

A film by Rupert Murray
Narrated by Ted Danson

THE END OF THE LINE

Where have all the fish gone?

ARGANE PICTURES, CALM PRODUCTIONS, DARTMOUTH FILMS PRESENT "THE END OF THE LINE"
NARRATED BY CHARLES CLOVER. EXECUTIVE PRODUCERS CHRISTOPHER HIRD, JESS SEANICH
CAST BY CLARE FITZGERALD. PRODUCED BY CLARE LEWIS, GEORGE DUFFIELD. NARRATED BY TED DANSON
DIRECTED BY RUPERT MURRAY



NATIONAL GEOGRAPHIC
OCEAN NOW
TV ON PC MO

**WORLD'S FIRST MAJOR DOCUMENTARY ON
DEVASTATING EFFECT OF OVERFISHING PREMIERES WORLDWIDE
ON WORLD OCEANS DAY, JUNE 8, 2009**

NARRATED BY OCEANS ACTIVIST TED DANSON

*Imagine an ocean without fish. Imagine your meals without seafood.
Imagine the global consequences.*

The End of the Line, the first major feature documentary film revealing the impact of overfishing on our oceans, will be presented on **World Oceans Day, Monday, June 8, 2009**. In both the United States and the United Kingdom, hundreds of special one-night screenings will take place in theatres and special venues. On Friday, June 19, 2009, the film will begin a theatrical release in the United States.

In ***The End of the Line***, directed by **Rupert Murray**, we see firsthand the effects of our global love affair with fish as food. The film examines the imminent extinction of bluefin tuna, brought on by increasing western demand for sushi; the impact on marine life resulting in huge overpopulation of jellyfish; and the profound implications of a future world with no fish that would bring certain mass starvation. The film is narrated by **Ted Danson**.

Filmed over two years, ***The End of the Line*** follows the investigative reporter **Charles Clover**, author of the book on which the film is based, as he confronts politicians and celebrity restaurateurs, who exhibit little regard for the damage they are doing to the oceans. Filmed from the Straits of Gibraltar to the coasts of Senegal and Alaska to the Tokyo fish market – featuring top scientists, indigenous fishermen and fisheries enforcement officials, ***The End of the Line*** is a wake-up call to the world.

Scientists predict that if we continue fishing as we are now, we will see the end of most seafood by 2048. ***The End of the Line*** chronicles how demand for cod off the coast of Newfoundland in the early 1990s led to the decimation of the most abundant cod population in the world, how hi-tech fishing vessels leave no escape routes for fish populations and how farmed fish as a solution is a myth.

The film lays the responsibility squarely on consumers who innocently buy endangered fish, politicians who ignore the advice and pleas of scientists, fishermen who break quotas and fish illegally and the global fishing industry that is slow to react to an impending disaster.

The End of the Line points to solutions that are simple and doable, but political will and activism are crucial to solve this international problem. We need to control fishing by reducing the number of fishing boats across the world, protect large areas of the ocean through a network of marine reserves off limits to fishing, and educate consumers that they have a choice by purchasing fish from independently certified sustainable fisheries. The film is being supported by numerous groups, including **Greenpeace** and **Oceana**.

The End of the Line will be broadcast on television networks worldwide and available on DVD in the Fall of 2009.

*Waite Family Foundation, Marviva and Channel 4 Britdoc Foundation present an Arcane Pictures, Calm Productions, and Dartmouth Films production of **The End of the Line**, based on the book by Charles Clover. Executive Producers: Christopher Hird and Jess Search; Ted Waite and Erica Knie. Editor Claire Ferguson. Producers: Claire Lewis and George Duffield. Directed by Rupert Murray.*

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Theatrical Release Schedule

June 19

New York
Cinema Village

Los Angeles
Laemmle Sunset 5

June 21-23

San Francisco
Red Vic

June 26

Nashville
Belcourt Theater

July 3

Philadelphia
Landmark Ritz at Bourse

July 10

San Diego
Landmark Ken Cinema

Denver
Landmark Chez Artiste

July 24

Boston
Landmark Kendall Square

July TBD

Chicago

August 14

Washington DC
Landmark E-Street

August 7

Minneapolis
Landmark Lagoon

September 11

Atlanta
Landmark Midtown Art

Past Screenings

May 17

Berkshire International Film Festival
Triplex #2, 2pm

May 19–24

Washington DC
International Marine Conservation Congress

May 22

MountainFilm in Telluride
Library, 7pm

May 30

Seattle International Film Festival
Pacific Place Cinemas 11, 4pm

June 5

Newport International Film Festival
Antone Academic Ctr - DiStefano Hall,
2:15pm

June 6

Newport International Film Festival
Opera House Cinemas, Theater 2, 10:30am

Monterey Bay Aquarium
Monterey, CA

June 7

Lighthouse International Film Festival
Long Beach Island Museum, 10:30am, Long
Beach Island, New Jersey

Monterey Bay Aquarium
Monterey, CA

June 8

Seattle International Film Festival
Pacific Place Cinemas 11, 5pm

June 8

University of California, Los Angeles (UCLA)
Institute of the Environment

National Geographic Society
Washington, DC

Harte Research Institute for Gulf of Mexico
Studies
Corpus Christi, TX

CREDITS

Made with the assistance and financial support of	The Waitt Foundation Marviva The Oak Foundation The Channel 4 BRITDOC Foundation WWF The Weston Foundation The Clore Foundation Marine Conservation Society A.D. Charitable Trust G.D. Charitable Trust Oceana
Directed and filmed by	Rupert Murray
Based on the book by	Charles Clover
Producers	Claire Lewis George Duffield
Executive Producers	Christopher Hird Jess Search Ted Waitt Erica Knie Alexis Zoullas Chris Gorell Barnes
Co-Executive Producer	Donald Rosenfeld
Editor	Claire Ferguson
Original Music by	Srdjan Kurpjel & Marios Takoushis
Consultants	Professor John Shepherd Charles Clover
Production Supervisor	Sandra Leeming
Researcher/Coordinator	Jenny Williams
Associate Producer	Olly Williams
Underwater Camera	John McIntyre David Groundwater Scubazoo
Additional Camera	Owen Scurfield Kashfi Halford Greg Jacobsen

Graphics	Sarah Cox Why Not Associates
Regional Production Units	
Bahamas	Charles E. Smith
France	Mireille Frenette
Hong Kong	Lavina Tsui Elbe Lamb Loretta Luk
Japan	Yonki Mikami
Peru	Deborah McLauchlan Fernando Nishio
Philippines	Jose Ingles Marivel Dygico Angelique Songco
Senegal	Jihad Hani Hashim Adams Sy Hamadou Tidiane Sy
Additional Editing	Alex Archer
Sound Designer	Lisa-Marie McStay
Re-Recording Mixer	George Foulgham
Online Editor	Justin Eely
Additional Music	Audio Networks Ltd BMG Zomba EMI Music Publishing KPM Music Ltd Viviane Ndour Warner Chappell Music Inc

The End of the Line

By Charles Clover
Environment Editor, The Daily Telegraph
Author of the book, *The End of the Line*

In a single human lifetime, we have brought about a change in the oceans far greater than any yet caused by pollution – through overfishing. Now scientists are warning that in less than 50 years, if we go on as we are, the wild resources of the oceans will face total collapse with terrible consequences for both ecosystems and the billion people who depend on seafood for protein. Climate change is currently thought of as the most serious of the long-term problems facing the planet, but there is at least one other Inconvenient Truth. The crisis in the oceans, which cover more than 70 percent of the Earth's surface, is happening more quickly – but it is easier to do something about.

In the year or so I spent travelling the globe to write *The End of the Line*, my book about overfishing, I saw how everywhere unsustainable trends in diet, fashion and health advice were driving forward the ancient tradition of the sea - mine out the seam and move on. I observed how at the pinnacle of culinary fashion celebrity chefs were still riding grossly unsustainable trends and enriching themselves by serving endangered species to their celebrity clientele. Would you serve orangutan? Well, why serve bluefin tuna, for it is just as threatened?

The crisis in the oceans confronts traditions of thought and policy as well as dietary habit. I began my journey in the once-great flatfish port of Lowestoft, where the biggest employer is the fisheries lab, which was meant to ensure there were always fish to catch. I went to the port of Bonavista Newfoundland, where catching a cod attracted a fine of \$500 – but the fishermen, who are subsidized, wanted to go back to fishing. I watched the last wild bluefin tuna of the Mediterranean being rounded up illegally by purse seiners and spotter aircraft because of negligent enforcement. And I went to the port of Dakar, Senegal, where one of Africa's most productive marine ecosystems is being mined out by subsidized European fleets to the detriment of the indigenous population. I also saw vast ships catching blue whiting in unsustainable quantities to be turned into fishmeal for salmon farms.

We have reached a pivotal moment with fishing, as we did with farming in the 1960s and 1970s. We now have a choice. Do we go with the rare examples of good, sustainable practice, such as the dazzling marine reserves of New Zealand, the way fishing is regulated in Iceland, New Zealand or in the United States' waters in Alaska? Or do we go on as we are and leave our grandchildren with nothing wild to eat but jellyfish and plankton?

Director's Q & A

Rupert Murray, Director

This is your second feature documentary. Why did you choose overfishing as your subject?

I chose the oceans as my subject and when you tell their story, truthfully, you have no choice but to include the work of the most efficient predator operating in the system, man. I have wondered at the beauty of many natural history films but felt angry that they perpetuate a myth about the oceans; that they exist in a perfect pristine bubble untouched by man. Now man's destructive influence extends to every previously hidden canyon and crevice. Fishing has even induced evolutionary changes in fish. Nowhere is safe. I think this is a story that many people simply have not heard.

I chose *The End Of the Line* because I think the real story of man's interaction with the sea is fascinating, and the characters that have discovered it and are fighting against overfishing are very engaging. I thought the book, which the film was based upon, offered great hope because the solutions to such a seemingly massive and universal problem are stunningly simple.

Do you have a strong personal connection to the ocean or to fish?

I live in the middle of London but have always thought about the sea, dreamt about the oceans and what they contain. The wonder became real for me when I went diving on a spectacular wreck called the S.S. Yongala near where my wife's parents live in North Queensland, Australia.

I love eating fish; I used to be an oyster shucker at a smart London restaurant. I was once featured on Japanese television for my model sculptures of whales and dolphins that I used to make like aeroplane superstructures out of balsa wood. I spent childhood holidays rockpooling. I spent my early twenties fishing on the south coast of England but didn't catch very much at all. I am obsessed by outrigger canoes from Micronesia. I love everything to do with the oceans and I think everything would be better if they were always full of life.

Can you please share with us some of your experiences filming this movie, in places like Gibraltar, Malta and Senegal?

I traveled to some of the most incredible places on the planet and witnessed some amazing spectacles but heard the same story wherever I went. In Gibraltar, which used to be a crucible of marine abundance and diversity, where two great oceans meet, the men of the three-thousand-year-old Almadraba are staining the water with the blood of Giant Bluefin with ever decreasing frequency. In the ancient inlets of Chesapeake bay, which once greeted Captain John Smith with an abundance of marine life that hadn't been witnessed in Europe for generations, even then, are flooded with algae and plankton as the creatures that ate them have been removed.

Newfoundland, Nova Scotia, Senegal, Marseille, Newlyn, Lowestoft, and many other places we didn't visit, have seen populations crash. Where those places are, on their way down to the end of the line, determined their position in the film. We tried to tell one story, about one problem, affecting one global ocean. We found it was, tragically, the same for everyone.

The issue of overfishing seems overwhelming. What do you want people to take away? What do you want people to do?

It only seems overwhelming if you concentrate on the negative side of the issue. If you look at how simple and universally agreed the solutions are, that the fishing industry is a relatively small industry to regulate properly, that a global network of marine reserves would cost the same as the amount we spend on ice cream, then I believe you can remain hopeful and positive. Healthy oceans are win, win, win, for fishing and coastal communities, for the health of our planet, for our diet, for our future. I want people to take away the fact that the salvation of the oceans is in our grasp.

Firstly, I want people to question their eating habits, and question the people who supply them with fish and try to buy only sustainably caught fish. Secondly, we want to have an influence on political decisions so people should spread the word about the film and join our campaign, which will have it's main presence online.

Can consumers really make a difference? Should people stop eating seafood altogether?

I personally have cut down the amount of fish I eat. I have made it more of a special occasion and only buy fish that comply with a few certification standards. I won't buy any large predators, like marlin, swordfish, tuna, cod, skate etc, I try to eat smaller species of fish which are very tasty and much better for you and I balance each fish between the MSC certification stamp, known reputable retailers and seafood guides to get the best picture of what I can eat. I don't believe people should give up eating fish but rather eat it carefully and with the respect the consumption of a wild animal deserves. When big retailers sign up to only sourcing their fish sustainably, because their customers have demanded it, that message is passed directly onto the market, to the fishermen and real benefits are felt out at sea.

How do you feel now about fisherman? How do you feel about corporate fishing, with big corporate fleets and trawling?

I met some great fishermen during the making of the film, especially the ones in Kodiak Island Alaska. I think that not all fishermen are bad, many are trying to do the right thing but find themselves in an industry in its twilight years. In many places the heyday of fishing has long gone and the fishermen left now inhabit a world of diminishing resources, and therefore income, and increasing mortgage payments on boats, so it can be a hard existence. Then there are the fishermen who are reaping huge rewards for plundering our shared resources, often illegally. On average large corporate fleets catch the same amount of fish as artisanal fleets, but they use much more fuel, employ far less people and are much more destructive to other species and the ocean in general. Deep sea bottom trawling should be banned immediately and Iceland and Russia vilified for stopping the rest of the world from doing so in 2006.

Can you imagine a sushi bar that only serves sustainable fish? Is that possible?

Sushi, as it now stands, is no longer cool. Some chains seem to be diversifying into non-fish products and I heard that sushi chefs in Japan were experimenting with sushi venison as an alternative to tuna. My favourite used to be Unagi or freshwater eel until I discovered that they have declined by 99% in the last 30 years. That sort of put me off. I only discovered it whilst attending a EU fisheries meeting. We were the only journalists there covering a decision about the future of Bluefin tuna, but the previous decision that day was about the Eel. No one was covering Eel at all, not even us. So those two sessions told you everything you need to know about sushi really.

Two of its favourite menu items are on the way out. Having said that there is no real reason why sushi chefs can't change to sustainable species but the cause of the resistance is 'cultural'. At

least this was the excuse given by Richie Notar from Nobu as he described the differing opinions within his own company about whether to serve endangered Bluefin. Despite knowing that the fish is critically endangered, and that a high percentage of fishery is estimated to be illegal, they continue to serve it.

Some of the fisheries have said that the prediction that seafood will be extinct by 2050 is a gross exaggeration. How do you respond to that? Is this a scare tactic?

Some fisheries say fish won't run out by 2048 because in their particular fishery things look rosy, for now, and they don't have a global scope. In other fisheries the end of the line has already been reached. In Britain for example, where the first archaeological clues to overfishing date back to the 11th century, Professor Callum Roberts claims that some areas in Scotland have already been fished out of existence. Along a large part of the east coast of England, which once supported a massive fishing fleet, the fishing industry died out over ten years ago. In Lowestoft, the birthplace of modern fisheries management, from a herring fleet of thousands, they have one trawler left in the port. We visited Newlyn in Cornwall where a joint science and community based programme had modelled some key species disappearing by 2018.

I'd actually be interested to know which fisheries dispute this figure. The people I am aware of who dislike it the most are fishery scientists who feel the figure is a blot on their entire profession. It is. Some places are doing well, and we show this in the film, but overall the trends are down, and unless we change they will continue down and at some point they will hit zero. And that makes me scared.

What's your next film project? Are you going to stay with the oceans or do something else?

Our campaign will run for some time after the film and I am very interested in a follow up film project concentrating on Marine Protected Areas. I have a series of ideas that I would like to coincide in some way with the global deadlines for protection the world has signed up to, happening in 2012.

I'm also currently working on a film about the opening ceremony of the next Olympic games, which will be watched by 2 billion people (the ceremony not my film) and trying to find out what that ceremony says about my hometown, London, and being British. While I am at Sundance, my film about two artists who paint predators up close and personal, in the wild, is being shown on the BBC in the UK.

2009: Update on Overfishing

by Charles Clover

Overfishing was recognized as one of the world's greatest and most immediate environmental problems in 2002, when it was first demonstrated that global catches of wild fish peaked around 1989 and have since been in decline.

Globally, some 75 percent of wild marine fish are now said to be either fully exploited or overfished, according to the United Nations' Food and Agriculture Organisation. That means these species require conservation and management in order to survive in their present numbers – conservation which they rarely receive.

The number of fish stocks recorded as fully or overfished worldwide is expected to increase significantly this year when the latest figures are published by the United Nations Food and Agriculture Organization.

The fish species in the worst shape are highly migratory sharks; fish that are exploited on the high seas, such as the large tunas and the Chilean sea bass, also known as the Patagonian toothfish; and shared stocks such as the North Sea cod.

Aquaculture, or fish farming, now provides almost half of all the fish consumed by humans. In the West – but not in Asia - it is mostly carnivorous fish that are farmed. The growth of aquaculture has slowed as stocks of small fish used to feed larger fish are themselves overfished.

The North East Atlantic, which included European Union waters, is one of the worst areas in the world for overfishing – along with the western Indian Ocean and the North West Pacific, according to the UN FAO.

In European waters, some 80 percent of stocks are recorded as overfished, according to the European Commission. In the United Kingdom's waters, stocks of palatable fish, such as cod, have been reduced to less than 10 percent of what they were 100 years ago. This compares with a global average of 25 percent of stocks that are actively overfished.

The nation with the least overfishing problem is New Zealand, where only 15 percent of stocks are recorded as overfished. The problem is that in Europe some 50 percent of the quotas set by politicians are higher than scientists say are sustainable.

The EU was instrumental in arguing for a quota of 22,000 tons of valuable bluefin tuna for next year at a meeting of the International Commission for the Conservation of Atlantic Tunas in Marrakech in November, even though scientists recommended a quota of only 15,000 tons to avert stock collapse. The United States had called for a total ban on catching bluefin in the Mediterranean to allow stocks to recover from rampant overfishing, both legal and illegal.

The bleak future predicted for the sea by some scientists already exists in British waters, where in places overfishing has resulted in a simplified ecosystem vulnerable to total collapse. In the Firth of Clyde, near Glasgow, the cod, haddock, saithe, brill and whiting have all been overfished. All there remains for fishermen to catch is Norway lobster, also known as langoustine or scampi. In the absence of cod, which eat diseased Norway lobsters, some 70 percent of Norway lobsters are now afflicted by the parasite-borne ailment known as smoking crab disease. Prospects for the Clyde fishermen are not good.

World Leaders and Organizations Speak Out on Overfishing

“Our oceans are being plundered. Valuable fish stocks, as well as a whole host of other marine life, are severely threatened by overfishing, caused largely by poor fisheries management.”

World Wildlife Foundation

“The vibrant beauty of the oceans is a blessing to our country. And it’s a blessing to the world. The oceans contain countless treasures. They carry much of our trade; they provide food and recreation for billions of people. We have a responsibility, a solemn responsibility, to be good stewards of the oceans and the creatures who inhabit them.”

President George W. Bush

“We know that when we protect our oceans, we’re protecting our future.”

President Bill Clinton

Prince Charles, who is president of the MCS, said it was a "wake-up call" that British seas were in need of urgent help. "There is simply nowhere in Britain's seas where marine life is effectively protected from human impacts," he said. "Never has it been so important to take immediate action to protect marine life."

HRH Prince Charles, President, Marine Conservation Society

“The need for nations to agree on urgent action has never been more acute. Measures introduced over the next few years will determine what the future will hold in terms of food security, species survival and the ocean’s ability to withstand climate change, and those measures have to include a robust network of marine protected areas, in national and international waters.”

Carl Gustaf Lundin, Head of the IUCN Global Marine Programme, United Nations General Assembly, World Conservation Union

“After climate change, commercial fishing represents the greatest threat to life in our oceans. As well as ruthlessly fishing out stock after stock, the way we fish has disastrous consequences for other species and entire ecosystems – but the damage being done is out at sea, out of sight, and out of mind for most people. We need to take drastic action to repair the damage we’ve done to our oceans before it’s too late.”

Willie Mackenzie, Oceans Campaign, Greenpeace United Kingdom

“Overfishing cannot continue.”

Nitin Desai, Secretary General of the 2002 World Summit on Sustainable Development

"We've acted as if the supply of fish was limitless and it's not."

Steve Trent, Executive Director, Environmental Justice Foundation

"As Europe has sought to manage its fisheries and to limit its fishing, what we've done is to export the overfishing problem elsewhere, particularly to Africa."

Steve Trent, Executive Director, Environmental Justice Foundation

"The sea is being emptied."

Moctar Ba, Scientific Consultant, Mauritania and West Africa

"Can the sea really let us eat sushi in these numbers?"

Caroline Bennett, Founder, Moshi Moshi sushi chain

"This project allows us to finally start to see the big picture of how humans are affecting the oceans. Our results show that when these and other individual impacts are summed up, the big picture looks much worse than I imagine most people expected. It was certainly a surprise to me."

Ben Halpern, U.S. National Center for Ecological Analysis and Synthesis (NCEAS)

"It is true that fishermen feel an almost desperate need to catch as many fish as they can when they're allowed to. That sense of desperation ... can't be an excuse for the policymakers of the world and this country to allow that to cause the universal collapse of fisheries."

James Greenwood, former U.S. Congressman

"Never before have Mediterranean countries had more reason or opportunity to safeguard the region's beleaguered sharks and rays. Officials should heed the dire warnings of this report and act to protect threatened sharks and rays through regional fisheries agreements, international wildlife conventions, and national legislation. Such action is necessary to change the current course toward extinction of these remarkable animals."

Sonja Fordham, deputy chairman of the SSG and policy director for the Shark Alliance

"An estimated 40 percent of cod caught in the Baltic Sea are illegal."

Mireille Thom, spokeswoman for Joe Borg, European Union Commissioner of Fisheries and Maritime Affairs

PRODUCTION TEAM BIOGRAPHIES

Rupert Murray **Director**

Rupert Murray directed and edited **Unknown White Male** (2005), which was nominated for awards at the Directors Guild of America Awards, the Grierson Awards and the British Independent Film Awards. The film tells the story of a man's struggle in coming to terms with amnesia. It premiered at the Sundance Film Festival and aired on Channel 4 and Court TV. Murray has recently directed a feature length documentary **Oilly and Suzi: Two of a Mind**, a film about two artists who paint dangerous predators in the wild.

Claire Lewis **Producer**

Claire Lewis is an award-winning film and tv producer; she has won 2 BAFTA nominations and 6 Royal Television Society awards as Executive Producer. She produces the **7UP** series with director Michael Apted, including **28UP (1984)**, **35UP (1991)**, **42UP (1998)** and **49UP (2005)**, which was voted number one in the Channel 4 top 50 greatest documentaries of all time list and has gone on to inspire spin off series in Russia and the USA. **49UP**, a TV and theatrical documentary was nominated for every documentary series award in 2006 winning the RTS award. **The Truck of Dreams (2005)** produced by Lewis is a feature film about a young girl's dreaming of escaping her past. Set in India and funded by Bollywood, **The Truck of Dreams** won the World cinema award in Washington IDFF, 2006.

George Duffield **Producer**

George Duffield has been producing feature films under the banner of Arcane Pictures for 8 years. Credits include **Dot the I** (2003) starring Gael Garcia Bernal which premiered at Sundance 2003 and won the Deauville Audience Award, and **MILK** (1999). In addition he has Executive produced **Tonight at Noon** (2008), **Black Box** (2007) and Associate produced **Live Free or Die** (2008) He is also currently producing **Oilly and Suzi**(2009) (dir Rupert Murray) for BBC's Storyville and **Journeyman** (2009) (dir Jamie Morgan). Upcoming projects include Matthew Parkhill's **60 Pairs of Calvin Klein's**.

Christopher Hird **Executive Producer**

Christopher Hird is one of the UK's most experienced producers of documentaries and factual television. He was one of the founders of Fulcrum Productions, which was in business for more than 20 years, making programmes for broadcasters on both sides of the Atlantic. In 2008 he established Dartmouth Films, to build on his strong track record in independent documentary making and committed to documentaries which make a difference.

Hird was the executive producer of **The Terror and the Truth** (1997), a three part series dealing with the issues of Truth, Justice and Reconciliation, which was funded by the Ford Foundation, won the European Union Humanitarian Award and was shown on BBC television. He executive produced **Belonging** (2003), an independent feature length documentary chronicling the return of a Cambodian orphan to Cambodia 28 years later, which was nominated for the Grierson Best Theatrical Documentary Award. More recently, he was executive producer of **Black Gold** (2006), the feature length documentary about the plight of the Ethiopian coffee farmers, which premiered

at the Sundance Festival in 2006, and has been released theatrically in the USA and in the UK. He was most recently executive producer of *Pig Business*, to be released in 2009.

Jess Search

Executive Producer & Chief Executive, Channel Four BRITDOC Foundation

Jess Search is Chief Executive of the Channel 4 British Documentary Film Foundation and the BritDoc festival - both organisations aim to ensure a creatively ambitious and diverse future for documentaries in the UK, by helping to fund, support, and facilitate the distribution of, British documentary films. Jess was previously Commissioning Editor for Independent Film and Video at Channel 4 for 5 years. She commissioned award winning new talent, innovative and polemic, high impact films such as ***Adam Ant: The Madness of Prince Charmin, My Foetus, Alt TV, The Outside Zone,*** and ***The Texas Season***. She is the co-founder of Shooting People, the UK's independent filmmakers' community with over 30,000 members in the UK and 5,000 in New York.

Appearing in the Film (in order of appearance)

Charles Clover, Author, "The End of the Line"

John Crosbie – Fisheries Minister, Canada

Brian Mulroney – Canadian Prime Minister 1984-1993

Professor Jeffrey Hutchings – Dalhousie University, Canada

Professor Callum Roberts – York University, UK

Professor Daniel Pauly – University Of British Columbia

Dr. Boris Worm, Associate Professor – Dalhousie University Canada

Manolo Pacheco Luis – Fisherman, Straits of Gibraltar

Professor Ray Hilborn – University Of Washington

Roberto Mielgo Bragazzi – Former Tuna Farmer

Dr. Serge Tudela – Bluefin Tuna Expert World Wildlife Foundation

Ben Bradshaw – UK Fisheries Minister 2003-2007

Masanori Miyahara – Fisheries Agency of Japan

Associate Professor Rashid Sumaila – University Of British Columbia

Adama Mbergaul – Fisherman, Senegal

Haidar El Ali – Diver, Senegal

Professor Yvonne Sadovy – University of Hong Kong

Chef Maxwell – American television chef

Professor Pete Petersen – University of North Carolina

Professor Steve Palumbi – Stanford University

Richie Nota – Managing Partner, Nobu Restaurants

Jamie Oliver – British chef, host of "At Home with Jamie"

Former U.S. Senator Ted Stevens, Alaska

Matthew Moir – North Pacific Seafoods, Alaska

Patricia Majluf – Cayetano Heredia University, Peru

Hardy Mckinney – Fisherman, South Andros, Bahamas

Quotes from *The End of the Line*

Charles Clover

As a journalist, what changed my view of the sea is when I walked into the wrong press conference in the Hague in 1990, and this was the first presentation I'd even seen about the effect of trawling upon the sea bed and upon the creatures that lived on it. And what they said was that trawling with a beam trawler was like ploughing a field seven times a year, and I'm a farmer's son and I thought to myself, how many crops would grow if you ploughed that field seven times a year? And I thought not very much at all, and that changed my whole view of what was going on in the sea.

NARRATOR

For centuries the cod population in Northern Canada had been the most abundant in the world. The cod was so plentiful communities thrived on fishing. As the years went on technology improved, boats got bigger, more fishermen were fishing, catches increased, the bounty seemed endless. Then in 1992 the unthinkable happened. Overnight, what had once been the most abundant cod population in the world had been fished out of existence.

Manolo Pacheco Luis – Fisherman, Straits of Gibraltar

If there are tuna then there is joy. Everyone shouts 'long live the virgin of Carmen!' It's euphoria...compared to how it was when I arrived 22 years ago, it really isn't the same. This place had a lot of life; here was my wife and my kids. Now my kids no longer come because the situation isn't very good. And my wife stays with the kids. It's sad that I'm 45 years old and I'm talking of this. Because I wanted it to be so much better.

Dr. Boris Worm, Associate Professor – Dalhousie University Canada

Somebody said counting fish is just as easy as counting trees, just that they are invisible and they move, so it's a, it's an almost impossible thing to do, especially when you want to assess how the global ocean has changed, the whole thing.

Professor Callum Roberts – York University, UK

The might of the fishing armory has grown exponentially in the last fifty years, the amount of fishing power that we have at our command today far outweighs our ability to control ourselves. Fishing has transformed entire ecosystems, in fact, I would say one of the largest scale transformation of the planetary environment has been the impact of bottom trawlers, and that's sort of dragged across the sea bed and as they are pulled they cut down animals that live on the surface, things like corals and sea fans and sponges, the signs of destruction brought up on deck by the trawl would make an angel weep.

NARRATOR

The bluefin is one of the most iconic fish in the sea, it's beautiful hydrodynamic shape and specially heated blood allow it to accelerate faster than a Supercar. Pound for pound, its delicious flesh is the most expensive and sought after on the planet. The bluefin once sustained Roman legions in battle, now it feeds fashion-conscious diners in Sushi restaurants around the world. When Japan exported its cuisine, the global market sounded the death knell for a magnificent ocean predator. For many years scientists have been predicting that the King of the tuna would be hunted to extinction - but now it is really happening.

Ben Bradshaw – UK Fisheries Minister, 2003-2007

This is a species which is as endangered as the White Rhinoceros and yet it's being hunted to extinction in the Mediterranean, it's being exploited at more than twice the levels it should be,

and those countries that have overfished it are not being forced to pay back overfished, so not a day in which the European Union has covered itself in glory.

Adama Mbergaul – Fisherman, Senegal

Fishing is our culture, we belong to a particular ethnic called Lebo, we are Lebo, because our grandfather, our great grandfathers, our fathers they are all fishermen. Before, when I was young, when I was a very young boy, what I see with my own eye, ... once what I witnessed was that my grandfather, they used to go to the sea, they used to have fish abundant, you know, that's what encouraged us to follow their footsteps, you know, thinking that we will have also, we will have fish. But the sea betrayed us, the sea betrayed us in a way that what we are expecting you are understanding, from our grandparents we don't have it now.

Professor Callum Roberts – York University, UK

We need to turn back the clock 200 years to bring back life, to restore its previous abundance and productivity in some places around the world oceans. I'm talking about creating a network of areas within which we can turn back the clock.

Professor Jeffrey Hutchings – Dalhousie University, Canada

Does society want to see that recovery take place or is it society happy with massive depletions. I don't think my six year old daughter is going to be particularly happy in ten years time when she reads about this stuff and learns about it and says god all this happened in your life times, in your life time, my life time, anyone who is thirty, forty, fifty, sixty years old this has happened on our watch and we have a collective responsibility.

Fish Facts

1 billion people rely on fish as an important source of protein.

www.panda.org

An international group of ecologists and economists warned that the world will run out of seafood by 2048.

www.washingtonpost.com

The looming collapse of fisheries threatens the most important source of food for 250 million people.

home.alltel.net/bsundquist1/fi2.html

According to the UNFAO, about 70% of our global fisheries are now being fished close to, already at, or beyond their capacity.

home.alltel.net/bsundquist1/fi2.html

As many as 90% of all the oceans' large fish have been fished out.

www.panda.org

1% of the world's Industrial fishing fleets account for 50% of the world's catches.

www.cnn.com

Government subsidies of over \$15 billion a year play a major role in creating the worlds fishing fleets.

www.panda.org

The global fishing fleets are 250% larger than the oceans can sustainably support.

www.panda.org

Only 0.6% of the world's oceans are designated as protected.

www.panda.org

A Greenpeace report states that 40% of the world's oceans should be placed in nature reserves.

www.msnbc.msn.com/

In 2004, 13,000 new marine species were discovered, according to the Census of Marine Life.

www.coml.org

Japan has caught \$6 billion worth of illegal Southern Bluefin tuna over the past 20 years.

www.abc.net.au/

Over the past 50 years World consumption of tuna has increased tenfold, from 0.4 million to over 4 million tonnes.

www.ejfoundation.org/page270.html

In 2000 tuna long liners set 1.2 billion hooks catching untold number of turtles, seabirds and sharks.

www.wwf.org.uk/filelibrary/pdf/tuna_report01.pdf

15 species of sharks have seen their numbers drop by 50% in the last 20 years.

<http://news.nationalgeographic.com/>

Illegal fishing is worth up to \$9 billion a year.

www.illegal-fishing.info

52% of fish stocks are fully exploited.

eng.msc.org/html/content_528.htm

Ocean Preservation Organizations

World Wildlife Fund
www.worldwildlife.org

Oceana
www.oceana.org

Greenpeace
www.greenpeace.org

Blue Ocean Institute
www.blueocean.org

Pew Institute for Ocean Conservation Science
www.oceanconservationscience.org/

Environmental Defense Fund
www.edf.org/

NRDC
www.nrdc.org/

Marine Conservation Society
www.mcsuk.org/

Marine Stewardship Council
www.msc.org

Monterey Bay Aquarium
www.mbayaq.org

THE WALL STREET JOURNAL

June 5, 2009

It's Not Too Late to Save the Tuna

The U.S. should step forward to stop exploitation of the seas.

By ALBERT GRIMALDI and CHARLES CLOVER

June 8 marks the first United Nations-recognized World Oceans Day. Yet even as our appreciation of the world's oceans grows, we find the seas around us in crisis. The burning of fossil fuels is slowly acidifying the oceans, with disturbing implications for marine life. Meanwhile, nearly 80% of the world's wild fish are either fully or over-exploited. Catches of wild fish peaked in 1988.

Now we hear that climate change is linked to that other tragedy of the global commons, over-fishing. Scientists tell us that the droppings of bony fish play a significant but unrecognized role in keeping the upper levels of the oceans alkaline and therefore absorbing carbon dioxide. So wild fish, over-exploited in so many oceans of the world, turn out to be crucial to a healthy planet and to human survival.

Our understanding of the oceans has never been greater. Yet we seem determined to repeat the tragedies of the past. The forces of selfishness and stupidity that wiped out the great whales and the northern cod in the last century are steaming ahead at full speed. This time it is the bluefin tuna that faces extinction. This amazing creature accelerates faster than a sports car and migrates across whole oceans. But it has the misfortune to have exquisite-tasting flesh. Large specimens fetch thousands of dollars for sushi and sashimi. There may not be large specimens around much longer.

The bluefin has been listed as an endangered species for over a decade by the International Union for the Conservation of Nature. It is as endangered as the giant panda and the white rhino. But to Europe and America's shame, fishermen in the Eastern Atlantic and the Mediterranean are continuing to take twice the number scientists advise and the stock is on the verge of collapse. Records suggest that the size of adult tuna migrating to the Mediterranean is half that of a decade ago, a classic indication of population collapse. The World Wildlife Fund is now predicting that bluefin spawners will be virtually eradicated by 2012.

This collapse is the result of a colossal failure by the U.N.'s International Commission for the Conservation of Atlantic Tunas (Iccat). Iccat's management of the bluefin has been an international disgrace. Slow to regulate the growth of tuna "farming" (in fact, ranching with wild-caught fish) when the practice began to sweep the Mediterranean more than a decade ago, it has since consistently set catch quotas far higher than scientists advise and presided over a spectacular free-for-all of illegal fishing with spotter planes and the whole modern hi-tech arsenal. Poor enforcement has meant catches in the Mediterranean peaked at 61,000 tons of bluefin in 2007, more than double the official total allowable catch and four-times what science advised. No wonder stocks are in trouble.

The last straw for environmental groups -- and a snub to the U.S., Canada and Norway, nations that have consistently argued for rational management -- was when the Iccat set a total

allowable catch of 22,000 tons this year for the Eastern Atlantic and the Mediterranean, despite its own scientists recommending a quota of 8,000 to 15,000 tons. This was clearly against the long-term interests of the 500 million citizens of the European Union and indeed against the long-term interests of the fishery itself.

Conservation groups are now calling for the management of the bluefin to be taken out of Iccat's hands and placed under the control of the Convention on International Trade in Endangered Species (Cites), which is presided over by trade and environment ministers rather than fisheries ministers. Cites could then list bluefin under Appendix 1 of the Convention, which bans all international trade. This would be the first ever Appendix 1 listing for a commercial fish species, and is not surprisingly opposed by fishing nations.

Because Cites is an intergovernmental treaty, a member nation must first propose the Appendix 1 listing. Monaco, a non-EU member, is ready to champion the bluefin and propose the listing. But Monaco needs to be supported by other partners in what is sure to be a bitter fight. In 1992, the last time Cites attempted to protect the bluefin, the proposer, Sweden, eventually quailed under Japanese threats of trade sanctions.

If the listing is to succeed, Monaco's main partner needs to be the United States. It would not be the first time that the U.S. has stepped in to help a Europe that is unable to help itself. An alliance needs to be forged this summer and a listing proposal made in October in time for the next meeting of Cites in Doha, Qatar, next March. If that is to happen, decisions need to be made soon by the National Oceanic and Atmospheric Administration in the U.S. and embraced by President Barack Obama over the summer.

The heartening difference between climate change and the crisis of overfishing is that we stand a far greater chance of doing something about overfishing. The costs and benefits are clear. If nothing is done, prices will rise as stocks dwindle and the bluefin goes the way of the blue whale. But if prompt action is taken millions will benefit, not only from the recovery of tuna stocks but from the many services other than food that a healthy ocean provides.

Prince Albert II is the sovereign of Monaco. Mr. Clover is the author of "The End of the Line: How Overfishing Is Changing the World and What We Eat" (University of California Press, 2009). A documentary film with the same title will be released in the U.S. on June 8.

THE TIMES

June 2, 2009

Passionate exposé of a hidden disaster; Film

Frank Pope

*End of the Line Nationwide on June 8 *****

Sometime in the late 1980s the world reached a turning point, but nobody noticed. Until that moment, fish catches had always been on the increase - because of better technology and increased numbers of fishermen. Then global catches began to fall, and no one could quite say why.

Charles Clover is angry. The award-winning journalist is determined to focus our attention on what he calls the "greatest environmental disaster that no one's heard of". In this film, based on his book of the same name, his dark-eyed fury propels us from dockyard to celebrity restaurant, searching for answers. He is accompanied by charismatic scientists whose investigation exposes a system that seems hell-bent on plucking every last fish from the sea: research is now telling us that at current rates in less than 40 years there will be no more fish left in the sea.

The days of the carefree Captain Birds Eye, remembered in the film in a haunting archive clip, are a reminder of how recently the supply was thought to be all but infinite. The horrifying power of the fleets comes home through shots of thick, writhing rivers of fish cascading from the trawls. Just as the shimmering shapes start to become abstract the shot widens to show that they are heading into a rusting hold. Wider still and we see that it's only one of many huge ships.

The collapse of the Newfoundland cod fishery in the 1990s - once the biggest in the world - is a stark example of such astonishing short-sightedness. As ministers announce the closure of the fishery because so few fish remain, angry fishermen shout: "We're going out ... every fisherman on this island, we're going fishing!" But there's nothing much left to fish, even more than 15 years later. The place that cod used to occupy in the ecosystem has been filled and the fishery that once fed millions now feeds none. Adult cod eat herring, and herring eat young cod. If you remove all the adult cod, suddenly you get lots of herring, who eat all the young cod. Their place in the hierarchy, previously unassailable, is now gone.

Cod might be a cautionary tale from the past but it is bluefin tuna that provides the present-day drama.

While Clover stalks the celebrity restaurant chain Nobu because it is serving an endangered species, a jolly Spanish conservationist takes up the quest. As he goes from dive site to dockyard, his evident good nature repeatedly dissolves into frustration.

It's strong stuff, but gripping.

There's an awful beauty to the cinematography, from magnificently dark, threatening seascapes to the insane chaos of the slaughter of Mediterranean bluefin tuna. As in any good thriller, we are given glimpses of hope and in *End of the Line* this shines from the eyes of three eminent marine biologists.

Each speaks with an insistent optimism, and as the story unfolds it is obvious why. This is not an insoluble problem. The answers are already known - all that is required is to get them into the minds of those making the decisions. They smile because they have hope. After decades in the wilderness, warning about the coming crisis, people are starting to sit up and pay attention. No new knowledge is required - just action.

'This is not an insoluble problem. The answers are already known'

June 3, 2009

Revealed: the bid to corner world's bluefin tuna market;

Mitsubishi freezing fish to sell later as stock numbers plummet toward extinction

Martin Hickman CONSUMER AFFAIRS CORRESPONDENT

Japan's sprawling Mitsubishi conglomerate has cornered a 40 per cent share of the world market in bluefin tuna, one of the world's most endangered fish.

A corporation within the £170bn Mitsubishi empire is importing thousands of tonnes of the fish from Europe into Tokyo's premium fish markets, despite stocks plummeting towards extinction in the Mediterranean.

Bluefin tuna frozen at -60C now could be sold in several years' time for astronomical sums if Atlantic bluefin becomes commercially extinct as forecast, a result of the near free-for-all enjoyed by the tuna fleet.

In the forthcoming documentary film *The End of the Line*, Roberto Mielgo, a former bluefin fisherman who travels the world monitoring catches, claims that Mitsubishi buys and sells 60 per cent of the threatened fish and that it has expanded its freezer capacity to hold extra bluefin.

Mitsubishi acknowledges that it freezes bluefin, but only, it says, to even out peaks and troughs in supply.

Mitsubishi Corporation handles between 35 per cent and 40 per cent of Atlantic and Mediterranean bluefin tuna imported to Japan," the company told *The Independent*.

"As we explicitly explained to the makers of the film, the fishing season for bluefin tuna in the Mediterranean is very short, making it necessary to freeze tuna to provide customers with stable supplies throughout the year."

Fish stocks across the world are in retreat because of over-fishing. One study suggests oceans will be stripped clean of all fish by 2048. Bluefin is imminently at risk of commercial extinction. The wildlife charity WWF forecasts that breeding stocks of the fish that migrate from the Atlantic to spawn will be wiped out in the Mediterranean by 2012.

Although the legal bluefin catch is set at 22,000 tonnes, conservationists suspect the actual catch is 60,000 tonnes, four times the maximum that marine scientists recommend. After studying catches and sales, Charles Clover, the environmental journalist behind the film *The End of the Line*, believes that businesses involved in the ransacking are deep-freezing 20,000 tonnes of bluefin a year for later use.

He hopes his film will galvanise the public about over-fishing in the same way Al Gore's An Inconvenient Truth mobilised opinion against climate change.

British retailers and chefs will not stock bluefin because it is so endangered. However, as disclosed in The Independent last week, the Japanese restaurant Nobu continues to serve it - while advising diners to choose a dish that is less environmentally damaging.

The fisheries body responsible for numbers, the International Commission for the Conservation of Atlantic Tunas (ICCAT), sanctioned a bluefin catch of 22,000 tonnes this year in defiance of its own scientists who advised no more than 8,500-15,000 tonnes.

WWF said the decision was a "disgrace". In fisheries circles, ICCAT is sometimes referred to as the International Conspiracy to Catch All Tuna. Rules forbidding the use of spotter planes to identify tuna shoals are flouted and boats are thought to have connections to organised crime in Italy.

Willie Mackenzie, a Greenpeace fish campaigner, said: "Mitsubishi are best known in the UK for making cars or electrical goods - and for most people it comes as a bit of a shock to find out they are one of the world's biggest traders in the endangered bluefin tuna. Bluefin tuna are as endangered as rhinos or tigers."

June 7, 2009

End Of The Line For The Pret Tuna Sandwich

After Seeing Shock New Film, Food Chain Boss Bans Snacks Containing Endangered Fish

By Christopher Leake Home Affairs Editor



HIGH Street food shop Pret A Manger is to stop selling tuna sandwiches after its boss was horrified by a hard-hitting new film about how intensive fishing methods are destroying the seas.

Pret founder Julian Metcalfe says tuna and cucumber sandwiches will be taken off the menu at his 155 British shops.

He has also banned endangered bluefin tuna from sushi boxes sold at Pret and its sister outlet Itsu.

Mr Metcalfe's tuna sandwich ban comes on the eve of the premiere at 50 cinemas across Britain tomorrow of *The End Of The Line*, a hard-hitting documentary about overfishing inspired by a book by environmental journalist Charles Clover.

The documentary is being premiered to coincide with World Oceans Day which focuses on the destruction of the seas and investigates the effects of overfishing.

After seeing the movie, Mr Metcalfe contacted the film's producers and said: 'Much as a result of your film, we took tuna out of Pret sushi entirely. No tuna in the box at all . . . so more in the sea, where they belong.'

He added: 'We no longer sell the tuna and cucumber sandwich at Pret. We do an Alaskan salmon, which is sustainable. Both my companies will do everything they can to speed up the process by which we only buy sustainable fish.'

'Itsu is just about to sign a deal which provides only pole and line [fish] and traces each delivery to each boat. Neither Itsu or Pret would touch bluefin tuna.'

Mr Metcalfe said Pret would still sell the more common skipjack tuna in baguettes, but these would contain only fish caught by pole and line methods, rather than in nets.

The Pret chief's example will put pressure on hundreds of other food outlets to follow suit, and could signal the demise of the tuna sandwich, which for decades has been the staple diet of millions of office workers and used by health-conscious mothers to fill their children's school lunch boxes.

Mr Metcalfe's decision comes in the wake of a campaign by stars including supermodel Elle Macpherson, actress Sienna Miller, Stephen Fry and pop star Sting to get the A-list Mayfair restaurant Nobu to stop selling bluefin tuna.

Its stocks are at an all-time low and the bluefin is considered by some to be as endangered as the panda and the tiger. A protest letter featuring 30 celebrity customers of Nobu was instigated by Rothschild heiress Kate Goldsmith after she saw *The End Of The Line*.

Prince Charles – who had a private viewing of the film at Clarence House – has thrown his weight behind the marine life campaign. It is understood he will switch his attention to overfishing as his primary ecological concern when his current rainforest initiative ends later this year.

Celebrity chefs Gordon Ramsay, Angela Hartnett, Joel Robuchon, Giorgio Locatelli and Tom Aikens have all imposed bans on bluefin tuna at their restaurants.

Aikens said: 'Using Clover's superb research and some stunning cinematography, the film brings home the point, perhaps with even greater impact than the book, that we cannot continue fishing in the way we do. It is simply unsustainable – so much so that some scientists predict a total collapse of pretty much all our fish stocks within the next 40 years.'

'I can't call *The End Of The Line* easy viewing – I found it shocking, in fact – but it is compelling, and essential for anyone who cares about the state of our oceans. The good news is that the film is not merely a tolling bell. Clover offers genuine, practical solutions which could turn the tide.'

Waitrose and Marks & Spencer have already stopped selling bluefin tuna, swordfish and skate.

Tesco does not sell bluefin tuna. A spokeswoman said: 'We only sell some yellowfin tuna in the fresh category now. Our canned tuna is all skipjack tuna and is dolphin friendly and sourced from responsibly managed fisheries.'

'We have Codes of Practice for farmed fish, which cover feed, welfare, environment and other critical issues. These are independently audited. We also provide information to our customers and have recently added additional sourcing information on our fresh range including catching methods.'

Mr Clover said last night: 'I am delighted that when you show people what is really going on in the sea, they are horrified and want to do something about it. What I like about firms like Pret A Manger, for which I already had enormous respect, is that they are acting on this.'

'Seeing the film has pushed them even faster towards sorting out their supply chain so it is providing them with sustainable seafood.'

'Their reaction, and that of retailers like Waitrose and Marks & Spencer, is in marked contrast to that of many world-famous restaurants, such as Nobu, who doggedly and irresponsibly go on serving endangered species.'

A spokesman for Nobu said: 'We offer the guests an alternative of yellowfin tuna, which is responsibly sourced, if they do not want to eat bluefin tuna. The alternative is mentioned on our menu and the waiters offer it to the guests when they order.'

'It is up to the owner, Nobuyuki Matsuhisa, to remove it from the menu.'

June 5, 2009

Celebrity diners say no to Nobu;

Restaurant's refusal to take endangered fish off menu condemned

Martin Hickman CONSUMER AFFAIRS CORRESPONDENT

PROTESTING ACTORS, pop stars, models and socialites have started a celebrity backlash against the A-list's favourite restaurant Nobu for selling an endangered fish. Sienna Miller, Charlize Theron, Jemima Khan, Sting and his film producer wife Trudie Styler are among 31 signatories of a letter to the Japanese chef Nobu Matsuhisa appealing for him to remove bluefin tuna from his global restaurant empire so that they can "dine with a clear conscience".

The model Elle Macpherson and the actors Alicia Silverstone and Woody Harrelson are also supporting the protest, which follows news that Nobu refuses to stop serving bluefin - a fish on the brink of extinction in the Mediterranean. Instead, as The Independent reported last week, its two restaurants in London are advising diners to ask for an alternative.

"As customers and fans of Nobu we strongly feel that bluefin tuna must be completely removed from your menu due its perilous position as an extremely endangered animal," wrote the signatories, who also include the model Laura Bailey, the environmentalist Zac Goldsmith and television presenter Donna Air.

"Nobu is a restaurant we all love, a world leader in sushi with a fantastic reputation and enormous influence. If Nobu took a definitive stand on this issue it could make a critical difference. Continuing to serve bluefin leaves Nobu both vulnerable to public criticism and lagging behind Moshi Moshi, Gordon Ramsay, Jamie Oliver and others."

The celebrities hint at a boycott: "We very much hope that you value our comments as customers and therefore that you will seriously consider our request; allowing us all to dine with a clear conscience." Stephen Fry, the actor and writer, said: "It is astounding lunacy to serve up endangered species for sushi. There's no justification for peddling extinction, yet that is exactly what Nobu is doing in restaurants around the world."

Kate Goldsmith, the Rothschild heiress, gathered support for the letter after she and her husband Ben Goldsmith watched a preview of a film about overfishing, The End of the Line.

The letter attracted the support of the casino heir Damian Aspinall and Vanisha Bhatia, the daughter of the billionaire steel magnate Lakshmi Mittal.

Mrs Goldsmith has not yet received a reply from Nobu.

In a statement, the 24-restaurant chain said: "Nobu Restaurants takes the issue of bluefin tuna and its environmentally threatened status very seriously and always has done.

"The consumption of this fish is a cultural institution in Japan and there is still an enormous demand for this delicacy at all our restaurants." It added that Greenpeace had asked for its bluefin dishes to be identified and was considering offering farmed Australian tuna as an alternative.

Charles Clover, author of the book *The End of the Line* who has campaigned against Nobu's sale of bluefin, said: "Nobu has made a fortune by sucking up to celebrities, and if celebrities turn their back on him because he's selling endangered species, more fool him."

June 5, 2009 Friday

Could we be the generation that runs out of fish?

By Johann Hari

In the babbling Babel of 24/7 news - where elections, bailouts and beheadings blur into one long shriek - the slow-motion stories that will define our age are often lost. An extraordinary documentary released next week, *The End of the Line*, forces us to stop, and see. Its story is stark. In my parents' lifetime, we have killed 90 per cent of the world's fish. In my lifetime, we will finish off the rest - unless we change our ways, fast. We are on course to be the people who wiped fish from the earth.

The story begins in the sleepy Canadian resort of Newfoundland. It was the global capital of cod, a fishing town where the scaly creatures of the sea were so abundant they could be caught with your hands. But in the 1980s, something strange happened. The catches started to wane. The fish grew smaller. And then, in 1991, they disappeared.

It turned out the cod had been hoovered out of the sea at such a rapid rate that they couldn't reproduce themselves. But the postscript is spookier still. The Canadian government banned any attempts at fishing there, on the assumption that the few remaining fish would slowly repopulate the waters. But 15 years on, they haven't. The population was so destroyed that it could never recover.

A growing number of scientists are warning that we could all be living in Newfoundland soon. Professor Boris Worm of Dalhousie University published a detailed study in the prestigious peer-reviewed journal *Nature* saying that at the current rate, all global fish populations will have collapsed by 2048. He says: "This isn't some horror scenario, it's a real possibility. It's not rocket science if we're depleting species after species. It's a finite resource. We'll reach a point where we run out."

The species in the frontline is bluefin tuna, the pinnacle of the evolutionary chain for fish. This little creature can swim at 50mph, and accelerate faster than the swiftest sports car. It has even developed warm blood. Yet every year, a third of the remaining population is ripped from the seas and slapped onto our plates. Soon, it will be gone.

All over the world, from the Bay of Bengal to Lake Victoria to the shores of South America, I have heard fishermen say their catches are shrinking, in size and in number. Industrial-scale fishing only began in the 1950s. By the standards of the news cycle, this is slow - but by the standards of the planet or of settled fishing communities, this is a click of the fingers. The effects of the new industrial fishing are uniform. Professor Ransom Myers found that whenever the vast industrial trawlers are sent in, it takes just 15 years to reduce the fish population to a 10% shadow of its former self.

This process of trawling is an oceanic weapon of mass destruction, ripping up everything in its path. Charles Clover, who wrote the book on which the documentary is based, has a good analogy for it. Imagine a band of hunters stringing a mile of net between two massive all-terrain vehicles and dragging it at speed across the plains of Africa. Imagine it scooping up everything in its way: lions and cheetahs and hippos and wild dogs. The net has a massive metal roller attached to its leading edge, smashing down every tree that gets in its way. And in the end, when the hunters open up the net, they pick out the choicest creatures and dump the squashed remains in the sun as carrion for the vultures.

But we need fish. Our brains don't form properly without their fatty Omega-3 acids. So why do our governments allow this process of destruction to continue? Why do they actively encourage it, with \$14bn of subsidies for fishermen to keep on trawling every year?

A small number of people are making a lot of short-term profit out of this destruction - and they are using this cash to ensure they can carry on hunting, down to the last fish. In 1992, an attempt to get the bluefin tuna listed as an endangered species was scuppered by the US and Japanese governments at the urging of the tuna lobby - who happen to give large campaign donations to all parties. A similar corruption has eaten into European politics.

Add to this the fact that fishermen are a determined and demanding constituency with an equally short-term agenda. They demand the maximum quotas today - even if that means no quotas tomorrow.

Our societies are structured to put these short-term cries for money for a few ahead of the long-term needs of us all. A small determined group with hard cash almost always beats a diffuse group with good intentions - until they get angry and fight back.

Yet today, ordinary people in rich countries are being insulated from the fish crisis. As we exhaust our own fish stocks, our corporations are sailing out across the world to steal them from the poor. Today, there are armadas of industrial European and American fishing boats across the coast of West Africa, leaving the small fishermen who live on its coasts to starve. Professor Daniel Pauly says: "It is like a hole burning through paper. As the hole expands, the edge is where the fisheries concentrate, until there is nowhere left to go."

We are not only stealing fish from Africans; we are stealing them from future generations. In the age of limits, we are hitting up against the capacity of the planet to provide for us - yet we are reacting with blank denial. This story is unfolding, in one form or another, in the rainforests, the air, and in the planet's climate itself.

It has left us at a strange crossroads. We will either be a despised generation who left behind a depleted husk-planet - or a heroic generation who, at five minutes to ecological midnight, turned back to the light.

With fish, the solution is even simpler and more straightforward than with the other ecological crises ensnaring us. The scientific experts say we need to follow two steps. First, expand the 0.6 per cent of the area of the world's oceans in which fishing is banned to 30 per cent. In these protected areas, fish can slowly recover. Second, in the remaining 70 per cent, impose strict quotas on fishermen and police it properly, as they do in Alaska, New Zealand and Iceland.

The cost of this programme? \$14bn a year - precisely the sum we currently spend on subsidising fishermen. At no extra cost, we could turn them from the rapists of the oceans into their guardians.

Yet *The End of the Line* has one flaw - and it is one that riddles current environmental thought. It presents us with a great earth-altering crisis, and then says our primary response should be to change our own personal consumption habits. It urges people not to buy from Nobu, which shamefully still sells bluefin tuna, and to ask if the fish we buy is sustainably produced. It's like the end of *An Inconvenient Truth*, where the primary response Al Gore presses on us is to shop green and change our lightbulbs.

Of course this is valuable - but it is only an anemic and minor first step. It is rather like, in 1937, reacting to the rise of Nazism by urging people to make sure that they personally weren't killing any Jews or gays or Jehovah's Witnesses, or buying from any Nazi-owned companies. We needed collective action that would stop other people from killing these minorities - just as today we need collective action that prevents anyone from irreparably trashing the means of life.

At the moment, many good people get anxious about environmental issues, and hear the message that *The Response* is to scrub their own lifestyle clean. Yet individual voluntary action by a minority of nice people will not save the bluefin tuna, never mind the ecosystem. But if all these honourable people act together - by volunteering for, and donating to, organizations like Greenpeace, Friends of the Earth and Plane Stupid - they can change the law, so everybody will be required to change their behaviour, not just a benevolent 10 per cent. It was just such determined minorities armed with the facts that spurred the fights against slavery, colonialism and fascism. When you respond as a consumer, you are weak; when you respond as a citizen, you are strong.

The voice of millions of people can drown out the concentrated power of the fishing industry - and all the other industries with a vested interest in trashing our planet - but not with the swipe of a credit card.

The alternative to collective action today is catastrophe tomorrow. As Charles Clover explains: "When the human population comes under pressure on land because of global warming, when we are running out of ways to feed ourselves, we [will] have just squandered one of the greatest resources on the planet - wild fish." The epitaph for the human species would turn out to have been scripted by Douglas Adams: so long, and thanks for all the fish.

June 2, 2009

Comment & Debate: As officials dither, fishing boats flout the law and rip out the life in our seas:

Whether dredging reefs or catching bluefin tuna to extinction, the slash and burn tactics of the industry are a disaster

By George Monbiot

I live a few miles from Cardigan Bay. Whenever I can get away, I take my kayak down to the beach and launch it through the waves. Often I take a hand line with me, in the hope of catching some mackerel or pollock. On the water, sometimes five kilometres from the coast, surrounded by gannets and shearwaters, I feel closer to nature than at any other time.

Last year I was returning to shore through a lumpy sea. I was 200 metres from the beach and beginning to worry about the size of the breakers when I heard a great whoosh behind me. Sure that a wave was about to crash over my head, I ducked. But nothing happened. I turned round. Right under my paddle a hooked grey fin emerged. It disappeared. A moment later a bull bottlenose dolphin exploded from the water, almost over my head. As he curved through the air, we made eye contact. If there is one image that will stay with me for the rest of my life, it is of that sleek gentle monster, watching me with his wise little eye as he flew past my head. I have never experienced a greater thrill, even when I first saw an osprey flying up the Dyfi estuary with a flounder in its talons.

The Cardigan Bay dolphins are one of the only two substantial resident populations left in British seas. It is partly for their sake that most of the coastal waters of the bay are classified as special areas of conservation (SACs). This grants them the strictest protection available under European Union law. The purpose of SACs is to prevent "the deterioration of natural habitats . . . as well as disturbance of the species for which the areas have been designated".

That looks pretty straightforward, doesn't it? The bay is strictly protected. It can't be damaged, and the dolphins and other rare marine life can't be disturbed. So why the heck has a fleet of scallop dredgers been allowed to rip it to pieces?

Until this Sunday, when the season closed, 45 boats were raking the bay, including places within the SACs, with steel hooks and chain mats. The dredges destroy everything: all the sessile life of the seabed, the fish that take refuge in the sand; the spawn they lay there, reefs, boulder fields, marine archaeology - any feature that harbours life. In some cases they penetrate the seafloor to a depth of a metre. It is ploughed, levelled and reduced to desert. It will take at least 30 years for parts of the ecosystem to recover; but the structure of the seabed is destroyed forever. The noise of the dredges pounding and grinding over the stones could scarcely be better calculated to disturb the dolphins.

The boats are not resident here. They move around the coastline trashing one habitat after another. They will fish until there is nothing left to destroy, then move to the next functioning ecosystem. If, in a few decades, the scallops here recover, they'll return to tear this place up again.

The economic damage caused by these 45 boats is far greater than the money they make. They wreck all the other fisheries; not only because they destroy the habitats and kill the juvenile fish, but also because they rip out the crab and lobster pots they cross. We deplore slash and burn farming in the rainforests for its short-termism and disproportionate destruction. But this is just as bad.

Ever since the boats arrived, local people, led by the Friends of Cardigan Bay, have been campaigning to stop this pillage. Finally, after months of dithering, in March the Countryside Council for Wales advised the regional fisheries committee to stop the dredging. The committee refused on the grounds that its powers "are not terrifically explicit" and "the precautionary principle is a vague term, and we don't really know how we define it". Any decision on the issue was postponed until 12 June - which is a fortnight after the end of the season. In 24 years of journalism I have not come across a starker example of bureaucratic cowardice.

What hold does the fishing industry have over our ministers and officials? Does it sink the bodies of their political opponents? Does it supply them with call girls and cocaine? The UK fishing sector has a turnover of £570m a year. This is less than half the size of the potato processing industry. Yet no one has the guts to defy it.

The story is the same all over the world. Next week, on 8 June, *The End of the Line* will be released in British cinemas. It's an excoriating, shocking film about the collapse of global fisheries, and the utter uselessness of the people who are supposed to protect them. It follows the journalist Charles Clover as he struggles to understand why no one is prepared to act. After several years of trying, he talks to the manager of Nobu restaurants, to ask why he is still selling meat from one of the most endangered species on earth, the bluefin tuna. The man refuses to take it off the menu, but says he'll warn his customers that bluefin is "environmentally challenged". But why is it left to restaurateurs to decide whether or not an endangered species should be allowed to survive?

As the film shows, the European Union's scientists recommend a bluefin catch one and a half times as big as it should be; the European commission then doubles it, and the fishermen then take twice as much as the commission allows. The Mediterranean fleet now catches one third of that sea's entire bluefin tuna population every year: at current catch rates, the species will be extinct by 2012. There's a total absence of enforcement, as even the most blatant illegal practices, like using spotter planes to find the shoals, are ignored by fisheries officials. Worse still, these pirate boats are subsidised by us. Aside from payments by national governments, fishing fleets in Europe are being given euros 3.8bn of European Union money over a period of seven years. There has been a total failure to make these payments conditional on fishing sustainably or even legally.

The European Union now recognises that its fisheries management has been a disaster. Its green paper admits that 88% of European fish stocks are overexploited and 30% have collapsed. Its quota system encourages the dumping of millions of tonnes of dead fish at sea, while its efforts to reduce the fishing fleet's capacity haven't kept pace with technology. "In several member states," the paper reports, "the cost of fishing to the public budgets exceeds the

total value of the catches." Last week, European fisheries ministers agreed a radical reform of the common fisheries policy by 2012, just in time for the extinction of the bluefin tuna.

Of course, as I have seen in Cardigan Bay, it doesn't matter what they say they'll do if no one is prepared to enforce it. Our marine ecosystems will continue to be ripped apart until governments stand up to the mysterious power of the fishermen.

June 8, 2009 Monday

Could Your Tuna Sandwich Soon Become Extinct?

By David Derbyshire

THE tuna sandwich has been the staple of the snatched office lunch for a generation.

But our favourite fish filling could soon vanish from the high street.

Sandwich chain Pret a Manger yesterday announced it is scrapping its tuna and cucumber sandwiches and taking premium bluefin tuna out of its sushi boxes ñ amid concerns about overfishing.

Other stores and sandwich chains are under pressure to follow suit.

Pret founder Julian Metcalfe made the decision after being horrified by a hardhitting new documentary on the state of the world's oceans.

The End of the Line, which premieres today at 50 cinemas, shows how intensive fishing is destroying the oceans and warns that most of the seafood we eat will have vanished within 40 years.

One of the first to go will be bluefin tuna ñ the expensive delicacy favoured by sushi lovers. New evidence suggests it has been taken from the Atlantic and Mediterranean so quickly in the last few years that stocks are on the verge of collapsing.

After a private screening of the film, Mr Metcalfe announced that Pret a Manger and its sister store Itsu would no longer sell bluefin tuna or sandwiches made with canned tuna.

In an email to the film's producers, he said: 'Much as a result of your film, we took tuna out of Pret sushi entirely. No tuna in the box at all, so more in the sea where they belong.'

He added: 'We no longer sell the tuna and cucumber sandwich.'

Canned tuna is usually yellowfin or skipjack ñ species not at immediate risk. However, they are often caught in large nets which kill dolphins, sharks and turtles.

Pret will continue to sell skipjack tuna in its baguettes ñ but will use only fish caught by 'dolphinfriendly' pole and line. Yesterday, all the major supermarkets said they have banned bluefin tuna from their fresh fish counters.

Tesco said it sold 'some' fresh yellowfin tuna and its canned tuna was skipjack.

However, Greenpeace last year named Tesco's own-brand canned tuna as the least environmentally friendly of all the big supermarkets because it is caught using nets.

Waitrose and Marks & Spencer said they no longer sold bluefin tuna, skate or swordfish. Sainsbury's, Asda and Morrisons said all their fresh fish was 'sustainable'. Chefs Gordon Ramsay, Jamie Oliver and Tom Aikens have all banned bluefin from their restaurants.

However, celebrity restaurant Nobu in Mayfair has refused to take it off the menu, prompting a boycott threat from stars including Elle Macpherson, Sienna Miller and Stephen Fry.

Yesterday there were signs that the collapse in bluefin tuna's breeding has begun. A study revealed that most bluefin sold in Japan are undersized, suggesting there are very few adults to be caught or to revive the population.

The Marine Conservation Society said last night: 'If people knew that the fish they were eating was as endangered as the giant panda they would be horrified.'

'Everyone has a responsibility to find out where their fish comes from and whether it's sustainable.'

'We don't recommend people eat less fish but that they choose the right ones.'



June 8, 2009

Commentary: World's biggest fish are dying

By Ted Danson

Today, Monday, June 8, we recognize the first U.N.-sanctioned World Oceans Day. The event comes after years of pressure from conservation groups and thousands of activists who clamored for everyone to know and understand what's happening in our oceans.

I became an ocean activist in 1987. It was the fifth year of "Cheers" and my family moved into a neighborhood that was on the water, in Santa Monica, California. One day I took my daughters to the beach to go swimming, but it was "closed" and I couldn't answer my daughter's question why.

That's really how it started. That and "Cheers" was paying me a lot of money and I felt I had better be responsible with it. So, I started to get involved.

It turned out in our new neighborhood there was a fight to keep Occidental Petroleum from drilling 60 oil wells on Will Rogers State Beach in Los Angeles. They wanted to slant drill into the Santa Monica Bay. The fight was led by a man named Robert Sulnick and we became great friends and found a way to beat them.

We enjoyed ourselves so much that we wanted to continue this work. So Robert Sulnick and I, full of passion and naiveté, started American Oceans Campaign, which ultimately became a part of Oceana. And, here I am, still at it, 20 years later -- because our oceans are in trouble.

The U.N. reports that 75 percent of seafood species are maxed out or overexploited and catches of nearly a third of these species are less than 10 percent of what they once were. Ninety percent of the big fish -- sharks, tuna, swordfish -- are already gone, according to a 2003 study in *Nature*.

The chemistry of the oceans is changing as they absorb 11 billion metric tons of carbon dioxide a year, and scientists say the acidifying waters will make it impossible for coral reefs, the nurseries of the sea, to grow. At the current rate of acidification, corals, sea snails and other calcium-carbonate-requiring [life forms](#) could begin to dissolve by the middle of the century, with potentially catastrophic results. Shellfish and fish will be in deep trouble as well.

This is all happening on our watch.

My friend Charles Clover, then a reporter for the U.K.'s *Telegraph*, wrote an incredible book about all of this called "The End of the Line" that lays out, in devastating detail, how this has happened. The book is now a film, released today, and I'm honored to serve as the narrator.

The movie describes how marine scientist Daniel Pauly (a fellow Oceana board member) discovered China had been falsifying its fish catch data, and that instead of increasing, global fish catch had actually peaked in the late 1980s at about 80 million tons a year and had been

falling ever since, despite better and faster technology and billions of dollars in government subsidies.

The film also describes how we are about to fish one of the most magnificent fish in the ocean, the bluefin tuna, into [extinction](#). It's not the only one we're eating into oblivion.

Cod, once a staple in the working man's lunch of fish and chips, is increasingly a delicacy. Unable to catch once-prized species, fishermen are selling creatures that you would never have considered eating, like the once-disdained skates that replace scallops on European tables. Even jellyfish are becoming a commercially viable species.

World Oceans Day is an opportunity to bring these underwater challenges to light. And it's a chance to explain how we can restore our oceans to their former glory.

Ocean conservation is rewarding because you absolutely can make a difference. You leave a fish population alone for a while, and it rebounds. The oceans are incredibly resilient. We have the opportunity right now to protect the oceans and the life they harbor for future generations.

By protecting important habitats like corals from destructive fishing techniques, and setting science-based quotas on seafood species, the battle is halfway won. Fish species will recover, and the marine mammals, sea turtles and seabirds that rely on them for sustenance have a fighting chance.

In addition, we must commit to renewable energy sources to end the excessive carbon dioxide emissions that are acidifying the oceans and making them inhospitable to life. The ocean does represent a source of [energy](#), and it's not offshore oil and gas drilling -- it's offshore wind. Europe is a leader in developing offshore wind power, and it's time for the United States to catch up.

Today, on World Oceans Day, don't just go green. Go blue.



Sundance: The End of the Line, (Documentary -- U.K.)

An Arcane Pictures, Calm Prods., Dartmouth Films presentation. Produced by Claire Lewis, George Duffield. Executive producers, Ted Waitt, Erica Knie, Alexis Zoullas, Chris Gorell Barnes, Christopher Hird, Jess Search. Co-executive producer, Donald Rosenfeld. Directed by Rupert Murray. Based on the book by Charles Clover.

With: Charles Clover, John Crosbie, Brian Mulroney, Jeffrey Hutchings, Callum Roberts, Daniel Pauly, Boris Worm, Manolo Pacheco Luis, Ray Hilborn, Roberto Mielgo Bragazzi, Serge Tudela, Ben Bradshaw, Masanori Miyahara, Rashid Sumaila, Adama Mbergaul, Haidar El Ali, Yvonne Sadovy, Chef Maxwell, Pete Petersen, Steve Palumbi, Richie Nota, Jamie Oliver, Ted Stevens, Matthew Moir, Patricia Majluf, Hardy McKinney.

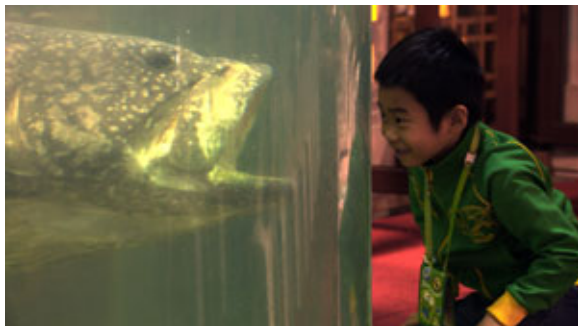
The old adage about plenty of fish in the sea no longer holds water after a viewing of "The End of the Line," a well-researched and persuasively argued documentary about how man has decimated the world's fish populations. A more prosaic outing for British documaker Rupert Murray after his 2005 amnesia chronicle "Unknown White Male," this latest reminder of the fragility of the environment and the consequences of human greed should hook auds in tube showings, though its lush underwater imagery and sharp presentation could also net some theatrical play.

Expansive pic generously samples locations from Newfoundland, where the cod is on the verge of commercial extinction, to the Straits of Gibraltar, where the bluefin tuna (much prized by sushi lovers) no longer swims so free. In 82 minutes, Murray wrangles enough data to make his point that biology can't keep up with sophisticated fishing technologies and worldwide demand; attacks high-end restaurants such as Nobu for putting endangered species on the menu; praises Alaska as a paragon of responsible fishing; and urges like-minded viewers to "claim back the ocean" via eminently sensible measures (eating more anchovies notwithstanding). Camera (color), Murray; underwater camera, John Mcintyre, David Groundwater, Scubazoo; editor, Claire Ferguson; music, Srdjan Kurpjel, Marios Takoushis. Reviewed at Sundance Film Festival (World Cinema -- competing), Jan. 20, 2009. Running time: 82 MIN.

Jan 22, 2009

Sundance film festival: Underwater treasures Documentary makers look for the next eco-blockbuster

From The Economist print edition



IT IS hard to overestimate the impact of “An Inconvenient Truth”, not least on the film industry. Al Gore’s 2006 feature-length admonition on the effects of global warming grossed nearly \$50m, making it one of the most successful documentaries after “Fahrenheit 9/11” and “March of the Penguins”. Judging by the films on offer at the Sundance film festival this month, every documentary maker now wants to be the next Mr Gore.

“Eco-documentaries tell the stories of our time,” said Rupert Murray, director of “The End of the Line,” another feature-length film based on a 2004 book by Charles Clover, the environment editor of London’s Daily Telegraph. Mr Clover’s research exposes the effects of overfishing on oceans and those who depend on them for food. In a similar vein, “The Cove”, which documents the slaughter of dolphins in Japan, explores how human beings have upset the sea’s ecosystems, putting people at risk as well as marine life. “There is a general feeling that things are changing faster than they ever have,” says Mr Murray. “Eco-documentaries are a reflection of that.”

“The End of the Line” uses the same lyrical underwater footage as nature documentaries, such as “The Blue Planet”. But rather than lulling the audience into a false sense that all is well in the oceans, it catches the viewer’s attention with meditative camerawork and lush, dramatic music and then reveals the inconvenient truth about the impact of over-fishing on the oceans. The film unfolds like a mystery, with Mr Clover as detective. The film-makers travel to Nova Scotia, the Bahamas, Tokyo and the Mediterranean, as well as to a small village in west Africa whose supply of fish has been halved in recent years as a result of over-fishing. Ignorance, corruption and greed all play a part.

“The Cove” follows Richard O’Barry, who trained the dolphins in “Flipper”, a popular 1960s television show. Ever since, Mr O’Barry has worked to stop dolphins from being captured and sent to amusement parks. In “The Cove” he focuses on trying to prevent the slaughter of 23,000 dolphins a year in a bay off Taiji, Japan. Local fishermen, who believe dolphins are responsible for their shrinking catch, do all they can to thwart Mr O’Barry’s efforts.

For eco-documentary makers it is not enough just to screen films in cinemas. Both these films also put out a call to action. As Robert Redford, founder of the Sundance festival, says: "Just explaining the problem isn't enough. You have to show what people can do about the problem." At its conclusion, "The End of the Line" offers suggestions for helping to stop overfishing: creating marine reserves, putting pressure on the fishing industry to reduce capacity, and persuading consumers to eat only sustainable fish. The film's website provides links to campaigning organisations such as Greenpeace and the Monterey Bay Aquarium in California. "We plan to go from city to city with our campaign," says Mr Murray. "A massive outreach was part of our intention with this film from the start."

The Daily Telegraph

November 3, 2006

All seafood will run out in 2050, say scientists

by Charles Clover, Environment Editor

THE world's stocks of seafood will have collapsed by 2050 at present rates of destruction by fishing, scientists said yesterday.

A four-year study of 7,800 marine species around the world's ecosystems has concluded that the long-term trend is clear and predictable.

By 2048, to be exact, catches of all the presently fished seafoods will have declined on average by more than 90 per cent since 1950.

The study, by an international group of ecologists and economists, says the loss of biodiversity impairs the ability of oceans to feed the world's growing human population - expected to rise by 50 per cent to nine billion in 2050.

Over-fishing also sabotages the stability of marine environments, profoundly reducing the ocean's ability to produce seafood, resist diseases, filter pollutants and rebound from stresses such as climate change.

Every species matters when it comes to the ocean's ability to repair itself, says the study, published in this week's Science magazine.

Dr Boris Worm, of Dalhousie University, Nova Scotia, the lead author, said: "This is what is projected, not predicted, to happen. I am confident we will not go there because we will do something about it. But if this trend continues in this predictable fashion, as it has for the last 50 years, the world's currently fished seafoods will have reached what we define as collapse by 2048.

"Every year a higher percentage of the currently fished stocks has collapsed. We are losing it piece by piece."

Prof Callum Roberts, of the University of York, who was not involved in the study, said: "The animals and plants that inhabit the sea are not merely embellishments to be wondered at. They are essential to the health of the oceans and well-being of human society."

The scientists found that in 12 regions, which include the Wadden Sea, the shallow part of the North Sea, 38 per cent of exploited marine species of all kinds, including birds, had collapsed in the past 1,000 years while seven per cent was extinct. Some 29 per cent had collapsed since 1950.

Dr Worm said the decline of cod on the Scotian shelf, off Canada, had led to changes throughout the ecosystem. But there was some good news in the paper.

Dr Worm said there was evidence that wherever protective measures were taken, species recovered rapidly and could cope better with problems such as global warming.

The catch per unit of effort - the standard scientific way of measuring fishing activity - goes up four-fold.

As wild fish stocks decline, farmed fish is expected to take over. Some 43 per cent of fish consumed is already farmed, says the UN Food and Agriculture Organisation.

But it warned that fish farming would struggle to maintain even present levels of production because the small wild fish that are fed to farmed species are being over-fished.

Willie Mackenzie, of Greenpeace, said: "This report confirms the scale of the crisis our oceans are facing. It's clear that fish and chips will be off the menu within our lifetimes if we don't act now.

"We need to ban destructive fishing practices and create a network of large-scale marine reserves around not just Britain, but globally".

Despite the problem of the oceans being on a time-scale comparable to global warming, the Government appears to have scrapped plans to introduce its promised Marine Bill in the Queen's Speech this month, the environmental group WWF said yesterday.

The Washington Post

November 11, 2007

Japan's Sacred Bluefin, Loved Too Much

By Blaine Harden, Washington Post Foreign Service

TOKYO -- "Tuna cannot look like skinny Japanese women."

So says Tsunenori Iida, and he ought to know. His family has been buying and selling tuna for seven generations here at the world's largest fish market. Six mornings a week for 43 years, Iida has been casting his eyes and running his fingers over the torpedo-shaped carcasses of bluefin tuna, the most precious fish in the sea. They are brought here to Tokyo's Tsukiji market, where a dawn auction sets the global price.

"I look for beauty and balanced plumpness," Iida said. "I am looking for a Catherine Zeta-Jones type of tuna."

Alas for Japan, which wolfs down a quarter of the global tuna catch, and for the rest of the world: An increasingly voracious appetite for sushi is driving the supply of plump pulchritude served raw perilously low.

Japan -- after years of overfishing a species that is as much sacrament as food -- is feeling the pinch more than any other country.

As of this year and for the next four years, the country's annual fishing quota has been slashed in half for southern bluefin tuna, found in the warm waters of the Southern Hemisphere. And its quota for Atlantic bluefin has been cut by almost a quarter.

Bluefin, which have been fished to the brink of extinction in some areas, are the largest tuna. They produce the most succulent sashimi-grade flesh, which is eaten raw either as sushi (together with a dollop of rice) or on its own, as sashimi.

Wholesale tuna prices, up about 20 percent in the past year, are so high that Japanese restaurant owners say they cannot pass on the full cost to customers.

Still, tuna remains on the menus because there is no real choice. Without a sizable slab of rich red flesh on prominent display, a sushi restaurant in this country loses face -- and customers.

"Tuna is the sushi in a sushi restaurant," said Izumi Niitsu, who manages Kihachi, a restaurant in Tokyo. He has been slicing and serving the stuff for 40 years. "If you have good tuna, you have a reputation of being a proper restaurant."

Niitsu now sells his highest grade of tuna (the higher the fat content, the higher the grade) at about \$5 for a piece about the size of a matchbox. His wholesale cost for such a piece, he says, is often more than his customers pay.

"When customers order tuna after tuna, my heart sort of pounds," said Niitsu, who tries to cover his tuna losses by gently encouraging customers to enjoy species of raw fish that he sells at a profit.

Across Japan, quotas are squeezing the supply of sashimi tuna, and soaring prices are reducing demand. In the first quarter of this year, imports fell 24 percent compared with the previous year, according to one recent industry report. Another report says that for all of 2006, household consumption of sashimi tuna fell 20 percent.

Yet as the Japanese eat less sashimi-grade tuna, Americans, Europeans and Chinese are eating more. In the United States, the second-largest market for fresh tuna, imports have continued to rise this year. That, in turn, is driving up demand and prices. It is also putting further pressure on tuna stocks that have been overfished for decades.

In addition to their high value, bluefin tuna are capable of remarkable speed -- some have been clocked swimming at 43 miles an hour. Six years ago, one especially nice bluefin sold at Tsukiji market for \$173,600, because of its size, quality and, it is said, a fierce bidding war.

At a recent Monday morning auction, Iida bought a very average bluefin, weighing 341 pounds, for \$9,500. "The price was higher than the quality of the fish justified," he grumbled.

Since 1950, the global catch has risen more than tenfold, to more than 4 million tons in 2002, '03 and '04. A report this year by the World Wildlife Fund said that the tuna fishing fleet is now far larger -- in some cases 70 percent larger -- than is needed for a sustainable catch.

The consequences have been severe, especially for bluefin tuna. The total population of southern bluefin has been reduced to about 8 percent of levels before industrial fishing took off in the 1950s, according to a U.N. report.

Japan admitted last year that its fleet had caught one-third more southern bluefin tuna than it was entitled to under an international quota.

"We have to change our appetites to protect these fish," Iida said, as he stabbed out a cigarette and stomped off at 4:30 a.m. in his rubber boots to inspect fresh and frozen tuna laid out on wooden pallets in two auction rooms.

Last year, before the quotas were cut, so many tuna carcasses were wheeled out to the auction floor that they had to be stacked on top of each other.

Those days, Iida said, are gone forever. "We were too loose in governing our own fishing," he said. "We now need a very rigid regimen to show the world that we can control ourselves. Instead of eating tuna twice a week, the Japanese are going to have to settle for twice a month."

Iida, though, still has to find a way to deliver a ton and a half of tuna a day (worth about \$180,000 at recent auction prices) to customers who have relied on his company for decades. Those customers include some of Tokyo's best sushi restaurants.

To deliver the goods, Iida buys as many quality tuna as he can get, if the day's auction serves them up. If not, he relies more than ever on his big freezer. Tuna frozen with special "flash" methods can be kept for up to a year with little or no perceptible change in its taste.

"These are the times we live in," he explained, adding that by selling from his freezer he can average out costs and slowly pass price increases on to customers, while compensating for an increasingly unreliable supply of tuna at auction.

The World Wildlife Fund and other environmental groups say that much more regulation is needed to protect the fish.

But Japan has won some measured praise for abiding by substantial reductions in its tuna quota and for finally realizing that overfishing is a national problem.

Iida believes a permanent change in Japanese attitudes and consumption can save the tuna -- and preserve his country's tuna-centric culture.

"We all have to share what we have got," he said. "If we do that, I don't think they are going extinct."

Special correspondent Akiko Yamamoto contributed to this report.