DIGITAL NEWSBOOK

Looting the Seas

This award-winning investigation examines the forces that are rapidly depleting the oceans of fish



THE INTERNATIONAL CONSORTIUM OF INVESTIGATIVE JOURNALISTS



THE CENTER FOR PUBLIC INTEGRITY

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Go online for more about the plundering of ocean fisheries including videos, supporting documents and related stories at:

www.icij.org/projects/looting-the-seas

About this Project

Looting the Seas is an award-winning project by the International Consortium of Investigative Journalists (ICIJ) looking at forces that are rapidly emptying oceans of fish. The investigation was originally published online in three parts between November 7, 2010 and January 26, 2012.

This e-book includes articles from all three parts of the investigation along with several follow-up articles. It was produced for the ICIJ in February 2012 at the Donald W. Reynolds Journalism Institute (RJI) in Columbia, Missouri.

Videos, photo galleries, interactive graphics, and related material as well as the updated original articles and follow-up articles can be found on the ICIJ website at the following location: www.icij.org/projects/looting-the-seas

KEY FINDINGS

- Between 1998 and 2007, more than one in three bluefin was caught illegally, creating an off-the-books trade conservatively valued at \$4 billion.
- Fishermen blatantly violated official quotas and engaged in an array of illegal practices, including misreporting catch size, hiring banned spotter planes, catching undersized fish, trading fishing quotas, and plundering tuna from North African waters where EU inspectors are refused entry.
- National fisheries officials have colluded with the bluefin tuna industry to doctor catch numbers and avoid international criticism.
- Sea ranches, where bluefin are fattened to increase their value, became the epicenter for "laundering" tuna in the Mediterranean and North Africa.
- The paper-based reporting system implemented by regulators in 2008 to bring transparency to the trade is full of holes, rendering the data almost useless.

 MORE >

PART I — In its first installment, ICIJ documented the massive black market in prized Eastern Atlantic Bluefin Tuna, a sushi delicacy served in restaurants worldwide. For seven months, ICIJ deployed a team of 12 journalists to investigate the bluefin trade. The project found that the demise of the bluefin was directly linked to years of widespread fraud, negligence, and lack of oversight that spanned the entire bluefin supply chain — from fishing fleets and tuna ranches to distributors. The investigation included a 26-minute documentary co-produced between ICIJ and Londonbased tve that aired on BBC World News.

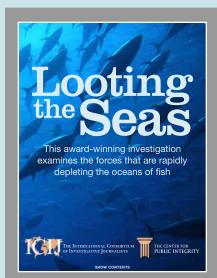
ment focused on Spain, the most powerful fishing nation in a region where economies and fish stocks are in shambles. An ICIJ team of reporters set out to investigate how Spain's fishing industry wielded that power at home, in Brussels and overseas. The stories reveal an industry more subsidized by taxpayers than any other in the European Union, even as it has racked up an extensive history of flouting rules and breaking laws.

KEY FINDINGS

- A widespread, off-the-books trade in bluefin tuna has existed in Japan since at least the mid-1980s.
- While there are signs that EU officials have started to crack down, illegalities remain a serious problem. In North Africa and Turkey, even less accountable fleets are ramping up operations.
- A wall of secrecy protects the bluefin industry. Officials in countries
 from Spain to Croatia failed to produce records on fishing and farming
 infringements. Even the European Commission denied access to
 fishery infraction records, citing protection of commercial interests and
 even "military matters."

PART III — As other fisheries are pushed to their limits, giant trawlers have moved southward toward the edge of Antarctica to catch what is left. For this finale of Looting the Seas, reporters from the ICIJ spent seven months on four continents to document how Asian, European and Latin American fleets have devastated fish stocks in the southern Pacific, once among the world's richest waters. They conducted more than 100 interviews; filed freedom of infor-

mation requests in the European Union, Peru and the Netherlands; and analyzed more than 100,000 catch and inspection records. The investigation focused on an unlikely protagonist: the bony, bronzed-hued jack mackerel in the southern Pacific. Industrial fleets, after fishing out other waters decimated it at stunning speed. Since so much jack mackerel is reduced to fishmeal for aquaculture and pigs, we eat it unaware with each forkful of farmed salmon.



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Media Partners: Le Monde (France), the International Herald Tribune, El Mundo (Spain) and Trouw (The Netherlands). In addition, ICIJ is coproducing a documentary with London-based TVE that is planned to air on BBC World News TV in the spring of 2012.

E-Book Design and Production: Donald W. Reynolds Journalism Institute in Columbia, Missouri. www.rjionline.org

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Bluefin fishing port Sète is nicknamed the "little Venice" of France for its cobblestone-lined channels. Kate Willson

A Mediterranean Feeding Frenzy

HOW OVERFISHING, RAMPANT CHEATING, AND OFFICIAL COMPLICITY PLUNDERED THE ATLANTIC BLUFFIN TUNA

By Kate Willson and Jean-Pierre Canet
Published Online: November 7, 2010

OBBLESTONE walkways line the quiet canals of Sète, a French community of 40,000 nestled along the Mediterranean about 85 miles west of Marseille. It

is a picturesque place, bounded on one side by Mount Saint Clair and the other by the clear turquoise water of the sea. But there is more to this seemingly sleepy tourist town. Anchored in the harbor are dozens of multimillion-euro fishing boats — vessels that comprise the world's most productive tuna fishing fleet, with 36 vessels targeting the prized, and increasingly at risk, Eastern Atlantic bluefin tuna. Fed by ravenous demand in Japan, Mediterranean fishing fleets — led by those in Sète — have fished out as much as 75 percent of the Eastern Atlantic bluefin. Half of the stock, say scientists, has disappeared during the past decade.

If there is a ground zero in the controversial trade in bluefin, it is here in Sète. The port's captains are steeped in generations of bluefin fishing — a regional vocation that predates the time of Christ. Their great-grandfathers emigrated from southwestern Italy — most from the same fishing village of Cetara on the Tyrrhenian Sea. As bluefin grew in popularity and price, the captains of Sète topped the hierarchy — the richest, most well-connected fishermen in France.

But Sète's fishermen suddenly find themselves under unaccustomed scrutiny. So decimated are stocks of bluefin that regulators are considering a moratorium. Prosecutors are dissecting captains' records, looking for evidence of fraud and fishing beyond legal quotas. Even their biggest buyers in Japan are starting to verify the source of the bluefin they've bought for years with no questions asked. "Everyone cheated," acknowledged Roger Del Ponte, one of the bluefin captains under investigation who denied the charges pending against him. "There were rules but we didn't follow them."

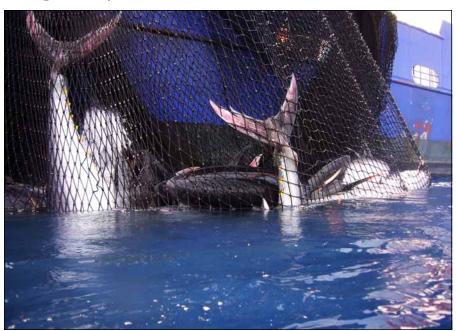
The captains of Sète are not alone. For more than a decade,

"Everyone cheated.
There were rules but we didn't follow them."

southern Europe's fishermen went on a feeding frenzy with help from an emerging cast of North African and Turkish affiliates. Widespread fraud and a lack of official

oversight have fueled a massive black market, in which, at its peak, between 1998 and 2007, more than one in three bluefin was caught offthe-books, according to an investigation by the ICIJ.

Through dozens of interviews with fishermen, divers, ranchers, enforcement agents and ministry officials, plus additional information gleaned from inspection reports, internal regulatory data and court files, ICIJ's reporting shows a de-



Tuna are hauled aboard a Spanish purse seine vessel during the 2007 fishing season. Felix Sanchez

cades-long system of deceit, lack of oversight, and outright fraud. There is plenty of blame to go around. The illegal and negligent activity extends across the supply chain, ICIJ found, from fleets, through ministry offices, to boardrooms in Japan, which buys 80 percent of the Mediterranean's bluefin tuna.

Officials looked the other way while fishermen violated official

quotas at will and engaged in questionable practices that included misreporting catch size, piloting illegal spotter planes, catching undersized fish, and plundering tuna from North African waters where international inspectors are refused entry. An illicit market even arose in trading quotas — when regulators finally started enforcing the rules — in which one vessel

sells its nation's quota to a vessel that had overfished.

The size of this black market in bluefin is enormous. ICIJ ran an analysis of the illegal and unreported trade, based on scientists' estimated catches, Japanese market prices, and official quotas (the limits issued to countries on how many tuna they can catch). Our findings: between 1998 and 2007, the off-the-books trade generated an estimated \$4 billion in revenue.

An Unaccountable Industry

Concern over huge catches of bluefin led to discussion in 1992 about including the fish alongside pandas on the list of endangered species banned to international trade. Officials skirted the threat, and later introduced national quotas. Responsibility for enforcement lay with the International Commission for the Conservation of Atlantic Tunas (IC-CAT), a Madrid-based regulatory body, and with its 47 member states and the EU. But ICCAT members voted for high quotas that its own scientists warned were unsustainable, and failed even to enforce those, industry and official sources say. Meanwhile, fleets of increasingly powerful, government-subsidized vessels have for more than a decade scooped up between 50,000 and 60,000 metric tons annually — nearly twice as much tuna as ICCAT quotas allowed, and three times what scientists in recent years deemed sustainable.

Years of mismanagement led independent auditors of ICCAT in 2008 to condemn its member countries for having "failed to abide by their legal obligations...failed to conserve bluefin tuna and failed in the eyes of the international community." But their dramatic call for the immediate closure of bluefin fishing and ranching was ignored.

Through government subsidies, French fishermen built up the Mediterranean's most powerful fleet of purse seine vessels, which use an efficient method of bluefin fishing with nets that close from below like a draw-string purse. Along with Spain and Italy, the three countries cornered the lion's share of quotas. Greece, Malta, and Cyprus also fished under EU quotas, bringing the EU total to more than 130 purse seiners. Turkey, operating outside the EU, ran a dilapidated fleet of another 56 purse seiners, while Algeria, Libya, Morocco, and Tunisia sold EU fleets entrance into their rich unregulated waters in exchange for a cut of the catch.

To account for their fleet's massive overcatch, until 2007 French officials in Paris at season's end adjusted the actual catch downward when they reported to the European Commission, which in turn reported to ICCAT, according to industry and government officials. The Italian and Spanish fleets also violated their quotas with impunity. "Within the bluefin fishery, all the countries were lying, it wasn't just France," ICCAT scientist Jean-Marc Fromentin said. "It was everybody. The only country to give their real figures would get fined, so in that kind of game, everyone lies.

"The officials didn't respect the quotas, they didn't control it," Fromentin went on. "And at the same time, they authorized new boats to be built. So capacity increased. After a few years, the situation became really critical and we started talking about a risk of collapse."

Set Up to Fail

For decades, the market for bluefin remained modest and largely regional — in fact bluefin was used in the United States largely for cat food. All that changed in the 1980s, as Japanese demand for fatty toro tuna exploded and sea ranches —

large coastal pens for fattening the fish — began to provide a steady year-round supply. Manuel Balfegó, a Spanish fisherman and rancher, recalled the acceleration of his craft in the '80s when Japanese and Koreans vessels discovered the rich bluefin fishery in the Balearic

"There were so many fish, no one knew what to do with them all." Sea off Spain's eastern coast, where he now ranches tuna for Japanese buyers. "There were so many fish, no one knew what to do with them all," he said. One tuna

trader recalls those golden years in the early 2000s buying fish off the Spanish coast. By strategically stacking the tuna, they could fit 50 into a single freighter truck.

The booming export market combined with government subsidies by the EU and its member states — €26.5 million (\$35.8 million) to vessels in Sète alone — to spur the renovation and expansion of Europe's bluefin fleet. By 1998, the average French purse seiner was twice as long and four times as powerful as in 1970. By 2008, the EU fleet bloated under the capacity of 131 purse seine vessels. Another 500 such ships outside the

EU — sailing under other ICCAT member flags — were registered to catch bluefin. One of the most successful fishing masters said a vessel needed to catch 250 metric tons of bluefin a year to make a profit.

With too few controls and too many ships, the bluefin hunters fished with abandon. ICCAT records show member countries caught about 30,000 tons of bluefin in 1991

"We always fished more than the quota. No one told us to stop." — the equivalent weight of three Eiffel Towers. Five years, later that figure topped 50,000 tons — a level that continued through 2007 — three times what ICCAT's own

scientists said was sustainable.

ICCAT instituted the first quotas in 1998, just as Spanish and Croatian fishmongers were revolutionizing the industry with "tuna ranches" in the Mediterranean. Instead of fishing small bluefin close to shore, killing them immediately and returning to port, vessels transferred live fish from their nets into cages, and then slowly towed the bluefin away to be fattened. Ranching allowed vessels to fish farther from port without fear their catch would rot. The deeper the waters, the big-

ger the fish. And Japanese buyers loved big tuna. Because operations are largely underwater, ranching made it nearly impossible to verify the size or number of fish caught, or how much they weighed. The advent of the ranches, coupled with widespread lack of enforcement, facilitated a decade that fishermen refer to as "the Jungle" — a Wild West in which bootlegged bluefin became business as usual.

The Jungle: 1998-2007

The techniques fishermen used to increase their catch — and profit margins — were described to ICIJ by a dozen veteran bluefin fishermen. Fleets openly fished illegally undersized tuna, used banned spotter planes to search for spawning schools, and transferred tuna onto refrigerated vessels slated for Japan without declaring the catch. If a company was taken to task, the fine in the European Union averaged a mere 1/2,000 of the profits, according to an EU auditor's report.

"We always fished more than the quota," explained French Captain Vincent Caci, who gave up fishing this year because of growing restrictions on the trade. "It was normal. No one told us to stop. And



Killed or damaged tuna are hauled aboard a fishing vessel to sell at market or serve as dinner to the crew. Felix Sanchez

France helped us build expensive new boats."

In neighboring Spain and Italy, fishermen also encountered a similar lack of oversight.

"The fishermen were like guerrillas," said Spanish fishing master Balfegó. "There were no individual quotas, only country quotas. So we fished, and we declared. The one to

blame for the overfishing in the end was the country."

In 2004, Nicolas Giordano, a fourth generation fishing captain from one of the most prominent bluefin fishing families in France, caught 1,200 tons of bluefin on his own. "Everyone fished as much as they wanted," he said. "Until 2006 we declared what we wanted to

declare. And the government said, 'Okay.' The administration didn't do its job, and at the time no one took it seriously."

By 2006, environmental groups had succeeded in drawing attention to the plight of the plundered tuna. Under growing public pressure, IC-CAT that year launched a 15-year plan to rebuild stock by reducing quotas and increasing the minimum catch size. But the limits outlined were still twice as high as ICCAT's own scientists recommended.

Ironically, subsidies continued to pour into the EU fishing industry at a rate of more than €800 million (\$1 billion) per year, with more vessels looking for fewer fish. Between 2005 and 2007 alone, the European purse seine fleet doubled in size.

In spite of its shortcomings, the ICCAT recovery effort carried political pressure to enforce the rules. But as the industry finally drew scrutiny, fishermen and ranchers colluded more closely to launder their wares, industry sources say. Patrick Mameaux, a longtime diver aboard French vessels, whose job it was to count the fish, recalls once fighting over figures with another diver who declared only half of the 80 tons of fish caught. Such tricks became commonplace. Mameaux

said often divers would allow fish to pass undetected by stopping their videotape during the transfer from net to cage — an ICCAT requirement to confirm catch size. A prominent French fishing captain said an easier way was to carry a copy from an earlier — and smaller — catch. The

Often divers would allow fish to pass undetected by stopping the videotape during the transfer from net to cage.

diver would feign recording but turn in the pre-recorded tape.

As threats of enforcement mounted, fishermen say, French vessels took in extra cash selling their portion of the national quota in Malta and in Turkey, a coun-

try with a big but decrepit fleet and a disproportionally paltry quota. The scam, termed "paper quotas" proved especially helpful for captains who failed to catch enough fish during the season. Paper quotas work two ways. One vessel can "sell" its quota directly to another vessel, taking credit for fish actually caught by another nation's vessel. Or, a vessel can sell its overcatch to a ranch, which finds a second vessel that is below quota to declare those fish — for a price.

Matters reached a head in 2007, when France — whose official quota that year was about 5,500 metric tons — declared nearly 10,000. The blatant disregard of the quota, combined with growing reports warning of a possible collapse of Atlantic bluefin stock, prompted French authorities to open a criminal investigation. It is the first time, say French officials, that the industry has been put on trial.

The Montpellier Case

Fifteen miles from Sète, in the regional capital of Montpellier, a legal drama is playing out that has shaken France's bluefin tuna industry. Under investigation are six of that nation's most prominent bluefin fishermen, whom prosecutors suspect of failing to declare their full catches and selling their quotas to foreign vessels that had overfished their own quotas.

Two cases are working their way through the French legal system — one from 2007, another from 2008 — and they remain in a stage of secret pre-trial investigations. The cases, however, can be described from interviews with government sources, prosecutors, and fishermen who say they are the targets of the probe.

To prosecutors, the cases offer a rare window into how fraud infected the very heart of the bluefin industry. "From the moment a person commits fraud, when he fills out false documents, then there is absolutely no way to control the fishery," said French prosecutor Patrick Desjardin, who recently took over the investigation. After three months of digging through sales records, tax documents and catch declarations in 2008, investigators identified nearly a dozen potential defendants. More than two years later, only six have been formally charged, although Desjardin said he has recently asked that the judge file charges against at least three other men.

While the potential punishment could reap prison time, the defendants will likely receive no more than a fine. Designation said.

In interviews the fishermen argue that the practices were so widespread — and enforcement so lax — that to single them out is unfair. "It's like driving down the road," said Del Ponte, one of the defendants. "If I know there are no police, I'm going to speed … They didn't care, then all of a sudden, Boom!"

"Enforcement went from zero to 150," said André Fortassier, another defendant, who denies he failed to report some of his catch in 2007.

One of the defendants, Généreux Avallone, is the son of Jean-Marie Avallone, widely reputed to be France's most powerful, well-connected fisherman. Prosecutor Desjardin said he has asked the judge to consider charging three others from Avallone's company.

The company's spokesman, Joseph Salou, vehemently denied that the company knowingly broke

"If the ministry had done its work, we wouldn't be in this situation."

the law and said he is unaware of anyone other than Généreux being investigated.

The fishermen enjoy the sympathy of officials familiar with France's laissez faire enforce-

ment. "The fishermen aren't as much to blame as the ministry," said one source close to the investigation, referring to the Ministry of Agriculture and Fisheries in Paris. "They just profited from the system. The ministry let them do it. If the ministry had done its work, we wouldn't be in this situation."

Interviews with past and present French officials, as well as industry sources, indeed suggest a wideranging lack of accountability.

For years, for example, the Sète Office of Maritime Affairs gathered catch declarations when fishermen came to port — but did nothing with them. "There was simply no requirement to send along the information to Paris," said one ministry official with close knowledge of the events. "So [they] collected the declarations but never did anything with them. Never calculated the catches."

Scientists declared the French catch figures to the European Commission in those first years. But when France was criticized for overfishing, the Fishing Ministry demanded it be the office to report official figures. An ICCAT official recalled the occasion. "They got called out as the bad guy, but everyone was cheating," he said. "France was just the only one to be open about it. So they did like everyone else and in the coming years, they cheated too."

Joseph Salou, who represented the bluefin industry for years before going to work for the Avallone group, recalled when France declared overfishing its quota in late 1990s. "I can't tell you the criticism we suffered," he said. "We were denounced by the Spanish and the Italians, who cheated even more than we did."

Over the years, the ministry's director of Marine Fisheries in Paris was in constant contact with industry representatives, explained. After each season, the industry and officials discussed catch data, and settled on an official figure. "It was a collaboration," said Salou, who participated in the talks. "It was a discussion we had every year, the administration and the industry, because the administration was also complicit ... The final decision was made by the director of fisheries, who said, 'Okay, we'll declare this number."

In France, responsibility for the bluefin industry ultimately leads to the Ministry of Agriculture and Fishing in Paris, under which the Department of Marine Fisheries operated. Ministry, however, appears The most reluctant to answer allegations that its officials doctored catch data — data that were then passed on to the European Commission and IC-CAT. Ministry officials have not responded to a dozen written requests and numerous telephone calls from ICIJ requesting interviews or comment. Two former directors and a former minister also have declined to comment.

Jean-Marie Aurand was the Marine Fisheries director in charge in 1999 when his office took over reporting final catch figures to the European Commission. Today Aurand is the Ministry's secretary general, one of its highest-ranking officials. He did not respond to multiple requests for interview or comment.

One official familiar with the annual discussions said it would have been difficult to believe that the Ministry's director of fishing — and his superiors — did not know the situation. "They would have had to be deaf and blind," he said. "There was a need to keep an important economic sector alive. There was also a need for the authorities not to risk being sanctioned by the European Commission."

Knowledge of such blatant violations of overfishing, the source added, would also have been hard to miss by officials at the European Commission, who forward the final EU catch figure to ICCAT. "The Commission isn't deaf," he said. "By comparing the data, they could see the discrepancies between reported and actual catches. And people talked, so we knew when a season was lucrative."

In a show of apparent outrage at the 2007 overfishing, the French

Fishing Ministry demanded an investigation. After three months, investigators submitted a report detailing allegations of illegal acts by the country's biggest bluefin fishing companies. The report also requested authority to investigate official complicity in allowing the overfishing to go on for so long, said a government source close to the investigation.

One ministry official involved with the catch data said he expected investigators to knock on his door and demand to know why he and others had done nothing to stem the illegal overfishing. "People at the ministry at the time knew that if the police did their job, sooner or later they would be asking about the government's role," he said.

But that visit never came.

A Lack of Enforcement

International condemnation of France's role in plundering bluefin spurred the EU fisheries regulators to snap to attention. But fishermen were slow to believe the rhetoric about a crackdown.

"No one thought we were really going to have to respect the quota," French fisherman Nicolas Giordano said. "They said, 'We'll fish what we want and we'll see what happens.' "

In 2008, ICCAT introduced the Bluefin Tuna Catch Document Scheme (BCD). The European Commission has praised the program, promising that "documentation of every stage in the chain, including transhipping, caging, harvesting, importing, exporting and re-exporting" would help "ensure complete and reliable traceability."

Under the BCD system, vessels are given a unique number for each catch. That number follows the catch to ranch, through harvest, and finally to market. All along the supply chain, players are required to provide detailed information about the number, size, and location of the fish.

The system has not worked as planned. No one within ICCAT's compliance committee has analysed the database, according to committee chairman Christopher Rogers. He said the database had too many limitations — such as countries that still had not turned in documents from 2008, although the regulations require reporting within five days.

ICIJ gained access to the internal database through an ICCAT country member and conducted its own analysis. The analysis found that the tracking system is full of holes. During 2008 and 2009 reports on more than three quarters of all purse seine catches — which make up about half of the overall catch — are missing information that would enable one to verify their legality.

In more than a dozen ranches, many more fish were being sold than could be accounted for, according to the database. In more than 130 cases — accounting for 715 tons of bluefin — vessels reported catching hundreds of fish at a time, with a mean weight at the minimum legal size. That would mean either all the fish were exactly the same weight, or many were under the legal limit to balance those over the limit.

ICIJ asked Rogers if he had ever heard complaints about the minimum-sized catches. Rogers said cases like these have caused raised eyebrows in Japan. "They're saying, 'Hey, your numbers seem to be doctored. It appears to us these entries were manufactured to fit the rules."

While fishing companies widely ignore ICCAT's new system, questionable practices persist at sea, suggesting the Wild West of bluefin fishing has yet to be tamed. The EU's Commissioner on Maritime

Policy reported in a 2008 annual report that eight Italian vessels had overfished their quota that year and eight planes were found to have been illegally cruising for tuna. Officials from the EU's inspection arm, the Community Fisheries Control Agency (CFCA), reported 55 suspected violations in 2008. The following year suspected violations jumped to 92 — many for failing to transmit satellite position, which is used to assure that vessels are fishing within legal areas. Italy was by far the top offender, with 68 of the alleged infractions. Croatia, China, and Algeria did not transmit vessel locations during the entire fishing season. Many more vessels were out of inspectors' reach, fishing in national waters like those of Libva. which, despite being an ICCAT member, does not welcome EU inspectors.

By September this year, the CFCA had detected more than 50 suspected violations. The agency can add one more to its list: in October an Italian fisherman from Cetara was caught with 500 baby tuna weighting an average of just one kilo each.

How bad is the situation? It's difficult to know because a culture of secrecy has permeated oversight.

Despite repeated ICIJ requests, officials at national ministries, the CFCA, the EU, and ICCAT all have refused to make public any records regarding suspected violations or their agencies' enforcement actions.

"I can understand there is a need for transparency here," European Commissioner for Maritime Affairs and Fisheries Maria Damanaki told ICIJ in an interview. "If any case is complete you should have the full data." The Commission, however, has denied us access to even those records.

The response buttresses concern expressed by independent auditors from both ICCAT and the EU about secrecy and lack of enforcement. "Procedures for dealing with infringements do not support the assertion that every infringement is followed up, and even less that it is subject to a penalty," the 2007 report by the EU Court of Auditors noted. Fisheries management organizations "must find a way to be more inclusive and open in their culture," read a scathing 2008 IC-CAT review.

The New Players

Meanwhile, a new cadre of players has emerged in North Africa.

The 80-degree waters off Libya's coast — a perfect feeding ground for spawning bluefin — have long attracted French vessels, whose owners have made deals with Libyan companies. Captain Jean-Marie Avallone made one of the most prominent deals, building a partnership in the early 2000s with Ras Al Hilal Marine Services — a prominent Libyan company widely reported to be controlled by President Moammar Gadhafi's son, Saif al Islam. Sète's leading fishing companies followed suit.

The Libvans care little about inspections, fishermen say. French Captain Vincent Caci described local inspectors as young and uninformed about tuna. When a catch would come in, one inspector simply asked Caci how many tons to write down for his report.

"They didn't care about the fish," he said. "They just cared about the money. They never asked us how much we fished." Officials in Europe really don't know to what extent Libya is — or is not — enforcing the international regulations. The same goes for Tunisia, which overfished its quota in 2008 by more than 300 tons but took no actions against its vessels.

Meanwhile, in Algeria this year,

ranking officials of that country's Ministry of Fishing were convicted of trafficking in illegal tuna, influence peddling, and tax evasion during 2009. Four Algerians — including the ministry's secretary general - and five Turkish fishermen were sentenced to prison terms and fined €80 million [\$108 million].

But it is Turkey that officials say now shows the most flagrant disregard for ICCAT rules. "The massive fraud today is being committed by the Turks," said one French maritime investigator. ICCAT scientist Fromentin faulted the combination of the country's tiny quota and bloated fleet.

"The Turkish fleet doesn't seem to follow the rules," French inspectors reported in a diplomatic dispatch after repeatedly stopping Turkish vessels last vear. "Their registration documents are not complete, or don't exist at all. They don't carry ICCAT observers on the purse seiners, or in some cases aren't even registered with ICCAT." In one case involving a Turkish fishing and ranching company, inspectors found the number of fish caught was underestimated by a factor of ten.

Turkey, like the North Africa states, is an ICCAT member, but

with the black market trade in tuna moving across the Mediterranean it may be hard to stop the plundering of bluefin without a far more serious — and comprehensive — crackdown, Commissioner Damanaki a Greek national — has met with Turkish officials to discuss their compliance. She hopes that, coming from the region herself, she'll be more convincing.

"I am coming from a Mediterranean state," she explained with an apologetic shrug. "So I can say — in the Mediterranean, compliance is not our strong point."

Kate Willson is a staff writer at the ICLL Jean-Pierre Canet is a French producer and director of the documentary Global Sushi. Marina Walker Guevara and Scilla Alecci in Washington, Marcos Garcia Rey in Madrid, Leo Sisti in Milan, and Brigitte Alfter in Brussels contributed to this report. Data analysis by Kate Willson and David Donald.

FOLLOW-UP

Fishing nations approve overhaul of bluefin tuna tracking system >>

FOLLOW-UP

Fishing Nations Approve Overhaul of Bluefin Tuna Tracking System

ICIJ IN 2010 EXPOSED FAULTY PAPER-BASED TRACKING METHOD

By Kate Willson and Marina Walker Guevara Published Online: November 20, 2011

EARLY 50 COUNTRIES that trade in high-priced Eastern Atlantic Bluefin Tuna agreed Saturday to transform an archaic paper-based method for tracking fish into a digitalized system that officials say will make it harder for fleets to smuggle plundered bluefin into market.

Member countries of the International Commission for the Conservation of Atlantic Tunas (ICCAT), the body charged with protecting the bluefin stocks threatened by overfishing, will implement the new electronic system by the time ships set out in the spring of 2013.

Last year, the ICIJ exposed the paper-based Bluefin Catch Document scheme as so full of holes as to render it virtually useless. The system was riddled with inaccuracies and inconsistencies and did little to stop the thriving black market in bluefin. Before the ICIJ report, officials had lauded the system as a successful deterrent to illegal trade —a way to track every fish from hook, through fattening farms and to the final buver.

Bluefin tuna is one of the sea's most valuable species, a highly migratory fish that can weigh more than 500 kilograms (more than 1,102 pounds) and live 40 years. One large fish can fetch more than \$100,000 in Japan, which consumes around 80 percent of the global bluefin market. The fish has been widely hunted in the Mediterranean. As a result, the spawning stock has plummeted by nearly 75 percent over the past five decades.

Behind the demise of bluefin, the ICIJ investigation found a decadelong history of rampant fraud and a lack of official oversight. At its peak — between 1998 and 2007 — the bluefin black market was worth \$4 billion, with more than one of every three fish caught illegally.

Alarmed at the rate of the bluefin's decline, ICCAT regulators came up with a paper-based reporting system in 2008 designed to help them better track the trade.

Fishermen, sea ranchers and importers filled out paper documents and submitted them to ICCAT's office in Madrid, where staff manually entered them into a database. The time lapse between trade and data entry, as well as forms only partially completed, meant officials would have been unable to accurately track the trade

In 2010, ICIJ gained access to the bluefin-tracking database through an ICCAT member country. ICIJ's analysis of the data showed that most catches lacked crucial information that regulators need to follow the fish from vessel to market.

The problems were most prolific at tuna "ranches" where the fish are fattened for months before being killed and sent to Japan. Because everything happens under water, it is nearly impossible to keep track of the fish. For example, the data analysis showed that ranches were selling more bluefin than they had reported buying in the first place. And 20 percent of the fish killed lacked any export information, effectively turning those fish into ghost tuna that regulators could not track to a final destination. One of ICCAT's own scientists quoted in the ICIJ story called the paperbased tracking system "a bloody mess."

Regulators say that the new electronic system will add real time monitoring and better enforcement to the trade as well as a more accurate account of how many bluefin are caught and traded. Monica Allen, a spokesperson for the National Oceanic and Atmospheric Administration, said the digitalized tracking system will "help detect fraud and deter IUU [Illegal, Unreported and Unregulated] fishing."



Bluefin ranching: The advent of fattening tuna in coastal ranches revolutionized the bluefin trade. Marcos Garcia Rey

Diving into the Tuna Ranching Industry

SEA "FARMS" BECOME CENTERS FOR BLUEFIN BLACK MARKET

By Marcos Garcia Rey
Published Online: November 7, 2010

N THE FINAL DAYS of 1996, the air was cold and seas rough around the southern Spanish port of Cartagena. A boat belonging to the Tuna Graso sea "ranch" — a joint venture between Japan's Mitsui & Co. and Spain's Ricardo Fuentes & Sons — had just pulled aboard a huge 300-kilo bluefin tuna from one of its underwater pens. That single fish was worth \$17,000 to the company, and would fetch far more at auction in Tokyo.

The days of supplying fresh blue-

fin tuna just a few months a year were over. The introduction of fattening ranches, or farms, meant the Japanese could have high-quality bluefin for their sashimi year-round. Tuna captured at sea could now be transferred into cages and fattened for months in underwater coastal cages until Japanese buyers were ready to deal.

That blustery day, the boat's captain gave the order to return to dock. But in the choppy water, the big fish began to slide around the deck, thrashing violently. It injured crew members and endangered Japanese quality-control officers and Tuna Graso executives before falling overboard into the sea.

According to Pepe Amat, a former manager at Fuentes & Sons who witnessed the episode, these were the experimental years, when the goal was to perfect the methods for fishing, caging, harvesting, and trading bluefin tuna. No one had ever before attempted to commercialize giant bluefin fattened on farms, and accidents were bound to happen.

In the end, it was a minor setback to a method that would transform the industry over the next 15 years. Ranching the Eastern Atlantic bluefin tuna quickly became a multi-million dollar enterprise, with some 67 ranches spread across the Mediterranean. At the same time, the ranches would become the epicenter of an off-the-books trade that would decimate the region's bluefin, until nearly 75 percent of the stock had disappeared.

At its peak, the illegal trade comprised more than one out of every three bluefin caught, at a market value of about \$400 million annually.

In the closed culture of bluefin fishing. authorities, fishermen and ranchers can be as opaque as the waters on which they rely. They are part of a flawed system in which, for more than a decade, fishranchers. ermen. and traders engaged in widespread fraud and negligence. The rampant rule-breaking gave rise to a black market in the

prized tuna. At its peak, from 1998 to 2007, the illegal trade comprised more than one out of every three bluefin caught, at a market value of about \$400 million annually, ICIJ found.

Cheating is particularly rife in the ranches' murky waters, according to dozens of interviews with



Fishing nets — worth upwards of \$100,000 each — are drawn onto a dock once bluefin are transferred to ranch cages. Felix Sanchez

ranchers, fishermen, divers, traders, politicians, inspectors, and scientists. Among the illegal practices: underreporting numbers of bluefin caught, towed, caged, and sold; ranching of undersized fish; fake releases when forced by authorities to free already-illegally penned fish; under-declaring harvests and trading figures to comply on paper with legal quotas; and installing cages without permission. "Before the existence of the farms, the tuna market in the Mediterranean lasted only three months," recounted a Spanish

official who for years oversaw the industry. "The possibility of caging live bluefin gave rise to increased fishing capacity and over-catching."

Intent on marketing the best quality bluefin back home, Japanese companies were the architects and financiers of the ranching industry. They partnered with Spanish and Croatian fishmongers to launch the innovative facilities. As the industry grew, and Mediterranean fishermen and ranchers engaged in a profitable gold rush, regulators turned a blind eye.

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The fate of Mediterranean bluefin rests with the International Commission for the Conservation of Atlantic Tunas, an intergovernmental organization of 47 countries and the EU. ICCAT set the total allowable catch of bluefin at 13.500 metric tons this year, down from 22,000 in 2009. Yet the recorded capacity of the regions ranches is nearly five times the current quota, according to ICCAT, with many ranches located in loosely regulated countries such as Turkey and Tunisia.

So controversial are these ranches that the Japanese, who buy 80 percent of the world's supply, are starting to balk at excesses in the industry. Last year, officials in Japan took the unprecedented step of blocking the entrance of more than 3.500 tons of frozen Atlantic bluefin — about one-sixth of the country's annual imports. All of it came from Mediterranean ranches. Inspectors found some ranches were claiming to fatten tuna at levels that were biologically impossible, while others were exporting more fish to Japan than they had taken in. The Japanese eventually released all but 800 tons, but their point was clear. "If no set-up is in place for legally carrying out ranching, then it should be stopped for a while, and it should be cleaned up," warned Masanori Miyahara, Japan's senior delegate to ICCAT.

Mediterranean Ranchers. **Japanese Traders**

Spurred by Japanese demand, the industry began to evolve rapidly in the 1990s. Big purse seining vessels — named for nets that close from below like a draw-string purse — could catch 3,000 tuna at a time. Selling them to ranches instead of directly to Japanese buyers increased their bottom line. "We were fishing a huge amount of bluefin, killing them at catch time, and selling it very cheap to the Japanese," recounted Francisco Martínez, who pioneered ranching in the Mediterranean by opening a ranch in Spain in 1994. "Then, I went to Japan to study the market and realized that it was the moment to stop doing stupid things. It was the time to develop ranching in order to add value to that fishery."

Ranching had proved successful in Australia, and the model was adapted to the Mediterranean. At sea, purse seiners transfer their catches to cages. A tugboat then tows them to ranches in coastal waters, at speeds of just two kilometers per hour, on journeys across the Mediterranean that can take a month. Once in these circular pens. the fish are fattened for months on sardine, mackerel, and herring until they obtain the fattiness, flavor and color that Japanese consumers demand. At "harvest," the tuna are shot in the head and hauled aboard a vessel, to be gutted and their heads chain-sawed off. They are immediately dipped into a -2°C seawater slush. Within hours most of the fish are deep-frozen onboard refrigerated vessels to be shipped to Japan. Others are packed, air freighted, and auctioned fresh in Japanese markets.

Most of the bluefin at the ranches are adult fish. Scientists have been trying to raise Atlantic bluefin from larvae, but the migratory fish generally don't survive more than a few weeks.

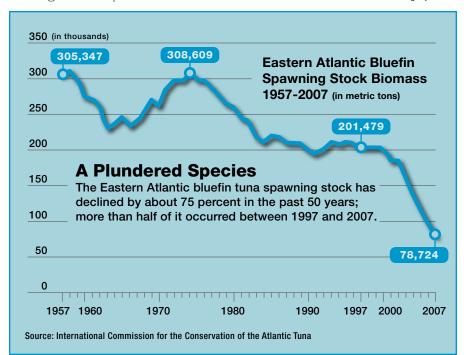
"No Effective Controls"

For years the ranching business boomed. Spanish ranchers dominated the business, first from Spain, and then through joint ventures with both local and Japanese partners in Croatia, Malta, Turkey, Italy, Tunisia, Cyprus, and Libya. Most of the fish were bought from Italian, French, and Spanish purse seine fleets.

The industry — and the EU — poured cash into modernizing the fleets, mainly the purse seiners and tugboats that supplied the ranches with live fish. But the investment created a vicious cycle, ranchers and officials say. Once the ship owners had purchased multimillion dollar vessels, they were forced to overfish to re-pay bank loans.

As fishing grounds grew depleted, the fleets and ranches moved on from southern Europe to Tunisia and Libya in search of new sources of bluefin, industry veterans say. Starting in 2002, the once rich Balearic fishing ground off Spain "was about to collapse due to over-catching," recalls Manel Balfegó, a fifthgeneration Spanish tuna fisherman and co-owner of a ranching company. "It was necessary to open ranches near the Libyan waters."

Overfishing and the spread of ranches forced the bluefin population into a nose-dive, cutting it by nearly 75 percent over 40 years—more than half of that between 1997 and 2007, according to ICCAT figures. Some of the loss was due to liberal quotas, which ICCAT's own scientists warned were too high. But much of it came from un-



reported and illegal catches, which accounted for up to half of all fish caught some years.

The structure of the ranches has made it easy to cover up the overcatch, ranching veterans say. Catches and transfers are carried out on open seas and with vessels and operators of multiple nationalities, each subject to different legislation. The ranches operate largely underwater and typically rely on

divers' estimates to document the numbers of fish brought in and sold. "I was a witness to the overfishing and overfarming," said Emmanuel Delia, a professional diver for years with ranching companies in his native Malta. "There were no effective controls enforced on the bluefin industry before 2008."

A former manager for a prominent Mediterranean rancher blamed the off-the-books sales on underestimates of fish at the ranches. "Divers count the transfers of the bluefin tuna from the purse seiners to the towing cages, and from these to the fattening cages, with a guess," he explained. At slaughter, the rancher may realize that he owns more tuna than previously

"Divers count the transfers of the bluefin tuna from the purse seiners to the towing cages, and from these to the fattening cages, with a guess."

reported. "For the fish that are over quota, you have to find a solution" at the end of the season, said the former manager. Releasing the fish — and losing one's investment — is simply not an option, he explained. A rancher has two choices: "You either trade it ille-

gally or keep it until the next season... We took the over-quota fish to Tunisia."

To combat the fraud and misreporting, ICCAT in 2008 implemented a reporting system called the Bluefin Tuna Catch Document Scheme (BCD), a program that the European Commission lauded as bringing "complete and reliable traceability" to the trade. Under the system, vessels are given a unique number for

each catch. That number follows the catch to ranch, through harvest and finally to market. All along the supply chain, players are required to provide detailed information about the number, size, and location of the fish. The hand-written documents are validated by national fisheries authorities and submitted to ICCAT, where the data are manually entered into a database.

ICIJ gained access to the BCD database through an ICCAT member country, and its analysis found the system riddled with incomplete and contradictory information. Of the 4,102 entries for 2008 and 2009, 44 percent lack either a BCD number or other critical information related to vessel, catch, or destination. At least 96 records of shipments to Japan — equivalent to 5,000 tons could not be traced back to a ranch or vessel in the database. Perhaps that explains why Jean-Marc Fromentin, a member of ICCAT's Scientific Committee, called the BCD database "a bloody mess."

BCD data related to ranches appear particularly problematic. At least 20 percent of the bluefin reported killed in ranches during those years — some 118,000 fish — lack trade information, effectively turning those fish into ghost tuna

that regulators can't track to their final destination. Perhaps most striking, the ranches appear to magically manufacture additional bluefin. More than a dozen Mediterranean ranches slaughtered more fish than they bought, according to the database. "This is incomprehensible, no matter which way you look at it," commented ICCAT Japanese head Miyahara. "It is not as if the fish lay eggs and propagate while in the pen. We said this is nonsense."

The Fuentes Group

Among the ranches that have attracted the attention of authorities is Drvenik Tuna, co-owned by Ricardo Fuentes e Hijos (Ricardo Fuentes & Sons), the Mediterranean's leading ranch company. Paco Fuentes, the company's general manager for the last two decades, turned a humble family business into a powerful company through savvy deal-making. In the 1960s, his father sold salted fish door to door from a bicycle; now Fuentes flies across the Mediterranean in a private chartered iet.

In the early 1990s, the Japanese took notice of Paco while competing against him at bluefin auctions, and soon he was making deals with some of Japan's top trading companies: Mitsui & Co. and, later, Mitsubishi Corporation and Maruha. In 1996, Fuentes & Sons opened a ranch in Spain, and since then the company has expanded its ranching activities to Croatia, Italy, Turkey, Malta, Cyprus, Libya, and Tunisia. In 2003, Fuentes, dubbed Paco-san by his Japanese partners, "boasted of having caught 16,000 tons of fish — 50 percent of all bluefin tuna fished in the Mediterranean," according to a former manager at Fuentes & Sons. Today the company owns eight ranching subsidiaries in six countries. Paco-san shows little sympathy for those who warn the bluefin is in trouble. "There are a lot of small bluefin tunas in the Gulf of Lion waters" near France. he asserts. "It's not true that the bluefin tuna stock is an endangered species."

Fuentes jointly owns Drvenik Tuna, a Croatian ranch, with Japanese corporate giant Mitsubishi and local partner Conex Trade. Drvenik has drawn criticism from officials. NGOs and citizens since its founding in 1998. Among the complaints: building a ranch without appropriate authorization; and operating a vessel without valid documents. according to enforcement records



A Croatian tuna ranch. Our Sea, Croatia

and interviews. Environmentalists have also complained that the company polluted nearby waters by dumping fish remains.

In December 2008, Drvenik Tuna was forced to release 712 bluefins caught by French vessels after officials ruled the catch had been taken illegally, according to an IC-CAT compliance report. A year later, Japanese officials refused entry

of 560 tons of bluefin fattened at a Fuentes ranch in Tunisia because the Algerian-caught fish had no accompanying BCD, according to Tunisian government records. Again, Fuentes was ordered to release the fish.

Drvenik is also the subject of a complaint filed by the city of Milna in southern Croatia, alleging that in 2006 a Drvenik subsidiary built a

tuna ranch without proper authorization in Stipanska Bay, a pristine coastal area. A local NGO threatened to hire divers to cut open the cages, so no fish were ever brought to the ranch. A police investigation followed the complaint, and prosecutors told ICIJ they are now deciding whether to follow with a formal indictment regarding the allegedly improper construction.

Fuentes managers at its Cartagena, Spain, headquarters responded that there were some issues with Drvenik in the past, but referred ICIJ to Mladen Milakovic, their Croatian partner and manager. Milakovic declined to comment. Mitsubishi said Drvenik has not received "any official letter or document" from Croatian officials regarding the complaint and is "in full compliance with local and IC-CAT regulations."

The company's troubles are not limited to Tunisia and Croatia. In late 2008 a government inspection of Caladeros del Mediterraneo, a Fuentes & Sons company in Spain, found that the ranch had fattened more tuna than it declared, and was told to release the fish. David Martínez, Fuentes assistant manager, said the problem was not that they didn't declare fish, but that

their legal fish had gained too much weight.

The Maltese Bluefin

Fuentes & Sons is not the only rancher to attract controversy. The tiny island of Malta, 90 kilometers from Sicily, has built up the Mediterranean's largest bluefin ranching capacity in the last five years, and in 2007 alone processed 11,360 tons of the fish — nearly 40 percent of ICCAT's entire quota for that year. In 2007, journalist Raphael Vassallo with Malta Today began writing about the local ranchers, pointing out alleged shortcomings in importexport data, fattening rates that appeared biologically impossible, and an illegal case of re-flagging vessels. Vassallo and his newspaper were later hit with what he calls "a mass libel legal action by all five companies" on the island — Ta'Mattew Fish Farms, Fish & Fish Tuna Ranch, Malta Fish Farms, AJD Tuna, and Mare Blu Tuna Ranch. The companies blamed Vassallo for financial losses stemming from his "libelous" and "defamatory" allegations, the reporter says. "The situation as it stands today is that all charges against me personally have been dropped," Vassallo told

ICIJ, "but the cases against the newspaper have been retained... presumably, for as long as it takes to stop us from reporting the issue."

Others are raising questions about bluefin from Malta's ranches. When Japanese inspectors last year blocked the import of more than 3,500 tons of bluefin, much of the supply came from Maltese ranches. The amount constituted "most of the tuna farmed in Malta, the equivalent to €40 million (\$54 million)," according to Malta Director of Fisheries Control Andreina Fenech. The Japanese are still blocking €8 million (\$10.8 million) worth of Maltese bluefin. "The last months have been very tough for the Maltese ranchers," Fenech added.

ICIJ's analysis of BCD data suggests why Japanese inspectors may have raised questions about bluefin from Mediterranean ranches. More than a dozen ranches appear to have harvested more fish than they reported transferring into their cages. For example, in May 2008, a Turkish vessel reported catching 580 tuna, and transferring those fish into cages belonging to



Charles Azzopardi of AJD Tuna feeds fish at his Maltese ranch. Marcos Garcia Rey

Sagun, a leading ranch in Turkey. But when Sagun reported the harvest of those fish five months later, the BCD data show that it pulled out 2,866 fish —nearly five times the number that went in.

"Our company has been acting in accordance with international and national regulations," Sagun wrote in response to ICIJ's request for comment. "The allegations of wrongdoing have nothing to do with our firm."

The EU, Japan, and Bluefin

Mediterranean ranchers have seen better days. Although criticized as too high by some scientists, an IC-CAT quota of 13,500 tons for 2010 has forced the ranchers to cut back on production, they say. Industry sources estimate this year will bring in revenues of some \$310 million. down from \$490 million in 2008. Fuentes Group managers say that of the company's eight ranching subsidiaries, only three are operating.

In Brussels, meanwhile, a new EU Commissioner for Maritime Affairs and Fisheries — Greece's Maria Damanaki — is threatening "to close the fishery if there is no compliance." The ranchers see Damanaki as an avid environmentalist — "green as a bottle of Heineken." as one manager put it.

Even the Japanese, after helping finance and set up the ranching industry, are having second thoughts. By 2008, criticism from environmentalists and warnings from scientists about plummeting bluefin stocks were starting to have an impact, prompting a public pledge by top buyer Mitsubishi to support a sustainable fishery. To show they were serious, last year Japanese officials made their first big refusals of bluefin imports, citing dubious paperwork by suppliers. At the end of 2009, ICIJ has learned, Tokyo temporarily halted imports from Tunisia after, among other problems, ranches there reported harvesting more fish than they took in.

If Japanese officials needed further convincing of the need for a crackdown, it came last March, when their delegates had to marshal forces to block an international attempt — sponsored by Monaco and backed by the EU and US — to ban Atlantic bluefin trade by listing it under CITES, the Convention on International Trade in Endangered Species. Now Japan's chief ICCAT delegate Miyahara, in a September interview with ICIJ, has warned that his country will consider supporting a temporary shut down of the ranches.

Not everyone is sympathetic to Japan's new-found rigor. "The Japanese are the designers and financiers of the Mediterranean farming system," said Sergi Tudela, head of Fisheries at WWF Mediterranean. "They wanted the fatty fish



After being chain-sawed off at the ranch, tuna heads are kept for the prized meat between their eyes. Kate Willson

and they recruited the people who could carry out this work for them. Now that the system is out of control and markets are saturated, they are scrambling to distance themselves from it."

How far Japanese officials will go remains to be seen. Demand for the prized bluefin will be hard to dampen in the markets and sushi bars of Tokyo and Osaka, and Japan remains by far the world's biggest buyer. Despite concern by some ranchers, few believe the Japanese will support a moratorium on bluefin fishing when ICCAT holds its annual meeting this month. "Japan has the last word on the ICCAT decisions," said a confident Negi Toumi, general manager of Tuna Farms of Tunisia. "The Japanese want to go ahead with their trading strategy — and that is a guarantee for us."

Miranda Patrucic in Croatia, Martin Foster in Japan, and Gul Tuysuz in Turkey contributed to this story.



A tourist eats tuna sushi near Tokyo's Tsukiji fish market. Kyodo /Landov

Bluefin, Inc.

FATE OF ENDANGERED TUNA LEADS TO JAPAN

By Marina Walker Guevara and Martin Foster
Published Online: November 7, 2010

OUNT FUJI rises across the bay from the 16th century port of Shimizu — a sight fit for a post card. The town has seen better days — its businesses shuttered, fishing boats driven into bankruptcy, and the only department store closed. But

the city's core business — marine and overland trade — has assured its survival. Shimizu is the primary port of landing for tuna in Japan.

Hundreds of tons of tuna arrive here daily from all over the world, but none has the allure of the giant Eastern Atlantic bluefin tuna, a fish that once caught is nurtured for months at sea ranches in the Mediterranean to increase its fat content — and its yen value. Once considered a low-class dish, today the Atlantic bluefin is favored by sushi eaters across Japan.

A single large fish can fetch more than \$100,000 at market.

So last year, when Japanese customs decided to stop the importation of more than 3,500 tons of Eastern Atlantic bluefin, the global tuna industry paused for a moment in disbelief. Instead of quickly being trucked to Tokyo's Tsukiji market and other distribution centers, huge consignments of the bluefin were held in deep-freeze storage warehouses in Shimizu and other cities throughout Japan. The reason: officials suspected the fish were illegally caught.

What's extraordinary about the case is not so much the potential crimes involved — fraudulent paperwork and fish caught above national quotas — but that the Japanese were finally cracking down on a notoriously off-the-books trade.

For decades Japan has been the final stop of an Eastern Atlantic bluefin tuna supply chain riddled with fraud, criminal misconduct, and lack of oversight. European and North African fleets grossly overfished in the Mediterranean, fattening ranches became centers for the laundering of tuna, and officials from Europe to Japan looked the other way, while stocks of one of the most valued sea creatures were depleted with increasingly little hope of recovery.

The lack of accountability created a massive black market, according to a seven-month inquiry by the International Consortium of Investigative Journalists. More than one out of three Eastern Atlantic bluefin caught between 1998 and 2007 was fished illegally, ICIJ found, feeding an illicit market worth \$400 million a year.

During some years, Japan's bluefin supply exceeded the legal quotas of Eastern Atlantic bluefin tuna by 50 percent, say industry veterans. "When the quota was 21,500 tons, in actual fact about 34,000 tons came to Japan," said Koji Hayashi, trading manager at Shimizu-based Try Inc., the second largest distributor of frozen bluefin tuna in Japan. So plentiful were the fish, Hayashi recalled, that prices plummeted.

Three-quarters of the world's bluefin tuna end up in the country's restaurants, convenience stores and markets, while the rest goes



Bluefin caught in a purse seine net in 2007. Felix Sanchez

to Europe and the U.S. Some of Japan's leading trading houses and seafood companies, led by Mitsubishi Corporation, sit atop well-oiled structures that move the fish from the tuna ranches in the Mediterranean to the Japanese dinner table—an intricate web of wholesalers, brokers, importers, and retailers.

For the Japanese, history may be repeating itself. Just four years ago,

an official investigation by Japan and Australia uncovered massive Japanese illegal catches and laundering of southern bluefin tuna, a sister species to the Atlantic bluefin. The investigation was a huge embarrassment for Japan, forcing it to overhaul its fishery management system.

In the Mediterranean, even more drastic reforms will likely be need-

ed, experts say. Earlier this year, Japan led an effort to defeat a proposal to list Eastern Atlantic bluefin tuna under CITES — the Convention on International Trade in Endangered Species — a move that would have banned the bluefin trade. Instead. Japanese officials insist the fishery should continue to be regulated by the Madrid-based International Commission for the Conservation of Atlantic Tunas (ICCAT), a body with 47 member states and the EU that is widely faulted for the dire state of the bluefin stock.

"The stock of bluefin tuna, by far the most valued tuna species, has been so heavily overfished in recent times that its collapse has become a very serious and threatening possibility," admitted ICCAT Chairman Fabio Hazin at a 2008 meeting of the industry and the commission in Tokyo. "The Commission's inability to halt the decline of the bluefin tuna stocks for the past years has seriously jeopardized its credibility, raising grave concerns about its actual competence to manage the tuna stocks under its mandate."

In 2008, Japan supported IC-CAT's efforts to develop a new system to track bluefin from vessel to market, the Bluefin Tuna Catch Document Scheme (BCD). Through this program, each catch gets a unique identifying number that accompanies it through its monthslong journey from the vessels to the ranches and to its final destination. Along the way, players must fill out forms and provide timely information on the size of the catch, the vessels and ranches involved, and even the weight of the fish.

In fact, it was irregularities in these documents that raised concerns among Japanese officials about potential illegal shipments in 2009. Information was missing, dates didn't match, and discrepancies in weight and number of fish suggested that illegalities could have occurred at the ranches. For example, documents showed that some ranches had killed more fattened tuna than they originally took in — an impossibility, given that bluefin do not reproduce in captivity. "We said, 'This is nonsense!" stated Masanori Miyahara, Japan's ICCAT chief delegate, whose colleagues demanded explanations from EU officials about the discrepancies. "If they couldn't make an explanation as to the legality of the fish, we said, 'Then don't bring it to us."

ICIJ gained access to the BCD database through an ICCAT member country and found that the data is full of holes, making it nearly impossible for regulators to track the trade from vessel to market as the program originally intended. For example, at least 96 records of bluefin shipments to Japan in 2008 and 2009— equivalent to 5,000 tons— could not be traced back to a ranch or vessel in the database.

Bluefin's Top Market

Frozen bluefin tuna landing at Shimizu and other ports are trucked at temperatures of minus 55 C to major markets throughout Japan, including Tsukiji — a landmark in central Tokyo and the world's largest seafood market. More than 450 species of fresh, frozen, and processed seafood are offered on any given day at the market. Fish valued at \$5.2 billion flowed through Tsukiji in 2009, according to the Tokyo Metropolitan Government.

With operations leased out to seven wholesalers and more than 700 intermediary wholesalers who deal everything from flowers and chicken eggs to Japanese pickles, the giant, sprawling market can be a busy place. Early morning visitors are likely to take in fast-paced auctions that run via a system of nods,

winks, and arcane signs mostly unintelligible to outsiders, while unique turret trucks buzz around a maze of puddle streaked alleys.

Auctions may be the most visible sign of economic activity surrounding tuna, but today nearly all of the frozen and farmed bluefin entering Japan is sold by wholesalers directly to buyers.

Japan's big trading houses and fishing companies control most of the complex trading structure that moves bluefin from Mediterranean ranches to Tsukiji and other large markets, and from there to food stores and restaurants across Japan. As the Japanese developed a taste for toro, the fatty belly flesh of the bluefin, companies ranging from corporate giants Mitsubishi and Soiitz to seafood traders like Maruha became instrumental to the ranching business that ballooned in the Mediterranean in the mid-1990s. The Japanese teamed up with local partners from Spain to Croatia, financing fishing campaigns in advance, providing technical support, and underwriting loans for ranches.

"They invest in all of that, and in the end they are the bosses," observed Dalibor Kustura, a Croatian bluefin fisherman referring to Japanese interests in Mediterranean ranches. "They sell fish and everything. They are not owners, but they are owners."

With Japanese support, ranching dramatically changed the outlook of the bluefin industry in the Mediterranean. Instead of fishing. killing the bluefin and landing it at ports, the fish were towed live sometimes for months — to sea ranches where they were fattened for as long as a year before being slaughtered and shipped in huge reefer vessels slated for Japan. Ranches spread across the Mediterranean, some in little regulated places like Cyprus, Turkey and Tunisia. With live fish in underwater pens, the ranches proved to be easy places to hide illegally caught bluefin. Indeed, the facilities quickly became a worrisome counterpart to the oversized and out-of-control Mediterranean fleets of purse seining vessels, ships equipped with giant nets capable of catching entire schools of the fish

Fleets routinely overfished their ICCAT-established quotas, sometimes by 100 percent, and ranches hid what they were doing. The ranches, in effect, "laundered" the extra fish by under-reporting the amount they took in and manipulating fattening ratios to account for the weight of the off-the-books catches, according to interviews with ranchers, inspectors and officials.

Illegalities occurred, fishermen and officials said, because the demand for bluefin in Japan was so huge. "The Japanese needed it. They wanted more and more. Anything," said a scientist who works closely with the bluefin industry in Croatia.

Japan's taste for tuna is a rather modern trend. In fact, up until the mid 19th century, the Japanese found the easily spoiled, bloody tuna fish unappealing. Some decades later, exposure to Americanstyle foods during World War II created demand for fattier fish, say historians. But it wasn't until the 1960s that Atlantic bluefin from North America entered the local market.

"Market Anomalies"

As concerns over Eastern Atlantic bluefin mounted in Europe, across the globe, Japanese officials were facing fallout from a similar pattern of illegal fishing in the southern oceans. Sparked by concern from Australia over dwindling stocks, a 2006 investigation commissioned

by the Australian and Japanese governments revealed two decades of massive overfishing and laundering of southern bluefin tuna, a sister species to the Atlantic bluefin tuna that swims in the Pacific and Indian oceans.

The findings of the 186-page investigative report, modestly titled Independent Review of Japanese Southern Bluefin Tuna Market Data Anomalies, were so damning that for years the study has been withheld from the public. Names of major wholesalers at Tsukiji were replaced with letters A through E.

ICIJ obtained a copy of the confidential report. It shows that since 1985 Japan's poor regulation and enforcement allowed a whopping 178,000 metric tons of southern bluefin overcatch to slip through the markets undetected. This off-the-books trade was valued at up to \$6 billion.

The fish had been laundered through a litany of methods. Some were imported as other, less valuable tuna species before being relabeled as bluefin at market. To avoid taxes, fish caught by foreign vessels were processed and brought to market as Japanese. Some imports were under-reported or not reported at all.

The revelatory report was discussed semi-publicly twice: first, at a July 2006 special meeting in Canberra, Australia, of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the regulatory body charged with protecting the stock; and again three months later at the annual commission meeting in Miyazaki, Japan.

The mood at the Miyazaki meeting was particularly tense, attendees recall. "If this overcatch had not occurred, we estimate that the fishery would be five to six times larger than it is at present — well on target for our original goal to rebuild this fishery to 1980 levels by 2020," said Glenn Hurry, then Australia's CCSBT Commissioner at the Miyazaki meeting. "It actually makes the level of overcatch almost unforgivable."

Glenn Sant of the environmental group Traffic Oceania, who attended the Miyazaki meeting, said that for a long time the stocks of southern bluefin had been decreasing and there was pressure on all countries to constrain the catch. However, CCSBT members were concerned that there was neither enough monitoring of the market nor sharing of accurate information, and also that Japan had not shown much

management initiative. "For many years Japan said that their catch was in conformity with the allowed quota," Sant said. "But suddenly, it was put on the table how big their catch was."

At first, Japanese officials were critical of the findings. They responded that Tokyo would not "accept estimates blindly" and branded the results "one-sided" and of "low reliability," according to the Miyazaki meeting report. Still, Japanese CCSBT delegates announced that their country had initiated "a drastic improvement" of the southern bluefin tuna management system. The new system set nontransferable quotas for individual vessels and mandated tagging for each landed bluefin to keep track of the trade. Equally important, the country's 6,000 ton quota was cut by half for each of the next five years.

The tension was so high over the study results that the CCSBT sealed the report, alleging it contained "commercially sensitive information." Every researcher who took part in its drafting was required to sign a nondisclosure agreement.

The secrecy even extended to scientists writing about the report's findings. Tom Polacheck and Campbell Davies, two marine biologists at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's main science agency, were only allowed to loosely reference the report in two 2007 papers they co-authored. "The documents are apparently confidential not because they reveal 'commercially sensitive' information," Polachek told ICIJ, "but because they deal with a topic for which full disclosure and open discussion is unwelcome."

A Change in Japan?

The illegal practices, widespread overfishing, and lack of oversight were all patterns repeating themselves back in the Mediterranean. as the industry steadily depleted the Eastern Atlantic bluefin to feed Japanese demand.

But stung by the southern bluefin report, and with environmentalists raising alarm about the Atlantic tuna, Japanese fisheries officials were finally paying attention. Matters reached a head in 2009 as talks of an impending CITES ban on bluefin trade intensified.

Japan's no-questions-asked policy finally began to change. Relying on the new Bluefin Tuna Catch Document Scheme, which gives each catch a unique identifying number allowing regulators to track a catch from vessel to market, Japanese officials started to closely scrutinize suspicious shipments. By the end of the year, they had taken the unprecedented step of refusing entry to more than 3.500 tons of Atlantic bluefin — a sixth of their entire supply that year.

Among the issues flagged by the Japanese: holes and inconsistencies in the paperwork; bluefin that had been fattened so rapidly that the rates were biologically impossible; ranches that had reported killing more fish than they ever acquired; and bluefin that failed to meet the minimum legal size.

Ranchers in the Mediterranean began to despair as they saw their prized bluefin pile up for months in deep-freeze storage houses in Japan. In some cases, shipments were refused even before they left the ranches. In the case of Malta, almost its entire bluefin production. worth up to €40 million, was halted, according to Malta Director of Fisheries Control Andreina Fenech.

Japanese officials became overly meticulous and bureaucratic, ranchers complained. "They started refusing import approval of bluefin consignments for trivial issues that in the past were resolved with some mail correspondence with the importer," said Apostolos Tzoumas, a rancher in Greece.

Some ranchers and environmentalists interpreted Japan's increased controls as a public relations campaign in the lead-up to the March 2010 CITES meeting. At CITES, amid international news coverage, Japan ultimately marshaled the support of a large number of countries, and defeated the bluefin ban by 68 votes to 20. But relations had grown particularly tense with EU fisheries officials. who had supported the CITES listing, albeit with conditions.

With Japan refusing millions of dollars in precious Mediterranean bluefin, EU officials began giving profuse explanations to Tokyo as to the legality of the suspicious shipments. In June a delegation of EU officials went to Japan to smooth things over for their ranchers. Diplomacy worked — most of the stopped shipments have now been cleared by the Japanese, with the exception of about 800 tons that are still under investigation, according to Japanese officials.

Whether posturing or not, Japanese officials are keeping a tough public stance. Asked about the responsibility of major Japanese traders in the bluefin trade irregularities, ICCAT delegate Miyahara, who works for the Fisheries Agency of Japan, said his colleagues have repeatedly conducted "guidance meetings" for the companies. "We have put the burner under them," he noted. "If they cannot prove that the process by which they are producing fish is transparent and legal, then their fish will not be allowed into Japan." Miyahara declined to name the major Japanese buyers of the stopped consignments. "People would get angry if I mentioned specific company names," he explained.

Mitsubishi's Freezers

Mitsubishi, a corporate giant best known for trading in cars, steel and chemicals, owns subsidiaries that control about 40 percent of the bluefin market in Japan. When asked by ICIJ, Mitsubishi officials would neither confirm nor deny that they were the ultimate recipients of some of the stopped Mediterranean shipments. The company did say that the majority of the BCD paperwork for the bluefin caught in the Mediterranean in 2009 was "technically inadequate," and that it had worked closely with the Ja-

pan Fisheries Agency to ensure that bluefin shipments to Japan "are compliant."

Starting in 2008, Mitsubishi has been putting out statements pledging to cut off any suppliers who are in violation of the law. While the pledges are welcomed by environmentalists, the complexities of the bluefin market and the many layers of companies in the supply chain help dilute responsibilities. "Their way of doing business is to draw a line between themselves and the site-related issues," said Miyahara, speaking generally about large Japanese trading companies and distributors of bluefin tuna.

Mitsubishi also denied to ICIJ a charge that has dogged the company for months: that the company has been stockpiling bluefin tuna to corner the market, and that it holds a two-year supply or more in deepfreeze storage houses in Japan. "In no way, shape or form do we speculate on [bluefin tuna] or 'stockpile,'" reads a company statement.

As of last year, Mitsubishi did appear to have an ample amount of bluefin at hand. ICIJ reporters in Croatia obtained the minutes of a meeting on July 9, 2009, between representatives of Mitsubishi, Drvenik Tuna — a Croatian ranch



Mitsubishi Corporation is the single largest buyer of Atlantic bluefin. Scilla Alleci

co-owned by Mitsubishi the mayor of Marina Municipality, a coastal city in southern Croatia. Representing Mitsubishi was Yukio Shinano. According to the minutes, Shinano stated that his company had "enough warehoused and unsold tuna to last for a period of two years." He went on to explain that bluefin sales in the Japanese market were "very bad," which had led to an increase in the company's stocks of the fish.

A Taste for Tuna

Whatever the size of their stockpiles, Japan's marine traders hold the key to preserving the future of the bluefin tuna. Given their dominant role in the industry as financiers and consumers, much depends on whether they — and the Fisheries Agency of Japan — are serious about cracking down. Enlightened self-interest would suggest that the Japanese want to preserve one of their favorite fish, and, indeed, some environmental groups have held what they say are fruitful talks with Mitsubishi and other companies involved in the trade. And, at least for now, the Japanese are talking tough. In a September interview with ICIJ, ICCAT delegate Miyahara vowed that Japan would support "a temporary halt" of ranching in the Mediterranean if the illegal trade continues.

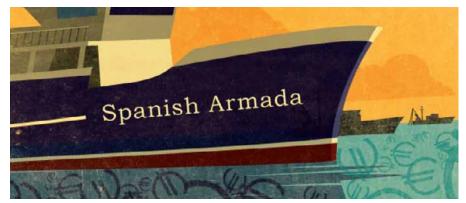
Market forces may prove too powerful a draw, however. Loosely regulated North African and Turkish fleets are increasing their roles in supplying bluefin, and there are worrisome reports of Japan-bound fish being laundered through China. The Japanese also could prove reluctant to take the hard steps needed to preserve the bluefin, as environmentalists charge they have with whales. Despite years of widespread international criticism and harassment at sea, officials in Japan have been unyielding on the whaling issue, which is widely viewed there as an unfair attack on a long-standing tradition. And the market for whale meat is relatively small, worth about \$85 million annually, whereas bluefin sushi and sashimi are a \$500 million business.

Still, the situation with bluefin is unlike that of whales, say Japanese environmentalists. "Bluefin tuna and whale issues are fundamentally different, with different histories. different production and different consumer structures," said Aiko Yamauchi of WWF Japan.

Miyahara, for his part, is reassuring. The Japanese, he says, could deal with a slowdown in the supply of bluefin, and give the prized fish time to recover. "The realization that it is not necessarily a good thing to be able to eat a lot of tuna at any one stage is spreading throughout Japan," he said. "People would learn to be patient."

In the end, the fate of the bluefin depends on whether Tokyo is serious about cleaning up the bluefin trade. "These checks need to be made more severe," said WWF's Yamauchi. "We hope this new stance does not end in political posturing."

Traver Riggins, Scilla Alecci, and Miranda Patrucic contributed to this storu.



Ajani Winston/iWatch News

Nearly €6 Billion in Subsidies Fuel Spain's Ravenous Fleet

AS STOCKS CRASH, 1 IN 3 FISH PAID FOR WITH PUBLIC MONEY

By Kate Willson, Mar Cabra and Marcos Garcia Rey
Published Online: October 2, 2011

ECADES of overfishing have left Europe's fish stocks in peril and its fishermen in poverty. It's an impasse paid for by EU taxpayers. Yet a proposed revision of the EU's fishing law, hailed as sweeping reform, is rapidly losing momentum.

A look at the industry's biggest player — Spain — shows what officials are up against. Billions of euros in subsidies built its bloated fleet and propped up a money-losing industry. All the while companies systematically flout the rules while officials overlook fraud and continue to fund offenders, an investigation by the ICIJ has found.

"Spain has earned its bad reputation," said Ernesto Penas Lado, director of policy and enforcement at the European Commission's Directorate-General for Maritime Affairs and Fisheries. "The problem is others don't have the reputation and deserve it just as much."

Spain may not be alone. But as the EU's most powerful fishing fleet, it is the starkest example of a failed EU policy, critics say.

The Spanish fishing industry has received more than €5.8 billion (\$8 billion) in subsidies since 2000 for everything from building new vessels and breaking down old ships to payments for retiring fishermen and training for the next generation, an unprecedented analysis by ICLI shows. Subsidies account for almost a third of the value of the industry. Simply put, nearly one in three fish caught on a Spanish hook or raised in a Spanish farm is paid for with public money.

ICIJ's analysis is the first in-depth look at just how much public aid Spain has received for fishing — primarily from EU taxpayers, but also from Madrid and regional governments. The country has cornered a third of all the EU's fishing aid since

2000, far more than any other member state. The central government doles out even more for things such as low interest loans and funding for its largest industry associations, which in turn lobby the EU for more industry subsidies, records show. Since 2000, the sector has avoided paying €2 billion (\$2.7 billion) in

Out-of-control subsidies encourage countries to build up already oversized fleets that are rapidly depleting the

seas.

taxes on fuel to the Spanish Treasury.

Public monies also fund a surprising range of services. More than €82 million (\$114 million) has been spent to promote the fishing sector through advertising and at trade shows. After fishing vessels were hijacked by pirates

in the Indian Ocean, Spain in 2009 changed its law to allow vessels to hire private security forces onboard, and then it helped foot the bill to the tune of €2.8 million (\$3.9 million).

The root of the problem, regulators say, is that out-of-control subsidies encourage countries to build up already oversized fleets that are rapidly depleting the seas.

"Fish are not an unlimited re-

source," said fisheries economist Andrew Dyck of the University of British Columbia. "When the public purse is the only thing propping this industry up, we are paying for resource degradation."

The European Commission itself recently concluded that "too many boats continue to chase too few fish." It blamed the situation, in large part, on subsidies.

Fish, Not Human Rights

One of the most controversial forms of public aid pays for foreign fishing licenses. With its own waters increasingly empty of fish, the EU buys rights to the fishing grounds of developing countries such as Morocco, Mozambique and the Ivory Coast.

Green groups, fishing experts and some EU politicians have criticized the agreements, saving European fishermen take advantage of poor countries that often lack knowledge and resources to protect their fish stocks. And key agreements cost more than they return on the value of fish: that is the case with Morocco, where each euro invested returns only €0.65 in value added, according to a study funded by the EU.

The Spanish industry has received more than €800 million (\$1.15 billion) in foreign licenses over the past decade — about twothirds of the EU licenses overall. according to the ICIJ analysis.

The agreements have the support of Carmen Fraga Estévez, the EU Parliament's most powerful legislator on fisheries issues. A sharptongued politician with an encyclopedic knowledge of the industry, Fraga served as fishing secretary in Spain and has held a seat in the Parliament's committee on fisheries — which she now chairs — for 17 years. Her loyalty to the industry appears to be so deep that when she had to choose between human rights and fish, she voted for the latter.

"The Fisheries Committee has to discuss fisheries issues, not human rights," she was quoted in the press as saving when in 2009 the committee for the first time voted down a fishing agreement. Days before the vote, 157 civilians died after Guinea's totalitarian regime opened fire on pro-democracy protesters. The agreement would have handed the Guinean government €450,000 (\$639,000) a year for fishing licenses.

Fraga Estévez declined requests for interviews from ICLI

The €6 Billion Fish

Spain's fishing sector has received more than €5.8 billion in subsidies from the European Union and Spain since 2000, representing almost a third of the value of the industry. Simply put, nearly one-in-three fish caught or farmed is paid for with public aid. Here's how some of that money was spent.

Private Security: €2.8 million

In 2010, fishing companies received money to hire private armed guards to protect vessels in the Indian Ocean. Much of the money went to just six companies.

Building Up Fleet: €558 million

Capacity is boosted by construction and modernization of fishing vessels, replacing engines, and improving energy efficiency and on-board working conditions.

Fishing abroad: €803 million

The European Commission buys fishing rights in foreign waters on behalf of the EU fleet. Spain gets more than 60 percent of those licenses.



Subsidies pay for advertising and promotional campaigns as well as participation in trade fairs.

Breaking Down Fleet: €330 million

Breaking down or "scrapping" older vessels is one way countries have tried to reduce their bloated fleets

Fuel: €2 billion

The fishing industry has avoided paying the hefty fuel taxes levied on other Spanish citizens. ICIJ calculated what the industry would have paid if it were subject to the same taxes as the average citizen.

Spanish member of the European Parliament (MEP) Josefa Andrés Barea said the subsidized foreign fishing licenses are vital. When Spain entered the EU in 1986, very few Spanish vessels were allowed in the Union's waters. So fishing in foreign waters was — and still is the only way for many ship owners to make a living. And if Spain isn't fishing, she said, less savory global players will scoop up the catch instead.

"There's a fundamental problem here which is that major [fishing] powers like China will be there if we're not. And they don't have any rules," Andrés said. "They're much more predatory than we are."

Fewer Fish, Poorer Fishermen

EU waters are among the world's most exploited. Scientists say three quarters of assessed fish stocks are overfished. Eels once served as a delicacy are so depleted scientists doubt they can recover despite a Europe-wide rescue plan. Irish Sea Cod, Baltic Sprat and West of Scotland herring are all on the downfall.

The trend stretches across the globe. In 2006, the UN's Food and Agriculture Organization estimated that 75 percent of the world fish

stocks were fished to the very limit of — or beyond — sustainable levels. In its latest report, from last year, that figure had risen to 85 percent.

"Europe has a long and dark history of overfishing," said Boris Worm, one of the world's most renowned marine biologists, working at Dalhousie University in Nova Scotia, Canada. In a 2003 study, Worm showed that industrialized fishing has, since 1950, emptied the oceans of nine out of 10 fish longer than 20 inches such as salmon, cod and halibut.

Fewer fish mean fewer — and poorer — fishermen. Across the EU, the sector often costs taxpayers more than it produces. According to a recent report by the environmental group Oceana, at least eight countries received more money in public aid in 2009 than the value of their landed fish.

The fishing industry was the only segment of Spain's economy that shrunk in the 2000s. The northwestern region of Galicia more than anywhere else in Europe relies on the industry — and the subsidies — to stay afloat. Yet the area lost a third of its fisheries-related jobs in the decade leading up to 2006.

In the Galician port of Vigo on



More fish are moved across the docks of the Galician port of Vigo, heading for consumers' plates, than in any other port in the world. Puertos del Estado

the Atlantic coast, more fish pass across the docks headed for consumers' plates than in any other port in the world. Coastal towns are riddled with signs boasting subsidized fishing projects. Politicians include the sector as a central theme in their campaigns.

The industry's power was propelled by the 1960s push for industrialization by the fascist Franco regime. Franco himself was an avid

fisherman and a Galician by birth.

"Economically the [fishing] industry is between the tomato and the potato. But politically it is more important than any other industry," said EU's head of fisheries control Valérie Lainé. The sector "has always been protected by the government — without the industry, Vigo would be dead, Galicia would be dead."

The powerful Galician industry

group ARVI, which boasts of its close ties to lawmakers, acknowledged that fishing wouldn't be viable without public funding. In a recent position paper, it encouraged politicians to support subsidies to modernize outdated vessels, fish in foreign waters and build new onshore cold storage.

Meanwhile subsidies steadily flow to the region, but sometimes only make things worse.

Víctor Muñiz has relied on fishing for decades. He used to own vessels, as did his father before him. Not anymore. Now they operate a fish processing plant in the Galician town of Meaño. The factory was renovated in 2009 with EU subsidies to process and freeze up to 300 tons of fish per hour; it was expected to employ 100 people. But the brand new machinery stands silent.

"There should be 10 trucks with mackerel here," Muñiz said in a bitter tone as he walked through the 8,000 square meter plant in April. But within 20 days of the start of the season, most vessels had already scooped up their entire mackerel quota.

Muñiz said the quota is too low, but his major frustration is that too many factories like his were subsidized in the first place.

"You present a €2 million project, and they give you 60 percent. You've told them how much fish you're going to produce and what kind. Somebody should have told the processing plants: 'No, sorry, this is the quota for mackerel."

Policy in Shambles

By 2006 it was clear that EU's fishing policy was in shambles. Fleets were bloated. Stocks were crashing.

Researchers commissioned by the EU drafted a series of reviews of the community's fisheries law — the Common Fisheries Policy, which will govern the fleet for at least a decade. One little-known document is informally called the "Frankenstein report" because of its damning conclusions. It lays the blame squarely on influence-driven subsidies: The sector would be broke without them.

Swedish Green Party MEP Isabella Lövin said the key problem of the EU fisheries policy is that it was "modeled after agricultural policy. You provide fertilizer and farming equipment, you get more vegetables. So they used the same model in fishing — you increase the number of boats, you get more fish. But it doesn't work that way," she said. "You end up with less fish."

Subsidies over the past decades built a bloated EU fleet that plundered fish stocks. Efforts to reduce the capacity have focused on paying companies to break down old vessels. But that reduction has been undercut by subsidies given to modernize existing vessels, enabling them to catch more and more fish.

According to the 394-page "Franreport", EU-countries kenstein need to cut capacity in half and severely restrict — and adhere to quotas for fish stocks to recover.

But Spanish Fishing Secretary Alicia Villauriz said policymakers must consider more than capacity. "You cannot make a statement saving: If you reduce the fleet everything will be more profitable. You'll also destroy a lot of employment." Any transition, she said, would need to happen slowly.

That the European fleet was bloated was nothing new — calls to cut it down began in the 1980s. But the aid kept rolling in to build new ships and modernize old ones. "The sector has managed to attract more financial resources than would be justified under normal conditions," the "Frankenstein" report said.

The EU researchers also found that groups set up to advise the Commission on a new fishing policy — largely made up of industry representatives — consider the platform "mainly as a channel for political influence, and secondly as a forum for discussion" of the new law

In short: They were lobbying for their interests instead of trying to find solutions.

The EU-commissioned "Frankenstein" report concluded that EU policy did "not provide the right incentives for responsible fishing, or may even induce irresponsible fishing."

Turning a Blind Eye

Protected stocks worth as much as \$23 billon (€16.7 billion) are illegally traded worldwide every year - making the black market in fish more valuable than smuggling stolen art. Many of the players in the illicit trade set up shell companies in places that do not adhere to international conventions protecting the oceans.

Spanish nationals register more "flag-of-convenience" to vessels countries than any other besides Panama, Honduras and Taiwan which are themselves considered nations where a ship-owner can register its boats without having to adhere to strict tax or safety requirements, and can operate without oversight.

It is rare for the Commission to take a member state to court. The EU Court of Justice — Europe's highest court — has found Spain guilty three times of failing to implement EU fishing laws. Spain has refused to enforce catch limits, police its fleet or impose adequate punishment, the court ruled.

One of Spain's most widely criticized shortfalls is policing its port of Las Palmas on the Canary Islands off the Moroccan coast. Illegal shipments of fish plundered from West African waters regularly filter into the EU through the port, according to multiple investigative reports.

Fishing Secretary Villauriz said control in Spain is expensive because of the sheer size of its industry — more than 10,000 fishing boats, 3,084 miles of coastline and 47 major ports. "But that doesn't mean we're not taking care of our obligations in control matters" she added.

The Spanish Ministry of Environment, Agriculture and Fisheries told ICIJ that inspections have nearly doubled since 2004 to 9,323

in 2010. That's still far from the number of inspections other countries are carrying out — the United Kingdom logged nearly 50,000 inspections in 2004.

But some things don't appear to have changed. The number of inspectors in the port of Vigo — Europe's largest fishing port — remains the same as in 2003, when EU officials blasted Spain for the measly number of national inspectors at its ports. Today four inspectors oversee more than 700,000 metric tons of fish a year — that's nearly 20,000 kilos of fish per inspector for every hour of every day of the year, including Christmas.

Subsidized Offenders

Spanish officials, like those in many other EU countries, do not take into account whether its nationals have been involved in the illegal fishing trade before doling out public aid.

Neither Spain nor the EU will make public information about offenders who have been fined for illegal fishing — also called Illegal, Unreported and Unregulated fishing (IUU). But a sliver of insight can been gleaned from a database of appellate court rulings. ICIJ reviewed every court case adjudicated since

2000 in which subsidized companies unsuccessfully appealed fines imposed by the Spanish government. In more than 80 percent of cases in which the appellant could be identified, firms continued to receive subsidies after the court had upheld penalties, the analysis shows.

There's only one case in which the ministry of fisheries tried to prevent a company from receiving subsidies, according to ministry officials.

That Spanish ship-owner so exemplifies the quagmire as to make it a near cliché. Government officials and international regulators have repeatedly targeted Vidal Armadores for its alleged involvement in a decade-old international network of pirate fishing vessels, court and law enforcement records show. Brussels demanded multiple times that Spain recover subsidies and "take action against" Vidal Armadores. At least through 2010, however, Spain and the EU continued to pay the firm — at least €8.2 million (\$12 million) since 1996. Last year the government finally fined the company and cut off aid, but the case is pending appeal.

In an interview with ICIJ, one of the firm owners, Manuel Antonio

Vidal Pego, denied allegations of illegal fishing and said the company was entitled to the subsidies it received.

Like Vidal Armadores has in the past, seafood giant Pescanova targets Patagonian toothfish — sold in the U.S. as Chilean sea bass. Unlike Vidal Armadores, Pescanova is a member of an association that fights illegal fishing. In Spain, it boasts a trusted motto: "Lo bueno sale bien," translated as "Good things go well." But the company has its own troubles.

Last vear Pescanova's U.S. subsidiary pleaded guilty to illegally importing \$1.2 million worth of toothfish. While that case — nicknamed "Operation Toothless" was pending, the U.S. Department of Justice launched a second investigation into another allegedly illegal importation. The status of the second investigation is unknown.

Pescanova is one of the Europe's three largest seafood companies. with a fleet of around 100 boats fishing worldwide and annual sales of €1.53 billion (more than \$2 billion). Yet, since 1995 the company has pulled in more than €175 million (\$250 million) in subsidies, according to the ICIJ analysis.

Pescanova repeatedly declined

requests for interviews from ICIJ. "We've had 50 years of positive history," said spokesman Angel Matamoro during a brief phone exchange. "I don't think you're asking about themes that will promote our image."

Regarding the U.S. investigations, he said, "Whatever we had to say, we said it to the U.S. court. The company follows scrupulously the law in every country it's in."

Another firm that broke the law and continued to receive aid is Albacora, one of the largest tuna companies in Europe. The company's boat Albacora Uno last vear was fined \$5 million — the largest fine in U.S. history — for illegally placing fishing gear in U.S. waters multiple times during a two-year period. The boat was built with subsidies and used subsidized fishing licenses. And even after the U.S. fined the firm, Spain granted Albacora €1.8 million (\$2.6 million) worth of subsidies to fish in foreign waters.

The Spanish ministry of fisheries told ICLI it had fined Albacora but will not deny the company further aid.

Albacora director Jon Uria said the 67 infringements were an "isolated" incident. The company was unaware of the infractions, he said,

until the U.S. government alerted executives. In his view, the fine was disproportionate to the offense.

A Radical Reform?

Javier Garat is the Spanish industry's most visible and eloquent lobbyist. He was born into the family that cofounded Albacora. Garat is now a shareholder of the company. but he says that doesn't influence his lobbying.

In his meetings with officials, he often requests subsidies for the sector. "That money has generated wealth," he said. "It's been used to modernize an obsolete fishing sector" so that today "we have better. more modern, more secure vessels."

Garat heads Spain's powerful lobbying group Cepesca as well as the Europe-wide industry group Europêche — both of which operate with EU subsidies. In the halls of the ministry of fisheries in Madrid, the word is that Garat will be appointed Spain's next fishing secretary.

Following closed-door meetings at the ministry in April, Garat and Spanish Minister of Environment, Agriculture and Fisheries Rosa Aguilar announced that the ministry and Cepesca were devising a "common roadmap to defend Span-



Industry lobbyist Javier Garat speaks with the EU's top fisheries official Maria Damanaki following a conference in Brussels. Mar Cabra/ICIJ

ish interests" in the overhaul of the EU fishing policy.

After two years of deliberation, the European Commission presented its proposed legislation in July. No one but the Commissioner herself appears satisfied with the draft. But the negotiations have just begun. Political alliances and lobbying will determine the final language to be voted upon before the law goes into effect January 1, 2013.

Garat called the reform draft "cowardly." He said the Commis-

sion succumbed to pressure from environmentalists and biased media "without taking into consideration the repercussions on the fishing sector." In his view, the state of the fish stocks is not as "catastrophic" as Commission officials appear to believe.

Yet it seems the industry's efforts have staved off its worst nightmares.

Nothing came of ambitions to make overfishing a crime, as happened in the U.S. under the Magnuson-Stevens Act, or to require quotas be consistent with what scientists say is biologically sustainable. There was no proposal on how to limit the oversized fishing fleet or to implement quotas in the fishing agreements with foreign countries.

EU's top fisheries official Commissioner Maria Damanaki told ICIJ her proposal is "radical." She said Brussels will stop directly subsidizing the industry. "Now we are going to give money in a very prudent way and under very strict conditions," she said. "And we are going to ask for paybacks in the case of illegal fishing."

Damanaki also highlighted proposed changes in the fishing partnership agreements. "We are going to call them sustainable fisheries agreements because we're going to fish only for the surplus — if there is any surplus," she said. "Also, we're going to respect human rights in these areas."

Given the hype, Green party MEP Lövin said, "I had expected a clause on human rights." But the human rights clause originally in the legislative text was missing from the final proposal.

Lövin ran for office on a ticket pledging to change the fishing policy. She said the proposal is a lot less radical than she had hoped — especially as the coming negotiations will water it down even more. "The law can't allow for politicians to compromise with the environment when long-term environmental goals clash with short-term profit," she said.

Ernesto Penas Lado, director of the European Commission's fisheries policy unit, said the mindset in Spain and among fishing nations globally is that no single country feels responsible for the fate of the fish in the sea.

"It's the tragedy of the commons," he said. "Because the resources belong to no one, they belong to everyone." In the EU, 27 countries have to come to a consensus on a common fishing policy. There's no mentality of making a sacrifice for preservation, Penas said. "People think: Whatever I do not fish, my neighbor will."

Brigitte Alfter (Denmark), David Fredrik Laurin (Sweden) and Cabo (Spain) contributed to this story.

FOLLOW-UP

Fishing industry rep calls ICIJ investigation an 'explosive cocktail that damages the Spaniards'

FOLLOW-UP

Fishing Industry Rep Calls ICIJ Investigation an 'Explosive Cocktail that Damages the Spaniards'

By Mar Cabra
Published Online: October 27, 2011

ADRID — The investigation of the ICIJ is part of an "international campaign against Spain and its fishing industry," representatives of the Spanish fishing industry announced at a press conference held today in front of the Spanish Fishing Secretariat in Madrid.

ICIJ's investigation published earlier this month in leading international media outlets, including Spain's *El Mundo* and *El País*, exposed how the Spanish fishing industry has received more than \$8 billion (€5.8 billion) in subsidies since 2000 to expand its capacity and global reach. The analysis showed that nearly one-in-three fish

caught on a Spanish hook or raised in a Spanish farm is paid for with public money. That public fortune supports a fleet with an extensive record of flouting regulations and breaking the law. It also spurs the depletion of threatened fish stocks.

After the publication of ICIJ's investigation, the European Union's top fisheries official, Commissioner Maria Damanaki, said her office is investigating Spanish shipowners' involvement in illegal fishing and possible misappropriations of EU funding. The probe into the Spanish fishing industry has also prompted a parliamentary question in the Dutch Parliament and moved Europe's largest department store, El

Corte Inglés, to pull out a batch of more than a ton of mislabeled fish from its shelves.

Nine industry groups present at the press conference said they wrote a letter to the Spanish Prime Minister, José Luis Rodríguez Zapatero, asking for the government's support. Trade unions initially had been included in the campaign, but those groups were absent from the letter produced by the industry. One trade group announced it did not agree with the campaign's "tone and objectives." A draft of the letter provided to the press does not allege inaccuracy in ICIJ's reporting. Instead, it focuses on some ICIJ's funding sources — foundations such as Adessium in the Netherlands, Waterloo in the UK and the Oak Foundation in Switzerland, ICLI is the international arm of the Washington-based Center for Public Integrity, an independent, nonprofit investigative journalism organization. CPI and ICIJ make all their funding information available on their website.

"The figures are tweaked," said Javier Garat, Spain's main fishing lobbyist and secretary general of the Spanish fishing confederation, Cepesca. "True and false information is mixed in order to have an explosive cocktail that damages the Spaniards."

When asked to identify inaccuracies in ICIJ's investigation, the groups did not provide specific examples. Garat said Cepesca is still reading the articles to give a more detailed response. He criticized the inclusion of fuel tax breaks as subsidies.

According to ICIJ's calculations, since 2000, the Spanish fishing sector has avoided paying \$2.7 billion (€2 billion) in taxes on fuel to the Spanish Treasury. Organizations such as the UN Food and Agriculture Organization and the World Bank as well as renowned economists consider this form of public aid a subsidy.

The industry representatives also criticized recent reports on Spain and EU-wide fishing subsidies by the environmental groups Greenpeace and Oceana.

The European Union is currently revamping its Common Fisheries Policy, a legislation that affects its 27 members and will rule for approximately a decade. At the same time, Brussels officials are determining how much and what types of fishing subsidies to provide the industry. Spain is the EU's most powerful fishing fleet and has received one-third of all the EU's direct fishing aid since 2000 — far more than any other member state.

Spain Doles Out Millions In Aid Despite Fishing Company's Record

By Kate Willson and Mar Cabra
Published Online: October 2, 2011

NE OF THE world's most controversial fishing operations — a family-controlled company in northwestern Spain linked to more than 40 cases of alleged illegal fishing — is changing tack. Antonio Vidal Pego, co-owner of Vidal Armadores, says the company is folding, and he's devoting himself to renewable energy and fish oil. But fisheries officials in Brussels are not convinced.

Trafficking in fish is a thriving global black market. It fuels organized crime and the rapid disappearance of the oceans' most valuable species, including top predators that scientists say are vital to the balance of the marine ecosystem. Nine out of 10 large fish are already gone, marine biologists say.

Many claim Vidal Pego has been one of the most infamous players

in this trade — a so-called "pirate" fisherman.

"You can see I don't have a hook, a parrot on my shoulder or a wooden leg," the 38-year-old says as he sits down to lunch in a private room at Restaurante Berenguela in Santiago de Compostela, the capital of the Galician region. He says it is his company's first on-the-record interview.

"We want to erase a story that has never been erased because there's always someone trying to revive it," he says. "So much damage has been done by the bad press, we've gone from a dynamic company to nothing."

Vidal Pego — known as "Toño" — says his family business Vidal Armadores, "ship-owners" in Spanish, has been forced to halt operations. He insists that the company has



Regulators around the world have pointed to Vidal Armadores in more than 40 allegations of illegal fishing. The company's co-owner, Manuel Antonio Vidal Pego, is pictured here with unidentified acquaintances. He says he is the victim of an international conspiracy by big fishing nations. New Zealand Ministry of Fisheries

opened a new chapter and moved beyond its controversial past.

When a reporter brings up allegations of his past involvement in the lucrative illegal trade in Patagonian Toothfish — sold in the U.S. under the more appetizing name Chilean sea bass — he says he and his father have only fished legally.

Yet his response leaves room for debate.

The Consortium International

of Investigative Journalists has reviewed hundreds of records — including court records, government investigative files and official correspondence — from a half dozen countries. They offer quite another picture — one in which the company has systematically employed legal maneuvers to circumvent international laws.

The ICIJ investigation that Vidal Armadores or its affiliates have been repeatedly pursued by government agencies and international regulators for its role in a decade-old network of vessels that entered the remote and protected waters of the Antarctic and targeted toothfish in violation of an international convention.

Since 1999, international fisheries regulators have linked vessels owned by Vidal Armadores or its affiliates to more than 40 instances of alleged illegal fishing — more formally referred to by international regulators as Illegal, Unregulated and Unreported fishing — ranging from using banned fishing gear to targeting protected kitefish shark.

While most of the allegations have not resulted in penalties bevond the inclusion of the boats on international "black lists" of vessels, countries from Mozambique to the U.S. have fined the company or its affiliates five times totaling more than \$5 million. Vidal Armadores or its affiliates have landed in court six times in criminal or administrative cases related to alleged illegal fishing. Vidal Pego pleaded guilty to obstruction of justice in a U.S. federal court in a 2006 case involving an illegal importation of toothfish by a Vidal Armadores affiliate.

But while accusations of illegal

fishing mounted against Vidal Armadores, Spain and the EU granted at least €8.2 million (\$12 million) in subsidies to the family's companies since the mid-1990s, government records show.

The Viarsa Chapter

To a large extent the region of Galicia — home to Europe's largest fishing port, Vigo — is still reliant on fish even though the waters of the European Union are among the most exploited in the world. Three out of four European fish stocks are overfished.

It is here in Galicia that a handful of families have pulled the strings of a transnational network of vessels. And it's the Vidal family that helped many get into the business by navigating the vessel registration process in Uruguay — a base from which many of the blacklisted ships operated. The Vidals set up offices in Montevideo, hired locals to manage and — when legal claims were brought — to take the blame, court records show.

It was one of those Uruguayflagged vessels, the Viarsa 1, that put the Vidals on the radar of law enforcement officials around the world.



This vessel formerly controlled by a Vidal Armadores affiliate was spotted this year fishing without a license in Antarctic waters protected by an international convention. EU officials wonder if it still belongs to Vidal Armadores. New Zealand Ministry of Fisheries

The Viarsa was spotted in a 2003 suspected illegal fishing operation at Heard Island near the Antarctic Peninsula. The Australian patrol vessel Southern Supporter chased the Viarsa for 21 days almost all the way to South Africa — a chase that ended with the Viarsa being escorted back to Australia. Two years and two trials later, the Vidal affiliate that owned the vessel was acquitted in court. The defense had argued that the toothfish in the Viarsa's

hold had been caught before the vessel entered Australian waters.

The Viarsa chase soon became the subject of a critically acclaimed book. "I know that [the author] had to rewrite the end [when we won!]" Vidal Pego said, with an ironic smile.

According to Vidal Pego, after the Australian authorities lost the case. an international campaign started. "There was tremendous pressure against everything that sounded like Vidal Armadores."

Vidal Pego is now the face of the company. He is dressed in a black suit, a light pink chequered tie, flashing shiny silver cufflinks and buffed black leather shoes. He is obliging and affable. The only one in the room who is losing composure is Vidal Armadores' press officer, Foro Hernández, who is repeatedly angered when questions get detailed.

The older Vidal — or "Tucho" does not join the interview. At 59, he is a legend in fishing circles, a pillar of a clan with a long-standing fishing tradition. He went to sea as a kid, long before Spain joined the European Union, when there were few laws governing how much or where he could fish. He has never spoken to the press except to tell them to "get lost" in that traditional language of the region.

Vidal Pego by contrast spent a year studying in Louisiana, carries a Blackberry and zealously guards his well-buffed image. He says he fears seeing his name in Google searches for the next 10 years whenever someone types "illegal toothfish."

But while Vidal Pego wants to put fishing behind him, Vidal Armadores continues to attract the attention of authorities. Just this February, fisheries inspectors from New Zealand snapped pictures from a plane as two blacklisted vessels. which had long been controlled by Vidal affiliates, plied their trade in the toothfish-rich waters of the eastern Indian Ocean, European Commission records show.

The Xiong Nu Baru and Sima Qian Baru were flying a North Korean flag — a country not party to the Antarctic fishing treaty protecting the area. The Sima Qian Baru used to be the Vidal Armadores ship the Dorita, flying a Uruguayan flag, according to official blacklists maintained by fisheries regulators. Before that it was the Magnus, flagged to St. Vincent & the Grenadines in the Caribbean. Before that it was the Eolo, flagged to Equatorial Guinea.

Fisheries enforcement officials cite a litany of loopholes that allow vessels to operate with impunity: vast waters to patrol: the use of subsidiaries in tax havens and constant renaming and reflagging of vessels. Flagging to countries such as North Korea, which are not party to fishing conventions, render enforcement authorities impotent when those vessels enter protected zones.

"It's almost laughable that vessels change their names," said Keith Reid, scientist with the Commission for the Conservation of the Antarctic Marine Living Resources, (CCAMLR), the body charged with enforcing the rules of the Antarctic fishing treaty. "Often you can see the old name underneath. It's like a child's graffiti."

The Vidals operated the Dorita through subsidiaries in Uruguay and Spain, incorporation and vessel registry records show. After it got in trouble, they changed the vessel's registration — as they did with other boats — to countries such as Sierra Leone and Panama, which are not members of the Antarctic fishing treaty.

Vidal Pego says the company sold both the Dorita and the other ship currently flagged to North Korea around 2006 or maybe 2007. New Zealand and EU officials have their doubts. So this March, fisheries officials in Brussels repeated in a letter what has become a frequent request over the years — that Spain investigate whether Vidal Armadores continues to control a pirate fishing fleet in the Antarctic.

Patagonian Toothfish

One likely reason the Vidals and others started plying the remote and dangerous waters of the Antarctic

was the decline of the cod. When seemingly endless amounts of the fish off Newfoundland, Canada, disappeared in the 1990s after decades of intensive catches, the world's appetite for white fish had to be satisfied with something else. Boats went further south, and dipped their hooks deeper until they found the big-eyed, mud-brown bottom dweller that now turns a huge profit on the U.S. market. Chilean sea bass is sold for upward of \$25 a pound, almost twice as much the price of cod. Its stocks have been heavily fished in the past decade.

Spain is home to the most heavily subsidized fishing fleet in the EU, subsidy data shows.

The country also has a long history of failing to enforce catch limits, inspect vessels or punish fishermen who break the law, according to rulings by the EU Court of Justice. And it has continued to fund companies that had been punished for illegal fishing, according to an analysis of court cases and subsidies data by ICIJ. With one of the world's largest fleets, Spain also ranks among the top five countries whose nationals register their ships in places like North Korea, which allow them to keep real ownership a secret and ignore international conventions governing huge swaths of the world's oceans.

Vidal Pego has more than his reputation at stake. His latest venture is an Omega 3 oil factory. Biomega Nutrición, which is slated to receive about €4 million (\$5.7 million) in subsidies from the local government and the EU.

"I'm looking forward to providing people better health through fish-oil supplements," he says. But not everyone thinks he should get the money.

NGOs have protested and so has the European Commission. New European fisheries control legislation enacted last year empowers countries to prohibit public aid from flowing to companies with a history of illegal fishing. Ernesto Penas Lado, director of the Commission's fisheries policy unit, said he is following the case closely to make sure the regional government of Galicia enforces the new law. which may result in the Vidal family not getting the subsidy.

Throughout the years, Brussels officials have repeatedly pleaded with Spain to "take action against Vidal Armadores" and pursue the recovery of public monies.

Penas Lado said Spain has been "too scared" to act against Vidal Armadores, fearing a drawn out court battle, and too worried it lacked sufficient evidence to win a case.

"These people [the Vidals] will fight to the end," Penas said. "They say, 'Hey, why aren't you giving me the subsidy?' And they go to court."

Lucrative Trade

The global black market in fish is worth between \$10 billion and \$23 billion, more than the illicit trades in gold or stolen art. The United Nations categorizes these sophisticated international networks as organized crime. "Like tobacco. trafficking in black-market fish won't incur the same punishment as drugs or arms. Nobody is looking. Because it's fish," said Lt. Cmdr. Daniel Schaeffer, chief of U.S. Coast Guard Fisheries Enforcement. "Any illicit transnational crime is going to be interesting to organized crime."

The black market for toothfish is an especially lucrative business. A vessel fishing illegally can bring in 1.500 tons in a single season — a haul worth \$83 million at a U.S. fish counter.

CCAMLR, the Antarctic fishing regulatory commission, imposes catch limits and drafts regulations against pirate fishing in the southern oceans. Only member countries are legally allowed to fish in the zone, which covers the waters surrounding Antarctica. Boats must be licensed and abide by catch limits. Vessels cannot resupply or transship with blacklisted vessels. Once on a black list, a vessel will find it difficult to dock at many world ports.

"You basically have to be very fast, to get on them before they destroy evidence," said Marcel Krouse, a South African expert on illegal fishing who assisted in the Viarsa pursuit. "That's the fundamental problem: The longer the duration between crime and apprehension, the more evidence gets lost."

And that's only if they get caught. Otherwise fisheries management commissions like CCAMLR have to rely on diplomatic pressure. "There are a lot of loopholes in the system," Krouse said. "How are you going to get any response from North Korea?"

Fished Out

Illegal fishing is becoming a major threat to fish-stocks in the world. The UN estimates that 85 percent of all fish stocks in the oceans are fished to the very limit of — or beyond — sustainable levels.

There are no longer plenty of fish left in the sea, and scientists warn that killing off too many top predators such as cod or toothfish upsets the ecosystem the same way that taking out a keystone would affect an archway.

Long-lived and slow to mature, a toothfish may be 20 years old before it can reproduce. It is especially vulnerable as fishermen target the large, old fish that produce the next generation. Scientists believe the stock is holding steady but their assessments are limited. Toothfish swim almost a mile beneath the surface in remote oceans, and researchers have to rely on legal fishermen for their data.

The waiters at Restaurant Berenguela empty the plates; Vidal Pego has had hake cheeks with tagliatelle. His take on the scientific reports of steady decline in the world fish stocks is "nonsense." He says the quantities of hake in the waters off Ireland are bigger than ever; same goes for cod.

Natives of the remote Galician village of Riveira, a town built around the fishing port, the Vidals are politically connected in the region. They have earned the community's respect for activities such as sponsoring the local taekwondo club or donating money to charities for people with disabilities.

"To me they have always been gentlemen," said Manuel Torres, a skipper from Riveira. And in cases when their vessels were seized, Torres said, "he got everyone out [of jail]. He paid for lawyers."

Luis Pazos, Vidal Armadores' former Uruguayan associate, agrees. "The Vidals are a family of fishermen. They always have been," he said. "Those men think differently. If you start talking about [illegal fishing], they don't understand it; they don't care. Their goal is to fish and maximize production."

Vidal Pego says that he hasn't been in the toothfish business since 2006, the year he and one of his affiliates pleaded guilty to criminal charges in a case involving the importation of illegal catches into the U.S. Based on his entry of a guilty plea to one count of obstruction of justice, the judge gave Vidal Pego probation and ordered him to stay out of the trade for four years or risk spending 20 years in a U.S. prison.

He says Vidal Armadores itself has never been criminally convicted of illegal fishing. That is true. But Vidal Armadores or its affiliated companies have repeatedly been sanctioned in related legal actions, including more than \$5 million in fines for five separate cases.

Two New Zealand fishing inspectors remain troubled by this record.

Paloma V

In May 2008 the Paloma V docked at New Zealand's Auckland port. More than 200 tons of fish weighed down the boat's hold: sea bass slated for U.S. dinner plates, shark fins headed to Portugal and fish liver oil for a Japanese cosmetics company. The fishing master had submitted a required declaration that the ship had not done business with pirate fishing vessels. But fisheries investigators Phil Kerr and Dominic Hayden decided to take a closer look.

The Paloma V was half owned by an Uruguayan subsidiary of Vidal Armadores. And Kerr and Hayden knew that a U.S. judge had ordered Vidal Pego to stay away from the toothfish trade.

After copying the hard drives of the Paloma's computers as part of the port inspection, Kerr and Hayden discovered evidence that they thought might piece together what law enforcement officials from the U.S. to New Zealand had suspected for years: that Vidal Armadores was a central player in a

network of pirate fishing vessels targeting toothfish in the Antarctic.

Records from the hard drive showed blacklisted vessels relied on counterparts with legal licenses from places such as Spain, Uruguay and Namibia, the New Zealand investigators found. Receipts found aboard the Paloma V established that Vidal Armadores paid to provision the boats. Photographs showed transshipments to blacklisted vessels. And numerous emails detailed the sharing of bait, fuel and crew.

One of Vidal Armadores' partners in the Paloma V was interviewed by the inspectors, and they showed him document after document, including photos of the vessel illegally transshipping supplies to the Chilbo San 33 — an earlier incarnation of the Xiong Nu Baru, one of those North Korean-flagged ships spotted this year. Screen-shots from one of the on-board computers showed multiple blacklisted vessels tracked through an online system called Fleetview, suggesting a close coordination among the vessels in the network.

Questions about the Paloma V are the only ones that visibly upset Vidal Pego. He explains that it all was "completely outrageous." He says the computer was the fishing master's personal laptop. But the New Zealand inspection file obtained by ICIJ shows three on-board, standalone computers were inspected.

To Vidal Pego this case is just more of the same: "There's no point in talking about fishing, since I haven't had anything to do with fishing for a long time now."

Emails found onboard the Paloma V show the company Vidal Armadores allegedly directing a whole network of vessels.

The computers contained emails to and from mantoniovipe@gmail. com (Vidal Pego's full name is Manuel Antonio Vidal Pego). Vidal Pego dismisses knowledge of the email account or any network: "I — or nobody I know — is in any type of syndicate."

Vidal Pego says transshipments are common in the high seas because "you cannot go to the supermarket [there]." To him, vessels meet to trade food or even movies — nothing else.

Corporate records also appeared to tie Vidal Pego to the toothfish business well after he promised the U.S. judge he would get out of the trade. Vidal Pego was one of two managers of Vidal Armadores' parent company, Viarsa Cartera.

"What Vidal was doing was very

organized, well structured," Kerr said. "He had a legitimate fleet supplying the illegitimate fleet. When we saw this material, we saw he was obviously busier than ever."

International Arrest Warrant

Of more than 40 allegations related to illegal fishing, the Vidals or their affiliates only landed in court six times.

U.S. officials seized an illegal shipment of their toothfish in 2002. Nothing ever came of that case. In 2004, however, another Vidal vessel, the Chilbo San 33 sold an illegal shipment to a U.S. buyer, according to court records. A federal prosecutor in Miami charged Vidal Pego and one of his Uruguayan companies with doctoring the records to disguise the origin of the fish.

Vidal Pego became wanted on an Interpol warrant and appeared in front of the Miami judge in 2006. His Uruguayan company Fadilur took the brunt of the blame, but Vidal Pego pleaded guilty to obstruction of justice and also agreed to stay away from toothfish.

Today, behind the wheel of his Porsche in his native Galicia, Vidal Pego says he made "many friends" in Miami and that he pleaded guilty only to make the process faster and less expensive. Thinking back, he says, he should have fought. He's sure he would have won.

The judgment said that if he in any way broke the law before November 2010, or engaged in the toothfish business, he could end up in a U.S. prison. So when Phil Kerr and Dominic Hayden of New Zealand Fisheries found evidence onboard the Paloma V that Vidal Pego allegedly was still engaged in the toothfish trade — such as telephone calls and email accounts — they quickly sent a copy of the computer hard drives to the United States.

They were surprised when the United States did not issue a warrant for Vidal Pego's arrest. "We had email links and conversations. We thought there was enough. But for some reason it never happened in the end," said Kerr.

Assistant U.S. Attorney Thomas Watts-Fitzgerald, based in Miami, could not recall having received any records. New Zealand court records show copies of the hard drives were sent to U.S. officials, and ICIJ pointed out that Watts-Fitzgerald was listed in official records as having sat in on conference calls to discuss. the evidence. Watts-Fitzgerald then said, "any discussions of any nature

would be law enforcement sensitive," and directed further inquiry to the press office. The press office later said that Watts-Fitzgerald had no comment.

Off the Hook

New Zealand authorities let the Paloma off with a warning instead of opening a time-consuming and legally-complex case against the ship owner. Since its release from New Zealand, the vessel has been seen fishing in Antarctic waters under a Mongolian, then a Belizean and then Cambodian flag, according to fisheries inspection reports. The European Commission suspected it was still a Vidal Armadores boat and in April 2010 sent another "please investigate" letter to Spain's director general of fisheries. They wanted to know whether the Spanish company was still illegally targeting toothfish.

Vidal Pego claims the Paloma V is not his boat anymore. As for other cases of alleged illegal fishing, he has explanations: there were facts lost in translation; he had been conned into buying a fake fishing license and, in one case, an Uruguayan official wrote the wrong numbers on a U.S. import form.

He only admits to having three

vessels with "a problem like this" — meaning illegal or unreported fishing. But later, in the car, he takes it a step further: "Maybe up until 2005 ..." he pauses and thinks. "Maybe there was some activity of ours where it could be that a vessel with a flag from another country was fishing and it was inside the [protected] zone."

Spain reported to international fisheries regulators last fall that it punished Vidal Armadores for the Paloma V's involvement in illegal fishing — leveling a €150,000 fine (\$214,000) and suspending all aid and fishing licenses in Spain for two years.

But the Vidals filed an appeal, so that penalty has not been enforced. The company has also appealed a separate fine imposed by Spain for illegally fishing sharks in Namibia. Notwithstanding the penalties, last year Vidal Armadores received subsidies from the government — this time not to fish hake and langoustine.

The Public Purse

Juan Carlos Martín Fragueiro was once a lobbyist for a Spanish shipowners association. In that role, the gray-haired Galician was often seen in the fisheries ministry petitioning for subsidies on behalf of Vidal Armadores and others, according to sources in the ministry and an official exchange on the floor of Spain's Parliament. Then, in 2004, Martín Fragueiro was appointed Spain's fisheries secretary.

In total the Vidals have been granted at least €8.2 million (\$12 million) in aid since 1996. They got money to fish in places like Comoros and Madagascar, and for an experimental fishing campaign. They even got money to stay at port.

When reached for comment the former fishing secretary denied any relationship with Vidal Armadores or having lobbied for it in the past. Martín Fragueiro said subsidy allocations were decided by committee. "On no occasion have I told the selection committee how it must make the selection. Never."

Vidal Pego says the company just got what it was entitled to by law.

During his six-year tenure as fisheries secretary, Martín Fragueiro's office was requested more than once a year by the European Commission to start investigations of suspected infringements by Vidal ships. Some letters were addressed to Martín Fragueiro personally. But for years no sanction was imposed against the company.

Martín Fragueiro said they initiated investigations every time there was a communication and then "we followed faithfully what the legal department told us."

One example of a Vidal ships getting subsidies, getting caught, and then getting new subsidies is the Galaecia, built with a €1.5 million (\$1.9 million) subsidy granted in 2002. Its monitoring system, which assures a boat is fishing where it should, was tampered with in 2003, according to the Spanish fisheries ministry. Vidal Pego says it simply broke. Spain fined the company €42,000 in 2004 but then paid it €1.3 million to fish near the Antarctic as part of a controversial scientific program.

During that same season, EU fisheries officials later wrote to Spain, the Galaecia was seen supplying the blacklisted Dorita (one of the two spotted this year flying a North Korean flag under the name of Sima Qian Baru). Vidal denied that this transshipment occurred. By 2005, six vessels operated by Vidal Armadores had been added to the Antarctic fisheries commission's black list, according to official correspondence from the EU to Spain.

In one of the letters to the Spanish ministry, then-fisheries commissioner in Brussels Joe Borg begged Spain



Vidal Armadores' Galaecia was built with subsidies and fished with subsidized licenses. The company was fined by Spain when someone tampered with the vessel's global positioning system. The Galaecia was being investigated again when it sunk in 2008. New Zealand Ministry of Fisheries

"for the sake of the credibility of the [European] Community" to pull the Galaecia's fishing license. Spain took no action, and soon the ship was spotted again transshipping supplies to a blacklisted Vidal vessel.

The ship continued to get subsidies until 2008. That year, while the Commission was investigating whether it had laundered illegal catches, the boat caught fire and sank.

The Commission warned Martín Fragueiro in 2009 that if Spain did

nothing, the EU might take legal action, but it never followed up on the threat.

The current Spanish fishing secretary, Alicia Villauriz, told ICIJ that the country's regulations didn't allow them to stop the subsidies to the company until they had enough evidence to impose a severe sanction. Spain determined it could finally act in the case of the Paloma V, 11 years after the first allegations of illegal fishing against the Vidals.

With an appeal pending, even that action may not come.

Villauriz also said the government can't recover previously given subsidies unless there is evidence that the money has been misused. "And we don't have information to think this has been the case."

Meanwhile, in Mozambique another court ruling is waiting for the Vidals. In 2008 the government seized the Antillas Reefer when it targeted protected kite fish sharks. Mozambique confiscated the boat, converted her to a fisheries patrol boat and imposed a \$4.5 million fine. The Spanish government negotiated the crew's release, but after they had gone home no one wanted to pay the bill. And Mozambique never could collect the fine.

Vidal Pego says his company was a minority shareholder in the Namibian company that owned the vessel.

"Why should Vidal Armadores be responsible for the fine for a Namibian company?" he asks.

As for the two North-Korean flagged vessels spotted earlier this year fishing illegally, the European Commission said that Spain informed it that it is investigating whether the Xiong Nu Baru and Sima Qian Baru belong to Vidal Armadores. But there is nothing new

to report. "Given that the investigations usually take time, we will not take additional steps for the time being," the Commission wrote.

When contacted about this issue, the Spanish fisheries ministry's reply was a general statement about the country's commitment to fight illegal fishing. Unfortunately, the email continued, the law doesn't permit the ministry to talk publicly about sanctions.

Meanwhile in Maputo officials are not giving up as easily. Manuel Castiano, Mozambique's director of fisheries surveillance is adamant that Vidal Armadores, or Spain, should pay the fines. He is ready for some legal as well as diplomatic action. And he has use for the money.

"\$4.5 million is a lot of money, and enough to run my patrol boats a while."

Nicky Hager (New Zealand), Marcos Garcia Rey (Spain) and Fredrik Laurin (Sweden) contributed to this story.

FOLLOW-UP

'Pirate' fleet owner convicted of fish fraud ▶

FOLLOW-UP

'Pirate' Fleet Owner Convicted of Fish Fraud

MANUEL ANTONIO VIDAL PEGO SENTENCED TO PRISON TIME FOR TRADING ILLEGALLY-CAUGHT CHILEAN SEA BASS

By Kate Willson and Mar Cabra Published Online: November 17, 2011

SPANISH shipowner with a voluminous record of skirting international laws — and who swears he has never fished illegally — has been sentenced in Spain to one year and eight months in prison for trying to unload fish caught by one of his vessels.

An Australian patrol boat spotted the Hammer, owned by Manuel Antonio Vidal Pego, fishing without authorization in protected Antarctic waters in December 2005. In an attempt to mask the source of those fish, Vidal Pego twice renamed the vessel, finally settling on Chilbo San 33 and registering the



Manuel Antonio Vidal Pego

ship in North Korea. The shipment of 240 tons of Chilean sea bass was confiscated by South Korean authorities after it was sold for more than \$2.7 million to Uruguay-based Coast Line S.A., an affiliate of the Spanish seafood company Freiremar.

According to the sentencing documents, Vidal Pego masked from his trade partners that he had used a boat blacklisted for having previously circumvented international regulations. Once a boat lands in a black list it is banned from fishing in protected Antarctic waters.

Vidal Pego's lawyer said in court

that the charge stems from an error on the company's import declaration and has appealed the case. "We're sure we will win, because we're right," said Foro Hernández, spokesperson for Vidal Pego, in an interview with the ICIJ.

In October [2011] ICIJ detailed how Vidal Pego, his companies and affiliates have been repeatedly pursued by government agencies and international regulators for their role in a decade-old network of vessels that entered remote and protected waters of the Antarctic and targeted toothfish — also known as Chilean sea bass — in violation of an international convention.

Since 1999, international fisheries regulators have linked vessels owned by Vidal Armadores — a company owned by Vidal Pego and his father — or its affiliates to more than 40 cases of alleged illegal fishing, ranging from using banned fishing gear to targeting protected kitefish shark.

Trafficking in fish is a thriving global black market. It fuels organized crime and the rapid disappearance of the oceans' most valuable species.

Many officials claim that in this trade Vidal Pego has been one of its most infamous players.

Before this conviction, countries from Mozambique to the U.S. had fined the company or its affiliates five times for a total of more than \$5 million. Vidal Armadores or its affiliates have landed in court seven times in criminal or administrative cases related to alleged illegal fishing. Vidal Pego pleaded guilty to obstruction of justice in a U.S. federal court in a 2006 case involving an illegal importation of toothfish by a Vidal Armadores affiliate.

But Vidal Pego still has never been found guilty in a criminal court of fishing illegally. That includes the current case.

Despite Vidal Armadores' record, Spain and the EU have granted at least €8.2 million (\$12 million) in subsidies to the family's companies since the mid-1990s, the ICIJ investigation showed.

Spain's Hake Appetite Threatens Namibia's Most Valuable Fish

SPANISH COMPANIES PRESSURE THE AFRICAN NATION TO ALLOW THEM TO CATCH MORE. SCIENTISTS WARN THAT ALREADY VULNERABLE STOCKS WILL FURTHER DECLINE

By Marcos Garcia Rey and John Grobler
Published Online: October 4, 2011

ALVIS BAY, Namibia — Spanish companies are catching an estimated seven of 10 Namibian hakes in what has been considered one of the world's richest fishing grounds. Despite warnings that the stock could drop further from an already alarmingly low level, the government of Namibia this year increased the quotas for hake catches. Meanwhile, some players ignore the rules entirely and don't even bother to hide it. José Luis Bastos, a Spanish fishing magnate, was blunt: "We are over-catching hake, and I don't have a problem telling the [fisheries] minister this."

Bastos exceeds quotas without

fear of harsh punishment because he is among a dozen well-connected Spanish ship owners who control almost all trade in hake, the southwest African nation's most lucrative fish. Hake, with its mild taste and tight white flesh, is Spain's most popular seafood.

Namibia, poor and barren, has a coastline that stretches 1,500 kilometers from South Africa in the south to Angola to the north.

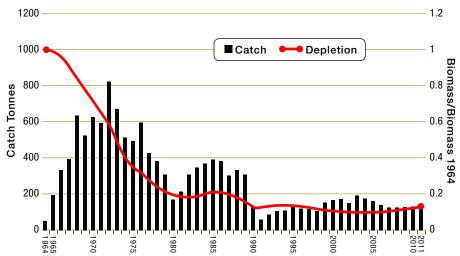
As in the rest of the world, where 85 percent of stocks are fished to — or over — their limits, Namibian hake has been caught far beyond sustainable levels. Estimates are that there are only 13 percent as many hake as swam here in the

1960s. And since the decades-old nation exports most of its affordable fish protein, Namibia is increasingly food poor. A third of its two million people live on less than \$1 a day and unemployment is estimated at more than 50 percent.

There are a few groups that escape this desperate situation. Among them: The ruling post-revolutionary establishment and fishing magnates like José Luis Bastos.

From his office in the gritty Namibian port city of Walvis Bay, Bastos explains why he's not concerned about breaking the law. "If they are going to fine me, they must fine me," he told reporters from the International Consortium of Investigative Journalists. "I'll see what

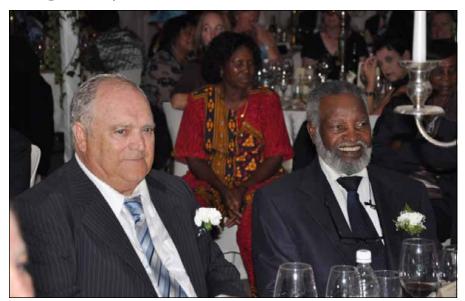
What's Happened to the Hake?



Catches have decreased over the past 20 years, yet Namibian hake stocks remain just 13 percent of what they were in 1964.

Source: An assessment and management of Namibian hake (Merluccius capensis and M. paradoxus) by using an age-structure production model / Carola H. Kirchner

*Catch represents the amount of fish taken from Namibian waters by industrialized fishing. Depletion of biomass is a measure marked at 100.



Spanish-Namibian fishing magnate José Luis Bastos says his close friendship with political powerhouse and former president Sam Nujoma doesn't reap him any favors. John Grobler/ICIJ

I can do about the possible penalties."

He adopted Namibian citizenship to qualify for fishing rights and is confident he can avoid stiff penalties.

As he speaks, Bastos is surrounded by photos of himself with Sam Nujoma, the once celebrated rebel leader who resisted the racist apartheid regime in South Africa to become founding father and president of independent Namibia.

Though no longer president, Nujoma still dominates Namibian politics. Bastos is his frequent host on hunting trips to his ranch. One picture showed Nujoma with a giant kudu antelope he shot there. Not long ago, the ranch covered almost 250,000 acres in the country's interior, though Bastos says it is now half that size.

About 10 other Namibian-Spanish joint ventures operate in Wal-

vis Bay. The "Wall Street" of fish is what the locals call the long rows of high-tech processing factories with private docks for landing fish in what is among the world's best-organized whitefish market facilities. The nearby airport was recently upgraded at a cost of €32 million (\$45 million) — half of it paid for with loans from the Spanish government — in an attempt to handle cargo jets so fresh hake can be flown to Europe.

"The Spanish are in the veins of Namibia," fisheries union leader Daniel Imbili said in his office in Walvis Bay. He said Namibia, with scant market knowledge or resources, has little choice but to go along with the relationship.

The Town that Is a Company

Lüderitz, a 12-hour drive south of Walvis Bay, is the only other real fishing port in the country. The name is a reminder of former German colonizers, but these days Spain plays the dominant role. In 1990, at Nujoma's invitation, the Spanish company Pescanova set up shop there under the name of NovaNam.

Angel Tordesillas, then-general manager of Pescanova in South

Africa, steered several of the company's trawlers to the expanding fishing port. Over the next two decades, Lüderitz grew from a population of 12,000 to 32,000. "We can say that Lüderitz is Pescanova," Spanish ambassador to Namibia Alfonso Barnuevo said.

The investment in Lüderitz earned Pescanova the gratitude of the new nation. Tordesillas fostered a close friendship with Nujoma, then president. And Pescanova has since maintained a close relationship with political leaders. Today the company is the world's largest supplier of hake, controlling at least 20 percent of the total quota in Namibia in recent years. It is the third largest seafood company in Europe with 2010 sales of €1.6 billion (\$2.2 billion).

Anonymous Namibian interests own 49 percent of NovaNam. The rest is controlled by Pescanova, apart from a two percent share in the company held by its workers.

But it is not a happy operation. Employees repeatedly protest poor working conditions and pay. In January, The Namibian reported, 600 workers demonstrated, claiming they were exploited and subject to "slavery."

"Everybody is afraid of Pescanova,"

union organizer Imbili said. "The playing ground is not equal for all. Tordesillas is very powerful in Namibia because he's [influencing] the government."

Pescanova operates the largest fishing fleet in Europe and now processes more than 100,000 metric tons of fish annually, but the company is not communicative. It took 14 weeks and more than 25 phone calls and emails before its director of communications answered ICIJ's request for comment with an email: "We decline the invitation for interviews."

Where the Power Is

Bastos and Pescanova are two sides of a coin that bears the same roots: Spain. That's where most of the fish are going, and so are the profits.

Companies headquartered in Spain with local subsidiaries control about 75 percent of the hake market, according to estimates by industry insiders. Their catches last year would have brought in about 300 million dollars on Spain's frozen-fish market.

"The fishing industry is dominated by Spain. That's not a secret," said Cornelius Bundje, deputy director of the Namibia Maritime and Fisheries Institute in Walvis Bay. "The Spanish are making a profit, and they take it to Spain and other countries." Imbili agrees: "Billions of Namibian dollars go to Spain. The money is not invested in Namibia. There is not a value adding for Namibia in the fishing industry. ... The wealth is leaving Namibia."

Even the Namibian Hake Association — traditionally chaired by a Namibian — is headed by a Spaniard: Antonio Marino of Tunacor, a joint venture with the Galician company Pescapuerta. The appointment shows the extent to which Spanish interests have penetrated the Namibian ruling class.

Marino denies that there is undue Spanish control of the local industry.

The key to this situation is access to the quotas. To the casual observer, Namibia's thriving fishing industry is a model of local empowerment: Trawlers all fly the national flag, and at the sound of the 6 a.m. morning whistle local workers walk past flashy new SUVs parked at the factory gates.

The hake industry alone employs 9.000 Namibians — a fact that's frequently cited to demonstrate the local benefits. Fisheries control is often lauded by international experts as one of the best in the developing world. But a closer look at the hake fishery reveals more disturbing elements.

Foreign companies, mainly Spanish, benefit from political patronage that arbitrarily and opaquely hands out fishing rights to loyal members of Nujoma's ruling South West Africa People's Organization (SWAPO), critics say.

All Namibians are potential fishing rights holders, but the Ministry of Fisheries chooses the lucky ones. In the past ten years, only 38 applicants have received hake quotas. When those holders get their fishing rights, they can sell quotas to the highest bidder, usually a Spanish company.

This system has raised _____ questions before, such as when the former fisheries minister Helmut Angula did not deny owning shares in a company that had seen its hake quota increased by 385 percent.

Quota is allocated on a "need" basis, which means applications often list all kinds of women's groups



Hake is Namibia's most profitable seafood export – and Spanish companies corner the trade. Marcos Garcia Rey/ICIJ

and marginalized people as shareholders, usually via "development trusts." This way, empowerment criteria are met but the people whose names are used often never get to see any money, critics say.

"Corruption is a significant component in influencing the allocation

of concessions to particular people," said Namibian fisheries economist Charles Courtney-Clarke. "The Namibian government has been unable to address the dominance of foreign companies in the fishing industry because they [SWAPO leaders] lack a real plan apart from taking advantage of control over resources."

In a private conversation, a general manager of one of the Spanish

Bastos said that what's needed is more quota and less competition. In his view, too many things get in the way of fishermen's bottom line.

fishing companies described how the system works. The Spain-based company owns 50 percent of the local branch; the other 50 percent belongs to Namibian partners. "They have very high salary per month,

but they don't do any work at all," he said. "When they pay a visit to our factory, they're horrified at the smell of hake. But we need them because they are fishing-rights holders. Here we all need this kind of people, for political influence."

Suso Pérez, another Spanish operator, of Espaderos del Atlántico, said the local partners are figureheads cashing in on their political alliances. "They're all members of SWAPO who have no bloody idea about fisheries."

Fishing to the Limit — and Over

That Bastos so freely acknowledged overfishing his quota was because, he said, it was simply too low. "We informed the minister that the resources are fine, we are catching in record time," he said. "We need quantity to be able to survive. I hope that the minister will take that into consideration when they decide the quotas."

Bastos said that what's needed is more quota and less competition. In his view, too many things get in the way of fishermen's bottom line.

Sustainable fishing relies scientifically based quotas — how much fish vou can take without actually killing off the population. But the most common problem in the world's fisheries is that scientific evidence has not been heeded by politicians and fishermen.

And here Namibia fits into the larger and much direr global picture. The last assessment of world fish stocks from the Food and Agriculture Organization of the Unit-



Spanish giant seafood company Pescanova plays political hardball in Namibia, union leaders say. Marcos Garcia Rey/ICIJ

ed Nations concludes that 85 % of world fisheries are fished to their maximum, overfished or depleted.

Namibia became a textbook case of that phenomenon when Spanish trawlers first started plundering hake in Namibian waters in the 1960s. They hauled out so much fish that by the time Namibia won independence in 1990, the stock was only at an estimated 13 percent of its original level.

Since independence Namibia's rulers have gotten a better grip of the valuable resource. The stock is no longer declining, scientists say, but it's still a fraction of what it was, and it's fished to its biological maximum.

Each year, the government-controlled Namibian National Marine Information and Research Centre (NatMIRC) gives advice on biologically acceptable levels of outtake for each fish species. But the fisheries ministry often yields to industry pressure and sets a higher quota, critics say.

"Misrepresentation of statistical information to justify increases in quota is common knowledge," said fisheries economist Courtney-Clark about local stock assessments.

This spring the scientists at the research center set the biologically acceptable quota of hake to a maximum of 145,000 metric tons for the 2011-12 season, but then the fisheries ministry decided to raise it.

"The minister decided on 180,000 tonnes, probably considering socioeconomic factors," explained Carola Kirchner in an email. She was a stock assessment scientist in the Namibian government for 18 years until she recently resigned. "Whether the stock will sustain catches of this magnitude is questionable. ... In my opinion it was not a very good idea. ... This will seriously backfire at some stage."

Kirchner's assessment is that the stock will decrease again. "They can completely go against the center's advice. ... We have to quietly accept the decisions."

The ministry acted under significant pressure from industry. In April, almost all hake fishing companies halted operations and laid off workers in protest for what they considered a low quota. "What they are trying to do is blackmail me," Bernhard Esau, minister of Fisheries and Marine Resources told the Windhoek Observer at the time. Esau did not return calls, emails and written requests for interviews from ICIJ.

In the end, and despite its own misgivings on overfishing the stock, the Namibian ministry of fisheries increased the hake quota by 29 percent above the previous year's 140,000 metric tons. The increase went against the NatMIRC scientists' recommendation that "variations in the [quota] must be capped at 10%."

In their latest stock-assessment report the scientists say that what little is left of the stock is still vulnerable and that "the fishery should be managed by using the precautionary approach."

One Word: Fish

hours' drive inland from Lüderitz and the coast lies Namibia's capital, Windhoek. There Carmen Sendino heads the Spanish Cooperation Office, the Spanish government's aid organization.

Spain has encouraged its industry's monopoly of the Namibian hake industry, exchanging a dozen official state visits in as many years to discuss the sector. Spain subsidized the transfer of Spanishflagged vessels to Namibia and then pressured the government to ignore invitations from the EU to enter into fishing agreements that would allow other European fishing fleets into its waters.

Also, since 1997, the NatMIRC's research projects have been financed by the Spanish government and the region of Galicia.

The generosity has to do with one thing — the presence of the Spanish seafood companies. Sen-

Between 2006 and 2009, Spain gave Namibia aid worth in excess of €50 million (\$70 million), some of it directly to the fishing industry.

dino was reluctant to comment on the details in the relation between the Spanish aid and the fishing sector, but she said one word that summarizes it all: "Pesca," Spanish for fisheries.

Spain has handed out mil-

lions of dollars in aid to Namibia some of it directly to the fishing industry. The last available figures indicate that from 2006 to 2009 Spain's aid to the country was worth in excess of €50 million (\$70 million), according to data from Spain's foreign affairs ministry.

"Spain is supporting the Namibian government, and they pay back this aid through the hake industry," said Imbili, the union leader.

According to Peter Pahl, managing director of Namibian-run fishing company Seaworks, the aid and subsidies from the Spanish government are used to lobby on behalf of its companies for fishing rights. "The Spanish government is lobbying Namibia. In this sense, Madrid's government is being very proactive."

The Spanish Secretariat for International Cooperation told ICIJ in a statement that the aid is not meant to favor the Spanish fishing companies in Namibia but "to strengthen the Namibian fishing sector," which represents a quarter of the country's exports income.

As relationships go, Nujoma's and Bastos can be said to be fairly close. In his picture-filled office. Bastos confided to us about a favor he is doing for "the old man," as Bastos usually refers to Nujoma.

"I am building a house for him," said Bastos, and showed a power of attorney from the former president to deal with the development.

The house will be located on a prime piece of land situated in what is locally referred to as "the Millionaire's Mile" along Walvis Bay's flamingo-flecked lagoon.

On parting, Bastos added that he never asked Nujoma for any favors.



Hake is Spain's most popular fish. The average citizen eats more than four kilos per year. Mar Cabra/ICIJ

Hake Hoax in Spanish Markets

NEARLY ONE-IN-10 PRODUCTS AT MAJOR MARKETS MISLABELED; EUROPE'S LARGEST DEPARTMENT STORE PULLS FISH AFTER ICIJ INVESTIGATION

By Mar Cabra, Marcos Garcia Rey and Kate Willson
Published Online: October 6, 2011

ONSUMERS in Spain trust the mild-flavored white flesh of hake, the most popular fish in a country that eats more seafood than almost any other in Europe. Hake is considered safe for pregnant women, and kids crunch into the cod-like fillets as fishsticks.

"There's trust because of the cultural bond," said Cristina San Mar-

tín, head of quality and food safety at Fedepesca, a trade group representing Spanish fish retailers. "You see it from the time you're a kid, and it also has a good price."

What Spaniards probably don't know is that the fish they take home for dinner might not be hake at all.

Spanish public is being The cheated by a seemingly pervasive and dangerous form of commercial fraud: Different species — including cheaper fish such as catfish from Vietnam and grenadier from the Pacific Ocean — are sold as hake in markets across Madrid. A DNA study commissioned by the International Consortium of Investigative Journalists found in July that nearly one in 10 fish were mislabeled. A study completed last year by the same scientists found mislabeling in nearly 40 percent of samples.

"Some of the revealed cases are really 'cheeky' and shockingly blunt attempts to fool consumers," said the European Commission's top fisheries DNA expert Jann Th. Martinsohn, who reviewed ICIJ's methodology and findings. "And worse, they are not unique."

Hake is big business in Spain, where sales exceed €1 billion a year. Mislabeling could bump the

bottom line of companies that pass off cheap fish as higher-quality fillets, and may even mask illegal fishing, marine biologists and economists say. The European Union has strict regulations requiring that a paper trail follow fish from ship to

Studies in different countries around the world found between 25 to 70 percent of the fish being mislabeled. shop. But the law doesn't require that inspectors implement DNA testing to verify accurate labeling.

"The majority [of mislabeling] is commercial fraud," said Ricardo Pérez, DNA expert and investigator of the Spanish National Research Council. "In recent years there's been

an increase of it, I think because companies know they're not being watched."

Mislabeling seafood is a global phenomenon. The environmental group Oceana reported in May that studies in different countries around the world found between 25 to 70 percent of the fish being mislabeled. In the United States, tilapia was sold as red snapper. In South Africa, mackerel was sold as barracuda. In New Zealand, protected



An ICIJ reporter purchases hake from a Madrid market, as part of a DNA study, to see if consumers are really getting what they ask for. Mar Cabra/ICIJ

hammerhead shark was sold as lemon shark.

Europe's top department store El Corte Inglés pulled a batch of more than a ton of mislabeled fish from its shelves when told of ICIJ's findings. The majority of markets that carried mislabeled fish attributed the problem to human error. And every one of the eight shops where ICIJ found mislabeled samples said it was a one-time occurrence. Authorities in Spain seemed to agree. They said they didn't think the results of ICIJ's study were significant enough to show a trend, or present a major threat to the public.

Almost half Spain's consumers buy their food in or near Madrid. Yet in 2010, regional and city authorities taxed with controlling consumer goods used scientific testing to identify fish species of 59 samples — about a third the number included in the ICIJ study. One thing appears clear: Consumers are largely ignored in the equation.

"What they [authorities] answer,

is, 'will somebody die? No. Well, then it's only money," said Gemma Trigueros, nutritional coordinator at the Spanish Consumers and Users Association (OCU).

What's on Your Plate?

Hake is found across the globe from Argentina and Namibia, to Ireland and New Zealand — and there are at least 12 distinct species of hake in all. Some, like southern African hakes, are cheap. Others, like European hakes, return a higher profit.

Spain imports more than 60 percent of the hake coming to the EU. So scientists at the University of Oviedo in Spain partnered with a Greek university and last December published findings of a multivear study. Their results showed that more than one in three hake products sold in Spain and Greece were not what they appeared. Researchers identified a trend: Cheap species were sold as higher-priced European or American hake, leading scientists to deduce that companies were committing fraud.

Eva García Vázquez, the primary author, did not publish company names in her report and declined to share those with ICIJ, although she said she would have given the

information to the government, had officials asked.

So ICIJ undertook a sampling in Madrid to find out if the mislabeling continued and what companies were involved. In June, reporters collected 150 hake samples from major supermarkets, fishmongers and bulk suppliers. ICIJ commissioned the experts at the University of Oviedo to conduct a blind DNA analysis of those products.

DNA testing is better known for its use in forensic analysis, publicized on TV programs like CSI. Yet the tests are today fairly simple, cheap and quick. And they have a wide range of uses. Thanks to an enzyme-based technique developed in the 1980s, scientists can obtain the DNA sequence from a fish and, by matching it to an online database, identify the species in just one day.

ICIJ's analysis showed that 8.6 percent of samples were mislabeled. The researchers concluded that the actual level of mislabeling is likely much higher than what ICIJ's snapshot study has documented.

'Surely Deliberate'

The most worrisome findings involved entirely different families of fish being sold as hake. Longbodied Patagonian grenadier from the southern ocean. bulbous-eyed Pacific grenadier found off the coast off of California, and striped catfish pulled from rivers in Vietnam look nothing alike when they're swimming. Yet as a frozen fillet, most shoppers just see white fish.

But the fish dealers can tell.

"They don't even look alike," said Gonzalo González, a fishmonger whose family has been selling fish since the 1920s and is president of Fedepesca. "Some are whiter than others — like detergent commercials say."

This helped experts at the University of Oviedo conclude that swapping species was "surely deliberate."

When alerted to the ICLI findings. El Corte Inglés. Europe's largest department store, took immediate action to independently verify the problem. The highend market said it conducted its own DNA analysis of seven batches of the mislabeled product and found that the samples from one shipment of 1.4 metric tons were also mislabeled.



Hake being prepared for DNA analysis. Mar Cabra/ICLI

"We've withdrawn that entire batch from our shops," said a spokesperson for the store. "We're in conversations with the provider to take drastic measures." She declined to share the provider's identity for "confidentiality reasons," and said El Corte Inglés has started to carry out genetic testing of fish

as part of its routine quality controls.

ICIJ also encountered problems with products sold in top supermarket Alcampo from Spain's leading fish exporter, Freiremar. Two products of its brand Nakar were mislabeled — one was a different species of hake, the other was a Pacific Ocean grenadier. Freiremar said it doesn't regularly conduct genetic analysis "unless there's a well-founded suspicion." Freiremar

The most egregious finding was the case of Vietnamese striped catfish sold as hake.

asked the supermarket to withdraw the products identified by ICIJ's study as Pacific grenadier "as a precautionary approach."

All the experts who weighed in on the study said the most egregious find-

ing was the case of Vietnamese striped catfish sold as hake by a local fishmonger, Pescados El Bierzo. This river species is criticized for higher contamination levels and lower nutritional value than other fish.

The shop is housed in a market serving immigrants in Madrid's city center. Its manager Vicente — who declined to give his last name — said ICIJ caught a one-time error, not a widespread practice. He said various types of bulk frozen fillets are separated only by plastic sheet. The mislabeling likely occurred by a "fillet of catfish jumping into the hake area."

Health at Stake

Researchers at the University of Oviedo warned that cases where a different fish than expected is sold could cause "severe health problems to unaware consumers."

Allergist Dr. Beatriz Rodríguez of Madrid's Getafe University Hospital said that while normally people are allergic to fish generally, it's increasingly common to develop sensitivity to one particular species group — like catfish. Kids are the most vulnerable.

"If I tell the mother: avoid catfish and then she buys hake thinking she's safe, the child could have a severe allergic reaction," she said, causing hives, diarrhea or even problems breathing.

In Hong Kong, more than 600 people became violently ill in 2007 after eating what they thought was "Atlantic cod" — and turned out to be poisonous oilfish, named for the indigestible wax esters in its flesh.

Scientists warn of other health risks with fish mislabeling: pollutants, toxins and other harmful substances like mercury specific to geographic regions or species. Health officials in the EU and Spain said there are currently no health alerts caused by fish mislabeling.

National Fish Sells

Sergio Sánchez manages Pescados y Congelados Conchi, a bulk foreign fish shop where both of ICIJ's hake purchases were mislabeled. He said when he buys fish for his shop, he cares about the best-by date and appearance. He said some consumers turn up their noses when told the truth about the origin of fish.

"National species sell. You tell people that hake is from Chile and they don't want it," Sánchez said. "You tell them shrimp is from China — and not from Huelva [in southern Spain] — and same thing."

Supermarket chains Alcampo. Hipercor, Eroski and Carrefour each blamed a one-time error by an employee. All the markets said they adhere to strict quality controls. Carrefour said it "last year ... rejected 188,909 kg (for not being correctly labeled or because they did not meet minimum size requirements)."

In the cases where more expensive European hake was billed as cheaper hake species, Alcampo said the consumer wins. "We were giving the client a product of higher quality than what the label said," the company wrote in an email response.

Stefano Mariani of the University College in Dublin, thinks cases like this may point to another problem: overfishing. When a boat reaches its quota, it must stop targeting that type of fish. But any additional catch could be laundered into the

"National **species** sell. You tell people that hake is from Chile and they don't want it,"

legal market as a different fillet, Mariani reported in a study published earlier this year.

"Would you accept getting pig meat when you buy beef? Absolutely not," he said. In a tightly controlled market like

the EU he finds the problem alarming.

European hakes are subject to strict catch limits under recovery plans, a result of decades of overfishing. Meanwhile fishmongers have been complaining about the low prices they're getting for the fish, which leads some vendors to conclude that fishermen aren't adhering to the quotas. The Ministry of Environment, Agriculture and Fisheries denied Spanish vessels are exceeding hake quotas.

Law and Disorder

EU law requires a label follow the fish from net or farm to the final vendor.

The Health and Fisheries ministries are required to verify that imports are really what they appear. The latter is also taxed with inspecting fish landed at Spanish ports. The Fisheries ministry did not provide the number of inspectors, although it said more than 200 people were involved in their entire control operations.

Neither ministry would comment on ICIJ's findings, saying they could not "draw general conclusions." They did not respond to questions regarding the earlier multi-year study by the University of Oviedo.

No EU law requires member countries to conduct DNA testing to find out if labels and products match. And most — including Spain — largely do not employ such testing.

Several authorities share control of tracking fish, safety and labeling in Spain. The fractured oversight allows individual authorities to shrug off blame. Regional governments oversee supermarkets, restaurants and factories. The Madrid regional and city governments administer products for a region comprised of more than 7 million people and the world's second-largest fish market.

Yet officials there scientifically tested just 59 fish to verify the species in 2010. José Manuel Torrecilla. manager of the health authority in the city of Madrid, acknowledged they do very few tests on fish identification, but said the city plans to increase the number in coming years.

"It's more important what causes a health risk to consumers: contaminants in fish and its freshness." he said, pointing out that the city labs conducted about 500 tests for freshness and contaminants in 2010.

Scientist Ricardo Pérez has been conducting DNA analysis of fish for more than two decades. He said he feels frustrated because regional governments just aren't interested in what he offers. "There's no money for that," they tell him.

"You develop interesting tools for governments to improve control, and it's almost impossible to get them to do something," he said.

The EU Commission research center recently published a study showing how scientific techniques such as DNA testing are vital to fight illegal, unreported and unregulated fishing. Co-author Jann Th. Martinsohn told ICIJ the cost of scientific testing is no longer prohibitive — it can be as low as €35 per sample if you test in bulk.

Martinsohn has spoken to officials across the EU, pushing governments to implement the

kind of testing that private industry has been doing for years. Spanish officials told him the Fisheries ministry only does sporadic DNA testing, while the industry group Anfaco has its own private laboratory.

Carlos Ruiz, technical and policy coordinator of Anfaco, told ICIJ its lab conducts 47,000 tests a year — about 1,000 of them being DNA analysis of the species. But they don't share results with the government unless it's a commissioned job paid for by officials. And those are rare.

"This is a private lab," Ruiz said. "We're not watchdogs of the market."

Martinsohn lists Denmark as one of the most advanced countries in the EU on the use of DNA analysis



ICIJ collected 150 samples from hake purchased at 32 Spanish markets across Madrid; then sent those to researchers at the University of Oviedo for DNA testing. Mar Cabra/ICIJ

in fisheries enforcement. The Danish Fisheries Inspectorate collaborates with the public university to conduct the testing. Inspectors there carry small toolboxes to obtain tissue.

Pérez, the Spanish researcher so frustrated with government's disinterest, is taking his research a step further. He's developing a test kit akin to a pregnancy test so inspectors can verify the species within minutes. But he said if governments don't take the lead, he encourages consumers to speak up.

"I hope that if there are complaints, agencies will start answering them," he said. "If companies know they're not being monitored, what they're going to do is try to make more money."

'Free-for-All' Decimates Fish Stocks in the Southern Pacific

JACK MACKEREL, DOWN 90 PERCENT IN 20 YEARS IN ONCE-RICH SOUTHERN SEAS, FORETELLS WIDER GLOBAL CALAMITY; WORLD'S LARGEST TRAWLERS COMPETE FOR WHAT IS LEFT

By Mort Rosenblum and Mar Cabra
Published Online: January 25, 2012

ALCAHUANO, Chile — Eric Pineda peered deep into the Achernar's hold at a measly 10 tons of jack mackerel after four days in waters once so rich they filled the 57-foot boat in a few hours.

The dock agent, like everyone in this old port south of Santiago, grew up with the bony, bronze-hued fish they call jurel, which roams in schools in the southern Pacific.

"It's going fast," Pineda said.
"We've got to fish harder before
it's all gone." Asked what he would
leave to his son, he shrugged: "He'll
have to find something else."

But what else is there to find?

Jack mackerel, rich in oily protein, is manna to a hungry planet, a staple in Africa. Elsewhere, people eat it unaware; much of it is reduced to feed for aquaculture and pigs. It can take more than 5 kilos of jack mackerel to raise a kilo of farmed salmon.

Yet stocks have dropped from an estimated 30 million metric tons to less than 3 million in two decades. The world's largest trawlers, after depleting other oceans, now head south toward the edge of Antarctica to compete for what is left.

An eight-country investigation by the International Consortium of Investigative Journalists of the fishing industry in the southern Pacific shows why the plight of the humble jack mackerel foretells progressive collapse of fish stocks in all oceans.

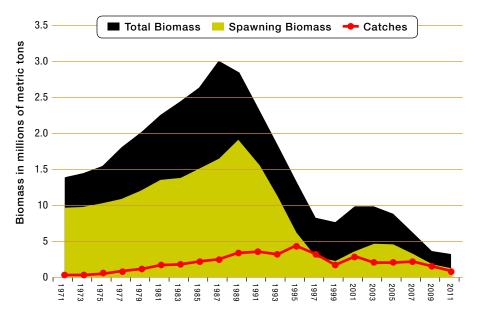
Their fate reflects a bigger picture: decades of unchecked global fishing pushed by geopolitical rivalry, greed, corruption, mismanagement and public indifference.

Daniel Pauly, the eminent University of British Columbia oceanographer, sees jack mackerel in the southern Pacific as an alarming indicator.

"This is the last of the buffaloes,"

Where Did All the Jack Mackerel Go?

Aggressive fishing has decimated jack mackerel stocks in the southern Pacific in the past two decades – from 30 million metric tons to less than 3 million.



Total stock biomass: The total weight of the fish in a stock, both juveniles and adults. Spawning biomass: The total weight of the fish in a stock that are old enough to reproduce. Source: South Pacific Regional Fisheries Management Organization

he told ICIJ. "When they're gone, everything will be gone ... This is the closing of the frontier."

Big Fleets Fish Unchecked

Delegates from at least 20 countries will gather next week, January 30, in Santiago for an annual meeting to seek more progress toward the elusive goal of curbing the plunder.

Negotiations to establish the South Pacific Regional Fisheries Management Organization (SPRF-MO) began in 2006, at the initiative of Australia and New Zealand along with Chile, which often shuns international bodies.

Its purpose was to protect fish, particularly jack mackerel. But it took almost four years for 14 countries to adopt 45 articles aimed at doing that. So far, only six countries have ratified the agreement.

Meantime, industrial fleets bound only by voluntary restraints compete in what amounts to a free-forall in no man's water at the bottom of the world.

From 2006 through 2011, scientists estimate, jack mackerel stocks declined by 63 percent.

The SPRFMO convention needs eight signatures to be binding, including one South American coastal state. Chile — prominent in getting the group together in the first place — has yet to ratify.

SPRFMO decided at the outset it would assign future yearly quotas for member countries based on the total annual tonnage of vessels each deployed from 2007 to 2009.

To stake their claims, fleets hurried south. Chinese trawlers arrived en masse, among others from Asia, Europe and Latin America.

One newcomer was at the time the biggest fishing vessel afloat, the 14,000-ton Atlantic Dawn, built for Irish owners. Parlevliet & Van der Plas of the Netherlands bought it, renaming it the Annelies Ilena. Such "super trawlers" chase jack mackerel with nets that measure up to 25 meters (82 feet) by 80 meters (262 feet) at the opening. When they are hauled in, fish are sucked into the hold by suction tubes, like giant vacuum cleaners.

Gerard van Balsfoort, president of the Dutch-based Pelagic Freezer-Trawler Association (PFA), which represents nine companies and 25 European Union-flagged vessels, confirmed the obvious: the Dutch, like others, went to mark out territory.

"It was one of the few areas where still you could get free en-



After years of intensive fishing, jack mackerel stocks in the southern Pacific have declined dramatically. Some experts say the only way to save the fishery is to impose a total ban for five years. Periódico El Ciudadano

try," van Balsfoort said. "It looked as though too many vessels would head south, but there was no choice ... if you were too late in your decision to go there, they could have closed the gate."

By 2010, SPFRMO tallied 75 vessels fishing in its region.

The mackerel rush also attracted

the leading commercial player, the Hong Kong-based Pacific Andes International Holdings: PacAndes.

The company spent \$100 million in 2008 to rebuild a 750-foot, 50,000ton oil tanker into a floating factory called the Lafayette.

The Russian-flagged Lafayette, longer than two football fields, sucks fish from attendant trawlers with a giant hose and freezes them in blocks. Refrigerated vessels — reefers — carry these to distant ports.

The Lafayette alone has the technical capacity to process 547,000 metric tons a year, if it operated every day.

In September 2011, SPRFMO scientists concluded that an annual catch beyond 520,000 metric tons could further deplete jack mackerel stocks.

Cristian Canales of Chile's fisheries research center, Instituto de Fomento Pesquero (Ifop), said a safer limit would be 250,000 metric tons. Some dissenting experts say the only way to restore the fishery is to impose a total ban for five years.

Subsidized Over-Fishing

Trachurus murphyi, Chilean jack mackerel, are fished west of Chile and Peru, along a 4,100-mile coast-line, to about 120 degrees longitude, halfway to New Zealand.

They are known as small pelagics, vital to larger species. They range widely in open waters, eating plankton and small organisms, and are food for bigger fish.

These forage fish represent a third of the total global catch.

The U.N. Food and Agriculture Organization says that global fishing fleets "are 2.5 times larger than needed." That estimate was based on a 1998 report; since then, fleets have expanded. If unregulated, they can quickly devastate a fishery.

Much of that overcapacity has been driven by government subsidies, particularly in Europe and Asia, experts say.

A landmark report by Rashid Sumaila, along with the oceanographer Pauly and others at the University of British Columbia, estimated total global subsidies in 2003 — the latest available data — at \$25 billion to \$29 billion dollars.

Between 15 and 30 percent of subsidies paid for fuel to allow ships to range widely, it said. Another 60 percent went to increase size and upgrade equipment.

The study calculated China's subsidies at \$4.14 billion and Russia's at \$1.48 billion.

A report by the environmental group Greenpeace released in December 2011 looked hard at PFA, the Dutch-based association that represents the Annelies Ilena. It found the group received fuel tax exemptions of between £20.9 million and £78.2 million from 2006 to 2011.

The report, produced by an independent consultant for Greenpeace, said that by a conservative calculation PFA's average yearly profit of around €55 million would be €7 million without taxpayer support. At the other extreme, it said, PFA would have lost €50.3 million.

EU funds — and financial support from Germany, Britain and France — helped PFA build or modernize 15 trawlers, nearly half its fleet.

PFA's Helen Mary, which began fishing in the South Pacific in 2007, received €6.4 million in subsidies from 1994 to 2006, more than any other EU fishing vessel, according to European Commission data on the website fishsubsidy.org.

Van Balsfoort, the PFA president, did not dispute the subsidy numbers but said fuel tax exemptions are routine in the fishing industry. He said the Helen Mary and a sister ship were decrepit Eastern German trawlers, rebuilt with Germany's encouragement after reunification.

Under international practice, vessels can fish freely in areas not governed by ratified accords. Still, the European Union requires ships of member states to accept SPRFMO interim measures as legally binding. And EU countries must divide up a collective annual quota for

Little Fish, Big Role In Ecosystem



Chilean jack mackerel is fished along a 4,100-mile coastline west of Chile and Peru, to about 120 degrees longitude, halfway to New Zealand. The jack mackerel roams widely in open waters, eating plankton and small organisms, and is food for bigger fish.

jack mackerel. But ship owners find ways around the rules.

For instance, Unimed Glory, a subsidiary of the Greek company Laskaridis Shipping, operates three trawlers in the South Pacific. They are owned in Greece, an EU member. But, flagged in the Pacific island of Vanuatu, they operate outside Brussels' control and can catch more jack mackerel than a share of the EU quota would allow.

Per Pevik, Unimed Glory's Norwegian manager, told ICIJ that since Vanuatu does not meet EU sanitary standards his fish cannot be sold in Europe. Instead he sells jack mackerel to Africa. Asked if European authorities objected to his Vanuatu flags, he said, "No, they don't bother me about that."

Transshipment at sea also thwarts effective control. Once fish is unloaded onto long-range refrigerated vessels, its origin can be obscured.

In the southern Pacific, industrial fleets find fewer and fewer jack mackerel after years of aggressive fishing: European Union-flagged vessels collectively caught more than 111,000 metric tons of jack mackerel in 2009; the next year, the ships hauled in 40 percent fewer fish; by last year, vessels reported just 2,261 tons.

Looking back, PFA's van Balsfoort said jack mackerel numbers go up and down in natural cycles, and vessels fished too hard at a time when they were vulnerable. "There was way too big an effort in too short a time ... the entire fleet has

to be blamed for it," he said, including PFA.

Inside PacAndes

PacAndes is the proverbial puzzle within an enigma. Its 50,000 gross ton flagship, the Lafayette, is registered to Investment Company Kredo in Moscow and flies a Russian flag. Kredo — via four other subsidiaries — belongs to China Fishery Group in Singapore, which, in turn, is registered in the Cayman Islands.

China Fishery and Pacific Andes Resources Development belong to Pacific Andes International Holdings, based in Hong Kong but under yet another holding company registered in Bermuda.

PacAndes, which is publicly traded on the Hong Kong stock exchange, reports more than 100 subsidiaries under its various branches, but a partly impenetrable global network includes many more affiliates.

One of its major investors is the U.S.-based Carlyle Group, which purchased \$150 million in shares in 2010.

China Fishery Group reported a 2011 revenue gain of 27.2 percent to \$685.5 million from \$538.9 million, 55 percent of PacAndes' earnings. The company attributed it to stronger operations from the South Pacific fleet

and the Peruvian fishmeal operations.

Ng Joo Siang, 52, a jovial Louisiana State University graduate who is hooked on golf, runs PacAndes like the family business it is despite its public listing.

His Malaysian Chinese father moved the family to Hong Kong and started a seafood business in 1986. When the executive board meets in its no-frills conference room overlooking the harbor, his portrait gazes down at his widow, who is chairwoman, his three sons and a daughter.

"My father told me the oceans were limitless," Ng said in an interview, "but that was a false signal. We don't want to damage the resources, to be blamed for damage. I don't think our shareholders would like it. I don't think our children would like it very much."

But he ruefully acknowledges that PacAndes faces a serious public relations challenge. In 2002, a company affiliated with PacAndes was accused of illegal fishing in the Antarctic. Ng denies any wrongdoing or connection with the suspect boats, but his critics are harsh.

Back then, New Zealand diplomats told ICIJ, a Russian lawyer working for the company allegedly threatened an Auckland fisheries executive by showing him pictures of his family. Asked to comment, Ng said that did not happen, and he dismissed it as yet another smear by people who resent PacAndes' success.

Bent on forging a better image, Ng hired a new corporate social responsibility officer and says he wants to put scientists aboard his ships to help protect fish stocks.

But he snorted when asked about the SPRFMO recommended limit of 520,000 metric tons for jack mackerel. "Based on what, on this?" he replied, thrusting a moistened finger into the air as if checking the wind.

"There is no science," he said.
"The SPRFMO has no science. How
much money has Vanuatu or Chile
or whoever put in to understand
about fisheries?"

Chile, in fact, spent \$10.5 million in 2011 on Ifop, its highly regarded scientific institute — one-fourth of its fisheries budget. In the intrigues of fish politics, PacAndes sides with Peru, where it operates 32 vessels and has a share of the anchoveta quota, another species used for fishmeal.

Ng says the Lafayette flies a Russian flag because it perfected an old Soviet idea: a mother ship that stays put, sucking in fish to process from a fleet of catcher vessels.

Industry experts suspect another reason is the opaque manner in which

official Russian business is done.

The Lafayette cannot fish, Ng said, but can pair trawl: hold one end of a net attached to another ship, which hauls in the catch. A French inspection in Tahiti in January 2010 found no fishing equipment on board.

This point is at the heart of fresh controversy within the fledgling SPRFMO.

The organization now sets new voluntary quotas based on the 2010 catch. But in that year both Russia and Peru claimed what seem clearly to be the same 40,000 metric tons.

The Russians say the Lafayette was fishing, and it flies their flag. The Peruvians say the trawlers that actually caught the fish were under their colors.

Power Plays in Chile

The jack mackerel crisis has hit hardest in Chile, where industry leaders and authorities admit to serious excesses during the unregulated years in what they call "the Olympic race."

In 1995 alone, Chileans fished more than four million tons. That is eight times the amount SPRFMO scientists said could be landed in a sustainable way in 2012. From 2000 to 2010, Chile landed 72 percent of all jack mackerel in the southern Pacific.

Juan Vilches is a patrón de pesca, whose job is to scout fish for a large company. He is also a marine biologist. Vilches shudders when recalling the old days.

"The slaughter was tremendous, unbelievable," he said. He used the Spanish word for massacre, matanza, similar to the Italian, mattanza, used to depict the bluefin tuna plunder.

"No one had any idea of limits," he said. "Hundreds of tons were thrown overboard if nets came up too full for the hold. Boats came in so loaded that fish were squashed, their blood so hot it actually boiled."

It is different now. Yet ICIJ, with the Chilean investigative center CI-PER, traced how eight groups with a near monopoly have pressured the government to set quotas above scientific advice. Six of these groups are controlled by powerful families. And, together, the eight of them own rights to 87 percent of Chile's jack mackerel catch.

Roberto Angelini, 63, rules the north. He is known as "The Heir," succeeding his uncle, Anacleto, who Forbes ranked as tied for South America's richest man in 2007, the year he died.

Anacleto came from Italy in 1948. In 1976, he added fishing to an empire that today includes Chile's largest fuel company, mines, forests, and other interests. Angelini's two fishing companies have 29.3 percent of the jack mackerel quota set by the Chilean government.

They supply 5.5 percent of the world's fishmeal.

About 70 percent of jack mackerel caught from 1998 to 2011 in Angelini's northern fiefdom were under minimum size, a government report shows. According to the law, half of those catches would be illegal. But government officials say catches in the north fall under a special "research" category and are exempt from size regulations. Angelini declined to comment for this story.

At the University of Concepción, marine biologist Eduardo Tarifeño's gentle tone hardens on the subject of ocean plunder.

Chile now has only sardines in relative abundance, he said. "We have no more jack mackerel or hake or anchoveta. Fisheries that produced a million or more tons a year have simply run out from overfishing by big companies."

Tarifeño is one of only two scientists on the CNP, Chile's national fisheries council, set up to advise on quotas. It votes by majority, and 60 percent of its members are from the industry.

Each year, Ifop, the official research institute, recommends a quota to Subpesca, the Economy Ministry's fisheries unit, which then proposes its own figure. If the CNP rejects that, the new limit is 80 percent of the previous year's quota.

In 2009, Ifop urged a sharp cut to 750,000 tons, according to the nonprofit environmental group, Oceana, which examines quota figures not made public. Subpesca raised that to 1.4 million metric tons, and the CNP approved it.

As jack mackerel stocks plummet, government officials and industry executives each blame the other for not taking earlier, firm action to reduce quotas.

A new fisheries bill expected to pass this year gives this CNP role to a handpicked panel of experts. But Tarifeño insists it is now too late for anything short of drastic action.

He told ICIJ: "If we don't save jack mackerel today we won't be able to do it later. We need a total ban for at least five years."

At the fisheries secretariat in Valparaiso, Italo Campodónico reflected on that, "As a marine biologist, I have to agree," he said. "We should have a five-year ban. But as a civil servant, I must be realistic. For economic and social reasons, it

won't happen. Outsiders can go fish in other waters. We can't."

Peru's 'Vanished' Anchoveta

Peru is the world's second largest fishing nation after China. The ramshackle port of Chimbote — the country's biggest — lands more fish than the entire Spanish fleet catches in a year.

Here the issue is not just the over-fishing of jack mackerel but also anchoveta, which looks like an anchovy-sized sardine, a crucial source of fishmeal for aquaculture.

Peru's anchoveta is the largest global fishery. While fishmeal exports are big business in Chile—about \$535 million annually—in Peru they are three times bigger: \$1.6 billion a year.

You smell Chimbote long before you see it. Reeking oily dark smoke billows from a forest of chimneys. Artisan boats bob in every direction around the battered wharves.

Nationally imposed rules define what is supposed to happen when vessels tie up with fish. But when asked when they last saw inspectors, a pair of aging fishermen looked at each other and laughed.

ICIJ, with the investigative reporting group IDL-Reporteros in Lima, obtained records from the official database of catches, which

shows the extent of fraud shielded behind factory gates.

An analysis of more than 100,000 weighing records from 2009 to the first half of 2011 found that most of Peru's fishmeal companies systematically cheated on half of the landings— in some cases, underreporting catches by 50 percent.

This fraud allows companies to catch more fish than quotas allow, to save on taxes and per-ton levies, and to pay less to fishermen who earn a percentage of the catch.

In all, at least 630,000 metric tons of anchoveta — worth nearly \$200 million in fishmeal — "vanished" in the weighing process over two and a half years. They simply weren't counted. Top offenders are Peruvian, but the ranking also includes PacAndes' China Fishery Group and three companies with Norwegian investment.

Peru's deputy fisheries minister Jaime Reyes Miranda acknowledged in an interview with ICIJ that there are "serious problems" with scales at fishmeal plants and said the government is trying to find a solution to make sure anchoveta numbers are not manipulated.

Richard Inurritegui, president of the National Fisheries Society, the leading industry group, downplayed the investigation's findings and blamed the masters' visual estimates for the discrepancies between fish declared by vessels and fish weighed in the plants. China Fishery Group refused to comment despite numerous requests.

Patricia Majluf, vice president of Imarpe, Peru's highly regarded oceans institute, described what she says are countless ways for fishermen and fishmeal plants to cheat on weight, evade taxes, cut corners and break rules.

If caught, she said, companies are able to delay penalties for four years and end up paying a fraction of fines levied.

Despite its solid reputation, the recommendations of Imarpe for a monitored decrease in fishing continue to get ignored.

Saving Fish or Industry?

Roberto Cesari, chief EU envoy to SPFRMO, which meets next week, told ICIJ he expects ratification only in 2013. This would be after seven years of precipitous decline for jack mackerel.

SPFRMO cut voluntary quotas by 40 percent for 2011, but China, among others, opted out. Beijing later agreed to reduce by 30 percent.

Cesari said the EU tries to exert pressure to reach a needed consensus or resolve conflict, but its clout is limited.

"We have been expressing our disappointment officially to China, Russia," he said, "but as you understand these are not minor players in the world ... they are giants."

Bill Mansfield, a New Zealand international lawyer who has chaired SPRFMO since 2006, said that voluntary restraints have not protected fish stocks, and it is time to put the convention into force. He said the Santiago meeting must limit the 2012 catch to 390,000 metric tons or less.

"The reality is that everybody needs to take a deep step of restraint if this species is to come back," he told ICLJ, declining to name any country that balked at sharp reductions.

While public officials avoid pointing fingers, two eccentric ex-sailors who pore over computers on tiny islands at opposite extremes of the world — neither knows the other — excoriate the big subsidized fleets.

Gunnar Album, near Bodø above the Arctic Circle in Norway, directs his TM Foundation and now consults for The Pew Charitable Trusts*.

^{*}ICIJ received a grant from The Pew Charitable Trusts in the past.

Between feeding his chickens and the llama he keeps to scare off foxes, he uses satellite data to track fishing vessels. He travels often to international meetings and distant ports.

Album says government support has created so much capacity that super trawlers must fish to their maximum for return on investment.

"These vessels roam the oceans for any available fish, causing overfishing and unbearable pressure on governments trying to manage resources," he said.

Martini Gotje, a Dutch expatriate who crewed aboard the Greenpeace Rainbow Warrior when French agents sank it in New Zealand's Auckland harbor in 1985, does much the same from the idyllic island of Waiheke, near Auckland.

Gotje compiles a Greenpeace blacklist, which helps activists and authorities. But, like Album, he mostly faults overcapacity — legal and yet devastating.

The first priority, he said, should be saving fish, not the fishing industry. "The Lafayette raised the game to an incredible level, and Holland is very much involved," he said. "There are way too many boats, just simply way too many boats."

In the end, oceanographer Pauly

argues, this global trend will not change unless a major power the European Union or the United States — takes firm action. "Somebody has to take the high ground," he said, "and others will follow."

Duncan Currie, a New Zealandbased environment lawyer with the Deep Seas Conservation Coalition, sees jack mackerel as a clear case in point. They school in a well-defined range and relatively few fleets pursue them.

"You have to ask the obvious question," he concludes. "If we can't save this, what can we save?"

Milagros Salazar (Peru), Juan Pablo Figueroa Lasch (Chile), Joop Bouma (The Netherlands), Irene Jay Liu (Hong Kong), Nicky Hager (New Zealand), Roman Anin (Russia) and Kate Willson (US) contributed to this report.

FOLLOW-UP

Fishing nations fail to stop plunder >>

Dutch parliament debates ICIJ's investigation ▶

FOLLOW-UP

Fishing Nations Fail To Stop Plunder in the South Pacific

ALLOWABLE CATCH WOULD BYPASS SCIENTISTS' ADVICE TO PROTECT THE DECIMATED JACK MACKEREL STOCK

By Mort Rosenblum and Mar Cabra
Published Online: February 8, 2012

ISHING STATES meeting in Santiago, Chile, left the way open for fleets to catch jack mackerel far beyond the 390,000-metric ton limit that scientists say is vital to protect the already decimated species. In all, the actual catch could reach a whopping half-million tons.

Asian, European and Latin American nations agreed to limit catches to 40 percent of 2010 levels, a total of about 300,000 metric tons in 2012. But Peru claimed rights to an extra 120,000 metric tons within its exclusive 200-mile zone.

In addition, Chile might not be able to honor its proposed limit be-

cause government and industry had already agreed on a much higher quota. And nobody knows what Ecuador will do. The country landed almost 70,000 metric tons in 2011 but took no part in the recent South Pacific Regional Fisheries Management Organization (SPRFMO) negotiations in Santiago. The SPRFMO— an intergovernmental organization charged with protecting fish stocks—has not been ratified, so it cannot impose binding limits.

The ICIJ reported on Jan. 25 that fleets in an essential free-for-all have reduced jack mackerel from around 30 million metric tons to less than three million in two decades. The



Jack mackerel, fresh off the boat, is prepared for markets in Peru. Mort Rosenblum/ICIJ

bony, bronze-hued jack mackerel is a key component of fishmeal for aquaculture. It can take more than 5 kilos of jack mackerel to raise a single kilo of farmed salmon.

The world's largest trawlers moved south after depleting other oceans, where local fleets have over-fished for decades. Now, scientists say, the jack mackerel breeding stock is down to 5 percent of its original level.

ICIJ's investigation found that Peru imposed little control over jack mackerel landings, and under pressure from industry the government allowed fleets to target juvenile fish crucial for reproduction of the stock. It also revealed that fishing companies in Peru had rigged scales to underreport at least 630,000 metric tons of anchoveta — another important species for fishmeal — over two and half years.

In reaction to the ICIJ investigation, the Dutch parliament is scheduled to debate overfishing in the southern Pacific next week. One of the key players in the jack mackerel fishery is the Dutch-based Pelagic Freezer-Trawler Association (PFA), which represents nine companies and 25 European Union-flagged vessels.

Some SPRFMO delegates who took part of the Santiago meeting reported fresh pressure from their governments to take firmer action. But conservationists who had seen the meeting in early February as a chance to reverse the downward curve expressed bitterness.

"Industrial fishing fleets have destroyed this fishery," Duncan Currie of the Deep Sea Conservation Commission said afterward, "and despite clear scientific evidence that the catch must be reduced ... the fishing nations have insisted on driving the stock further into oblivion."

Bill Mansfield, SPRFMO chairman, told ICIJ he was deeply disappointed. But, he added, he expects the organization to be ratified in 2012, after more than six years of taking shape. That would give its decisions and quotas the force of law.

At the outset, Mansfield told the

18 delegations that both high seas and territorial waters had to be managed cooperatively according to scientific data. "Otherwise," he said, "collapse is inevitable and everyone will lose out."

But some delegates pushed to extremes. South Korea, with a large fleet in place, proposed uncontrolled fishing until all states collectively caught 500,000 metric tons. Last year, South Korea refused to join others in a voluntary quota cut and, instead, it caught 1,000 metric tons more than the previous year.

In the end this year South Korea agreed with the others on the limits. China, which resisted the cutback last year, accepted the new lower limit as well. The holdout was Peru.

European Union representatives told ICIJ that Peru's position was so "negative" and "disappointing" that it should face trade sanctions.

Although jack mackerel normally swims in large schools beyond Chilean and Peruvian waters half-way across the southern Pacific, in 2011 much of the catch was near the South American coast.

Peru caught almost 260,000 metric tons in 2011, and its delegation argued that its proposed cut — around half that amount — was substantial.

In Lima, fisheries authorities insist that Peru is entitled to exploit its own water apart from SPRFMO quotas in the high seas. They argue that Peru has its own separate jack mackerel stock within its exclusive 200-mile zone, a theory scientists are still studying.

"For the Chileans, Peru is the bad guy in the film, and they follow all the rules," Gladys Cárdenas Quintana, scientific director of the government-backed research institute, Imarpe, told ICIJ. "They say they have a rational control, but that's not true. Chileans caused the collapse of jack mackerel."

Under increased international pressure, last week Peru temporarily suspended jack mackerel fishing in its territorial waters after local fleets caught the full quota for the first trimester of the year in less than 20 days.

At times, the week-long Santiago meeting took on a circus air. Greenpeace activists dressed as jack mackerel unfurled a large banner demanding that SPRFMO states protect the endangered fish.

Samuel Leiva, the Santiagobased Greenpeace campaigner who has monitored SPRFMO meetings since they began, urged a limit of 260,000 metric tons in 2012 with more energetic measures to enforce compliance.

"While the Chilean fleet has reduced their catch internally, the Peruvian fleet captured nearly six times more than it promised to capture," Leiva said in a briefing. He told ICIJ that if the stock decrease continued, next year Greenpeace would push for a total ban, something some scientists have already proposed.

But Chile, which caught more than 28 million tons of jack mackerel in the 1990s before cutting back sharply, also faced criticism. It now totals about half of all jack mackerel landings in the South Pacific, and it's unclear whether the country will be able to modify its 2012 quota to meet the cutbacks proposed in the SPRFMO meeting.

Looking ahead, Mansfield said that more public awareness of the environmental dangers, and legislative debate such as the one scheduled in the Netherlands, offer cause for optimism. He told ICIJ: "Once we enter the stage of formally binding legal obligations the ability to manage [stocks] successfully should be greatly enhanced."

Milagros Salazar (Peru) and Steve Bradshaw (Chile) contributed to this story.

FOLLOW-UP

Dutch Parliament Debates ICIJ's Pacific Overfishing Investigation

LAWMAKERS PROPOSE FISHING BAN FOR EUROPEAN FLEETS
THAT TARGET DECIMATED JACK MACKEREL

By Marina Walker Guevara
Published Online: February 17, 2012

EMBERS of the Animal Party asked the Dutch government Wednesday to ban catches of threatened jack mackerel that vessels from the Netherlands and other European countries have overfished in the South Pacific.

"For years there have been meetings to bring to a halt the activities of big floating fish factories in whose nets whole soccer stadiums could fit," MP Anja Hazekamp of the Animal Party, said, according to the Dutch daily *Trouw*. "But there

are still no binding fishing quotas established."

The parliamentary debate was sparked by a recent exposé by the IICIJ, which revealed that European, Asian and Latin American fleets have decimated the jack mackerel population in the once-rich waters of the southern Pacific. The stocks have declined from 30 million metric tons to less than 3 million in just two decades.

The bony, bronze-hued jack mackerel plays an important role in the marine ecosystem as food for bigger fish and is a key component of fishmeal for aquaculture. It can take more than 5 kilos of jack mackerel to raise a single kilo of farmed salmon.

Fleets compete in a free-for-all in the southern Pacific, the ICIJ investigation found, because governments have failed since 2006 to create and ratify a regional fisheries management organization that can impose binding regulations. In the meantime, quotas are only voluntary.

One key player in the fishery is the Dutch-based Pelagic Freezer-Trawler Association (PFA), which represents nine companies and 25 European Union-flagged vessels. PFA president Gerard van Balsfoort told ICIJ in January that vessels in the southern Pacific fished too hard at a time when fish stocks were vulnerable. "There was way too big an effort in too short a time ... the entire fleet has to be blamed for it," he said, including PFA.

But at this week's parliamentary debate, Henk Bleker, the state secretary for Economic Affairs, Agriculture and Innovation, who also oversees fisheries, made no apologies. Banning jack mackerel catches is "the dumbest thing that can be done," he told Parliament.

Bleker blamed Peru and Chile for the overfishing and said the Netherlands and the EU are taking a lead role in regulating the fishery.

"The fact that there is now going to be a quota is due to our presence," Bleker said, referring to the possibility that the regional fisheries management organization will be finally ratified this year, with binding regulations.

The dangers of a regulatory void became clear in early February when nations fishing in the southern Pacific left the way open for fleets to catch jack mackerel far beyond the limits that scientists had recommended for the recovery of the stock.

As for the Dutch, Bleker said he doesn't share the criticism MPs raised in the Wednesday debate about the fishing activities of the PFA conglomerate in the South Pacific.

"We should not praise ourselves," he said, "but neither should we let out hot air."

Ingrid Weel, a reporter for the Dutch newspaper Trouw, and Mar Cabra contributed to this story.

Lords of the Fish

WITH GOVERNMENT BACKING, A HANDFUL OF POWERFUL CHILEAN FAMILIES HAVE SECURED UNREALISTICALLY HIGH FISHING QUOTAS

By Juan Pablo Figueroa Lasch Published Online: January 25, 2012

BOARD the Santa María II, Chile — It is 10:30 a.m. on an August Sunday, seven miles off Corral port, and crewmen on the Santa María II haul in the net after half an hour in the water. Captain Eduardo Marzán watches from the bridge, face grim. To his left, 14 other ships circle slowly as his has done for four days in fruitless search of sardines.

The government reported in 2010 that sardines were still plentiful in Chilean waters while jack mackerel headed a list of 13 species that were in danger. Today, even sardines are scarce.

The Santa María II belongs to Lota Protein, owned by the Koppernaes Group in Norway, which has waged a 21-month legal war with eight groups that own rights to 87 percent of jack mackerel in Chilean waters, as well as most sardines, anchoveta and hake. Lota Protein says an auction for quotas would give others a fairer share.

Powerful Chilean families dominate these groups. They are, in essence, Chile's lords of the fish.

An analysis by the ICIJ, with the Chilean investigative center CIPER, shows how over the last decade governments systematically enabled them to flout science and secure unrealistically high quotas. This contributed significantly to a precipitous collapse of jack mackerel in the South Pacific, once one of the world's richest fishing grounds.

The Santa María II searches in vain. Finally, sonar signals a school, and crewmen drop the purse seine net four times. Barely 40 metric tons go into tanks that hold 850. Captain Marzán abandons his usual opti-



The Santa María II belongs to Lota Protein, owned by the Koppernaes Group in Norway, which has waged a 21-month legal war with eight powerful groups that own rights to 87 percent of jack mackerel in Chilean waters. Juan Pablo Figueroa Lasch/ICIJ

mism. Authorities moved up the annual two-month ban to protect sardines, and it begins at midnight, in a few hours.

No more blips appear on the sonar, and Marzán orders his vessel home. I ask whether he might go back out for jack mackerel, and he heaves a sigh. Until a few years ago, he replies, he would have headed for La Feria, a small sector 30 miles off the coast where on good nights boats were so numerous that their lights looked like a floating city. Those days are gone.

By radio, several captains far out in open waters beyond Chile's exclusive zone told Marzán that they spent 15 days fishing, and their holds are practically empty. Mario Ulloa, who pilots the Santa María II, recalled the glory days: "We used to just pitch up and cast the net. We filled the hold in a single throw and returned to port with a full load of jack mackerel. We'd go out two or three times a day. There was plenty of fish, but we didn't know to take care of the stocks."

Lax Controls, Vanishing Stocks

Chile's maximum catch limit law, one of its two fisheries codes, dates back to 2001. During the 1990s, Chileans caught more than 28 million metric tons of jack mackerel, and the government said it wanted better control. The law gave artisanal fishermen — there are more than 80,000 of them today — exclusive access to jack mackerel within five miles of the coast and five percent of the overall quota. Industrial ship owners got the rest.

Soon after, the big fish ate the small ones. Major companies bought up competitors. They contracted artisan fishermen to acquire their quotas. Together, they operate as an informal fisheries trust, an interlocking network in which some hold shares in others. And they band together to defend common interests.

The government does not charge for quotas. Companies pay only a small fee based on their vessels' gross tonnage, about 2 percent of their export earnings, which earns Chile about \$30 million a year. The government plans to add a royalty from 2013, recognizing fish, like mining, as an extractive resource. Industry is trying to block it.

Chileans caught 72 percent of jack mackerel landed in the southern Pacific from 2000 and 2010, but after 2005 competition grew intense. A score of nations formed the South Pacific Regional Fisheries Management Organization (SPRFMO), and the world's biggest fishing vessels now trawl beyond Chilean waters.

The fish numbers are so low in Chile that fleets have not reached their full quotas since 2007. In 2010, the limit for jack mackerel was 1.3 million tons. Nets caught less than 465,000. Lota Protein has 1.4 percent of the jack mackerel quota. It did not catch enough in 2011 to reach even those levels.

Chile's maximum-catch limit law was meant to last two years, but the lords of the fish lobbied hard, and it still remains in force. A new bill, expected to pass in 2012, mostly extends the status quo. It provides for bidding if jack mackerel is unusually abundant and allows more access to other species.

Chilean authorities propose quotas based on advice from Ifop, the government-funded fisheries institute. These then go to the national fisheries council, the CNP, made up of civil servants, union leaders, a lawyer, two engineers and two marine biologists. But 60 percent of CNP members are from industry, and the majority rules.

If the CNP rejects the proposal, the new quota is set automatically at 80 percent of the previous one. Yet the interplay can be complex. For 2009, as jack mackerel stocks plummeted, Ifop advised 750,000 metric tons. The government proposed 1,400,000 metric tons — nearly double — and CNP accepted it.

Eduardo Tarifeño at the University of Concepción, a marine biologist on the CNP, says he makes little impact. "Everything is discussed and already cooked before we get to the sessions," he told ICIJ. "The industry talks with the fisheries secretary and asks him how much he is thinking of proposing. Then they tell him that they need more tons to keep the industry working."

In 2010, the government took firm action after Ifop scientists who reported nearly six million tons in Chilean waters in 2001 found none at all in 2009. It pressed for a cut of 76 percent to 315,000 tons in 2011, and the CNP approved it.

But then this promising direction was reversed. On Dec. 20 of last year, with Tarifeño absent to teach a class, the CNP rejected a significant cut for 2012.

Although the new law is expected to alter the CNP's role in 2013 and limit the influence of industry, Tarifeño argues that only a five-year ban on fishing jack mackerel can save the stock.

Power Plays and Privilege

As the crisis worsens, government officials and industry leaders trade accusations, each side blaming the other for the depletion of the fish.

Pablo Galilea, under-secretary for fisheries, blames the large companies — and earlier administrations that they lobbied — for catching far too much. He told the daily El Mercurio in December, "Fisheries were administered with a short-term vision, which provoked irreparable damage to the resource."

Luis Felipe Moncada, president of Asipes, one of the two major industry associations, told ICIJ that authorities, not the CNP, were at fault. If the government wanted to protect the fish, he said, it should



Chilean jack mackerel is sold fresh off the boat. Instituto de Fomento Pesquero

have imposed progressively lower quotas.

He said the government abused the controversial category known as "pesca de investigación," research fishing, which allows companies to bypass minimum size limits. He singled out the north, where influential businessman Roberto Angelini controls three-quarters of the jack mackerel quota in an area crucial to reproduction.

Catches of undersized fish, or ju-

veniles, in the north are putting the resource at grave risk, Moncada said.

Chile reserves up to 3 percent of its quota for research, with no limits on the size of the fish. Scientists use only a fraction of the catch; the rest goes to industry. But Chilean authorities confirmed to ICIJ that for years this exception has applied to all jack mackerel in the north. In 2011 alone, this would increase "research" fishing to 17 percent of the overall quota, about 48,000 metric tons.

In fact, a government report shows that the majority of the fish caught in the north since 1998 were juveniles.

A recent regulation, meanwhile, cut the legal size for jack mackerel in the north of Chile from 26 centimeters to 22 centimeters. Peru's limit, in contrast, is 31 centimeters.

The Heir

Besides fishing interests, Roberto Angelini's empire also includes Chile's largest petroleum company, with 620 gas stations. He is president of Copec S.A., 60 percent family-owned, a conglomerate that extends to timber, cellulose, mines, electricity, retail stores and vehicle franchises.

Chileans call Angelini, 63, "The Heir." He took over from his uncle, Anacleto, who emigrated from Italy in 1948 and married a Chilean. The year Anacleto died, 2007, Forbes magazine ranked him tied as the richest man in South America, worth an estimated \$6 billion.

When Roberto was still a teenager, his parents sent him to live with his uncle. He went to Verbo Divino, the Roman Catholic academy favored by Chile's elite; President Sebastian Piñera studied there. After

graduating from Catholic University, he went his own way. Within two years, he joined the family business in one of its key sectors: fishing. In a matter of years, Anacleto tapped him as his successor.

Today Angelini's two fishing companies, Orizon and Corpesca, control 29.3 percent of Chile's overall jack mackerel quota. Together these companies supply 5.5 percent of the world's fishmeal.

Intensely private, Angelini shuns interviews and cameras. He declined to comment for this story. A few photos show him silver-haired, sleek and well fed, mostly in a dark red tie. When Italy admitted him to its Order of Merit, he agreed to speak only to a few selected guests at the embassy in Santiago.

Rodrigo Sarquis is another pivotal figure. His fortune is only from fish. Sarquis' grandfather began a small company in 1961. In recent years, his company bought several smaller fishing firms and in 2011 merged with a competitor to create Blumar S.A. It has the largest single share of jack mackerel: 18.6 percent. Sarquis is president of the major industry association, Sonapesca. Until December 2010, he was a fixture on the CNP, the influential national fisheries council.

Roberto Izquierdo Menéndez, 71, assumed Sarquis' seat on the CNP. His family owns two fishing companies, Alimar and Sopesa, and he heads a conglomerate with interests in Chile's largest telecommunications company, its most important financial newspaper, a large paper mill, a company that makes polypropylene and, since 2010, a thermoelectric center. He lost a bitter property dispute with the American businessman Douglas Tompkins, who established a vast nature reserve in southern Chile.

Jorge Fernández and brothers Jan and Klaus Stengel merged most of their fishing operations in 2011 after years of competing. Together they control 17.2 percent of the jack mackerel quota. Both families are also active in separate businesses, including salmon farms in southern Chile, which depend heavily on fishmeal made from jack mackerel.

Francisco Javier Errázuriz, 69, holds only a small quota but is a colorful member of the group. Known as "Fra-Fra," he was a center-right candidate for president in 1989, later elected senator. While in Congress, he was fined and given a suspended sentence for kidnapping and aggression during a dispute over water.

Recently, Errázuriz was accused of human trafficking, charged with illegally importing at least 150 Paraguayans to work his fields. In October, just as the prosecutor was to formalize charges, Errázuriz had a stroke. He remains in the hospital. His company did not respond to ICIJ's request for comment but his son, Francisco Javier, has publicly denied the human trafficking accusations against his father.

Sarquis, Fernández and Izquierdo Menéndez also did not respond to requests for comment.

'The Sea Belongs to Businessmen'

On the Santa María II, Jaime Araneda talks about his fishing family, back to his grandfather. He has worked for 11 years in the big companies' fleets. Now he fears the future.

When he started fishing, boats came back after three or four days, always full of jack mackerel. Today they go out to high seas well beyond Chilean waters for at least 12 days. Often, they come back nearly empty.

"The sea no longer belongs to Chileans," Araneda says. "It belongs to the businessmen. If things continue like this, in one or two years more it won't be worth fishing in Chile."



Peru's anchoveta is the world's largest fishery. Most of it is reduced to fishmeal, a feed for farmed fish and pigs. Milagros Salazar/ICIJ

Peru's Vanishing Fish

RAMPANT CHEATING AND LAX CONTROLS ALLOWED 630,000 TONS OF ANCHOVETA TO GO MISSING BETWEEN 2009 AND 2011

> By Milagros Salazar Published Online: January 26, 2012

HIMBOTE, Peru — This northern port reeks of rotten fish year-round, but when anchoveta season begins in late November, its long row of factories

belch oily columns of nauseating smoke that impregnate everything within miles.

"That's the smell of money," a smiling cabbie tells visitors he sees

wrinkling their noses as they approach the 27 de Octubre industrial zone, where more than 20 plants throb with activity.

Peru is the world's second largest fishing nation after China, and 85 percent of its catch is anchoveta. It tastes like anchovy yet is sel-

Between 2009 and the first half of 2011, 52 percent of landings had discrepancies of more than 10 percent between fish declared by vessels and fish weighed in the plant.

dom salted; some people eat it like sardines. Almost all is boiled down to fishmeal, a feed for farmed fish and pigs. Peru exported more than a million tons in 2010, mostly to Asia, worth \$1.6 billion.

Each year up to 6 million metric tons of anchoveta reach the docks of more than 100

fishmeal plants, along with others that can it and make byproducts. What happens inside these factories is known only to company personnel and contracted inspectors.

ICIJ, penetrating these plants, found that at least 630,000 metric tons have vanished over the past two and a half years between the holds of boats and factory scales.

That is more than all the fish British fleets land in a year.

The Ministry of Production, which governs fisheries, denied access to the database that records the catches. But ICIJ, working with the Peruvian investigative reporting group IDL-Reporteros, obtained and analyzed records back to 2009 of more than 100,000 landings of anchoveta in northern and central ports, where 90 percent of fish arrives. Each landing is a separate vessel's catch.

The result is stunning: 52 percent of landings between 2009 and the first half of 2011 had discrepancies of more than 10 percent between fish declared by vessels and fish weighed in the plant.

Those 630,000 "missing" tons of anchoveta — worth nearly \$200 million as fishmeal — were simply not counted. Phantom fish are not taxed and companies avoid a fishing-rights fee levied on each ton caught. They do not count against companies' fishing quota. Fishermen, paid by catch weight, are cheated out of earnings.

The database only records anchoveta. For jack mackerel, a severely overfished species in adjacent waters, there's hardly any control. ICIJ's investigation found

that in the past four years, quotas were exceeded about half the time. Vessels also landed high percentages of undersized fish.

These findings fit into a larger picture of overfishing and scant control in the southern Pacific. In two decades, jack mackerel has plummeted from a stock of about 30 million metric tons to less than 3 million metric tons. Asian and European fleets that have depleted other oceans now head south to waters off Peru and Chile.

Anchoveta, like jack mackerel, reflect a telling microcosm of this global crisis.

Cheating at the Scales

Indelesio Velásquez has fished anchoveta for 40 years, 25 of them as a fishing master. He can see at a glance how much he has caught. The hold is calibrated according to Coast Guard specifications.

"When the master looks into the hold, he knows how much fish he's bringing." Velásquez said. "You're not going to cheat him."

As a boat ties up at a plant's wharf, its master reports his calculation to an inspector. The anchoveta is then conveyed to a massive scale that weighs several tons at a

time. Fish cannot escape en route, and yet ICIJ found that sometimes as much as 50 percent go missing.

A wide range of specialists consulted — company executives, fishermen and inspectors — said a master's estimate might be reasonably off by 10 percent. Beyond that, it is suspicious.

The government has been recording declared and weighed catches since 2004. Besides tracking fraud, these have a vital purpose: to prevent overfishing. Researchers at the Cayetano Heredia University calculated that if Peru's 100 fishmeal plants worked around the clock — 9,000 tons an hour — they could process 30 times more anchoveta than the annual quota set by the government.

But control has no point if scales show the wrong weight. In August 2009, a ministry audit analyzed scales at seven companies. It found 31 percent of those tested had evidence of serious manipulation. This included unauthorized password changes to control panels and altering the software that records the readings.

Rolando Urban, manager of Cerper, the inspection company that conducted the audit and also inspects weighing, said examiners found tampering with software that Cerper is not responsible for monitoring. The results were not published, and the government did not improve computer security.

Critics of the system say conflicts of interest put pressure on inspectors. Cerper and SGS, the other contracted company, are paid by the fishmeal plants they scrutinize. In Chimbote, and later in Lima, SGS officials declined to speak on the record. Privately, supervisors in both companies told ICIJ the system is flawed.

But some inspectors openly discuss irregularities they see.

In the northern town of Coishco, Úrsula Gutiérrez, a Cerper inspector, told ICIJ that her colleagues have seen security seals broken on control panels that track weight at the plants. This indicates weight could have been manipulated.

Gutiérrez showed the handwritten logbook where she records official weights. "The last boat declared 400 tons," she said, "and in here it says 303 tons. So there's a difference of 100 tons." But, she added, her job is only to record numbers and send them to the ministry.

Control is particularly scant in the south of Peru, in remote little ports like La Planchada. Its 300 families have electricity for only five hours a day. Often, fish arrive in darkness.

Three inspectors played soccer near the larger of two La Planchada fishmeal processors: China Fishery Group, a subsidiary of the Hong Kong-based marine products empire, Pacific Andes International Holdings. They said colleagues

Ten large companies own more than 60 percent of Peru's anchoveta rights.

were inside, but there was no way to confirm this. A sturdy fence surrounds the plant.

ICIJ's analysis of catches found industry leaders among the worst offenders. Ten large companies own

more than 60 percent of Peru's anchoveta rights. Of those ten, at least eight have repeated discrepancies between fish declared and fish weighed: four with Peruvian ownership, one from Hong Kong and three others with Norwegian investment.

Two Peruvian companies, Humacare and Exalmar, stood out among the numbers. For Humacare, 90 percent of landings had irregularities of more than 10 percent. For Exalmar, the figure was 88 percent. At, times, half of the reported catches vanished by the time they got to the scales.

Cheating the Scales

ICIJ's investigation found that in Peru at least 630,000 tons of anchoveta "vanished" between the holds of boats and factory scales in two and a half years. The fish were simply not counted. This fraud allows companies to evade taxes and overfish their quotas. Here's how the system works.

STEP 1

A vessel ties up at a company's private dock. The fishing master takes a look at the hold and tells an inspector how much fish there is. For example, he says a hold has 400 metric tons.



STEP 2

The anchoveta is then conveyed through tubes to a massive scale that can weigh several tons at a time.



STEP 3

The weight in the scales is checked in control panels in a separate room. The screen shows that there are 300 tons of anchoveta. This means that 100 tons of fish went "missing" between the boat and the scale.



SO HOW IS THIS POSSIBLE? A 2009 audit found that nearly a third of the scales tested had evidence of serious manipulation. Inspectors say that they often find tampering with the scales' software. Experts said a master's estimate might be reasonably off by 10 percent. Beyond that, it is suspicious. ICIJ found discrepancies of up to 50 percent.

Raúl Briceño, operations manager at Exalmar, the larger of the two, blamed miscalculations by fishing masters who had to rely on visual estimates. He said 45 percent of the fish Exalmar processes is from independent fishermen who would go elsewhere if they thought they were being cheated.

In a written response, the company also noted that fish lose liquid — thus weight — as they are transferred from the vessel to the factory. Humacare did not respond to requests for comment.

Richard Inurritegui, president of the National Fisheries Society, the leading industry group, played down the investigation's findings. He said that masters' estimates cannot be compared to what the scale says. None of the companies consulted acknowledged any irregularities.

Black Holes

Soon after President Ollanta Humala took power last July, the new fisheries deputy minister, Rocío Barrios, said some of her aides hid from her reports of discrepancies in anchoveta catches. She fired several civil servants and also filed legal procedures to bring some to justice. Kurt Burneo, minister in charge of fisheries until December, publicly denounced what he said was complicity between some officials

The government found repeated flaws in inspection reports, which prevented authorities from imposing fines.

who supervise landings and the contracted inspection firms.

Beyond discrepancies in tonnage, he said, the government found repeated flaws in inspection reports, which prevented authorities from imposing fines. Also, he said, some officials removed files from the ministry. A series of irregularities al-

lowed companies to appeal a large majority of fines.

In 2009, a new law assigned quotas directly to each vessel. This was announced as a measure to limit overfishing and corruption. Six of the companies that showed high irregularities in the ICIJ analysis financed consultants who helped the government draft the law.

ICIJ obtained records that suggest that the new system doesn't provide better controls than the past one. A sampling from 2008

found that half of the landings from six ports had discrepancies above ten percent. The situation did not appear to improve after the new law was passed. Cheating remains similar and in some seasons has possibly worsened.

A new minister took over last December. Deputy fisheries minister Jaime Reyes Miranda acknowledged in an interview with ICIJ that there are "serious problems" with scales at fishmeal plants and said the government is trying to find a solution to make sure anchoveta numbers are not manipulated.

Turning a Blind Eye

For jack mackerel, the system imposes almost no control at all. The government relies on vessel owners' catch declarations.

In 2002, Peru banned the use of jack mackerel for fishmeal, reserving it for human consumption. Yet with almost no oversight, this is difficult to enforce.

Jack mackerel landings were 26 percent above quotas in 2008, according to documents from Imarpe, Peru's government-financed marine research institute. The next two years, fish were so scarce that ship owners could not find enough

to reach their share. In 2011, jack mackerel was abundant again and companies overfished the quotas by at least 2 percent and likely more.

In some cases, the Ministry of Production set quotas that were higher than Imarpe recommended. According to documents from the research institute obtained by ICIJ, in February 2008, then-minister Rafael Rey fixed a monthly quota of 38,000 tons for February and March — 8,000 more than what scientists prescribed.

In 2011, the government wanted a higher catch because of a campaign, in conjunction with Peru's six largest jack mackerel enterprises, to sell the fish at reduced prices in low-income neighborhoods.

Jorge Villasante, then minister of production, said only a thousand tons of fish were sold at reduced price by mid-year. That was about half of one percent of the nearly 200,000 tons companies caught that year, including the six that participated in the government campaign. The rest were sold at market rates.

Government records also show that Peruvian nets now capture too many undersized fish, threatening reproduction.

"All we see now are little jack mackerel," Úrsula Amesquita said at her restaurant near China Fishery in La Planchada. Artisan fishermen confirm that most fish they see at the wharf are no more than 15 centimeters long.

The law declares that no more than 30 percent of a landing can include jack mackerel of less than 31 centimeters. But this is hard to monitor.

Imarpe does not make public its reports on juvenile jack mackerel catches, nor does it publish quota recommendations it sends to the ministry.

ICIJ obtained a report that shows that almost 60 percent of the more than 26,000 tons caught in 2009 were below minimum size. In January and February 2011, the months when fish have most recently spawned, 91 percent of jack mackerel were too small.

In the majority of cases, the ministry approved exceptional provisions to allow increased fishing of undersized jack mackerel. Almost always, this was for the industrial fleet rather than for artisanal fishermen.

Deputy fisheries minister Reyes Miranda, accompanied by Imarpe scientists, acknowledged in an interview with ICIJ that previous administrations allowed fishing of juvenile jack mackerel, putting the stock at risk.

"This is wrong," said biologist Gladys Cárdenas, Imarpe's chief scientist. She explained that juveniles are responsible for replen-

Almost 60 percent of the more than 26,000 tons caught in 2009 were below minimum size. ishing the stock. "If we catch them too young, they haven't had time to mature and reproduce. Minimumsize regulations must be respected at all times."

The reality suggested by the records ICIJ analyzed

is that fisheries reform in Peru has been erratic, with short-term planning that does not eliminate cheating. Fish stocks cannot be accurately assessed because of weight fraud.

In La Planchada, fisheries engineer Wilfredo Lévano, an Imarpe agent, told ICIJ: "There is always robbery at the scales — here less, there more. In the end, everyone does it."

Back in Chimbote, Javier Castro, a labor union leader, said that successive governments show little willingness to protect Peru's lucrative waters. "I've had no confidence for decades," he said. "Nothing changes."

Methodology: Part I

By The International Consortium of Investigative Journalists

The ICIJ investigation relied on more than 200 interviews with fishermen, ranchers, divers, officials, scientists, and traders, as well as court documents, regulatory reports, and corporate records in ten countries: Belgium, Croatia, France, Italy, Malta, Spain, Japan, Tunisia, Turkey, and the United States. An extensive literature search was also made, focused on news stories, NGO reports, and scientific studies.

ICIJ also conducted analysis of internal data submitted by the Eastern Atlantic Bluefin Tuna industry to regulators, and on the scope and size of the bluefin black market.

Analysis of Bluefin Tuna Catch Records (BCD)

For its analysis of the bluefin tuna trade, ICIJ also relied on internal data collected by the International Commission for the Conservation of Atlantic Tunas (ICCAT), the intergovernmental body established to regulate the trade of tuna-like species

in the Atlantic and adjacent waters, including the Mediterranean.

The data are used in a program launched in 2008 called the Bluefin Tuna Catch Document Scheme. The individual paper records are referred to as BCDs. The BCD follows a catch (a group of tuna caught at one time) from fishing vessel, through transfer to a fattening ranch, through harvest (each time fish are taken from the saltwater pens and killed) to export and finally to sale. A copy of the BCD goes to the ICCAT member state involved in that transaction. In turn, the member state forwards a copy of that paper record to the ICCAT secretariat office in Madrid. The database is password-protected and available only to a few officials in each ICCAT member state.

ICIJ was provided access to the database through an ICCAT member state. It also was provided a copy of the complete database by a confidential source. The most recent update of the data set was completed in summer 2010, the most recent data available for its analysis.

Focusing on 2008 and 2009, ICIJ examined allegations that the database was ineffective at tracking fish from catch to sale. If such findings were confirmed, then by extension it would bring into question the ability of the system to police the trade. ICIJ crosschecked the raw data provided by the source by taking a random sampling of the source's records and comparing them to the records in the BCD database. The accuracy of the source's data was confirmed.

Finding the data in an inconsistent state, ICIJ cleaned and regularized names and other attributes before doing basic analysis. Some queries of specific interest included: percentage of entries without complete information, cases in which the individual mean weight of the entire catch was exactly at the minimum allowable size, cases in which more fish were harvested (killed for export) than were transferred into fattening ranches, and vessels that reported fishing more than legally allowed under their ships' quotas.

ICIJ attempted to seek out data analysts at the ICCAT Secretariat to discuss the findings. Officials there declined the request.

Black Market Estimate

ICIJ used diverse sources to piece together an estimate of the black market in bluefin tuna. Many of these sources provided data — on annual catch and market prices that themselves were only estimates. In each case, ICIJ took the lower end of the estimate so that the final calculation was as conservative as possible. The total bluefin tuna catch figures from 1998 to 2007 come from ICCAT's Report of the Standing Committee on Research and Statistics, October 4 to 8, 2010. In describing the catch figures, ICCAT scientist Jean-Marc Fromentin, one of the report's authors, said the committee estimated the total catch by looking at each vessel's capacity, the number of actual days at sea, and the amount a vessel would need to catch to remain viable.

To estimate the size of the overcatch for each year, ICIJ compared the estimated total catch to the specific quota set by ICCAT in its Biannual Report series. That comparison provides the number of tons of bluefin tuna illegally caught and traded above the quota by year.

To determine the dollar value in the market, ICIJ used data from the

Tokyo Metropolitan Central Wholesale Market, or Tsukiji Market, where bluefin tuna are traded, and from Japan's Fisheries Agency. ICIJ calculated an average yen-per-ton price from 1998-2007 and converted yen to dollars using an average annual exchange rate.

Methodology: Part II

The ICIJ acquired data on public aid benefiting the Spanish fishing industry between the years 2000-2010. As the European Union's most powerful fishing nation, Spain is its largest recipient of fishing subsidies.

The World Trade Organization defines fisheries subsidies as "a financial contribution by the public sector that provides private benefits to the fisheries sector." The contribution can be direct or indirect (such as tax breaks). Worldwide estimations on fisheries subsidies exist, but no detailed analysis of real spending has been conducted of the Spanish fishing industry, which is the largest recipient of fishing aid in the European Union – the world's third largest fishing "nation."

To obtain the amounts related to direct government payments to the industry, ICIJ analyzed datasets from the European Commission's Directorate-General for Maritime Affairs and Fisheries, Spain's central government, and autonomous communities (regions) within Spain to account for public aid flowing to the industry between 2000-2010.

To help in the analysis, ICIJ hired software developer David Cabo, vice-president of Pro Bono Publico, a non-profit organization based in Spain devoted to transparency and open records issues.

For EU funding under the Financial Instrument for Fisheries Guidance (FIFG) for 2000-2006, ICIJ relied on raw data provided by the Directorate General to the non-profit transparency advocacy group Fishsubidy.org in December 2008. ICIJ requested the data directly from the Directorate General, the body in charge of publishing data from 2000-2006. Although it once provided the data to **Fishsubsidy.org**, the Directorate General said it would not release any more data until the operational programs were completed, which may take years.

Because of the Commission's interpretation of "confidentiality," the data provided to Fishsubsidy. org was stripped of any beneficiary information. The data included the breakdown between the EU funding and co-financing by Spain, but the amounts were only for money allocated, not paid. In years prior to the introduction of the euro in 2002, the Directorate General already had calculated the exchange rates for pesetas to euros.

From 2007, the responsibility of publishing the subsidy data shifted to the EU member states. For the remaining EU funding under FIFG and the European Fisheries Fund (EFF) for the years 2007-2010, ICIJ relied on data provided by the

Spanish Ministry of Environment, Agriculture and Fisheries.

To uncover additional subsidies provided to companies by regional governments and complete the Fishsubsidy.org data with beneficiary information, ICIJ requested data from the five regional governments that received most EU fishing aid: Galicia, Andalucía, Basque Country, Cataluña and the Canary Islands.

ICIJ interviewed Ignacio Gandarias, the director general who oversees subsidy expenditure in Spain, to understand the funding processes and available data. Gandarias said the amounts published by his office regarding EU subsidies in 2007-2010 only included EU money—not the co-financing by the state or the regions. However, when ICIJ crosschecked the data with more detailed information provided by the Basque Country region, ICIJ found that it did appear include state and regional money.

To avoid duplication ICIJ only used the regional data where lines of subsidies matched on the file number. This was the case of the Basque Country and Andalucía, although in the latter only FIFG

money could be used, as many file numbers did not match. When possible, ICIJ based its calculations from Brussels and Madrid on amount "paid" rather than amount "allocated."

Despite the majority of fishing funds coming from direct subsidies from the EU, countries are allowed to provide additional funding directly from their budget. This is called "state aid" and includes money for industry groups, private security, help to pay for fuel during economic crisis, and low-interest loans. To obtain this data, ICIJ analyzed records published in Spain's official bulletin (BOE). ICIJ disregarded the information also published in these documents related to EU funding because it was impossible to verify potential overlap with the other acquired data, as the subsidies don't include file numbers. When in doubt, ICIJ erred on the conservative side, so that the amounts accounted for state aid could be considerably higher. For example, Spain was allowed by the EU to give up to €127.8 million for help to the fleet paying for fuel in the period 2007-2010, but in the published

subsidies only €10 million were published as specific to that line of aid.

ICIJ also accounted for the subsidies provided by the Infrastructure Ministry for security for the national fishing fleet for items including lifejackets and radio navigation beacons.

Fishing Partnership Agreements are a distinct pocket of aid also funded through the Directorate-General for Maritime Affairs and Fisheries in Brussels. For the year 2000, ICIJ used the figure calculated by the Institute for European Environmental Policy upon commission by WWF. ICIJ omitted the information for 2001-2003, as the Directorate General could not provide the data by publication deadline. For the period from 2004-2008. ICIJ based its calculations on the 2009 Directorate General working paper "A Diagnosis of the EU Fisheries Sector." For years 2009-2010, ICIJ analyzed detailed data provided by the Directorate General. The file contained a breakdown by year and by vessel of all active agreements. Those agreements span the period of 2005-2012. ICIJ

calculated the per-vessel subsidy value based on overall partnership figures available on the Directorate General's Website.

Fuel tax breaks benefit the agriculture, aviation, transport, forestry and fisheries sectors, among others, although vessels are among the few vehicles to get completely tax-exempt fuel. Spain's tax agency (Agencia Tributaria) publishes annually a report on special taxes such as the fuel tax. The 2008 report - the latest available - shows the amount of fuel consumed by the fishing sector for 2000-2008. Following the advice by its author, Antonio Juárez, ICIJ multiplied that figure by the various taxes that would be paid if a ship owner were to fill a Honda ("gasóleo uso general") instead of a trawler ("gasóleo bonificado"). For the years 2009 and 2010, Juárez provided the figures he says are to be published in coming months.

In previous years, if vessels did not get their fuel from tax-exempt stations, the fishing industry could get a rebate for the tax. However, this method has been in decline since 1996, and Juárez recommended disregarding the figure. In 2008, for example, rebates amounted around €1 million.

One-in-Three Fish

ICIJ wanted to find out how the value of Spain's industry compared to the subsidies it receives. Economists recommended different methodologies for our analysis.

Rashid Sumaila from the University of British Columbia conduced a global analysis of subsidies versus value published last year. He estimated the value of subsidies - both direct (i.e. building vessels) and indirect (i.e. gas tax savings) to the industry, and compared

that to the value of the landed fish. In his estimation, he included subsidies to the whole industry, which includes the processing sector as well as catching or aquaculture.

Andrew Dyck, a fisheries economist from the University of British Columbia who worked with Sumaila said, "We do include many of the processing subsides in our analysis because we define a subsidy as a payment from government that adds value to fishers. So a processing subsidy, although it goes to a cannery or marketing program, increase demand and add value for fishermen."

Fernando González Laxe, a fishery economist at the University of La Coruña, said that the FAO and famous fisheries economists such as Milazzo and Sumaila compare total subsides to value of landed catch. He said it becomes too complicated to try to parse out subsidies to the processing sector and recommended using the same methodology as the world's foremost experts.

Sebastián Villasante, fishery economist from the University of Santiago de Compostela, said no one has undertaken a thorough and accurate accounting of the value of Spain's fishing industry compared to the subsidies it receives. He felt that any analysis should account for the value of the processing sector, although he said there is no accurate figure for the value of that sector.

Manuel Varela, a fisheries economist at the University of Vigo suggested that ICIJ subtract from our subsidy data any direct aid to the processing sector. He suggested

using the Gross Value Added of the fishing and aquaculture sectors to the Spanish economy (GDP) instead of the value of landings.

ICIJ chose to follow Manuel Varela's suggestion, using the Gross Value Added (valor añadido bruto) for the fishing and aquaculture sectors. As the Gross Value Added is not available for the processing sector, it seemed fairer to take these subsidies out of the calculation. ICIJ extracted from the subsidy analysis all direct aid to the processing sector based on subsidy area coding detailed in EU legislation. ICIJ analyzed a five-year period, 2005 to 2009.

Hake DNA Testing: How We Did It

Based on allegations of fraud in the hake market, ICIJ carried out a DNA study on hake in the Spanish market.

In 2010, a team of Spanish and Greek researchers at the University of Oviedo and Aristotle University of Thessaloniki published a study on high levels of apparently intentional mislabeling of hake imports in their respective countries.

Southern African hake species were mainly being marketed as European or South American Hake. European and South American hakes are worth double the amount of southern African hakes, researchers noted. Following publication, the Spanish government requested a copy of the study, but the official report did not include company names. The lead researcher Eva García Vázquez told ICIJ she would have provided the names associated with the mislabeled samples had officials asked.

The researchers also experienced complaints from industry. So when ICIJ requested the company identities. García declined to share that information. ICIJ decided to undertake its own snapshot study in Madrid — Spain's capital — to determine if mislabeling was still occurring. ICIJ commissioned García Vázquez and her team at the University of Oviedo to conduct a second study to determine the extent of mislabeling in the fresh and frozen hake markets.

DNA experts told ICIJ our meth-

odology was sound and simple. Geneticist Finar Neisen from the National Institute of Aquatic Resources at the Technical University of Denmark called the work "a walk in the park" as it was easy to identify the different species. The case might have been different if ICIJ were trying to determine the geographical locations among samples of the same species.

Between June 9 and 14, ICIJ reporters Marcos García Rev and Mar Cabra purchased 100 frozen samples and 50 fresh samples in the Madrid region of products labeled as: Merluccius capensis (Shallow water cape hake), M. paradoxus (Deep-water Cape Hake), Merluccius polli (Benguela Hake), Merluccius senegalensis (Senegalese Hake), M. merluccius (European Hake), M. australis (Southern Hake), or M. hubbsi (Argentine Hake). Because of time and logistical constraints, ICIJ reporters were unable to sample over an extended time period or outside the Madrid region.

Reporters purchased the frozen samples at the top supermarkets in terms of sales. These are also

the markets that carry brands from some of the country's largest importers of frozen seafood. ICIJ also selected samples from companies that sell bulk fish. According to a study by the Ministry of Environment, Agriculture and Fisheries on European hake, Spaniards buy half of their fresh hake in supermarkets and half in traditional fish markets. Fresh samples were purchased from top chain stores as well as local fishmongers selected randomly within the city of Madrid.

The shopping process was documented in spreadsheets, which contained the following information: sample number, date of buy, name of the shop, address, scientific name indicated, reported origin, frozen/fresh, presentation (whole piece, slice, filet, tail), commercial brand, distributor, ship owner, price per kilo and a field for other notes. This information was later typed into Excel.

The purchase and sampling process was captured on video. Each sample was placed in a sterilized plastic cup filled with 100 ml of ethanol for delivery to Oviedo. Following the recommendations of

the researches, the cups had inside a penciled piece of paper with the sample number, which was also indicated with a sticker outside. This way, scientists could do a blind analysis of the fish.

ICIJ paid the University of Oviedo, Department of Biology of Organisms and Systems €1,500 to test the samples and provide a written analysis.

For reference, six hake samples of known origin and species were placed as positive controls in each reaction, as well as a negative control containing only water and PCR reaction mixtures, to exclude any possible contamination of vials and materials.

The extraction of DNA was performed employing a protocol based on resin Chelex. A fragment of each sample was introduced into an Eppendorf tube containing a solution of Chelex100 with proteinase K. The tubes were incubated at 55°C for 1.5 hours. Finally, the samples were kept at 100°C for 20 minutes for deactivating the proteinase K. The DNA remains diluted in the supernatant, which is employed for further reactions.

The species-specific DNA marker employed was the cytochrome oxidase subunit I gene.

Polymerase chain reactions (PCR) for amplifying the marker from DNA samples were performed in a total volume of 40 µl, employing the Barcode fish primers described by Ward et al. (2005). The PCR program was: initial DNA denaturing at 95 °C for 5 minutes; 35 cycles of: denaturing at 95 °C for 20 seconds, annealing at 57 °C for 20 seconds, extension at 72 °C for 30 seconds: final extension at 72 °C for 10 minutes. The four products obtained after the PCR, which are many copies of the DNA marker, were purified and sequenced by Macrogen Holland using an Automatic sequencer 3730XL under BigDye Terminator cycling conditions. All the laboratory process was repeated employing a new bit of tissue taken from each sample. The results were identical for the two aliquots of each sample and ensure repeatability of the analysis.

To determine the species of a sample, the sequence obtained from the sample was compared

with those contained in international databases, including the laboratory's reference sequences for all Merluccius species in the GenBank, employing the program BLAST within NCBI (www.ncbi. nlm.nih.gov/). Species assignation was made based on >99% sequence similarity with GenBank voucher specimens Sequence comparison was made independently by two different researchers to ensure reliability of the species determination.

The genetic results were recorded, containing the number of each sample and the corresponding species as authenticated from DNA. Up to then, the researchers had not received any information on the brands or species identified when the fish were purchased. This data was exchanged by email on June 28 at 5 pm. With the complete results, the University of Oviedo Researchers wrote a report analyzing the findings from a scientific perspective.

The mislabeled samples were double checked in a five-step process comparing notes, videos and receipts of the sales.

Methodology: Part III

Peru is second only to China as a fishing nation, and its main catch is anchoveta. The International Consortium of Investigative Journalists, with the Lima-based investigative center IDL-Reporteros, decided to analyze how the anchoveta fishery — the world's largest — was regulated and controlled.

IDL-Reporteros sought access to the official database of anchoveta landings using freedom of information in March 2011. The Ministry of Production denied access repeatedly, saying it was not public.

In this database, officials log details of every vessel landing: its estimated catch, the ship-owner, where its catch is processed, and the company that audits weighing of the fish. These measures are designed to determine how many tons are caught.

IDL-Reporteros working with ICIJ used sources to gain access to the records of more than 100,000 landings from 2009 to July 2011 – five fishing seasons. ICIJ's investigation focused on two aspects: the catch weight declared by the fishing vessel

and the amount logged at the scales inside the processing plant. A range of specialists told ICIJ a vessel's estimate might be reasonably off by 10 percent versus the recorded weighed amount. Beyond that, discrepancies were described as suspicious. ICIJ calculated the tonnage of fish missing for all declared landings in which the discrepancy was more than 10 percent.

ICIJ focused on the north and central ports, where 90 percent of anchoveta are landed. In these regions, the same company often owns both the fishing fleets and the processing plants. This means few independent operators are liable to denounce irregularities and patterns are easier to identify.

For the first fishing season of early 2009, Peru's control system was not fully operational. ICIJ obtained official inspection records and entered them manually in the database. ICIJ's data team rechecked the entries.

To calculate the value of undeclared fish, ICIJ used the average price in US dollars based on monthly figures on the Ministry of Produc-

tion website. The ratio of anchoveta to fishmeal was 4:3, as recommended by industry specialists.

In analyzing individual companies, ICIJ looked at how many landings had discrepancies above 10 percent between the declared catch and the logged amount. Based on that list, we looked into how recurrent these were in relation to the total number of landings of that company.

Each year, the Chilean government publishes one report on quotas for catches in different fishing regions and another that lists the tonnage allowed to each company. We analyzed jack mackerel quotas for 2011.

ICIJ reporters searched the official

gazette and company websites along with records of the Superintendencia de Valores y Seguros, Chile's securities and exchange commission. Three of the eight groups that control most of the jack mackerel fishing rights had recently merged, and the new companies were not listed as single units in quota documents.

To sketch an accurate picture, the reporters combined companies owned by a single family and totaled the quotas of separate entities that had merged. Then, they interviewed government officials, industry leaders, marine biologists, naval officers and other experts in Santiago, Valparaíso, Concepción, and in the southern ports of Talcahuano. Lota and Coronel.

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With more than 160 members in 61 countries, ICIJ is dedicated to investigating cross-border crime, corruption, and the accountability of power. Backed by the Center and its computer-assisted reporting specialists, public records experts, fact-checkers and lawyers, ICIJ reporters and editors provide real-time resources and state-of-the-art tools and techniques to journalists around the world.

In addition to ICIJ's in-depth reporting, the consortium plays a key role in bringing together investigative journalists from around the world. Through our website, and social media such as Facebook and Twitter, ICIJ reaches thousands of followers in dozens of countries with news on the latest reporting tools and techniques, awards, fellowships, and journalists under fire. More about ICIJ at: www.icij.org

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