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THE CONSERVATION OF WHALES

Hughes Griffis

I. INTRODUCTION

A discussion of conservation presents three pitfalls. Economically, there are strong societal interests which oppose conservation; the value of the animal’s skin and meat seem more important than the animal’s role in nature. Scientifically, the data necessary to prove the conservationist’s arguments are usually available only after the damage is done; the adverse effect of pollution in a river cannot be factually substantiated until the fish begin to die. Therefore, legally, legislation either must be based on speculation in the face of opposing economic interests or be enacted too late. These difficulties are reflected in the problem of whale conservation.

II. THE SCOPE OF THE PROBLEM

A. Economics

At the outset, some classification of the animal is necessary.1 Categorized by their eating habits,2 whales compose two distinct groups. The first group, baleen whales, subdivides into right whales3 and finners. In commercial terms, this is the only important group. The second group, toothed whales, along with a few rare species, such as pygmy and boluga whales, have never been hunted to the point of endangerment and thus will not concern us here.

The diversification and value of whale products are just developing. Historically, whales were hunted for their oil.4 Originally used as a fuel

1. See J. Tomasevich, International Agreements on Conservation of Marine Resources 275-88 (1943) for additional factual detail on whales. See also K. Brandt, Whale Oil: An Economic Analysis 11-33 (1940) and Kellogg, Whales, Giants of the Sea, 77 Nat’l Geographic 35 (1940).
2. The whalebone or baleen whales eat small crustaceans while the toothed whales eat even larger animals such as cuttlefish. See J. Tomasevich, supra note 1, at 275-76.
3. This species is almost extinct due to uncontrolled hunting. See J. Fisher, et al., Wildlife in Danger 60 (1969).
4. A pregnant female has the highest oil content; consequently she is hunted the most, and the whale’s reproduction is drastically checked. L. Leonard, Inter-
for illumination, it is now a constituent of some margarines, lard com-
pounds, and to a lesser degree, soup. However, modern trends suggest
that whale by-products will become even more important. At first this
area only included whale bone, ambergris, and whale meat; the shift
is now more towards animal feed, fertilizer, and hormones and vita-
mins.

At the same time, innovations and improvements in the whale indus-
try have made fishing extremely efficient. In 1870, the shell harpoon,
so termed because it was fired from a gun, replaced the hand-thrown
shaft. This improvement, which allowed fishing from a distance, increased
the number caught, due to its range and safety. Also, whalers could
now hunt the faster and stronger finner whales. A second innovation
was the use of the floating factory. Begun in 1906, it freed the whaler
from his land-based processing and storage and allowed him to stay at
sea longer. In the 1920's, slip-ways, large ramps leading from the ship
into the sea, were built into the sterns of the factories, and whole
whale carcasses could be hauled aboard ship under all weather condi-
tions. Today the development of helicopters and sonar devices has greatly
simplified the problem of finding the whales.

Nonetheless, the rate of reproduction of the whale, without human
interference, would be sufficient to replenish the stock. Whales can
have their first calf at three years; one young is produced every two
years. This slow rate of renewal is compensated for by a relatively long
life span, twenty to thirty years. Further, the growth rate is unparalleled;
a young blue whale will grow five hundred pounds a day. Therefore, in
terms of number and size, the whale population could be raised above
the endangered level within ten years.

In sum, the whale's reproductive ability, combined with the fishing
techniques available, offer a profitable industry. Yet, the nations in-
volved have continued the policy of "plunder now, pay later" to the
point of endangering this lucrative business. International agreement
has failed to stop this irresponsible over-exploitation, and the whaling
industry has made no plans for the future. The consequent impending
extinction of the whale seems contrary to "good economic sense."

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5. Whale meat was used for human consumption in Japan and Norway and for
animal consumption in the United States until 1968. W. Cromie, The Living World
of the Sea 279 (1966).
6. The Pacific grey whale was protected, and, consequently, its population has
grown from near extinction to 8,000. J. Fisher, supra note 3, at 61.
7. An example of this regenerative ability is the increase of the Pacific grey whale,
which resulted after the animal was protected. Id.
9. Id. at 66.
B. Ecology

There is a significant relationship between the whale and other marine life. Being migratory by instinct, whales travel from region to region, depending on where food is most abundant in the upper layers of the ocean. This transitory pattern has the immediate effect of continually maintaining certain levels of crustaceans throughout the oceans. It also has certain ancillary effects such as supporting the pilot fish that travel with the whales.

Furthermore, the baleen whale lives on small crustaceans, particularly shrimp-like "krill," which have a high protein content. Because of the small size and thus large number required, it is economically unfeasible to fish these "krill." The whale, however, consumes them in vast quantities daily, the protein becoming whale meat. In the context of a world with limited quantities of food and an ever multiplying population, this source of protein may become critical.\(^1\)

Whether the whale is an important part of the ecological balance and whether an imbalance will have dangerous repercussions cannot be answered definitely, but the very possibility would suggest waiting until the answers are found. Generally, when man has tampered with one element of nature's balance, unforeseen and detrimental results have occurred.\(^1\) Moreover, any damage caused by the disruption of this relationship would be irreparable.\(^1\)

III. Legal Agreements

Efforts to control whaling may be divided into four chronological stages of development: the initial agreement of 1931, its subsequent amendment in 1937, the post-World War II International Whaling Commission, and the current Committee of Four Scientists. The effectiveness of these stages may be gauged by analyzing five factors: scope for the sake of comprehensiveness,\(^1\) acceptance for validity,\(^1\) enforce-

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10. See W. Cromie, supra note 5, at 304.
11. The use of pesticides is an excellent example. In trying to kill insects, we have unbalanced the ecological scheme. See R. Carson, Silent Spring (1962).
12. Destroyed buildings can be rebuilt; destroyed works of art may possibly be replaced by new creations; but every animal and every flower which becomes extinct is lost forever in the most absolute of all deaths. J. Fisher, supra note 3, at 7 (from the Preface by J. W. Krutch).
13. History has proven that unless a law covers all aspects of the subject, loopholes develop which can defeat the very purpose of that law.
14. Without acceptance, international agreements, of course, lose all force, for the acceptance itself is the source of the agreements' power.
ment for effectiveness, quotas for control, and knowledge for coordination and understanding. Like most agreements, whaling treaties are only as effective as their weakest function.

A. INTERNATIONAL CONVENTION OF 1931

The first attempts at conservation came in 1926 when the Norwegian whaling interests asked their government to curtail any further expansion of the industry, their purpose being to check growing competition. In 1927, at a meeting of the Whaling Committee of the International Council in Paris, the Norwegian government recommended controlling this expansion through the use of permits. The proposal not only brought the issue of whaling into the international arena but also provoked a debate as to the approach to be used. England agreed with Norway on the use of national controls. Japan preferred a more international system of bilateral or multilateral agreements. Germany and the Netherlands objected to any level or type of limitation on their industries' growth. The debate caused the League of Nations to begin examining the feasibility of an international control agency. The result of Norway's proposal did not come until September 1931—the International Convention for the Regulation of Whaling.

Although the Convention covered several important factors, its silence on key points was fatal. On the positive side, the Convention applied to the baleen whales, the commercially important ones, and covered all the oceans plus the territorial waters of the contracting countries. Licenses were required from the flag nations. The price of whales was to be based on value and not number; thus whalers were forced to consider the size of the whales. However, several definitions were left too ambiguous, thus creating loopholes. For instance, the age of an immature whale, immune from hunting, was not set, with the result that young ones who

15. In the area of fishing, quotas are the best limitations since other controls such as seasons may be circumvented by improved fishing techniques.
16. Man's knowledge of the whale has always been very limited, and, as such, plans concerning the whale have often been based on conjecture alone.
17. Both governments desired to prevent the necessity of establishing an international agency, and, furthermore, bilateral arrangements, such as the agreement between Britain and Norway in 1930, could be more easily adapted to change. See J. Tomasevich, supra note 1, at 282.
18. In 1930 the International Bureau of Whaling Statistics was established in Oslo by the Norwegian government. Id. at 283.
21. For example, what constitutes a violation of the treaty and the length of the whaling season were never defined or fully covered by the convention.
should have been protected were hunted.

As far as enforcement was concerned, the countries still insisted on a national approach to port inspectors and licensing. This approach had two defects. The law enforcement officers had no jurisdiction over other nations' ships, except when in the officer's port; thus, the high seas, where the hunting took place, were not policed. Second, the officers were lax in controlling their own country's ships.

Although twenty-six nations signed, the U.S.S.R., Japan, Chile, and Argentina did not.22 These four countries felt that even the modest provisions of the Convention would restrict expansion of their industries.23 Without these countries, especially a major exploiter like Japan, the controlling nations felt unfairly restrained and were thus less eager to enforce the regulations.

The International Bureau at Oslo, Norway, collected all data. Each nation would send summaries of the year's operations, covering size of catch, areas fished, tons of oil, etc. However, the science of marine biology was still in its infancy and that of marine ecology almost non-existent.

Lastly, in regard to quotas, the Convention neither set catch limits nor placed any obligation on the contracting parties to further limit their nationals.24 In short, the areas of scope, acceptance, and enforcement were developed, although unsuccessfully. The Convention did begin the collection of data but failed completely in the area of quotas.

B. AGREEMENT OF 1937

Although Norway implemented unilateral efforts (minimum size of the whales hunted) and bilateral efforts with England (limit on number of whales caught during 1934, 1935), total whale oil production increased.25 Because of this unchecked growth, another major effort was made in London in 1937—the Agreement for the Regulation of Whaling and Final Act.26 In terms of scope, the plan was expanded to include

22. Germany signed but failed to ratify. See L. Leonard, supra note 4, at 102 n. 299.
23. In addition, the four nonsigning countries feared that established whaling nations, such as England, might try to expand the treaty to limit the number of ships used and the length of the season. Id. at 102-03.
24. These additional national laws would not have been enacting legislation but rather restrictions on further expansion. Id. at 102.
25. From 1930 (the worst year) to 1937, whale oil production went from 150,000 tons to 605,800 tons. This increase was due mainly to improved technology and the discovery of a large whale stock in the Antarctic. D. Johnston, The International Law of Fisheries 396 (1965).
right and grey whales, as well as the fin, small blue, humpback, and sperm whales; however, these species were not commercially significant. The whaling nations would accept changes in form that had no substantive effect on the industry.

In regard to enforcement, which was still on a national level, the agreement required at least one observer on each factory ship; however, the system neither expanded the jurisdiction of the enforcement officers over other nations' ships nor caused the officers to be more strict with their own nationals. Again, only the form was changed, not the substance. The agreement did suggest that the contracting parties take stricter unilateral action if the situation required it, but being only a "suggestion," nothing happened.

The number of whaling nations not signing this accord was reduced to three—U.S.S.R., Japan, and Chile. The attitude of Japan is especially important. It sent an observer to the conference who stated that Japan would follow the agreement as closely as possible but would not sign it; in reality this approach was an attempt to encourage limitations on other whaling nations while still leaving Japan free to expand its industry.

Although scientific data was building up at Oslo, some rather extraordinary beliefs persisted. For example, in 1938 a Protocol to the agreement to check the excessive whaling was debated; it was suggested that "all regulations be dropped and indiscriminate whaling be allowed until stocks were reduced to the level at which whaling ceased to be remunerative." This suggestion demonstrated that not enough was then known to realize that if an animal population fell below a certain point, it might never rise again. Because of this ignorance, the whaling nations might have destroyed their industry without even realizing it.

In terms of quotas, the greatest advance was made; the season was shortened both with respect to area and time. A minimum length of

27. This shift from land to sea inspectors did prove effective later when implemented with more authority. See text accompanying notes 47-48 infra.

28. Suggestions appearing in the international agreements are at best policy statements and, in an area of disagreement, such as whaling, have little effect.


30. The Japanese pledge seems to have had little impact on its activities. In the following three years, Japan's percentage of total production increased from 9% to 15% and then to 21%. See J. Tomasevich, supra note 1, at 280.


32. For examples of this law of nature, see J. Fisher, supra note 3, at 21-22 (Tasmanian wolf), at 74-75 (giant panda), at 86-89 (Barbary leopard).

33. Concepts such as time and area can be circumvented by too many factors, for example, improved fishing techniques and number of ships used. These concepts can only become effective when coordinated with quotas and fully enforced.
whale was set for all species covered by the agreement.\textsuperscript{34} Sanctuaries were set up in the Atlantic, Pacific, and Indian Oceans where hunting was prohibited. However, this advance in limitations was one of form, not substance, and was uniformly unsuccessful. The improvements in fishing techniques more than compensated for the seasonal restrictions. The sanctuaries covered areas that had never been fished before. Most important, the only really effective quota, on the production of whale oil,\textsuperscript{35} was not used.

In short, although there were changes in scope, enforcement, and quotas, the corrections were only in form; the nations would still not agree to any substantive improvements that might limit their industries.\textsuperscript{36} This aversion to limitations was accentuated by the refusal of three countries to accept the formal changes. None of the nations realized that instead of expanding their industries, they might be destroying them.\textsuperscript{37}

The reasons for the failure of the agreements reached in 1931 and 1937 were found in the conditions of the industry itself. Norway and Great Britain, having well-developed whaling industries, were opposed to expansion and wished to maintain the status quo. Conversely, Japan and Germany, who wanted to develop their industries to obtain raw material without foreign exchange, refused to accept any limitation on expansion. Between these two extremes, there were several countries who wanted some stability yet also wanted the possibility of growth. This group included both signatories and non-signatories (for example, Canada, Denmark, Finland and Australia, Greece, India); a nation's decision to sign or not to sign depended upon whether the national emphasis was on stability or on expansion. The net result, both in 1931 and 1937, was a compromise based on principles chosen for their acceptability, not for their wisdom.\textsuperscript{38}

C. THE INTERNATIONAL WHALING CONVENTION OF 1948

The onset of World War II drastically cut down the fishing since the ships were used for military purposes and temporarily eliminated

\textsuperscript{34} This was a measure to put an end to the killing of immature whales. See L. LEONARD, \textit{supra} note 4, at 103.

\textsuperscript{35} A quota on whale production forces the whalers to limit the number of tons of whale they catch. It should be noted that advancements in fishing techniques, for example, do not help the whaler circumvent this limit.

\textsuperscript{36} A further reason was the conflicting attitudes of the nations which allowed agreement on only minimal controls.

\textsuperscript{37} See note 33 \textit{supra}.

\textsuperscript{38} The various functions, such as scope and enforcement, had to be set at a minimum to obtain consent from the different nations. A plan with real controls and covering all whales would have been wiser but would have had little chance of acceptance. See J. TOMASEVICH, \textit{supra} note 1, at 284.
Japan from the competition. In 1946, the United States convened a conference which created the Convention for the Regulation of Whaling. Effective as of 1948, it is still today the most important whaling document.

The accumulation of reports at Oslo plus the information gained by the several navies during the War was sufficient to give a comprehensive base to the plan, and thus, the Convention was able to cover every aspect of whaling and whales in detail. Moreover, all the important whaling nations signed, although significant dissensions arose later in the context of quotas.

Most important, in terms of enforcement the Convention created the first effective international agency on whaling, the International Whaling Commission. With its rule-making power, the Commission had significant scope and power to control the entire industry,

by adopting regulations with respect to the conservation and utilization of whale resources, fixing (a) protected and unprotected species; (b) open and closed seasons; (c) open and closed waters, including the designation of sanctuary areas; (d) size limitations for each species; (e) time, methods, and intensity of whaling (including the maximum catch of whales to be taken in any one season); (f) types and specifications of gear and appliances which may be used; (g) methods of measurement; and (h) catch returns and other statistical and biological records.

The jurisdiction of the Commission, Article 1 (2), was over “factory ships, land stations, and whale catchers under the jurisdiction of the contracting governments, and to all waters in which whaling is prosecuted by such factory ships, land stations and whale catchers.”

This broad scope enabled the agency to develop international coordination. The Commission was composed of one member of each contracting government, on a one-man one-vote basis. Through these
representatives a constant forum for negotiation was available. As the Commission became the focal point of all whaling debates, observers from other interested international organizations regularly attended.

As far as enforcement was concerned, the Convention was not immediately successful. The old system of officers controlling their own nationals was used, but this method continued to be as ineffective as it was in 1937 and for the same reasons. Therefore, by the 1956 Protocol, the Commission was authorized to implement an international corps of neutral observers. Chosen from the whaling countries, these observers would check the operations aboard factory ships of other nations, both at sea and in port. The system was based on the assumption that if the observer was in a sense checking his competition, the regulations would be fully enforced. Delayed by negotiations until 1966, the system, although probably effective in itself, failed because of controversies over what quotas to enforce.

The Commission applied an overall quota system to the five major whaling nations: Japan 33%, U.S.S.R. 20%, United Kingdom 9%, Norway 28%, and the Netherlands 6% (1965 figures). The apportionment was negotiated on the basis of past catch records, present ability, and world position. The system, enforced by the neutral observers, would probably have been effective if the several nations could have accepted their individual allotments. No matter where, how, or when the whalers fished, the limit on number would have prevented exploitation, short of cheating. Unfortunately, the nations did not accept their individual allotments.

At first the quota worked, the officially reported catch varying by only two or three percent. However, when the U.S.S.R. demanded a larger share in 1959, Norway and the Netherlands withdrew in pro-

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46. See text accompanying note 38 supra.
47. The Commission supervised the observers and all their duties. This control by the Commission not only improved enforcement coordination but also eliminated the possibility of bilateral arrangements that might contravene the agreement. See D. Johnston, supra note 25, at 403.
48. The nations were at first hesitant to approve such a strong enforcement system since they felt that it might control whaling too tightly; however, the countries realized that no other effective alternative was available. There were also drafting problems, since the powers of the Commission with respect to the observers had to be carefully outlined. Again, the nations wanted a system that was effective but not overly effective. Id. at 406.
49. The apportionment was based on a total figure of 16,000 "blue whale units." Each species was defined in terms of a "blue whale unit," and thus a catch of several different types of whales could be translated into one figure. Thus, 16,000 "blue whale units" equalled approximately the total catch of all the species in 1964. Id. at 407.
50. Although the negotiations were primarily based on the records of past catches, the world stature of countries would appear to have played an important role.
51. The only apparent explanation for the Russian demands would seem to be
test. Thus the Commission was forced to suspend the quota for 1960-1961 and 1961-1962; the other countries remained outside the agreement. Finally in 1962, the Commission agreed on a compromise, accepting the U.S.S.R.'s demands and dividing the remaining concession among the other countries.

D. THE COMMITTEE OF FOUR SCIENTISTS

Just as the quota allotments were settled, a Committee of Four Scientists, from the U.S.A., U.N., United Kingdom, and New Zealand, was formed to report on the condition of the stock and to recommend future limits. These projections were based on factors of endangerment to a species, ability to reproduce, and the importance of each species to the whale stock as a whole. In 1963, the Committee recommended a ban on catching blue and humpback whales in the Antarctic, the major whaling area, and a reduction of the fin whale quota to 7,000. Under pressure from the whaling nations, the Commission comprised by lowering the total baleen whale quota to 10,000 "blue whale units."

In 1964 the Committee insisted on a ban on blue whales and suggested one for fin whales or at least a total limit of 4,000 fin whales and 5,000 sei whales (a subspecies). Most important, the Committee recommended a total catch limit of 4,000 blue whale units in 1964-1965, 3,000 in 1965-1966, and 2,000 in 1966-1967. The Commission only accepted the ban on blue whales.

As to the phased catch, only the non-whaling members would accept it; they would not agree to the whaling countries' proposal of 6,000 (1964-1965) and 8,000 (1965-1966) "blue whale units." Because of this deadlock, the whaling nations agreed informally on a limit of 8,000 (Japan 46%, Norway 28%, U.S.S.R. 20%, and the Netherlands 6%).

The next crisis arose when three Japanese firms bought out their belief that they could coerce a greater share from the other nations.

52. Norway and the Netherlands withdrew on the grounds that the established apportionment was fair and that the U.S.S.R. had no legitimate claim to a greater share. Furthermore, once outside the agreement, they could hunt at will while the other nations would, hopefully, still abide by the limitations. See D. JOHNSTON, supra note 25, at 407.

53. The other nations accepted the compromise for lack of a viable alternative. Id.

54. This committee of scientists, chosen from non-whaling nations, was created because no one could reach agreement on the total catch limit. Id. at 405-06.

55. This "blue whale unit" is identical to the one discussed in note 49 supra.

56. The whaling nations had threatened to walk out if the Commission imposed stricter restrictions. See D. JOHNSTON, supra note 25, at 408.

57. Id.
Dutch competitors and took over the Dutch quota. The U.S.S.R. demanded a revision of the quota arrangement, which Japan refused. The U.S.S.R. then agreed bilaterally with Norway on a separate scheme which raised the total quota to 8,000 "blue whale units."

In short, although this feuding between Japan and the U.S.S.R. has persisted and remains a problem, the real crisis results from the continual rejection of the Committee's recommendations. As long as the whaling nations continue to reject advice on the condition of the stocks and follow only their own immediate economic interests, the Commission can "merely slow down the trend towards the extinction of all whale stock in the Antarctic."

Professor Shigeru Oda of Japan analysed the problem in a slightly different manner. He juxtaposed the principles of free competition and quota allocations and argued that neither is a final solution. While free competition would decimate the whale population and is unacceptable to the countries with less developed fishing techniques, the allocation method, being geared to the economic needs of the industry rather than the survival of the whale, not only hurts the whale stock as much as free competition but also impedes negotiations between conflicting nations.

E. PROJECTED EFFORTS: A MORATORIUM

Another alternative to free competition or quota limitation is an absolute limitation, such as a moratorium. In July 1971, after passage in the U.S. Senate, the House began to consider instructing the State Department to negotiate an international moratorium on all whaling.

As yet no further action has been taken, except that the State Department has voiced its opposition to the proposal.

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58. The agreement allowed the industry of one nation to buy out the quota of another nation. The transaction was between the private enterprises although the national policies of the countries were at stake. Id. at 408.

59. The reasons for the Russian demands were apparently the same as those in 1959. See note 51 supra.

60. If a quota system could be devised which eliminated the need for annual negotiations, perhaps the friction between Japan and the U.S.S.R. would be eliminated.

61. See D. Johnston, supra note 25, at 408-09.


64. The State Department felt that such a proposal might be rejected and the U.S. might possibly lose its position of leadership in this area. Id.
Unfortunately, it is unlikely that any such proposal shall be accepted by the whaling nations. Japan and Russia, the major whalers today, have decided that it is more profitable to hunt the whale to extinction than preserve it on a limited fishing basis. Such a decision obviously disregards the economic and ecological considerations discussed above.

However, even if the major whalers would consider some form of limitation, a moratorium is the least acceptable. A total cessation of fishing would require the whaling fleets to shift to some other area, and this is economically and technologically impractical. Correspondingly, the return shift after the moratorium would be equally impractical. Considering the present approach of Japan and Russia to whaling, such a proposal seems irrational; the history of whaling conventions proves that the preservation of the whale has never been the primary consideration.

IV. A PROPOSED SOLUTION

The legal development of whaling controls has solved the problem of scope. The factor of acceptance arises only when compliance and enforcement are at issue. However, enforcement, via the use of neutral observers, would be solved if the problem of quotas was settled. Thus, any successful agreement on whaling must have a workable allocation of fishing rights. Such a system of distribution must further be designed to eliminate friction in negotiations and thus ensure acceptance.

At the same time, however, the system must consider the survival of the whale. This would mean reaching a quota system that would allow reproduction of the whale population and maintaining the agreed reproduction rate until enough is known about the whale's ecological position to predict the effect of its extinction. The following is a possible solution based on the above analysis.

First, the total catch limit would be set annually by the Committee of Scientists at a level sufficient to allow the whale stock to reproduce above the endangered level. This would be to ensure the preservation of the whale; without such limits, the whale cannot survive. The critical
factor here is acceptance. If the nations involved were to realize the danger of destroying this industry and if the proposed apportionment system alleviated problems of negotiating quota shifts, then acceptance would be possible.

Second, the individual national quotas would be in the form of international negotiable permits. The original apportionment would be determined by past apportionment and present fishing capabilities. All shifts in the number of whales hunted would remain within the overall limit set by the Committee. The shifts would occur when one nation bought or sold some permits; this would operate in a free market context, and the controlling factor would be the efficiency of the whaling operation, not the number of whales. Any nation wishing to develop its own industry could buy permits from one of the whaling countries.

Third, the international neutral observer system created by the International Whaling Commission would enforce the quotas, and fourth, the Commission would consist of whaling nations, nations that might be interested in whaling in the future, and consumer nations. On a one-nation one-vote basis, a two-thirds majority would be required on all matters.

A critical problem inherent in this system is the possibility of a monopoly. Normally, if a monopoly raised prices, the consumer would switch to another product; however, if a monopoly raised the number of whales hunted, only an effective enforcement plan could check it. The third and fourth points would solve the problem by drawing from the International Coffee Agreement of 1962 and the international neutral observer system. The Coffee Agreement includes importers as well as exporters; thus anyone who exports too much coffee can be excluded from the market by the importers. Correspondingly, anyone who over-reaches his whole quota would be excluded from the whale products market. A certificate of origin would be necessary to ascertain, and thus to control, who sold how much to whom.

The immediate weakness here would be a case such as Japan that both hunts and consumes whales. The solution would be the use of the

69. This apportionment would probably have to be negotiated on the same terms as in 1959. However, all subsequent changes would be by the transfer of permits, not negotiations.

70. A similar system is employed to license taxicabs in New York City. A limited number of cabs are allowed, and the licenses, or "medallions" as they are called, may be freely traded. As such, exit and entry into the market remains free yet highly stable.

international neutral observer system. Officers of competing nations would be aboard other nations' ships to ensure the quota was not exceeded.  

Non-whaling nations should be willing to enforce this quota system, for it would preserve the whale in which they may later be interested. They may object to having to buy permits; but without this permit system, the only alternative would be annual negotiations. However, from 1956 to date, the friction over quotas and the failure of negotiations virtually crippled the Commission and defeated the whole quota program.

Lastly, the one-nation one-vote system in the Commission would be to insure that the conservationist interests prevail over the economic ones. With only four major whaling nations, the majority should be composed of non-whaling members, because if votes were to be weighted according to the amount of whaling done, then a nation would buy up the permits and control the voting.

This entire proposal rests on the assumption that conservation considerations are more important in the long run than the economic ones. Obviously, if the whaling nations do not accept that assumption, they will not accept the proposal.

V. CONCLUSION

The above proposal should provide the necessary framework with respect to the key issues of enforcement and quota. Further, the permit system should offer greater stability to the industry by removing negotiation friction and somewhat reorient profits towards efficiency from the number of whales caught. Most important, though, since we do not know the exact relationship between the whale and the ecological balance and what effect the whale's annihilation would have on other marine life, it would seem prudent to wait until we are able to make an educated decision on whether to destroy this animal. The value of the sea's resources as a whole are more important than the whale industry, both to the whaling nations and the world.

72. The enforcement system could even work in the case of only one nation hunting. The other countries would want to preserve the whale for possible future use and to maintain the marine ecological balance.