

The Big Business Takeover of US Fisheries: Privatizing the Oceans Through Individual Transferable Quotas (ITQs)

by Jed Greer

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There are currently too many boats chasing too few fish in the world's oceans. As an attempt to deal with the crises of over-fishing and overcapitalization, governments and certain sectors of the fishing industry are promoting the privatization of the marine commons through the use of a system called individual transferable quotas (ITQs). Under this system, participants are allocated and own quota shares in the total annual catch of a given fishery. Quota holders can transfer—buy, sell, lease—shares on the open market, as with private property. Also like property, ITQs can be taxed, inherited, and in some cases are used as collateral. During the last decade, countries including New Zealand, Australia, Holland, Iceland, Canada, and the United States have introduced ITQs for some fisheries, and elsewhere they are under serious consideration.

Large Corporations Profit . . .

ITQs are intended to address overcapitalization (excess investment) in a given fishery, and their implementation is meant to reduce the number of participants and concentrate quota ownership and/or control. As a market-based approach, ITQs institutionalize a regime which excludes participants based above all on their financial means; those with greater assets are in an advantageous position to acquire quota shares.

Further, ITQ management has attracted big food corporations which make money from “value-added” seafood products they sell on the retail market or to restaurant chains. For such companies, the worth of the right to a percentage of the harvest is much higher than the dockside price; they have a strong incentive, and the available capital, to outbid smaller competitors for quota shares.

Thus with ITQs, access to the right to fish becomes a property right that is most easily controlled by large corporations.

- * When ITQs were introduced in 1990 in the Atlantic surf clam/ocean quahog (SCOQ) fishery, Borden, a leading diversified food company, came to control an estimated 40% of the quahog and 25%-30% of the surf clam quotas before the company sold out in 1994.
- * Currently, two of the largest holders of ITQs in the SCOQ fishery are the National Westminster Bank of New Jersey, affiliate of a top British banking group, and the American subsidiary of the largest accounting firm in the world, Holland-based KPMG.
- * Greenpeace estimates that Tyson Foods stands to be awarded control of at least 13% of the North Pacific groundfish fishery from the outset, should ITQs be introduced in that fishery. This allocation would be worth at least US\$234 million dollars.

- * Caterpillar Corporation, the world's biggest maker of earth moving equipment, recently purchased hundreds of thousands of North Pacific halibut and sablefish ITQ shares at a bankruptcy auction.
- * In New Zealand, where ITQs were introduced in 1986, the three largest fishing corporations owned 43% of the quota by weight in 1987 and 50% in 1992.
- * In Australia's southern bluefin tuna fishery where ITQs were initially allocated in 1984, a relatively small number of companies came to control the vast majority of the quota.

. . . Small Fishers Lose Out

If a variety of big corporate operators are winners with ITQ systems, smaller-scale fishing interests are the losers. In the SCOQ fishery, for example, small, independent, vessel-owning firms found that they received insufficient quota in the initial allocation to continue as before and, unlike large companies, were unable to finance the purchase of more shares or to arrange for bank loans.

- * Small vessel-owning firms have been forced to leave the SCOQ fishery or have been compelled to offer their services for a fee to wealthier ITQ owners, becoming in effect marine “tenant farmers.”
- * Because transferability is limited to those with more capital, ITQs have established a significant barrier to new entrants into the SCOQ fishery without substantial assets.
- * Since initial allocation of ITQs went only to vessel owners, crew members lost their status as “independent producers” and became wage laborers.
- * In 1992, two years after ITQs were implemented in the SCOQ fishery, one-third of the people working in the fishery had lost their jobs; many have been unable to find employment elsewhere.
- * Numerous crewpeople who survived the layoffs are working harder than they did before ITQs were introduced, and for less money.

The Race For Fish

Crew members assert that ITQs have not ended the “race for fish” in the SCOQ fishery, belying the claim often made by their proponents that ITQs are an inherently safer alternative to open-access fishing.

- * Vessels have reportedly continued to fish in poor weather as they compete with one another to supply processors.

* Within two years after ITQs were implemented in the SCOQ fishery in 1990, three mid-Atlantic clam boats had sunk and nine lives had been lost. While the causes of those tragedies are not definitely known, the accidents bring into question the assumption which automatically links ITQs with greater safety.

ITQs' Negative Environmental Impacts

There is a dearth of detailed empirical information about the specific impacts ITQs have on the marine ecosystem. While their supporters claim environmental benefits for ITQs based in part on a priori assumptions—for example that ownership rights will supposedly inhibit unsustainable fishing practices—such claims lack substantiation. Moreover, ITQs worsen some harmful practices such as the overexploitation of “higher yield” fishing grounds and “highgrading” (the discarding of fish considered of lower quality and value).

- * In the SCOQ fishery, according to a crewperson, the fleet can now “kill more clams [because] we have more time to catch them.”
- * Recently in the North Pacific halibut ITQ fishery, a fisherman reports that the first boat to return had only fish over 60 pounds, with one exception; clearly, other, smaller fish had been thrown away to make more room for bigger, more valuable halibut.
- * “Higher yield” fishing grounds are most profitable and therefore receive the most intensive fishing. Because they extend the fishing season, ITQs will afford vessels with unfilled

quota greater opportunity to fish—and more severely exploit—those areas.

Overfishing

In places where their effects have come under even limited scrutiny, the available information raises serious doubts about supporters' faith that ITQs will stop major problems such as overfishing.

- * In the Canadian Atlantic's Scotia-Fundy groundfish fishery, a combination of property-based management systems including individual quotas, enterprise allocations, and ITQs (the first two are similar to ITQs, except that transferability is usually temporary, lasting only for the fishing season) do not appear to have prevented overfishing and its negative consequences in a number of fish stocks.
- * In New Zealand, overfishing has persisted due to significant and widespread “quota busting” (catching more fish than the quota permits) and poaching. Such abuses have made a mockery of claims by ITQ advocates that by giving fishers an ownership stake ITQs will necessarily encourage “self-policing” and thus enhance conservation.
- * There is great uncertainty about clam reproduction and recruitment in the SCOQ fishery in the future, and assessments suggest that stocks face depletion without significant replenishment (recruitment is the number or weight of clams/fish reaching a certain age in a given year).

I. INTRODUCTION

Acute environmental and economic pressures are forcing governments and industry today to change the way they approach the business of fishing. The United Nations Food & Agricultural Organization (FAO) reports that overfishing during the past several decades has depleted stocks in all the world's major fisheries. The total catch has declined in 13 out of 15 of these regions, with areas of the Pacific and particularly Atlantic Oceans suffering the worst losses.¹

On one level, the cause of this excessive, unsustainable exploitation is obvious: Too much fishing capacity within the industry, due to rising numbers of vessels as well as the use of bigger boats with more sophisticated equipment. Between 1970 and 1990 the number of large fishing vessels doubled, as did vessels' gross registered tonnage.² Primarily because of overcapitalization—excessive capital investment in fisheries—fleets, especially those of industrialized countries, now have far greater capacity than they need to take their catch. This has led not just to reduced profitability but severe financial difficulties; the FAO estimated that in 1989 the world's industrial fishing fleet lost more than US\$54 billion.³

But what has caused overcapitalization? As they confront the question, governments and fishing companies have dwelled little on the inadequacy of fisheries regulatory practices in combination with the effects of corporate irresponsibility and greed.

Rather, there has been in recent years growing momentum among policy makers and business executives to locate the root problem of fisheries in "open access," a system many fisheries have used which allows participants to enter at will. Allegedly inherent to fisheries' open access, that is, their status as common property, is an uneconomical attraction of capital and labor, which in turn leads to overfishing. This is the perspective of "the tragedy of the commons," the premise of which is that in the pursuit of their rational self-interest people will overexploit a commonly-held resource.⁴ The prescription of private property rights flows naturally from this diagnosis; privatization as remedy imposes or seeks to impose the structure of a competitive market as a more "efficient" form of fisheries management.

The privatizing instrument for fisheries gaining most popularity among certain sectors of the fishing industry is a system known as individual transferable quotas (ITQs, sometimes called individual fishing quotas, or IFQs). Under this system, participants are allocated and own quota shares in the total annual catch of a given fishery. Although it varies, initial allocation is typically given to fishers who own vessels or who have made another financial commitment to a fishery prior to the implementation of ITQs, and on the basis of some combination of their past and current catch records negotiated by the current participants in the fishery and established by the appropriate fisheries management body.

Quota holders can transfer—buy, sell, or lease—shares on the open market, as with private property. Also like property, ITQs

can be taxed, inherited, and in some instances are used as collateral. During the last decade, countries including New Zealand, Australia, Holland, the United States, Canada, and Iceland have implemented ITQs for certain fisheries, and elsewhere ITQs are under serious consideration.⁵

In part because their implementation has been expanding, and in part because they represent a major change in fisheries management, ITQs demand inspection. Such scrutiny is especially necessary because their supporters frequently gloss over or neglect negative economic and social consequences ITQ programs can have and in fact have had: Augmented ownership and/or control of the right to fish by a few large corporations and corresponding effects on a variety of small-scale fishers, either outright exclusion from fishing or loss of independence and income. ITQs do create "winners" and "losers"; this actuality deserves examination as well as reiteration.

Moreover, proponents claim ecological benefits for ITQs with little or no substantiation. Such benefits are highly questionable on a theoretical level, and while empirical information on the effects of ITQs is sparse, there is material available which undermines or contradicts proponents' claims.

In the discussion of these issues below, much though certainly not all attention is given to the East and West Coasts of the United States. The experience the East Coast's surf clam/ocean quahog fishery has had with ITQs offers detailed evidence of significant problems associated with privatization; it is a compelling cautionary tale. On the West Coast, particularly North Pacific waters off Alaska, there is today a major push by big business to introduce ITQs throughout some of the richest fishing grounds in the world; this example is vivid illustration of the motives and interests central to the effort to privatize the marine commons.

II. ITQs AND CONCENTRATION OF CORPORATE OWNERSHIP AND/OR CONTROL: PART I

"ITQs are designed to reduce overcapitalization. Concentration or consolidation is an objective of the management system."

—David Wallace, Jr. of Wallace & Associates, representing the pro-ITQ Atlantic Surf Clam Ocean Quahog Ad Hoc Committee, 1994⁶

"Do ITQs promote 'big business' as large companies have resources to buy or lease a significant amount of shares?"

"This could happen, as experienced with grocery stores, agriculture and other such enterprises To the extent that larger firms are relatively better capitalized, they may be able to obtain more shares relative to their needs for efficient operation than could smaller firms."

—Rolland Schmitten, Asst. Administrator for Fisheries, National Marine Fisheries Service, answering questions in Congressional testimony, 1994⁷

Intended above all to address overcapitalization, a key goal of ITQs is to reduce the number of fishing participants including companies, vessels, and people. According to supporters, as an approach in which shares are transferred according to the dictates of the market, ITQs will force "marginal" fishers from a fishery but allow the most economical ones to survive.

This can have several consequences. First, it means that ITQs often contribute to concentration of quota ownership and/or control. In the US south Atlantic wreckfish fishery, for example, the largest five quota holders owned 46% of all shares as of mid-1993, up from 23% a year and half earlier when ITQs were first introduced. During the same period, the top ten holders increased their ownership from 40% to 69% of all shares.⁸ Individual quotas in the Canadian Atlantic Scotia-Fundy groundfish fisheries have contributed to concentration of share ownership since they were instituted for the small to mid-sized dragger fleet (vessels under 65 feet) in 1990. (Individual quotas, or IQs, are similar to ITQs except that transferability is limited, usually lasting for the fishing season. Inasmuch as they are based on excludability and do result in a value being placed on quota, IQs are a form of property rights, albeit one different in degree from ITQs. In 1993, ITQs were introduced into the Scotia-Fundy dragger fleet.)⁹

Secondly, with ITQs access to the right to fish becomes easiest for big corporations; those with greater assets are in an advantageous position to acquire ITQs on the open market. While some ITQ proponents downplay or deny the advantage ITQs give to large corporate interests, other advocates candidly associate efficiency with big business. One ITQ supporter, speaking of the North Pacific pollock fishery—where the factory trawler industry wants unrestricted ownership of quota—believes that "ITQs are a natural solution to our overcrowded, inefficient open-access system. They will promote the efficiency of American fishing companies, 'big business' companies, by providing a market-driven harvesting rights plan[.]"¹⁰ "It should be noted," asserts another proponent, "that more and more fisheries are being overtaken by large companies....It should remain this way Sooner or later the most efficient use of capital will prevail."¹¹

Of course, big companies have dominated certain fisheries prior to implementation of an ITQ system. The significance of ITQs, however, is that they institutionalize a regime which excludes participants based above all on their financial means. Inasmuch as they work to the advantage of wealthier players, ITQs often help large corporations intensify their control over what has been a public resource under the guise of enhancing "efficiency," while effectively prohibiting or severely limiting access and its benefits to many others.

In a number of instances where ITQs have been instituted, large-scale corporate interests have augmented their control of access to fish. In Australia, for example, ITQs were initially allocated in the country's southern bluefin tuna fishery in 1984. Energetic share acquisition by a relatively small number of tuna fishing companies led to their gaining control of the vast majority of the quota.¹²

In New Zealand, where ITQs were implemented in 1986, the three largest corporations owned 43% of the quota by weight in 1987 and 50% in 1992.¹³ In 1991, according to one analyst, "the top 30 companies controlled 75% of the total and 83% of the deepwater TACC [Total Allowable Commercial Catch]."¹⁴ He adds: "Moreover, many of these 30 companies have been created strictly for quota holding purposes, and therefore are really parts of the same enterprise This means that a much smaller number than 30 enterprises really dominate the fisheries."¹⁵

"It is the large corporations who have the wherewithal to play."

—Single vessel owner, surf clam/ocean quahog fishery, 1992.¹⁶

The United States is a relative newcomer to ITQs, but where implemented the ITQ system has contributed to the pattern of ownership concentration seen elsewhere. Bonnie McCay and Carolyn Creed, investigators from Rutgers University who extensively examined the ITQ program in the US's Atlantic surf clam/ocean quahog (SCOQ) fishery, found that between 1990 and 1992 "both activity and ownership are being concentrated in fewer firms, intensifying a long-established pattern of dominance by a few large firms."¹⁷

Begun in 1990 when the fishery was suffering from severe overcapitalization and poor markets, the SCOQ ITQ system was the first of its kind in US marine waters. Viewed as a test case for ITQs elsewhere in the country, the program is, in the words of McCay and Creed, "central to policy planning for the fisheries."¹⁸

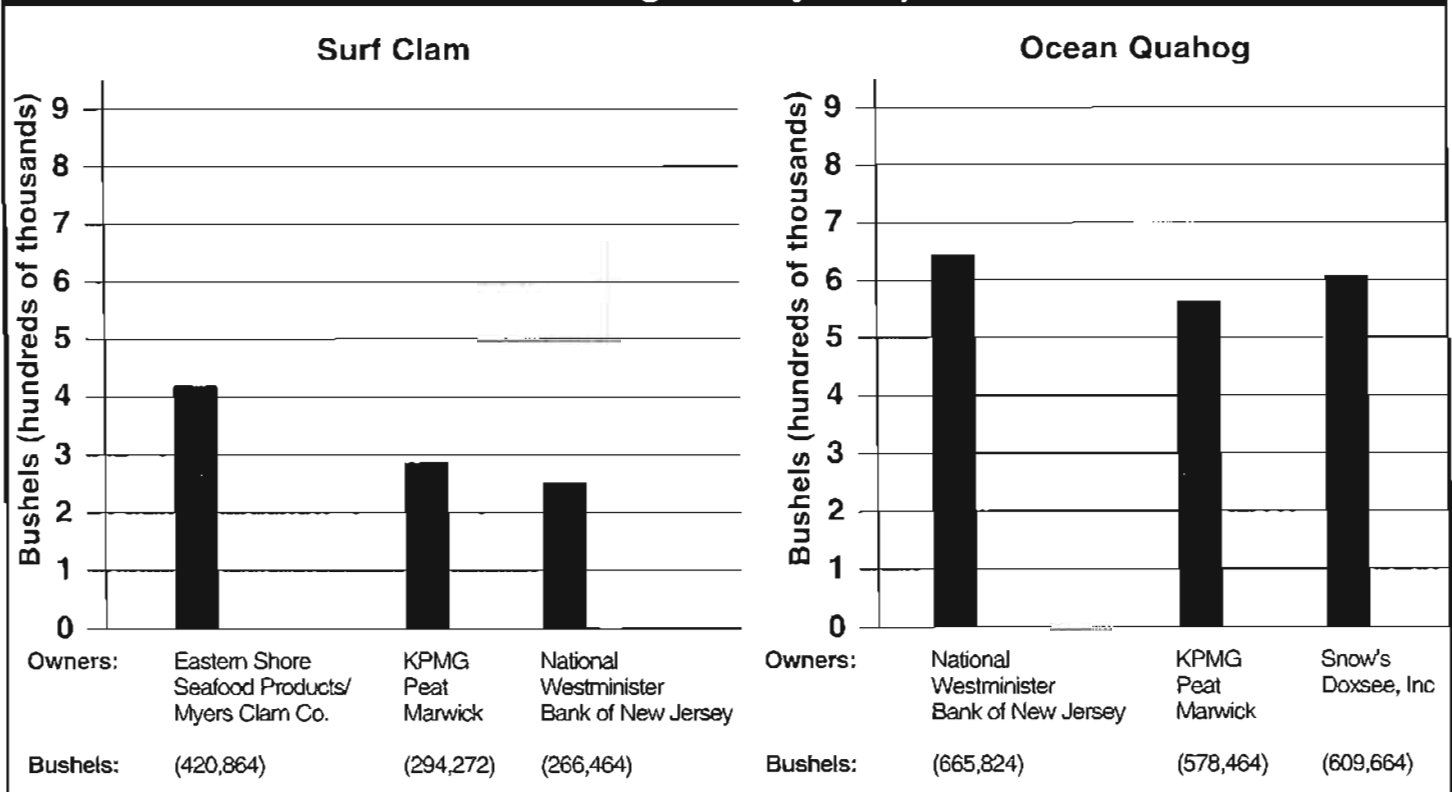
From a detailed analysis they made of the impact ITQs had on businesses involved in the SCOQ fishery, McCay and Creed conclude:

Larger and vertically-integrated firms with large initial allocations were more likely to be better off by the end of 1992. Put another way, those who become smaller or leave tend to be small firms (measured by the number of active boats they had at the beginning of the ITQ system), 'independents,' and small-holders, i.e. with relatively small initial ITQ allocations.¹⁹

"Large corporations are the only ones that I am aware of that have been able to finance either directly or through loans that let people come in and buy these ITQs and then use them as leverage," an independent SCOQ processor confirmed before Congress in 1994.²⁰ Big companies can more easily arrange for banks to provide loans to buy quota allocation, he explained, or finance the purchase themselves, than can small firms and independent fishers. The latter, without sufficient quota to continue as before, have been compelled to sell their vessels, to lease whatever allocations they have, to offer their fishing services for a fee to a wealthier owner with ITQs, or to leave the fishery altogether.

This is not an isolated example. In New Zealand after 1986, many small-scale, coastal-based fishers were forced from the

Atlantic Surf Clam/Ocean Quahog Fishery ■ Top Three Allocation Owners



inshore fishery by larger corporate operators which could move the quota and their fishing effort at will.²¹

Although initial allocation of ITQs in the US SCOQ fishery went only to boat owners, the fishery has attracted a diverse array of corporate interests under ITQ management. In 1995, the third biggest quota owner of surf clams, and the top one of quahog, is National Westminster Bank of New Jersey, wholly-owned subsidiary of National Westminster Bank Plc, a leading international banking group based in the United Kingdom.²² The Seafarers International Union of North America has expressed concern that share buyers under the ITQ system would include such financial institutions with no relation to the fishery, but which held quota on behalf of others, as a form of collateral, or, potentially, which sought "to derive income by speculating on a market of limited permits."²³

Currently, another large owner of SCOQ allocation—second biggest of surf clam and third of quahog—is KPMG Peat Marwick, US subsidiary of the largest accounting firm in the world, Holland-based KPMG.²⁴ Its involvement may be motivated by speculation, or it may be operating in some sort of brokering capacity.

There are other foreign corporations which have entered and gained control of significant portions of the fishery through ITQs. In 1992, *Commercial Fisheries News* reported that Nicherei, a large Japanese company with a variety of seafood interests, had purchased quota through its US affiliate and had become the fourth largest owner of surf clam allocation.²⁵

Big food corporations have also invested in the SCOQ fishery. Soon after the ITQ system began in 1990, for example, Borden, Inc. acquired a clam harvesting and processing firm and came to control an estimated 40% of the quahog, and 25-30% of the surf clam, allocation.²⁶ (In 1994, as part of an overall restructuring and under threat of takeover, Borden sold its interest in the SCOQ fishery.)²⁷ Corporate food giants General Mills (whose auditor is KPMG Peat Marwick) and Campbell Soup Company were reportedly also major owners or controllers of SCOQ quota as of 1992.²⁸

"Clams," one fisheries business consultant has commented, "are just an ingredient to these food companies."²⁹ Such corporations are unlikely to be interested in taking on the risk of vessel ownership, he said, but may directly or indirectly finance vessel owners or contract out harvesting. Whatever the arrangement, ITQs are an investment which helps ensure them a supply of "ingredients" for their food processing operations.

As well as possessing the assets to outbid or buy out smaller competitors for quota allocation, these food corporations have the means to "add value" to products through processing, and then widely distribute them in pursuit of increased revenue and net income flow. For this reason, the East Coast Fisheries Federation points out, control of ITQs will often: "wind up in the hands of those who make their money on distribution and marketing, not the producer, because the producer will always be outbid by the entity who can put a higher value on it by marketing, by value-added, or from competitive advantage."³⁰

- The Seafarers Union affirms this observation:

The value of the right to a certain amount of the total allowable catch is far higher to vertically integrated corporations than the price of the fish at the dock. Corporate entities which use fishery resources in retail products or through restaurant chains look at the total mark-up of the product or sales of associated goods or meals. Therefore, corporations have both a strong incentive to garner as much of the resource rights as they can and the capital resources to bid up the price of ITQs far beyond what a fisherman could profitably (or actually) afford to pay.³¹

III. TYSON FOODS, FISH, AND ITQs

The logic of the analyses of the East Coast Fisheries Federation and the Seafarers Union is becoming manifest today in the North Pacific fisheries. In 1992, Tyson Foods, Inc. bought the big Seattle-based fishing firm Arctic Alaska Fisheries Corporation, which owns many factory trawlers, as well as fish processor Louis Kemp Seafood Company, for over US\$230 million. At the time, some observers were surprised by these acquisitions. The North Pacific trawler fleet's serious financial problems were becoming evident and, at any rate, Tyson is best known as a poultry company—the largest manufacturer of chicken products in the world with annual revenues exceeding US\$5 billion. Neither the purchases nor their timing, however, are a mystery. Rather, they are vivid evidence of the appeal privatization through ITQs can hold for big food corporations.

“A lot of people can catch fish—damn few can market them.”

—Robert Womack, former CEO of Arctic Alaska, 1993³²

For nearly three decades, Tyson has been building a food empire by persuading people to eat more chicken. A quintessential vertically-integrated company, Tyson raises more chickens than any company in the US but also excels at developing new ways to package poultry—so-called value-added products—as well as marketing and distributing its goods. With its purchase of Arctic Alaska, Tyson acquired the US's largest owner and operator of factory trawlers as well as other vessels and four shoreside processing facilities. Arctic Alaska harvests pollock, cod, yellowfin sole, Atka mackerel, tanner and king crab, and is one of the biggest suppliers of raw material used for surimi (the main ingredient used to make imitation lobster and crab). In turn, Louis Kemp accounts for some two-thirds of retail sales of prepackaged surimi in the US.³³

Nor is Tyson the only poultry company to recognize the possibilities of seafood. ConAgra owns 50% of Trident Seafoods Corporation, another major Seattle-based harvester and processor of fish including pollock, cod, halibut, and crab.³⁴ With annual revenues of more than US\$20 billion, ConAgra is the second biggest chicken firm in the US and overall the country's second largest diversified food company.

Tyson's seafood initiative is a logical step following its success with poultry. The company knows it must raise the consump-

tion of fish per person in the US, which has for decades remained steady at 15 pounds annually. According to a North Pacific fishing business consultant, adding value is the only way the industry can grow. “We don't have any more of those resources that are sitting out there waiting to be developed,” he remarks, “so where these guys are going to make more money is to add more value into the product.”³⁵

While the purchase of Arctic Alaska and Louis Kemp have provided fishing and processing capacity, Tyson has focused on greatly expanding the retail market for various seafood products. As of 1993, Tyson had eight people working full-time on the research of consumer preferences and development of new fish items, with special emphasis on fish-based convenience foods. The 1993 Annual Report boasted 100 new fish products created in the previous year, and the 1994 Report highlights value-added items incorporating cod, salmon, crab, and lobster. “It's not how much you sell,” John Tyson, a president of operations and grandson of the company's founder, explained. “It's what form you sell it in and how much you charge for it. We've got to start charging the customer for the convenience and service and continuity of supply.”³⁶

Snapshot of Tyson and Poultry

“We made the commitment to value-added products in the late '60s,” John Tyson says. “We got tired of seeing the market go up and down. We wanted to figure out how to take commodity swings out of the business.”³⁷

This value-adding strategy has proved remarkably successful. From 1960 to 1990, per-capita chicken consumption in the US nearly doubled, a shift for which Tyson is in no small part responsible. The company has created some 6,000 different chicken items which it sells domestically to restaurants, the food service industry, retailers, hospitals, most of the fast-food chains, and all the top food distributors. Through this vast distribution network, Tyson supplies an estimated 25% of the poultry consumed in the US. The company also exports its chicken products to the Far and Middle East, Latin America and the Caribbean, and Western and Eastern Europe.

Savvy entrepreneurship along with rapid internal expansion and numerous acquisitions have reaped Tyson significant financial rewards. The company witnessed a sevenfold increase in revenues over the last decade, and yearly profits now amount to about US\$200 million, ten times what they were in 1984.³⁸ Among Fortune 500 corporations from 1983 to 1993, Tyson was one of the top companies in total return to investors and in annual earnings-per-share growth (Tyson led the food sector in these areas).³⁹

Per capita consumption of chicken is starting to level out in the US, however, and Tyson has diversified into areas such as beef and pork processing. But it is in seafood which the company sees greatest opportunity. “We think the US fish consumption is an untapped bonanza,” John Tyson has asserted.⁴⁰

"We are convinced that the future of the fishery up there [Alaskan waters] is dependent on getting toward some sort of ITQ system."

—Tyson spokesperson Archie Schaffer, 1994⁴¹

Tyson is well aware that ensuring "continuity of supply" is a significantly more serious problem with fish than chicken. Questions of ecological sustainability, fisheries management, competition for a successful harvest, and regional as well as national politics are all intertwined and complicate the matter of access to fish supply sufficient for the sales needs of a food corporation the size of Tyson.

Thus, the guarantee of a certain percentage of catch promised by an ITQ system holds obvious appeal to the company—as does the potential for increasing that percentage. "There is starting to be some control of the amount of product available" with ITQs, says John Tyson.⁴² And he has acknowledged that the push for ITQs in North Pacific fisheries provided the impetus for his company to invest in the seafood business.⁴³

With its large fleet of vessels and long fishing track record, Tyson no doubt hopes that Arctic Alaska, and thereby itself, would be among the primary recipients of ITQs. Sensing the political and, in case allocation also goes to shoreside processors, economic prudence of holding onshore investments in Alaska, Tyson acquired a large processing plant in Kodiak in January 1995. "The primary reason was more access to resources," explained a company executive of the purchase, "we're trying to position ourselves before it becomes more difficult."⁴⁴

Besides being a leading candidate for initial allocation, Tyson's deep pockets will enable it to outbid smaller competitors for more shares. John Tyson, who has called Tyson a "very aggressive acquiring company," makes no secret about the aim to purchase more ITQs: "If we develop what the customer wants, and Tyson were to get its quota and we were able to go to somebody else that has a quota and say, sell us your quota because we have a customer and we can all make more money together—I don't see anything wrong with that."⁴⁵

The Future of Fishing According to Tyson

If through privatization with ITQs Tyson, ConAgra, and other large food corporations fully and successfully assimilate fish into their overall business, major changes are highly probable for the fishing industry. The greater use of fish farms is likely. "I think if you look on down the road 15 or 20 years, you're going to see a lot of aquaculture," the former head of Arctic Alaska (and now at ConAgra) predicted in 1993, "We grow chickens in environmentally controlled houses, we grow swine the same way, why shouldn't we do fish the same way?" Its products destined mainly for the export market, saltwater aquaculture is a fast growing large-scale commercial industry. An important cause of

coastal habitat destruction, marine aquaculture is also responsible for significant water pollution.⁴⁶

One might also see a similar degree of concentration in fish manufacture as occurred with poultry. In 1960, the largest eight corporations processed 18% of the chickens in the US; in 1990, that figure had risen to 59%. Combined with the other 12 leading firms, the top 20 companies today control nearly four-fifths of production.⁴⁷

In this possible future, small fishing enterprises and independent fishers can expect to be bought and forced out by the giants (this happened to many small-scale chicken farmers in the US). Or they may become marine "tenant farmers," non-quota holders fishing on commission for big share-owning corporations, their income reduced and their autonomy gone. All this has been part of the experience in the surf clam/ocean quahog fishery since ITQs were introduced in 1990.

IV. OVERCAPITALIZATION AND THE FACTORY TRAWLER INDUSTRY'S PUSH FOR ITQs IN THE NORTH PACIFIC

"The problem with factory trawlers is that they've built twice as many boats as have been justified, and they've created a very severe problem for this industry. They're driving ITQs because it's one way to take a public resource and use it to get them out of their bad investments."

—Vince Curry, President, Pacific Seafood Processors Association, 1994⁴⁸

"In our view, the major problem facing the Alaska groundfish fishery is overcapitalization."
—Seattle-based factory trawler company executive, 1995⁴⁹

Tyson is not alone in the push for ITQs in the North Pacific. Virtually all factory trawler companies operating in the North Pacific, and also large shore-based trawler firms, are promoting ITQs. As elsewhere in the world, the reason is overcapitalization, which has reached critical proportions in the waters off the Alaskan coast.

Based in Seattle, Washington, the majority of the US factory trawler fleet only entered the Alaskan groundfishery in the late 1980s. Factory trawlers, which can exceed 300 feet in length, catch and process fish while at sea. They pull massive nets through the ocean; the bigger factory trawlers harvesting the waters off Alaska often take 350,000 pounds of fish per haul. Overall, these vessels now catch most of the pollock, cod, flatfish, and several other groundfish species in the area. In tonnage pollock accounts for the vast majority of groundfish

harvested in US waters, making it the largest and one of the most valuable catches of any single species in US waters. Factory trawlers and their mother ships harvest and process more than 70% of the total pollock catch.⁵⁰

The US factory trawler fleet grew from 11 vessels in 1986 to over 70 in 1992 (in 1994 it numbered 64). By the early 1990s, this rapid expansion was taking its toll: Factory trawlers were reaching their catch limits increasingly early in the fishing season. Whereas in 1990 the season for pollock in the Bering Sea lasted 286 days, in 1993 it was just 70, leaving most of the vessels idle for the large bulk of the year (although the same amount of fish were being caught).⁵¹

Thus, a decade after it arrived, the US North Pacific factory trawler fleet has become severely overcapitalized, abetted by heavy bank financing from abroad, principally Norway, and also by subsidies from the US government which, through the Department of Commerce, has underwritten millions of dollars in loans for retooling and new construction. As of 1991, Arctic Alaska alone had received some US\$53 million of these loans.⁵²

This overexpansion has left the fleet in the midst of a deep fiscal crisis. In a 1994 analysis of factory trawler operations in the Alaskan pollock fishery, researchers from the National Marine Fisheries Service (NMFS) and the University of Maryland found that from 1991 to 1993 revenues for most trawler companies had declined significantly, some by more than half. For a representative sample the researchers examined, vessel productivity had fallen by 50%. Consequentially, profits as well as return on investment had dropped into the negative figures.⁵³

Moreover, the sample group's ability to meet short and long-term debt obligations was very weak. Indeed, from 1990 to 1993, the group's debt rose from 80% to 110% of their vessels' value; the companies owed more than their boats are worth.⁵⁴ All these problems were exacerbated by the 1992-93 collapse of the surimi market after the Japanese reduced their purchases (surimi has accounted for half the product value derived from the Alaskan pollock fishery).

As of early 1994, nine of the factory trawler fleet's vessels, or one out of seven, had filed for bankruptcy. Strikingly, NMFS records show that the revenue decline for bankrupt vessels was only slightly worse than the average decrease for the entire fleet. More bankruptcies are probable if the fleet's economic situation does not improve and, the researchers say, "considerable downsizing would be needed to restore profitability in this fleet."⁵⁵ (For a more detailed look at what the US North Pacific fishing industry could hope to gain financially with ITQs, see the box with the estimated worth of the North Pacific groundfish harvest for Tyson Foods and for eight of eleven members of the American Factory Trawler Association.)

It is in the context of such circumstances that the North Pacific trawler industry ardently supports and has been lobbying for ITQs as a way to cut losses or make possible financial gains. Interviews with executives from nine Seattle-based factory trawler companies and one major shore-based trawler firm

reveal this mixture of motives behind unanimous support for ITQs, generally and in particular for the groundfish fishery.⁵⁶

Among the group, there is an anticipated restoration of economic worth to their assets through quota allocation. As one executive observes: "Every dime we've invested is worthless because of overcapitalization. All value is captured in ITQs. They're great—if you get quota shares."⁵⁷ Of the fleet's troubles, he says: "It's a common property problem, there's no market for fish unless they're owned."⁵⁸ This view reflects the entire group's perception of open access as the root cause of overcapitalization and overfishing. "When we go to a privatized fishery," the executive continues, "there'll be a dramatic reduction in capital over time. Four out of five plants [and] trawlers just gotta go."⁵⁹ At least some of the companies which stop fishing might hope to avert or mitigate major economic losses if they lease their allocations or sell out completely.

From this perspective, for the estimated one-fifth of capital that would remain, a variety of benefits are expected from ITQ-based consolidation, what another executive calls the "rational re-deployment of capital where the more efficient dominate."⁶⁰ With far fewer participants on the water, the interviewees predict improved productivity and cost-efficiency. One executive aims to reduce expenses further by hiring out vessels to fish his firm's quota shares more cheaply than the company could do itself. "You don't want to use your own boat," he remarks, "it's worthless."⁶¹

Less competition, the executives forecast, means that the surviving fraction would enjoy an increase in the worth of the fishery; one calculates this increase at 20-30%. Combined with lower costs, he concludes, "the net return to the fishermen will be substantially higher."⁶² ITQs would also raise profits, many in the group hope, by allowing the companies flexibility to expand their value-added processing and marketing operations for products sold in the US as well as abroad, notably Japan.

"We want the Council and/or Congress to deal with this issue NOW."

—Joe Blum, executive director, American Factory Trawler Association, speaking of ITQ implementation, November 1994⁶³

During the past several years, the North Pacific fisheries regional authority, the Anchorage, Alaska-based North Pacific Fishery Management Council, has frustrated the trawler industry's push for implementation of ITQs. According to *Puget Sound Business Journal* writer Steven Wilhelm, the Council is dominated by a variety of Alaskan interests which want to be included with the factory trawler companies from Washington State in the initial ITQ allocation, and have so far postponed introduction of ITQs for the groundfish and crab fisheries in the waters off Alaska.⁶⁴ As a result, the trawler industry has shifted its focus to the national level in an attempt to circumvent the regional Council.

The American Factory Trawler Association (AFTA) is spearheading this move. In 1994, AFTA, which represents 11 Seattle-based trawler companies, submitted a bill—the North

Pacific Fisheries Reform Act of 1994—to the House of Representatives “to establish a system of individual transferable quota management for the North Pacific groundfish and crab fisheries[.]”⁶⁵ The bill designated only vessel owners as recipients of initial quota share allocation, and imposed no caps or restrictions on the quantity of shares any one holder can possess. While this effort stalled, AFTA did manage to insert pro-ITQ language into the Senate’s version of the re-authorization bill for the Magnuson Fishery Conservation and Management Act, which in 1976 established the US’s exclusive management of fisheries out to 200 miles off US shores. The Magnuson Act is expected to be re-authorized in 1995.

It is a sign of the severe impact economic pressures have had on factory trawlers that AFTA’s current advocacy of ITQs represents an about-face. During the late 1980s, the organization opposed limited entry measures, recommending that “the current management system of open access be continued for all fisheries in which our members participate.”⁶⁶ “AFTA’s position at the time isn’t surprising,” commented a North Pacific processor executive before Congress in 1994:

They knew there were more boats in the planning stage, many of them owned by current AFTA members. It was like holding the elevator open because there was always one more person running towards it. The result was that the elevator became so full that it ended up going down instead of up. That’s the position AFTA found itself in 1991 or 1992. . . . [the] collapse [of the factory trawl sector] is now occurring and is likely to get worse.⁶⁷

Estimated Amount and Worth of the North Pacific Groundfish Harvest for Tyson Foods and Eight of Eleven Members of the American Factory Trawler Association, Based on One Year’s Catch History of Their Factory Trawlers

While impossible to calculate with certainty, it is possible to suggest the dollar amount of worth ITQs can have for the fishing industry in the North Pacific. According to Greenpeace estimates, the factory trawlers of eight of eleven members of the American Factory Trawler Association (AFTA) account for some 19% of the North Pacific’s groundfish harvest, while the factory trawlers belonging to Tyson account for approximately 13% of the harvest.⁶⁸

In 1992, the ex-vessel value of the North Pacific groundfish harvest was US\$600 million, and the value-added worth was US\$1.4 billion. Thus, for the AFTA members:

1. Annual ex-vessel* worth of shares (19% x US\$600 million) = US\$114 million
 2. Annual value-added worth (19% x US\$1.4 billion) = US\$266 million**
 3. Total capital asset worth (estimated at three times the ex-vessel worth or 3 x US\$114 million) = US\$342 million
- For Tyson, the corresponding figures are***:

1. Annual ex-vessel worth = US\$78 million
2. Annual value-added worth = US\$182 million
3. Total capital asset worth = US\$234 million

* Ex-vessel value is essentially the price that the fish can be sold for “at the dock.”

** This figure represents the amount were AFTA’s members to process fish fully and capture all the value-added worth.

*** These estimates are extremely conservative because they include only factory trawlers and do not factor in other vessels or shoreside operations which would increase the allocation of ITQs. Tyson, for example, has some 35 vessels, of which only 12 are accounted for above, as well as a number of shoreside processing facilities which may qualify for quota shares. Tyson’s initial allocation of shares may be increased even more significantly by the weight given in the ITQ allocation scheme to their historical participation in the fishery. Although these figures are rough estimates, it is important to note that the asset worth would represent a windfall profit for the companies involved.

Along with factory trawler companies, Tyson has lobbied in the Pacific Northwest for quicker implementation of ITQs, but the company has also found its influence stymied by regional politics. Nor has it always seen eye to eye with the other factory trawler firms. In spring 1994, internal disagreements, mainly over how quota would be allocated—whether it would be based more on longer, “historic” or on recent participation in the Bering Sea pollock fishery—prompted Tyson to leave AFTA (it favors the former because Arctic Alaska entered the fishery in the early 1980s). Such differences, however, do not reflect a dispute over the efficacy of ITQs.⁶⁹ Recently, at a US Senate field hearing on the Magnuson Act’s re-authorization in Anchorage, Bob Storrs of the Unalaska Native Fishermen’s Association put this issue into some perspective: “When I speak to the Elders in my community, they tell me of a 7,000 year fishing history the Aleuts have in the Aleutian Islands. Perhaps we should get some credit for true historical participation.”⁷⁰

Like the AFTA members, Tyson has shifted its lobbying focus to Washington, DC, where it may carry more weight than the other Seattle-based companies. “Achieving goals is not just an issue of money,” asserted Arctic Alaska’s director of government affairs, “It’s also an issue of lobbying ability. With Tyson as owner of Arctic Alaska, we are not in the same position as before. They’ve given us more horsepower on Capitol Hill.”⁷¹ He might have been referring to the two former staff members—one from the Senate Commerce Committee and the other from the House Merchant Marine and Fisheries Committee—Tyson hired in 1994 to do its Congressional bidding on fisheries issues. Their efforts may have led to the introduction of a bill in August 1994 by Senator John Breaux (D-LA) to weaken the regional fishery management councils, a change Tyson advocates.⁷²

Of greater concern to its opponents than Tyson’s lobbying on Capitol Hill, however, is the company’s connection to the White

House and the potential sway this could bring. Tyson is based in Arkansas, the President's home state. The company was a staunch supporter of the Clinton campaign and its chief legal counsel was a financial advisor to the President's wife Hillary. While Tyson usually downplays the relationship in public, others say that privately the company has not been reticent to suggest its influence with the Clinton administration.⁷³

Occasionally, however, John Tyson has been more revealing on record. When asked in 1993 if Tyson would have influence over Clinton's appointments to positions such as the head of the National Oceanic and Atmospheric Administration, of which the National Marine Fisheries Service is part, he responded, "I would be irresponsible to my company and my industry if I didn't have any input."⁷⁴

One incident in particular heightened fears about Tyson's close ties to the White House. In early 1993, the US Department of Commerce, using recommendations from its own scientists at the National Oceanic and Atmospheric Administration as well as from the Pacific Fishery Management Council, issued a rule proposal regarding allocation of the year's whiting harvest. The proposal set aside a significant amount of the allocation to smaller, local fishers from coastal communities in the Pacific Northwest who take their catch to shoreside processors.

Within a month of issuing the proposed rule, however, the Commerce Department reversed itself—as well as the recommendations of its scientists and of the Council—and gave most of the allocation to the Seattle-based factory trawlers including Arctic Alaska. Biologists said there was no scientific justification for the reversal which, they noted, could cause more harm to the fish stocks because of the trawlers' large bycatch. The rule change cost coastal communities between US\$35 and US\$40 million.⁷⁵

Many believed that the Clinton administration had intervened with the Commerce Department on behalf of Tyson. "[W]e feel like the government has taken a payoff from big, deep-pocketed corporate America," asserted one fisher from Oregon.⁷⁶ According to a spokesperson from the North Pacific Fisheries Protection Association: "New regulations on fisheries are all geared toward economic efficiency and big business. Arctic Alaska and Don Tyson [the company's chairman]—their interest is in putting everybody out of business and having a large, controlling share of the fishery."⁷⁷ And North Pacific fishers received support from their peers in the East Coast Fisheries Federation: "We share the outrage of our West Coast colleagues, because we're afraid that an agribusiness giant might want to fish here, too."⁷⁸

Tyson denied that it had used any connection with the White House, and noted that it owned several onshore processors, suggesting that the company had been more hurt than helped by the rule change. But the large majority of Arctic Alaska's business has historically been in catching and processing fish at sea, not shoreside processing. Moreover, a spokesperson for Tyson admitted that it had been represented by the American Factory Trawler Association, which had lobbied hard for the change. Additionally, a review of public documents later

revealed that in 1993 an Arctic Alaska executive had written a letter asking the National Marine Fisheries Service to reject a proposal to set aside most of the whiting catch for coastal fishers.⁷⁹

Success in the seafood business is not coming easily for Tyson, however. Though it is bigger and has been more profitable than most of its competitors, Arctic Alaska has not been immune to the serious problems of the factory industry as a whole: Having to compete in a sector which is severely overcapitalized; the sharp drop in market price for pollock surimi, which came just after Tyson bought Arctic Alaska and Louis Kemp; and the North Pacific Fishery Management Council's delay of implementation of ITQs for the groundfish and crab fisheries in Alaskan waters. (Moreover, in April 1994 a federal grand jury indicted Arctic Alaska in connection with the sinking of one of its boats in 1990; criminal fines if convicted could run into the millions of dollars, for which Tyson would be liable.)⁸⁰

It is thus no surprise that in its 1994 Annual Report, Tyson says that Arctic Alaska "has consistently performed below pre-acquisition expectations" and that the company had to take a major charge against earnings because of Arctic's difficulties. In the report, Tyson repeatedly blames these problems on "government fishing regulations, intense industry competition and fluctuations in market prices."⁸¹ Perhaps hoping that a change in name might help, in December 1994 Tyson dissolved Arctic Alaska, which was immediately reborn as Tyson Enterprise Seafood, Inc.⁸²

Whether or not the "new" Arctic Alaska has been improved, it can depend on its wealthy parent corporation to survive the current crisis, while smaller trawler firms without large corporate patrons face bankruptcy. With the ability to weather the storm, Tyson and its fishing subsidiary would also appear to be in a position to take advantage of this crisis as attrition forces out competitors and leaves a larger piece of the pie for survivors.

Tyson remains committed to integrating fish into its mass-scale manufacture of food items. The company's Chief Executive Officer said of fish in August 1994: "It still fits our grand strategy of being a center-of-the-plate protein provider."⁸³ And, Tyson's 1994 Annual Report asserts, the company is "developing new products, finding new sources of supply and getting the product through our distribution pipeline to customers. . . . We are making progress in the seafood division and are looking forward to a profitable year in 1995."⁸⁴ Perhaps most important, Tyson continues to have the support of its investors in this endeavor.⁸⁵

Thus, from Tyson's perspective, eventual implementation of ITQs is crucial to help improve the present difficult situation in the trawler fishing industry as well as to fulfill its bigger strategic goal of widely marketing a diverse array of value-added fish products. While it may not believe that ITQ management will come soon throughout North Pacific fisheries, Tyson continues to work towards eventual implementation of ITQs. "We're convinced IFQs are the way to go," reaffirmed a Tyson Enterprise representative in early 1995.⁸⁶

V. ITQs AND CORPORATE CONCENTRATION: PART 2

Given a marked tendency of ITQ programs elsewhere to help enable big corporations augment their control over fisheries, Tyson's seafood venture raises serious concerns about its ability—and the ability of other big companies such as ConAgra—eventually to own and/or control significant portions of the North Pacific marine commons. In some fisheries considering or implementing ITQs, concern over the amount of quota one large corporation or a few corporations can acquire under an ITQ system has prompted the addition of share limits which participants can hold or restrictions on quota transferability between different classes of vessels. In the view of one ITQ proponent, share limits in the ITQ regime of the North Pacific halibut and sablefish fisheries mean “that opportunity for big business is minimized or made nil.”⁸⁷

A variety of loopholes around such legal limitations exist, however. For example, ITQ ownership caps do not apply to quota accumulation by “operation of law,” that is, by inheritance, auction, security agreement, or default. Thus, Alaskan waters halibut and sablefish ITQs were recently on the block at a bankruptcy auction in Seattle, Washington. A law firm representing Caterpillar Corporation, world's largest maker of earthmoving equipment and a leading marine engine manufacturer, bought every share. As a result, Caterpillar owns over 100,000 quota shares of the halibut fishery, and nearly 900,000 shares of the sablefish fishery (the company, may try to use the quota to help it retrieve any outstanding payments from insolvent fishers to whom it has supplied machinery).⁸⁸

Moreover, there are ways companies can hide their ownership. Big corporations with substantial resources can create new firms or holding companies just for quota holding purposes. Or they can do this for vessels, making it extremely hard to determine how many boats belong to a single quota holder. Leasing arrangements can be manipulated to further mask a controlling interest. Adding to the obfuscation can be the involvement of banks which, on behalf of their large corporate clients, provide loans to vessel owners for allocation purchase in return for exclusive marketing agreements with those clients.⁸⁹

In sum, a pro-ITQ fishing industry consultant has admitted, preventing concentration of quota ownership and/or control “would be difficult because there are many ways large companies can disguise holdings.”⁹⁰ “It will be difficult, if not impossible,” he continued, “to be assured that this [the absence of domination of a fishery through ITQs by one big corporation or a few corporations] will always be the case because there will always be the possibility of companies trying to avoid direct ownership by having contractual arrangements with other companies, allowing them control.”⁹¹

Even in the United States, where company reporting requirements are more open than in many other countries, tracing lines of corporate ownership in the fishing industry can be a very challenging task. The US General Accounting Office has, for example, acknowledged obstacles in identifying ownership

of seafood processors including factory trawlers, as has one fishing company executive who tried to investigate corporate competitors.⁹²

For regulators the challenge might well be insurmountable. In the opinion of the Seafarers Union, “enforcing guidelines limiting concentration of ownership” is and will be virtually impossible.⁹³ As a union spokesperson explains:

The NMFS [National Marine Fisheries Service] does not have the resources or the expertise to track through the myriad of front companies, purchase agreements and other financial tools commonly employed to hide actual ownership and control. The agency would need a fleet of Securities and Exchange Commission lawyers to even begin the job, and even with that, it is highly unlikely that the NMFS would be able to detect consolidation of permits.⁹⁴

NMFS does not “pierce the corporate veil,” affirms an attorney from the National Oceanic and Atmospheric Administration (of which NMFS is part).⁹⁵

Difficulties with identifying corporate ownership are one reason why the claim that ITQs in the US will be subject to provisions of federal anti-trust laws offers little consolation to those worried about the effects of quota concentration under an ITQ system. Moreover, anti-monopoly laws do not specify for a sector what is an unacceptably high level of concentration. That level is determined on a case by case basis, with the guiding principle not being concentration per se but how that concentration affects market prices, and thus consumers. Without technically being a monopoly, one firm could still own the majority of ITQ shares of a fishery and thereby exert great control, forcing smaller fishers to lease their vessels or displacing them from the fishery altogether. Establishing a causal link between share size and unfair prices could be extremely complicated, and were corporate concentration under an ITQ system alleged to be unfairly affecting the market price of a fish product, an anti-trust suit would undoubtedly take many years to progress through the courts.⁹⁶ Since many fisheries markets are not only global but also contain many different species of fish which can be substituted for one another, proving unfair market control in many cases might be almost impossible.

These issues are hardly academic. In fact, problems associated with intensified corporate control under ITQs in the SCOQ fishery have already been the subject of an apparent coverup by the government. In 1992, the National Marine Fisheries Service conducted a secret investigation of the fishery, the report from which was not released until the East Coast Fisheries Federation (ECFF), concerned about undisclosed improprieties raised during the investigation, requested a copy and all supporting evidence under the Freedom of Information Act. ECFF's concerns included “price-fixing, collusion, threats and intimidation, foreign ownership of a resource, concentration and monopolistic control of the industry, [and] disguised ownership of quotas[.]”⁹⁷

After some delay, NMFS eventually released the report, which ECFF called "sanitized." The extent to which that is true is now impossible to verify: The investigators were told to destroy all their research notes and data as well as earlier drafts of the document. "We will probably never learn the entire truth of the investigators' discoveries," wrote ECFF's James O'Malley. "But it is important that the destruction of the notes and research become a matter of record. The very fact that the destruction was ordered is eloquent testimony that privatization has pitfalls dangerous and embarrassing enough to provoke that improper action."⁹⁸

VI. NEGATIVE SOCIAL IMPACTS OF ITQS

The Surf Clam/Ocean Quahog Fishery

I. Vessel Owners

While McCay and Creed discovered that small vessel-owning firms were among the majority who sold out after the ITQ program was implemented, they do not automatically label such enterprises as uneconomical. "It is a mistake," they write, "to assume that small operators are either marginal or inefficient[.]"⁹⁹

Rather, these fishers' relative lack of resources itself was a major disadvantage, because they often received either no quota in the initial allocation or not enough quota to survive. Transferability in the SCOQ fishery has been limited to those with more money, and this in turn has created a significant barrier to new entrants without substantial assets. Prior to the ITQ program, one independent processor told Congress in 1994, entrance costs for a new vessel and licenses were about US\$750,000, a "bankable purchase" in his words.¹⁰⁰ After implementation, he estimated that, in addition to a vessel and licensing, the ITQs needed for the quantity of surf clams and quahogs which an active fisher could harvest annually are valued at US\$2.5 million. "[T]his is not," the processor asserts, "a bankable purchase."¹⁰¹

Such increases in the cost of the right to fish are not unique to an ITQ system among limited entry measures. ITQs do, however, raise the stakes considerably. Testifying before Congress, a fishing representative from the Pacific Northwest told how the price of a permit less restrictive than ITQs for a whiting fishery had, in the span of a year and a half, risen from US\$114,000 to US\$700,000. "If a limited entry system places this significant burden on a fishing fleet," he observed, "it does not take an economist to show that the economic value of an IFQ [individual fishing quota, another name for an ITQ], which not only grants limited access but a specific share of the total harvest, is vastly greater[.]"¹⁰²

At the same time smaller firms have come to be excluded under the SCOQ ITQ program, there has also been an intensified dissociation between fishers and ITQ holders: In 1994, some two-thirds of all the clams were taken by vessels which had no financial connection with the allocation owner. In their report, McCay and Creed describe the dissociation as "the marine equivalent of 'absentee landlords' and 'tenant farmers,'" a

metaphor which has not been lost on clambers, the authors say.¹⁰³

In the view of a Seafarers Union representative, this separation may create gaps in accountability where quota holders "including banks and other financial institutions" can claim they have no control over the fishers. "On the other side of the coin," the Union representative points out, "if the permit owner faces no penalties, then the actual harvesters, who are no more than employees of the permit holders, can be directed to violate quotas and other restrictions under threats of being fired or 'black-listed.'"¹⁰⁴

2. Crewpeople

"Over and over, men and women told us about their sense of powerlessness in the face of conditions they felt they could not control, and they expressed their bitterness and anger in ways that cannot be captured in graphs and statistics . . ."

—B. McCay & C. Creed, *Social Impacts of ITQs in the Sea Clam Fisheries*, 1994¹⁰⁵

The changes ITQs had on the SCOQ fishery hit crewpeople especially hard. To begin with, initial allocation of shares went only to vessel owners. Allocating quota in this manner, an analyst has noted about another ITQ program, goes "beyond redefining fishermen as vessel owners and relegate[s] crew to the status of wage labor."¹⁰⁶ Prior to ITQs, he points out, crew regarded themselves as "independent producers" who sold their share of the fish catch, not their labor.

As was its intention, the SCOQ ITQ system significantly reduced the fleet size; there were over 50% fewer vessels in 1992 than when ITQs were implemented in 1990. Necessarily, this entailed a substantial decrease in the number of clambers including captains, mates, and deckhands. In 1992, over one-third of the people working in the fishery had lost their jobs, and more have probably become unemployed since. Many have been unable to find jobs elsewhere in the fishery or in another fishery.¹⁰⁷

For crew members who have survived the layoffs, the price of ITQs are such that they now have little or no hope of ever becoming independent fishers with their own vessel. Furthermore, these people have often found themselves working more hours than before because at the same time it reduced vessels and crew, the ITQ system eliminated limits on the number of fishing trips taken during the year. Of clammer crew members questioned by McCay and Creed in 1992, 55% said they were working more hours than in 1990.¹⁰⁸

Despite working harder, crews' compensation has declined, sometimes dramatically, under the ITQ system. Of the group they interviewed in late 1993, McCay and Creed report that 68% said they were making less money than in 1990.¹⁰⁹ McCay and Creed explain why: "Given newly redundant labor with the layoffs, owners did not have to provide [any] rewards to keep

crew.”¹¹⁰ As one crewperson said of vessel owners: “They can pay what they want.”¹¹¹ For their part, vessel owners justified pay cuts as necessary to buy or lease more ITQs.

Thus, while vessel owners are squeezed by large holders of ITQs, crew members are squeezed by vessel owners, a situation McCay and Creed depict in terms of a “zero sum game, in which one person’s gain must be another’s loss”:

[T]he pawns to a large degree are the crewmen. As such, they can be sacrificed in order to win a share or remain in the game. To some extent, small independent firms can be pawns too. They can be useful or they can be sacrificed by firms with more power.¹¹²

The only winners of this “game” are the large quota holders or those who control holdings, often big—and foreign—corporations which have little or no direct involvement with fishing itself (such as KPMG and National Westminster Bank).

3. The “Race for Fish”

Their proponents frequently tout ITQs as an inherently safer alternative to open-access fishing and the “race for fish.” Crews’ experience with the SCOQ ITQ system, at least between 1990 and 1992, belies this assertion. To begin with, crew reductions have put added strain on remaining workers, causing more fatigue-related accidents. Moreover, vessels have reportedly continued to fish in poor weather as they compete with one another to supply processors.

Prior to ITQs, the fishery operated with a system of trip limits, where vessels scheduled fishing trips in advance. According to ITQ proponents, these time restrictions compelled boats to work even in bad weather. The actual effect of the trip limit system’s set schedules, crewpeople have noted instead, was to constrain the number of vessels which could go out at any given time. With ITQs, however, vessels are always available if a competitor is unable to fish, including during inclement weather. Small vessel-owners, fearful of losing sales to processors, have been especially vulnerable to this pressure.¹¹³

Within two years after ITQs were implemented in 1990, three mid-Atlantic clam boats had sunk and nine lives had been lost. While the causes of those tragedies are not definitively known, the accidents bring into question the assumption which links ITQs with greater safety.¹¹⁴

Negative Social Impacts in the North Pacific Fisheries: Expectations and Experiences

1. Crewpeople and Skippers

“The allocation of quota to owners of vessels is likely to result in some perception of inequities by crew persons and contribute to further social differentiation among crew and owners.”

—Social Impact Assessment of the North Pacific Fishery Management Council Regulatory Changes in the Groundfish and Crab Fisheries of the Gulf Alaska and the Bering Sea/Aleutian Islands, 1994¹¹⁵

A social impact assessment prepared for the North Pacific Fishery Management Council and based heavily on interviews with individuals involved in a variety of harvesting sectors of the Alaskan waters groundfish fishery, admits that an overall loss of crew jobs in the factory trawler fleet will likely occur as a result of consolidation under ITQs, and that availability of employment elsewhere is highly uncertain. The Council does not, however, offer any estimates about the extent of the displacement in the trawler fleet or in other sectors.

Although crew and skipper opinion is not unanimous, the assessment does reveal many similar concerns about ITQs as expressed (and experienced) on the East Coast. Relative lack of resources, for example, is predicted to be a crucial handicap under ITQs: “The biggest thing that scares me about IFQ-ITQ is that . . . the small, family-owned or operated businesses are going to be controlled or gone by the wayside by the ones that are bigger to have more economic means and can purchase shares or control the system.”¹¹⁶ Interviewees are especially disturbed that ITQs will create barriers to upward mobility. As a factory trawler deckhand asserts: “With an ITQ you lock out the possibility of guys like me who make this run only for someone else to get all the credit. They are forgetting about the guys who catch the fish. They will not get anything and it’s a public resource.”¹¹⁷

Some skippers share these worries. “That’s a problem with ITQs,” says one, “you stop the young guys from getting into the fishery with ITQs because they won’t have the money to buy them and they won’t have the catch history to get them. That’s the bad thing about ITQs: Only the people with good financial backing will get the Qs.”¹¹⁸ By way of example, a number of skippers noted, because of lack of capital they will be unable to purchase any quota shares in the halibut and sablefish fisheries, where ITQs are currently being implemented.

A number of those crew members and skippers who stay employed expect to lose their “independent producer” status as they are incorporated into a system of wage labor under ITQs. “[O]wners of the quotas would have all of the leverage over hiring people, what they would pay,” one trawl harvester crew member observes. “It would turn skipper and crew positions into salaried jobs.”¹¹⁹ A skipper echoes this view: “Crew are going to become employees and not people who are paid by

shares.”¹²⁰ Some crew and skippers are convinced that exclusion from the current system of compensation based on share of the catch will mean lower incomes.

2. Alaskan Coastal Fishers

Other potential victims of ITQs in the North Pacific, interviewees assert, will be smaller-scale, independent coastal fishers, often rural Alaskan Natives who depend heavily on fishing to survive. Coastal groups have themselves raised serious objections about ITQs, notably those in the halibut and sablefish fisheries. Sealaska, the regional Native corporation for south-east Alaska, has been one opponent.

In 1992, Sealaska commissioned a report about the socioeconomic impacts of halibut and sablefish ITQ programs which places ITQs in the context of past limited entry measures. Restrictions associated with these measures have reduced rural communities' access to fishing grounds, particularly in the halibut fishery where residents are active participants.¹²¹

With very low per capita income levels, the report explains, individuals or households of these communities would not only find it difficult to purchase quota, they are also likely to sell their shares out of necessity, frequently to higher-income, urban-based fishers. Since a limited entry program for salmon fisheries began in 1975, for example, the number of salmon permits owned by rural residents of southeast Alaska has declined by 60%.¹²²

Many fear that ITQs will further such “leakage” of fishing rights from Native coastal communities. “[W]e will see the disappearance of traditional Native community fishing fleets,” a 1992 Sealaska position paper on the halibut/sablefish individual fishing quota programs asserted, “as the IFQs shift from rural to urban areas and from residents to non-residents. Our experiences with the limited entry system tell us this is a certainty.”¹²³

In addition, the report notes that the halibut fishery ownership cap (which limits ownership to 0.5% of total shares) cannot prevent potentially significant quota concentration in the halibut fishery for the “small-boat” category of vessels (under 35 feet). Most rural fishers use vessels in this category, which accounts for 10% of the halibut harvest. As a result, in theory just 20 owners could possess the entire quota. While the report does not necessarily expect this level of concentration to occur, it does indicate how easily participation—1,800 small-boat vessels in 1990—could suffer a major decline under ITQs.¹²⁴

VII. ITQs AND THE MARINE ECOSYSTEM

1. Assumptions

“An a priori case for the biological benefits of ITQ management can be made, but the same case can be made for any structural form of disciplined resource management. In and of themselves, structural changes do not effect a political will to manage.”

—Seth Macinko, “Public or Private?: US Commercial Fisheries,” *Natural Resources Journal*, 1993¹²⁵

“In question . . . are the claims made by proponents of ITQs that they promote wise use and voluntary conservation practices. Such claims have not been substantiated and the consideration of ITQ systems for fisheries management should not assume such attributes without further study and documentation.”

—Foreword, *Limiting Access to Marine Fisheries: Keeping the Focus on Conservation*, Center for Marine Conservation/World Wildlife Fund US, 1994¹²⁶

There is a dearth of detailed empirical information about the specific impacts ITQs have on the marine ecosystem. As a 1994 volume published by the Center on Marine Conservation and World Wildlife Fund US on limited access measures including ITQs states: “Sorely lacking is an analysis of the conservation gains or losses effected by individual quotas, with respect to something more than mere mention of whether the fish are being caught in what would appear to be a sustainable manner.”¹²⁷

That momentum for privatization is building absent detailed and comprehensive assessments of their ecological consequences merely reaffirms, if reaffirmation is needed, that ITQs' essential function is not to protect the marine environment but to provide a market-based approach to reducing overcapitalization and establishing fishing access rights.

As the Macinko quote above suggests, however, proponents do offer a priori assumptions as to the environmental benefits of ITQ management. Foremost among these is the proposition that individual ownership rights instill long-term respect for the ecosystem. The economic stake each participant has in the privatized resource will supposedly inhibit unsustainable exploitation. Property-based individual self-interest, it is suggested, will lead to collective stewardship.

Thus, ITQs “support conservation by providing incentives for ITQ owners to recommend sustainable total quotas and to support strict enforcement because the value of their ITQs depends upon the health of the stock,” asserts Lee Anderson, professor of marine studies at the University of Delaware and a prominent ITQ proponent.¹²⁸ NMFS Administrator Rolland Schmitt's rationale is strikingly similar: “Fishermen would have a vested interest in protecting the fish and seeing their fisheries managed efficiently in order to maintain the value of their ITQ.”¹²⁹ And while few of the factory trawler executives quoted

above emphasized the ecological benefits over economic ones, they were nearly unanimous in claiming that ITQs would reduce bycatch (non-targeted species catch) and discards and overall would benefit conservation of fish stocks in the North Pacific.

The faith supporters have in ITQs' ability to enhance long-term ecological health has not gone unchallenged. As Parzival Copes, Director of the Institute of Fisheries Analysis at Simon Fraser University in British Columbia, Canada, points out, those who advocate management regimes such as IQs and ITQs in favor of other measures such as limited entry licensing have often done so on the pretext that the latter "is inherently deficient as a management device because of the skill fishermen show in circumventing the rules or defying the intent of entry limitation." "Ironically," Copes continues:

when it comes to promoting individual quota management, its proponents often fail to apply the sharp insights gained in exposing the deficiencies of limited entry licensing. There is no reason to assume that fishermen, where confronted with the rules of individual quota management, will lose either their ingenuity at circumvention or their incentive to promote individual interest at the expense of collective interest.¹³⁰

Although almost a decade old, Copes's "A Critical Review of the Device of Individual Quota in Fisheries Management" remains an excellent critique of the theoretical premises of IQs and ITQs. His analysis covers a wide variety of potential problems and pitfalls, some of which render ITQs completely unsuitable (in "flash fisheries," for example, where fishing must occur within a short, specific period), and others which ITQs may exacerbate.

In multi-species fisheries, Copes notes, there is frequently a greater incidence of bycatch than in single-species fisheries. Fisheries managers tolerate this problem somewhat to avoid false reporting about discarding or bycatch. In consequence, he asserts, fishers may:

contrive to 'accidentally' take larger excess by-catches, particularly of the more valuable species in the mix. In a fishery managed by seasonal closure a stop can be put to this when the aggregate catch for all species is about right. But to retain management credibility in an individual quota fishery, the season must be left open for all operators who have not filled all of their quotas.¹³¹

In other words, because ITQs are designed to allow fishers to fish at any time of year, they can complicate the ability of fisheries management authorities to monitor and enforce quota allocations. With seasonal fishing, when the quota has been reached, the fishery is closed. If vessels are fishing all year, however, the continual monitoring and enforcement needed for each individual boat becomes more complex and costly.

ITQs' lack of time constraints will likely lead to other serious difficulties. Of particular concern is highgrading, the dumping of fish deemed of lower quality and, therefore, of less econom-

ic value. Fishers seeking the highest net worth for their individual quota will have increased opportunity under ITQs to highgrade, their incentive being to make more room for higher quality fish. This wasteful practice—most of the dumped fish are dead—will usually go unreported, impairing the ability of fisheries managers to gather accurate data on fish mortality.¹³² (A recent example of this comes from Kodiak, Alaska. A fisherman reports that the catch on the first boat to return from the halibut fishery, where an ITQ program has just been instituted, included only fish over 60 pounds, with one exception. Clearly, the fishers on the boat threw away all the smaller fish they caught to make room for larger, more valuable halibut.)¹³³

Furthermore, fisheries usually have different stock densities on various grounds. Because they are most profitable, "higher yield" grounds experience the most intensive fishing. ITQ management will not alter this situation. Indeed, because it extends the fishing season, it will afford vessels with unfilled quota greater opportunity to fish—and more severely exploit—those areas. "[I]f an individual quota regime is effective in reducing aggregate effort," Copes says, "it will tend to sharpen the concentration of effort on the higher yield grounds."¹³⁴

Additionally, Copes observes, seasonal variations of fish stocks determine when fishers expend most effort; as with higher yield grounds, ITQs will not change this practice. "[T]he tendency for operators competitively to concentrate effort in the season with highest yields is bound to be excessive," he writes. "While the individual quota may attenuate the tendency to race for fish, it is unlikely to eliminate the practice entirely."¹³⁵

ITQ proponents usually acknowledge some of the drawbacks mentioned above, especially highgrading. "There is no perfect system," they counter however, and continue to maintain—with little or no substantive proof—that ITQs are the best available alternative in terms of conservation.¹³⁶

For example, operating from the premise that there will be "no derby or 'race for fish,'" some supporters claim that fishers will have time to fish with less bycatch.¹³⁷ For reasons outlined above, on a purely a priori basis this premise is at least questionable, and as Copes indicates, there are conditions where bycatch might increase with ITQ management. Asked about ITQs' impact on bycatch, Thorn Smith, a spokesperson of the North Pacific Longline Association, did not offer a definitive response, saying honestly: "[W]e do not have enough domestic experience in this area[.]"¹³⁸

Besides those already mentioned, other difficulties are possible with ITQs. "Opportunities for violations and cheating are great under an ITQ system," says Shari Gross of the Halibut Association of North America, and she raises questions about the feasibility of effective monitoring and enforcement given the longer fishing season with ITQs.¹³⁹ Thorn Smith also has such questions, and suggests one source—now unavailable—for answers: "The best way to assess US enforcement experience would be to obtain ALL of the materials [from the NMFS investigation] relating to the surf clam/ocean quahog plan[.]"¹⁴⁰

Smith's emphasis on the need for empirical data about enforcement is important, and generally relevant to the issue of ITQs' environmental impacts. Though limited, there is evidence available on ITQs' ecological effects which raises many doubts about supporters' faith.

2. The Surf Clam/Ocean Quahog Fishery

While it is not their primary focus, McCay and Creed did uncover some information about the ITQ system's effect on the ecosystem. Highgrading has long been a problem in the SCOQ fishery; clam boats have discarded small, often immature, surf clams, usually after they have died, because processors pay more for larger ones. By restricting the amount of time boats had to discard, trip limits helped to mitigate the problem somewhat.

The incentive to discard did not disappear under ITQs. In fact, according to crew members, with the lifting of trip limits there has been greater opportunity to harvest large clams and, as a result, to discard increased quantities of smaller ones. According to one crewperson, the fleet can now "kill more clams [because] we have more time to catch them and the plants want choice clams." By discarding more small clams, says another, the fleet is "killing the future."¹⁴¹

According to McCay and Creed, "vessel operators were telling us that they were finding fewer clams and ocean quahogs . . . [some] said that they did not think it was wise to buy ITQ allocations when the clams they gave you the right to catch might not be there much longer."¹⁴² Supporting this perception, stock assessments by NMFS in 1993 revealed that the landings per unit of effort in the SCOQ fishery are steadily decreasing; without significant replenishment the stocks face depletion. There is, McCay writes in a separate (1994) paper, "extraordinarily high uncertainty about clam reproduction and recruitment [the number or weight of fish/clams reaching a certain age in a given year] in the future."¹⁴³

3. The Scotia-Fundy Groundfish Fishery

"The major side effects of the new [IQ] program (as has been the case for EAs [enterprise allocations]) have been dumping, discarding, and highgrading of catches at sea which are undetectable by conventional means and presently unenforceable."

*—Report of the Workshop on Scotia-Fundy Groundfish Management from 1977 to 1993, Scotia-Fundy Region
Department of Fisheries and Oceans/Bedford Institute of Oceanography, 1994¹⁴⁴*

To reduce overcapitalization, the offshore trawler fleet harvesting the Scotia-Fundy groundfish fisheries in the Canadian Atlantic has since the early 1980s been managed with so-called enterprise allocations (EAs). Like individual quotas (IQs), EAs are similar to ITQs except that transferability is usually temporary, lasting only for the fishing season; they represent property rights different in degree, but not in kind, from ITQs. As part of an on-going effort to promote "efficiency" in the groundfish

fisheries' under-65 foot inshore dragger fleet, IQs were instituted in 1990, and ITQs in 1993.

According to a report on Scotia-Fundy groundfish management sponsored by the Department of Fisheries and Oceans and the Bedford Institute of Oceanography, vessel observers and port technicians assert that introducing "property" with both EAs and IQs has provided more incentives for destructive practices at sea such as highgrading and discarding.¹⁴⁵ As a consequence, the report indicates, those practices have increased, although quantitative estimates are lacking.

Overall, ownership rights with restricted transferability such as EAs and IQs do not appear to have ameliorated longstanding problems with the fishery and the supporting ecosystem which the report details. Indeed, from 1977 through 1993 there is evidence of continued overfishing in the cod and haddock fisheries. In almost all areas of the cod and haddock fisheries, there is "growth" overfishing (where fishers catch so many young fish that the growth of the entire stock is impaired). In all the haddock and about half the cod fisheries, there is evidence of "recruitment" overfishing (where fishers catch too many spawning-age fish, affecting reproduction patterns of the population). The spawning stock biomass (that portion of the species mass which is able to reproduce) recorded for cod in some areas was at historically low levels in 1993.¹⁴⁶

The spawning stock biomass for pollock, and the biomass (overall accumulated mass of the species) for silver hake, have also been decreasing. "Furthermore," the report notes, "for most stocks the fishing mortality has increased sharply during the past several years as the resources have declined."¹⁴⁷ Groundfish landings have shown dramatic reductions in the past decade, from some 300,000 tons per year in 1982 to approximately 250,000 tons in 1989 to just over 100,000 tons in 1993.¹⁴⁸

It is important to note that vessels not under IQ or EA management harvested the region's groundfish fisheries as well. But if the material above does not establish definitive proof of the negative effects of even limited ownership rights, neither does it offer indication of positive consequences. The only such indication comes from a brief analysis by McCay and Creed which suggests that ITQs may be influencing the dragger fleet to harvest more sustainably, in part by modifying especially destructive fishing equipment. The authors acknowledge, however, that such behavioral changes are also a reaction to "a widespread critique of draggers as a cause of sharp declines in many groundfish stocks" and that "the fate of the groundfish of the Scotia-Fundy region is as yet anybody's guess."¹⁴⁹ And, it bears mentioning, implementation of the IQ system in the dragger fleet has occurred roughly during the same period that groundfish landings have declined by some 60%.

4. New Zealand Fisheries

“To date, the track record of the ITQ management with respect to conservation is not good.”

—M. Sissenwine & P. Mace, “ITQs in New Zealand: The era of fixed quota in perpetuity,” 1992¹⁵⁰

Persistent environmental problems in New Zealand fisheries under ITQ management have attracted perhaps more attention than anywhere else. First introduced in 1986 in response to overcapitalization and as a means of limiting entry into New Zealand fisheries, there is no indication that ITQs have controlled environmentally harmful practices. Of the 169 fish management units under ITQs, for example, 17 were overfished by more than 10% from 1987 to 1988 due to significant “quota busting” (catching more fish than the quota permits) and poaching.¹⁵¹ Because underreporting is known to have occurred, the data with which fisheries managers establish quota levels may be inaccurate, threatening the viability of the fisheries and the future integrity of the ecosystem.

Evidence of widespread and systematic non-compliance and evasion of quota limits, this poaching, quota busting, and false accounting have reportedly reaped companies huge financial rewards. In other instances, small-scale fishers have been responsible for violations. Such abuses have made a mockery of claims by ITQ supporters that by giving fishers an ownership stake ITQs would necessarily encourage “self-policing” and thus enhance conservation. “[I]t is clear,” writes one commentator, “that the belief that, if fishers owned their own quota they would police it and ensure compliance, just hasn’t been borne out in reality.”¹⁵²

Bycatch has remained a serious problem in the hoki and squid fisheries, and has sometimes included marine mammals such as Hooker’s sea lions, an endangered species, as well as New Zealand fur seals. Highgrading has also persisted under ITQ management, notably in the snapper and oreo dory fisheries.¹⁵³

New Zealand’s ITQ program anticipates quota overruns by fishers, and employs mechanisms such as bycatch trade-off schemes and temporary overcatch allowances to address this issue. But, fisheries analysts argue, “these mechanisms may act as incentives for fishers to overrun their quota,” and point to the snapper fishery, where annual overruns have in some recent years been greater than 100% of the year’s total allowable catch.¹⁵⁴

Furthermore, under ITQs commercial, not biological, priorities have continued to affect the process of setting total allowable catches by the Ministry of Agriculture and Fisheries (MAF). These priorities have generally worked against reductions in catch levels, or have led to reductions insufficient for sustainability. With certain fish, notably orange roughy (New Zealand’s second largest export species by value), catches have repeatedly been set at unsustainable levels. From the late 1980s to mid-1990s, the total allowable catch for the orange roughy fishery off the East coast of the country’s South Island was on

average set three times higher than the level recommended by New Zealand scientists. Today, the fishery is severely depleted and in danger of collapse.¹⁵⁵

Under ITQ management, overfishing, highgrading, and successful appeals by fishers for more quota have seriously depleted the fisheries of snapper, another major export species. In late 1992, the government did lower the total allowable catch for snapper, but not, according to scientific estimates, by enough to conserve the stock.¹⁵⁶

Pressure against setting total allowable catch at sustainable levels has come from a variety of New Zealand fishing interests, with big business often playing a dominant role.¹⁵⁷ While it might not be absent under a management regime other than ITQs, such pressure suggests the inability of ITQs to further long-term conservation goals among fishers and undermines the assumption that ownership of the right to fish automatically leads to an ethos of stewardship.

This inability is also manifest outside New Zealand. In the North Pacific halibut fishery, according to one commentator, harvest quotas during 1994 were at or below biologically sustainable levels in all areas except one which had already instituted ITQs; there, lobbying from fishers contributed to the catch being set above the biologically recommended limit.¹⁵⁸ In early 1995, this source indicates, when ITQs were more widely introduced, pressure from fishing interests may also have been the deciding factor in setting the allowable catch at an unsustainable level throughout the halibut fishery. Although this has been denied by the International Pacific Halibut Commission, the body charged with managing the halibut stocks, it is impossible to determine with certainty because all decisions are made in meetings closed to the public. The problem is an urgent one because the halibut population is in decline.¹⁵⁹

VIII. ITQs AND THE DEBATE ABOUT PRIVATIZATION

In some countries, there is an awareness of the politically sensitive nature of privatizing the marine commons. ITQ advocates from the US government, for example, deny that a private property structure is being established. “ITQs can be viewed as transferring harvesting privileges to a public resource rather than actual property rights,” asserts Rolland Schmitt, of NMFS.¹⁶⁰ The Under Secretary for Oceans and Atmosphere at the US Department of Commerce echoes this point: “The establishment of ITQs does not confer private property rights, nor do holders of quota shares own the resource.”¹⁶¹

Pro-ITQ members of the US fishing industry also deny that implementation of ITQs create private property rights. Of the 1994 bill it promoted to institute ITQs in the Alaskan pollock, cod, and crab fisheries, AFTA wrote: “The Act states that ITQs are a harvest privilege Ownership and control of the resource remain in the public sector.”¹⁶²

Responses to these disclaimers exist at the level of both theory and real life. Seth Macinko, an expert on natural resource management who has studied ITQs in the context of the US public trust doctrine, has examined the theory underlying ITQs. He

begins by noting the important distinction that the ownership right involved with ITQs is not that of the fish themselves but of the right to fish. Macinko observes that advocacy of ITQs rests on the assumption that the problems of overfishing and overcapitalization stem from an absence of individual property rights and a lack of excludability associated with the open access found in many marine fisheries. The key rationale for an ITQ system, he asserts, is an “appeal to property, not ‘privileges.’”¹⁶³

For explicit confirmation, Macinko has but to cite pro-ITQ theoreticians. Lee Anderson, of the University of Delaware, has been especially forthright on the subject. “[P]roperty rights are the basis of all other natural resource management in this country including rangeland, water, minerals, petroleum, and forest,” he testified before Congress. “What is new in fisheries with ITQs has been commonplace in other resources for centuries.”¹⁶⁴ Elsewhere, Anderson reiterates this message: “What we are trying to say is ‘let’s let the fishery be like every other industry in our capitalist economy.’ We’re going to create property rights.”¹⁶⁵ Anderson is not the only ITQ theoretician to make such assertions. “An ITQ . . . [is] a private property right,” affirms another, “an instrument for extending the institution of property from land to the sea.” Still another proclaims: “ITQs are part of one of the great institutional changes of our times: the enclosure and privatization of the common resources of the ocean.”¹⁶⁶

Besides demonstrating the private property rights premise in ITQ theory, Macinko highlights the paradox in the assertion—made by NMFS and AFTA—of ITQs’ revocability. This assertion, an attempt to gainsay the possible application of a “takings” violation under the US Constitution’s Fifth Amendment (whereby the government is obligated to reimburse property owners for taking private property for public use), “jeopardizes the effectiveness of ITQs by undermining the certainty of expectations of private property. The whole theory of ITQ management rests on certainty of expectations.”¹⁶⁷

Macinko’s theoretical instincts are underscored at the real-world level. According to the North Pacific Fishery Management Council: “There are no known instances of an IFQ [individual fishing quota, another name for ITQ] being permanently abandoned in favor of open access or license [limitation].”¹⁶⁸ While pro-ITQ language in the Senate’s version of the re-authorization bill for the Magnuson Act denies that ITQs are

a property right, a US Senator from Alaska, Ted Stevens (R-AK), acknowledged during a recent Senate field hearing that ITQs are, for all intents and purposes, private property.¹⁶⁹ And even NMFS acknowledges: “[W]ithdrawal of these rights [ITQ] in a practical sense may be problematic once they are granted to individuals or companies.”¹⁷⁰

The reason is obvious: ITQs are an investment and source of income—in both cases of potentially substantial amounts of money. Companies, in particular large, powerful firms, have or will have a big stake in ITQs. Corroborating Macinko’s insight about “certainty of expectations,” one pro-ITQ business consultant asserted before Congress: “[T]he fishermen’s investment must be protected. If their investment is not protected, ITQs will be opposed by the industry and they will have no value as a management tool.”¹⁷¹ Since large-scale fishing interests such as the US factory trawler industry are manifestly not opposing them, one can safely assume they view ITQs as an investment with at least tacit assurance of such protection.

IX. CONCLUSION

It is difficult to imagine what would prompt the revocation of ITQs short of complete economic disaster, fisheries collapse, extraordinary environmental catastrophe, or some combination of the three. Once ITQs have become entrenched in fisheries management, it may be impossible to turn back the clock.

Individual Transferable Quotas are about deciding who has the right to fish based on a market approach. It is clear that ITQ systems have the potential to radically alter the nature of participatory rights in fisheries. Fisheries quotas themselves become commodities, and quota ownership is determined by who will pay the highest price. Given the size of the corporations such as Tyson, ConAgra, KPMG Peat Marwick and others either currently involved or interested in ITQ fisheries, it is difficult to imagine that the majority of the men and women now fishing will be able to compete in the ITQ marketplace.

There is a major effort under way to establish ITQ systems in US fisheries. The question, which has yet to be answered, is whether ITQs will serve the best interests of fishers, fisheries conservation, the environment, and the public at large.

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97. Letter from James O'Malley to Rolland Schmitt, 6 June 1994.
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100. Prepared statement of Walter Gordon, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 424.
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102. Letter from Rudy Petersen of North Pacific, Inc. to Thomas Manton, Chair, Subcommittee on Fisheries Management, 21 January 1994, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 600.
103. Op cit 17, p. 19. Information on dissociation of clambers and allocation holders from testimony to Subcommittee on Fisheries Management, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 410.
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136. See, for example, Anderson's statement to Subcommittee on Fisheries Management, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 39.
137. Answers by Mark Lundsten to questions from Subcommittee on Fisheries Management, 9 February 1994, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 634.
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171. Answers by David Wallace (Wallace & Associates) to questions from Subcommittee on Fisheries Management, in *Transferable Quotas Under the Magnuson Act*, op cit 6, p. 414.