the best scientific information available;

RECOGNIZING the limited financial resources of small island developing coastal States and Territories and wishing to assist in building their scientific capacity;

ACKNOWLEDGING the need to improve the availability and quality of data used for the provision of scientific advice, including on bycatch and discards;

BUILDING on the deliberations and recommendations of the Kobe process;

NOTING the Review of the Performance of the WCPFC and the recommendations related to the quality and provision of scientific advice;

Resolves in accordance to articles 5, 10, 12, and 13 of the Convention to:

1. Take all measures which would be appropriate:
 - i. To improve the communication between CCMs, CNMs, the WCPFC, SPC-OFP, ISC, scientific experts by enabling a continuous dialogue, for example, through the use of electronic discussion groups and tele-/video-conferencing;
 - ii. To improve the collection and submission of data to SPC-OFP and ISC, including on bycatches;
 - iii. To support research programs and projects supporting the work of WCPFC SPC-OFP and ISC;
 - iv. To facilitate participation in meetings of the Scientific Committee, as well as in other relevant scientific bodies, of scientists with suitable scientific qualifications from all CCMs;
 - v. To promote the scientific collaboration between WCPFC and IATTC,
 - vi. To contribute to the training of scientific researchers, including young scientists.
2. Preserve and promote the professional independence and excellence of the Scientific Committee, SPC-OFP and ISC, and the relevance of their work to the information needs of the WCPFC, by:
 - i. Enhancing the participation of scientists in meetings of the Scientific Committee, including scientists involved in other tuna RFMOs and other relevant scientific bodies;
 - ii. Promoting the collaboration of scientists with SPC-OFP and ISC;
 - iii. Drafting a code of conduct for the Scientific Committee, SPC-OFP and ISC, for adoption by the WCPFC. For this purpose, the Scientific Committee, SPC-OFP and ISC may develop rules to avoid conflict of interests, to ensure the quality, relevance and professional independence of scientific activities and, where applicable, to maintain the confidentiality of the data used;
 - iv. Drafting a strategic plan for the Scientific Committee, SPC-OFP and ISC for adoption by the WCPFC. The strategic plan shall be used to guide the work of the Scientific Committee, SPC-OFP and ISC in assisting the WCPFC to effectively achieve its mandate.
 - v. Ensuring that relevant, professionally independent and objective scientific advice, based on the best available and peer-reviewed scientific analysis, is presented by the Scientific Committee, ~~SPC-OFP and ISC~~ to the WCPFC;

- vi. Further ensuring that relevant, professionally independent and objective scientific data is provided by SPC-OFP and ISC to the WCPFC through adequate scientific review by the Scientific Committee;
- ~~vii~~.vii. Ensuring that sources and history of revisions of all documents submitted to and assessed by the Scientific Committee, SPC-OFP and ISC are fully documented;
- ~~viii~~.viii. Providing clear, transparent, and standardized formats for the provision of advice to the WCPFC;
- ~~ix~~.ix. Providing for well-defined rules for formulating scientific advice to the WCPFC, reflecting different views while striving for consensus, to promote consistency and transparency;
- ~~x~~.x. Ensuring that the key role of the Scientific Committee in reviewing the plans, proposals and research programs of WCPFC, as well as reviewing any relevant assessments, analyses, research or work, as well as recommendations prepared for the Commission by SPC-OFP and ISC prior to consideration of such recommendations by the Commission as established by Article 12 of the WCPFC Convention is respected. To fulfill its obligations, the Scientific Committee shall explain the underlying science and its reasoning if the Committee disagrees with any recommendations made by the SPC-OFP and ISC;
3. Strengthen peer review mechanisms within the Scientific Committee, SPC-OFP and ISC by participation of invited experts (e.g. from other RFMOs or from academia), particularly for stock assessments. These outside experts shall be subject to the data confidentiality rules and procedures currently applicable in the WCPFC.
4. Continue to support the Scientific Committee, SPC-OFP and ISC's initiatives to publish its scientific findings in the scientific peer-reviewed academic literature.
5. Where the Commission has reason to believe the information provided by the Northern Committee or the ISC does not represent the best available scientific information available, the Commission shall review the Northern Committee's recommendation in light of advice from the Scientific Committee.
- ~~5.6~~. With the aim of meeting the above-mentioned objectives, consider broadening financial support and mechanisms, including *inter alia*, contributing to the "Voluntary Contributions Fund", for the purpose of the implementation of this Resolution, in particular to:
- i. Contribute to the scientific capacity building of the small island developing States and Territories and to enhance their effective participation in the work of the Scientific Committee;
 - ii. Provide necessary resources for the Scientific Committee
