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A Window into the Regulated Commons: The Takings Clause, Investment Security, and Sustainability

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A Window into the Regulated Commons: The Takings Clause, Investment Security, and Sustainability

Josh Eagle*

The holding of the U.S. Court of Appeals for the Federal Circuit in American Pelagic Fishing Co. v. United States points to the conclusion that the government will almost never be liable, under the Takings Clause, when fisheries regulations reduce the value of commercial fishing permits, vessels, or gear. From the perspective of natural resource economics, this is a healthy result. Economists suggest that solving commons problems requires that natural resources be under the complete control of a sole owner who makes self-interested decisions about resource use, and if the Fifth Amendment required the government owner to compensate fishermen when it tightened regulations, it would hamper the government's ability to regulate optimally. One problem with the economic theory of commons solution, however, is that it does not distinguish between sole private ownership and sole government ownership in terms of their application. In this Article, I argue that government ownership is fraught with problems that do not occur in the private ownership context. To the extent that government resource owners rely on entrepreneurs to capture and sell natural resources, the government must play two roles: regulator and facilitator. These roles frequently come into conflict, inevitably compromising the effectiveness of regulation. Furthermore, entrepreneurs have incentives to lobby against long-term conservation. The poor condition of United States fisheries is proof that these two problems—government's dual role and fishermen's lobbying—are preventing the Magnuson-Stevens Fishery Conservation and Management Act from achieving its goal of sustainable

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fisheries. Until the Act is changed to reduce both fishermen's incentive to lobby against conservation and the likelihood that regulators will accede to their demands, it will probably not succeed.

Introduction	620
I. <i>American Pelagic Fishing Co. v. United States</i> : The Perfect Storm	627
A. The Facts	628
1. Regulation and Facilitation in the Herring and Mackerel Fisheries	628
2. The Entrepreneur Enters the Fishery	631
3. Congress Responds to Competitors' Complaints	633
B. The Regulatory Takings Claim	635
1. Property Interest	635
2. Has the Regulation Gone Too Far?	637
3. Takings Analysis in <i>American Pelagic</i>	639
a. Court of Federal Claims	639
b. Federal Circuit	640
II. Government Ownership in Theory and in Practice	641
A. Inefficiencies in the Race for Fish: Tragedy of the Commons	641
B. The Sole Ownership Solution?	643
III. How Congress Has Exacerbated the Problems Inherent in Government Ownership	647
A. Subsidies and Loan Guarantees	647
B. The Regional Fishery Management Council System	648
IV. Making Government Ownership Work	650
Conclusion	654

INTRODUCTION

The Takings Clause fascinates scholars.¹ Shepardizing *Lucas v. South Carolina Coastal Council*,² for example, reveals that law review authors have cited that regulatory takings case in more than 2,100 articles—an average of about 140 times per year—in the fifteen years since it was decided.³ Law reviews and journals published seventy-six articles on the eminent domain case of *Kelo v. City of New London*⁴ in the year and a

1. The Takings Clause of the Fifth Amendment to the U.S. Constitution provides: "nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V.

2. 505 U.S. 1003 (1992).

3. Lexis "Shepard's" search performed on March 7, 2007. During the same period, federal and state courts combined have cited to the case about half as many times. *Id.*

4. 545 U.S. 469 (2005).

half after the Supreme Court issued its opinion in the matter.⁵ Many first-year property law casebooks devote more pages to takings and eminent domain than they do to the arguably more practical subjects of landlord-tenant law or real estate transfers.⁶

Some of this extraordinary preoccupation can be attributed to a perceived need for expanding the twelve words of the Takings Clause into a set of workable rules.⁷ Laws regulate the use of real and personal property, states and cities condemn land, and disputes arise between the government and property owners. Although the Supreme Court at present is comfortable with “essentially ad hoc factual inquiries”⁸ into allegations of regulatory takings and a “boundlessly broad” definition of “public use,”⁹ many scholars are not.¹⁰ Avowedly in pursuit of efficiency, fairness, or fidelity to the Constitution, scholars have repeatedly taken up the challenge of forging clearer guiding precepts.¹¹

Because the Takings Clause is at the same time so important and so succinct, any effort to evolve it into rules invites—and indeed necessitates—conversation about a larger issue: what Richard Epstein calls “the proper relationship between the individual and the state.”¹² Thus, many takings articles that begin as analyses of particular cases quickly turn to discussions of the purposes of private property as an

5. Lexis search performed on March 7, 2007. This count only includes articles with the word “Kelo” in their title. The case has been cited in nearly 300 articles since it was decided.

6. See, e.g., DUKEMINIER ET AL., PROPERTY (6th ed. 2006). That casebook contains 124 pages of materials on takings law, 107 pages on real estate transfers, and 84 pages on landlord-tenant law.

The public appears to be equally interested in the Fifth Amendment’s limitation on government regulation and confiscation of private property, especially in the context of eminent domain. Major U.S. newspapers combined have published over 680 articles referencing the *Kelo* decision since June of 2005. Lexis search performed on March 7, 2007. Even more revealing is the fact that all forty-four state legislatures meeting in 2006 considered the issue of eminent domain reform and twenty-eight of them passed some type of “anti-*Kelo*” legislation. Nat’l Conf. of State Legislatures, Eminent Domain: 2006 Legislation, <http://www.ncsl.org/programs/natres/emindomainleg06.htm> (last visited Mar. 15, 2007).

7. For a partial catalog of these efforts, see Marc R. Poirier, *The Virtue of Vagueness in Takings Doctrine*, 24 CARDOZO L. REV. 93, 97 (2002).

8. Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978).

9. *Kelo v. City of New London*, 545 U.S. 469, 514 (2005) (Thomas, J., dissenting).

10. Poirier, *supra* note 7. Poirier himself is content with the absence of clear rules. *Id.*

11. *Id.*

12. Richard A. Epstein describes his book, *Takings: Private Property and the Power of Eminent Domain*, as

an extended essay about the proper relationship between the individual and the state. The specific vehicle for examining this question is the eminent domain (or takings) clause of the Constitution. . . . The problem to which the eminent domain clause is directed is that of political obligation and organization. What are the reasons for the formation of the state? What can the state demand of the individual citizens whom it both governs and represents?

RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 3 (1985).

institution, of property owners' obligations to their neighbors, of relationships between majorities and minorities in a constitutional democracy, and of the role of government in ordering these relationships.¹³

In keeping with this paradigm, this Article takes a recent regulatory takings case, *American Pelagic Fishing Co. v. United States*,¹⁴ as an

13. See, e.g., Hope M. Babcock, *Should Lucas v. South Carolina Coastal Council Protect Where the Wild Things Are? Of Beavers, Bob-o-Links, and Other Things that Go Bump in the Night*, 85 IOWA L. REV. 849 (2000); Eric R. Claeys, *The Penn Central Test and Tensions in Liberal Property Theory*, 30 HARV. ENVTL. L. REV. 339 (2006); Alberto B. Lopez, *Weighing and Reweighing Eminent Domain's Political Philosophies Post-Kelo*, 41 WAKE FOREST L. REV. 237 (2006); Gregory Daniel Page, *Lucas v. South Carolina Coastal Council and Justice Scalia's Primer on Property Rights: Advancing New Democratic Traditions by Defending the Tradition of Property*, 24 WM. & MARY ENVTL. L. & POL'Y REV. 161 (2000); Timothy Sandefur, *Mine and Thine Distinct: What Kelo Says About Our Path*, 10 CHAP. L. REV. 1 (2006); Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council*, 45 STAN. L. REV. 1433 (1993).

14. *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d 1363 (Fed. Cir. 2004). This decision overturned two prior decisions by the Court of Federal Claims, one on liability, *American Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36 (2001), and one on damages, *American Pelagic Fishing Co. v. United States (American Pelagic II)*, 55 Fed. Cl. 575 (2003).

American Pelagic is one of the most recent in a line of takings cases arising out of government regulation of natural resource use in former commons. There are two contexts in which these "former commons" takings cases frequently arise. First, they arise in the context of government regulation of fisheries. See, e.g., *Conti v. United States*, 291 F.3d 1334 (Fed. Cir. 2002) (holding the banning of gillnet fishing did not constitute a regulatory taking); *Arctic King Fisheries, Inc. v. United States*, 59 Fed. Cl. 360 (2004) (holding no cognizable property interest in a vessel's qualification to fish under federal regulations); *Burns Harbor Fish Co. v. Ralston*, 800 F. Supp. 722 (S.D. Ind. 1992) (finding ban on gillnet fishing did not qualify as unconstitutional taking); *Organized Fishermen of Fla. v. Watt*, 590 F. Supp. 805 (S.D. Fla. 1984) (finding no takings claim where regulations eliminated the harvesting of certain shellfish, established bag limits, and eliminated certain commercial fishing). Second, they arise in the context of government regulation of grazing on the public lands. See, e.g., *Fed. Lands Legal Consortium v. United States*, 195 F.3d 1190 (10th Cir. 1999) (holding change in grazing permit regulations is not a taking because permit holder has no property interest in permit); *Pankey Land & Cattle Co. v. Hardin*, 427 F.2d 43 (10th Cir. 1970) (holding that since the government grants grazing permits, the permit holder has no compensable property interest when the government takes the permits away); *United States v. Cox*, 190 F.2d 293 (10th Cir. 1951) (holding that a jury cannot consider access to public lands and grazing permits when determining the value of contiguous land); *Osborne v. United States*, 145 F.2d 892 (9th Cir. 1944) (holding that when land is taken and compensation determined, a grazing permit for a contiguous National Forest has no value); *Klump v. United States*, 30 F. App'x 958 (Fed. Cir. 2002) (finding no compensable property right in grazing permits); *Sacramento Grazing Ass'n, Inc. v. United States*, 66 Fed. Cl. 211 (2005) (finding that a grazing permit on public land is not a property interest compensable under the Takings Clause); *Colvin Cattle Co. v. United States*, 67 Fed. Cl. 568 (2005) (finding that a change in value of plaintiffs' ranch due to a change in plaintiffs' grazing rights is not a compensable taking); *Hage v. United States*, 51 Fed. Cl. 570 (2002) (finding no valid property interest in grazing permits for the purpose of a takings claim); *Bradshaw v. United States*, 47 Fed. Cl. 549 (2000) (finding no taking where the government cancelled a grazing permit, the plaintiffs had historical grazing preference on federal land, or the government failed to prevent feral horses from destroying plaintiffs' land and land on which they held a grazing permit); *White Sands Ranchers of New Mexico v. United States*, 16 Cl. Ct. 13 (1988) (upholding the conclusion that

invitation to discuss the problematic relationship between fishermen¹⁵ and the government in the context of marine fisheries.¹⁶ The relationship between fishermen and government is problematic because of the dual role that government must play after it opts to regulate certain kinds of common-pool resources, or “commons.”¹⁷ First, the government must limit resource use. Economic theory posits that tragedies of the commons can only be solved when a single owner—the government or a private entity—takes control of resource use, internalizing what had been externalities in the unregulated commons.¹⁸ At the same time as it

grazing rights do not constitute property for the purpose of the takings clause); McKinley v. United States, 828 F. Supp. 888 (D.N.M. 1993) (finding grazing reduction that reduces the value of contiguous property is not a compensable taking).

15. In this paper, the terms “fisherman” and “fishermen” are meant to be gender neutral. Although many authors use the term “fishers,” my personal experience is that both men and women who fish prefer to be called “fishermen.” For example, Linda Greenlaw, made famous by her role in the book and film *The Perfect Storm*, see *infra* note 24, refers to herself on her website as a “fisherman.” Linda Greenlaw, <http://www.fishingwithlinda.net/author/author.asp> (last visited Mar. 15, 2007).

16. The term “fishery” refers to the people and equipment involved in catching fish in a defined area, as well as the fish that are pursued. See, e.g., 16 U.S.C. § 1802(13) (2006) (including in the definition of “fishery” the factors that define a fish stock).

17.

A common-pool resource, such as a lake or ocean, an irrigation system, a fishing ground, a forest, or the atmosphere, is a natural or man-made resource from which it is difficult to exclude or limit users once the resource is provided, and one person’s consumption of resource units makes those units unavailable to others. . . . Thus, the trees or fish harvested by one user are not available for others. The difficulty of excluding beneficiaries is a characteristic that is shared with public goods, and the subtractability of the resource units is shared with private goods

Elinor Ostrom, *Coping with Tragedies of the Commons*, 2 ANN. REV. POL. SCI. 493, 497–98 (1999). The “certain kinds” of resources to which I refer are those that are in a condition warranting continued use and for which commercial demand exists, such as timber, grazing forage, and marine fish. In other words, the specific problems I describe here are not characteristic of the management of resources that are depleted to the point where government’s interest is in preservation or restoration only, for example, endangered wildlife.

18.

Common-property natural resources are free goods for the individual and scarce goods for society. Under unregulated private exploitation, they can yield no rent; that can be accomplished only by methods which make them private property or public (government) property, in either case subject to a unified directing power.

H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124, 135 (1954).

The common pool problem begins with the simple idea that the efficient intertemporal allocation of resources requires that any decision on the current rate of use takes into account the entailments for future supplies. A “sole owner” (controller) of a resource who has perpetual tenure is motivated to do just that. He must live with the future consequences of his own current decisions. . . . There is no reason in principle why a state planning authority cannot mimic the responsible behavior of a privately motivated sole owner.

PHILIP A. NEHER, *NATURAL RESOURCE ECONOMICS: CONSERVATION AND EXPLOITATION* 256 (1990).

regulates use, the government must encourage private investment in resource extraction enterprises. Unlike a private owner, the government—at least in the United States—is not interested in entering into resource markets as a competitor.¹⁹ Thus, the government must encourage fishermen to fish and ranchers to graze their cattle; it must regulate in such a way that it attracts, or at least does not repel, entrepreneurs.²⁰

Simultaneously playing these two roles—regulator and facilitator—makes it difficult for the government to manage resources sustainably for two reasons.²¹ First, the regulator's conservation decision, such as, a decision to reduce the amount of fish available to fishermen during the next fishing season, may be contrary to the facilitator's interest in attracting and retaining investment in the fishery. The regulator's decision may or may not drive fishermen out of business, but it can certainly reduce their incomes in the short term. To the extent that "government-as-facilitator" deters "government-as-regulator" from making necessary conservation rules, the likelihood of sustainable management is reduced. Second, by inviting entrepreneurs to use the commons, the government owner is sowing the seeds of a lobbying interest that will likely push against restrictive conservation rules if and when they are needed. Unless the government enters into some type of long-term agreement with resource entrepreneurs, their likely incentive will be to recapture their initial investments as quickly as possible.²² It is well documented how resource users, motivated by this incentive, will organize to lobby for lax regulation that eventually leads to poor conservation outcomes.²³ These two aspects of government ownership

19. The nationalized natural resource industry is mainly a phenomenon of the developing world. See Darryl Reed, *Resource Extraction Industries in Developing Countries*, 39 J. BUS. ETHICS 199 (2004).

20. User-friendly regulation can take a variety of forms, from the active (subsidies) to the passive (non-enforcement of rules and regulations). See, e.g., Josh Eagle et al., *Why Farm Salmon Outcompete Fishery Salmon*, 28 MARINE POL'Y 259 (2004); Josh Eagle & Barton H. Thompson Jr., *Answering Lord Perry's Question: Dissecting Regulatory Overfishing*, 46 OCEAN & COASTAL MGMT. 649 (2003).

21. Although it is a contested term, the most frequently cited definition of "sustainability" is the Brundtland Commission's: resource management that "meets the needs of the present generation without compromising the ability of future generations to meet their own needs." Martin L. Weitzman, *Sustainability and Technical Progress*, 99 SCAND. J. ECON. 1, 1 (1997) (citing WORLD COMM'N ON ENV'T & DEV., OUR COMMON FUTURE (1987)).

22. James E. Wilen, *Why Fisheries Management Fails: Treating Symptoms Rather than the Cause*, 78 BULL. MARINE SCI. 529 (2006).

23. See, e.g., Timothy Hennessey & Michael Healey, *Ludwig's Ratchet and the Collapse of New England Groundfish Stocks*, 28 COASTAL MGMT. 187 (2000). Mancur Olson presented the theory underlying this phenomenon in his classic work, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOOD AND THE THEORY OF GROUPS* (2d ed. 1971). Christopher Schroeder provides a good summary of Olson's theory:

create a synergy: the chances of lobbying success are increased by the fact that government-as-facilitator is sympathetic to fishermen's financial concerns.

The holding in *American Pelagic* is an exclamation point following the proposition that the government's right to vitiate fishermen's investments through regulation is absolute. As described further below, it is hard to imagine a case in which a takings plaintiff, in the regulated commons context, would have better facts. Yet even this "perfect storm"²⁴ of facts was not enough.²⁵ Like other takings cases, however, *American Pelagic* provides only a narrow window into the relationship between individuals and the state. Viewed through this window, insofar as it confirms government's ability to regulate without concern for cost, *American Pelagic* appears to be a victory for conservation.²⁶ The obverse

Arguing that most people would approach the decision to contribute or not by weighing the costs and benefits, Olson predicted that groups would be hard to organize when the group activity promised to produce benefits that were spread out among beneficiaries in amounts that are small compared to the costs of securing them. Each individual would see that her contribution to the group effort was not going to affect her own personal fortunes—either others would contribute enough so that she could free-ride on their efforts or others would not contribute and the minimal amount she was willing to contribute would not put the effort over the top. In either case, no benefits to her would be produced by her contribution, and hence it would be irrational to join in the group effort.

Groups whose benefits were diffuse in this sense were labeled "latent" groups by Olson because the shared group benefit was likely to remain unrealized. In contrast, groups that contain members with more concentrated benefits would be more likely to organize, either because a single member has enough at stake in the benefit to underwrite individually the costs of securing the group benefit, or because a subgroup of members within the larger group is small enough so that they can effectively agree to pool sufficient resources to produce the benefit. Compared to latent groups, such groups as these have a comparative advantage with respect to their ability to organize to advance group interests.

Christopher H. Schroeder, *Rational Choice Versus Republican Moment—Explanations for Environmental Laws, 1969–73*, 9 DUKE ENVTL. L. & POL'Y F. 29, 33–34 (1998).

24. Sebastian Junger's *THE PERFECT STORM* (1997) documented the fate of several fishing vessels caught in a storm event on the Flemish Cap in the northwestern Atlantic in October of 1991. The National Oceanic and Atmospheric Administration called this event "the perfect storm" because it was brought about by the mix of several rarely combining weather phenomena. NOAA Satellite & Info. Serv., *The Perfect Storm*, Oct. 1991, <http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/cyclones/pfctstorm91/pfctstorm.html> (last visited Mar. 24, 2007). A film of Junger's book was released in 2000. *THE PERFECT STORM* (Baltimore Spring Creek Productions 2000).

25. It was already clear, prior to *American Pelagic*, that plaintiffs faced steep uphill battles in regulated commons takings cases. As Laitos and Westfall put it, "[a] warning of 'grantee beware' should therefore be considered by all would-be interest holders of public property." Jan G. Laitos & Richard A. Westfall, *Government Interference with Private Interests in Public Resources*, 11 HARV. ENVTL. L. REV. 1, 75 (1987).

26. As is true with respect to other takings cases, the dispute in *American Pelagic* can easily be framed as a struggle between resource exploitation and conservation. See, e.g., Michael C. Blumm, *The End of Environmental Law?: Libertarian Property, Natural Law, and the Just Compensation Clause in the Federal Circuit*, 25 ENVTL. L. 171 (1995); Mark W. Cordes, *The*

of the *American Pelagic* holding, though, is that fishermen have no legal security for their investments in vessels and fishing equipment.²⁷ Evidence of overuse and overinvestment in a significant percentage of U.S. fisheries raises the concern that fishermen are protecting their investments by successfully lobbying against conservation regulations.²⁸ If this is true, as I hope to show below, it calls into question whether *American Pelagic* represents a meaningful marine conservation victory.

Furthermore, if this hypothesis is correct, there are implications for U.S. fisheries law and policy. The dismal statistics on overuse and overinvestment in U.S. fisheries indicate that the United States' principal fisheries law—the Magnuson-Stevens Fishery Conservation and Management Act²⁹—is not succeeding in its stated goal of achieving sustainable fisheries.³⁰ It may well be that the Act will not succeed until it

Effect of Palazzolo v. Rhode Island on Takings and Environmental Land Use Regulation, 43 SANTA CLARA L. REV. 337 (2003); Courtney Harrington, *Penn Central to Palazzolo: Regulatory Takings Decisions and Their Implications for the Future of Environmental Regulation*, 15 TUL. ENVTL. L.J. 383 (2002); James M. Olson & David E. Pierson, *Takings In Michigan: Private Property and Environmental Protection*, 2 MICH. L. & POL'Y REV. 261 (1997); Andrew H. Sawyer, *Changing Landscapes and Evolving Law: Lessons from Mono Lake on Takings and the Public Trust*, 50 OKLA. L. REV. 311 (1997). If courts interpreted the Fifth Amendment to protect fishing investments, so the argument goes, it would hinder regulators' desire and ability to act as rational resource owners by making necessary conservation decisions costly.

Members of Congress who supported the regulation challenged in the case framed it as a measure necessary for protection of the environment. For example, Senator Olympia Snowe (R-ME) explained her position with a reference to the poor condition of fisheries generally: "We must avoid repeating the mistakes of the past in fisheries management Many of the major commercial fisheries in both the United States and the world are either fully exploited or overexploited." Letitia Baldwin, *Congress OKs trawler moratorium: Bill would protect region's herring, mackerel fisheries*, BANGOR DAILY NEWS (MAINE), Nov. 14, 1997. Similarly, Congressman William Delahunt (D-Mass) argued that the measure would prevent the "alarmingly real" possibility that herring, mackerel, and groundfish stocks would be "devastate[ed]." Chris Black, *Lawmakers rush to protect herring fishery in Atlantic*, BOSTON GLOBE, Sept. 30, 1997, at A1.

27. As Justice Kennedy noted in his concurring opinion in *Lucas*, "The Takings Clause . . . protects private expectations to ensure private investment." *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1035 (1992) (Kennedy, J., concurring).

28. Nearly 30 percent of U.S. fisheries are "overfished," while more than half are "overcapitalized." WILLIAM T. HOGARTH, NAT'L OCEANIC & ATMOSPHERIC ADMIN., ASST. ADM'R FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE'S REPORT ON THE STATUS OF THE U.S. FISHERIES FOR 2004 (2004) [hereinafter STATUS OF THE U.S. FISHERIES FOR 2004], available at http://www.nmfs.noaa.gov/sfa/domestic_fish/StatusofFisheries/StatusReport2004.pdf; NAT'L MARINE FISHERIES SERV., UNITED STATES NATIONAL PLAN OF ACTION FOR THE MANAGEMENT OF FISHING CAPACITY 11–12 (2004), available at http://www.nmfs.noaa.gov/sfa/reg_svcs/npoa.capacity.8.4.04.pdf. "Overfished" fisheries are those in which stocks have been fished beyond an optimal point; "overcapitalized" fisheries are those in which fishermen, as a group, have invested in fishing equipment that is not necessary for catching the amount of fish available. Part IV contains a more complete discussion of the data and these issues.

29. 16 U.S.C. §§ 1801–1883 (2006) [hereinafter Magnuson-Stevens Act].

30. The sustainability goals of the Act are captured in Congress' statement of "Findings, purposes, and policy": "to prevent overfishing, to rebuild overfished stocks, to insure

takes into account the differences between public and private resource management: the government owner's "split personality" and the predictable influence of short-sighted resource entrepreneurs on management decisions.

Part I of this Article recounts the facts of *American Pelagic* and its holding that, as a legal matter, the U.S. government owns the fishery resources of the Exclusive Economic Zone (EEZ) and fishermen cannot use the Fifth Amendment to protect their investments in fishing vessels and gear. Part II explores the theory and practice of government ownership: how the need for private entrepreneurs to capture resources affects economists' "sole ownership" solution to the tragedy of the commons. Part III explains how the Magnuson-Stevens Act and other federal fisheries laws have likely exacerbated the problems created by the presence of entrepreneurs within government-owned fisheries. Part IV examines how Congress might amend the Magnuson-Stevens Act to address these problems and thus increase the likelihood that the law will achieve its stated goal of sustainability. Part V concludes by briefly noting the obstacles to change.

1. *AMERICAN PELAGIC FISHING CO. V. UNITED STATES*: THE PERFECT STORM

From the government's perspective, the events of *American Pelagic* represented "the perfect storm" of bad facts. The plaintiff, owner of a large fishing vessel, could show that the government-as-facilitator had enticed it to invest substantial amounts of money in fishing equipment.³¹ In a variety of publications, the government had touted the fact that stocks of Atlantic herring and mackerel were healthy, indeed underexploited, and that there was significant demand for these species in foreign markets. Furthermore, the plaintiff could show that its investments were subjectively reasonable: its principals had carefully researched both world fish markets and the regulatory environment of the two fisheries prior to investing.

After spending significant sums of money outfitting a vessel, the *Atlantic Star*, specifically for use in those fisheries, the plaintiff obtained all of the federal permits it needed to begin fishing.³² Soon thereafter, other herring and mackerel fishermen began to object to the plaintiff's entry into the fisheries.³³ While its potential competitors' objections were thinly veiled with conservation concerns, they were obviously based on

conservation, to facilitate long-term protection of essential fish habitats, and to realize the full potential of the Nation's fishery resources." *Id.* § 1801(a)(6).

31. See *infra* Part I.A.2.

32. See *infra* Part I.A.2.

33. See *infra* Part I.A.2.

fears that they would have difficulty competing with the larger, faster, and technologically superior *Atlantic Star*.

In response to the fishermen's complaints, Congress passed legislation that prohibited the *Atlantic Star*, and only the *Atlantic Star*, from participating in the herring and mackerel fisheries.³⁴ As a result of this legislation, the *Atlantic Star*—which had been purpose-built for these fisheries—had no, or little, other viable economic use.³⁵

A. *The Facts*

1. *Regulation and Facilitation in the Herring and Mackerel Fisheries*

Federal management of the Atlantic mackerel³⁶ fishery began in April of 1983, when the National Marine Fisheries Service (NMFS) approved the Mid-Atlantic Fishery Management Council's Fishery Management Plan (FMP) for the species.³⁷ According to the Council, the goals of the plan were to:

34. See *infra* Part I.A.3.

35. See *infra* Part I.A.3.

36. Mid-Atl. Fishery Mgmt. Council, Squid, Mackerel, Butterfish Fishery Management Plan, Executive Summary, <http://www.mafmc.org/mid-atlantic/fmp/smb-a8.htm> (last visited Apr. 5, 2007).

Atlantic mackerel, *Scomber scombrus*, is a fast swimming, pelagic, schooling species distributed in the Northwest Atlantic between Labrador and North Carolina. There are two major spawning components of this population: a southern group that spawns primarily in the Mid-Atlantic Bight during April and May, and a northern group that spawns in the Gulf of St. Lawrence in June and July. Both groups winter between Sable Island (off Nova Scotia) and Cape Hatteras in waters generally warmer than 7°C (45°F), with extensive northerly (spring) and southerly (autumn) migrations to and from spawning and summering grounds. The two groups are managed as a unit stock. Maximum observed size in recent years is about 47 cm (18.5 in) in length and 1.3 kg (3 lb) in weight. Sexual maturity begins at age 2 and is usually complete by age 3. Maximum age is about 20 years.

William Overholtz, Atlantic Mackerel, <http://www.nefsc.noaa.gov/sos/spsyn/pp/mackerel> (last visited Mar. 24, 2007). For more information on the life history of Atlantic mackerel, see Essential Fish Habitat Source Document: Atlantic Mackerel, *Scomber scombrus*, Life History and Habitat Characteristics, NOAA Technical Memorandum NMFS-NE-141 (1999), <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm141/tm141.pdf>.

37. Through the Magnuson-Stevens Act, Congress created a system of eight Regional Fishery Management Councils, each of which manages fisheries within a sizeable fraction of federal waters. 16 U.S.C. § 1852(a) (2006). The size of the area managed by each council varies. The Western Pacific Fishery Management Council has the largest spatial jurisdiction, covering nearly 1.5 million square miles, while the North Pacific Council manages an area of about 900,000 square miles. North Pacific Fishery Management Council, <http://www.fakr.noaa.gov/npfmc> (last visited Mar. 24, 2007); Western Pacific Fishery Management Council, <http://www.wpcouncil.org> (last visited Mar. 24, 2007). Some of the councils manage only a few hundred thousand square miles. See, e.g., New England Fishery Management Council, <http://www.nefmc.org> (last visited Mar. 24, 2007). Generally speaking, council management covers areas within three and 200 miles from the shores of the United States. Under the

1. Enhance the probability of successful (i.e., the historical average) recruitment to the fisheries;
2. Promote growth of the U.S. commercial fishery, including the fishery for export;
3. Provide the greatest degree of freedom and flexibility to all harvesters of these resources consistent with the attainment of the other objectives of this FMP;
4. Provide marine recreational fishing opportunities, recognizing the contribution of recreational fishing to the national economy;
5. Increase understanding of the conditions of the stocks and fisheries;
6. Minimize harvesting conflicts among U.S. commercial, U.S. recreational, and foreign fishermen.³⁸

Pursuant to the rules in the FMP, fishermen interested in catching Atlantic mackerel had to first obtain a permit from the NMFS.³⁹

Government regulation of the herring fishery began in 1978, when the NMFS approved the New England Fishery Management Council's FMP for herring.⁴⁰ The NMFS rescinded this FMP in 1982.⁴¹ After 1982,

Submerged Lands Act, Congress has given coastal states primary responsibility for managing fisheries between zero and three miles offshore.

Pursuant to Magnuson-Stevens Act, each council is responsible for writing a fishery management plan (FMP) for each fishery within its jurisdiction that is in need of "conservation and management." 16 U.S.C. § 1852(h)(1)(A). FMPs must establish "management measures . . . necessary and appropriate . . . to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery." *Id.* § 1853(a)(1).

The National Marine Fisheries Service, a federal agency within the Department of Commerce and its National Oceanic and Atmospheric Administration, is responsible for ensuring that each FMP is consistent with plan requirements set out in the Magnuson-Stevens Act, including ten "national standards for fishery conservation and management." *Id.* § 1851(a)(1)–(10). Through the National Standards, Congress has provided the councils with loosely worded guidance on issues of conservation, efficiency, ecosystem concerns, and fishermen's safety. *Id.* § 1851(a).

Currently, the councils manage nearly 700 distinct populations, or stocks, of fish under forty-five Fishery Management Plans. STATUS OF THE U.S. FISHERIES FOR 2004, *supra* note 28.

38. Mid-Atl. Fishery Mgmt. Council, Squid, Mackerel, Butterfish Fishery Management Plan, *supra* note 36.

39. *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d 1363 (Fed. Cir. 2004).

40. NEW ENGLAND FISHERY MGMT. COUNCIL, FINAL ATLANTIC HERRING FISHERY MANAGEMENT PLAN 1 (1999), available at <http://www.nefmc.org/herring/index.html>.

The Atlantic herring, *Clupea harengus*, is widely distributed in continental shelf waters from Labrador to Cape Hatteras. Important commercial fisheries for juvenile herring (ages 1 to 3) have existed since the last century along the coasts of Maine and New Brunswick. Development of large-scale fisheries for adult herring is comparatively recent, primarily occurring in the western Gulf of Maine, on Georges Bank, and on the Scotian Shelf. Gulf of Maine herring migrate from summer feeding grounds along the Maine coast to southern New England and Mid-Atlantic areas during winter, with larger individuals tending to migrate further distances. Tagging experiments have also provided evidence of intermixing of Gulf of Maine-Scotian Shelf herring during different phases of the annual migration.

herring fishing in federal waters was not directly covered by an FMP.⁴² However, the New England Council and the NMFS indirectly regulated herring fishing off New England by virtue of the fact that fishing for herring had the potential to result in the incidental bycatch of other, FMP-covered species.⁴³ Thus, any person interested in fishing for herring in federal waters had to obtain a Northeast Multispecies Permit before doing so.⁴⁴ In addition, if the fisherman intended to use midwater trawl gear⁴⁵ in federal waters, she was required to first obtain an “authorization letter” from the NMFS.⁴⁶

Throughout the 1990s, the government encouraged fishermen to invest in both the mackerel and herring fisheries. After assessing the condition of the stocks in the early 1990s, a government report concluded that “mackerel and herring stocks in the Atlantic Ocean were at record highs and were substantially underfished.”⁴⁷ For 1997, the Mid-Atlantic Council set the allowable biological catch (ABC) for Atlantic mackerel at

Overholtz, Atlantic Herring, *supra* note 36. For more information on the life history of Atlantic herring, see Essential Fish Habitat Source Document: Atlantic Herring, *Clupea harengus*, Life History and Habitat Characteristics, NOAA Technical Memorandum NMFS-NE-192 (2d ed. 2005), available at <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm192/tm192.pdf>.

41. Atlantic Herring Fishery Management Plan, <http://www.nefmc.org/herring/summary/herring.pdf> (last visited Mar. 24, 2007). The Magnuson-Stevens Act requires councils to write FMPs only for those fisheries that are in need of conservation and management. 16 U.S.C. § 1852(h) (2006).

42. ATL. STATES MARINE FISHERIES COMM’N ATL. HERRING PLAN DEV. TEAM, FISHERY MANAGEMENT REPORT NO. 33 OF THE ATLANTIC STATES MARINE FISHERIES COMMISSION, AMENDMENT 1 TO THE INTERSTATE FISHERY MANAGEMENT PLAN FOR ATLANTIC SEA HERRING 36 (1999), available at <http://www.asmfc.org/speciesDocuments/herring/fmps/herringAmend1.pdf>.

43. See *American Pelagic III*, 379 F.3d at 1368.

44. *Id.*

45.

A midwater trawl consists of a cone shaped body, normally made of four panels, ending in a codend with lateral wings extending forward from the opening. It is usually much larger than a bottom trawl and designed and rigged to fish in midwater, including in the surface water. The front parts are sometimes made with very large meshes or ropes, which herd the targeted fish inwards so that they can be overtaken by smaller meshes in the aft trawl sections. The horizontal opening is maintained either by otter boards or by towing the net by two boats (pair trawling). Floats on the headline and weights on the groundline often maintain the vertical opening. Modern large midwater trawls, however, are rigged in such a way that floats are not required, relying on downward forces from weights to keep the vertical opening during fishing.

Food & Agriculture Organization of the United Nations, Gear Type Fact Sheet, Midwater Trawls, <http://www.fao.org/figis/servlet/geartype?fid=207> (last visited Mar. 24, 2007).

46. *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d 1363, 1368 (Fed. Cir. 2004).

47. *Id.* at 1366. In response to these findings, the NMFS in 1994 rescinded the “control date” of the mackerel fishery, giving notice that all fishermen who thereafter began fishing for Atlantic mackerel would be eligible for a mackerel permit if the government later decided to limit the number of permitted vessels in the fishery. See *id.* at 1367 & n.3. After the NMFS announces a “control date” for a fishery, it issues no more permits for that fishery. *Id.*

1.178 million metric tons;⁴⁸ commercial landings for that year totaled only 15,406 metric tons.⁴⁹ That same year, the New England Council proposed to set the ABC for herring at 300,000 metric tons.⁵⁰ Commercial landings of herring in 1997 totaled only 95,715 metric tons.⁵¹

While government agencies were publicizing the facts that herring and mackerel stocks were high and that catches were low, they were also advertising the financial opportunities available to fishermen willing to invest in better equipment. For example, a 1993 study commissioned by the U.S. Senate Finance Committee and prepared by the U.S. International Trade Commission had concluded that participation in the Atlantic mackerel fishery by larger, more efficient fishing vessels was necessary if the United States was to compete successfully in European mackerel markets.⁵² In 1996, the Mid-Atlantic Council published a report indicating that

[t]he key problem for the U.S. [mackerel] fishery remains that of Atlantic mackerel not being a desirable fish in the eyes of most American consumers, and transportation costs have been prohibitive in shipping this low-value, bulk product to foreign markets where it enjoys greater acceptance. In order to compete in the world bulk market, the U.S. will have to emulate its foreign competitors, which harvest, process and ship mackerel in large quantities so as to take advantage of economies of scale. Currently, the U.S. east coast industry does not have the large vessels necessary to participate in this market. . . .⁵³

2. *The Entrepreneur Enters the Fishery*

Lisa Torgersen was an experienced fisherman who, by 1996, had worked in the fishing industry for seven years as a crew member, the manager of a factory trawler, and as operations manager for a company that owned one large trawler and managed two others.⁵⁴ In early 1996,

48. The term "Allowable Biological Catch," or ABC, refers to the council's determination of a safe level of catch for the species. It is not the same as "Total Allowable Catch," or TAC, which refers to a limit set by a council on the total amount of fish that can be caught that year. Eagle & Thompson, *supra* note 20, at 655–56.

49. *American Pelagic III*, 379 F.3d at 1367.

50. *Id.* As noted, the New England Council did not have an FMP in place for herring during the relevant time period. However, it was in the process of drafting an FMP, which the NMFS ultimately approved in 1999. *Id.*

51. *Id.*

52. *Id.*

53. *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 39 (2001), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004) (quoting MID-ATL. FISHERIES MGMT. COUNCIL, ANNUAL QUOTA SPECIFICATIONS FOR ATLANTIC MACKEREL, LOLIGO, ILLEX, AND BUTTERFISH FOR 1997, 12 (1996)).

54. *Am. Pelagic Fishing Co. v. United States (American Pelagic II)*, 55 Fed. Cl. 575, 577 (2003), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004).

she decided to investigate the possibility of purchasing a vessel of her own.⁵⁵ In the course of her research, she discovered the aforementioned government stock assessment reports indicating that Atlantic mackerel and herring stocks were plentiful.⁵⁶ She also read the 1993 International Trade Commission report highlighting the market opportunities that could be exploited through the use of larger, more efficient vessels in these fisheries.⁵⁷ In order to confirm the marketability of the fish, Ms. Torgersen sent samples of Atlantic mackerel to several Japanese seafood wholesalers whom she knew from prior business dealings.⁵⁸ In response, these buyers sent Ms. Torgersen "enthusiastic letter[s] expressing their desire to purchase large quantities of Atlantic herring and mackerel."⁵⁹

Based on this information, Ms. Torgersen formed the Atlantic Star Fishing Company for the purpose of purchasing and refitting a vessel for use in the Atlantic mackerel and herring fisheries.⁶⁰ In late 1996, Ms. Torgersen's company joined several other partners in forming the American Pelagic Fishing Company (the "Company").⁶¹ In November of 1996, the Company purchased a used, 369-foot-long vessel known as the *Apollo II* for \$1.7 million.⁶²

When the Company purchased the *Apollo II*, it was an incinerator ship.⁶³ The Company contracted with a Norwegian shipyard to have it specially outfitted: "purpose built" for catching mackerel and herring.⁶⁴ In addition to its fishing gear, the *Atlantic Star*, as it would be renamed, was to be equipped with state-of-the-art freezing, pumping, and sorting facilities,⁶⁵ enabling it to process and store up to 500 metric tons of fish.⁶⁶

55. *Id.*

56. *Id.* at 578.

57. *Id.*

58. *Id.* at 579.

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.* at 580.

63. *Id.* Incinerator ships burn waste at sea, where the emissions are less likely to cause direct harm to human populations. *Cf.* Phillip Shabecoff, *E.P.A. Relationship to Waste Disposer Creates Controversy*, N.Y. TIMES, Mar. 16, 1985, at A1.

64. *Am. Pelagic Fishing Co. v. United States (American Pelagic II)*, 55 Fed. Cl. 575, 580 (2003), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004); *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d at 1367.

65.

The sorting machine, consisting of a system of rollers, would separate the fish into different sizes and send them into bins filled with chilled water. After the fish were sorted according to size, they were pumped through a tube and into plate freezers. Once inside the freezers, the fish were frozen into solid blocks. The frozen blocks then traveled along a conveyor belt to machines which placed the blocks in cartons and strapped the cartons shut. Workers would then stack the cartons on wooden pallets.

American Pelagic II, 55 Fed. Cl. at 581.

66. *American Pelagic III*, 379 F.3d at 1368.

The vessel would have two large deck cranes, permitting it to offload 90 percent of its fish to transport ships at sea in fair or foul weather.⁶⁷ The *Atlantic Star*, and its sophisticated equipment, would be powered by two 6,700 horsepower engines.⁶⁸

All of these features would give the *Atlantic Star* significant advantages in the race-for-the-fish management regimes governing Atlantic mackerel and herring fishing.⁶⁹ The ship's high-powered engines and advanced fishing gear would allow it to get to the fish quickly and catch them rapidly.⁷⁰ Perhaps most importantly, its freezers, storage capacity, and ability to offload at sea would save it valuable time by minimizing the number of trips back and forth from fishing grounds to port.⁷¹ While its competitors were hauling fish back to the dock, the *Atlantic Star* would be catching and selling fish.

By the time all of this work had been completed, the Company had invested approximately \$34 million in the *Atlantic Star*.⁷² In 1997, while the boat was being completed, the Company applied for, and received from the NMFS, all of the federal fisheries permits it needed to fish for mackerel and herring.⁷³

3. Congress Responds to Competitors' Complaints

Before the *Atlantic Star* began fishing, other mackerel and herring fishermen—all of whom used much smaller fishing vessels—voiced concern about the effect this large, technologically superior boat would have on the fishery.⁷⁴ The *Atlantic Star* was 369 feet long; no other vessel operating in the fishery at that time was over 165 feet long or had engines larger than 3,000 horsepower.⁷⁵ Although the fishermen's concerns were ostensibly about the potentially detrimental effects on conservation of the

67. *American Pelagic II*, 55 Fed. Cl. at 581.

68. *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 38 (2001), *rev'd and remanded*, *American Pelagic III*, 379 F.3d 1363.

69. A race-for-fish management regime is one in which the government sets annual limits on total catch. Once the government opens the fishing season, the fishermen attempt to catch the fish as quickly as possible, because as soon as the total catch limit is reached, the government closes the fishery. Parzival Copes, *A Critical Review of the Individual Quota as a Device in Fisheries Management*, 62 LAND ECON. 278, 279 (1986).

70. *Am. Pelagic Fishing Co. v. United States (American Pelagic II)*, 55 Fed. Cl. 575, 580 (2003), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004).

71. *Id.* at 581.

72. *Id.* at 582.

73. In order to participate in these two fisheries, the plaintiff needed two permits, one for mackerel and one for unintentionally bycaught groundfish. It also needed an authorization letter from the NMFS, permitting the *Atlantic Star* to carry small-mesh midwater trawl nets. *American Pelagic III*, 379 F.3d at 1368.

74. *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 40 (2001), *rev'd and remanded*, *American Pelagic III*, 379 F.3d 1363.

75. *Id.* at 41.

stocks, it is not difficult to imagine that they were equally or more concerned about their ability to compete in the race for fish with the *Atlantic Star*.

At a joint meeting of the Atlantic Herring Section and the NEFMC Herring Committee in March 1997, potential restrictions on vessel specifications were discussed. The concern about the *Atlantic Star* was obvious. One attendee at the joint meeting stated, "There's a U.S. boat in Norway that will have a 300 ton daily capacity. There's room for growth in the herring and mackerel fishery but not this much growth and not at this pace without severely impacting the current herring and mackerel fishery. We need to keep this fishery local."⁷⁶

Ultimately, the would-be competitors of the *Atlantic Star* succeeded in convincing their representatives in Congress to introduce legislation that would ban "any fishing vessel, in the Atlantic mackerel and herring industries, equal to or greater than 165 feet in length, with an engine of more than 3,000 horsepower."⁷⁷ At a hearing on the proposed ban, Michael Love, general manager of the *Atlantic Star*, testified that he believed his vessel was the only one that would be affected by the legislation.⁷⁸

This bill, and a similar bill introduced in the Senate,⁷⁹ ultimately failed. However, in 1997, the ban passed as a rider to an appropriations measure.⁸⁰ The ban was renewed in 1998 and made permanent in 1999.⁸¹

76. *Id.* at 40.

77. *American Pelagic III*, 379 F.3d at 1368 (Fed. Cir. 2004) (citing H.R. 1855, 105th Cong. (1997)).

78. *American Pelagic I*, 49 Fed. Cl. at 41 (citing *Fish and Wild Life Issues: Hearing on H.R. 1855 Before the House Subcomm. on Fisheries Conservation, Wildlife and Oceans*, 105th Cong. (1997)).

79. S. 1192, 105th Cong. (1997).

80. Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act of 1998, Pub. L. No. 105-119, § 616, 111 Stat. 2440, 2518-19 (1997).

81. Emergency Supplemental Appropriations Act of 1999, Pub. L. No. 106-31, § 3025, 113 Stat. 57, 100-01 (1999); Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act of 1999, Pub. L. No. 105-277, § 202, 112 Stat. 2681, 2681 (1998); Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act of 1997, Pub. L. No. 105-119, § 616, 111 Stat. 2440, 2518-19 (1998). Specifically, these Acts provided that:

(a) None of the funds made available in this Act may be used to issue or renew a fishing permit or authorization for any fishing vessel of the United States greater than 165 feet in registered length or of more than 750 gross registered tons, and that has an engine or engines capable of producing a total of more than 3,000 shaft horsepower—

(1) as specified in the permit application required under part 648.4(a)(5) of title 50, Code of Federal Regulations, and the authorization required under part 648.80(d)(2) of title 50, Code of Federal Regulations, to engage in fishing for Atlantic mackerel or herring (or both) under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.); or

These riders required the NMFS to revoke plaintiff's permits and authorization letter. Unable to participate in the mackerel and herring fisheries, the plaintiff sent the *Atlantic Star* around the world in search of a profitable use.⁸² None was found, and plaintiff was ultimately forced to sell the vessel.⁸³

B. The Regulatory Takings Claim

In its 1999 complaint to the Court of Federal Claims, the American Pelagic Fishing Company alleged temporary regulatory takings of both its fishing permits and the *Atlantic Star*.⁸⁴ The plaintiff sought compensation equal to "the expected net revenues or profit from the operation of the [*Atlantic Star*] in the fisheries of the United States' during the fiscal years 1998 and 1999."⁸⁵

1. Property Interest

In order to prove that a regulatory taking has occurred, a plaintiff must first establish that the contested regulation has impinged upon a compensable private property right.⁸⁶ One way to frame the inquiry into

(2) that would allow such a vessel to engage in the catching, taking, or harvesting of fish in any other fishery within the exclusive economic zone of the United States (except territories), unless a certificate of documentation has been issued for the vessel and endorsed with a fishery endorsement that was effective on September 25, 1997 and such fishery endorsement was not surrendered at any time thereafter.

(b) Any fishing permit or authorization issued or renewed prior to the date of the enactment of this Act for a fishing vessel to which the prohibition in subsection (a)(1) applies that would allow such vessel to engage in fishing for Atlantic mackerel or herring (or both) during fiscal year 1998 shall be null and void, and none of the funds made available in this Act may be used to issue a fishing permit or authorization that would allow a vessel whose permit or authorization was made null and void pursuant to this subsection to engage in the catching, taking, or harvesting of fish in any other fishery within the exclusive economic zone of the United States.

82. *Am. Pelagic Fishing Co. v. United States (American Pelagic II)*, 55 Fed. Cl. 575, 582-84 (2003), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004).

83. *American Pelagic III*, 379 F.3d at 1369.

84. *Id.*

85. *Id.* (quoting *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 67 (2001)).

86. *Maritrans, Inc. v. United States*, 342 F.3d 1344, 1351 (Fed. Cir. 2003); *Wyatt v. United States*, 271 F.3d 1090, 1096 (Fed. Cir. 2001) ("It is axiomatic that only persons with a valid property interest at the time of the taking are entitled to compensation."). According to Brian Gray,

The Supreme Court has made clear in several important decisions that the plaintiff in a takings case must establish that he or she possesses property rights vis-a-vis the government, which the government has taken either by eminent domain or by

whether the plaintiff has lost a potentially compensable property right is to ask whether the plaintiff ever had the right to use her property in a way that the regulation now prohibits. If the answer to this question is “no,” then there is no need to proceed further: the government has not taken any property. The Supreme Court in *Lucas v. South Carolina Coastal Council* directed courts to look to “background principles of the State’s law of property and nuisance”⁸⁷ in order to determine whether particular rights do or do not inhere in title to the property. In *Lucas*, Justice Scalia explained how nuisance law operates as a limit on title:

[T]he owner of a lakebed, for example, would not be entitled to compensation when he is denied the requisite permit to engage in a landfilling operation that would have the effect of flooding others’ land.... Such regulatory action may well have the effect of eliminating the land’s only economically productive use, but it does not proscribe a productive use that was previously permissible under relevant property and nuisance principles. The use of these properties for what are now expressly prohibited purposes was always unlawful....⁸⁸

In addition to nuisance law, a range of “property principles” might limit a property owner’s “permissible” rights.⁸⁹ Particularly relevant to *American Pelagic* is the government’s trustee responsibility for wildlife.⁹⁰ Citing New York and California state court decisions, Blumm and Ritchie argue that “[t]hese courts’ observations that state wildlife protection can be a background principle of property law appear to be a reasonable application of *Lucas*.”⁹¹ In other words, a plaintiff might have no inherent right to use her property in a way that harms wildlife that the government owns or holds in trust for the public. Thus, government regulation

regulation. If the plaintiff cannot prove such a property right, the takings claim fails *ab initio*.”

Brian E. Gray, *The Property Right in Water*, 9 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 1, 2 (2002).

87. 505 U.S. 1003, 1029 (1992).

88. *Id.* at 1029–31; accord *Keystone Bituminous Coal Ass’n v. DeBenedictis*, 480 U.S. 470 (1987); *Hadacheck v. Sebastian*, 239 U.S. 394 (1915); *Mugler v. Kansas*, 123 U.S. 623 (1887).

89. In a recent article, Michael Blumm and Lucas Ritchie document court decisions finding title limitations in the public trust doctrine, the natural use doctrine, the federal navigational servitude, the doctrine of custom, water law, the wildlife trust, and Indian treaty rights. Michael C. Blumm & Lucas Ritchie, *Lucas’s Unlikely Legacy: The Rise Of Background Principles as Categorical Takings Defenses*, 29 HARV. ENVTL. L. REV. 321 (2005).

90. The concept of a government wildlife trust in the United States has its root in English law, and was developed by state courts throughout the nineteenth century. Michael C. Blumm & Lucas Ritchie, *The Pioneer Spirit and the Public Trust: The American Rules of Capture and State Ownership of Wildlife*, 35 ENVTL. L. 673, 693–701 (2005).

91. Blumm & Ritchie, *supra* note 89, at 353; see also MICHAEL J. BEAN & MELANIE J. ROWLAND, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 38 (1997); John D. Echeverria & Julie Lurman, “Perfectly Astounding” *Public Rights: Wildlife Protection and the Takings Clause*, 16 TUL. ENVTL. L.J. 331, 356–64 (2003).

limiting direct or indirect killing of wildlife would not interfere with any private rights and could not give rise to a takings claim.

2. *Has the Regulation Gone Too Far?*

If the plaintiff can establish that regulation has affected its property rights, then the court must consider whether or not a taking has occurred. The overarching question in the inquiry, as stated in *Pennsylvania Coal Co. v. Mahon*, is whether the government regulation has gone “too far” in interfering with the property right.⁹² Since *Pennsylvania Coal*, courts have attempted to answer the question of “how far is too far?” in individual cases by applying a set of categorical rules and, where those rules are inapposite, a multi-pronged balancing test.⁹³

The first “categorical rule” comes into play where the regulation permits “permanent physical occupation” of plaintiff’s property.⁹⁴ The second is applied when the contested regulation has deprived the plaintiff of all viable economic use of the property: “when the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking.”⁹⁵

If neither of these categorical rules apply, courts resolve the takings issue by application of a case-by-case balancing test.⁹⁶ The Supreme Court fully articulated the case-by-case approach in *Penn Central Transportation Co. v. New York City*, in which the Court considered whether a New York City program prohibiting development of historical landmarks constituted a taking.⁹⁷ In assessing the plaintiff’s claim in that case, the Court weighed “the regulation’s economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action.”⁹⁸ However, as the Court clarified in a later case, no one of these factors is dispositive: “*Penn Central* does not supply mathematically precise variables, but instead provides important guideposts that lead to the ultimate determination whether just compensation is required.”⁹⁹

The economic effect on the landowner is measured in terms of the “diminution in property value” due to the government regulation.¹⁰⁰ Overlapping with this measurement, and perhaps also with the

92. *Penn. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

93. *See, e.g., Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001).

94. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 427 (1982).

95. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019 (1992).

96. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978).

97. *Id.* at 107.

98. *Palazzolo*, 533 U.S. at 617.

99. *Id.* at 634.

100. *Penn Central*, 438 U.S. at 131.

preliminary inquiry into the property owner's inherent rights,¹⁰¹ the second prong of *Penn Central* focuses on the extent to which the regulation has interfered with the plaintiff's investment-backed expectations.¹⁰² The court will consider what the landowner expected when he acquired title, and what investments he made in reliance on those expectations; reliance on reasonable expectations makes a stronger case for compensation.¹⁰³ Courts have interpreted *Penn Central's* "character of government action" prong in a variety of ways—at least nine.¹⁰⁴ As will be seen shortly, the Court of Federal Claims in *American Pelagic*, harking back to *Pennsylvania Coal*¹⁰⁵ and *Armstrong v. United States*,¹⁰⁶ interpreted "character of government action" in terms of the relative distribution of costs and benefits among the public.¹⁰⁷ Under this view, the fewer property owners to which a regulation applies, the more likely it is that a taking has occurred.¹⁰⁸

The effect of a regulation does not have to be permanent for there to be a taking. In *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles*,¹⁰⁹ the Supreme Court held that a plaintiff would be entitled to compensation for the period between the effective date of the regulation and the date the regulation was rescinded, but only if application of the regulation were found to be a taking.¹¹⁰ In *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, the Court held that some temporary land use restrictions, although not the particular restriction in that case, might give rise to compensable takings claims.¹¹¹

101. See *Palazzolo v. Rhode Island*, 533 U.S. 606, 634 (2001) (O'Connor, J., concurring).

102. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124–25 (1978) (citations omitted).

103. *Palazzolo*, 533 U.S. at 633 (O'Connor, J., concurring).

104. John D. Echeverria, *The "Character" Factor in Regulatory Takings Analysis*, SK081 A.L.I.-A.B.A. 143, 146 (2005); see also Steven J. Eagle, "Character" as "Worthiness": A New Meaning for *Penn Central's Third Test*, 27 ZONING & PLANNING RPT., June 2004, at 1 (discussing a possible new role for the character of the government action test).

105. 260 U.S. 393, 415 (1922) ("average reciprocity of advantage . . . has been recognized as a justification of various laws").

106. 364 U.S. 40, 49 (1960) (noting that the Fifth Amendment "was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.>").

107. *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 51 (2001), *rev'd and remanded*, 379 F.3d 1363 (Fed. Cir. 2004).

108. See, e.g., Steven J. Eagle, *supra* note 104, at 5 (citing and quoting *E. Enterprises v. Apfel*, 524 U.S. 498, 537 (1998)).

109. 482 U.S. 304 (1987).

110. *Id.* at 318–19.

111. 535 U.S. 302, 342 (2002).

3. *Takings Analysis in American Pelagic*

a. *Court of Federal Claims*

In 2002, the Court of Federal Claims granted the plaintiff's motion for summary judgment, and awarded it \$37,275,952.67 in compensation for a temporary, twenty-month regulatory taking of the *Atlantic Star*.¹¹² The trial court found that while the permits themselves did not constitute property for the purposes of a Fifth Amendment takings claim, the *Atlantic Star* did.¹¹³ The trial court also found that the plaintiff satisfied each of the *Penn Central* factors. As to diminution in value, the court found that

The economic impact on plaintiff of the appropriations riders was severe. Plaintiff spent nearly \$40 million on the *Atlantic Star* specifically to equip it to participate in the Atlantic mackerel and herring fisheries. With the enactment of the riders, this investment was wiped out. The *Atlantic Star* could not profitably operate without the permits that were revoked and denied by Congress; the appropriations riders prohibited all profitable uses of the vessel.¹¹⁴

The court found that the plaintiff's investment-backed expectation that it would be allowed to participate in the fishery was reasonable:

Indeed, the government, through the NMFS and the [International Trade Commission], induced plaintiff to make its investment in the *Atlantic Star*. The government cannot now argue that reliance by plaintiff on the government's own statements was unreasonable. Plaintiff could not assume that the regulatory regime would remain static, but it had no reason to anticipate that Congress would render the regulatory regime *uniquely* unavailable to it. Plaintiff could not have anticipated that Congress would single it out to revoke its permits by legislation.¹¹⁵

The court devoted a great deal of attention to the "character of the government action" prong of *Penn Central* analysis. It was undisputed that Congress' ban applied only to the *Atlantic Star*. This "singling out" was very troubling to the court:

All of the legislation in question here was clearly targeted at the *Atlantic Star*, as the predecessor bills to the appropriations riders indicate. As previously stated, Senator Snowe, when introducing S. 1192, referred to a "369 foot factory trawler" that was about to enter

112. *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d 1363, 1366 (Fed. Cir. 2004).

113. *Am. Pelagic Fishing Co. v. United States (American Pelagic I)*, 49 Fed. Cl. 36, 46 (2001), *rev'd and remanded*, *American Pelagic III*, 379 F.3d 1363.

114. *Id.* at 50.

115. *Id.* at 49.

the Atlantic mackerel and herring fisheries; she was surely referring to the *Atlantic Star*. Furthermore, Congress was informed, during hearings regarding H.R. 1855, that the size prohibitions under consideration would affect only the *Atlantic Star* and no other vessels. Congressman Jack Metcalf of Washington also pointed out this fact:

[APFC's] vessel, the *Atlantic Star*, is the only vessel that will be legislated out of existence—and into bankruptcy—by enactment of H.R. 1855. Such a result is not only bad fishery policy, it is bad Government policy and is manifestly unfair. We here in Congress should be trying to prevent Government takings of private property, not facilitating them, as this legislation most certainly does.

...

The character of the governmental action here, because that action, in both purpose and effect, was retroactive and targeted at plaintiff, supports the finding of a taking.¹¹⁶

Applying the *Penn Central* test, and leaning heavily on its third prong, the Court of Federal Claims found that the appropriations rider had affected a temporary taking of the *Atlantic Star*.

b. Federal Circuit

The government appealed this decision. On appeal, the government not only contested the trial court's findings with respect to the *Penn Central* factors, but attacked the trial court's finding that property was involved at all, arguing that "no property interest exists in an individual's investment in uses of personalty that are dependent upon discretionary permit issuances by the government."¹¹⁷ In other words, while the *Atlantic Star* was property, that part of its value that had been "taken" by the rider existed solely as a function of the permit; and since the permit was freely revocable, so too was this differential value. As the court of appeals framed the question: "Was the right to fish for Atlantic mackerel and herring in the EEZ a legally cognizable property interest such that it was a stick in the bundle of property rights that American Pelagic acquired as the owner of the *Atlantic Star*?"¹¹⁸ The court of appeals agreed with the government and held that there was no such stick in plaintiff's bundle of rights.¹¹⁹ In other words, the government owned the right to fish in the EEZ; when granted fishing permits, fishermen have a license to catch fish, and nothing more.

116. *Id.* at 51 (citations omitted) (modification in original).

117. *American Pelagic III*, 379 F.3d at 1376.

118. *Id.*

119. *Id.*

II. GOVERNMENT OWNERSHIP IN THEORY AND IN PRACTICE

The decision in *American Pelagic* is consistent both with the language of the Magnuson-Stevens Act and with the concept of the government wildlife trust discussed by authors such as Blumm and Ritchie,¹²⁰ and Echeverria and Lurman.¹²¹ The Federal Circuit correctly recognized that if the government owns natural resources it is impossible for an individual to own them—or rights to capture them—at the same time:

Because it was already in place by the time American Pelagic purchased the *Atlantic Star*, the Magnuson Act was an “existing rule” or “background principle[]” of federal law that inhered in American Pelagic’s title to the vessel. In the words of the Supreme Court, as far as ownership of the *Atlantic Star* was concerned, the sovereign rights of the United States in the EEZ “inhered in the title itself, in the restrictions that background principles of the [federal government’s] law . . . already placed upon . . . ownership.” . . . As of 1996, when the *Atlantic Star* was purchased, the Magnuson Act and the attendant regulatory scheme precluded any permitted fisherman from possessing a property right in his vessel to fish in the EEZ.¹²²

The legal construct of government ownership of fishing rights is supported by economic theory predicting that putting resources under the control of a sole owner will eliminate waste-causing externalities.¹²³ This section of the Article examines that rationale and why the Magnuson-Stevens Act appears not to be achieving the promised benefits of sole ownership.

A. *Inefficiencies in the Race for Fish: Tragedy of the Commons*

In two seminal articles, Scott Gordon and Garrett Hardin explained the tragic results flowing from the exploitation of common property by unallied individuals.¹²⁴ The lack of controls or private property rights means that each resource user has the opportunity and, more importantly, the incentive to use resources as quickly as possible.¹²⁵ In the fishing context, this translates to what has commonly been called a “race for fish.”¹²⁶

120. Blumm & Ritchie, *supra* note 89.

121. Echeverria & Lurman, *supra* note 91.

122. *Am. Pelagic Fishing Co. v. United States (American Pelagic III)*, 379 F.3d 1363, 1379 (Fed. Cir. 2004) (citations omitted).

123. See NEHER, *supra* note 18, at 256.

124. Gordon, *supra* note 18; Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

125. Barton H. Thompson Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 244–45 (2000).

126. Copes, *supra* note 69, at 279.

The race for fish leads to two types of inefficiencies. First, users deplete commons resources beyond their optimal stock level.¹²⁷ In overly simplified terms, traditional fisheries science posits that a properly managed fishery is one where fishermen catch the “interest” from the fishery account and not the “principal,” and where the principal is maintained at a level where the product of principal and interest rate is highest.¹²⁸ This is the optimal stock level. Without assurances of future access to the benefits of present forbearance, fishermen will not stop fishing at this point, but will continue chasing fish until doing so is no longer profitable.¹²⁹ When the stock is below its optimal level, or overfished, there is a loss to society that can be measured by the difference between the maximum sustainable yield and the yield produced by the overfished stock.¹³⁰

The second type of inefficiency is fishermen’s overinvestment, or overcapitalization, in fishing equipment.¹³¹ The race for fish creates the incentive to invest in faster boats and more effective fishing gear.¹³² In a properly managed fishery, these investments would be unnecessary; fishermen could catch the same amount of fish, but with fewer and less expensive boats. Alaska’s salmon fisheries, managed by the state, provide some concrete examples of overcapitalization. It has been estimated that in the Bristol Bay sockeye fishery, for example, only a thousand boats would be needed to catch the salmon currently caught by 1,878 permitted boats.¹³³ The excess capacity in this fishery adds about \$13 million annually to the costs of catching those salmon.¹³⁴ These costs represent

127. *Id.* at 278–79.

128. This target level is known as “maximum sustainable yield.” As noted above, it has been incorporated into the Magnuson-Stevens Act as an objective (as the basis for what the law calls “optimum” yield). 16 U.S.C. § 1802(33)(B) (2006). For a discussion of this, and less risky fishery management targets, see Jonathan Roughgarden & Fraser Smith, *Why Fisheries Collapse and What to Do About It*, 93 PROC. NAT’L. ACAD. 5078 (1996).

129. Fishermen will stop fishing at the point where all economic rent is dissipated. Gordon, *supra* note 18, at 132. This point is known as “economic extinction.” Simon Jennings et al., *Life History Correlates of Responses to Fisheries Exploitation*, 265 PROC. ROYAL SOC. B 333, 333 (1998).

130. There is also a risk that the overfished stock will collapse, eliminating the resource’s ability to produce any economically viable yield.

131. John Ward, Capacity, Excess Capacity, and Fisheries Management, Proc. 2000 Int’l Inst. on Fisheries Econ. & Trade, <http://oregonstate.edu/dept/IIFET/2000/papers/ward.pdf> (last visited Apr. 6, 2007).

132. David J. Whitmarsh, *The Fisheries Treadmill*, 74 LAND ECON. 422 (1998).

133. BRISTOL BAY ECON. DEV. CORP., AN ANALYSIS OF OPTIONS TO RESTRUCTURE THE BRISTOL BAY SALMON FISHERY (2003).

134. *Id.*

deadweight losses to society; the funds spent on unnecessary vessels are being put to an entirely unproductive use.¹³⁵

B. The Sole Ownership Solution?

According to economic theory, sole ownership rationalizes resource use by eliminating wasteful competition for the resource among fishermen and by internalizing individually generated externalities.¹³⁶ Because she will take all costs into account, a sole owner has the incentive to ensure that fish stocks are maintained at the level producing an optimum yield and that no unnecessary resources are expended in catching that yield.¹³⁷

Hardin and Gordon make no distinction between public and private ownership in terms of their effectiveness at solving the tragedy of the commons.¹³⁸ However, government is different from a private owner in an important way: it is not a profit-oriented enterprise. Thus, it lacks the financial incentive that would motivate a private owner to maximize long-term profits. In place of this incentive, the legislature substitutes laws meant to direct its fishery management agencies to mimic the behavior of a private owner.¹³⁹ At the same time as it regulates, the government must also encourage fishermen to invest in the fishery; as a not-for-profit enterprise, the government is itself not interested in making such investments.¹⁴⁰

This dual aspect of government ownership reduces the likelihood that regulators will successfully emulate the decisions that would have

135. It is possible to argue that these funds are being used to put people, who might otherwise be unemployed, to work. However, for reasons discussed below, overcapitalization will ultimately jeopardize the sustainability of a fishery and, hence, its value as an employer.

136. See NEHER, *supra* note 18, at 256; see also Thráinn Eggertsson, *The Economics of Control, in RIGHTS TO NATURE* 157, 163 (Susan S. Hanna et al. eds., 1996).

137. Eggertsson, *supra* note 136. Some economists believe that private owners often do not seek to maximize long-term profits:

Certainly, the government does not always get it perfectly right, but private and public owners have very different planning horizons and very different objectives. As issue are differences in "discounting" future benefits and the resulting implications for resource policy. The presumption, and the reality, of public ownership is that in most instances the future matters above all other considerations. For private owners, the management of renewable natural resources is often the victim of a "faulty telescopic faculty," wherein present needs often take precedence over future concerns.

SETH MACINKO & DANIEL W. BROMLEY, WHO OWNS AMERICA'S FISHERIES? 18–20 (2002).

138. See, e.g., Gordon, *supra* note 18, at 135; Hardin, *supra* note 124.

139. See NEHER, *supra* note 18, at 256–57. Most natural resource management statutes delegate significant power to agencies. See RASBAND ET AL., NATURAL RESOURCES LAW & POLICY 205–20 (2004).

140. Governments have historically made significant indirect investments in fisheries through a variety of subsidies. See, e.g., Hennessey & Healey, *supra* note 23; NAT'L MARINE FISHERIES SERV., FEDERAL FISHERIES INVESTMENT TASK FORCE, REPORT TO CONGRESS (1999).

been made by a hypothetical private owner. First, regulators' need to attract and retain private investment may conflict with the inevitable necessity of restricting fishermen.¹⁴¹ For example, fish stocks fluctuate naturally,¹⁴² and when regulators reduce catches to prevent harm to the stock, they may also force some fishermen out of business.¹⁴³ In order to maintain investment in a fishery, regulators may choose to compromise stock protection.¹⁴⁴

Second, fishermen who are uncertain about future government restrictions have very different incentives from those of the "sole owner," the government.¹⁴⁵ Rational investors who operate in risky environments will seek to buffer their risk through high returns that allow initial investments to be quickly recaptured.¹⁴⁶ While, per *American Pelagic*, fishermen cannot rely on the Fifth Amendment as insurance for their investments, they are free to use other approaches, including lobbying Congress and regulators.¹⁴⁷ If one accepts both that fishermen are motivated to push for high catch levels and that Congress and agencies will at times respond to this pressure, the logical conclusion is that the ideal of sole ownership will not always be achieved when the government is the owner.¹⁴⁸

It is clear that the Magnuson-Stevens Act has not wholly succeeded in eliminating the overfishing and overinvestment that plagued the pre-regulation commons.¹⁴⁹ According to a 2004 government report, nearly 30

141. See Edward Ueber & Alex MacCall, *The Rise and Fall of the California Sardine Empire*, in CLIMATE VARIABILITY, CLIMATE CHANGE & FISHERIES 45 (Michael H. Glantz ed., 1992) ("Development-oriented government agencies may contribute to delayed and ineffective management.").

142. See generally CLIMATE VARIABILITY, CLIMATE CHANGE & FISHERIES, *supra* note 141.

143. This will be true where fishermen have invested, or the government has allowed fishermen to invest, to the degree that they are dependent on fishing the "high" phase of stock fluctuations.

144. A compromise in protecting the stocks usually takes the form of a reduction in probability that a given management measure will succeed. For example, managers might adopt an annual catch quota that has an 18 percent chance of preventing overexploitation instead of one that has a 51 percent chance of overexploitation. See *Natural Res. Def. Council v. Daley*, 209 F.3d 747 (D.C. Cir. 2000); Eagle & Thompson, *supra* note 20.

145. See Thompson, *Tragically Difficult*, *supra* note 125, at 242.

146. Gerry McNamara & Philip Bromiley, *Risk and Return in Organizational Decision Making*, 42 ACAD. MGMT. J. 330, 332 (1999). Some investors, probably a minority, will not seek returns equivalent to the risk. See, e.g., Roger Hartley et al., *Who Really Wants to Be a Millionaire? Estimates of Risk Aversion from Gameshow Data*, Warwick Economics Research Paper Series (2005), http://www.keele.ac.uk/depts/ec/Research/s_research/wwwtbam310105.pdf (modeling estimates of risk aversion in a gameshow).

147. See, e.g., FRANK R. BAUMGARTNER & BETH L. LEECH, BASIC INTERESTS: THE IMPORTANCE OF GROUPS IN POLITICS AND POLITICAL SCIENCE 147-67 (1998).

148. That fishermen will lobby in this way is consistent with theories of rent seeking. See, e.g., Rauf Azhar, *Commons, Regulation, and Rent-Seeking Behavior: The Dilemma of Pakistan's Guzara Forests*, 42 ECON. DEV. & CULTURAL CHANGE 115 (1993).

149. See Gordon, *supra* note 18.

percent of fish stocks are below their optimal level.¹⁵⁰ This number includes many of the nation's largest and most valuable fisheries.¹⁵¹ The data on overcapitalization are even worse. A 2001 government study revealed that forty-one of seventy-five studied fisheries (55 percent), again including many of the nation's largest and most valuable fisheries, "exhibit[ed] signs of overcapacity."¹⁵² Most major studies and reports on implementation of fisheries regulation in the United States have identified overcapitalization as a significant problem.¹⁵³

These failures do not appear to be simply an artifact of pre-regulation problems. Many of the fisheries that the government now regulates were not being prosecuted by fishermen when the Magnuson-Stevens Act was first passed.¹⁵⁴ In other words, at least some of the presently overfished and overcapitalized fisheries became this way despite regulation.

Is it possible to prove that these problems have come about because of fishermen's lobbying Congress and the councils for lax regulation? It is true that even a private owner would have difficulty achieving a 100 percent success rate in fisheries management. Stock assessment, the mathematical modeling of fish stocks used by fishery managers to identify optimal catch levels, is fraught with uncertainty.¹⁵⁵ Models must take into account a large number of parameters, including not only the life history of the species and long-term climate trends, but also the dynamics of the species' population as it is affected by populations of other species that are equally difficult to assess.¹⁵⁶ Private management would be prone to the same kinds of scientific errors as public management.

150. STATUS OF THE U.S. FISHERIES FOR 2004, *supra* note 28, at 1.

151. *See id.* A 1999 NOAA study indicated that U.S. landings were at that time about 30 to 40 percent less than could be produced by healthy fisheries. NAT'L OCEANIC & ATMOSPHERIC ADMIN., OUR LIVING OCEANS 8 (1999).

152. NAT'L MARINE FISHERIES SERV., *supra* note 28, at 12.

153. *See, e.g.*, U.S. COMM'N ON OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY: FINAL REPORT OF THE U.S. COMMISSION ON OCEAN POLICY 290-91 (2004), *available at* http://www.oceancommission.gov/documents/full_color_rpt/000_ocean_full_report.pdf; PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 40 (2003), *available at* http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf. In addition to the fact that overfished stocks and overcapitalization are inefficient, they also stand as obstacles to achieving the ultimate objectives of regulation. Rebuilding a fishery from an overfished condition necessitates reductions in current catch levels, oftentimes drastic reductions. The marginal economic impacts of such reductions can be correlated to the degree of overcapitalization of the fishery: catch reductions would have more severe impacts on fishermen with thin, or no, profit margins than they would on fishermen operating at a profit.

154. *See, e.g.*, Donald R. Gunderson, *The great widow rockfish hunt of 1980-1982*, 4 N. AM. J. FISHERIES MGMT. 465 (1984).

155. NAT'L ACAD. SCI., IMPROVING FISH STOCK ASSESSMENTS (1998).

156. *Id.*

In an earlier paper, Thompson and Eagle tried to isolate the causes of overfishing within fisheries management institutions.¹⁵⁷ We concluded that while it was difficult to assign blame exactly as among inaccurate stock assessments, aggressive decision making by the councils, and underenforcement of rules, it was clear that—in the fisheries examined—the councils had been very aggressive in setting catch levels. For example, in the Gulf of Mexico king mackerel fishery, the Gulf of Mexico Fishery Management Council consistently set annual quotas at, over, or near the high end of the range recommended by its scientific advisors.¹⁵⁸ These tendencies can easily be explained as a product of industry lobbying.¹⁵⁹

Two other pieces of evidence support the hypothesis that government fishery managers are responding to incentives that are different from those affecting a private owner. First, after making an overutilization error, a private owner would not hesitate—as the government has—to rebuild those stocks to optimal levels.¹⁶⁰ Second, a private owner would have every incentive not to overinvest in fishing equipment, that is, to keep the costs of production to a minimum. The failure to rebuild quickly, as well as the failure to regulate for efficiency,¹⁶¹ could be explained—like the aggressive decision making described above—as direct products of industry lobbying.¹⁶²

157. Eagle & Thompson, *supra* note 20.

158. *Id.* at 657.

159. See ALAN CHRISTOPHER FINLAYSON, *FISHING FOR TRUTH: A SOCIOLOGICAL ANALYSIS OF NORTHERN COD STOCK ASSESSMENTS FROM 1977 TO 1990* (1994); Hennessey & Healey, *supra* note 23; Thompson, *Tragically Difficult*, *supra* note 125; D.C. Wilson & P. Degnbol, *The Effects of Legal Mandates on Fisheries Science Deliberations*, 58 *FISHERIES RES.* 1 (2002).

160. See Andrew A. Rosenberg et al., *Rebuilding U.S. Fisheries: Progress and Problems*, 4 *FRONTIERS IN ECOLOGY & ENV'T* 303 (2006); Carl Safina et al., *U.S. Ocean Fish Recovery: Staying the Course*, 309 *SCIENCE* 707 (2005).

161. National Standard 5 requires consideration of efficiency “where practicable.” One interesting question is: why would fishermen lobby for rules that lead to overcapitalization? In other words, wouldn’t fishermen want to work in a profitable fishery? The answer to this question can be found in two key features of fishing culture. First, fishermen are extremely competitive and take great pride in their ability to outwork and out-think their peers. Rules that prevent full competition are disfavored. But, rules that fail to prevent competition lead to overinvestment by sanctioning the race for fish. Second, fishermen believe in providing free access to fisheries for those who want to fish. The idea behind this philosophy is based on the centuries-old legal and cultural tradition of open access as well as on the fear that one day, they themselves might be excluded from participating in a fishery they wish to join.

162. See *supra* note 160. At first glance, *American Pelagic* seems to refute the prediction that fishermen can subdue threats to their investments through the political process. After all, the plaintiff was not able to prevent Congress from barring the *Atlantic Star* from the herring and mackerel fisheries. Although the fishermen who opposed the *Atlantic Star*, and their congressional allies, spun the dispute as a battle between conservation and a large trawler, it is more accurately viewed as a battle between fishermen with small vessels and one fisherman with a large vessel. In this light, the case provides support for, or at least does not disprove, the hypothesis that fishermen will organize to fend off threats to their economic well-being and that they will often succeed in that endeavor.

III. HOW CONGRESS HAS EXACERBATED THE PROBLEMS INHERENT IN GOVERNMENT OWNERSHIP

The two problems described above—government’s dual role and the embedding of lobbying entrepreneurs—are inherent in government ownership of fishery resources. The holding of *American Pelagic* highlights the investment insecurity that drives fishermen’s lobbying. As discussed further in Part IV, any government hoping to achieve sustainable fisheries, without catching the fish itself, would have to take these issues into account in designing a management regime. In this Part, I describe a few examples of how past and current U.S. fisheries laws instead exacerbate these problems. One example, the provision of subsidies and loan guarantees, illustrates how law can alter fishermen’s incentives in ways that make conservation more difficult. Another, the Regional Fishery Management Council Systems, shows how law can make it easier for resource users to have their concerns heard, to the detriment of the resource.

A. *Subsidies and Loan Guarantees*

When Congress passed the Magnuson-Stevens Act in 1976,¹⁶³ it barred foreign vessels from fishing within 200 nautical miles of the shores of the United States.¹⁶⁴ Foreseeing a need to replace that fishing capacity, Congress instituted two large-scale subsidy programs in the early 1970s. The Capital Construction Fund permitted the owners of fishing vessels to stow pre-tax fishing income in bank accounts. If this income were ultimately used for the renovation of an existing fishing vessel, or for the purchase of a new one, then it would never be taxed as income.

163. Pub. L. No. 94-265, 90 Stat. 331 (1976). The law was originally known simply as the Fishery Conservation and Management Act. In 1980, Congress renamed it the Magnuson Fishery Conservation and Management Act; in 1996, it became the Magnuson-Stevens Fishery Conservation and Management Act. Pub. L. No. 96-561, 94 Stat. 3275 (1980); Pub. L. No. 104-208, 110 Stat. 3009 (1996).

164. The original Act accomplished this by creating a 200-nautical-mile Fishery Conservation Zone around the United States. Pub. L. No. 94-265, § 101; see also MICHAEL L. WEBER, FROM ABUNDANCE TO SCARCITY: A HISTORY OF U.S. MARINE FISHERIES POLICY 84 (2002). (A nautical mile is 1.15 miles.) Foreign fishermen could operate in the zone only with permission of the U.S. government. *Id.* In 1983, President Reagan eliminated the Fishery Conservation Zone when he claimed a 200-nautical-mile Exclusive Economic Zone for the United States. Proclamation No. 5030, 48 Fed. Reg. 10,605 (Mar. 14, 1983). The United Nations Convention on the Law of the Sea established a 200-nautical-mile Exclusive Economic Zones for coastal nations. Art. 62, Dec. 10, 1982, 1833 U.N.T.S. 397, 421. The United States has not yet ratified this treaty. The United States’ claim to an Exclusive Economic Zone is presumably based on the theory that these rights at some point became customary international law.

The Magnuson-Stevens Act now provides that “the United States claims, and will exercise in the manner provided for in this Act, sovereign rights and exclusive fishery management authority over all fish, and all Continental Shelf fishery resources, within the exclusive economic zone . . .” 16 U.S.C. § 1811(a) (2006).

Fishermen made substantial use of this tax exemption. According to Michael Weber, vessel owners "sheltered more than \$1.82 billion in income" under this program and used the funds to significantly increase fishing capacity.¹⁶⁵ A second program, the Fishing Vessel Obligation Guarantee (FOG) Program, provided federal guarantees for loans for the purchase of new vessels and for the upgrading of existing vessels. Federal guarantees encouraged investment in vessels by lowering interest rates and by relieving private lenders from the burden of investigating the financial wisdom of their loans. Weber estimates that "the FOG program guaranteed 1,250 loans for fishing vessels amounting to \$728 million."¹⁶⁶

These programs were consistent with the concept of government-as-facilitator. By reducing the costs of entry into fisheries, Congress was attempting to stimulate investment in fisheries and to make it easier for U.S. fishermen to compete with heavily subsidized foreign fleets.¹⁶⁷ Unfortunately, while "[i]n most industries, reductions in the cost of inputs improve a firm's financial position and increase production[,] in the fishing industry such reductions in costs do not last long, and attempts to produce a larger catch eventually lead to smaller harvests because of fisheries depletion."¹⁶⁸ These dynamics have a negative impact on conservation. As fishing costs rise and profits decline, vessel owners have more incentive to protest conservation measures. The marginal costs of conservation are higher in fisheries in which fishermen are barely making a profit.

Government-guaranteed loans, such as the FOG, create a direct conflict of interest between government-as-regulator and government-as-facilitator. In the absence of these guarantees, the government is "merely" chasing fishermen out of the fishery when it cuts catch levels in the name of conservation. Once it guarantees fishermen's loans, the government must either forego conservation measures or cover the cost of widespread defaults.

B. The Regional Fishery Management Council System

When Congress created the Fishery Conservation Zone in 1976, it needed an institution for managing fisheries within that zone. Instead of giving this chore to a federal agency, Congress created a system of eight Regional Fishery Management Councils.¹⁶⁹ Under the Magnuson-Stevens Act, the councils have primary responsibility for all of the most important

165. WEBER, *supra* note 164, at 34-35.

166. *Id.*

167. MARGARET E. DEWAR, *INDUSTRY IN TROUBLE: THE FEDERAL GOVERNMENT AND NEW ENGLAND FISHERIES* 191 (1983).

168. *Id.*

169. 16 U.S.C. § 1852(a).

decisions in federal fishery management: the councils choose which fisheries to manage,¹⁷⁰ draft the FMPs for managing those species,¹⁷¹ write rules and regulations for each fishery,¹⁷² and set limits on the amount of fish that can be caught each year.¹⁷³

The councils, though, are not federal agencies. Instead, their voting membership is made up mostly of state government officials and citizens who have been nominated by governors of coastal states, then appointed by the Secretary of Commerce.¹⁷⁴ Traditionally, governors draw heavily from fishing or fishing-related industries in making council nominations.¹⁷⁵ Over the past twenty years, industry representatives have filled, on average, about 80 percent of appointed seats.¹⁷⁶ This “citizen” component of the councils represents about half the overall voting membership of each council.¹⁷⁷

Several papers have argued that industry domination of the councils interferes with the conservation objectives of the Magnuson-Stevens Act.¹⁷⁸ Homogenous groups tend to suffer from what has been called “groupthink,” a phenomenon that limits groups’ ability to incorporate new information and to engage in creative problem solving.¹⁷⁹ In addition,

170. *Id.* § 1852(h) (requiring councils to regulate “each fishery under its authority that requires conservation and management”). The councils retain significant discretion in the determination of whether the fishery meets these conditions.

171. *Id.*

172. *Id.* § 1853(a)(1).

173. Prior to the 2006 amendments to the Magnuson-Stevens Act, the law did not require the councils to put explicit limits on the amount of each species of fish caught each year. If a council chose to use a Total Allowable Catch or annual quota management scheme, then obviously it would have to set an explicit limit. On the other hand, if the council chose to use another kind of management scheme, such as a scheme centered on limiting effort in the fishery, then it did not have to set an explicit limit. In the 2006 amendments, Congress added a provision requiring that the councils set explicit limits for each fishery they manage by the year 2010 for overfished fisheries, and by 2011 for the remainder. Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Pub. L. No. 109-479, § 104(b), 120 Stat. 3575, 3584 (2007) (codified at 16 U.S.C. § 1853 (a)(15) (2006)).

174. The number of members on each council varies, depending on the number of states and U.S. territories bordering the managed area. The largest council in terms of membership is the Mid-Atlantic Council, with twenty-one voting members, while the Caribbean Council has only seven. There is one federal government official on each council, typically the regional director of the NMFS. 16 U.S.C. § 1852 (a)–(b) (2006). Each council also has a number of nonvoting members, including representatives of the Coast Guard, the State Department, and the U.S. Fish and Wildlife Service. *Id.* § 1852(c).

175. JOSH EAGLE ET AL., *TAKING STOCK OF THE REGIONAL FISHERY MANAGEMENT COUNCILS* 12 box 3 (2003); Thomas A. Okey, *Membership of the Eight Regional Fishery Management Councils in the United States: Are Special Interests Over-Represented?*, 27 *MARINE POL’Y* 193 (2003).

176. EAGLE, *supra* note 175, at 24. The Magnuson-Stevens Act specifically exempts the councils from the Federal Advisory Committee Act and its diversity requirements. 16 U.S.C. § 1852(i).

177. 16 U.S.C. § 1852(b)(2)(A).

178. Eagle et al., *supra* note 20; Okey, *supra* note 175.

179. EAGLE, *supra* note 175, at XX nn.39–41.

because they are financially invested in the fisheries they manage, council members drawn from the fishing industry may have conflicts of interest that make conservation personally expensive. Unlike federal employees generally, fishery management council members are not subject to stringent conflict-of-interest rules.¹⁸⁰

At the very least, the high concentration of industry representatives on the councils exacerbates the problems of government ownership. The presence of industry representatives on the councils increases the likelihood that the councils will be sympathetic to the financial concerns of fishermen. Even if they have no direct financial interest in the fishery, it seems plausible to conclude that industry members will readily empathize with their fishing colleagues.

IV. MAKING GOVERNMENT OWNERSHIP WORK

How might Congress modify the Magnuson-Stevens Act so as to take into account the predictable obstacles to efficiency and sustainability caused by investment insecurity and lobbying?¹⁸¹ This Part explores some of the options available to legislators interested in making government ownership a better “mimic” of private ownership along these two dimensions.¹⁸²

First, Congress might attempt to limit NMFS’ and the councils’ ability to yield to industry lobbying pressure by reducing their discretion under the Magnuson-Stevens Act. For example, the law might mandate that regulators “must prevent overfishing” instead of that they “should

180. See 16 U.S.C. § 1852(i)–(j) (2006). For a full discussion of the conflict-of-interest issue as it pertains to fishery management council members, see EAGLE, *supra* note 175, at 27–32.

181. Matthew Zinn refers to these kinds of approaches as “statutory anti-capture measures.” Matthew D. Zinn, *Policing Environmental Regulatory Enforcement: Cooperation, Capture, and Citizen Suits*, 21 STAN. ENVTL. L.J. 81, 84 (2002). I prefer to avoid the term “capture” because it implies complete cooption of the regulator. In my view, the success of government ownership is threatened by any divergence from the management path a sole owner would take.

182. See NEHER, *supra* note 18. Of course, one way to avoid the challenge of mimicking private ownership would be to sell the oceans into private ownership. I am choosing to avoid discussion of the benefits and drawbacks of complete ocean privatization in this Article. Suffice it to say that privatization would likely face significant opposition from both fishermen and the general public. First, privatization of the seas is contrary to cultural and legal traditions of public access. For thousands of years, those interested in making a living from fishing, or in enjoying recreational fishing, have been free to do so, subject only to some degree of regulation. The right to access the seas for transportation and resource use is at the core of the public trust doctrine. See Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 484–85 (1970).

Environmentalists, too, would likely oppose privatization, even with its promise of better conservation of fish stocks. Many of the ocean assets that environmentalists are likely to value highly, such as endangered species, coral reefs, and healthy ecosystems, are not valued highly in the commodity marketplace. See, e.g., Alison Rieser, *Prescriptions for the Commons: Environmental Scholarship and the Fishing Quotas Debate*, 23 HARV. ENVTL. L. REV. 393, 414–17 (1999).

try to prevent overfishing.” Alas, the law already says this: National Standard One of the Act provides that NMFS and the councils “shall prevent overfishing.”¹⁸³ Given that they are already required to do so, why don’t the councils prevent overfishing? The reason is that fisheries science is characterized by a great deal of uncertainty, such that the only way to be 100 percent certain of ending overfishing is to ban fishing altogether. Thus, as a practical matter, the councils debate the word “shall” in terms of probability.¹⁸⁴ For example, in *Natural Resources Defense Council v. Daley*, the Mid-Atlantic Fishery Management Council made a determination that a fishing level with a 3 percent chance of ending overfishing was sufficient to satisfy National Standard One’s “shall” mandate. While the court ultimately rejected 3 percent as an insufficient level of certainty, it did not go further than requiring 51 percent as minimally acceptable.¹⁸⁵

If Congress wanted to reduce NMFS’ and the councils’ discretionary space in this area, it would have to construct a standard that mandated regulators to be X percent certain that a particular measure will end overfishing. As noted, a 100 percent certainty standard would mean that many, if not all, fisheries would be closed. While Congress could mandate a higher level of certainty than 51 percent, it is likely that motivated regulators could easily circumvent such a rule. For example, regulators retain significant discretion in weighting various pieces of scientific advice and in choosing between various models available for simulating population dynamics.¹⁸⁶

Furthermore, the ambiguous nature of language will almost always permit motivated regulators to shape decisions.¹⁸⁷ Words in laws are often open to a variety of interpretations.¹⁸⁸ So, for example, while Congress has defined the term “overfishing” and “overfished” in the Magnuson-Stevens Act as “a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a

183. 16 U.S.C. § 1851(a)(1) (2006).

184. See, e.g., *Natural Res. Def. Council v. Daley*, 209 F.3d 747 (D.C. Cir. 2000).

185. *Id.*

186. See, e.g., SPECIAL INVESTIGATIONS DIV., U.S. HOUSE OF REPRESENTATIVES, COMM. ON GOVERNMENT REFORM—MINORITY STAFF, *POLITICS AND SCIENCE IN THE BUSH ADMINISTRATION* (2003); Robert F. Kennedy Jr., *The Junk Science of George W. Bush*, NATION, Mar. 8, 2004, at 11 (alleging that Bush Administration environmental officials “suppress good science. . . [or] simply order up their own”).

187. See Jeffrey W. Stempel, *Unmet Expectations: Undue Restriction of the Reasonable Expectations Approach and the Misleading Mythology of Judicial Role*, 5 CONN. INS. L.J. 181, 234 (1998).

188. Lawrence M. Solan, *Why Laws Work Pretty Well, but Not Great: Words and Rules in Legal Interpretation*, 26 LAW & SOC. INQUIRY 243 (2001).

continuing basis,” the NMFS and the councils have leeway in determining whether or not those conditions exist.¹⁸⁹

Congress could attack the problem by imposing requirements on regulators themselves. The law could, for example, require that council members take oaths, swearing to act “in a manner consistent with the long-term health of the resource.” Although such oaths might provide some incentive for regulators to act differently, the efficacy of oaths in constraining the behavior of administrative officials has not been well established.¹⁹⁰

Congress might also consider enhancing diversity on the councils. It could do this by eliminating the councils’ current exemption from the Federal Advisory Committee Act (FACA),¹⁹¹ or by simply mandating that the NMFS assemble each council to reflect a defined composition of industry, public interest, and other interests. The main problem here is that diversity provisions, such as those in the FACA, have proven to be mostly nonjusticiable.¹⁹² Limited judicial review leaves the final judgment about diversity to the agency, which would of course be subject to lobbying pressure in making its choices.

As an alternative to regulating the regulators, Congress might opt to limit the effects of industry lobbying by changing the procedural rules. Congress could make it easier for the public, or groups that represent the diffuse interests of the public, to influence decisions. This could be accomplished through a change in rules governing council composition,¹⁹³ by making it easier for members of the public to challenge regulators’ decisions in court,¹⁹⁴ or by creating a watchdog agency whose only

189. 16 U.S.C. § 1853(a)(10) (2006); *see also* MARINE FISH CONSERVATION NETWORK, SHELL GAME: HOW THE FEDERAL GOVERNMENT IS HIDING MISMANAGEMENT OF OUR NATIONS FISHERIES 6 (2006), *available at* http://www.conservefish.org/site/pubs/network_reports/ (reporting that NMFS removes stocks from “overfished” list through administrative actions).

190. *See, e.g.*, Sherman J. Clar, *The Scholarship of Sanford Levinson: Promise, Prayer, and Identity*, 38 TULSA L. REV. 579 (2003); Jerry L. Mashaw, *Recovering American Administrative Law: Federalist Foundations, 1787–1801*, 115 YALE L.J. 1256, 1309–10 (2006).

191. *See supra* note 176.

192. *See, e.g.*, *Pub. Citizen v. Nat’l Advisory Comm. on Microbiological Criteria for Foods*, 886 F.2d 419, 426 (D.C. Cir. 1989); *Fertilizer Inst. v. EPA*, 938 F. Supp. 52, 53 (D.D.C. 1996). *But see* *Cargill, Inc. v. United States*, 173 F.3d 323 (5th Cir. 1999). For discussion of the problems in mandating diversity, *see* EAGLE, *supra* note 175, at 40.

193. The Magnuson-Stevens Act currently requires only that governors nominate, and the Secretary of Commerce appoint, council members who “by reason of their occupational or other experience, scientific expertise, or training, are knowledgeable regarding the conservation and management, or the commercial or recreational harvest, of the fishery resources of the geographical area concerned” and that “[t]he Secretary, in making appointments under this section, shall, to the extent practicable, ensure a fair and balanced apportionment, on a rotating or other basis, of the active participants (or their representatives) in the commercial and recreational fisheries under the jurisdiction of the Council.” 16 U.S.C. § 1852(b)(2)(A)–(B).

194. Barton H. Thompson Jr., *Innovations in Environmental Policy: the Continuing Innovation of Citizen Enforcement*, 2000 U. ILL. L. REV. 185 (2000). For example, Congress

responsibility would be to lobby the councils and the NMFS toward better decisions.¹⁹⁵

Perhaps the most promising avenue would be to change fishermen's incentives so that they are less interested in lobbying against conservation. There are at least three possible means to effecting this change. First, some recent scholarship has examined the extent to which market-based mechanisms can encourage private actors to take a sustainable view.¹⁹⁶ Individual fishing quotas, for example, give fishermen long-term stakes in catch shares.¹⁹⁷ Guaranteed the future benefits of present forbearance, fishermen are apt to be less focused on maximizing short-term revenues.¹⁹⁸ Another possibility is labeling. The Marine Stewardship Council currently runs a program that permits fishermen to label their products as "sustainably caught" if they can prove, as a group, that their fishery is well managed.¹⁹⁹ To the extent that fishermen believe that such labels bring higher prices for their catches, they have an incentive to lobby for better management. Government sponsorship or endorsement of such labeling programs might make them more effective.²⁰⁰ Finally, risk insurance has the potential to influence fishermen's incentives.²⁰¹ Insurance might reduce the frequency and

could extend the statute of limitation for challenges or the standard of review that courts use in reviewing fisheries decisions. Currently, citizens must challenge the legality of FMPs, amendments, or regulations within thirty days of the publication of the final rule in the Federal Register. 16 U.S.C. § 1855(f). The standard of review applied by courts in these cases is the "arbitrary and capricious" standard contained in the Administrative Procedure Act. *Id.*

195. In support of the proposition that environmental agencies can influence other kinds of agencies, see J.R. DeShazo & Jody Freeman, *Public Agencies as Lobbyists*, 105 COLUM. L. REV. 2217 (2005). It would also be possible to create agencies solely for the purpose of representing a certain interest, such as conservation, in decision-making processes. An example, in another context, would be the New Jersey Department of the Public Advocate. See State of New Jersey, Dep't of the Public Advocate, About the Department, <http://www.state.nj.us/publicadvocate/about/> (last visited Apr. 6, 2007).

196. Susan S. Hanna, *Institutions for Marine Ecosystems: Economic Incentives and Fishery Management*, 8 ECOLOGICAL APPLICATIONS S170 (1998).

197. The Magnuson-Stevens Act provides that the councils may make use of individual fishing quotas in managing fisheries. 16 U.S.C. § 1853A (2006). To date, however, only a handful of fisheries in the United States make use of this tool. SUZANNE IUDICELLO ET AL., FISH, MARKETS, FISHERMEN 89-159 (1999). In December of 2006, Congress passed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. Pub. L. No. 109-479, 120 Stat. 3575 (2007). This bill contained provisions that will perhaps make the use of individual quotas (known in the bill as "Limited Access Privileges") more common.

198. Wilen, *supra* note 22.

199. Douglas H. Constance & Alessandro Bonanno, *Regulating the global fisheries: The World Wildlife Fund, Unilever, and the Marine Stewardship Council*, 17 AGRIC. & HUM. VALUES 125 (2000).

200. Matthew Connolly, *Thinking Globally, Acting Locally: Cleaning up Global Aquaculture Through Eco-labeling in the United States*, 26 PUB. LAND & RES. L. REV. 121 (2005).

201. Andrea Bender et al., *Informal Insurance and Sustainable Management of Common-Pool Marine Resources in Ha'apai, Tonga*, 50 ECON. DEV. & CULTURAL CHANGE 427 (2001).

traction of fishermen's arguments that costly conservation measures damage them economically. The government could require that fishermen purchase this insurance prior to entering the fishery.²⁰²

CONCLUSION

American Pelagic stands for the proposition that it is virtually impossible for a resource user to protect his or her investment in fishing equipment through the Takings Clause. It also symbolizes the awkward and historically deleterious relationship between the entrepreneur and the state in regulated commons such as fisheries. While the economic literature suggests that government ownership of natural resources can solve the tragedy of the commons, government ownership is substantially different from private ownership. In order for government ownership to succeed, management institutions must take into account the incentives of the entrepreneurs embedded within them.

Of course the Magnuson-Stevens Act itself, and in particular the council system, reflects the political dynamics of fishing, where fishermen as a "concentrated" interest have more influence than the public as a whole. There is thus a problem of circularity: in order to revamp the Act so that it takes into account the incentives of concentrated group members, it will be necessary to overcome the likely opposition of that group. The existence of the council system provides a good reminder that the industry lobbies Congress as well as agencies for rules that benefit it. As long as the public remains relatively indifferent to marine environmental issues, Congress is unlikely to make the necessary changes to the Act. It may ultimately be left to fishermen to decide whether they are in favor of efficient and sustainable fisheries.

202. We would have to keep a close eye on rates: rates would undoubtedly remain lower to the extent that fishermen obviated the need for claims—by lobbying against conservation.