

Survival and evolution of ICES in a changing world

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ICES began its life not as a permanent intergovernmental institution, but as a temporary structure erected to execute a five-year program of hydrographic and biological investigations of the northern European seas. Many, perhaps most, of its Delegates and scientific experts soon believed that the International Council should continue indefinitely, but at various times its survival nevertheless appeared uncertain. World War I, which brought to an end so many similar international organizations, challenged the youthful body, as did postwar efforts to found an Atlantic-oriented scientific body. At other junctures, even when sheer survival was not at stake, ICES faced choices that promised to alter dramatically the scale, scope, and form of the institution or its work. Periodic cries, for instance, issued forth, starting in the first decade, that ICES should focus more on pure science and less on fisheries. Debates about whether ICES should conduct work on a regional or a global scale have likewise recurred. Dramatic growth of a formal advisory role for the Council proceeded hand-in-hand with an emphasis on scientific objectivity, heightened by the Cold War context. This paper explores a series of challenges faced by ICES, asking of each episode how the institution survived and changed in response.

Keywords: European Commission, Exclusive Economic Zones, ICES, NEAFC, World War I, World War II.

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Introduction

One-hundred-year-old institutions have a way of looking inevitable, and permanent. ICES, however, began its life as a temporary structure erected in 1902 to execute a five-year program of hydrographic and biological investigations of the northern European seas. Many, perhaps most, of its Delegates and scientific experts soon agreed that the Council should continue indefinitely, but its survival at various points nevertheless appeared uncertain. World War I, which brought to an end so many similar international organizations, challenged the youthful body, as did postwar efforts to found competing organizations. At other junctures, even when sheer survival was not at stake, ICES faced choices that promised to alter dramatically the scale, scope, and form of the Council and its work. Periodic cries issued forth that ICES should focus more on pure science and less on applied fisheries research. Debates about whether ICES should conduct work on a regional or global scale have likewise recurred. This paper presents a few of these challenges and explores how ICES survived and changed in response to each episode.

Defining ICES

The earliest conception for what became ICES was Otto Pettersson's international hydrographic program, an extension of a regional cooperation among Scandinavian countries. Pettersson's personal commitment to the idea that water movements might explain the migrations of fish made him welcome the inclusion of fisheries questions in the expanded scientific program first drawn up in Stockholm in 1899 and then revised in Kristiania (now Oslo) two years later. Several of the nations which fostered the International Council embraced practical work on fisheries problems, especially the politically charged issue of overfishing. Council Delegates and experts, mindful of their limited mandate of five years, resolved at the 1902 founding meeting in Copenhagen to define practical problems amenable to solution in that time frame.

Scientists today admit they still cannot explain the causes of fish population fluctuations, so they might well judge the original scientific program as overly ambitious. Council Delegates at that time, however, earnestly endeavored to plan their work responsibly.

A year before the original term ended, Council experts summarized results in preparation for a major, perhaps final, report whose publication they had carefully budgeted. The General Secretary, Paulus P. C. Hoek, returned to his home in The Netherlands in October 1907, although he agreed to continue his term from there for the one additional year agreed by all governments at the 1907 meeting. That meeting witnessed the beginning of a pattern which repeated itself until 1926, the first year that all Member Countries agreed to adhere either indefinitely or at least for a full five-year term. In 1908, for instance, some countries declared readiness to adhere for two more years, some for one, and a few contingent upon continued adherence of other nations. Only a scant handful intended to continue indefinitely. No term was specified at that meeting, only the intention to continue after July 1908. One realistic resolution warned Delegates against planning long-term investigations (Went, 1972).

At the Council's 10-year anniversary, Member Countries continued this cautious pattern of commitment in spite of increasing impatience by the Delegates. By 1912, the Council encompassed the Atlantic with the adhesion of the United States, then attempted to attract France, Canada, and Japan. The Council basked in the admiration of the international scientific community, such as when biologist Charles Kofoid from the University of California, Berkeley, reported after a tour of European marine stations, "This, the first example of international and scientific cooperation which the present century has witnessed, is full of profound significance for the future work of biological stations upon problems less directly economic in their nature" (Kofoid, 1910). The Council's self-assessment reflected its confidence that the work it promoted had increased biological knowledge of several commercially important fish species, and also of plankton, as well as vastly improving the collection of scientifically valuable catch statistics (Drechsel, 1913). Yet, satisfaction in 1912 was not unanimous. Especially in Britain, but also in the United States and France (which did not become a member until 1920), segments of the scientific community believed that the young Council ought to resemble the more typical scientific society of the day. The entire apparatus might even simply be replaced by an annual scientific congress. Some nations, President Walter Archer learned in 1912, considered "the present organization ... too expensive in proportion to its results" (Martyr, 1912). This judgment essentially condemned the applied nature of the Council's work, preferring a purely biological, scientific society.

Most founders of the Council, however, saw no conflict between the two visions. These turn-of-the-century internationalists held the unshakable belief that science could, and should, serve practical industries such as fisheries. On a more fundamental political level, Council leaders recognized that some countries, such as Germany, would likely withdraw support if efforts were

made to turn the Council into a mere scientific society (Archer, 1910).

Survival at stake

On the eve of World War I, the International Council appeared vigorous, taking special pride in recently laid plans for an international scientific assault on the entire Atlantic by dozens of warships en route to the opening ceremony of the Panama Canal. The onset of hostilities not only ended that scheme, but brought the possibility that Member governments might dissolve the Council. The danger seemed very real. Of the 480 international organizations founded with ICES during the last quarter of the 19th century, only 211 survived until 1914, and fewer still beyond (Lyons, 1963, pp. 11–18). Anticipating the threats, the British Delegate, Henry Maurice, took immediate action to secure prompt payment of his country's yearly contribution and to oppose suggestions to disband the Council (Maurice, 1914a, 1914b). Initiatives like Maurice's yielded the promising result of regular contributions by five Member Countries within only four months of 4 August¹ (Drechsel, 1914a). On the other hand, the conflict brought an immediate halt to the backbone of the Council's hydrographic work, the quarterly cruises, and also drastically reduced biological field work. Germany withdrew, as did that hard-won Western Atlantic member, the United States. To preserve the Council, its leaders had to ignore the setbacks and concentrate on work they hoped would facilitate full resumption after the war. Specifically, they decided to funnel available funds into the Secretariat to retain experienced and skilled personnel.²

Scientists turned the Great War into opportunity. They called it "the Great Fishing Experiment", a chance to study the effects of wartime fisheries closures on stocks, and they lobbied their governments on the Council's behalf. Continued financial contributions throughout the war by neutral countries as well as by Britain indicate that governments willingly supported the work these scientists advocated. Two individuals in particular (Figure 1) had the administrative talent necessary to transform this support into successful reanimation of the Council: the long-time Danish General Secretary, Captain Christian F. Drechsel, and Henry Maurice, the British fisheries administrator who would serve as President from 1920 until World War II. Drechsel turned to Maurice because they shared a lack of confidence in the political acumen of Otto Pettersson, who had succeeded Fritz Rose of Germany as President (Went, 1972). Maurice's initiative and institutional abilities in helping Drechsel place the Council on a secure interim footing made Drechsel resolve to keep him "*au courant*" with issues and decisions within the Secretariat (Drechsel, 1914b).

Thanks to the continued activities and contributions of the neutral countries, the Bureau remained intact at



Figure 1. Henry Maurice, President, 1920–1938 (left) and Christian F. Drechsel, General Secretary, 1908–1927 (right). Reproduced with the kind permission of ICES.

war's end, poised to restart the Council. President Maurice tried to set a tone for a successful but realistic revival, warning enthusiastic Delegates against overextending the organization. He also stressed the necessity of five-year terms, arguing that shorter periods would not permit serious scientific investigations (ICES, 1920). By 1920, the immediate future of the Council had been secured through the election of new officers and payment of contributions, and during the next five years, it expanded. Seven countries joined the Council, including the Atlantic nations France, Ireland, Spain, and Portugal, and the Baltic countries Estonia, Latvia, and Poland. It is no wonder the 1920s were later described by General Secretary Arni Fridriksson, during another postwar expansion of the Council, as "a new flowering time" (Fridriksson, 1955) (Table 1).

Expansion but competition

Not only membership, but also the geographical area and scientific scope of the Council, grew between the wars. This expansionism was intentional and energetically pursued, especially by the trio who had carried the Council through the war: Maurice, Drechsel, and Pettersson. The latter declared in 1921, "We represent a

rising enterprise and wish to extend our work" (Pettersson, 1921) (Figure 2). On the scientific front, ICES leadership in marine science meant to Pettersson, Drechsel, and others the extension of work to encompass the entire North Atlantic (Pettersson and Schott,³ 1909). In the postwar years, they described the Danish RV "Dana" expedition as the start of "our programme of bridging over the Atlantic Ocean by scientific researches" (Drechsel, 1920). In a grandiose effort to realize global leadership in marine science, Pettersson convinced the Council to offer scientific direction for a four-year circumnavigation if he could find a donor willing to purchase the yacht-research vessel of the recently deceased patron of oceanography, Albert I of Monaco (Pettersson and Drechsel, 1923).

The Council's ambitions to cover the North Atlantic scientifically related directly to its efforts to recruit Atlantic nations as members. The appearance of rival institutions focusing on Atlantic marine science threatened Council membership and scientific leadership. What were some of these rivalries? The Panama Canal scheme had originated in a short-lived "Atlantic Committee" formed by the 1908 International Geographical Congress (ICES itself had, in fact, been introduced as an idea at the 1895 meeting of the same body). This development elicited a stab of fear that Canada and the

Year	Country
1902	Denmark, Finland, Germany, The Netherlands, Norway, Sweden, Russia, United Kingdom
1903	Belgium
1912	United States
World War I	United States, Russia, and Germany withdrew
1920	France
1922	Portugal
1923	Estonia, Latvia, Poland
1924	Spain
1925	Ireland
1926	Germany rejoined
1927	Italy
1932	Italy withdrew
1937	Iceland
1938	Spain withdrew
1945	Spain rejoined
1951	Poland withdrew
1952	Federal Republic of Germany
1955	USSR, Poland rejoined
1956	Italy rejoined
1967	Canada
1973	United States rejoined
1974	Italy withdrew
1975	German Democratic Republic
1990	Reunification of Germany
1992	Russian Federation continued USSR membership
1993	Latvia, Estonia

Table 1. ICES membership chronology, 1902–2000.

United States might prefer the new group to the North Sea-oriented Council. When the Committee disappeared, its instigator, Pettersson, shepherded the Panama project through the Council. Pettersson aggressively promoted Atlantic research on all fronts and never worried about potential danger to the Council. Maurice and Drechsel, both institutionally minded administrators to the core, took rival bodies more seriously.

As the Bureau worked to restart the Council after the war, the physical oceanography section of the International Union of Geodesy and Geophysics (IUGG) formed an "Atlantic Commission" to orchestrate study of that ocean. IUGG was an arm of the newly formed International Research Council (IRC), an umbrella organization for all scientific fields which, in the scornful words of Pettersson, "pretends to embrace both the Atlantic and the Mediterranean and which has practically done nothing except the construction of an immense scheme of rules and paragraphs that never come into execution." In other words, Pettersson condemned the IRC for being all talk and no scientific action.⁴

Nevertheless, the Atlantic Commission precipitated worry over French participation in ICES. France had,

from the start, remained aloof from the Council, with the argument that it preferred to support research directly rather than fund a central administration. Replacement of a long-time ICES detractor by the biologist, oceanographer, and enthusiastic internationalist, Edouard le Danois, heralded French entry into the international marine science scene. However, the postwar founding of the Atlantic Commission and also the Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée caused ICES leaders to doubt France's commitment to the institution (Smed, 1998; E. Mills, pers. comm.). Indeed, le Danois numbered among the ICES scientists who participated in the founding meeting of the Atlantic Commission and soon urged its presidency upon Maurice (le Danois, 1922).

Maurice shared Pettersson's opinion that the Council, in contrast to the new Atlantic Commission, "has behind it experience and [a] record of practical work" (Maurice, 1922a). His aversion to the Commission lay primarily in his fears for ICES. He believed that the Commission would precipitate a split in the Council because France would refuse to finance both ICES and the Mediterranean Council as well as the Atlantic Commission. The Dutch Delegates, on the other hand, judged that the growing emphasis on the Atlantic would prevent progress on efforts to regulate plaice in the North Sea, a project they considered paramount. They, therefore, proposed a north-south split of the Council, with a single president heading two parallel councils (Redeke, 1921). By 1922, such a division seemed inevitable, especially when Baltic interests were added to the mix. Drechsel stated frankly, "I consider it impossible anyhow in the long run to keep all countries, from Finland to Portugal, together in one Council"⁵ (Drechsel, 1922). Maurice, ever the champion of the Council and perhaps a bit of an imperialist, insisted, "there should be for Europe, and for America as regards the Atlantic side, one International Council, which I still hope will eventually embrace not only the Baltic, the North Sea, and the Atlantic system, but also the Mediterranean" (Maurice, 1922b).

The agitation to split the Council resulted, in the end, in a confirmation that there was an underlying science, a set of questions and methods, that superseded even acknowledged geographic divisions. Thus Maurice could advocate a "unity of direction", one based on science (Maurice, 1922b).

Marine science still needed an international forum for investigations and discussions, and the Council still satisfied this demand. Organizational changes in 1925 created new avenues through which the Council could continue its leading role. Geographical committees could address acknowledged regional issues, while the Consultative Committee stood watch over scientific issues that knit all regions together. The creation of the *Journal du Conseil* in 1926 provided the only scientific forum for presenting results of general importance across marine sciences.



Figure 2. Otto Pettersson, President, 1915–1920. Reproduced with the kind permission of ICES.

Watershed of World War II

By the late 1930s, the Council was a mature and confident institution. Therefore, unlike the Great War, World War II posed a less serious threat to the existence of ICES. Although that decade saw a changing of the guard with the retirement or death of many of the founders, a remaining core carried ICES through the war. The relative ease with which ICES survived this second major conflict was due to conscious preparations by its leaders. The ever politically astute Maurice stepped down in 1938 and nominated the almost 70-year-old Norwegian Johan Hjort as his successor. Maurice believed ICES would be better off with a leader from a neutral country. Delegates generally shared this expectation. The Danish Delegate Å. Vedel Tåning wrote to Hjort, "from what we know by experience during the Great War, I should think that it would be of great importance for the maintenance of the cooperation that the neutral countries endeavor to carry on as much work as possible" (Tåning, 1939). Council leaders again prioritized preservation of the Secretariat and also tried to encourage field research wherever possible (Hjort, 1939).

Two serious problems arose, one the obvious obstacle of funding. From April 1941, the Danish government

generously offered 3500 kroner per month which, along with two large contributions that the German Delegate Carl Heinrici secured from his government, kept the Council afloat. A second potential threat loomed when the current five-year term came to an end in July 1941. Hjort, adept at the logic of international organization, succeeded in maintaining the *status quo* with the simple but clever ruse that neither he nor the General Secretary had the authority to make a decision about the Council's fate one way or the other. Hjort understood, of course, that work could more easily and quickly begin again if the institution still existed when the fighting ceased. As it happened, the Bureau suffered severe depopulation by that time from the deaths of some members and the withdrawal of others whose countries had ceased participating. Without a Bureau to set the Council back in motion, as had been the case in 1918, Hjort and the acting Administrative Secretary, Ebba Brønniche, had to resort to the unwieldy option of employing formal diplomatic channels to arrange the first postwar meeting (Went, 1972).⁶

The reconstituted ICES was soon joined by many new international organizations, both intergovernmental and non-governmental, some of whose programs overlapped with the ICES mission. The enthusiasm exhibited by the new generation of international science organizers at times irritated long-time ICES participants. The Norwegian fisheries biologist Gunnar Rollefson complained after the founding meeting of the Intergovernmental Oceanographic Commission (IOC), "several of the leading personalities of the conference spoke as if international cooperation in the field of marine research had not existed before" (Rollefson, 1960). ICES leaders participated, however, in the formation of virtually all the marine scientific and fisheries-related international bodies that emerged during the busy postwar years. Most perceived these organizations as complementary. One body, however, initially appeared to pose something of a threat. With the formation of the United Nations and its affiliated agencies, ICES became acutely aware that it must establish some kind of relationship with the Food and Agriculture Organization (FAO), partly to ensure that FAO did not duplicate the Council's work. In 1947, FAO proposed the formation of a series of Regional Councils for the Study of the Sea to establish an international basis for conservation and management. When FAO turned to ICES to request copies of its statutes as background information, General Secretary Harald Blegvad responded sharply that FAO appeared to be targeting some areas covered by ICES (Blegvad, 1947). In reply, the director of the Fisheries Section assured Blegvad that FAO aimed to establish regional structures only where none already existed, but he also politely yet firmly asserted FAO's right to conduct international research anywhere (Finn, 1947). The following year, with some fanfare, FAO acknowledged ICES as an important model at the foundation of the Indo-Pacific Fisheries Council.

The new organizations had official, and prestigious, international status, with concrete benefits such as favorable tax arrangements and the political clout to command visas to bring scientists together across the Iron Curtain. As the number of international organizations multiplied and also grew in size and power, some people within ICES became dissatisfied with the increasingly old-fashioned nature of their institution. The combined pursuit of prestige for ICES and freedom from double income tax for the Icelandic General Secretary Fridriksson prompted a small group within the Council to pursue official international status from the Danish government. Their quest seemed more pressing when they realized the incongruity between the remnant turn-of-the-century diplomacy which constituted the basis for the Council's existence and the official status of the Permanent Commission, to which ICES began providing scientific advice in 1953. Persistence proved necessary as Denmark resisted for nearly a decade, but finally in 1964, ICES Member Countries signed a Convention which bestowed upon ICES the same rights and privileges as other intergovernmental bodies.

Although ICES had twice survived war, some things would never be the same again after 1945. While before World War I, the Council could accurately consider itself an international institution, in the context of post-World War II expansion of international organizations, ICES was clearly only a regional body. Within this constraint, the Council made a strong, and largely successful, effort to expand in the North Atlantic region, much as it had done after World War I. Meetings increased dramatically, reflecting rapid development in the marine sciences. In the 1930s, the Council had "generally felt like a family", but in the postwar period, attendance climbed (Bückmann [n.d.]). By 1967, for example, 380 participants gathered at the annual meeting (Ramster, 1977). In the post-World War II era, then, ICES grew, broadened scientifically, but focused itself geographically. It also began to distinguish more strongly between its scientific and advisory responsibilities, making a distinction that Council experts had never before perceived as necessary.

Objectivity and advice

ICES leaders had always tried to distance the Council from politics, but with the expansion of a formal advisory role, the Council began to stress the apolitical objectivity of its science. Wartime, of course, tested the resolve of individual scientists not to allow national enmities to interfere with international science. Despite hard feelings in Denmark toward Germany over Schleswig-Holstein, General Secretary Christian Drechsel made a point of announcing his continuing respect for, and friendship with, individual German scientists (Drechsel, 1919). In late September 1939, the then-Administrative Secretary, Wilhelm Nellemose,

asserted, "The Council has nothing to do with the war" (Nellemose, 1939). He, President Hjort, and others hoped to shield the Council as much as possible from war, as their predecessors had likewise tried to do two decades earlier. Ironically, as a private citizen, Nellemose joined the Danish Resistance, was arrested early in 1944, and later died in a German concentration camp. When Hjort announced his death and other losses at the initial postwar Council meeting in October 1945, he made the generous gesture of announcing first the death of the German Delegate Carl Heinrich, who had worked so hard on behalf of ICES during the war (Anon., 1946).

After World War II and especially in the context of the Cold War, ICES leaders continued to insist on keeping politics at arm's length. In late 1955, for example, when Spain objected to petitions by the USSR and Poland to join ICES, in response to the negative stance these countries took on Spain's United Nations membership application, Delegates admonished that, unlike the UN, "The Council is not a political organization" (ICES, 1955). Spain apparently withdrew its reservation and both countries joined the Council in November 1955. Five years later when the Irish Foreign Office decided not to send a delegation to the 1960 Council meeting in Moscow, the General Secretary and President pressed Delegate Arthur Went to warn his government that he stood to lose his important seat as Chair of the Consultative Committee if he was not permitted to attend Council meetings. Soon after, Went was able to report that his superiors had relented (Fridriksson, 1959, 1960; Went, 1960a, 1960b).

Although the Council eschewed political risks, it did employ backdoor methods to ensure German Democratic Republic (GDR) participation in relevant working groups, especially those whose results had regulatory implications. Through non-governmental scientific institutions such as the Scientific Committee on Oceanic Research (SCOR) and the Congress of Baltic Oceanographers (CBO), the GDR cooperated in Baltic marine research for almost two decades before it became a Council Member in 1973 (Dybern, 1998; Hempel, 2000; Matthäus, 1987).

It was no accident that the ICES concern for objectivity mounted in the postwar years, in step with the expansion of its advisory role. Because the value of the ICES scientific advice depended absolutely on the perception of its objectivity, it was essential that ICES remain aloof from political taint. The concern of postwar marine researchers to separate science from management marked a new era. ICES scientists had previously felt perfectly free to formulate regulations and recommend them directly to governments because of the original, dual scientific and utilitarian mandate of the Council.

The conviction that ICES should be involved in regulating fisheries dates from its founding: Delegates at the Stockholm meeting in 1899 agreed that "the primary

object [of the international investigations] is to promote and improve the fisheries through international agreements" (Anon., 1899). Given today's restrictive regulations, it is important to note that such agreements were intended to encompass positive measures as well. Accordingly, early work within the Plaice Committee concentrated on the probable effects of both transplantation and increased mesh size. By 1913, the Plaice Committee had formulated a recommendation for a minimum landing size for this valuable North Sea fishery. This effort at regulation dragged on unsuccessfully throughout the 1920s, the victim of governments unable to reach consensus.

Although ICES experts insisted that scientists should formulate regulations, they acknowledged, "it is for the Governments of the respective countries to decide subsequently whether they will adopt those recommendations" (Maurice, 1921). However, Michael Graham's demonstration in the 1930s that unlimited fisheries become unprofitable lent a sense of urgency to the project of regulating fisheries (Graham, 1935). In the post-World War II years, ICES experts steered their work in the direction of assessing the state of individual stocks. They adopted this course in advance of requests for advice from international commissions, although such requests certainly also steered the Council towards advisory work. The ICES ability to satisfy the advisory needs of the Permanent Commission and its successor, the North-East Atlantic Fisheries Commission (NEAFC), rested on several decades' accumulation of powerful new concepts and tools which allowed fisheries scientists to predict, first in 1929, "the probable yield and character of the main fisheries a year or so in advance" (Russell, 1929). In the 1930s, fisheries scientists, like physicists, searched for fundamental laws of nature (Graham, 1943). Graham's "Great Law of Fishing" provided a crucial step in the march towards quantitative models, most famously those by R. J. H. Beverton and Sidney Holt, which Graham heralded as "the central problem of the Council, unraveled [sic]" (Graham, 1952).

The forging of a formal advisory role with the Permanent Commission prompted Hjort to declare ICES to be "a consultative and purely scientific institution" (Hjort, 1946). Although this sounds like yet another articulation of the Council's original mandate, the difference lies in the need Hjort saw to enumerate these functions separately. This distinction became an integral part of the ICES self-definition. As General Secretary Hans Tambs-Lyche explained in 1980, "By separating the scientific advisory function from the management function, one achieves that management is provided with internationally agreed scientific advice, which is generally acceptable to all parties" (Tambs-Lyche, 1980).

ICES adopted new structures and practices to carry out work undertaken on behalf of the Permanent Commission, and later NEAFC. The Liaison Committee (1953) and working groups (from 1959) provided a tem-

plate that, in turn, organized Council activities more and more along advisory lines through the 1960s. The 1966 reorganization into species-based committees only strengthened this trajectory (Went, 1972).

Recent changes

The association of ICES primarily with stock-assessment science and management advice, while accurate, masks much of the Council's activity since the 1960s, some of which had prompted enormous change. Biological investigations not directly related to assessment continued, particularly migration studies and work on early life history of fish aimed at understanding fluctuations in recruitment. Members of the close-knit, clubbish Hydrography Committee carried on an active program of major international oceanographic projects during the decades in which oceanography enjoyed generous patronage (for example, see Ramster, 1977; Svansson, 1998). Within ICES, the directors of marine research institutes, who often served as Delegates, still held the power to promise ship time and other resources from their seats around the Council's meeting table as they reviewed committee recommendations. That era passed with the recent tightening of national research budgets, so that now such major projects must be funneled through the European Union or national funding agencies (Meincke, 2000).

The major growth area for ICES since the 1960s has taken place in the field of environmental sciences. From the 1966 reorganization, the rather miscellaneous Fisheries Improvement Committee addressed marine pollution issues in addition to aquaculture and gear research. As on the fisheries side, environmental work within ICES almost immediately took on an advisory function, cemented by the formation, in 1972, of the Advisory Committee on Marine Pollution (ACMP).⁷ It is noteworthy that ACMP's remit included advising commissions even though none existed yet. Indeed, Council leaders aggressively sought formal relationships with regional environmental regulatory bodies at the planning stages of the Oslo, Paris, and Helsinki Conventions (see for example, Tambs-Lyche, 1973; ICES, 1973). An internal memorandum considering the potential ramifications of the new Law of the Sea regime in 1976 reasserted the propriety of Council involvement in environmental science: "In the field of pollution research it has also become clear that there is a wide scope for regional research such as intercalibration exercises, as well as base-line studies and monitoring, which can only be meaningful if carried out in cooperation" (ICES, 1976). Another moment of introspection occurred early in the 1990s when the Council confirmed its commitment to this field and undertook efforts to redress organizational insufficiencies such as inadequate participation by environmental scientists in national delegations (ICES, 1991).

On the fisheries side, too, creation of 200-mile Exclusive Economic Zones (EEZs) by most nations in 1977 prompted introspection within ICES. EEZs immediately restricted the power of international commissions such as NEAFC. ICES remained fairly confident that, although the rights and responsibilities of coastal states would increase, the Council's role coordinating marine research and providing advice would remain, even if based on different legal arrangements (ICES, 1976). To address the anticipated need for each country to have a voice in the advisory process, ICES transformed the Liaison Committee into the Advisory Committee on Fishery Management (ACFM), whose membership reflected the national composition of the Council.

While the 1977 enclosure of the oceans did not appear to endanger ICES directly, the subsequent movement by the European Commission (EC) toward the Common Fisheries Policy of 1983 posed the most serious threat ICES had experienced in recent years. The Commission first intended to erect its own edifice for stock assessment, bypassing ICES. Failing that, the EC at least wanted to become involved in the Council's advice-giving mechanisms. This, ICES leaders feared, would endanger the valued objectivity of the Council's advice. In the ensuing conflict, support for ICES came from several quarters. Various national experts who were sent to Brussels argued against "reinventing the wheel". Norway, which shared many stocks with the EC, stoutly insisted on retaining ICES as the advisory body for these stocks. Council Delegates whose countries were EC members decided in the corridors to inform their ministers of their objections to developing policy. Difficult negotiations, whose tide turned over a bottle of what was described as very nice port, eventually produced the compromise that EC representatives could attend ACFM meetings as observers (Wooster, 1986, 1999; Farnell and Elles, 1984; Bannister, 2000).

In the last decade or so, a small group within ICES has pressed for measures to correct what they perceived as an imbalance between the Council's advisory function and its role as a marine scientific forum. In 1994, the annual Statutory Meeting became the Annual Science Conference, an effort to separate scientific activities from the Council's business. Recent self-reflection by Bureau working groups organized for the purpose have tackled questions including: the proper role of ICES in global programs, the most promising research directions for the future, and the need to integrate fisheries and environmental advice. These types of questions and issues have recurred throughout the development of ICES. One role for history can be to investigate common themes, such as the balance of science and its use, which illuminate why ICES looks the way it does. Here I argue that it is equally important to consider how often ICES stood at a crossroad. At these times, institutional culture and the weight of tradition certainly influenced the decisions of Council leaders.

However, the direction of ICES today, and in the future, lies in the hands of Delegates and experts who will respond, as their predecessors did, to opportunities and challenges, whether scientific, political, or economic.

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Footnotes

¹ By late November 1914, contributions arrived from Belgium, Denmark, Great Britain, The Netherlands, and Sweden.

² This enabled the staff to continue important publications such as *Bulletin Statistique* and to undertake such significant new projects as the compilation of monthly Atlantic surface temperature observations from 1900.

³ Pettersson pressed for open Atlantic studies as a natural extension of the Council's work, arguing that knowledge of the

temperatures and currents of the English Channel, North Sea, and Baltic "must always remain incomplete as long as we are ignorant of the corresponding factors within the Atlantic itself, on which they depend." (Pettersson and Schott, 1909).

⁴ Letter, Pettersson to Drechsel, 12 November 1921, [ICES archives] quoted in Jens Smed, "ICES and the new organizations – competition or co-operation?" [n.d., unpublished manuscript], p. 4. The IRC was a postwar replacement for the older International Association of Academies. One reason for the formation of a new institution was to leave out the Central Powers. In 1931, the IRC became ICSU, the International Council of Scientific Unions. See Frank Greenaway, *Science International: A History of the International Council of Scientific Unions* (Cambridge University Press, 1996), chapters 1 and 2, pp. 1–32.

⁵ Drechsel's vision included Maurice as president of both Councils. Thus, the Councils would have specific areas of geographic focus, but would be able to communicate easily with each other.

⁶ In 1944, Ebba Brønneche, senior member of the Secretariat support staff, joined the innumerable women who took over men's jobs during wartime. She served as Acting Administrative Secretary after Wilhelm Nellemose's death until Dr H. Blegvad was appointed General Secretary in 1945. Before she left her post, she secured for the Secretariat staff salaries at a level with those usually paid in Denmark. See letter, Brønneche to the Danish Delegates, 20 August 1945; ICES Box 56, 4.B & 4.B.1, Office Staff.

⁷ This became the Advisory Committee on the Marine Environment in 1992.