

2010

## Accounting For Catch In Internationally Managed Fisheries: What Role For State Responsibility?

Andrew Serdy

Follow this and additional works at: <http://digitalcommons.minelaw.maine.edu/oclj>

---

### Recommended Citation

Andrew Serdy, *Accounting For Catch In Internationally Managed Fisheries: What Role For State Responsibility?*, 15 Ocean & Coastal L.J. (2010).

Available at: <http://digitalcommons.minelaw.maine.edu/oclj/vol15/iss1/17>

This Article is brought to you for free and open access by the Journals at University of Maine School of Law Digital Commons. It has been accepted for inclusion in Ocean and Coastal Law Journal by an authorized administrator of University of Maine School of Law Digital Commons. For more information, please contact [mdecrow@maine.edu](mailto:mdecrow@maine.edu).

# ACCOUNTING FOR CATCH IN INTERNATIONALLY MANAGED FISHERIES: WHAT ROLE FOR STATE RESPONSIBILITY?

*Andrew Serdy\**

## I. INTRODUCTION

Despite the impressive strides made in international fisheries law in the sixteen years since the convening of the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks,<sup>1</sup> the state of most of the world's fish stocks with which the conference was concerned continues to show little improvement. This is not because of any deficiency in the U.N. Fish Stocks Agreement adopted at the Conference,<sup>2</sup> which as of July 1, 2008 has seventy-one parties, including the United States, the European Community and its twenty-seven member States, Japan, Canada, Russia, Norway, Australia, New Zealand, and South Africa, in other words most of the major players in international fisheries. The only calls for its revision at the 2006 Review

---

\*Lecturer in Law, Institute of Maritime Law, School of Law, University of Southampton.

1. The United Nations Conference on Environment and Development called for a further conference to be convened to pursue the effective implementation of the provisions of the United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3 [hereinafter UNCLOS] concerning straddling and highly migratory fish stocks. United Conference on Env't & Dev., June 3-14, 1992, *Report of the United Conference on Environment and Development*, ¶ 17.49(e) of Agenda 21 (as Annex II to U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I)). The United Nations General Assembly formally convened the Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks and gave it such a mandate. G.A. Res. 47/192, ¶¶ 1, 2, U.N. Doc. A/RES/47/192 (Dec. 22, 1992).

2. Agreement for the Implementation of the Provisions of the United Nations Convention on 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, 2167 U.N.T.S. 3, *available at* [http://www.un.org/Depts/los/convention\\_agreements/convention\\_overview\\_fish\\_stocks.htm](http://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm) [hereinafter U.N. Fish Stocks Agreement].

Conference were from non-parties, and these were unconvincing.<sup>3</sup> The standard explanation for the persistent gap between promise and performance has tended to be the slowness of regional fisheries management organizations to implement the Agreement's solutions, despite the central role they are given by Articles 8 and 13.<sup>4</sup> While there is some truth to this, in part because not all members of these commissions are parties to the Agreement, this Article argues that a significant part of the explanation is the conspicuous neglect of an essential legal tool in international fisheries discourse: the doctrine of State responsibility. This branch of international law can hold delinquent States accountable to other States for their acts and omissions contrary to their legal obligations. One of the reasons why so many stocks have been overfished to the point of sharply reduced productivity, or even collapse, is that States exerting a risky level of fishing pressure on the

---

3. To date there has been virtually no academic analysis of the outcome of the conference, but there is one notable exception. Yoshinobu Takei, *U.N. Fish Stocks Agreement: 2006 Review Conference* 21 INT'L J. OF MARINE & COASTAL L. 551 (2006). However, a negative attitude toward the calls for revision is displayed in a study prepared for the Fisheries Committee of the European Parliament. EUR. PARL., Comm. On Fisheries, *Perspectives for the United Nations Fish Stocks Agreement*, 24-25 (2007), available at [www.europarl.europa.eu/activities/committees/studies/download.do?file=17768](http://www.europarl.europa.eu/activities/committees/studies/download.do?file=17768). One of the critics, the Republic of Korea, *id* at 21, has since become a party. Status List for the U.N. Fish Stocks Agreement, <http://untreaty.un.org/ENGLISH/bible/englishinternetbible/partI/chapterXXI/treaty9.asp> (last visited June 12, 2008).

4. Article 8 provides that where a fisheries commission is competent to establish conservation and management measures for particular straddling or highly migratory fish stocks, "States fishing for the stocks on the high seas and relevant coastal States shall give effect to their duty to cooperate by becoming members of [it], or by agreeing to apply the conservation and management measures established by [it]." U.N. Fish Stocks Agreement, *supra* note 3, art. 8(3). States having a "real interest in the fisheries concerned" may become members of the commission, whose terms of participation "shall not preclude such States from membership or participation; nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned." *Id.* The same Article goes on to provide that only those States that are members of a fishery commission, or which agree to apply the conservation and management measures it establishes, shall have access to the fishery resources to which those measures apply. *Id.* art. 8(4). Where no fisheries commission or arrangement to establish conservation and management measures for a particular straddling or highly migratory fish stock exists, relevant coastal States and States fishing on the high seas for such stock "shall cooperate to establish [one] or enter into other appropriate arrangements to ensure conservation and management of such stock and shall participate in [its] work . . ." *Id.* art. 8(5). Article 13 requires States to cooperate to strengthen existing fisheries commissions "in order to improve their effectiveness in establishing and implementing conservation and management measures for straddling . . . and highly migratory fish stocks." *Id.* art. 13.

stocks have not been systematically visited with any adverse legal consequences before the point of collapse is reached, or for that matter, after. The only consequence they have had to face has been the collapse of the stock itself—a consequence that affects all other States with an interest in the stock, whether they have contributed to causing the collapse or not. In economic terms, States have been largely able to externalize the costs of their risk-taking, leading to levels of risk in the form of fishing pressure that are insufficiently precautionary not just from a biological viewpoint, but also from an economic one.

Although there is no shortage of international fisheries documents in which the expression “State responsibility” occurs, it is invariably preceded either by “flag” or, rarely, “coastal” or “port,” and often in the plural, indicating that something other than State responsibility in the sense of public international law was in the drafters’ minds.<sup>5</sup> In the sense in which it is used in these instruments, “responsibility” could easily be replaced by “duty,” “obligation,” or a similar term without a noticeable change in meaning. That is, the obligations here, to the extent that they exist, are primary and substantive, not the secondary duties associated with State responsibility that arise when a primary obligation is breached.

It is similarly easy to find rhetorical references in fisheries commissions documents and elsewhere to “responsible fishing States,” and when used in this adjectival form the meaning is even less clear. The origin of this phrase appears to lie in the Cancún Declaration of 1992,<sup>6</sup> where “responsible” seems to be no more than a term of general approbation devoid of any specific meaning. Subsequently, this use has been perpetuated by the soft-law Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries.<sup>7</sup>

---

5. See, e.g., Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America art. 4, Apr. 2, 1987, 26 I.L.M. 1048; Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, art. III, Nov. 24, 1993, 2221 U.N.T.S. 93 [hereinafter FAO Compliance Agreement]; European Economic and Social Committee, International Fisheries Governance: Flag State Responsibilities as a Key Element (Jan. 25, 2007), <http://eesc.europa.eu/activities/press/cp/docs/2007/communique-presse-eesc-006-2007-EN.doc> (showing the use of “flag” as a word preceding the expression “State responsibility”).

6. See FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO), *Declaration of the International Conference on Responsible Fishing* (1992), <http://legal.icsf.net/icsflegal/uploads/pdf/instruments/res0201.pdf>.

7. FAO, *Code of Conduct for Responsible Fisheries*, FAO Doc. 95/20/REV/1; U.N. Sales No. E98.V.11 (Oct. 31, 1995), available at <http://www.fao.org/DOCREP/005/v9878e/v9878e00.htm>.

More disturbingly, there are now signs that other State responsibility terms have been appropriated for use in a sense quite foreign to that in which they appear in the International Law Commission (ILC) Draft Articles on State Responsibility.<sup>8</sup> For example, an International Commission for the Conservation of Atlantic Tunas (ICCAT) recommendation otherwise drafted in orthodox legal language, used “counter-measures” where it bears no evident relationship to that concept as a circumstance precluding wrongfulness of a State’s acts as set out in Article 22.<sup>9</sup> Countermeasures in its true meaning was raised not many years ago by Rosemary Rayfuse,<sup>10</sup> as a way for the high seas boarding and inspection provisions in Part VI of the UN Fish Stocks Agreement (a significant departure from the long-established ordinary rule codified in Article 92, paragraph 1 of the United Nations Convention on the Law of the Sea (UNCLOS) that on the high seas the flag State of a vessel has exclusive jurisdiction over it) to be made opposable to non-parties to that treaty.<sup>11</sup> Rayfuse argues that where a State persistently breaches its customary and, where applicable, conventional, duty to cooperate with other States and the institutions established by them in conserving high seas fish stocks, other States specially affected may board and inspect

---

8. *Report of the International Law Commission to the General Assembly*, U.N. Doc. A/56/10 (2001), reprinted in [2001] 2 Y. B. Int’l L. Comm’n, 26-30 [hereinafter ILC Yearbook 2001 Vol. II/2].

9. International Commission for the Conservation of Atlantic Tunas (ICCAT), *Report for Biennial Period, 2006-07 Part I (2006)*, at 163 (fifth preambular paragraph), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_06-07\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_06-07_I_1.pdf) [hereinafter ICCAT Green Book 2007/1]. Taken literally, ICCAT would be admitting that the measures adopted in this instrument would otherwise be contrary to international law. Not only is this not so, but, since a prior breach of obligation by the targeted State is necessary to justify countermeasures, they would presumably be ineffective by definition against unregulated (as opposed to illegal) fishing, even though the former is the intended target. This, incidentally, is symptomatic of the quite separate confusion engendered by the careless use of the phrase “IUU fishing,” where the three distinct but related phenomena are lumped together as one, and unregulated fishing is treated as though it were illegal; a kind of conceptual guilt by association. A leading fisheries economist cited elsewhere herein has argued that salvation for high seas fisheries does indeed lie only in assimilating unregulated fishing to illegal fishing, but that is an issue warranting its own extended analysis in a future paper. See G.R. Munro, “The Management of Shared Fish Stocks,” in *Papers Presented at the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks - Bergen, Norway, 7-10 October 2002* (Rome: FAO, 2003; FAO Fisheries Report 695 (Supplement)), 2 at 19ff.

10. Rosemary Rayfuse, *Countermeasures and High Seas Fisheries Enforcement*, NETH. INTL L. REV. 41, 53-63 (2004).

11. *Id.* at 57-59.

that State's fishing vessels on the high seas.<sup>12</sup> This would be by way of a proportionate response, satisfying the criteria for "resort to countermeasures" laid down in Article 22 of the ILC's Draft Articles as a circumstance precluding the wrongfulness of the otherwise unlawful interference with the flag State's exclusive jurisdiction. Provided the other necessary elements were present, such an argument might well have succeeded as a defense for Canada to the merits of the action brought against it by Spain over its actions on the high seas against the Spanish-flagged *Estai* in 1995, which was dismissed by the International Court of Justice (ICJ) in 1998 for want of jurisdiction.<sup>13</sup> On the other hand, since countermeasures by their very nature tend to be ad hoc responses to immediate exigencies, States are unlikely to adopt this approach as a preannounced policy, as they would then be admitting in effect their willingness to breach international obligations.

The remainder of this Article is divided as follows: Section II considers in the abstract how certain basic State responsibility concepts could apply to internationally managed fisheries, and highlights some of the practical difficulties that may also have contributed to their neglect; Section III—the bulk of the Article—is a case study of how States' practice in accounting to each other for their catches of southern bluefin tuna (SBT) has gradually evolved a "compliance" focus over the years that owes little to any systematic State responsibility framework; Section IV shows that this focus does not sufficiently discharge the member States' responsibility to other States potentially able to enter the fishery in pursuance of their UNCLOS Article 116 right to fish on the high seas; and Section V offers some concluding thoughts as to how compliance can be reunited with State responsibility to benefit international fisheries.

## II. "REAL" STATE RESPONSIBILITY APPLIED TO INTERNATIONAL FISHERIES

Were States willing to embrace it, State responsibility could be pressed into service to improve the management of international fisheries on several levels. At one level, there is the question of the attributability to States of fishing carried out by vessels of their nationality. In general, States are not responsible for the activities of persons or vessels having their nationality. On the other hand, the U.N. Fish Stocks Agreement and the FAO Compliance Agreement both now provide, in very similar terms, that parties to them must not authorize their vessels to fish for

---

12. *Id.*

13. Fisheries Jurisdiction (Spain v. Canada), 1998 I.C.J. 432 (Dec. 4).

straddling and highly migratory stocks on the high seas, unless they can effectively exercise their responsibilities in relation to these vessels.<sup>14</sup> The State party must ensure that its vessels comply with the conservation and management measures adopted by any fisheries commission of which it is a member, and refrain from fishing for any stock managed by a commission of which it is not.<sup>15</sup> The requirement of a positive act of licensing or authorization ensures at least some level of consciousness by the flag State of the level of fishing pressure it exerts on the high seas. It also engenders awareness that other States expect it to control the fishing activities on the high seas by the vessels it flags, and that it is internationally answerable to them on a political level—if not yet obviously responsible on a legal one—if it fails to do so.

Could the provisions just cited be used as the basis of an argument that high seas fishing either already is, or ought to be, an exception to the general rule of non-attribution? Alternatively, such an exception would not be necessary if the State's responsibility were already engaged on the basis of its failure to prevent an outcome for which it was not directly responsible. This occurred recently in the context of genocide, where the ICJ held that Serbia was not responsible for the massacre at Srebrenica, but had failed to comply with a treaty obligation to prevent it.<sup>16</sup> This would not be an efficacious solution to fisheries problems, however, if the only remedy in such circumstances is a declaration by way of satisfaction, which is all that Bosnia and Herzegovina secured in this case.<sup>17</sup>

Despite the 1972 Stockholm Declaration on the Human Environment and the 1992 Rio Declaration on Environment and Development providing in identical terms that States have “the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,”<sup>18</sup> a survey by Alan Boyle reveals very few instances of

---

14. U.N. Fish Stocks Agreement, *supra* note 2, art. 18(2); FAO Compliance Agreement, *supra* note 4, art. III(3).

15. U.N. Fish Stocks Agreement, *supra* note 2, arts. 17(2), 18(1); FAO Compliance Agreement, *supra* note 4, art. III(1)(a) and (2).

16. *See* Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosn. & Herz. v. Serb. & Mont.), 2007 I.C.J. 91, ¶¶ 377-450 (Feb. 26).

17. *Id.* ¶¶ 451-470.

18. The Stockholm Declaration is reprinted in United Nations Conference on the Human Environment, June 5-16, 1972, *Stockholm Declaration on the United Nations Conference on the Human Environment*, 5, U.N. Doc. A/CONF.48/14 (June 16, 1972). The Rio Declaration forms Annex I to the Report of the U.N. Conference on

compensation being sought and granted for any sort of environmental harm.<sup>19</sup> The single instance touching on fisheries—compensation by the United States to Japan in the 1950s, without admission of liability, for injury to fishermen on the high seas and contamination of fish by U.S. atmospheric testing of nuclear weapons—did not distinguish between the physical and economic elements of the damage suffered.<sup>20</sup> From this, Boyle concludes that:

[T]here is sufficient uncertainty regarding the subject, and its utility in preference to alternative approaches, to pose serious doubts about the concept [of State responsibility] . . . . The most important objection to a strategy which relies on state responsibility, in the form of an obligation for states to compensate for harm, remains the argument that it is an inadequate model for the enforcement of international standards of environmental protection. Like tort law it can complement, but does not displace, the primary need for the setting and enforcement of adequate international standards of environmental protection.<sup>21</sup>

Instead, Boyle advocates the use of private civil liability remedies against those directly responsible for environmental costs, as well as the application of the “polluter pays” principle coupled with criminal law sanctions through prosecutions by the flag State.<sup>22</sup> This, however, would require relevant States to be under an obligation to allow such litigation by injured parties in their domestic courts, but there is no sign of such a development, at least in international fisheries law. Private civil liability is also far better suited to compensating for single catastrophic pollution events than for the cumulative harm of excessive fishing pressure on a

---

Environment and Development. United Nations Conference on Env't & Dev., *supra* note 1. Principle 13 of the Rio Declaration instructs States to “develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction;” language very similar to Principle 22 of the Stockholm Declaration of two decades earlier. *Id.*

19. Alan E. Boyle, *Remedying Harm to International Common Spaces and Resources: Compensation and Other Approaches*, in HARM TO THE ENVIRONMENT: THE RIGHT TO COMPENSATION AND THE ASSESSMENT OF DAMAGES 83, 87-88 (Peter Wetterstein ed., 1997).

20. Kathy Leigh, *Liability for Damage to the Global Commons*, 14 AUSTL. Y.B. INT'L L. 129, 136 (1992).

21. Boyle, *supra* note 19, at 91.

22. *Id.* at 92, 98.

stock that has been exerted by multiple operators. Thus, Kathy Leigh argues that the distinction between State and civil liability can be overstated, and that “[c]ivil liability regimes are obligations entered into by States with respect to persons under their jurisdiction. Civil liability can thus be one way of satisfying State liability.”<sup>23</sup>

Dinah Shelton, by contrast, is more positively disposed to invocation of State responsibility for breaches of international environmental obligations. While acknowledging a decline in the frequency of such recourse, she attributes it to the rise of non-adversarial compliance procedures, which is especially marked in the environmental sphere in areas outside the jurisdiction of any State; such as the high seas where breaches of obligations are “unlikely to injure another state directly or give rise to a classic claim for reparations.”<sup>24</sup> One possible reason for this is that on the rare occasions when State responsibility is invoked, the State doing so typically envisages the process primarily as a compliance mechanism aimed at securing cessation of the non-compliance, with remedy for past injury being less important than future compliance.

While this is understandable from the point of view of maintaining cooperative relations among States, it does nothing to advance the attainment of the goal of whichever treaty regime happens to be in question. Without remedial action the fish stock will remain smaller, or the concentration of carbon dioxide in the atmosphere higher, than ultimately desired.<sup>25</sup> With a view to actually achieving the management goals that international fisheries commissions adopt, what is envisaged below for State responsibility concerning fisheries is precisely the complementary role to international regulation that Boyle admits. Since the insufficiency of such regulation on its own is amply demonstrated throughout this work, his misgivings do not appear sufficient to deter recourse to it.

Secondly, although State responsibility is conceived as confined to the context of a breach of international law,<sup>26</sup> this need not be a serious obstacle to its applicability in an international fisheries context. In the abstract, it should not be excessively difficult for a State contemplating invoking another State’s international responsibility to establish a breach either of the obligations cited above, or of the more general obligation to

---

23. Leigh, *supra* note 20, at 140.

24. Dinah Shelton, *Righting Wrongs: Reparations in the Articles on State Responsibility*, 96 AM. J. INT’L L. 833, 834 (2002).

25. *Id.* at 836, 854-55.

26. The full title of the International Law Commission’s Articles on State Responsibility indicates this. ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 117.

cooperate on high seas fisheries in Articles 117-119 of UNCLOS, a duty now thought to bind all States, even non-parties, as customary international law.<sup>27</sup> There is, however, one potential complication, namely, determining which States are injured by overfishing. This may well depend on what specific obligations are owed. Article 42 of the ILC's 2001 Draft Articles provides that:

A State is entitled as an injured State to invoke the responsibility of another State if the obligation breached is owed to:

(a) That State individually; or

(b) A group of States including that State, or the international community as a whole, and the breach of the obligation:

(i) Specially affects that State; or

(ii) Is of such a character as radically to change the position of all the other States to which the obligation is owed with respect to the further performance of the obligation.<sup>28</sup>

Only seldom will paragraph (a) be applicable, since the obligation of the overfishing State to limit its catch from a given stock to some specific figure, or to cooperate with the State seeking redress, is not likely to be owed to the latter State individually unless these two States are the only ones fishing that stock. It is thus necessary for a subset of all States to be designated as "specially affected" as required by subparagraph (b)(i), and for this to occur, some criterion will be essential. This is because it is not evident that breach of a fishing catch limit would, except in rare cases, be "of such a character as radically to change the position of all the other States to which the obligation is owed with respect to the further performance of the obligation."<sup>29</sup> As explained in the ILC's Commentary on Article 42,<sup>30</sup> by reference to the similar commentary accompanying its 1966 Draft Articles on the Law of

---

27. STUART B. KAYE, *INTERNATIONAL FISHERIES MANAGEMENT* 322-23 (2001). Kaye comes to this conclusion based on the utterances made by the States in the Bering Sea pollock fishery. *Id.*

28. ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 117.

29. *Id.*

30. "The other States must be . . . at least individually affected in that the breach necessarily *undermines* or destroys the basis for its further performance of the treaty." ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 117 (emphasis added). Overfishing rarely destroys the basis, but by definition will always undermine it in greater or lesser degree.

Treaties<sup>31</sup> that eventually became the Vienna Convention on the Law of Treaties,<sup>32</sup> the provision was drafted with black-and-white situations like the Partial Test Ban Treaty<sup>33</sup> in mind. In these, there can only be compliance or non-compliance, but no *tertium quid*. This is not, however, the position where the obligation is one of adhering to a quantified limit, as is typically the case in fisheries, but also in many conventional arms limitation treaties where it may be possible to speak of a continuum of compliance (e.g., where a State is limited to a certain number of tanks, aircraft, etc., in a given area), such that if a party marginally exceeds these numerical or spatial limits it would most probably shift the balance of advantage for other parties in the direction of non-compliance. This would raise the possibility that they will in turn act non-compliantly, but by no means render it inevitable. For example, if the non-compliance is trivial, other parties could well calculate that the balance of political advantage lies in making public protests, rather than taking concrete action.<sup>34</sup>

It is argued here that a profitability criterion should be applied to identify specially affected States. That is, overfishing on the high seas in violation of the obligations discussed above injures the economic interest of every State that could profitably fish the stock at the biomass that produces the maximum sustainable yield ( $B_{msy}$ ), or, where applicable, at a target point established in accordance with Annex II to the U.N. Fish Stocks Agreement. In other words, any such State ought to be a specially affected injured State for the purposes of Article 42.

His general scepticism notwithstanding, Boyle concedes that a State whose fishing rights on the high seas are denied, or interfered with by pollution, could be an “injured State” for the purposes of the ILC Draft Articles, so that there is no need to rely on dubious arguments in favor of

---

31. *Report of the International Law Commission on the Work of its Eighteenth Session*, U.N. Doc. A/6309/Rev.1, reprinted in [1966] Y.B. Int'l L. Comm'n, Vol. II/2 172, 187.

32. Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter Vienna Convention].

33. Treaty Banning Nuclear Weapon Tests in the Atmosphere, Outer Space and Under Water, Aug. 5, 1963, 480 U.N.T.S. 43.

34. According to Edith Brown Weiss, States make statements disapproving of breaches “to secure the integrity of the rule and prevent its dissolution through unchallenged practice.” Edith Brown Weiss, *Invoking State Responsibility in the Twenty-First Century*, 96 AM. J. INT'L L. 798, 803 (2002). In a similar vein Shelton argues that even where a breach of a multilateral obligation causes no harm to any State, “it may undermine the effectiveness of the legal regime and respect for the rule of law.” Shelton, *supra* note 23, at 839.

an *actio popularis* to give standing to any State prepared to take action.<sup>35</sup> Leigh agrees: “Environmental damage can also cause pure economic loss to a State or its nationals, as in the case of decreased fish takes due to contamination or *reduction* of fish stocks.”<sup>36</sup>

Closer examination of the ILC’s Commentary on its Draft Articles, however, casts doubt on whether this conclusion, desirable though it may be, can always be supported. It states that the term “group of States” in subparagraph (b)(i) is intended to refer to States “which have combined to achieve some collective purpose and which may be considered for that purpose as making up a community of States of a functional character.”<sup>37</sup> This would cover members of a fishery commission and, probably, those formally cooperating with it under Article 8(3) of the U.N. Fish Stocks Agreement,<sup>38</sup> but not non-member States having in common only their actual or potential economic interests in a high seas fishery. The ILC Commentary illustrates this with the example of a breach on the high seas of the UNCLOS Article 192 obligation to protect and preserve the marine environment, which specially affects the beaches or coastal fisheries of a coastal State—i.e. not the use of the high seas by other States. Later it is explained that “[f]or a State to be considered injured, it must be affected by the breach in a way which distinguishes it from the generality of other States to which the obligation is owed.”<sup>39</sup>

As for subparagraph (b)(ii), the ILC seems to be wary of opening the floodgates. It notes that, “it may not be the case that just any breach of the obligation has the effect of undermining the performance of all the other States involved, and it is desirable that this subparagraph be narrow in its scope.”<sup>40</sup> For this reason, a State is not injured by such breach unless it “is of such a character as radically to affect the enjoyment of the rights or the performance of the obligations of all the other States to which the obligation is owed.”<sup>41</sup>

---

35. Boyle, *supra* note 19, at 93.

36. Leigh, *supra* note 20, at 143 (emphasis added). Since the loss thus formulated is that of States already involved in the fishery, Leigh cautions that this leaves uncompensated the loss of potential future use of the resource by other States. *Id.* at 144. Such uncompensated loss would, however, be likely to be small if the profitability criterion suggested in the previous paragraph is adopted—diminishing the extent of this problem.

37. ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 118-19.

38. See *supra* text accompanying note 3.

39. ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 119.

40. *Id.*

41. *Id.*

It may be thought that this is setting the bar too high. The ILC Commentary notes that all States have the right to react individually to a breach of this kind even though “they may all be equally affected and none may have suffered quantifiable damage for the purposes of article 36 [concerning compensation].”<sup>42</sup> What about the situation, however, when, as argued here, a group of States to which no obligation to limit catch from a stock to a given amount runs can, albeit with some technical difficulty, nonetheless be identified as having suffered quantifiable damage? Article 42 seems to have left a lacuna into which high seas fisheries have fallen: the States concerned are indeed thus affected in a way distinguishing them from the generality of other States that could not fish the stock profitably at  $B_{msy}$ , but this, it seems, is not enough to bring them back under subparagraph (b)(i) because they are outside the fishery commission regime, while the mere fact that other States are entitled to react to the breach renders subparagraph (b)(ii) inapplicable. Of course, it is desirable that States join or formally cooperate with international fishery commissions competent for the stocks in which they are interested. If they do not, the invidious position of being left without the ability to invoke the responsibility of an overfishing State in which this leaves them is a good incentive to do just that. Since what counts is whether the affected State was a member or cooperating non-member at the time when the damage was done, joining subsequently would be of no use.

That said, the alternative left to States that find themselves without effective remedy under Article 42, because they are not “specially affected” by the breach of the obligation owed to them by the overfishing State, is broadly satisfactory. The remedy is to rely on Article 48, which, complementarily to Article 42, provides that:

1. Any State other than an injured State is entitled to invoke the responsibility of another State . . . if:
  - (a) The obligation breached is owed to a group of States including that State, and is established for the collective interest of the group; or
  - (b) The obligation breached is owed to the international community as a whole.
2. Any State entitled to invoke responsibility under paragraph 1 may claim from the responsible States:  
[. . .]

---

42. *Id.*

(b) performance of the obligation of reparation...in the interest of the injured State or of the beneficiaries of the obligation breached.<sup>43</sup>

Here, paragraph 1(a) seems to cater to those States that are members (or cooperating non-members) of the fisheries commission, but are not specially affected because they could not fish the stock profitably at  $B_{msy}$ . Of greater interest, however, is that paragraph 1(b) covers precisely the opposite situation, namely that under discussion of a State unable to take advantage of Article 42 because it has not joined the commission, but wishing to preserve the possibility of entering the fishery at some future point in exercise of its UNCLOS Article 116 right and therefore with an interest in seeing the stock conserved. In this sense it is indeed a “beneficiary” of the customary and conventional obligation to restore a depleted stock to  $B_{msy}$  (subject to the economic and environmental factors mentioned in UNCLOS Article 119, paragraph 1(a)).<sup>44</sup> Such a State will, under paragraph 2 of Article 48, be able to seek that restoration.

If such reparations are available, it should not be necessary to resort to the second conceivable alternative, a speculative argument not relying on a breach at all that might be mounted. Under Article 116 of UNCLOS every State has the right for its nationals to fish on the high seas, subject to its treaty obligations and other relevant provisions of UNCLOS.<sup>45</sup> Logically, accountability for the consequences of fishing on the high seas must fall under either State responsibility or the ILC’s incomplete work on the topic of International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law.<sup>46</sup> The injurious consequences in question would be economic harm caused by vessels flagged to State A to a fishery based in State B. The latter topic was subsequently subdivided in a way that made it clear that it was centred on transboundary harm from inherently hazardous activities,<sup>47</sup> but it may conceivably yield formulations of principles that do away with

---

43. ILC Yearbook 2001 Vol. II/2, *supra* note 8, at 126.

44. UNCLOS, *supra* note 1.

45. *Id.*

46. See e.g., *Report of the International Law Commission on the work of its forty-sixth session*, U.N. Doc. A/49/10, [1994] 2 Y.B. Int’l L. Comm’n 153 [hereinafter ILC 1994]; *Report of the International Law Commission on the work of its forty-seventh session*, U.N. Doc. A/50/10, [1995] 2 Y.B. Int’l L. Comm’n 84, 86 (specifically mentioning damage to fish stocks in paragraph 377 as an instance of harm to the environment).

47. *Report of the International Law Commission on the work of its forty-ninth session* [1997] 2 Y.B. Int’l L. Comm’n. 59, ¶ 168(a), U.N. Doc. A/52/10.

the need to establish a breach of some obligation in order to hold States accountable for their acts and omissions on the high seas.<sup>48</sup> The disadvantage is that it would be undesirable for fishing to be split among both branches of the international law of compensation, with one set of compensatory rules coming by way of State responsibility for breach of an actual catch limit, and another less stringent set coming from liability for injurious consequences for overfishing in the absence of a quantified limit. Such a split may act as a disincentive to the adoption of such limits. That minor caveat aside, it may be concluded that one way or another, legal tools are already available to interested States to avoid a failure of accountability posing further risk to the stocks that they wish to see conserved.

---

48. This may depend on whether the principle *sic utere tuo ut alienum non laedas* still extends to the use of areas not under the jurisdiction of any State, notably the high seas. Recently the principle has been argued to prohibit high seas fishing of straddling stocks to the extent that this damages the coastal State. B. Applebaum, *The Straddling Stocks Problem: The Northwest Atlantic Situation, International Law, and Options for Coastal State Action*, in IMPLEMENTATION OF THE LAW OF THE SEA CONVENTION THROUGH INTERNATIONAL INSTITUTIONS 282, 301 (Alfred Soons ed., 1990). Although the focus on territory as the “*tuum*” and “*alienum*” in the leading *Trail Smelter* arbitration (involving pollution of land in the United States by fumes from a smelter located on Canadian territory), *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1905 (1941), has tended to obscure its wider applicability, in its origins the doctrine was seen as pertaining to rights rather than land, as evidenced by the United States Supreme Court in relation to high seas navigation, *see Marianna Flora Case* 24 U.S. 1, 42 (1825). The same reasoning could equally be said to apply to damage to other States fishing on the high seas by virtue of their UNCLOS Article 116 right. The high seas is expressly contemplated by the ILC as the place where transboundary harm may be caused, ILC 1994, *supra* note 45, at 163, but its work on this topic was intended to exclude “those activities which harm the so-called global commons *per se* but without any harm to any other State,” *id.* at 164. This is consonant with Article 3 of the Convention on Biological Diversity, by which “States have . . . the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.” Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79. Boyle regards the conceptual distinction between this topic and State responsibility as unsound: he believes that most of it could easily be subsumed into the latter, the small remainder being an almost incidental codification by the ILC of the modest substantive obligations of general international environmental law. Alan E. Boyle, *State Responsibility and International Liability for Injurious Consequences of Acts Not Prohibited by International Law: A Necessary Distinction?*, 39 INT’L & COMP. L.Q. 1, 21-22 (1990). It is submitted that State responsibility is the preferable approach for international fisheries law for the same reason, the only difference being that the substantive obligation already has a well settled label—the duty to cooperate—but its precise content is unclear.

Thirdly, and arguably the most in need of development in its application to international fisheries, is the rule on the secondary obligation of reparation that arises as a result of the breach of a primary rule. In the *Chorzów Factory* case, the Permanent Court of International Justice laid down the standard that:

[R]eparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed. Restitution in kind, or if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it – such are the principles which should serve to determine the amount of compensation due for an act contrary to international law.<sup>49</sup>

Possibly it is the extreme practical difficulty in carrying out these prescriptions that has deterred States from applying them to breaches of fishery catch limits, even in the case where it was squarely alleged that a State had taken a known amount of fish in excess of what was asserted (but denied by the respondent State) to be a binding limit. In the Southern Bluefin Tuna dispute, Australia and New Zealand claimed that the 3662 tonnes of that tuna reported by Japan as caught under its experimental fishing campaigns of 1998 and 1999, in addition to its ordinary commercial catch, were in excess of the last national allocation set for Japan by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) for 1997, which they said remained binding in the absence of any agreement for subsequent years. The relief they sought was an order for Japan to “restrict its catch in any given fishing year to its national allocation as last agreed in the Commission, *subject to the reduction of such catch for the current year by the amount of SBT taken by Japan in the course of its unilateral experimental fishing in 1998 and 1999.*”<sup>50</sup>

---

49. *Factory at Chorzów* (Germany v. Pol.), 1928 P.C.I.J. (ser. A) No.17, at 47 (Sept. 13).

50. Statements of Claim under Article 1 of Annex VII to UNCLOS by which Australia and New Zealand commenced their litigation against Japan, 29 ¶ 69(2)(d), available at <http://icsid.worldbank.org/ISCID/Inde.jsp> (select “News Releases” from the “Publications” menu option; then follow “May 07, 2000” hyperlink; then follow “Statement of Claim of Australia and New Zealand” hyperlink) (emphasis added).

In other words, rather than attempt to quantify the damage allegedly done by Japan to the stock, the applicant States simply sought future catch reductions equal to Japan's 3662 tonnes of experimental catch.

By contrast, wiping out the consequences of a breach of a catch limit would seem to entail a complex set of problematic and contestable biological and economic calculations in order to account to other States for their losses suffered through reduced availability of overfished stocks. Restitution in kind, which is the primary remedy whose feasibility must first be investigated, involves establishing both (a) what the state of the stock would have been but for the breach, and (b) what future catch reduction is needed to restore it to that state. With the possible exception of minor overcatches, this cannot simply be a matter of deducting a tonnage from future catches one or two years hence equal to the overcatch, with an additional penalty formula applied in defined circumstances, as has been the pattern to date.

On the one hand, a stock whose biomass is above  $B_{msy}$  may not be damaged by the overcatch at all, to the contrary, it may even enhance the productivity of the fishery for others, while a stock whose biomass is short of  $B_{msy}$  but increasing will suffer more or less damage than the additional catch taken, depending on how high the total allowable catch (TAC) is. Thus, if restitution in kind would not restore the balance of benefits among States, some manner of an account of profits would be needed, though this may not be easily accommodated under the rubric of "damages for loss sustained."

On the other hand, a stock in a perilous state can be pushed over the brink to commercial extinction by a significant overcatch. This is possibly what happened to the South Tasman Rise orange roughy stock in 1999 when, on the assumption that the fishery would continue, New Zealand committed itself to "repay" 640 tonnes to the stock over the years 2000-2006. This was a result of the large, unregulated catch by its fleet in 1999 after it had agreed with Australia on catch limits for that year, but before that agreement could be reduced to writing and New Zealand's limit could be enacted into domestic law. Yet the repayment soon ceased to be of any practical significance because the fish themselves could no longer be found in commercially catchable quantities.<sup>51</sup> In this sort of situation, restitution in kind would not be

---

51. Erik Jaap Molenaar, *The South Tasman Rise Arrangement of 2000 and other Initiatives on Management and Conservation of Orange Roughy*, 16 INT'L J. OF MARINE AND COASTAL L. 77, at 81, 84 (2001). Molenaar's legal history of this fishery was updated to 2003 by the author. Andrew Serdy, *Schrödinger's TAC – Superposition of Alternative Catch Limits from 2003 to 2006 under the South Tasman Rise Orange*

possible and a monetary figure would need to be placed on the loss suffered by other actual and potential participants in the fishery. This is no easy matter, but one where a range of economic data will normally be available to guide those charged with making the calculations. None of this, however, is an argument for not trying; the result may be imperfect and inexact, and the respondent State will surely be entitled to the benefit of any doubt, and to argue, if there had been previous overfishing by other States, that the latter had contributed to their own loss and thus it should not have to bear the full burden alone. Even so, the very fact of being held to account may well be enough to make States' attitude towards the fulfilment of their obligations significantly more rigorous.

### III. CASE STUDY: ACCOUNTING FOR CATCH IN THE SOUTHERN BLUEFIN TUNA FISHERY

Although it is possible to adduce numerous examples from other more prominent international fisheries commissions such as ICCAT<sup>52</sup> and the Northwest Atlantic Fisheries Organization (NAFO)<sup>53</sup>—both of which will be referred to on occasion—the way in which catches have been accounted for in the SBT fishery best illuminates the points being made here for several reasons. First, the CCSBT, established by the Convention for the Conservation of Southern Bluefin Tuna,<sup>54</sup> is one of the few single-species commissions and, as such, has a relatively small number of members. Thus, questions of accounting are presented in its reports in relatively pure form, uncluttered by considerations relating to other fisheries managed by the same commission or collateral advantages sought by parties without direct interest in the fishery. Second, unlike

---

*Roughy Arrangement between Australia and New Zealand*, in FAO, Deep Sea 2003: Conference on the Governance and Management of Deep-sea Fisheries, Dec. 1-5, 2003, *Conference Reports*, 494. Although this represents little more than half of the notional overcatch had the agreed limit been in force, it is more than a year's worth of quota, a proportion unsurpassed in international fisheries practice, though now run close by ICCAT's reduction of Taiwan's Atlantic bigeye tuna catch limit from to 16,500 tonnes to 4600 tonnes for 2006 in response to misreporting catch of around 15,000 tonnes (as estimated by Japan) from that stock as having been taken in the Indian Ocean where it was not subject to quota. See ICCAT, *Report for Biennial Period 2004-05 Part II (2005)*, Vol. I, 156, 157-59, 239 (2006) [hereinafter ICCAT Green Book 2006/1].

52. International Convention for the Conservation of Atlantic Tunas, May 14, 1966, 20 U.S.T. 2887, 673 U.N.T.S. 63 (creating ICCAT).

53. Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, Oct. 24, 1978, 1135 U.N.T.S. 369 (creating NAFO).

54. Convention for the Conservation of Southern Bluefin Tuna, May 10, 1993; 1819 U.N.T.S. 359 [hereinafter 1993 Convention].

the position in other commissions, the catch limitations of SBT among its members in fact preceded the Commission's establishment by several years, making it possible to discern whether their behavior or practice changed at the time when limits whose legal status was previously unclear became undoubtedly binding. Third, the 1998-2001 dispute in which Australia and New Zealand challenged Japan on the latter's experimental fishing for SBT brought to light, through the adversarial nature of the oral and written pleadings, considerations that are usually omitted by the consensus-seeking drafters of commission meeting reports. Lastly, only in the CCSBT has there been (though it was suspended before reaching any firm conclusions) anything resembling a proper debate on the pros and cons of making national allocations of quota tradable among its members. This has not been replicated in other commissions, one of which has even gone so far as to rule out trading altogether in principle, while nonetheless approving transactions ad hoc in practice.<sup>55</sup> Should quota trading eventually come to pass, it will introduce further complexity into the State responsibility aspects of accounting for catch. For example, if quota is traded mid-season from State A to State B and is exceeded, is State B alone responsible for the overcatch, or do A and B share responsibility for it in proportion to their catches? Be that as it may, a trading system could be expected to bring significant, if incidental, improvements to international fisheries management by forcing commissions to improve their performance in accounting for catch of the species for which they are competent.

In the first phase, from 1982 to 1993, fisheries officials from Australia, Japan, and New Zealand met annually to discuss the SBT fishery, their meetings preceded by meetings of scientists from the three States. No treaty was directly applicable to the SBT fishery. The three States had all signed UNCLOS but not ratified it.<sup>56</sup> The 1958 Geneva

---

55. Andrew Serdy, *Trading of Fishery Commission Quota under International Law*, 21 OCEAN YEARBOOK 265 (2007) (investigating the legal permissibility of and requirements for such a system). See also CCSBT, *Quota Trading under the Convention for the Conservation of Southern Bluefin Tuna*, Attachment A to CCSBT Doc. CCSBT-EC/0410/16 (on file with author); CCSBT, *Convention for the Conservation of Southern Bluefin Tuna* "Quota Trading"—*Legal Advice*, CCSBT Doc. CCSBT-EC/0410/Info01 (on file with author).

56. See Status of the United Nations Convention on the Law of the Sea, [http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg\\_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en](http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en) (last visited Sept. 13, 2009). Australia and New Zealand signed on Dec. 10, 1982; Japan followed on Feb. 7, 1983. *Id.*

Convention on High Seas Fishing<sup>57</sup> was inapplicable because Japan, and New Zealand were not parties to it. Although migratory paths took part of the SBT stock into the southern Atlantic Ocean, and thus under the purview of ICCAT, only Japan was a member of that body. In any event, ICCAT deferred to the three States which could adopt measures for the entire range of the stock. Therefore the only law that bound all three of them was customary international law, which by the end of that phase had already become identical with Articles 64 and 116-119 of UNCLOS, although at what precise time this occurred is neither easy to identify nor particularly relevant. Throughout this period, therefore, the legal status of the catch limits set at annual meetings of the three States' fisheries officials was not evident. The commitments were recorded in the reports of these meetings, which were more often than not left in draft form and never finalized, let alone made public.<sup>58</sup> These records could not objectively be considered treaties, and none of the three ever took any formal step, such as presenting them to their legislatures along with other treaties, suggesting that it subjectively thought otherwise.

Could overcatch beyond such a limit be a breach of the duty of cooperation set out in Articles 64 and 118 of UNCLOS? Such a conclusion would not necessarily follow, and would depend in part on whether the obligation represented by a catch limit is better characterized as an *obligation de conduite* or an *obligation de résultat*. In these early years, the three States appear to have treated it, perhaps surprisingly, as the former: as long as the State had some sort of administrative system to limit its own catch, occasional failure of that system seems to have carried no consequences beyond embarrassment at the annual trilateral meeting. They informed each other of their accounting regimes at these meetings only on an ad hoc basis.<sup>59</sup>

---

57. Convention on Fishing and Conservation of the Living Resources of the High Seas, April 29, 1958, 559 U.N.T.S. 285.

58. Summary documents from the first ten scientific meetings were, however, published by Australia. BUREAU OF RURAL RESOURCES, REPORTS OF THE TRILATERAL SCIENTIFIC DISCUSSIONS AMONG AUSTRALIA, JAPAN AND NEW ZEALAND ON SOUTHERN BLUEFIN TUNA 1982-1991 (1992) [hereinafter TRILATERAL SCIENTIFIC REPORTS COMPENDIUM].

59. For instance, Japan announced at the eighth SBT trilateral management meeting that it had instituted penalties of two years in jail or a ¥500,000 fine for violation of catch limits. Bureau of Rural Resources, Southern Bluefin Tuna Trilateral Management Discussions Eighth Meeting, (Sept. 18-21, 1989) Summary Record, at 4 (unpublished report, on file with author, extracted from files of the former Australian Government Department of Primary Industries and Energy by kind permission of Mr. Geoff Williams of the Bureau of Rural Sciences). Australia advised that stringent measures for monitoring the catch and size composition of catches were an integral part of the

A second or intermediate phase lasted from May 10, 1993, when the treaty establishing the CCSBT was signed, until May 20, 1994, when it came into force. Having signed but not ratified the treaty, the three States had an obligation in the terms of Article 18 of the Vienna Convention on the Law of Treaties<sup>60</sup> to refrain from acts contrary to its object and purpose. The third phase began with the entry into force of the 1993 Convention in May 1994, and has continued with a brief interregnum to the present day.<sup>61</sup>

Once set, it has not inevitably been the case that catch limits have been adhered to, despite being ostensibly binding. Perhaps surprisingly, given that TAC and national allocations are the central management tool with which the 1993 Convention equips the CCSBT, it provides no means for the parties each to assure themselves that the others are adhering to their negotiated catch limits. To this day, the CCSBT lacks a uniform catch accounting policy, leaving it to each member to adopt its own regime, with consequent susceptibility to manipulation to conceal overcatch. In the early years, parties informed each other of their

---

Australian SBT Fishery Management Plan. *Id.* at 3. All SBT landed in Australia were weighed and assessed for length, recreational fishing groups had agreed not to land SBT, and legislation had been introduced to prohibit any landings of SBT outside the total Australian quota. *Id.*

60. Vienna Convention, *supra* note 32, art. 18.

61. For reasons previously explained, the entry into force of UNCLOS for the last of the three States, New Zealand, on August 18, 1996, made no change in the applicable law. *See supra* note 26 and accompanying text. The entry into force of the U.N. Fish Stocks Agreement for the last of the three—Japan—on September 6, 2006, however, would have marked the start of a fourth phase had not the Republic of Korea, a non-party to that Agreement, acceded to the 1993 Convention on October 17, 2001. *See* Convention for the Conservation of Southern Bluefin Tuna, Status List [www.austlii.edu.au/au/other/dfat/treaty\\_list/depository/sbtuna.html](http://www.austlii.edu.au/au/other/dfat/treaty_list/depository/sbtuna.html) (last visited July 8, 2008). A brief fourth phase did therefore begin when the Agreement entered into force for that State on March 2, 2008, but ended on April 8, 2008, when Indonesia, a non-party to the Agreement, acceded to the 1993 Convention. *Id.* The new fifth phase is in practical terms simply a revival of the third. The CCSBT in 2001 formed an Extended Commission to accommodate Taiwan, which joined it in 2002. *See* Andrew Serdy, *Bringing Taiwan into the International Fisheries Fold: The Legal Personality of a Fishing Entity*, LXXV BRIT. Y. B. OF INT'L L. 183, 185-199 (2004). Taiwan is not eligible to become party to the U.N. Fish Stocks Agreement, but has not made known any opposition to it and has taken advantage of the leeway it offers to associate itself with the CCSBT and a number of other commissions. *See e.g. id.* at 200-215; Nien-Tsu Alfred Hu, *Fishing Entities: Their Emergence, Evolution, and Practice from Taiwan's Perspective*, 37 OCEAN DEV. AND INT'L L. 149, 154-57.

accounting regimes at meetings only on an ad hoc basis, continuing the practice of the trilateral period.<sup>62</sup>

Thus, at the CCSBT's Third Meeting, Australia explained its specialized system of accounting for farmed fish,<sup>63</sup> but it was Taiwan as an observer that led the way with respect to actual catch. Since 1996, it related, every Taiwanese vessel that caught SBT had been required to report the weight and fishing ground to the Fisheries Department of the Kaohsiung Municipal Government.<sup>64</sup> At the Fourth Meeting, New Zealand explained that vessels participating in its SBT fishery compete for catch until the annual limit of 420 tonnes is reached.<sup>65</sup> The Ministry of Fisheries requires licensed fish receivers and larger vessels that freeze their catch to submit weekly catch reports for verification.<sup>66</sup>

---

62. See *infra* subsection A, text between notes 71 and 86.

63. See *infra* subsection D, text between notes 131 and 136.

64. CCSBT, *Report of the Third Annual Meeting (Revised), Part I*, Attachment K, at 54 (1996), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_3/report\\_of\\_ccsbt3\\_part1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_3/report_of_ccsbt3_part1.pdf) [hereinafter CCSBT3(1) Report]. This information was subsequently updated: since 2002, each vessel fishing for SBT must be equipped with a vessel monitoring system that provides the vessel's location to a monitoring center by satellite, and the length of each fish caught must be measured. In order to obtain the SBT statistical document, daily catch, position, and discards records must be supplied in weekly reports. CCSBT, *Report of the Extended Commission of the Twelfth Annual Meeting*, 73 (2005), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_12/report\\_of\\_ccsbt12.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_12/report_of_ccsbt12.pdf) [hereinafter CCSBT-EC4 Report].

65. CCSBT, *Report of the Fourth Annual Meeting, Part I*, 53 (1997), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_4/report\\_of\\_ccsbt4\\_part1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_4/report_of_ccsbt4_part1.pdf) [hereinafter CCSBT4(1) Report].

66. *Id.* See also, CCSBT, *Report of the Eighth Annual Meeting*, 91-92 (2001), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_8/report\\_of\\_ccsbt8.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_8/report_of_ccsbt8.pdf) [hereinafter CCSBT8 Report]. In 2003, weekly reporting was required once 25% of the quota had been taken, and daily reporting once 50% was taken, with a view to closure of the season as close as possible to the New Zealand national allocation being reached; all SBT permit holders were then notified that the season was closed and that it would be an offense to take SBT for the remainder of the fishing year. CCSBT, *Report of the Extended Commission of the Tenth Annual Meeting*, 77 (2003), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_10/report\\_of\\_ccsbt10.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_10/report_of_ccsbt10.pdf) [hereinafter CCSBT-EC2 Report]. Since 2004, all operators have been required to furnish monthly catch returns which are matched against individual quota holdings. Financial penalties apply on a monthly basis to those who catch SBT without quota; operators have the opportunity to reconcile their quota and catch until the end of the fishing year (i.e. by purchase of quota, if available), after which the penalties increase. The total catch is assessed annually and adjustment made in future years' limits to balance the catch from the fishery and the New Zealand national allocation. CCSBT, *Report of the Extended Commission of the Eleventh Annual Meeting*, 74 (2004), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_11/report\\_of\\_ccsbt11.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_11/report_of_ccsbt11.pdf) [hereinafter CCSBT-EC3 Report].

At the CCSBT's Fifth Meeting, Japan explained that the Japan Fisheries Agency set an annual catch limit and closed seasons to protect spawning and juvenile fish for three separate fishing areas off Tasmania, Cape Town, and in the southern Indian Ocean. It required vessels to report their catch and position, dispatched patrol boats, and posted observers aboard fishing vessels. Under government supervision, the industry itself decided the allocation of the catch among the areas, as well as the numbers of vessels and starting dates of fishing in each. Vessels had to report entry to and departure from the fishing ground within three days, and report catches at intervals of ten days. They were encouraged, though not obliged, to report catch data including biological data such as size composition and oceanographic data daily via satellite. On the basis of the information thus supplied, the Government calculated the date on which the catch limit for each area would be reached, and by regulation prohibited fishing after that date.<sup>67</sup>

Not until the Sixth Meeting of the CCSBT in 2000 did the Parties agree to share information on their respective monitoring regimes for catch, landings, and non-retention practice by their vessels, their use of observer programs, licensing systems, and other relevant elements of their compliance regimes.<sup>68</sup> It took even longer for the CCSBT to hold a meeting of its Compliance Committee. Despite a proposal by Japan at its very first meeting in 1994 and the decision to establish the Committee in 1999,<sup>69</sup> its first meeting did not take place until October 2006.<sup>70</sup> What

---

67. CCSBT, *Report of the Fifth Annual Meeting, Part I*, 43-44 (1999), available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_5/report\\_of\\_ccsbt5\\_part1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_5/report_of_ccsbt5_part1.pdf) [hereinafter CCSBT5(1) Report]. Five enforcement vessels spent a total of 453 vessel days on station in the 1997 season and 589 vessel days in the 1998 seasons respectively. *Id.* ¶ 7(1). Observers spent a total of 1,050 days on station spread over fifteen vessels and 704 days over ten vessels in those respective seasons. *Id.* ¶ 7(2). In addition, fifteen observers spent a total of 829 days aboard the vessels participating in experimental fishing during the 1998 season. *See id.*

68. CCSBT, *Report of the Sixth Annual Meeting, Part II*, ¶ 25 (2000), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_6/report\\_of\\_ccsbt6\\_Part2.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_6/report_of_ccsbt6_Part2.pdf) [hereinafter CCSBT6(2) Report].

69. At the CCSBT's First Meeting, Japan proposed the establishment of an infractions "sub-committee." CCSBT, *Report of the First Annual Meeting*, 3 (May 1994) [hereinafter CCSBT1 Report]. The term "sub-committee" appears to be a misnomer, as the Scientific Committee provided for in Article 9 of the 1993 Convention had not yet been formed, and the CCSBT did not at this meeting establish any other committee to which it would have reported. Reference is subsequently made to a future "Enforcement and Infractions Committee" in the record of the informal meeting of April 1995. Japan-Australia-New Zealand Southern Bluefin Tuna Informal Consultations, Draft Summary Record, at 9 (1995). No concrete steps were taken for three years until Australia and

follows is an enumeration of the issues that could conceivably have come to the Committee's attention had it existed earlier. As will be apparent, some issues were in fact considered by the CCSBT in plenary.

#### A. Commercial Overcatch

No Party to the 1993 Convention has had an unblemished record of limiting its catches to its national allocation. Though views have varied as to what legal consequences, if any, flow from it, all Parties accept that overcatch is a breach of an international obligation made binding by Article 8, paragraph 7 of that Convention. Accordingly, as detailed below, a practice has developed of compensating for it by catch reductions in future years, albeit without varying the TAC and national allocations, or the voluntary limit in the years from 1998 to 2003 when no such measures were agreed.<sup>71</sup>

One of the first issues tackled in the trilateral period, or first phase, was whether the catch limits covered only targeted catch of SBT, or also fish of the same species taken as bycatch. Although it is evident that only the latter is a genuine discipline on the catch, since quite large amounts of a species may be removed from the sea inadvertently, Australia's system of individual transferable quotas<sup>72</sup> did not initially

---

New Zealand made the point that the need for the members to act quickly to establish such a committee was underscored by the December 1996 incident when an Australian aerial surveillance operation, conducted to investigate Japan's claims that non-member vessels were moving into high seas SBT fishing grounds as soon as fishing by Japanese vessels had ceased, instead revealed at least forty Japanese vessels operating after closure of the Japanese season in contravention of Japanese law. CCSBT, *Report of the Resumed Third Annual Meeting (Revised)*, 3-5 (1997), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_3/report\\_of\\_ccsbt3\\_part2.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_3/report_of_ccsbt3_part2.pdf). Japan subsequently reported that the incident had led to overcatch of its national allocation by 308 tonnes. *Id.* at 4. The purpose of the Compliance Committee was thus to provide a vehicle for members to pressure each other to return to compliance as soon as possible. The delay was caused by debate between New Zealand (supported by Australia) and Japan regarding the Committee's terms of reference, principally, the U.N. Fish Stocks Agreement's provisions on collaborative compliance action, including high seas vessel inspections. *See id.* at 12-13. An abortive decision to convene the Compliance Committee was also made at the Fifth Meeting. CCSBT5(1) Report, *supra* note 67, at 2.

70. *See* CCSBT, *Report of the First Meeting of the Compliance Committee* (2006), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_13/report\\_of\\_CC1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_13/report_of_CC1.pdf).

71. *Infra*, text at notes 98-105.

72. *See* Office of Legislative Drafting and Publishing, Attorney-General's Department, Southern Bluefin Tuna Fishery Management Plan 1995 (as amended up to Feb. 27, 2008), available at [http://www.comlaw.gov.au/comlaw/legislation/legislativeinstrumentcompilation1.nsf/0/E4FC3C884F1FC2B0CA2573FD00236F85/\\$file](http://www.comlaw.gov.au/comlaw/legislation/legislativeinstrumentcompilation1.nsf/0/E4FC3C884F1FC2B0CA2573FD00236F85/$file)

include bycatch. In reporting to the 1988 management meeting that its fishery plan had been amended to delete provision for incidental catch, so that all commercial catch had to be covered by quota,<sup>73</sup> Australia disclosed that bycatch had been around four to five tonnes *per annum*.<sup>74</sup>

The 1988 meeting report records one of the few instances of one State arguing that another State should compensate it for the latter's excessive catch, albeit with somewhat loose use of the term "responsibility," as no breach of an obligation was asserted.<sup>75</sup> Seeking to maintain its share of the catch, Japan contended that "large catches [by Australia] of small fish in the 1982-83 year were responsible for current low catch levels," and it advocated that "those who caused the decline should take responsibility for the consequences."<sup>76</sup>

Serious allegations of overcatch were made at the 1990 management meeting, when Australia, noting that Japan's methods of estimating when its quota would be reached had the effect of allowing the fishery to remain in operation after its 6065 tonne limit had been exceeded, outlined concerns about "the extent to which Japanese vessels may have under-reported SBT catch in the 1990 season."<sup>77</sup> Japan's explanation as understood by the Australian rapporteur was that it:

estimates the seasons [sic] catch by extrapolating from CPUE of the previous two years to get an estimated CPUE for the current season and uses this to calculate the expected date upon which

---

/SthBluefinTunaFishMgmtPlan1995.pdf (continuing the system of individual transferable quotas originally established in 1984). The Management Plan has the status of delegated legislation made pursuant to the Fisheries Management Act 1991 (Austl.).

73. Southern Bluefin Tuna Trilateral Management Discussions, Seventh Round, at 2 (unpublished, copy held by author extracted from DPIE files).

74. Note that the small amounts involved would not have caused Australia actually to exceed its catch limits. *Id.* at 8.

75. *See id.* at 14.

76. *Id.* at 14. No doubt part of the reason why Australia and New Zealand did not find this persuasive was that Japan simultaneously claimed credit for its past catches as an historic "contribution" to the fishery. *Id.* at 9. The claim is not, however, entirely nonsensical. In the early years of a fishery, when the biomass is still well above Bmsy, large catches serve to reduce that biomass towards Bmsy, thus enhancing the stock's productivity. The risk of course is that continuing large catches overshoot and drive the stock below Bmsy, at which point they begin to damage the fishery.

77. P. Enright, Draft Summary Record Trilateral Management Meeting for SBT, at 21 (1990) (unpublished, copy held by author extracted from DPIE files) [hereinafter Draft 1990 Summary Record].

the quota would be reached. This method gives a conservative date for closure of the fishery when the CPUE is decreasing.<sup>78</sup>

Yet, while the CPUE had remained stable overall in recent years, it had “risen dramatically off Tasmania over the last two years.” In these circumstances, Japan noted, “it was easy to catch over quota, and this was not at all unusual when the factors operating in this fishery were considered.”<sup>79</sup>

New Zealand did not immediately accept this as a sufficient excuse:

New Zealand is of the view that all parties should ensure that national allocations are strictly adhered to, and that to this end monitoring and surveillance activities should be strengthened. New Zealand would expect any party that had over-caught its allocation to take responsible voluntary action to deal with the situation.<sup>80</sup>

Australia was similarly unimpressed, stating that it did not “regard it as acceptable for Japanese industry to expect that it can blatantly flout the agreements made to save the fishery from extinction, and adhered to at great cost by Australia, without making some adjustment to compensate for the overfishing which has taken place.”<sup>81</sup>

In response, Japan appeared to deny any obligation to make such a compensatory adjustment. It accepted that more precise methods of catch management were desirable, but argued that “the punitive measures proposed go too far . . . . Last year Australia allocated quota to fishermen before agreement on the quota was reached, but Japan never demanded punitive measures. If Australia insists on punitive measures for Japan, Japan may insist upon punitive measures for Australia.”<sup>82</sup>

---

78. *Id.* CPUE stands for “catch per unit effort,” which is frequently used as a surrogate measure of fish abundance, although it is not necessarily directly proportional to it. The Japanese longline fishery expresses its CPUE as the number of SBT caught per thousand hooks set. A. CATON, K. MCLOUGHLIN & M. J. WILLIAMS, SOUTHERN BLUEFIN TUNA: SCIENTIFIC BACKGROUND TO THE DEBATE 17 (1990).

79. Draft 1990 Summary Record, *supra* note 77, at 9, 21.

80. New Zealand Statement for Plenary Session of Ninth Southern Bluefin Tuna Management Talks, at 4 (1990) (unpublished, copy on file with author extracted from DPIE files).

81. Southern Bluefin Tuna Trilateral negotiations – Australian Statement to Plenary Session, at 2 (1990) (unpublished, copy on file with author extracted from DPIE files).

82. Draft 1990 Summary Record, *supra* note 77, at 30. Japan also stated that “[Australia’s action in 1989] allowing fishing to commence before the end of talks was jumping the gun. This sort of action will damage the trilateral cooperative framework.” Draft Transcript of Japanese Opening Statement, at 1 (Sept. 25, 1990) (unpublished, copy

The following year, Japan reported that it had restricted the number of vessels and set seasons for each fishing ground.<sup>83</sup> It was expecting to have filled its quota by September 30, and would therefore close the season on that date.<sup>84</sup> New Zealand responded by noting “the difficulties of monitoring the catch of vessels on the high seas in real-time, but hoped that Japan had been able to establish a better system.”<sup>85</sup> Japan’s reply was that “while having difficulty in monitoring 200 SBT fishing boats, Japan was implementing a new monitoring and enforcement system, including a new radio reporting system, together with restrictions on vessel numbers and length of season, and random inspections at time of unloading.”<sup>86</sup>

The explanation for New Zealand’s milder attitude may be that in 1990, New Zealand had itself exceeded its quota because of unexpectedly good fishing conditions:

New Zealand regretted the over-catch in 1990, explaining that it was due to a number of factors: it was difficult to monitor a small quota in real-time with a large number of vessels over a short time frame, and fishing conditions were particularly good that year. As a result of the over-catch, action was taken to ensure more accurate monitoring of catches as they occur. It is now possible to close the fishery as soon as the limit is reached. Fishermen who continue to fish after this are liable to a \$5000 fine.<sup>87</sup>

---

held by author extracted from DPIE files). It may be speculated that, had the 1990 Summary Record ever been finalized, Japan on reflection would have asked for its surprisingly incautious statement to be omitted, for it presupposes that Australia had thereby breached a rule that there must be no fishing before quotas are agreed upon. If there were such a rule, however, this would have allowed Australia, by withholding agreement, to impose in that or a future year the very moratorium it had without success advocated in 1989. See THE HON R.J.L. HAWKE AC, OUR COUNTRY, OUR FUTURE: STATEMENT ON THE ENVIRONMENT 25 (1989).

83. Draft Summary Record Trilateral Management Meeting for SBT, at 1 (1991) (unpublished, copy on file with author extracted from DPIE files).

84. *Id.* at 1-2.

85. *Id.* at 2.

86. *Id.*

87. *Id.* Japan commented that “compared to New Zealand’s small catch limit, the level of overcatch was significant.” *Id.* at 1. New Zealand’s catch of 529 tonnes in 1990 was 109 tonnes above its 420-tonne quota. See CCSBT, *Report of the Extended Scientific Committee for the Tenth Meeting of the Scientific Committee*, Attachment 4 (2005), available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_12/report\\_of\\_SC10.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_12/report_of_SC10.pdf) [hereinafter CCSBT-ESC4 Report]. While it made no mention of a compensating

Japan's problem, however, remained unresolved. At the 1992 management meeting, Australia and New Zealand expressed "serious concern" over three consecutive years of catch by the Japanese longline fleet in excess of national allocation,<sup>88</sup> although the report contains no mention of a compensating adjustment to future catch limits.

Only one incident of note occurred in the second phase, which differed from the previous examples, all of unplanned overcatch. A controversy erupted when Australia proposed to catch in the current year one hundred tonnes of the next year's quota, in order to alleviate a specific problem faced by its longliners operating off New South Wales.<sup>89</sup> At the management meeting later that year, New Zealand said that Australia's action "threatened the integrity of the trilateral management process."<sup>90</sup> Acknowledging New Zealand's concerns, Australia confirmed that it would fully apply its "stringent quota provisions" to the quota brought forward and make a compensatory hundred-tonne reduction in the 1993-94 quota year.<sup>91</sup> Australia noted that it had never exceeded its quota and that it hoped that all parties would abide by their quota levels and institute effective measures to prevent overcatch in the future.<sup>92</sup> Japan did not oppose the Australian action on the basis that it was a "one-off decision taken to address specific difficult domestic circumstances."<sup>93</sup>

---

adjustment for 1991, the catch in that year was so low (164 tonnes, *id.*) that tonne-for-tonne compensation was more than achieved in fact.

88. Southern Bluefin Tuna Trilateral Management Discussions, at 5 (1992) (unpublished, copy on file with author extracted from DPIE files).

89. According to a press report, the New Zealand High Commission confirmed that the New Zealand Minister of Fisheries, Mr. Kidd, had written on this matter to his Australian counterpart, Mr. Lee, but declined to give details. David Mussared, *NZ protest letter to Australian Fisheries*, CANBERRA TIMES, Sept. 10, 1993, at 13.

90. Southern Bluefin Tuna Trilateral Management Discussions—First Session—Draft Summary Record, at 6 (1993) (unpublished, copy on file with author extracted from DPIE files).

91. *Id.*

92. *Id.*

93. *Id.* See also Southern Bluefin Tuna Trilateral Management Discussions, at 8 (1993) (unpublished, copy on file with author extracted from DPIE files). Australia's willingness to take a 100-tonne reduction, even if its excess catch was less than that, may be contrasted with Japan's (uncontested) claim in 2001 that, based on its actual commercial catch of 5354 tonnes, it had forgone 711 tonnes (rather than the 700 implied by the calculation below) under the International Tribunal for the Law of the Sea (ITLOS) provisional measure requiring it to limit the sum of its total catches (commercial and experimental) in 1999 and 2000 to 12,130 tonnes. See Southern Bluefin Tuna Cases (*N.Z. v. Japan, Austl. v. Japan*), Order of 27 August 1999: Request for Provisional Measures, 39 I.L.M. 1624 (Int'l Trib. L. of the Sea 1999), ¶ 90.1(c) and (d). This was

In all likelihood, Japan either felt that, given its own history of overcatch, it was in no position to object to Australia's request, or it was aware that this history would likely continue, as at the CCSBT's inaugural meeting a few months later it reported overcatch of 250 tonnes in 1993.<sup>94</sup> The 1993 Convention does contain a formal quota-setting mechanism, but, since it would need to be activated at the first meeting, it could not apply until the fishing year after its entry into force.<sup>95</sup> The objective of the 1993 Convention is "to ensure, through appropriate management, the conservation and optimum utilisation" of SBT.<sup>96</sup> Advancing one hundred tonnes of catch, or less than 2% of Australia's national allocation, by a year might make the attainment of these goals marginally more difficult,<sup>97</sup> but the better view is that it is not contrary to them. The fact that Australia took care to consult its trilateral partners before acting leads to the conclusion that, despite their differing reactions, Australia would in all likelihood have seen off any legal challenge to its actions, although the possibility of its success cannot be entirely dismissed.

Japan's attitude was the first to show evident change in the third phase. Its reaction to the spotting of the forty Japanese fishing vessels by Australian reconnaissance aircraft in December 1996, leading to Japan's total catch being recalculated at 6373 tonnes, was to debit the 308 tonnes' excess against the Japanese national allocation for the 1997 fishing year, as noted above.<sup>98</sup>

---

even though Japan had opted to set itself a catch limit of 5365 tonnes for the relevant fishing year, seven hundred tonnes below its most recent national allocation from the CCSBT, as its first installment towards compliance with the ITLOS Order.

94. CCSBT1 Report, *supra* note 69, at 3.

95. 1993 Convention, *supra* note 53, art. 8.

96. *Id.* art. 3.

97. Repayment by Australia of this small amount to the stock within one year would not necessarily leave the stock in exactly the same position as if it had adhered to its catch limit (marginal added catch when a fish stock is depleted risks causing greater loss to the stock than the amount of the additional catch). See the eighteenth criticism of Japan's experimental fishing program by Dr. Serge Garcia, a senior FAO fisheries official, cited to ITLOS by counsel for Australia, Professor Crawford, as evidence for the inadequacy of Japan's offer to pay back to the stock its experimental catch if it could be shown to have damaged it. Southern Bluefin Tuna Cases (N.Z. v. Japan; Austl. v. Japan) ITLOS/PV.99/21/Rev.2 (Aug. 18, 1999), *available at* [http://www.itlos.org/case\\_documents/2001/document\\_en\\_140.pdf](http://www.itlos.org/case_documents/2001/document_en_140.pdf), at 24. On the other hand, this low level of tonnage and short timeframe mean that the dismal phenomenon of borrowings requiring much larger repayments than the amount borrowed in order to counteract their effect on the stock (*see infra* note 240 and accompanying text) could probably have been avoided.

98. *See supra* text accompanying note 68; CCSBT4(1), *supra* note 65, at ¶¶ 1(2), 2.

This informal self-policing system continued until the major crisis of 2006, when Japan was shown by market data to have been significantly overcatching its national allocation for many years, leading to a cut of 3065 tonnes *per annum* for five years thereafter.<sup>99</sup> Even then, the “nominal catch” remains at 6065 tonnes, while it is the “allocated catch” that falls to 3000 tonnes. This is likely to be because, under the 1993 Convention, 70% of the CCSBT’s costs are divided in proportion to the parties’ “nominal catches.”<sup>100</sup> Japan for many years had been bearing a share lower than its actual catch would have warranted if authorized in advance, and the unchanged nominal catch allows other parties to recoup some of their contributions. Note, though, that compensation based on a standard recalculation should be relatively easy to achieve once Japan’s actual catch for the years in question is determined. What is not clear is whether there is any appetite among the parties to do this.

Before then, the CCSBT had never itself had to reduce a member’s national allocation to compensate for past overcatch. National allocations were left unchanged on the understanding that an amount corresponding to past overcatch would not be used. The same system continued even in the absence of TACs in 1998-2003, applied to the members’ voluntary quotas, though in recent years the pattern has been for overcatch in one year to be paid back not in the immediately following year, but in the year after that.<sup>101</sup> A possible explanation for this lag is that, by the time the catch figures for a year are compiled, the limit for the next year will have already been set, and there may be domestic administrative law reasons why a catch limit may not be reduced mid-season. Even if not, there may be a political reluctance to do so.<sup>102</sup>

---

99. CCSBT, *Report of the Extended Commission of the Thirteenth Annual Meeting*, ¶ 60, at 13 (2006), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_13/report\\_of\\_CCSBT13.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_13/report_of_CCSBT13.pdf) [hereinafter CCSBT-EC5 Report].

100. See 1993 Convention, *supra* note 54, art. 11(2)(b).

101. This collective nonchalance towards prompt offsetting of the overcatch necessitated by the depleted state of the stock, *see supra* note 80, seems rather lax by comparison with the stringent standard set in paragraphs 7 and 8 of the 2000 (second) Arrangement between the Government of Australia and the Government of New Zealand on the Conservation and Management of Orange Roughy on the South Tasman Rise, *see Molenaar, supra* note 51, at 120-21. The latter bespeaks a more serious determination to prevent overcatch and, it may be thought, should be preferred on that ground alone.

102. Evidenced by the rule introduced by ICCAT in 1991 that “if the catch of [a relevant State] exceeds its annual or biannual scientific monitoring quota, then in the biannual period or year *following reporting of that catch* to [the Commission], that [State] will reduce its catch to compensate in total for that overage.” ICCAT, *Report for Biennial Period 1990-91 Part II (1991)*, at 67 (1992), available at <http://www.iccat.int/>

Thus, Japan began the 2003 season with a catch limit reduced to 5839 tonnes, reflecting a catch in the 2001 season 226 tonnes over its voluntary limit, but not a further 127-tonne overcatch in 2002,<sup>103</sup> which was instead repaid in 2004.<sup>104</sup> An exception is New Zealand, where fishing is temporally concentrated into a short enough period for the reduction to be made in the immediately following season. For instance,

---

Documents/BienRep/REP\_EN\_90-91\_II.pdf (emphasis added). A two-year rule was established for this reason in the "Supplemental Recommendation by ICCAT Regarding Compliance in the Bluefin Tuna and Atlantic Swordfish Fisheries," ICCAT, *Report for Biennial Period 1998-99 Part I (1998)*, Vol. I, 76 (1999), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_98-99\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_98-99_I_1.pdf) [hereinafter ICCAT Green Book 1999/1], which was extended by the "Supplemental Recommendation by ICCAT Regarding Compliance in the Bluefin Tuna and Atlantic Swordfish Fisheries," ICCAT *Report for Biennial Period 2000-01 Part II (2001)*, Vol. I, 217 (2002), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_00-01\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_00-01_II_1.pdf). A contingent 125% compensation standard in these fisheries is applicable if quota is exceeded during two consecutive management periods. See ICCAT, *Report for the Biennial Period 1996-97 Part I (1996)*, Vol. I, 95 (1997), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_96-97\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_96-97_I_1.pdf) [hereinafter ICCAT Green Book 1997/1]. This rule was extended to the southern swordfish stock in the "Recommendation by ICCAT Regarding Compliance in the South Atlantic Swordfish Fishery," ICCAT, *Report for the Biennial Period 1996-97 Part II (1997)*, Vol. I, 70 (1998), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_96-97\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_96-97_II_1.pdf). The present generalized rule is in the "Recommendation by ICCAT Regarding Compliance with Management Measures which Define Quotas and/or Catch Limits:"

For any species under quota/catch limit management, underages/overages from one year may be added/must be subtracted from the quota/catch limit of the management period immediately after or one year after that year, unless any recommendation on a stock specifically deals with overages/underages, in which case that recommendation will take precedence.

ICCAT, *Report for the Biennial Period 2000-01 Part I (2000)*, Vol. I, 148 (2001), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_00-01\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_00-01_I_1.pdf) [hereinafter ICCAT Green Book 2001/1]. The rule thus yields to the two years specified as the norm in the "Recommendation by ICCAT Relating to the Rebuilding Program for North Atlantic Swordfish," ICCAT, *Report for the Biennial Period 2002-03 Part I (2002)*, Vol. I, Annex 8.2, at 157 (2003), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_02-03\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_02-03_I_1.pdf) [hereinafter ICCAT Green Book 2003/1], and in the "Recommendation by ICCAT Concerning [sic] a Multi-Year Conservation and Management Plan for Bluefin Tuna in the East Atlantic and Mediterranean," *id.*, Annex 8.8, at 167.

103. CCSBT-EC2 Report, *supra* note 66, Attachment 8-3, ¶ 4(4).

104. CCSBT, *Report of the Extended Commission of the Fourteenth Annual Meeting*, Attachment 8-3, ¶ 4(5) (2007), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_14/report\\_of\\_CCSBT14.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_14/report_of_CCSBT14.pdf) [hereinafter CCSBT-EC6 Report]. Sixty-nine tonnes left uncaught in 2003 were added back at the same time, *id.*, Japan claiming permission to do so because there was no binding CCSBT decision for that year, *id.* at 8, ¶ 47.

overcatch of sixteen tonnes in 1994 was paid back in 1995, thirty-seven tonnes from 1999 was repaid in 2000, approximately twenty tonnes' overcatch from 2000 was repaid in 2001, and the thirty-two tonnes of overcatch from 2001 was accounted for in 2002.<sup>105</sup>

In 2003, Australia reported an incident to the CCSBT which was not treated as overcatch, though it now would be under the remedial measures adopted to prevent its repetition. A quantity of captured SBT estimated at 132 tonnes had escaped from a tow cage before it had reached the pens where the sampling process to determine its weight would have taken place.<sup>106</sup> On the best available information, fifteen tonnes of SBT died in the incident, which was the amount debited against the holder's individual quota.<sup>107</sup> As a result, Australia decided to move from the system of deducting quota when the fish were transferred from tow cages to static cages (including mortalities during the catching and towing operations) to a provisional deduction of the estimated weight at the time of capture.<sup>108</sup>

Since April 1, 2006, in response to the revelations of persistent past overcatch, Japan has adhered to a system of individual vessel quotas, allowing for the use of 142 vessels per year, with landing of SBT restricted to eight designated ports, all to be monitored by government

---

105. CCSBT3(1) Report, *supra* note 63, at 10; CCSBT6(2) Report, *supra* note 68, at 9, ¶ 49; CCSBT, *Report of the Special Meeting*, at 6, ¶ 36 (2000), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_6/report\\_of\\_special\\_meeting.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_6/report_of_special_meeting.pdf); CCSBT-EC2 Report, *supra* note 66, Attachment 8-4, at 1. Given that the reported overcatch of twenty tonnes in 2000 included twenty-three tonnes of Pacific bluefin tuna—a different species—it appears that there was in fact no overcatch of SBT by New Zealand in that year, which makes the repayment somewhat puzzling. CCSBT, *Report of the Seventh Annual Meeting*, ¶ 10 (April 18-21, 2001), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_7/report\\_of\\_ccsbt7.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_7/report_of_ccsbt7.pdf) [hereinafter CCSBT7 Report]. Another curiosity is that, at the time of New Zealand's original announcement at the CCSBT's 2002 meeting that it had overcaught its voluntary limit for the 2001-02 season by thirty-two tonnes, it undertook to refrain from catching a commensurate amount only in the 2003-04 season. CCSBT, *Report of the Extended Commission of the Ninth Annual Meeting*, ¶ 35, at 6 (Oct. 15-18, 2002), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_9/report\\_of\\_ccsbt9.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_9/report_of_ccsbt9.pdf) [hereinafter CCSBT-EC1 Report]. Taiwan also reacted rapidly to its 158-tonne overcatch in 2004, announcing that it would be paid back in 2005. CCSBT-EC4 Report, *supra* note 64, Attachment 8-2.

106. CCSBT-EC2 Report, *supra* note 66, at 4, ¶ 31.

107. *Id.* A separate 126-tonne overcatch was, however, debited against the next year's allocation. CCSBT, *Report of the Extended Scientific Committee for the Ninth Meeting of the Scientific Committee*, at 2, ¶ 9 (2004), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_11/report\\_of\\_sc9.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_11/report_of_sc9.pdf).

108. CCSBT-EC2 Report, *supra* note 66, at 4, ¶ 31.

inspectors.<sup>109</sup> Each fish must be individually tagged with a serial number and the vessel's call sign.<sup>110</sup> Penalties for infringement are severe and could result in suspension of quota for up to five years.<sup>111</sup>

*B. Institutionalized Carryover of Overcatch and Undercatch*

Although adherence to quotas is undeniably important for conserving fish stocks, a limited degree of flexibility around them may assist fisheries management. Allowing a modest proportion of uncaught quota to be carried over into the next year removes the "use it or lose it" incentive to try to fill the quota, with its inherent risk of overcatch. Conversely, permitting a small amount of overcatch to be debited against the following year's quota may act as a political safety valve, offering States facing domestic pressures to allow overfishing the alternative of legitimately borrowing small amounts from the stock, provided there are guarantees of repayment (as, in fact, occurred in the second-phase incident of 1993). Although, as seen, a system along these lines has developed ad hoc in the CCSBT, a suggestion that one be introduced formally led to nothing. At the Eighth Meeting of the CCSBT in 2001, Australia indicated that it was prepared to countenance members being permitted to reconcile their catch against national allocations over a three-year period with limits so as to provide operational flexibility, but not if those allocations were increased from their last levels.<sup>112</sup> As there was no agreement on national allocations, this could not be pursued.

Australia's 2002 overcatch, which was caused by a single operator, highlights an additional complex consequence where there are individual transferable quotas (ITQs) at the domestic level, but no year-to-year accounting mechanism allowing an individual quota-holder's overrun to be debited against the holder's quota for the following year. If, in that situation, the State concerned adheres to established CCSBT practice by declaring a commensurately lower domestic catch limit in the following year, all quota-holders, whose quota is expressed in terms of a fixed share of the total, compensate for the overcatch of one. This also creates a powerful incentive for compliance-oriented peer pressure within the fleet as long as overcatchers cannot remain anonymous—as was the case here.

---

109. CCSBT-EC5 Report, *supra* note 99, Attachment 12-5, app. 3.

110. *Id.*

111. *Id.*

112. CCSBT8 Report, *supra* note 66, Attachment N-1.

At the CCSBT's 2004 meeting, New Zealand advised that the introduction of SBT into its Quota Management System with certain flexibility provisions was expected to affect its ability to balance catch from one year to the next, "however NZ will ensure that on average the catch from the fishery does not exceed the national allocation."<sup>113</sup> In not seeking the CCSBT's blessing for this, New Zealand thus appeared to be implicitly asserting a claim to be permitted to do it on the basis that it was by now established practice of other members. If so, its assessment was correct: there were no protests. In substance, however, New Zealand's action was not very different from the unauthorized averaging Taiwan had been conducting and which it undertook to cease when it was exposed by the Trade Information Scheme.<sup>114</sup>

At the 2007 meeting, New Zealand tabled a draft resolution that would allow for carryover of undercatch into the immediately following year, but only if the national allocation for the next year was not less than in the year of undercatch. Overcatch of 10% would be permitted without penalty for a member whose national allocation was 500 tonnes or less, and 2% for one of more than 500 tonnes, with penalties increasing in three steps: 50%, 100%, and 200%; the highest rate reached at 50% overcatch for a member whose national allocation was 500 tonnes or less and 10% for others.<sup>115</sup> The overcatch and any penalty would be deducted over the following two years.<sup>116</sup>

Taiwan and Korea supported the proposal, as did Australia in principle, though in its view the percentages required refinement so as to avoid giving an economic incentive to overcatch. Japan had concerns about carry-forward of undercatch given the low state of the SBT stock and wished to consider the detail of the proposal further.<sup>117</sup> New Zealand was left to redraft the text in advance of the next meeting.<sup>118</sup>

Until this development, ICCAT had been somewhat more advanced than CCSBT. Carryovers were already permitted in the northern

---

113. CCSBT-EC3 Report, *supra* note 66, Attachment 8-4, ¶ 8.

114. *See infra* note 211. In 2002, Taiwan admitted that it had managed its catch on a five-year average of 1450 tonnes, though it would introduce yearly catch limits to replace this. Thus, despite its catches in 1999 and 2000 of 1513 and 1638 tonnes respectively, Taiwan calculated its average catch over 1996-2000 as 1387 tonnes. CCSBT8 Report, *supra* note 66, at 6, ¶ 38.

115. CCSBT-EC6 Report, *supra* note 104, Attachment 12, ¶ 4.

116. *Id.*

117. CCSBT-EC6 Report, *supra* note 104, at 25, ¶¶ 134-37.

118. *Id.* at 26, ¶ 140.

albacore fishery, though not until 2007 in its southern counterpart.<sup>119</sup> In 2004, the European Community had proposed that there be a general rule for management and application of unders and overs, but debate on this matter was thrice deferred to 2007. When the debate did occur the Community withdrew its proposal in favor of a new alternative from the U.S., which failed to be adopted for lack of support.<sup>120</sup> In the original draft recommendation tabled by the Community,<sup>121</sup> there was an unclear distinction between “management measures” (for which overcatch would be debited against the next year’s allocation or that of the subsequent year, whereas undercatch of up to 10% could be carried forward into future years, subject to a cumulative maximum of 30%; it is not clear what effect a change in national allocation in the interim would have had on the last figure) and “application measures” (for which overage would always be debited in the next year, and at a rate of 125% if it occurred in two years in succession). It may not be coincidental that the Community lost interest in promoting its idea just when its own 2006 overcatch of the eastern stock of Atlantic bluefin tuna (ABT) came to be brought to account. Arguing in mitigation that quota would have been available to cover the excess had it not declined to carry forward its undercatch of 2004, the Community persuaded its fellow members to let it repay the

---

119. ICCAT’s original 50% carryover limit for the northern albacore stock has now been reduced to 25%. See ICCAT, *Report for Biennial Period 2002-03 Part II (2003)*, Vol. 1, at 144, ¶ 6 (2004) [hereinafter ICCAT Green Book 2004/1], available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_02-03\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_02-03_II_1.pdf); ICCAT, *Report for Biennial Period 2006-07 Part II (2007)*, Vol. 1, ¶ 6, at 150 (2008) [hereinafter ICCAT Green Book 2008/1], available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_06-07\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_06-07_II_1.pdf). See also ICCAT, *Report for Biennial Period 2004-05 Part I*, Vol. 1, at 130 (2005) [hereinafter ICCAT Green Book 2005/1] available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_04-05\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_04-05_I_1.pdf). For the bigeye stock, a maximum of 30% of underage may be carried over to either of the next two years. *Id.* at 126.

120. It was first deferred in 2004. See ICCAT Green Book 2005/1, *supra* note 119, at 191. In 2005 it was deferred for a second time, when the Standing Committee on Research and Statistics was asked to provide scientific advice on the possible conservation impacts on a stock-by-stock basis of carrying forward undercatch. See ICCAT Green Book 2006/1, *supra* note 51, at 216. The third and final deferral was in 2006. See ICCAT Green Book 2007/1, *supra* note 9, at 241. See also ICCAT Green Book 2008/1, *supra* note 119, at 40 (providing the very brief report of the consideration of the European and U.S. proposals).

121. ICCAT Green Book 2005/1, *supra* note 119, at 255.

excess over not two, but three years<sup>122</sup>—something not foreseen by the existing regulation, so that an amendment to it had to be adopted.<sup>123</sup>

On the other hand, possibly because of the large tonnages involved, Taiwan's overcatch of 8000 tonnes of bigeye tuna, and China's overcatch of an unspecified amount, were permitted to be compensated for by yearly deductions of 1600 tonnes and 500 tonnes, respectively, from 2005 to 2009.<sup>124</sup> ICCAT's Working Group, considering the development of a compendium of its recommendations and resolutions, has also requested clarification from the parent commission of how overcatch and undercatch of transferred quotas should be treated.<sup>125</sup>

### C. Conversion Factors

Before each fish can be measured and weighed, it is often necessary to carry out some initial processing, such as gilling and gutting. Since national allocations of SBT are by necessary implication in whole weight (the only common measurement that allows like to be compared with like), a formula is needed for converting the weight of every processed fish into what it would have weighed at the moment of its capture. An inaccurate conversion factor can lead to an overcatch of quota, deliberate or not, that would otherwise be difficult to detect.<sup>126</sup> There would thus seem to be a need to impose uniform conversion factors (or at least a formula relating whole weight to processed weight for different weights

---

122. ICCAT Green Book 2008/1, *supra* note 119, at 215, 218.

123. *Id.* at 152. Though not opposing this recommendation, the U.S. called for the compliance process to be reformed, *id.* at 248-49, and decried ICCAT's "overall picture of persistent compliance lapses" and "unwillingness to apply the available corrective instruments, namely quota penalties," *id.* at 249.

124. ICCAT Green Book 2005/1, *supra* note 119, at 126. Note, however, that Japan calculated China's 2003 overage as 3903 tonnes, an amount greater than the 2500 tonnes implied by the decision. *Id.* at 245. The combination of this discrepancy and the lack of a precise figure for China's overcatch in the report suggests that the figure was disputed and that the decision ultimately made was a compromise.

125. ICCAT Green Book 2005/1, *supra* note 119, at 122-23. Failing to receive an answer to its specific question as to whether the 50% northern albacore carry-over in ¶ 6 of the relevant recommendation was applicable to the catch limit of 200 tonnes available by ¶ 3 to any member not mentioned by name, the following year the Working Group submitted to the Commission for approval its own affirmative answer. ICCAT Green Book 2006/1, *supra* note 51, at 143-44.

126. Or, as the Commission coyly put it, "inappropriate conversion factors will influence the number of fish which may be taken within the quota." CCSBT, *Report of the Second Annual Meeting*, at 6 (1995), available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_2/report\\_of\\_ccsbt2.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_2/report_of_ccsbt2.pdf).

of fish and different processing techniques). The CCSBT has not done this, but in 1996 noted a report from its Scientific Committee indicating that a conversion factor of 1.15 that the members' scientists used had proved to be unsatisfactory.<sup>127</sup> According to Australia and New Zealand, it had resulted in the total weight of the longline catch being underestimated.<sup>128</sup> On the other hand, Japan considered that because the current TAC had been calculated on current conversion factors, the CCSBT should adjust the TAC commensurately if it were to adopt the Scientific Committee's new conversion factor.<sup>129</sup> Australia and New Zealand acknowledged this the following year,<sup>130</sup> and the CCSBT has not since taken any action on the matter.

#### *D. Farmed Fish*

The farming of fish can be a complicating factor, as has been the case in respect of Australia's farming of SBT at Port Lincoln in South Australia. The reason is twofold.

First, because farmed fish are not killed at capture, it is much more difficult to ascertain their weight at that time, which is the significant weight for quota purposes. This matter has been raised in the CCSBT, where in 1996 Japan questioned Australia's procedure for estimating tonnages of farmed fish catches to debit against its quota. Japan highlighted the likely high mortality of purse-seined fish, suggested that the fish could lose weight subsequent to capture, and emphasized the need for observers on the vessels.<sup>131</sup> In response, Australia advised that

---

127. CCSBT3(1) Report, *supra* note 64, at 15. In Australia, under Regulation 7 of the Fisheries Management (Southern Bluefin Tuna Fishery) Regulations 1995, the conversion factor from processed weight to whole weight is 1.176. New Zealand law provides for a conversion factor for gilled and gutted SBT of 1.15 if the tail is removed, or 1.10 if the tail is left on. Fisheries (Conversion Factors) Notice 2005, Schedule 2, Part II, item 26, available at [www.fish.govt.nz/NR/rdonlyres/E264B2E8-4B02-4FA5-8540-91B737D45499/0/CFNoticeSchedules.pdf](http://www.fish.govt.nz/NR/rdonlyres/E264B2E8-4B02-4FA5-8540-91B737D45499/0/CFNoticeSchedules.pdf).

128. CCSBT3(1) Report, *supra* note 64, at 19, 20, 22.

129. *Id.* at 22. It follows from the circumstances that the adjustment would have been upwards. This appears justified since the stock assessments are conducted on the basis of number of fish, not weight. CCSBT4(1) Report, *supra* note 65, at 12. This is corroborated by the Scientific Committee's comment that, as long as the same conversion factor is used both in the projections and in calculating removals from the fishery, it should not result in any bias in the projections. CCSBT3(1) Report, *supra* note 64, at 3 (reference not reproduced in PDF; full document on file with the Commonwealth Scientific and Industrial Research Organization, Marine Division).

130. CCSBT4(1) Report, *supra* note 65, at 12.

131. CCSBT3(1) Report, *supra* note 64, at 11.

all transfers were monitored by compliance staff, and that fish were counted using underwater video and sampled for weight to develop a tonnage estimate.<sup>132</sup> There was an obligation to report all mortalities occurring at capture and prior to transfer to rearing cages for debit against quota.<sup>133</sup> Dead fish were removed from cages during the towing process and their weight duly debited.<sup>134</sup> The mortality during towing and transferring was reported at 1.4% in the 1995 season and 1.5% in 1996.<sup>135</sup> Since feeding in tow cages commenced soon after capture, they might well have gained weight during the two or three weeks between their capture and arrival in the Port Lincoln fish farms.<sup>136</sup>

Updating this information some years later, Australia advised that in the 2000 and 2001 seasons compliance officers from the Australian Fisheries Management Authority (AFMA) were deployed on farm tow vessels to observe procedures.<sup>137</sup> AFMA also conducted boat inspections in port and monitored all transfers of fish to farm cages.<sup>138</sup> In response to further questioning in 2002, Australia confirmed that mortalities in purse-seines and tow cages were factored into the catch data presented to the CCSBT.<sup>139</sup> At the CCSBT's 2003 Meeting, Australia advised that specific procedures had been introduced for research and monitoring of SBT farming operations.<sup>140</sup> An independent company was contracted annually by AFMA to monitor the operations.<sup>141</sup> All mortalities occurring during the capture and towing operations must be recorded on the appropriate form and be available for inspection if requested by an AFMA officer.<sup>142</sup> When SBT are transferred from tow cages to the fish farms, a video recording must be made by the contractor, which is then used to count the fish transferred into the farm.<sup>143</sup> This count is

---

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. CCSBT8 Report, *supra* note 66, Attachment K-1.

138. *Id.*

139. CCSBT-EC1 Report, *supra* note 105, at 5. *See also* CCSBT-EC3 Report, *supra* note 66, at Attachment 8.1.

140. CCSBT-EC2 Report, *supra* note 66, Attachment 8-1, ¶ 7.

141. *Id.*

142. *Id.* This requirement has been enacted into Australian law. *See* Southern Bluefin Tuna Fishery Management Plan 1995, c. 22A (Austl.), *supra* note 72.

143. CCSBT-EC2 Report, *supra* note 66, Attachment 8-1, ¶ 7. This requirement has also been enacted into Australian law. *See* Southern Bluefin Tuna Fishery Management Plan 1995, c. 22B.1-.2 (Austl.), *supra* note 72.

multiplied by the mean weight derived from a sample of 40 fish, and debited against the quota using the Farm Disposal Record.<sup>144</sup>

Second, even if, on the strength of the procedures just listed, the reported weights are assumed to be free of any systematic downward bias, with almost all of Australia's SBT catch now fattened further in the farms, the weight of these fish when ultimately sent to market will be substantially higher than at their time of capture. Starting in 1997, Japanese import statistics began to show imports of SBT from Australia to be greater than Australia's quota of 5265 tonnes: more than 6000 tonnes in 1997 and 1998; nearly 7000 tonnes in 1999; and over 7800 tonnes in 2000.<sup>145</sup>

In response to Japan's questioning of Australia's adherence to its quota, Australia gave information to the CCSBT showing that its catch never exceeded its national allocation. At a 1997 meeting, Australia reported an average mortality of SBT after counting of 5%, with an average time spent in pens of around four months.<sup>146</sup> The losses were mainly due to seals, parasites, and storms.<sup>147</sup> At the CCSBT's Seventh Meeting in 2001, Australia advised that it would carry out a scientific assessment of growth rates of farmed SBT,<sup>148</sup> and at the Eighth Meeting later that year Australia presented a paper on growth rates on farms, reporting that "weight increases in the order of 93% were being obtained from farming SBT, and [that] further increases could be expected as techniques improved."<sup>149</sup>

The issue remains controversial and the subject of close questioning by Japan at CCSBT meetings, possibly as a tactic to divert attention from the issue of Japan's past overcatch, since from 2006 onwards it has invariably been raised in association with the latter.<sup>150</sup> Although doubts

---

144. CCSBT-EC2 Report, *supra* note 66, Attachment 8-1, ¶ 7. This requirement has been enacted into Australian law. See Southern Bluefin Tuna Fishery Management Plan 1995, c. 22B.2 (Austl.), *supra* note 72.

145. CCSBT7 Report, *supra* note 105, Attachment F-2, app. 2.

146. CCSBT4(1) Report, *supra* note 65, Attachment P, ¶ 2.

147. *Id.*

148. CCSBT7 Report, *supra* note 105, ¶ 31.

149. CCSBT8 Report, *supra* note 66, at 6. If 98% of Australia's annual quota of 5265 tonnes were farmed and exported to Japan after a weight increase of 93%, only imports above 9958 tonnes would conclusively indicate overcatch, and then, only if it occurred in two successive years (because catch takes time to reach the market and the quota year is not the same as the calendar year used in Japan's trade statistics). See *infra* note 191. In 2001, however, Japan imported only 8237 tonnes of SBT from Australia. CCSBT-EC2 Report, *supra* note 66, Attachment 8-3, ¶ 8(3). It is unclear, however, whether the 93% is gross or net of losses.

150. See generally *infra* notes 239-42 and accompanying text.

about the Australian accounting procedure were not wholly dispelled at a special meeting on the two issues, the CCSBT as a whole in taking no remedial action appears to have accepted Australia's criticisms that the statistical methods used to generate these doubts are flawed; two members of the independent panel found that the data were not sufficiently robust to support any finding of overcatch, while the other two, though agreeing, proceeded nonetheless to produce from those data estimates of overcatch ranging from 18% to 49.5%.<sup>151</sup> If anything, the fact that fish smaller than 10 kg are excluded from the forty-fish sample produces an upward bias, which, according to an independent expert, would lead to a likely overestimate of catch by 2%-4%.<sup>152</sup> The Independent Review of Australian SBT Farming Operations Anomalies also concluded that "the regulation of the industry is a rigorous and well managed process with no apparent anomalies and no scope for overcatch via misreporting."<sup>153</sup>

Instead, at Japan's request, Australia was to carry out a study beginning in 2007 to estimate: (a) representativeness or bias of the forty-fish sample used to estimate weight; (b) weight change during towing; (c) accuracy in the counting of dead fish during towing; (d) accuracy in growth rate during farming; and (e) the number of fish transferred into farming pens. Australia hoped to finalize (a), (c), and (e) during the first year and planned to report to the Scientific Committee in time for its annual meeting in mid-2007.<sup>154</sup> This was not entirely achieved, but an extensive debate was held on the matter at the 2007 meeting.<sup>155</sup>

Japan has mounted similar arguments in ICCAT regarding farming of ABT by Croatia and Turkey (with similar responses from those States<sup>156</sup>) resulting in the adoption of successive recommendations on the matter.<sup>157</sup> In 2002, a working group debated tuna farming, and in 2003,

---

151. CCSBT, *Report of the Fifth Special Meeting of the Commission*, app. 3, at 2, ¶¶ 8-12 and Attachment 7 (2006) available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_13/report\\_of\\_special\\_meeting\\_2006.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_13/report_of_special_meeting_2006.pdf).

152. CCSBT-EC6 Report, *supra* note 104, at 8, ¶ 48.

153. *Id.* at 20, ¶ 106. It is not clear whether the original report, which the CCSBT has not made public, is also the source of the estimate in the previous footnote.

154. CCSBT-EC5 Report, *supra* note 99, at 7-8, ¶¶ 42-44.

155. CCSBT-EC6 Report, *supra* note 104, at 15-20, ¶¶ 91-107. *See also id.* at 8-9, ¶¶ 48-51.

156. ICCAT Green Book 2006/1, *supra* note 51, at 230-32. *See also id.* at 233-35; ICCAT Green Book 2004/1, *supra* note 119, at 206.

157. The original was the "Recommendation by ICCAT on Bluefin Tuna Farming." *See* ICCAT Green Book 2003/1, *supra* note 102, at 171. The current one at the time of writing, which completely replaced its predecessor (despite its title) is the

there was further discussion in one of ICCAT's species panels, where the European Community said that "farming does not constitute, in itself, a threat to fish stocks, as long as it is carefully monitored and controlled."<sup>158</sup> Japan, by contrast, was concerned principally about farming by non-members of ICCAT.<sup>159</sup>

### *E. Bycatch and Discarding*

Although prohibition on the taking of fish below a certain size is a common fisheries management measure,<sup>160</sup> either directly (as is the only option in the case of longlining, in which the hooks do not discriminate between fish of different sizes) or in terms of mesh size of nets, the CCSBT has not sought, at any stage, to regulate the SBT fisheries on this basis. The size of fish taken is significant because of its differential impact on the stock per tonne of catch, if more spawning potential is lost in the larger number of small fish needed to make up a tonne than in a smaller number of large fish. The issue has been raised at CCSBT meetings in two contexts.

The first context is the relatively greater impact on stock per tonne of catch of small fish. Composed of immature fish, Australia's large surface fishery catches did not immediately affect the parental biomass, as it took several years for the removal of young fish to be reflected as reduced survival to maturity. Conversely, the benefit of a surface fishery catch restriction would not have been observed as an improvement in parental biomass for several years. In contrast, because the longline fishery catch (which comprised predominantly adult SBT) had an immediate impact on parental biomass, reducing longline catches would have reduced in severity or prevented the further decline in parental biomass. The mid-1980s trilateral scientific reports showed that 1 tonne of surface fishery catch had at that time roughly the same impact on parental biomass as 2.25 tonnes of longline catch because of the far greater number of fish per tonne of surface catch.<sup>161</sup>

---

"Recommendation by ICCAT to Amend the Recommendation on Bluefin Tuna Farming." See ICCAT Green Book 2006/1, *supra* note 51, at 160-63.

158. ICCAT Green Book 2003/1, *supra* note 102, at 235-36, ¶¶ 4.4-4.8. See also ICCAT Green Book 2004/1, *supra* note 119, at 184.

159. ICCAT Green Book 2004/1, *supra* note 119, at 185.

160. For example ICCAT has had a series of minimum size limits for ABT. See ICCAT Green Book 2005/1, *supra* note 119, at 123, ¶ 7.

161. CATON ET AL., *supra* note 78, at 28. The ratio of 2.25:1 is consistent with the slope of the dotted line in Figure 1 in TRILATERAL SCIENTIFIC REPORTS COMPENDIUM, *supra* note 58, at 30. The scientists' equation in the two previous years of the effect on

The second context calls into question the continued desirability of discriminating by size at all when catch is limited by tonnage. In 1996, Japan announced at the Third Meeting of the CCSBT that its industry had adopted a policy of returning to the sea fish of less than 25 kg alive at the time of retrieval.<sup>162</sup> In response to an Australian query, Japan advised that it assumed a survival rate of 55% of the returned fish and counted the 45% mortality against its quota.<sup>163</sup> This accounted for 711 tonnes of its declared catch for 1995 of 5866 tonnes, the mean weight of non-retained fish being 20.1 kg.<sup>164</sup> Australia questioned the assumption, noting that in the Scientific Committee a quite different rate had been suggested by Japan.<sup>165</sup> New Zealand called for the CCSBT to develop a uniform policy on non-retention of fish.<sup>166</sup> It did not, but rather merely called on its members to encourage consistent observation by their fleets of whatever policy each might adopt.<sup>167</sup> At the CCSBT's Fourth Meeting, Japan announced that from 1997 the policy of releasing small SBT no longer applied.<sup>168</sup>

It may be noted that, if there were a positive requirement to debit against quota all fish taken on board a vessel regardless of their subsequent fate, there could be no objection on conservation grounds to the superimposition of a policy of returning smaller fish to the sea if still alive (although the difficulty of enforcement possibly explains why this is not done). It would depend on the balance of desirability between limitation of absolute catch by weight and influencing the size composition of the catch. The pendulum may be expected to swing back and forth from time to time, depending on the state of the stock.

A second reason for discarding fish subject to quota is that the operator catching them may have taken them as bycatch, but lack quota to cover them. At the Sixth Meeting of the CCSBT in 2000, Japan, armed with Australian press clippings, raised allegations over the discarding of 250 to 400 tonnes of SBT by Australian east coast

---

the parental biomass of surface catch of 11,000 tonnes and 26,000 tonnes of longline catch given the 1981 age composition of the stock, with 14,500 tonnes each of surface and longline catch, *id.* at 15, implies a ratio of roughly 3.3:1, and subsequently of 13,500 tonnes of surface catch and 27,000 tonnes of longline catch with 18,000 tonnes each of surface and longline catch of 2:1, *id.* at 20.

162. CCSBT3(1) Report, *supra* note 64, Attachment G, ¶ 1(3).

163. CCSBT3(1) Report, *supra* note 64, at 9-10.

164. *Id.* at 10.

165. *Id.*

166. *Id.*

167. *Id.* at 28.

168. CCSBT4(1) Report, *supra* note 65, at 5.

longliners for lack of quota and asked how catch discarded in this way was treated under Australia's quota management regime; in particular, whether and how it was debited against quota.<sup>169</sup> Not replying directly, Australia stated that it was prepared to prosecute offenders given sufficient evidence, but pointed out the economic motives of those making the allegations and added that there had always been SBT taken on the east coast, with Australian quota remaining available to cover these catches.<sup>170</sup>

The question was pursued further when the meeting resumed for a second session some months later. Australia now clarified that those likely to catch SBT along the east coast were free to purchase or lease quota.<sup>171</sup> Implicitly admitting that there was substance to Japan's allegations, Australia advised that it would nonetheless introduce a system of rolling closures following the progression of migrating SBT along the east coast, from May through September.<sup>172</sup> Henceforth, only those with 500 kg or more of quota could operate in the closed area, with the location and movement of vessels monitored through the requirement that each carry an approved satellite-based monitoring system.<sup>173</sup> At the CCSBT's Seventh Meeting, Australia declared a catch in the 2000 season of 5257 tonnes, just 8 tonnes under its voluntary limit, of which 114 tonnes were caught off New South Wales and Tasmania by 37 longliners that operated off New South Wales between May and November of that year, with closure of waters south of Sydney between June and August to those lacking sufficient quota.<sup>174</sup> In the following year, Australia advised that in the 2001 season it had introduced an

---

169. CCSBT, *Report for the Sixth Annual Meeting, First Part*, at 5, ¶ 33 (1999) available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_6/report\\_of\\_ccsbt6\\_Part1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_6/report_of_ccsbt6_Part1.pdf) [hereinafter CCSBT6(1) Report]. See also *id.* Attachment C, ¶ 6(3).

170. *Id.* at 5, ¶ 33. The reference to economic motives is an allusion to the East Coast Tuna Boat Owners' Association Inc., which lobbied for ITQs to be made available free of charge to its members whose longliners caught SBT as bycatch, despite the fact that they had previously held such quota but sold it to South Australian operators. The New South Wales longline catch was 475 tonnes in 1998, only 97 tonnes in 1999 when the allegations were raised, then 114 tonnes in 2000, 60 tonnes in 2001 and 22 tonnes in 2002 (these figures include, for data confidentiality reasons, various combinations of Queensland and Tasmanian longline catch and New South Wales pole-and-line catch in successive seasons, as data from groups of less than five boats may not be released). CCSBT-EC2 Report, *supra* note 66, Attachment 8-1 at 1, 4, Table 1.

171. CCSBT6(2) Report, *supra* note 68, at 9, ¶ 54.

172. *Id.*

173. *Id.* at 9-10, ¶ 54.

174. CCSBT7 Report, *supra* note 105, Attachment F-1, ¶¶ 1-7.

ongoing audit of fishing records,<sup>175</sup> and added in 2003 that access to the waters off Western Australia through which SBT migrate had also been restricted in the same way since 2001.<sup>176</sup>

Australia's most recent annual report to the CCSBT, which states that since 2004 the restricted access zone has been divided into a core zone and a buffer zone, indicates that there is still a problem. Since 2005, operators with less than 500 kg of quota have again been allowed into both zones between May and October, but only with 100% observer coverage.<sup>177</sup> In the buffer zone, those with more than 500 kg of quota are required to have 25% observer coverage.<sup>178</sup> In the core zone, 100% coverage is required for those with less than 2 tonnes of quota, 75% for those with between 2 and 5 tonnes, 50% for those with between 5 and 10 tonnes, 25% up to 20 tonnes, and 10% coverage above that figure.<sup>179</sup>

In the longer term, bycatch by members must be distinguished from bycatch by vessels of non-member States, most of which remain outside the commission precisely because their fishing fleets have no interest in the SBT fishery. The easiest way to avoid adverse legal consequences from any genuinely inadvertent catch of SBT is to dump the fish overboard. If the aim is to minimize mortality, it is immaterial whether fish that are already dead are dumped at sea or landed. Since, however, verifiable scientific information is gained only if they are landed, this is an argument for using the UNCLOS Article 118 duty of cooperation to discourage dumping,<sup>180</sup> through treating bycatch leniently, despite the risk of creating a perverse incentive to misreport as bycatch fish that are deliberately taken.<sup>181</sup>

---

175. CCSBT8 Report, *supra* note 66, Attachment K-1 at 3, ¶ 7.

176. CCSBT-EC2 Report, *supra* note 66, Attachment 8-1 at 3, ¶ 7.

177. P.I. Hobsbawn et al., *Australia's Annual Review of the Southern Bluefin Tuna Fishery*, in CCSBT-EC6, *supra* note 104, Attachment 8-1, ¶ 4.

178. *Id.*

179. *Id.*

180. Referring to anadromous species, William T. Burke concludes that UNCLOS Article 66 applies to both directed fishing and bycatch, arguing that "[i]f a significant portion of the catch is beyond regulatory control, the coastal state either cannot act to take adequate conservation measures or can only take ineffective measures." See WILLIAM T. BURKE, *THE NEW INTERNATIONAL LAW OF FISHERIES: UNCLOS 1982 AND BEYOND* 140 (Oxford University Press 1994).

181. Australian legislation requires quota for all landed species subject to quota, but policy allows quota to be purchased or leased by the 15th day of the following month to cover over-quota landings of bycatch species. G. Geen, W. Nielander & T.F. Meany, *Australian Experience with Individual Transferable Quota Systems*, in ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, *THE USE OF INDIVIDUAL QUOTAS IN FISHERIES MANAGEMENT* 84 (OECD 1993) [hereinafter Geen et al.]. The same authors

The practice in some of ICCAT's fisheries of tolerating small catches of species under quota up to a given limit—for instance 200 tonnes of northern albacore tuna<sup>182</sup>—may be of assistance in this regard. For instance, suppose catch of less than ten tonnes of SBT were deemed by CCSBT as bycatch not warranting the imposition of any trade measures under the Action Plan. Such a policy would be aimed at the operations of non-members and vessels whose actions undermine the CCSBT's management arrangements, so as to encourage them to join the Commission or cooperate with its arrangements.<sup>183</sup> Since the number of States and fishing entities at any given time is finite, a rule of this kind at ten tonnes for each would equate to a tolerance limit of catch by non-members under this head of around 1900 tonnes in theory, but a great deal less in practice if the limits are non-transferable. By contrast, a system of trading in quota might be needed for catch over the threshold.<sup>184</sup> In order to avoid the Action Plan measures, the non-member would be required to purchase quota from a member to cover its whole catch, which could only be done by acceding to the 1993 Convention or becoming a cooperating non-member if the trading scheme were confined to these. For those within the system, the best policy may be to estimate bycatch mortality for building into TAC calculations.<sup>185</sup>

---

advocate use of a deemed value or surrender price method to discourage dumping of bycatch species without inadvertently encouraging their targeting. *Id.* at 85. See also Roger Falloon & T.M. Berthold, *Individual Transferable Quotas The New Zealand Case*, in ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, THE USE OF INDIVIDUAL QUOTAS IN FISHERIES MANAGEMENT 57-58 (OECD 1993). But these do not appear easily replicated on the international plane.

182. ICCAT Green Book 2005/1, *supra* note 119, Annex 4.3, app. 3 at 123, ¶ 2. Faced with a problem of discarding in the Northern Atlantic swordfish fishery, ICCAT designed its rebuilding plan for the stock on the basis that it “must account for all sources of fishing mortality.” ICCAT, *Report for Biennial Period 1998-99 Part II (1999)*, Vol. 1, Annex 5.2 at 69 (2000) [hereinafter ICCAT Green Book 2000/1], available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_98-99\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_98-99_II_1.pdf). Note the part played in this by carry-forward of unders and overs. *Id.* at 71, ¶¶ 4, 5.

183. CCSBT6(2) Report, *supra* note 68, at 3, ¶ 14. The text of the Action Plan forms Attachment I to the Report.

184. See *supra* note 51 and accompanying text.

185. Steven Cunningham, *Outcome of the Workshop on Individual Quota Management*, in ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, THE USE OF INDIVIDUAL QUOTAS IN FISHERIES MANAGEMENT 13 (OECD 1993).

*F. Other Non-Commercial Catch*

The nearer quota comes to being perceived as a tradable asset, the more interest members will have in ensuring that all sources of catch are accounted for, since it would be more obvious than under the traditional national allocation system that any perceived gain by one member of an unfair advantage comes at the other members' expense. Bycatch is the most obvious potential source of friction in this regard, but other forms of non-commercial catch are recreational, indigenous, and scientific catch. There may be some overlap among the categories.<sup>186</sup>

Recreational fishing limits typically impose a bag limit per person per day of a small number of fish. Since there is generally no limit to the number of persons engaging in recreational fishing, or on how many days per year they may fish, it follows that there is no effective upper limit to the total recreational catch in any jurisdiction. Such limits apply to SBT in most Australian States<sup>187</sup> and South Africa,<sup>188</sup> but not New Zealand.

---

186. At the 2004 CCSBT meeting, Australia advised that discussions were underway with its game fish association for all recreationally caught SBT to be tagged and released, with the release data to be provided to the CCSBT. Since the research tagging was opportunistic rather than a planned experiment, no research mortality allowance was made available to cover it; instead, any associated mortality would count against Australia's national allocation. CCSBT-EC3 Report, *supra* note 66, at 11-12, ¶¶ 78, 79.

187. In New South Wales, there is a combined possession limit of two tuna (albacore, bigeye, longtail, SBT, or yellowfin) 90 cm in length or more, and five of the same species smaller than 90 cm. New South Wales Department of Primary Industries, Fishing and Aquaculture, Bag and Size Limits – Saltwater, [www.dpi.nsw.gov.au/fisheries/recreational/regulations/sw/sw-bag-and-size#Finfish-Bag-and-Size-limits](http://www.dpi.nsw.gov.au/fisheries/recreational/regulations/sw/sw-bag-and-size#Finfish-Bag-and-Size-limits) (last visited Sept. 27, 2009). South Australia has a combined SBT and yellowfin tuna limit of two per person and six per boat. Government of South Australia, Primary Industries and Resources, Catch Limits & Legal Lengths, [www.pir.sa.gov.au/fisheries/recreational\\_fishing/catch\\_limits\\_and\\_legal\\_lengths](http://www.pir.sa.gov.au/fisheries/recreational_fishing/catch_limits_and_legal_lengths) (last visited Sept. 27, 2009). Tasmania has a “combined possession limit” per person of two SBT, yellowfin, and bigeye tuna. Tasmania Department of Primary Industries, Parks, Water and Environment, Bag and Possession Limits, [www.dpiw.tas.gov.au/inter.nsf/WebPages/HMUY-5TA4EU?open](http://www.dpiw.tas.gov.au/inter.nsf/WebPages/HMUY-5TA4EU?open) (last visited Sept. 27, 2009). Victoria's limit is two per person. Victoria Department of Primary Industries, New Recreational Catch Limits from 2009, [http://www.dpi.vic.gov.au/DPI/nrenfaq.nsf/LinkView/D158413C52C3F077CA25755300158AEC863080215E41289ECA25753D0013A569/\\$file/Fact%20sheet%20-%20New%20recreational%20Fisheries%20Regulations%20from%202%20March%202009.pdf](http://www.dpi.vic.gov.au/DPI/nrenfaq.nsf/LinkView/D158413C52C3F077CA25755300158AEC863080215E41289ECA25753D0013A569/$file/Fact%20sheet%20-%20New%20recreational%20Fisheries%20Regulations%20from%202%20March%202009.pdf) (last visited Sept. 27, 2009). Western Australia is divided into four regions for recreational fishing purposes, but in all four there is a combined daily bag limit per angler of two SBT, bigeye, and yellowfin tuna. Government of Western Australia, South Coast Bag and Size Limits, [http://www.fish.wa.gov.au/docs/pub/SouthLimits/SouthCoastRules\\_2009.pdf](http://www.fish.wa.gov.au/docs/pub/SouthLimits/SouthCoastRules_2009.pdf) (last visited Sept. 27, 2009); Government of Western Australia, Recreational Fishing Guide – West Coast Region, <http://www.fish.wa.gov.au/docs/pub/>

Recreational catch has become an issue within the CCSBT. Australia reported in 2002 that it was discussing the matter with State Governments, but in any event was far enough short of its national allocation to accommodate any recreational catch of SBT.<sup>189</sup> This must be doubted if the high recreational catch of eighty-five tonnes for that year, a figure estimated by the New South Wales Government,<sup>190</sup> is to be believed. Australia's feeble response to the questions posed to it at the 2007 meeting do not make its position any more credible, though this may change if it carries out its intention to provide a report to the CCSBT on the management of its recreational fishery.<sup>191</sup> New Zealand reported in 2003 that recreational fishing for SBT was limited, though historical catches before records began may have been higher.<sup>192</sup> It advised that it had reserved four tonnes of its national allocation to cover recreational catch, which it considered sufficient for its recreational fishery.<sup>193</sup>

Since the resolution of the 1998-2001 dispute over Japan's unilateral experimental fishing, the CCSBT has also developed a history of allocating modest tonnages for scientific catches that do not count against national allocations. There is precedent for this in ICCAT, which has exempted participants' catches of up to fifteen tonnes of ABT from

---

WestLimits/westcoast\_rules\_2008.pdf (last visited Sept. 27, 2009); Government of Western Australia, Recreational Fishing Guide – Gascoyne Region, [http://www.fish.wa.gov.au/docs/pub/GascoyneLimits/gascoyne\\_rules2009.pdf](http://www.fish.wa.gov.au/docs/pub/GascoyneLimits/gascoyne_rules2009.pdf) (last visited Sept. 27, 2009); Government of Western Australia, Recreational Fishing Guide – North Coast Region, [http://www.fish.wa.gov.au/docs/pub/NorthLimits/NorthernCoastRules\\_2009.pdf](http://www.fish.wa.gov.au/docs/pub/NorthLimits/NorthernCoastRules_2009.pdf) (last visited Sept. 27, 2009). No limit appears to apply in Queensland.

188. In 1994, the recreational catch limit in South Africa was reported to be ten of any tuna species per person per day. A.J. Penney, *National Report of South Africa, in ICCAT, Report for Biennial Period 1994-95 Part I (1994), Vol. 1*, 259, ¶ 3 (1995), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_94-95\\_I\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_94-95_I_1.pdf). It was unchanged in 2003, with the same size limits in the Marine Living Resources Act 1998 also applying to the recreational sector. ICCAT, *Report for Biennial Period 2002-03 Part II (2003), Vol.3*, 87, ¶ 3.2 (2004) [hereinafter ICCAT Green Book 2004/3], available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_02-03\\_II\\_3.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_02-03_II_3.pdf).

189. CCSBT-EC1 Report, *supra* note 105, at 5, 11, ¶¶ 35, 75.

190. P.I. Hobsbawn et al., *Australia's Annual Review of the Southern Bluefin Tuna Fishery*, in CCSBT-EC5 Report, *supra* note 99, Attachment 12-1, ¶ 4, Table 6.

191. CCSBT-EC6 Report, *supra* note 104, at 9, 20-21, ¶¶ 53, 108-112.

192. CCSBT-EC2 Report, *supra* note 66, Attachment 8-4, ¶ 3. The indigenous non-commercial catch was also counted against New Zealand's national allocation. See CCSBT-EC3 Report, *supra* note 66, Attachment 8-4, ¶¶ 2, 5.

193. CCSBT-EC3 Report, *supra* note 66, at 12, ¶ 80.

otherwise applicable conservation measures.<sup>194</sup> For the various components of the Scientific Research Program, the members and the Secretariat from 2001 onwards requested, and the CCSBT approved, the following mortality allowances: for tagging programs, sixty-five tonnes in 2002 and forty tonnes in 2003; for other research by Japan, 3.6 tonnes in 2001 and 6.5 tonnes in 2002; and, for a series of spawning ground and acoustic surveys, ten tonnes in 2003.<sup>195</sup> Research mortalities of forty-seven tonnes were approved in 2004 for an acoustic survey (one tonne) and various tagging projects (forty-six tonnes); the like total for 2005 was fifty-one tonnes, and in 2006 it was twenty-two tonnes.<sup>196</sup> In 2007, Australia sought ten tonnes to cover the expected mortality of 7.5 tonnes in an experiment on stereo video recording of transfer of SBT into farm cages, but the meeting report does not reveal whether this or any other research allowance was granted to any member.<sup>197</sup>

ICCAT, too, has dealt on several occasions with non-commercial catch. For example, in 1999, it passed an across-the-board resolution on recreational fishery statistics and in 2006 it created a Working Group on Sport and Recreational Fisheries.<sup>198</sup>

---

194. See ICCAT Green Book 2001/1, *supra* note 102, at 141, ¶ 3. This policy has continued since, and with a further fifteen tonnes of other tunas. ICCAT, *Report for Biennial Period 2000-01 Part II (2001)*, Vol. 1, Annex 9-8, at 222, ¶ 3 (2002), available at [http://www.iccat.int/Documents/BienRep/REP\\_EN\\_00-01\\_II\\_1.pdf](http://www.iccat.int/Documents/BienRep/REP_EN_00-01_II_1.pdf).

195. CCSBT8 Report, *supra* note 66, at 8, ¶¶ 13, 54, 95, 97; CCSBT-EC1 Report, *supra* note 105, at 15, ¶¶ 97-100. See also CCSBT, *Report of the Extended Scientific Committee for the Eighth Meeting of the Scientific Committee* at 19, ¶ 106 (Sept. 1-4, 2003), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_10/report\\_of\\_sc8.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_10/report_of_sc8.pdf); CCSBT-EC2 Report, *supra* note 66, at 13, ¶¶ 70-71. Not all the allowances were caught: in 2002 only 0.8 tonnes had been used for the Japanese spawning ground survey and 13.28 tonnes for tagging programs. *Id.* ¶ 69.

196. CCSBT-EC3 Report, *supra* note 66, at 12-13, ¶¶ 87-89; CCSBT-EC4 Report, *supra* note 64, at ¶ 124; CCSBT-EC5 Report, *supra* note 99, at 18, ¶ 103. See also CCSBT, *Eleventh Meeting of the Scientific Committee*, at 24-25, ¶¶ 133-136 (2006), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_13/report\\_of\\_SC11.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_13/report_of_SC11.pdf).

197. CCSBT-EC6 Report, *supra* note 104, at 16, ¶ 93.

198. ICCAT Green Book 2000/1, *supra* note 182, at 78. See also ICCAT Green Book 2007/1, *supra* note 9, at 175.

*G. Misalignment of Fishing Seasons*

The staggered fishing seasons of CCSBT members<sup>199</sup> have caused few problems to date, but this may change if a formal management procedure—in other words, a formulaic rule for deriving automatic adjustments to the TAC and national allocations from new scientific information—is adopted. This troubled participants at an early workshop meeting called to devise such a rule, who noted that any TAC change required by a given management procedure would most likely apply to quota years and therefore be implemented at slightly different times by different members.<sup>200</sup> As the CCSBT's annual meeting, where the relevant decision would be made, has in recent years normally taken place in October,<sup>201</sup> this would make it impossible for a member whose quota year starts any earlier to implement the change for up to twelve months. This, in turn, would create a time lag of two years between the year in which the date on which the management procedure relies are generated and the implementation of any consequential TAC change. The CCSBT would therefore need to discuss and specify the quota year in which a TAC change arising from the management procedure would be implemented for each member.<sup>202</sup>

---

199. CCSBT, *Report of the Fourth Meeting of the Management Procedure Workshop*, Attachment 6 (May 16-21, 2005) [hereinafter CCSBT-MPW4 Report], available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_12/report\\_of\\_MPWS4.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_12/report_of_MPWS4.pdf) (listing the quota years). Only Taiwan and the Philippines use the calendar year, whereas Australia's quota year runs from Dec. 1 to the following Nov. 30, Japan's and Korea's run from March 1 to the end of the following February, and New Zealand's runs from Oct. 1 to the following Sept. 30. *Id.*

200. CCSBT, *Report of the Second Meeting of the Management Procedure Workshop*, Attachment E, app. 6 at 26 [hereinafter CCBST-MPW2 Report], available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_10/report\\_of\\_mpws2.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_10/report_of_mpws2.pdf).

201. Article 6(3) of the 1993 Convention actually names August as the default month for annual meetings, suggesting a tacit understanding among its drafters that the national allocations apply to the next fishing season of each member, whenever it may start.

202. CCBST-MPW2 Report, *supra* note 200, Attachment E, app. 6. Note that the staggering of fishing seasons could also complicate any superimposition of quota trading. To avoid conservation consequences at the margin, it would seem that any system in which the members are left to their own devices in transferring quota to each other would either need to align members' fishing seasons or, in the alternative, introduce a restriction that transfers can only take place from a relinquishing member to a gaining member whose season ends at the same time as, or later than, that of the relinquishing member. Such a restriction seems undesirable because over time it would result in trading pushing allocations artificially from members with early-starting fishing seasons to those whose seasons finish later, even though the timing of season dates is in this context essentially an arbitrary factor. In the CCSBT, for example, it would mean that New Zealand (whose

Any alignment of seasons will also require compensating allocations or deductions for the longer or shorter transitional season. Depending on the pattern of catch through the year, it may not necessarily be appropriate to equate a one-month adjustment with one twelfth of either the previous national allocation, or the new one, if changed. This complication could be avoided, however, by making the alignment in a year when the TAC does not change.<sup>203</sup> While there can be no objection on conservation grounds to extending the duration of a season longer than twelve months, shortening of the season can lead to abuse if it occurs in a situation where the full quota has been taken in less than 365 days and the early closure leads to a new season opening the next day with a fresh quota.<sup>204</sup> Australia has had two SBT seasons of thirteen months or more and one season of eleven-and-a-half months. The short season was preceded two years earlier by a thirteen-and-a-half-month one, however, so that the three seasons together lasted thirty-seven months; this may explain why no other member objected to it.<sup>205</sup>

#### *H. Control of Fishing by Nationals*

Because at international law States' jurisdiction over their nationals applies equally to natural and legal persons and vessels, the fact that some nationals of fishery commission member States use vessels flagged to non-members creates a further perception of unfair advantage. Here

---

season starts and finishes earlier than any other member's) could never purchase quota, only sell it. The scientists developing the CCSBT's management procedure seem to have come to a similar conclusion for automatic adjustments under the procedure in the TAC and national allocations (*pari passu* or not). CCSBT-MPW4 Report, *supra* note 199, at 24, ¶ 100.

203. On the other hand, a State that wished to make a one-off contribution to the biomass without jeopardizing its initial share could elect to forgo compensation for a transitional year longer than twelve months. Human psychology being what it is, members whose seasons start early could help make the process easier by not objecting to a late starting date for the new uniform season that will avoid any member having a transitional season of less than 12 months.

204. For an egregious example of this in the groundfish fishery on the Atlantic coast of the United States in the 1970s, see J.L. McHugh, *The Jeffersonian Democracy and Fisheries Revisited*, in GLOBAL FISHERIES: PERSPECTIVES FOR THE 1980S 73, 89 (B.J. Rothschild ed., Springer-Verlag 1983).

205. Australia's SBT fishing years ran from Oct. 1 to the following Sept. 30 in 1988-90; Oct. 1, 1991, to Oct. 31, 1992; Nov. 1 to the following Oct. 31 in 1992 and 1993; Nov. 1, 1994, to Dec. 15, 1995; Dec. 16, 1995, to Dec. 15, 1996; Dec. 16, 1996, to Nov. 30, 1997; and since 1997 from Dec. 1 to the following Nov. 30. CCBST-EC6 Report, *supra* note 104, Attachment 8-1, app. 1, at 15.

again, the experience of the CCSBT is instructive. In 1998, New Zealand raised reports that Japanese interests had chartered bunkering vessels that were also used by fishing vessels flagged to non-members of the CCSBT, that Japan provided a market for non-member catch, and that there was considerable investment by Japanese interests in non-member SBT fishing operations.<sup>206</sup> New Zealand advised that it had procedures in place to prevent New Zealand interests from entering into charter or joint fishing arrangements for SBT with non-members, but was not aware of any bunkering of non-member vessels fishing for SBT or any investment by New Zealand nationals in non-member SBT fishing operations.<sup>207</sup> Australia, too, stated that it had similar restrictions preventing joint ventures with, and access to its ports by, vessels from States fishing for SBT outside the 1993 Convention regime.<sup>208</sup> Japan admitted that its nationals were working as crew on non-member vessels and had issued a non-binding directive (which for constitutional reasons could not be binding) advising them to cease this practice.<sup>209</sup> Japan confirmed that it maintained no restrictions on the import of SBT and that it had a system for regulating investment by Japanese in non-member SBT fishing operations.<sup>210</sup>

In recent years, the focus of attention has shifted to catch of SBT taken in Indonesian waters by vessels owned by Taiwanese interests but flagged to Indonesia, allowing Taiwan to maintain that their catch should be considered Indonesian. This came about as a result of the Trade Information Scheme adopted by the CCSBT at its Sixth Meeting in 1999, set to come into operation on June 1, 2000,<sup>211</sup> which highlighted a link between Indonesian and Taiwanese fishing through the recording of over 1800 tonnes of SBT imports into Japan from Taiwan despite Taiwan's

---

206. CCSBT, *Report of the Fourth Annual Meeting* at 2 (Jan. 19-22, 1998), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_4/report\\_of\\_ccsbt4\\_part2.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_4/report_of_ccsbt4_part2.pdf).

207. *Id.*

208. *Id.*

209. *Id.*

210. *Id.*

211. CCSBT6(1) Report, *supra* note 169, at 3, ¶ 18. The full details of the scheme are set out in "CCSBT Southern Bluefin Tuna Statistical Document Program" (Attachment M to the report), but some of the text is square-bracketed, indicating that the points concerned were left by the members to subsequent negotiation. When the meeting resumed some months later, the Executive Secretary advised that, since the adjournment, the details of the scheme had been sent to those non-members identified by Japan as having exported SBT to it within the last five years as well as to other international fishery commissions. A finalized version of the scheme was then adopted. CCSBT6(2) Report, *supra* note 68, at 4, ¶ 21. The full specification of the scheme is in "CCSBT Southern Bluefin Tuna Statistical Document Program" (Attachment J to the report).

voluntary restraint of its catch to 1450 tonnes. Taiwan appears to have initially accepted responsibility for the catch of Taiwan-owned vessels fishing in Indonesian waters in declaring (despite its policy of restricting its catch to 1450 tonnes) catches for 1999 and 2000 of 1787 tonnes and 1689 tonnes, respectively,<sup>212</sup> before reclassifying them as unregulated Indonesian catch the following year.<sup>213</sup> The meeting repeated the previous year's concern that Taiwanese vessels were catching SBT under flags of convenience and at Taiwan's "apparent inability to exert any control over these vessels, or to provide information concerning the number of vessels, or the flags that they flew."<sup>214</sup> Japan urged Taiwan to follow its example by making it illegal for its citizens to target SBT using a flag-of-convenience vessel.<sup>215</sup>

Taiwanese vessels fishing in Indonesian waters would have been unproblematic had Indonesia by then—rather than in 2008—become a member and had the Taiwanese vessels in fact been fishing against Indonesian quota. As it was, Taiwan had both the power and the duty to control this catch, considering that, through Taiwan's membership in the Extended Commission, it had given a "firm commitment to respect" Article 15, paragraph 4 of the 1993 Convention.<sup>216</sup> Although the beneficial ownership of fishing vessels is often deliberately kept obscure, ideally all catch of SBT by vessels owned or controlled by nationals of CCSBT members should be brought into their mutual accounting.

#### IV. THE RELATIONSHIP BETWEEN THE CCSBT'S STOCK STATUS TARGET AND THE MAXIMUM SUSTAINABLE YIELD STANDARD IN UNCLOS

State responsibility also has a crucial role to play in ensuring that the members of a fisheries commission do not collectively abandon their

---

212. CCSBT7 Report, *supra* note 105, Attachment F-5, at 1.

213. The 1999 and 2000 catches have been reduced to 1513 and 1638 tonnes, respectively. CCSBT8 Report, *supra* note 66, Attachment K-5, at 1. Taiwan agreed to investigate this catch further, and at the following (Eighth) Meeting of the CCSBT Taiwan advised that the vessels operating in Indonesian waters were in fact flagged to Indonesia; hence Taiwan considered their catch as Indonesian. See CCSBT7 Report, *supra* note 105, ¶¶ 33-36. See also CCSBT8 Report, *supra* note 66, at 6, ¶ 39. The SBT catches by the Philippines and the Seychelles detected by the scheme were also thought to be by Taiwanese-owned vessels operating under flags of convenience. *Id.* ¶ 90, at 13. See also ICCAT Green Book 2000/1, *supra* note 182, at 133.

214. CCSBT8 Report, *supra* note 66, at 13, ¶ 91.

215. *Id.*

216. CCSBT7 Report, *supra* note 105, Attachment I, ¶ 6.

conservation obligations, not to each other (for voluntary abandonment *inter se* would seem to be legally unobjectionable), but to other States potentially interested in entering the fishery in the future. The CCSBT, however, is in danger of doing just that, as a consequence of its special meeting in 2004, at which all members agreed that the former management objective of restoring the parental stock to its 1980 biomass ( $B_{1980}$ ) by 2020 was not feasible.

It should be noted that the abandoned  $B_{1980}$  by 2020 objective was not set with reference to  $B_{msy}$ ; the 1980 level was simply one that, up to then, seemed high enough to avoid any adverse effect on recruitment.<sup>217</sup> Hence, even if this goal had been met, it would not be safe to say that there would be no need to rebuild the stock any further.<sup>218</sup> Nor would the CCSBT thereby have satisfied the target set in 2002 at the World Summit on Sustainable Development: that action was required to “[m]aintain or restore stocks to levels that can produce the maximum sustainable yield with the aim of achieving these goals for depleted stocks on an urgent basis and where possible not later than 2015.”<sup>219</sup> It is now all but inevitable that members will have the uncomfortable task of explaining to a future such gathering why this was not possible for SBT.

Even before its abandonment, however, there was no concerted effort to meet the goal. The Chair of the Scientific Committee advised the Eighth Meeting of the CCSBT that the 2000 catch level of 15,579 tonnes appeared to be “roughly close to the replacement yield, with a 50% chance that the stock could either decrease or increase at this harvest level.”<sup>220</sup> While no effort had yet been made to estimate the harvest level

---

217. Transcript of Record, Public Sitting of the International Tribunal for the Law of the Sea at 16, Southern Bluefin Tuna Cases (N.Z. v. Japan; Austl. v. Japan) ITLOS/PV.99/22/Rev.2 (Aug. 19, 1999), available at [http://www.itlos.org/case\\_documents/2001/document\\_en\\_141.pdf](http://www.itlos.org/case_documents/2001/document_en_141.pdf).

218. This is comparable to the use by the International Council for the Exploration of the Sea, from which the European Community obtains its fisheries science advice, of impaired recruitment as a limit (danger) reference point, which is perceived as less precautionary than NAFO’s use of MSY. O.S. Stokke & C. Coffey, *Precaution, ICES and the Common Fisheries Policy: A Study of Regime Interplay*, 28 MARINE POLICY 117, 120 (2004). On the adoption of MSY in NAFO, see S.M. Garcia, *The Precautionary Approach to Fisheries: Progress Review and Main Issues (1995-2000)*, in CURRENT FISHERIES ISSUES AND THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS 479, 493-95 (M.H. Nordquist & J. Norton Moore eds., Martinus Nijhoff 2000).

219. World Summit on Sustainable Development [WSSD], Johannesburg, South Africa, Aug. 26-Sept. 4, 2002, *Report of the World Summit on Sustainable Development*, Annex at ¶ 31(a), U.N. Doc. A/CONF.199/20 (2002) [hereinafter WSSD Plan of Implementation].

220. CCSBT8 Report, *supra* note 66, at 7, ¶ 43.

required to achieve recovery of the parental stock to its 1980 level by 2020, most of the assessment results indicated low probability of attaining this target at that catch level.<sup>221</sup> Yet New Zealand found no support when it stated, in reasoning that cannot be faulted, that “[t]he logical and responsible conclusion we draw from this is that catch levels must be reduced in order to achieve our stated management objectives.”<sup>222</sup>

Modeling was carried out some years ago to estimate the likelihood of returning the SBT stock to  $B_{msy}$  by 2020 under a number of management strategies if removals were reduced in the short term. The significance of these is that the more successful models show average removals over the period to 2020 exceeding present removals, suggesting that the MSY itself would be over 20,000 tonnes *per annum*.<sup>223</sup> For the CCSBT to adopt a management strategy that delays or prevents recovery of the stock to  $B_{msy}$  is therefore, it is submitted, to deny all potential new entrants’ rights to share in the benefit that such a recovery would bring.

This, however, is precisely what it seems to be doing, judging from the debate on the management strategy in 2003 and 2004. When it began, only New Zealand said that any alternative objective to  $B_{1980}$  by 2020 must be consistent with the 1993 Convention and the wider international legal regime, and even it qualified this, stating that until there was an agreed management procedure to guide members toward the new objective, the current one should stay.<sup>224</sup> Because of the state of the stock, it preferred a cautious procedure over an aggressive policy, but viewed TAC changes every three years as suitable.<sup>225</sup> Australia considered that the current objective should be replaced by an achievable one that resulted in “some rebuilding” of the stock—this could, but need not, be  $B_{msy}$ .<sup>226</sup> Taiwan, too, believed that the current objective could not be reached and agreed in principle to its revision, but did not say how beyond favoring gradual changes in TAC at five-year intervals.<sup>227</sup> Japan considered that the current “very strict” objective was not achievable, and that  $B_{msy}$  would be more appropriate, but the period for achieving it

---

221. *Id.*

222. *Id.* at Attachment N-4.

223. T. Polacheck, N.L. Klaer, C. Millar & A.L. Preece, *An Initial Evaluation of Management Strategies for the Southern Bluefin Tuna Fishery*, 56 ICES JOURNAL OF MARINE SCIENCE 811, 819 (1999). Care should be taken, however, as this assumes the catch statistics on which the modellers relied were accurate. *Id.* at 816.

224. CCSBT-EC2 Report, *supra* note 66, Attachment 4-4 at 2-3. *See also id.* at 8, ¶ 46.

225. *Id.* at 7, ¶ 46.

226. *Id.*

227. *Id.*

could be decided “once more data become available.”<sup>228</sup> Japan also wanted to “explore more moderate policies” with biomass at 100% and 110% of the much smaller 2002 level.<sup>229</sup> Korea, “from an administrative perspective,” said it would be best for the fishery to be highly productive and managed with an aggressive catch policy “so that a future increase in stock, if any, would be retained by members, without giving an incentive to non-members.”<sup>230</sup>

At the 2004 Special Meeting, Australia and New Zealand both required an objective that would result in rebuilding of the stock—already an essential component of the then current management objective—but New Zealand was alone in drawing attention to how members’ wider international obligations might constrain their choice of a new one.<sup>231</sup> Taiwan preferred only gradual TAC reductions in the short term and would have been satisfied with a management objective of a spawning stock biomass only 90% of that in 2002 ( $B_{2002}$ ).<sup>232</sup> Japan wanted an objective based on  $B_{msy}$ , while Korea could support either  $B_{msy}$  or  $B_{2002}$  as the objective.<sup>233</sup> The management procedure ultimately adopted aims at a probability of 50% that the parental biomass in 2014 will be smaller than that of 2004, which was its lowest yet recorded, and a 10% chance that by 2022 this biomass will be below that of 2004.<sup>234</sup>

---

228. *Id.* Note that if Japan is saying that  $B_{msy}$  by 2020 would be less strict than  $B_{1980}$  by 2020, there is a contradiction in its position unless either  $B_{1980}$  is greater than  $B_{msy}$  or Japan was not advocating reaching  $B_{msy}$  until long after 2020; the former is very unlikely.

229. *Id.*

230. *Id.* at 8, ¶ 46. The Korean attitude is a straightforward manifestation of the disastrous but rational reasoning engendered under the “tragedy of the commons” affecting high seas fisheries; with open access, all players have an incentive to maximize their own catch irrespective of the damage they do to the stock (and of their knowledge of that damage) because, as H.S. Gordon put it in his pioneering article on fisheries economics, “the fish in the sea are valueless to the fisherman, because there is no assurance that they will be there for him tomorrow if they are left behind today.” H.S. Gordon, *Economic Theory of a Common Property Resource: The Fishery*, 62 JOURNAL OF POLITICAL ECONOMY 124, 135 (1954).

231. CCSBT, *Report of the Special Meeting of the Extended Commission* at 4, ¶ 13 (2004) [hereinafter CCSBTSM4 Report], available at [www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_11/report\\_of\\_special\\_meeting.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_11/report_of_special_meeting.pdf). See also *id.*, Attachment 4-4 at 2 (detailing the argument by New Zealand that any objective that does not rebuild the stock “would be contrary to the [1993] Convention and our international obligations,” although there was “flexibility around the timeframe for achieving rebuilding”).

232. *Id.* at 5, ¶ 13.

233. *Id.*

234. CCSBT-ESC4 Report, *supra* note 87, at 8, ¶¶ 37-38, 9, ¶ 45.

The proposed upper and lower bounds of parental biomass in 2022 of 1.5 and 0.7 times  $B_{2002}$  were accepted, although a lower bound of 0.8 or 0.9 might be preferred, and emphasis was laid on exploring procedures around the “moderate level” of 1.1 as a coefficient (that is, aiming for the stock in 2022 to be only 10% larger than its depleted state of 2002).<sup>235</sup> In settling on these parameters, members appear to have been taking their cue from the views of industry representatives consulted during the CCSBT’s development of a management procedure, some preferring to aim to rebuild the stock to its 2002 level, others favoring merely arresting its decline, but none calling for rebuilding to  $B_{msy}$ .<sup>236</sup>

In other words, even if the catch figures that the CCSBT had been using up to 2006 had been accurate and the 2004 management procedure had been fully implemented, it is not clear when, if ever, the stock would have been rebuilt to  $B_{msy}$ , as Article 5 of Annex II to the U.N. Fish Stocks Agreement and (subject to economic and environmental factors) Article 119, paragraph 1(a) of UNCLOS both require.

This should not be surprising; the economics of fishing produce a paradigm shift when the  $B_{msy}$  barrier is breached, so that operators will resist the injunction to restrict catches in order to rebuild the stock to  $B_{msy}$  from below. An example of the trouble this causes is an unreported judgment of the New Zealand High Court in a case where evidence had been led that in the New Zealand snapper fishery a yield of 92% of MSY was being produced by a biomass that was only 50% of  $B_{msy}$ . The Court held that the Minister of Fisheries had discretion as to the pace at which to rebuild to  $B_{msy}$ , but not about whether to do so at all.<sup>237</sup> While Burke’s criticism that this will lead to greater risk of depletion is hard to understand, the case does illustrate the economic point that a fishery in this position would need a substantial drop from the current level of catch in order to rebuild the stock to  $B_{msy}$ , but participants would not be rewarded by much more catch in the future. Even a low discount rate might not justify this in cost-benefit terms, though a reduction in unnecessary effort might. The discount rate of SBT, however, is very high. This is illustrated by the aborted CCSBT management procedure: in 2005, a cut in the TAC for 2006 of 5000 tonnes (which was to have been the first step in a management procedure aimed at reaching a particular stock size by 2014) was delayed by a year. Still wanting to

---

235. CCSBT-EC2 Report, *supra* note 66, at 8, ¶ 52.

236. See CCSBT-MPW2 Report, *supra* note 200, Attachment G, ¶7.

237. William T. Burke, *Evolution in the Fishery Provisions of UNCLOS*, LIBER AMICORUM JUDGE SHIGERU ODA Vol. 2 1355, 1356-59 (N. Ando, E. McWhinney & R. Wolfrum, eds., Kluwer Law Int’l 2002).

meet that goal, the members accepted the Scientific Committee's advice that the delayed cut would instead have to be 7160 tonnes.<sup>238</sup> In other words, 5000 tonnes "borrowed" from the stock for a year and then repaid over eight years would result in a total repayment of  $8 \times (7160 - 5000) = 17,280$  tonnes.<sup>239</sup>

The fisheries economics literature predicts as much: if, as is typically the case, vessels and labor cannot be immediately redeployed elsewhere, the appropriate policy is not to close the depleted fishery altogether—which would be the quickest way to reach  $B_{msy}$ —but to rebuild the stock gradually.<sup>240</sup> Since a stock that is depleted can still be fished sustainably (albeit at a yield far below MSY) it can still generate worthwhile economic returns. That it may be more profitable to continue to fish a depleted stock at that low yield than to try to rebuild it is evidenced by the \$A300,000 per tonne being fetched by Australian SBT quota in mid-2002.<sup>241</sup> Because this figure represents the present value of  $1/5265^{\text{th}}$  share into the indefinite future of whatever catch limit Australian authorities impose, anyone willing to pay this price must have thought the fishery's economic prospects bright, all the more so with the lower price being fetched on the glutted Japanese market at the time.<sup>242</sup>

---

238. See CCSBT-EC4 Report, *supra* note 64, ¶¶ 47-66 (discussing TAC).

239. Obviously, the total tonnage repaid would be far closer to the 5000 tonnes borrowed if the repayment occurred over one or two years, but the very fact that members regarded this as worthwhile is a worrying indicator of just how high their implied discount rate is (in other words, how much less subjectively valuable for them the prospect of a tonne of SBT caught in a year's or ten years' time is than a tonne caught today), and thus how strong the desire to resist rebuilding the stock to  $B_{msy}$ —UNCLOS Article 119 and Annex II to the U.N. Fish Stocks Agreement notwithstanding—can be expected to remain. In fact, the implied discount rate, assuming net returns of a fixed price per tonne of SBT in 2005 dollars, is no less than 40.326% *per annum*. See MoneyMadeClear Loan Calculator, [http://www.moneymadeclear.fsa.gov.uk/tools.aspx?Tool=loan\\_calculator](http://www.moneymadeclear.fsa.gov.uk/tools.aspx?Tool=loan_calculator) (last visited Oct. 9, 2009) (obtaining the result by filling in the first, second, and fourth boxes with 5000, 8, and 1, respectively, and manipulating the figure in the third (interest rate) box in order for the result displayed in the fifth (annual repayment) box to be exactly 2160).

240. G.R. Munro & A.D. Scott, *The Economics of Fisheries Management*, in HANDBOOK OF NATURAL RESOURCE AND ENERGY ECONOMICS, Vol. II, 623, 651 (Allen V. Kneese & James L. Sweeney, eds., North-Holland, Amsterdam 1985).

241. Andrew Serdy, *One Fin, Two Fins, Bluefins: Some Problems of Taxonomy and Nomenclature Affecting Legal Instruments Governing Tunas and Other Highly Migratory Species*, 28 MARINE POLICY 235, 242 n.26 (2004).

242. See CCSBT-EC2 Report, *supra* note 66, Attachment 11 (referring to the "current depressed market in Japan"). Note, though, that there is no reason to think that quota as an asset would be less prone to speculative bubbles than, say, shares.

Against this economically unpromising backdrop, the precautionary approach to fisheries in Annex II to the UN Fish Stocks Agreement is less likely to succeed as a means of reversing depletion than it is in preventing it in the first place for stocks not overfished. Although setting  $B_{msy}$  as the limit reference point serves unexploited and lightly or moderately exploited stocks (i.e. those that are above  $B_{msy}$ ) well, left to their own devices, as the CCSBT's attitude shows, those exploiting a stock already driven below  $B_{msy}$  will have insufficient economic incentive to rebuild the stock at all, to the detriment of those States that could reasonably hope to profit from access to a healthier, rebuilt stock.<sup>243</sup> From this perspective, it matters little whether  $B_{msy}$  shifts to being a limit reference point under the precautionary approach from its role as a target reference point under UNCLOS (in U.N. Fish Stocks Agreement Annex II terms); this will only become relevant after the stock has recovered. Even recovery to  $B_{msy}$  would be a major advance for SBT, so that for the foreseeable future it will be enough for the CCSBT to set its management compass by UNCLOS alone.

Evidently, then, something more is needed to bring the legal and economic incentives for depleted stocks into alignment, and it is suggested that willingness to invoke State responsibility is the missing element. The news from the biological front is better; the starting point here is that, grim though the current state of the SBT stock is, precedents from other comparable fisheries indicate that recovery is possible. Pacific halibut, for example, is similar in longevity and late maturity to SBT,<sup>244</sup> yet was brought back from severe depletion: “[a] fishery which

---

243. The Western ABT stock is another example of this phenomenon: with the spawning stock biomass estimated in 1996 to be 13% of  $B_{msy}$ , Panel 2 of ICCAT was informed that an annual catch of around 2500 tonnes would roughly double it in twenty years, but to get to  $B_{msy}$  in twenty years would require a drastic reduction in catch to 500 tonnes *per annum*. ICCAT Green Book 1997/1, *supra* note 102, at 112, ¶ 5.b.2. Despite this, Japan proposed raising the TAC to 2500 tonnes from its then current 2200 tonnes, *id.* at 113, ¶ 6.b.3, a course of action adopted first by the panel, *id.* at 114, ¶ 6.b.17, and then by ICCAT itself., *id.* at 47, ¶13.4. Although a twenty-year rebuilding program was adopted in 1998 (with a twenty-year TAC unless amended), ICCAT Green Book 1999/1, *supra* note 102, at 67, at the first signs of recovery in 2000 Canada and the U.S. wanted the TAC held at 2500 tonnes, whereas Japan argued for an increase to 3000 tonnes even though only two out of four assessments showed that this was sustainable, ICCAT Green Book 2001/1, *supra* note 102, at 213-15. In 2007, the TAC had to be reduced to 2100 tonnes. ICCAT Green Book 2007/1, *supra* note 9, at 144, ¶ 3.

244. In this species, individuals older than twenty are common; females mature from age eight to sixteen with a mean of twelve and are much more susceptible to overfishing than males, which mature between the ages of five and eleven (at nine on average). H.A.

had been disastrously depleted by unrestricted fishing has been so restored as to be one of the best stabilized and most profitable to its fishermen."<sup>245</sup> Although doubts raised by some on this score<sup>246</sup> seem vindicated by the subsequent severe shortening of the fishing season and economic waste associated with the open access fishery for this species, it does not follow that one should deny the recovery was worth bringing about, even if it could have been done better.

On this basis, it is hard to avoid the conclusion that the members of the CCSBT are in collective breach of their conservation obligations under customary international law and UNCLOS Article 119 to other States that could profitably fish a rebuilt stock at  $B_{msy}$ . But the CCSBT is surely not unique in this; a similar analysis performed for other stocks managed by other commissions would no doubt come to the same conclusion for a good number of them, possibly with the eastern Atlantic and Mediterranean stock of Atlantic bluefin tuna at the top of the list.

The international fisheries law community made a bad start in implicitly treating quantified catch limits as *obligations de conduite*. This was much less conducive to the success of international fisheries management than if they were *obligations de résultat*, because fish caught in excess of a catch limit are lost to the stock even if the overcatch is in legal terms excusable. If this leads to overcatch being repeatedly ignored, with no downward adjustments made to future catch limits, then the stock will be vulnerable to depletion over time.

Thus, the question that commissions should ask when faced with overcatch is not whether a State has behaved in a way that merits some sort of compensatory adjustment being levied against it, but rather who—the overcatching State or the members as a whole—should bear the loss when one of their number exceeds its quota, excusably or otherwise. With State practice through fisheries commissions' compliance committees now at least appearing to accept that quantified catch limits are *obligations de résultat*, a revived role for State responsibility may become a realistic possibility. If all are accountable to each other thanks to their right to fish on the high seas, then the freedom of fishing in UNCLOS Article 116, as well as being the cause of the problem, paradoxically becomes part of the solution. The creation of

---

Dunlop, *Management of the Halibut Fishery of the Northeastern Pacific Ocean and Bering Sea*, 222, 226-27, U.N. Doc. A/Conf.10/7 (1956).

245. *Id.* at 223. It is not clear, however, where in relation to  $B_{msy}$  the stock stood at its nadir.

246. MYRES S. MCDUGAL & WILLIAM T. BURKE, *THE PUBLIC ORDER OF THE OCEANS: A CONTEMPORARY INTERNATIONAL LAW OF THE SEA* 482 (1962).

a legal pecking order for access to stocks is not, by itself, where the matter ends. Because it means that those States at the bottom face the risk of being left with nothing, a duty is thereby imposed on those higher up to manage the fishery in a way that maximizes the likelihood that something will be left over for those below. At present, this is perhaps best expressed as those States at the top having to fish conservatively in accordance with the precautionary approach to fisheries in Annex II to the U.N. Fish Stocks Agreement. The paucity of State practice may stand in the way of a conclusion reached along classical lines that this has entered the corpus of custom, but the ultimate practical effect may be the same where, as here, an identical conclusion can be derived from the duty of cooperation (whose customary status is not doubted).

#### V. FINAL WORD: STATE RESPONSIBILITY AND A THEORY OF EVERYTHING?

If the success of fisheries commissions is gauged by the health of the stock(s) under their management, the CCSBT and its members cannot be said to have succeeded in overcoming the problems of the past. Indonesia's eventual accession to the U.N. Fish Stocks Agreement, if it occurs, will help in the CCSBT, but more than anything else, what is required is to create real, dissuasive consequences for those who do not comply with conservation obligations, in the form of the delinquent State's secondary obligation to restore the stock to the position it would have been in had that State originally complied. The dispute settlement provisions of the U.N. Fish Stocks Agreement make an approach based on revival of State responsibility more realistic, whether or not an aggrieved State actually resorts to them.

Indeed, increased attention to State responsibility has other potential benefits for the management of international fisheries.<sup>247</sup> It makes

---

247. The variety of possible uses for invocation of State responsibility is considerable. With a modicum of imagination, the CCSBT could have used such a strategy as a way out of the 2002 impasse caused by Japan's insistence that there were 1000 tonnes of spare quota—its trade statistics suggested that Indonesia's catch was around this much less than the figures used by the scientists—of which 500 tonnes should be redistributed to existing members and the rest retained for stock recovery. CCSBT8 Report, *supra* note 66, Attachment N-2. Instead of resisting Japan's call, Australia and New Zealand could have invited Japan to assume international responsibility for Indonesia's catch as well as its own, and on that basis could have consented to a combined quota for Japan and Indonesia of around 7000 tonnes. True, Japan would have been wise to decline such an offer, given that its confidence was soon proven misplaced, CCSBT-ESC4 Report, *supra* note 87, Attachment 4. Yet this could only have come at the cost of being seen to lack the

accounting properly for catch all the more crucial. There are two issues here: defining and adhering to catch limits. As to the former, irrespective of whether quota trading hereafter becomes a reality in the CCSBT and other fishery commissions, it is clear that when such bodies set TACs, in order to guarantee that “total” means just that, they must ensure that it is clear whether their quota allocations cover only commercial catch or all sources of catch: bycatch, scientific research catch, and recreational catch. On the latter, the disastrous effect of misreporting catch not only for the fishery but also for the science that supports it was made clear in 2006 when, just as the CCSBT’s painstakingly developed management procedure was about to be implemented, the Japanese catch figures on which it was partly based were exposed as grossly understated. The Chair of the Scientific Committee advised that implementation could not proceed, as the revelations had raised major uncertainties about the operating model, such as how much additional fishing effort had been expended to make the newly admitted catch.<sup>248</sup> Resolving these questions is likely to take several years,<sup>249</sup> with substantial investment by the CCSBT—efforts put in by the working group convened for this purpose from 2000 through a series of resource-intensive workshops, the engagement of a number of outside consultants as an Advisory Panel, culminating in a Special Meeting of the Commission,<sup>250</sup> and the choice of a management procedure from among the ones offered by the Scientific Committee<sup>251</sup>—in the interim set at naught.

Because past understatement of catches and profits will serve to diminish the compensation available, raising the profile of State responsibility in fisheries should become a factor dissuading States from concealing the full extent of their fishing activity. Concern to limit potential compensation could also be a far-reaching way to integrate the

---

courage of its convictions. Had it accepted, the responsibility for remedying the combined overcatch would have fallen entirely on Japan.

248. See e.g. CCSBT, *Report of the Seventh Meeting of the Stock Assessment Group*, at ¶¶ 43-57 (2006), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_13/report\\_of\\_SAG7.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_13/report_of_SAG7.pdf).

249. The timeframe for adoption, even of an interim management procedure, would be three to five years. CCSBT-EC5 Report, *supra* note 99, at 8, ¶ 46.

250. See CCSBT, *Report of the First Meeting of the Management Procedure Workshop* (March 3-4 and 6-8, 2002), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_9/report\\_of\\_mpws1.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_9/report_of_mpws1.pdf); CCSBT-MPW2 Report, *supra* note 200; CCSBT, *Report of the Third Meeting of the Management Procedure Workshop* (2004), available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_11/Report\\_of\\_mpws3.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_11/Report_of_mpws3.pdf); CCSBT-MPW4 Report, *supra* note 199; CCSBTSM4 Report, *supra* note 231, app. 3.

251. CCSBT-EC3 Report, *supra* note 66, at 8, ¶ 51.

work on disciplines on fishery subsidies in the World Trade Organization's Doha Round<sup>252</sup> into the broader international fisheries law framework. Because compensation at the international level is payable to States and not to the individual vessels or persons of their nationality who have suffered the loss, a State faced with a claim for compensation would naturally be inclined to insist as to quantum that the gross losses of those individuals be discounted for any subsidies, which do not represent a loss to the subsidizing State.

Considerations of this kind suggest that States ought not to be able to limit their liability even *inter se* by according themselves high quotas in commissions. To the extent that a quota binds other members of the commission, quotas that are part of a TAC that is in biological terms too high leave members with no legal recourse against States that fish within those quotas, and limit the compensation payable if the quotas are exceeded. Here, too, the role of outsiders is crucial, as collectively the members have chosen to bear the risks associated with a dangerously high TAC, but will remain collectively responsible to them, if not to each other, even without any member exceeding its catch limit. Accordingly, it should be provided that quota decisions are not to be taken as a voluntary assumption of risk by those members objecting to it as too high and not subsequently exceeding their own quotas under it, or those voting against it for this reason where there is no objection procedure. In this way, the revival of State responsibility will give States an incentive to move away from lowest common denominator decision-making procedures and promote efficacious alternatives in the fisheries commissions of which they are members.

If the aim is to overcome the tragedy of the commons besetting high seas fisheries, it is hard to disagree with the Organisation for Economic Co-operation and Development's advocacy of indirect enforcement by holding flag States accountable for the actions of their vessels and nationals, with quota or trade sanctions for non-compliance<sup>253</sup>—in other

---

252. World Trade Organization, Ministerial Declaration of 14 November 2001, WT/MIN(01)/DEC/1, 41 I.L.M. 746 (2002). In the WSSD Plan of Implementation, subparagraph 31(f) notes the necessity to “[e]liminate subsidies that contribute to illegal, unreported, and unregulated fishing and to over-capacity, while completing the efforts undertaken at WTO to clarify and improve its disciplines on fisheries subsidies.” WSSD Plan of Implementation, *supra* note 219.

253. Geen et al., *supra* note 181, at 158. See also Veijo Kaitala & Gordon R. Munro, *The Management of High Seas Fisheries*, 8 MARINE RESOURCE ECONOMICS 313, 325-26 (1993) (noting that, without some mechanism of this kind, even a successful stock-rebuilding program will remain vulnerable to a breakdown in cooperation caused by the shift of bargaining power in high-cost harvesters' favor as the health of a stock is

words, to reinstate State responsibility into international fisheries law. Should quota trading become more widely practiced, this would require that the effect of purchasing quota should be that the transferee member's responsibility for reporting and compliance should be the same as if it had originally been allocated the entire amount by the commission. Considering the potential complexity of any accounting mechanisms,<sup>254</sup> it would also be sensible to have some subsidiary means for enforcement of quotas. For example, members of the now defunct International Baltic Sea Fisheries Commission were permitted to refuse landings of quota species from vessels flagged to States whose quota was exhausted.<sup>255</sup>

Clearly, the matters set out in these last pages require a great deal more elaboration on the part of interested States and scholars in the years ahead (including building on the ILC Draft Articles on State Responsibility) before they can take their place in the developing international fisheries law landscape. For such an all-embracing "theory of everything" to emerge, however, it should be apparent that the role of new entrants — as potential participants in a high seas fishery for a stock like SBT keen to ensure that their rights are not infringed, by quota trading or otherwise — will approach in importance that of the actual participants to date as they attempt to capture the benefits of the fishery for themselves.

---

restored; because of its objection procedure, this description is not met by NAFO (and presumably every other fisheries commission with a similar procedure)).

254. Despite addition, subtraction, multiplication, and division being the only mathematical operations used, the opacity of the tables in ICCAT reports make it difficult to see how catch limits worked out in this way are derived. *See, e.g.*, ICCAT Green Book 2006/1, *supra* note 51, at 220-29. The problems that might arise under an excessively complicated accounting system are illustrated by Canada's erroneous interpretation of an earlier measure. ICCAT Green Book 2000/1, *supra* note 182, Annex 5-2, at 70 (taking paragraph 3(c) to mean that Canada could carry over only 10% rather than all of its unused dead discard quota; the reference to 10% was in fact Canada's share of the TAC). Canada did not subsequently reclaim the inadvertently forgone 90%. In a later "National Report of Canada," there are useful worked examples in prose of how overage and unused discard quotas carried forward to subsequent years in ABT and swordfish work. ICCAT Green Book 2004/3, *supra* note 188, at 11.

255. *Geen et al.*, *supra* note 181, at 154. This Commission ceased to exist at the beginning of 2007 after all its members but the Russian Federation joined the latter. *See* European Commission, About the Common Fisheries Policy, The International Baltic Sea Fisheries Commission (IBSFC), [http://ec.europa.eu/fisheries/cfp/external\\_relations/rfos/ibsf\\_en.htm](http://ec.europa.eu/fisheries/cfp/external_relations/rfos/ibsf_en.htm) (last visited Oct. 25, 2009).