WWF for a living planet®

Symposium on Responsible Consumption of Tuna

Tokyo, August 2010

WWF Japan

WWF-Japan Organized “Responsible Tuna Consumption Symposium” in August 3rd、2010.

It was the first symposium in Japan that brought together various aspects of stakeholders including consumers, local fishing industry players, fish processors and traders, media and relevant government stakeholders in Japan which is the world’s largest tuna consuming country. This symposium helped to raise public awareness on global tuna issues tuna and, hoped to gave a chance for seriously depleted tuna species for survival.

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1 Symposium on Responsible Tuna Consumption

1 Introduction

Currently, Atlantic bluefin tuna and CITES news were covered widely in Japan, however, there are few opportunities for Japanese consumers to obtain proper information about the challenges fishermen face in producing countries or about the sustainability issues associated with producing tuna including tuna stock depletion and illegal fisheries. In this context, Japanese consumers have little opportunity to recognize or address the links their tuna consumption has to the depletion of tuna globally.

2 Objectives of the Symposium

- To develop consumer awareness of the relationship between their seafood consumption and marine environmental issues.
- To inform and highlight the potential contribution of Japanese consumers to tuna conservation globally.
- To create sufficient consumer demand that transforms the Japanese tuna market in both sashimi and processed products.
- To assess the level of interest in developing sustainable supply chain policies amongst key Japanese retailers, processors and traders (importers) of tuna.

3 Target Audiences (Participants)

- Japanese consumers in Tokyo drawn from WWF Japan's members and supporters and the 'general public' notified via the WWF magazine and website and other media outlets.
- Japanese Journalists, media contacts.
- Japanese retailers, trading companies, tuna processors, middlemen at wet markets.
- Result: The number of participants 152

2 Background Facts on Effective Transformation of Tuna Consumption in Japan

1 Introduction

Since Monaco had submitted the proposal to CITES secretariat in 2009, tuna conservation issue has been getting more attention in Japan. Therefore, WWF Japan regard that 2010 is the very crucial year to strive for promoting sustainable tuna consumption in Japan.

Tuna is one of the most popular fish in Japan, especially for sashimi and sushi dishes, and at the same time, one of the most depleted or vulnerable to depletion stocks in the Pacific, the Atlantic and the Indian Oceans, because of the rapid market growth. Of global 6 major tuna species[1] production, Japan consumes around 25%, and imported tuna covers more than 45% of Japanese tuna supply; thus Japan has been recognized as one of the key countries for both tuna fisheries and consumption. With in the context, transforming Japanese current situation is crucial for global tuna sustainable use. However, because of the unique tuna eating culture and the complex mechanism of tuna market, promoting sustainable tuna supply chain and consumption has faced challenges in Japan.

2 Trend of Japanese Tuna Consumption

For sashimi and sushi dishes, more than 99% of southern bluefin tuna, 80% of bluefin tuna, and 60% of bigeye tuna of the global consumption are eaten by the Japanese. This ratio has been not changed for long term since tuna farm technology was established in 1990s. These 3 tuna species are known as high-price tuna as well as seriously overfished or overfishing tuna species.

It was not until the cold chain distribution was invented in 1940s to 1950s that tuna sashimi became daily food for Japanese citizens. Due to the cold chain, Japanese fishing industry could expand their fishing ground all over the world, and the tuna market grew fast particularly in the urban area such as Tokyo so as for consumers to get more opportunity to eat tuna products. The next big change regard to tuna market for Japanese consumers was the establishment of bluefin tuna's farming technology in early 1990s. Started with southern bluefin tuna in Australia, farmed

[1] Tuna and skipjack are considered to be different categories in Japan, and many Japanese don't recognize skipjack as one of tuna species. Therefore, definition of the 6 tuna species here is Atlantic bluefin tuna, Pacific bluefin tuna, Southern bluefin tuna, Yellowfin tuna, Bigeye tuna, and Albacore.

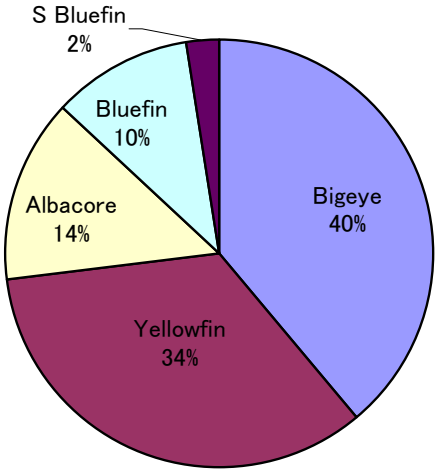
bluefin tuna, which was much cheaper than wild caught bluefin tuna, enabled Japanese consumers to buy high-class sashimi tuna easier, and raised Japanese bluefin tuna consumption dramatically. In fact, there were only 5,500 tonnes Atlantic and Pacific bluefin tuna imported in 1980, but after 1990s, the imported bluefin tuna grew to more than 20,000 tonnes only by Atlantic bluefin tuna.

According to the "Annual household expenditure surveys", the Japanese per household consumed more than 2.5 Kg of tuna in 2008, which will be much larger if we add consumption in restaurants and sushi bars. The consumer study published by WWF Japan in 2010[2] found that most of the Japanese consumers eat tuna at least once in a week. On the contrary to the high demand, price of tuna has been on downward trend recently, especially for the high-price tuna such as bluefin tuna and southern bluefin tuna, which made the stock piles of these 2 high-priced tuna larger than ever before. (Japan Fisheries Agency's report says more than 20,000 tonnes of Atlantic bluefin tuna and southern bluefin tuna are frozen and stored in tne end of 2009.) Consumer's demand for high- quality as well as low price tuna products further encouraged trading companies or retailers to be involved in farmed bluefin tuna.

3 Main Exporting Countries for Japan

Figure 1 shows the tuna supply ratio of 2008 in Japan. The most popular tuna in Japan is bigeye tuna, and its portion is about 40% (about 160,000 tonnes). It means that more than 70% of the sashimi tuna is supplied by bigeye tuna, and bigeye tuna is the most familiar species for Japanese consumers.

Fig. 1 Tuna Supply in Japan (2008)



2

Source: “International Situation on Tuna and Skipjack” (2010, Japan Fisheries Agency)

Table 1 Top 5 Origin Countries for Imported Tuna by Japan (2009)

YELLOWFIN

COUNTRIES	QUANTITY (KG)*1	VALUE (1,000 JPY)
TAIWAN	12,196,275	5,172,137
INDONESIA	7,985,992	5,514,648
R KOREA	7,796,703	2,593,109
CHINA	5,225,323	2,323,600
PHILIPPINES	5,028,359	1,086,147

BLUEFIN (ATLANTIC AND PACIFIC)

COUNTRIES	QUANTITY (KG)	VALUE (1,000 JPY)
CROATIA	3,687,774	9,031,361
TURKEY	3,505,488	9,222,872
MALTA	3,035,615	10,107,178
MEXICO	2,757,400	4,029,695
TUNISIA	2,279,399	7,065,767

SOUTHERN BLUEFIN

COUNTRIES	QUANTITY (KG)	VALUE (1,000 JPY)
AUSTRALIA	8,184,825	10,515,811
INDONESIA	1,455,238	677,626
R KOREA	1,226,440	2,092,116
TAIWAN	760,402	489,700
NEW ZEALAND	158,711	301,065

BIGEYE

COUNTRIES	QUANTITY (KG)	VALUE (1,000 JPY)
TAIWAN	36,040,626	23,909,819
CHINA	21,784,359	14,776,911
R KOREA	8,968,663	7,277,049
SEYCHELL	3,420,038	2,126,177
INDONESIA	2,323,179	1,560,060

ALBACORE

COUNTRIES	QUANTITY (KG)	VALUE (1,000 JPY)
TAIWAN	2,139,178	611,769
R KOREA	2,124,387	569,085
VANUATU	1,172,019	338,779
CANADA	1,047,197	335,529
U.S.	959,242	293,712

OTHER TUNA PRODUCTS*2

COUNTRIES	QUANTITY (KG)	VALUE (1,000 JPY)
THAILAND	20,563,043	8,954,268
INDONESIA	6,596,526	3,785,007
PHILIPPINES	5,382,973	2,839,154
FIJI	2,707,166	1,768,608
VIETNAM	2,457,833	1,141,300

Source: Japan Ministry of Finance customs data (2009)

*1The quantities are sum of the tuna products (fresh/frozen, fresh/frozen fillet, fresh/frozen meat), and not converted into round weight.

*2 OTHER TUNA PRODUCTS are fresh/frozen fillet products excluding southern bluefin and blufin.

4 Tuna Supply Chain in Japan

According to the report published by the Japanese Fisheries Agency, annual tuna supply was about 410,000 tonnes in 2008. Of total tuna supply, 210,000 tonnes (53%) were supplied by domestic fisheries such as longliner, purse seiner, pole and liner, and trap-net fishery. The other 195,000 (47%) tonnes of tuna were supplied by more than 50 countries all around the world.

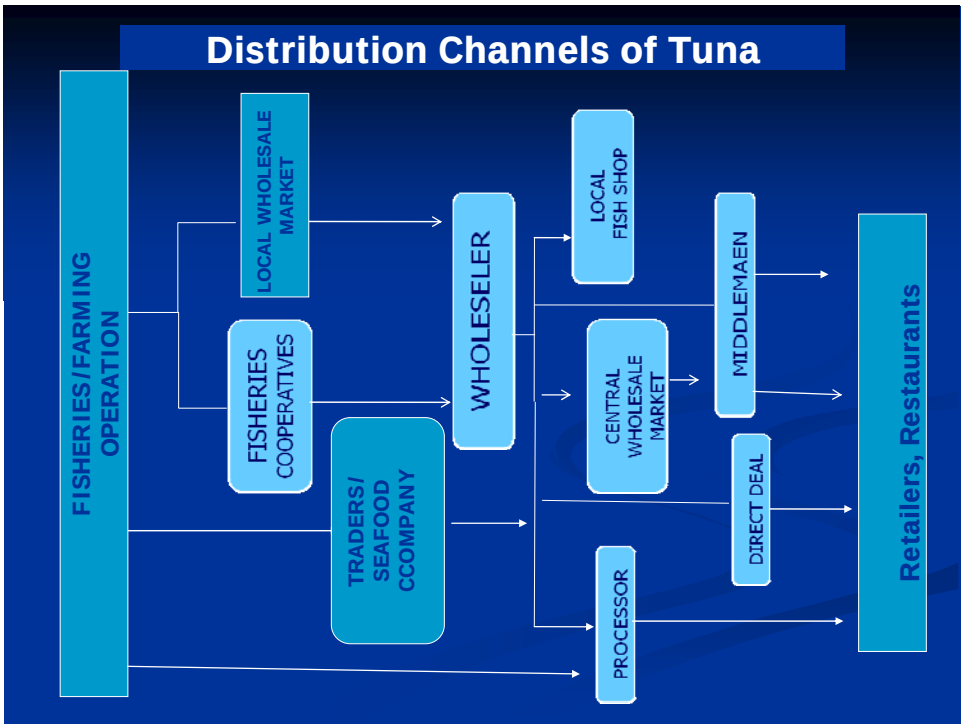
Domestic fresh tuna are mostly caught by coastal and offshore fishery operating inside of Japanese EEZ. In general, these tuna are brought to local wholesale market managed by fishery cooperative associations or prefecture. After auctions at

the local market, these tuna transported to the central wholesale market such as Tsukiji, or retailer, or restaurant. Domestic frozen tuna are caught by distant water longliners, and brought to central market or directly bought by large wholesalers such as trading companies, or processing companies. Thereafter, domestic frozen products are kept in the super cold storage (about -50□) and sold to central wholesale market, retailers or restaurants yearly.

For imported tuna, most of the products are bought by wholesalers, then brought to central wholesale market or sold to retailers and restaurant directly. Frozen products would be kept in the super cold storage as well as domestic products. Trading companies often make a contract with fishers or farmers before fishing season starts in order to secure the products. In some cases, trading companies provide the running cost for the fishery in advance.

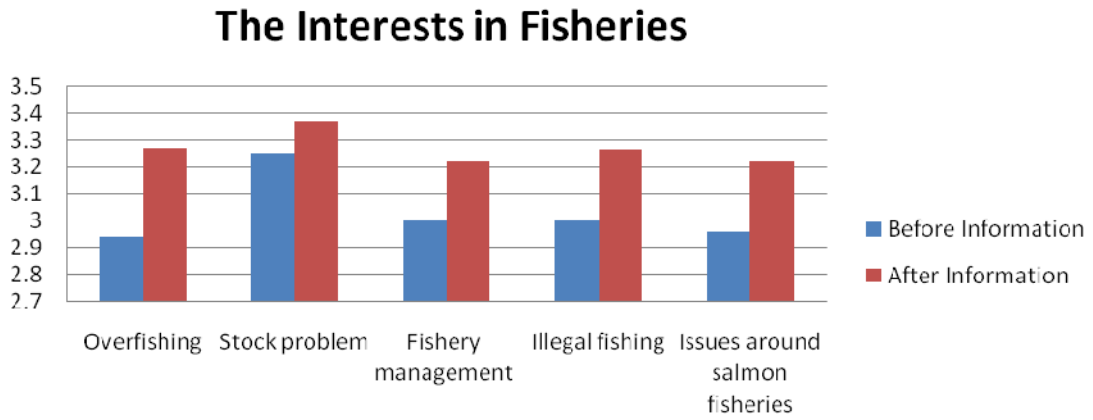
Adding to the above products, domestic farmed pacific bluefin tuna has been increasing with investment by large trading companies such as Mitsubishi corporation and large seafood companies such as Nissui since Atlantic bluefin tuna's quota had been substantially reduced by ICCAT in these 3 years. Domestic farmed pacific bluefin tuna has the same distribution channel with the imported fresh farmed tuna.

Fig 2 Distribution Channels of Tuna in Japan



5 Consumer Awareness Issue in Japan

The consumer study has found that Japanese consumers are not yet aware of the fishery resource problems. This is not because they are not interested in the problems around fishery management, but because they lack the information. However, when given information on the fishery resource problems, consumers showed their interest and became supportive of sustainable seafood such as eco-labeled products. The effect of this information was to increase consumers concern for overfishing, fishery management problems, illegal fishing problems and issues in salmon fisheries.



The figure shows how participants' concern for fishery problems changed before and after providing information. Y axis stand for, not interesting at all=1, not interesting =2, interesting =3, very interesting=4, respectively (N=128~158). This figure shows the averages of the participants' interests in each item.

The another Japanese consumer research conducted by Edge Research for WWF US[3] found that respondents were surprised to know how much of the world's bluefin tuna was consumed by Japan. The research also found that awareness of varieties about tuna was low, and other respondents showed no awareness of varieties of tuna. The result implies that knowledge of different species and where tuna comes from was relatively low.

[3] "Japanese Consumer Attitude Toward the Ocean Environment and Seafood- Finding from Focus Group Research"

3 Program of “Symposium on Responsible Tuna Consumption ”

消費者と考える 国際マグロシンポジウム

日本の食卓が地球環境を変える

日時 2010. 8/3(火) 10:00 17:00　場所 東京プリンスホテル　主催：WWFジャパン　協力：東京プリンスホテル　協賛：日本万国博覧会記念機構

午前の部			
9:30		開場	
10:00	開会挨拶		徳川恒孝（トクガワツネナリ）（WWFジャパン　会長）
10:10	基調講演	食卓から見たマグロ　～マグロの基礎知識～	緑川聡（ミドリカワサトシ）（(社)漁業情報サービスセンター　流通課主査）
10:30	基調講演	ワシントン条約とカツオ・マグロの資源管理	宮原正典（ミヤハラマサノリ）（水産庁資源管理部審議官）
11:00	動向報告	WWFの考えるマグロと環境問題	山内愛子（ヤマウチアイコ）（WWFジャパン）
11:15	事例報告	地中海クロマグロ:持続可能な漁業と消費を目指して	Susana Sainz-Trapaga（スサナ　サインズ　トラパガ）（WWF地中海）
11:45	事例報告	壱岐のマグロ一本釣り漁の現場から	松尾五郎（マツオゴロウ）、大久保晃（オオクボアキラ）（勝本町漁業協同組合）
12:00（90分）		休憩：質問票回収　MSC認証取得　カツオ試食会	
午後の部			
13:30	事例報告	大間のマグロ一本釣り漁業の現場から	濱端廣文（ハマバタヒロフミ）（大間漁業協同組合長）
13:45	事例報告	中西部太平洋:持続可能なマグロ漁業推進プロジェクト	Jose Ingles（ホセ　イングルス）（WWF　コーラルトライアングル）
14:15（20分）		休憩：質問票回収	
14:35	質疑応答及びパネルディスカッション	論点：日本の消費者にしてほしいこと、またこれからの持続可能なマグロ消費の展望を伺います。	ファシリテーター：東梅貞義（トウバイサダヨシ）（WWFジャパン） 話題提供：Mark Powell（マーク　パウエル）（WWFインターナショナル）
16:35	閉会挨拶		樋口隆昌（ヒグチタカマサ）（WWFジャパン　事務局長）

	Time	Topic		
	10:00	welcome	Tsunenari Tokugawa	WWF Japan
session 1	10:10	Tuna market and consumption in Japan	Satoshi Midorikawa	Japan Fisheries Information Service Center
	10:30	CITES and Resource Management of Tuna Species	Masanori Miyahara	Japan's Fisheries Agency
	11:00	Japanese Consumption and Environmental Issues Around Tuna	Aiko Yamauchi	WWF Japan
	11:15	Mediterranean Bluefin tuna: Toward Sustainable Fishery and Consumption	Susana Sainz-Trapaga	WWF Med PO
	11:45	Report from Japanese tuna pole and line fishery 1	Goro Matsuo/Akira Okubo	Katsumotocho fishery cooperative association
	12:00	LUNCH	MSC Skipjack sashimi available for tasting	
session 2	13:30	Report from Japanese tuna pole and line fishery 2	Hirofumi Hamahata	Oma fishery cooperative association
	13:45	Coral Triangle:Promoting Sustainable Tuna Fisheries	Jose Ingles	WWF Coral Triangle
	14:15	Break (20 min)		
Q&A, Panel Discussion	14:35	Future of the Tuna Consumption in Japan	Sadayoshi Tobai	WWF Japan
			Mark Powell	WWF International
	16:35	Closing	Takamasa Higichi	WWF Japan

4 Speaker Bios

Satoshi Midorikawa

1968, born in Tokyo. Graduated Tokai University, School of Marine Science and Technology, Department of Fisheries, Propogation/Breeding Program

1993, began work at the Japan Fisheries Information Service Center.

Currently specializes in fishery products distribution statistics, surveys.

Distribution Division, Project General Manager.

Masanori Miyahara

1978, began work at the Ministry of Agriculture, Forestry and Fisheries. 1999, became chief of Fisheries Agency Management Division Initiative Direction. Participated in countless international meetings since assuming this position.

Has experience as the chairman of the International Commission for the Conservation of Atlantic Tunas.

Has held current position since 2008.

Aiko Yamauchi

2002, graduated Tokyo University of Fisheries(Now the Tokyo University of Marine Science and Technology), Department of Resource Management.

2007, received doctorate in marine science from the Tokyo University of Marine Science and Technology.

2008, began work as Marine Programme Fishery Officer at WWF Japan.

Involved in lobbying and camaign activities on sustainable fisheries, sustainable seafood.

Susana Sainz-Trápaga

1964, born in Argentina. Majored in marine science at the Buenos Aires Technological Institute. 1992, enrolled at the University of Tokyo, Ocean
Research Institute. Received Master's in fisheries science. After working as a joint researcher with NOAA and the University of Paris, began work at the WWF Mediterranean Programme Office in 2006.
Focuses on policy recommendations and campaign activities for Bluefin Tuna and other fisheries in the Mediterranean.

Goro Matsuo

1978, born in Nagasaki, in the town of Ikikatsumoto.
Took up fishing as a profession after graduation from high shcool.
Began solitary pole-and-line fishing eight years ago.
Most unforgettable memory to date is first large tuna catch (240 kilograms)

Akira Okubo

1978, born in Nagasaki, in the town of Ikikatsumoto.
Took up fishing as a profession after graduation from high shcool.
Began solitary pole-and-line fishing eight years ago.
Most unforgettable memory to date is first large tuna catch (240 kilograms)

Hirofumi Hamabata

1941, born in Aomori, in the town of Oma. Began independent pole-and-line fishing at the age of fifteen.
Largest Bluefin Tuna caught to date was 266 kilograms.
2001, became president of Oma Fisheries Union.
2010, currently serving second term as president of Oma Fisheries Union.

Jose Ingles

1956, born in Phillipin. Ph. D. in Natural Science, University of Hamburg, Germany, 1988.M.S. in Marine Biology, UP, Diliman, Quezon City ,Philippines, 1980
B.S. in Zoology, University of Santo Tomas (UST), Manila, Philippines, 1975
He is the Tuna Strategy Leader for the WWF Coral Triangle Network Initiative Program since 2008.

Mark Powell

Dr. Mark Powell earned his Ph.D. from the University of California, San Diego.
He has worked as an Assistant Professor of Marine Sciences at the University of Connecticut and as a postdoctoral researcher at the Hopkins Marine Station and Bodega Marine Laboratory.
He works with WWF staff to advance sustainable fisherie.

Sadayoshi Tobai

1965, born in Iwate. Graduated with major in biology from International Christian University.
1991, received Master's in resource management from University of Edinburgh, United Kingdom.
1992, began work at WWF Japan. Currently holds the position of Marine Programme Leader.

6 Record of Panel Discussion

Moderator. explained that WWF Japan's aim is to be able to sustainably catch and eat fish and that WWF recognizes that there are several steps towards this goal. Moderator. Reflected upon how Japanese commercial customs have a long history of trying to sustainably manage fisheries including for example the model of the Omi merchants who set rules about their commerce. However, the issue is to ensure that the model is good for the seller, buyer, and for society – i.e. endeavoring to be win-win-win.

Moderator further added that everybody needs to continue to think about what cautions or management fish require in order to prevent extinction; and that we should consider how these cautions or management can also be good for the fishermen to ensure sustainable livelihoods; and that lastly, how they're useful for society including those who eat, deal in or who are involved in the managing the fish – i.e. everyone in the society should benefit from fisheries. The question that this symposium explored was what is the ideal or optimum balance that needed to be pursued?

Next, Moderator referred to the questions he'd asked participants to submit and noted that he had received many addressed to both specific individuals and to the group as a whole. Whilst noting that every question could not be read as many as possible would be addressed.

As mentioned above, fisheries management is necessary if consumers are be able to eat fish for the long term. Many questions reflected this including detailed questions about fisheries management, the current situation and how it could be changed. The symposium would have a focus on fisheries management in part two. Moderator also emphasized that consumers need to be educated but raised the questions of who is best placed to do this and that approaches to communicate to consumers would be discussed in the part three.

The overview of the symposium is thus: Part One covering several general questions; Part Two discussing fisheries management and responding to participants questions; and the Part Three covering what could be done to influence consumers and who should be involved in the effort.

Part One – General Introductory Discussion

The first question was to Mr. Miyahara, Mr. Midorikawa, Dr Yamauchi, and Mr. Hamabata:
Atlantic and Pacific bluefin tuna seem to be different species. How can they be differentiated and what is WWF's view?

Ms. Aiko Yamauchi responded to say that the quickest way a consumer in Japan could distinguish between the tuna species would be by looking at the label which always stated the place of origin. Also, that Pacific bluefin tuna was mostly domestically cultured and farmed. Thus, if the label said domestic and cultured, then it would generally be a Pacific bluefin tuna.

From a consumer's perspective, WWF's advice would be to just look at the packaging and the labeling at the time of purchase, to see where it came from and maybe some differences in how it looked could also be discerned.

Mr Takashi Midorikawa admitted to not being too knowledgeable about the distinction, but he stated that Atlantic bluefin tuna would mostly likely be frozen fish and caught using purse seine or longline methods. Also as mentioned by Dr Yamauchi, in the supermarket, the country of origin is always displayed which aid distinction.

The questioner further said that he didn't have this basic knowledge about tuna and appreciated this advice and went onto mention that given there are several kinds of bluefin tuna such as the Atlantic bluefin tuna, Pacific bluefin tuna, and the Mediterranean bluefin tuna, is there a broader category covering the Pacific and Atlantic bluefin tuna? He? Mentioned that he had read that ICCAT was supposed to be focusing on and managing Atlantic bluefin tuna and asked whether ICCAT managed all bluefin tuna? And lastly, why did they focus only on Atlantic bluefin tuna, and why had WWF developed a statement focusing solely on this tuna?

Moderator then asked Mr. Miyahara to clarify whether the Pacific and Atlantic bluefin tuna were different species and to elaborate about their management.

Mr. Miyahara said that Professor Takeuchi could best explain the biological differences and clarified that Pacific and Atlantic bluefin are two different species, that between Atlantic and Pacific bluefin tuna (BFT), Atlantic bluefin is managed by ICCAT and the Pacific by WCPFC. Mr Miyahara added that there are two spawning grounds for Pacific BFT and two populations for Atlantic BFT and a population that spawned in the Mediterranean. People often misunderstood that when one said tuna, it could be referring to bluefin tuna, bigeye tuna, or yellowfin tuna; and that in Japan we don't usually only say 'tuna'.

Mr Miyahara went to state that southern bluefin tuna is found in the Indian Ocean and that both natural and cultured fish can now be distinguished by their labels in the supermarkets but that regrettably, sometimes, however, there are labeling violations which the Ministry of Agriculture and Fisheries has set up a department to manage. One example of such a violation is the case of false labeling of the Hinai Chicken, and the management department taking action on this.

Mr. Miyahara regretfully pointed out that labeling of marine products was not being done extensively, and at sushi restaurants one has to be really knowledgeable to know the type of fish being served. In the Tsukiji Market, industry people know where the tuna came from just by looking at it, but it is difficult for consumers to know that. He emphasized the need for the fishery agencies to provide more information to people.

Moderator added to this to state that Pacific bluefin tuna was the tuna in the Oma model and went on to ask Dr Yamauchi to talk further about sustainability to improve the insufficient understanding. He asked: to spread the understanding of sustainability in Japan, what would be the most appropriate sustainability of fish products?

Dr Yamauchi explained that from a Japanese perspective, tuna and fish sustainability was an issue and that sustainability often carried its own meaning for people. Clearly, however, there is a need to realize how to have sustainable resources and to create a situation where resources can be sustainably used. Dr Yamauchi went onto say that eating fish is a central aspect of Japanese culture and that Japanese people cannot think of a market without fish. Thus, it should be

ensured that the producers continued catching fish and sustain their living and the fish markets too are therefore sustained. It therefore followed as a basic premise that fish should be remain for the future. She pointed out that it would be difficult to explain the term 'sustainability' to Japanese people as the direct translation of sustainability would not necessarily be appropriate. Japanese people want to continue eating fish and for that they need contribute towards a stable market which includes a stable situation for producers and a sustainable way of eating food.

Moderator then asked the next question to Mr. Hamabata stating that Oma tuna was auctioned out to Hong Kong, which meant that the Japanese are unable to buy Oma tuna and people living in Hong Kong are able to buy it. He questioned whether China posed a problem or threat to the Japanese market, and what did Mr. Hamabata think about the tuna being bought by people from Hong Kong?

Hirofumi Hamabata answered that a group of people from Hong Kong accompanied by a broker from Tsukiji Market had come to Oma with the intention of buying high quality tuna as Oma was famous for its good quality tuna. He added that they were confident that this deal would be covered and reported upon by the NHK thus they bid the highest price at auction for the year at 16 million yen and justified this given the free media NHK coverage. This actually meant that they were only paying 5 million rather than 16 million because of the cost of advertising! It made better sense for them to participate in the auction in Oma, buy a very highly-priced tuna, and furthermore, get free public relations!

Subsequently, Dr. Mark Powell was asked to comment on the impact of oil leakage in the Mexican Gulf and questioned about WWFs reaction.

He replied that he did not know the exact effects of the oil spill in the Gulf of Mexico and that much remained to be learned about it. A lot of oil was released under the surface of the ocean and could not be seen from above and thus it is difficult to know its exact location. Bluefin tunas spawn in the Gulf of Mexico, and the timing of the spawning was such that they may have been exposed to the oil and the young may have suffered contamination.

Mr Powell went on to say that there is grave concern that bluefin tuna, in particular, could be harmed by the oil spill, but that this is not really known at this point. The

oil, of course, contaminated coastal and open ocean habitats and posed a risk to marine life but that the impact of oil on shrimp, seabirds, and turtles was still unknown. Mr. Powell denied knowing the severity of the problem but thought that the biggest risk was long-term contamination. The deadly effects of human responses to the contamination were also unknown including the toxic oil dispersants, the chemicals designed to break up the oil into smaller compounds or droplets, hoping that the oil would disperse. Thus, it was possible that the human response to oil spill created additional contamination problems.

Mr. Powell also stated that it would take many years to completely understand the impact of oil spill on marine life. Learning continues from the Exxon Valdez oil spill, more than 2 decades ago. So, it would be some time before the effects on animals would be really known in the Gulf.

Moderator agreed with the possibility coincidence of the oil spill with the spawning period and that is would impact other animals such as prawns and seabirds.

Part Two – Fisheries Management

Moderator, then introduced Part Two which was to be about Fisheries Management and that there were questions from participants about this.

The first question was about ICCAT and mentioned that unfortunately in the last 10 years there had been very poor fishery management, and that this period was sometimes referred to as 'the lost 10 years'. Moderator. asked Mr. Miyahara to respond to this question by asking whether this could have been avoided.

Mr. Miyahara replied that fisheries management or particular stock management was very much dependent on whether the set rules were successfully followed. He went on to mention that Japan only took a small amount of catch of bluefin tuna, 8%, and that the main part of the catch was taken by the EU with some EU countries being the largest bluefin tuna catchers. Mr. Miyahara stated that it was very difficult for the EU as a whole to keep within the 30,000 Total Allowable Catch

and that overfishing is observed. He drew our attention to some key elements to effectively manage the fisheries including that the EU ensured the TAC is observed. He did however then note that in spite of best efforts the deterioration of the stock had been faster than expected.

He went on to mention that many of the fishermen did not consider overfishing as their issue and were thus unconcerned about the rules and regulations. Mr. Miyahara compared it to a gold rush where everybody was enthusiastic about catching bluefin in that region, and the fishermen were able to gain money whenever possible. Insufficient attention had been paid to monitor actual fishing practices but now, with the declining supply of tuna, concern was rising about the consequences of this poor practice. He explained that this is the background to the current proposal to ban the international trade in Atlantic bluefin tuna and that this was due serious implementation given the status of the stock and it's poor management.

Mr Miyahara also commented that a very stringent screening process for buying had been started in the Mediterranean region which had led to 3600 tons of imported bluefin tuna being stopped. This continues to the present time as a further 1000 tons, considered illegal had been stopped.

Market pressure can be used to ensure that the right things are done and stopping imports of illegal bluefin tuna is one of them. However, even after recent efforts we still haven't seen a turn around in the health of Atlantic bluefin but hopefully we will after another few months.

As a consequence of all this Japan has been trying to improve the market which could make a major difference. In fishing, it is at the source of production that management must occur. Fishermen and fishing companies have to do what they have to do but currently management is done at the end point and not at the source of the production process. This is how management is done in the Mediterranean Sea.

After thanking Mr Miyahara for his insights, Moderator.. pointed out that the fishermen should understand the situation and that in the past awareness levels have been low. Now Japan does have border controls but unfortunately, this is just

a fraction of the entire picture and border control in and of itself is not a sufficient solution for this situation.

Moderator. then invited Dr Sainz-Trapaga, representing WWF's Mediterranean Programme to comment on why the European situation has been unable to avoid the lost decade.

Dr Sainz-Trapaga agreed with Mr. Miyahara that both Europe and Japan share responsibility for the management measures ICCAT takes and that it is true that the fishing fleet was European. She commented however, that it was also true that the primary market was Japan and thus there needed to be agreement and effort from both sides to control the situation.

Dr Sainz-Trapaga stated that had scientific advice been followed in a timely way then the current situation would not have risen. She elaborated that a solution had to be found as it was apparent that market demand was driving the problem and thus again both Europe and Japan needed to come to an agreement.

She added that Japan should be congratulated for the measures taken in the last year to curb imports and that it had been a bold message directed at Europe to address the illegalities in their catches. She emphasized that these were the kinds of measures that were needed to control the current situation and that drastic measures were required to deal with the situation as measures like stopping the purse seine fishery or stopping farming activities have proven to be unfeasible. Finally, Dr Sainz-Trapaga concluded that there certainly needed to be an agreement among the main ICCAT contracting parties, mainly Europe and Japan.

Moderator. further asked Dr Sainz-Trapaga to comment on European policy and elaborate about each relevant country. He stated that each country was looking at what they had done or failed to do in the past and some of them had already taken measures to either instate a moratorium or reduce capacity. He questioned whether any other countries were also taking initiatives to address the situation and requested Dr Sainz-Trapaga to elaborate further.

Dr Sainz-Trapaga responded that in Europe, the most important producer countries were France, Italy, and Spain. The Italian fleet had 49 purse seiners, and it was

obvious that the fleets would not survive economically this year so Italy had declared a moratorium which removed Italian purse seiners this season. This was a very big and important step by Italy Who also committed to scrap most of their fleet. She commented that this was a very notable step to be discussing scrapping and not shifting fishing effort to other species or oceans.

Dr Sainz-Trapaga introduced France which had also acknowledged the problem and was now proving to be serious about eliminating the purse seine fishery by supporting scientists. The French government, in negotiation with the fishermen and the scientists are now focusing on how to have only a domestic trade so that the artisanal fisheries could survive. it is clearly apparent that France is absolutely aware that with the current quota, there is no room for purse seiners.

She then went on to discuss Spain where the situation is quite different. The problem in Spain is that recently six new vessels started fishing. These huge vessels could sometimes take their whole quota in less than 3 days fishing which was clearly unacceptable to the artisanal fishermen. Furthermore, the artisanal fleet can employ over 2000 fishermen which compares better to the maximum 80 to 100 across the industrial vessels. Additionally she added, the industrial fleet was operating in the Balearic Island spawning ground which has been identified as an area to be protected. Thus, to conclude, Dr Sainz-Trapaga stated that it was very clear that stern measures needed to be taken to manage this fleet.

In wrapping up, Moderator said that there already have been some initiatives identified and implemented in key EU countries and that the artisanal fishermen were also covered by additional protective measures. He then asked Mr. Miyahara another ICCAT question mentioning that in the previous year, EU did not vote on the agreement and thus what was the EU going to do now? Was it going to strike back?

Mr Miyahara responded that he did not represent EU and was unaware of what the EU was going to do. He went on to comment that at the CITES Conference, the Appendix One nomination for Atlantic bluefin tuna was supported by the EU; however, he questioned whether the EU would ask to maintain the current quota at the next ICCAT and asked whether that would be uncontradictory/consistent? At ICCAT last year, the recovery probability was 60%, which was considered in

setting the quota last year. One of the possibilities was to continue the ban on the fishery for an extended period. He was optimistic that things would work out with the EU and that they EU wouldn't disgrace themselves at the next conference to be held in Paris.

Dr Sainz-Trapaga was then asked what she thought the EU would propose at the forthcoming conference and for her thoughts on the possibilities for agreement at the next CITES conference?

Dr Sainz-Trapaga responded that she was waiting for the actual scientific advice and that agreement could be very different among the ICCAT contracting parties. She added that an ideal outcome would be to agree that the TAC would be shared across the Mediterranean artisanal fleet. However, this was not guaranteed and the scientists may give different values of TAC instead of giving one answer.

The important thing, according to Dr Sainz-Trapaga, was the percentage of success recommended by WWF Mediterranean Program Office. The ICCAT Committee was to adopt at least 60% probability to recover the stock. So WWF would have to accept a 40% possibility of collapse, which WWF believed was too high. She commented that the right number to ensure a reasonable probability of stock recovery would be not less than 80% and that we would know in just over a month what the results are.

A participant then asked a question about the recovery of Atlantic BFT and the Standing Committee on Research and Statistics (SCRS) who set the quota according to scientific advice and which Japan fully supported. The question was whether it would be possible for the Japanese government to propose removing the quota of ICCAT rule violators as well as banning the commercial trade with such violators.

Mr. Miyahara answered that the use of the 60% recovery as the basis for quota-setting or as a possible grounds for banning fishing actually came from Japan and in the end last year, the EU had also agreed to this. He went on to comment that not purchasing from IUU (Illegal, Unregulated and Unreported) sources had been announced and enforced pretty stringently. However, he concluded that when it came to resource management, that the fishing countries still have to strictly

enforce the rules.

He further stated that unless people were told about IUU catches, they could not be aware of them. Earlier, the EU could be completely trusted but now there is an impression that sometimes the EU is not right.

Recently, there had been some specific incidences such as a farm ranch that claimed to have a certain number of fish in their net but then actually produced more fish upon the final count. Japan had been demanding an end to this dishonesty and that the only conclusion that could be drawn is that ranching and farming are dubious businesses that do not completely follow the rules.

Moderator then asked Dr Yamauchi whether she saw any problems with catch documentation/trade certificate.
Dr. Yamauchi responded that IUU imports into Japan ceased in March 2010 after the certification process was introduced. She mentioned that the certificate helped people to purchase the right thing and this step had been quite impactful. Initially, certificates were the only things to be depended on however, that was not the case currently.

The discussion of this question continued and focused on whether the certificate alone was the only tool to avoid illegal imports of whether it was in fact the action of the Japanese government that was blocking the illegal imports from entering Japan.

Dr Yamauchi answered that the responsibility didn't lie with companies alone and that the trading houses could also contribute to improving things in conjunction with their prior traceability systems. She went on to comment that it was futile to block product at the port of entry because of the fact that the fish is already dead and thus there must be a system in which action could be taken earlier on by producer country governments and well before the fish are killed.

Dr Yamauchi further added that there was a limit to what importing countries could do and that the exporting countries should do the right thing and observe the rules but ultimately governments and the market are both accountable.

Dr Sainz-Trapaga added that there was a huge problem of weight increase of fish catches in farms and that the commonly reported weight increase was completely unrealistic demonstrating that farmers still hide overcatching by claiming that the increased weight occurred during the farming period. She emphasized that drastic measures were needed to solve the situation as the fish numbers had reached growth rates of up to 142% in a very short farming period whereas the scientists working in the field claimed that the acceptable growth rate should be maximum 20-25% depending on the size of fish. Thus, farmers could easily hide a vast amount of fish and she concluded that ICCAT should be in charge of this issue, and if not, it should be stopped.

Mr. Miyahara then added it was possible for the documentation to carry wrong numbers and as Mediterranean farming could be for up to 6 months within which time it was not possible for the fish to grow in weight by 150%. According to the scientists, the maximum growth of fish was 20% - 25% thus clearly there were very big errors in the system and although reported, the numbers were awfully wrong.

Moderator then requested Dr Sainz-Trapaga to touch upon CITES registration and the relevant restrictions.

Dr Sainz-Trapaga was asked whether the EU wanted to exclusively consume Mediterranean bluefin tuna given the Japanese media the Japanese fishery agencies were accusing the EU of this?

Dr Sainz-Trapaga responded that she did not think this was the case and that Mediterranean countries have consumed bluefin tuna for millennia but traditionally, in a totally different way. She claimed that Europeans never ate raw fish and that European markets did not consume farmed tuna products but preferred those from wild fisheries, usually longliners and tuna traps – which are totally different. Except for sushi bars or restaurants in Europe, farmed products would not be accepted for normal consumption in the European households and farmed products would not easily fit into European diets or ways of cooking.

Dr Sainz-Trapaga further underlined that she did not think it was true that fishery agencies had pointed fingers at the EU and that she believed, from the sole viewpoint of trading that banning the entire trade would be unfair for the smaller

European countries as there are huge countries in the EU who continue eating tuna. Thus, it was not about European monopoly.

Part Three – Educating Consumers

Moderator then introduced this next part by reading a statement by the Minister which said that Japan would not import illegally caught fish. He went on to ask about the educational activities that had been conducted to date for consumers.

Mr. Miyahara replied that work had just started, and it was still in the initial stages but that traceability was important to spread understanding among the consumers. At the Ministry, traceability was so far established only for rice, and the minister had instructed that this traceability be established for tuna as well. Technically speaking, establishing traceability for tuna would be rather difficult and cumbersome. There were labeling obligations and there were cases where labeling rules were not followed but that it is critical to ensure that the rules are followed. As a result, the ways to introduce such technologies were currently being studied.

Moderator further introduced questions about the seas near Japan and asked Mr. Miyahara whether there were plans to regulate the excess farming of bluefin tuna in the seas near Japan.

Mr. Miyahara commented that he regretted not having time to explain farming in his presentation and stated that a registration system would be started for farms. Unlike the European farms, Japanese farms source the fish individually and although the purse seine method was not used, Japan should take care not to take too many small fish. Japan would start and regulate this via the registration system but given small fishermen depend significantly on supplying fish for

farming, it cannot be stopped immediately.

Mr. Miyahara did however wonder how to strike a balance between sustainably and maintaining operations. He mentioned that theoretically there was a possibility of the purse seine method being used to supply farms, but only if the farms are supplied with live fish. However, since this would be low efficiency as well as uneconomical for the purse seine farmers, they are currently unwilling to do that.

Moderator agreed that currently there was no supply of purse seine caught live fish for farming and that this was likely to continue to be the case. He asked Mr. Matsuo and Mr. Okubo to elaborate on the increase in bluefin tuna farming and what their views were on the increase in bluefin tuna near Japan, on the increase in farming of bluefin tuna, and about its regulation.

Mr. Goro Matsuo stated that he was not sure whether the tuna caught by purse seine were supplied to farms because he had sometimes seen the net being transported and thus it could not be said with 100% certainty that purse seine caught tuna was not supplied to farms. However, the fishermen did not do it a lot as it was not too profitable and in his view, he thought that maintaining the status quo was the best situation.

He then highlighted that there were longline fishermen in Shikoku who had informed him and reported it on TV programs that there was an increase in purse seine fisheries catching small fish for farms. He thought there was therefore a misunderstanding as it did exist, but not in large volumes. He didn't mention specific companies but claimed that large companies were trying to do this and his advice to them had been to not do so. Thus, if they use a small purse seine, they could transfer with the transport cage vessel.

Mr Matsuo then pointed out that the attempts by large purse seine vessels to carry large amounts of fish to the farms have not yet been successful in Japan.

Moderator asked whether the instructions were followed and whether a mandate would be required.

Mr Matsuo responded that the primary objective would be to ensure the regulation

of the actual capture of the small fish regardless of whether the fish would be used for farming or whether they would be marketed. He further thought that rather than having a complete regulation, that basic principles should be reaffirmed. Lastly, he raised the issue of whether a complete ban on juvenile fish from Korea could be possible.

Mr. Miyahara commented on this and drew attention to the fact that Korea's rejection of resource management efforts was going to be a major issue in this year's ICCAT conference as there had been a doubling of their exports. He went on to say that it remains to be seen whether Japan can unilaterally ban imports and that he thought it would be difficult to do this in the short term, because of the relationship of this issue to WTO – but that action will be taken if possible.

Mr Miyahara said that from January 1st, there had been a rise in demand for information about who had bought from whom, what volume and from which vessel. Apparently also, Korea had more tuna swimming within it's EEZ, at 200 nautical miles, but that was basically the same fishing ground used by Japanese vessels. As it would be very rare for the coastal fishermen in Korea to catch the fish, it meant a set of specific purse seine vessels were actually catching the fish. Mr. Miyahara added that the catch had been allowed and that information would be submitted in the conference to ensure enforcement.

One important thing about management was to be open about information shared by relevant people. Mr. Miyahara said when he visited Oma, he had spoken to the President of the cooperative about the management of bluefin tuna, and that it was done regionally. There was a purse seine vessel coming to Hokkaido and Mr. Miyahara and the president then had a meeting in Hokkaido or at Iki (Famous fishing village in Nagasaki prefecture).

He added that resource management is something that must cover all fishing grounds and suggested that after the Northern Committee meeting, everyone from the region should come together to meeting and share their issues and views. The President of the Oma Cooperative had called for other presidents to come forward to discuss this. It was recognized it was important to be open to the media about how irrational catching was being banned because then some action could possibly be taken.

Mr Miyahara added that a policy cannot simply be unilaterally announced and that the cooperation of all the relevant parties would be needed to regulate tuna catching. Thus, in terms of the imports from Korea, for example, the information about who is buying and where is it coming from, should be shared to help to control this. Sharing information would not immediately lead to financial penalties or import restrictions, but if the issues are shared with openness and transparency, the exports could be voluntarily restricted, which could lead to more improved guidance.

Moderator then asked Mr. Hamabata whether the fishery agency had started their new regulations in March or May of the current year, and what his thoughts were about the resource management measures that the fishery agency had developed.

Mr. Hirofumi Hamabata agreed with everything that Mr. Miyahara had said and affirmed that about 20 days ago, Mr. Miyahara had visited Oma. He described that there had been a discussion with him and the prefectural officials about the location of fish being caught. An initiative was being taken to implement the government's policies. He commented on that there are 52 cooperatives in Aomori Prefecture in addition to the eastern and western cooperatives and that given the proposals have been, implementation is now awaited.

Mr Hamabata related how it had been decided that Oma Cooperative or Katsumoto Fisheries Cooperative would ensure that the brokers would not accept any fish without the shipping voucher from the fisheries cooperative. He further commented that in the past, illegal products such as Avalon and other fisheries products were auctioned and that there should be better management for tuna and all other fish. He stated that this would be started by Aomori Prefecture as it was not something that could be implemented in Oma. From Aomori Prefecture, this approach should spread to all of Japan and subsequently to the rest of the world as a first step towards eliminating illegal and overfishing.

Moderator stated that Mr. Okubo had knew

about the new management scheme from the agency and him to comment on it such as whether he had any expectations about or issues with it.

Mr. Akira Okubo started by acknowledging that he had been given an explanation about the scheme and agreed that Katsumoto Cooperative was ready to work on the management of the scheme as it provided a structure for effective management. However with respect to tuna, it was quite clear that mismanagement could take place. He added that it is necessary to identify the tuna's production site, that the management is done properly by the cooperative and recorded. He stated that they were working on this type of management.

Addressing the Head of the Oma Cooperative, Mr. Okubo stated that it would really be appreciated if there was a possibility to distinguish between Mihama and happy products because even though the tuna is received from Oma, it would be difficult to distinguish between the ones from the Pacific and the ones from the Japan Sea. Thus, a good distinction between the two would be appreciated to understand and identify the origin of the fish.

Mr Okubo then described how the tuna swim in the Tsugaru Strait including multiple migrations and that these fish are caught by the Oma Cooperative. Furthermore, the Japan Sea tuna are called Tapi, and it is unknown whether the tuna caught off the coast of Oma are Pacific tuna and they're described as from Oma. He explained that everyone agrees that the reasons for good management would ensure the elimination of illegal fishing.

He said that it doesn't make sense for the tuna to go straight into the Tsukiji Market without going through the cooperative, even though it could be various types such as the Japan Sea tuna, Pacific Ocean tuna, Matsumae tuna, Tapi tuna, etcetera and as the same tuna migrate beyond all those areas. For instance, the tuna from Oma would then migrate to the Tapi, going on to Matsumae, and then finally to Hakodate.

A question was then raised about Japanese companies and what the number of fishermen involved in purse seine fishing was.

Mr Okubo (??) answered that the number of people involved in purse seine fisheries

is around 80 and that this is half that of 10 years ago. Also, there are 19 boats or vessels in Nagasaki, but only a limited number of vessels caught a large number of tuna. Also, Sakai Port, which was the landing port, had six vessels and out of them only a handful had large catches of tuna. Mr Okubo commented that the fate of Japanese fisheries depended on what would be done in the future.

He added that many people believed that ITQs were an effective control and management system but he stated that a ban or restriction should be imposed on large catchers to control and manage purse seine fisheries. Mr Okubo commented that it would be possible to use ITQs for the small catchers but that it did not make any sense to do so. Thus, it was decided to try to work on the large producers of the purse seine tuna fishery and that it would take several more months or years before this type of system could be introduced.

Part Four -Tuna Conservation

Moderator then called attention to reservation and protection zones and whether it was possible to use such zones in the ocean.

Mr. Miyahara spoke first about the sensitive biodiversity areas and that maritime reserve areas were not a new concept and that there are also fishery suspension areas. A prohibition area for fisheries could be created to enable the effective management of stocks and that would be different from the maritime reserve area. It is important for the management of Japanese fisheries to have the fishermen take ownership of issues and try to work on the management themselves. Thus, it would be possible to have prohibition areas for fisheries for developing tuna. Another option could be to try to be selective in timing, for example, during the spawning period, that particular area could be closed down.

He went on to state that Japan will have to be flexible in its work in this area and that it has 200 nautical miles and is the sixth largest in the entire world. As the area in which the fishing can occur is very limited, there are distinct areas with concentrations of large fishing companies and small fishermen.

The conditions tuna need to survive are a very important and thus the area closed for fishing also needs to be different from the protected zone.

Moderator asked Mr. Hirofumi Hamabata about his opinion on the no-fishing or protected zones.

Mr. Hamabata answered that when considering the Japanese archipelago, the most important culprits were the assigned fisheries. He stressed the importance of being selective in catching fish and pointed out that the troll vessels stopped their fishing in July and August and that it would make sense for the purse seine fishery to also stop their fishing during this period and because mackerel and other fish in the Nihon Sea migrate north at this time.

Moderator summed up that spawning was essential for fish stocks to increase and thus it is vital to stop the purse seine fisheries during the spawning season and on the spawning ground. He asked Mr. Akira Okubo to voice his thoughts about the protected zone or the no-fishing area.

Mr. Okubo started by stressing the significance of the no-fishing season stating that the spawning season was very important for tuna and that this is the reason for seeking a halt in fishing by the purse seine fleet operating on the spawning period. He commented that if the purse seine fleets were active in the spawning area, it would threaten the spawning stock and decrease both eggs and juveniles.

Moderator repeated that Mr. Okubo thought it important to make sure that the purse seine fisheries would be stopped or suspended during the spawning season and on the spawning ground. He asked Mr. Okubo about the possibilities of the spawning areas.

Mr. Okubo called attention to the fact that the Japan Sea had purse seine fishing leases for 20 years and that in July, there was a harvest of 1200 tons off the coast of Misawa. Thus, despite having 18 vessels, nothing could be done when the trawls were on the coast, as operations are suspended in July and August. Additionally, there were about 400 small vessels off the coast of Misawa that fish by pole and line. He pointed out that just one operation by the purse seine fisheries was almost equal to the harvest of pole and line fishery for 1 month by 400 vessels. This could therefore only mean that they have 4 ton and 100 ton class vessels and that they work for 1-month. This results in the entire area being depleted of mackerel and

squid for over a week after fishing has ended.

He went on to say that currently the purse seine fisheries consent to stop their operations for July and August but that they have stated that they would like to operate for 11 months rather than 10. Mr. Okubo emphasized the importance of the purse seine fisheries suspending operations for 2 months, leaving the mackerel, sardines or squid to migrate northward unaffected. He added that the purse seine fisheries must wait and continue to suspend their operation for 1 month to recover the volume of the stock.

Part Five –Free Discussion

Moderator returned the conversation to discuss consumers once more but added that the management of this fishery had been gaining momentum. He then enquired about the information to be imparted to consumers and who should play the role of delivering information to them. He asked Dr. Mark Powell, Seafood Leader for WWF International, to comment on this.

Mr Powell introduced himself as representing WWF International which was based in Switzerland. He stressed the importance about all organizations, notably seafood businesses, consumers, governments, WWF and other similar type organizations, taking efforts and working together to find shared goals to solve these problems. He denied the notion that WWF wanted to end the consumption of seafood in Japan or anywhere else and explained that, to him, seafood forever meant having a reliable supply of seafood. He elaborated this point to say that reliable supply meant more than fishing and meeting needs today, it was about balancing today's needs together with the needs of the future to ensure a reliable supply.

He added that if they were not confident about the fact that there would be a reliable supply of seafood after seven generations, it meant that WWF was not managing well. It also meant there should be selective catching of tuna and other species that were intended for sale on the market. He also stated that products should be legal and traceable so that it could be verified by WWF that fisheries were following the right conservation measures.

Mr. Powell stated on behalf of WWF International that they were happy to be supporting the leadership of WWF Japan in convening all the various groups for this symposium. He clarified that it was not true that WWF wanted to be only the voice of Europe and that he agreed that it was unfair to just blame Japan for the depletion of Atlantic bluefin tuna. He voiced his disappointment at the European nations that had pushed for overfishing.

He suggested that WWF, the fisheries agency of Japan, and Japan's seafood enterprises, work together to put public pressure on the European Union, in Paris, to implement responsible management of Atlantic bluefin tuna. He emphasized the need to work together to expose the responsibility of the EU in stopping overfishing by their own fishing fleets and in their own backyard.

He concluded by adding that he looked forward to having a dialogue about how WWF, together with the Fisheries Agency of Japan and with Japan's seafood enterprises, could solve this problem including a discussion about what businesses and consumers in Japan could do to support this overall broad-based effort.

Mr… briefly reviewed Dr. Mark Powell's comments stating that seafood processors, trading companies, and the end users, the consumers alongwith the government, and stakeholders like the WWF and other NGOs should be cooperating to find shared goals to solve the problem of fisheries management.

He added that it is important to share the 'seafood is forever' goal and that sustained supply should be pursued, by-catch reduced, rules set and observed, and traceability ensured throughout the system. He noted that it is unfair to lay the blame at the door of the consumer country And that more pressure should be placed on the EU by Japanese fisheries businesses, the government and the other stakeholders. It was proposed to encourage the right adoption and that pressure be applied on European countries. The governments as well as the eco-NGOs were trying hard.

Mr. Miyahara then agreed that a cooperating relationship should be welcomed and stated that WWF Japan did not accompany him in ICCAT but that he had been communicating very well with WWF Europe all the time. Thus, he believed, despite very significant efforts, they were obviously not sufficient and that they needed to step up their efforts further down the road.

Moderator asked Dr. Yamauchi to comment on what could happen in Japan in terms of the approaches and what players she planned to involve. He further asked her whether she expected the same kind of approaches to be expected between EU and Japan or if she thought Japan should be any different.

Dr. Yamauchi underlined the importance of the current year's ICCAT meeting. She explained that a symposium for consumers had been held and that questions had also invited from reporters. Some of the questions they had asked were: Are you saying that we should eat less of the tuna and are you saying that we should buy less tuna?

Dr Yamauchi went on to add that before initiatives was lost, consumers have to get the message as to what is the right situation and the corporations have to reflect upon what they should be buying and what their plans are. She thought that things were getting clearer as to what people have to do and what they have to buy. There was more awareness about Atlantic bluefin tuna in the retailers, the markets, and the supermarkets. Overfishing could not take place without a market. Thus, that could be positive pressure to reduce overfishing.

She mentioned that the Coral Triangle presentation had been made to demonstrate the conjunction of conserved nature and the sustainable supply of tuna but that the cooperation with business corporations is essential. The logical path is very complicated for tuna regardless of whether it was imported or domestic. Dr Yamauchi mentioned that pinions should be voiced at the consumer end, before initiatives could be set and that the market and the consumers should be approached if Japan was to have an effective proposal for the late autumn ICCAT meetings. The buy-in by the consumers in the market is needed.

She concluded that consuming and buying tuna cannot be called wrong but that the power of the consumer should be used to change current practices. She added that

they are in a very good position to make changes in the conservation and management of tuna resources and Japan's potential could be utilized to make that change.

Moderator stated that Dr Yamauchi had spoken about traceability, government statistics, and the certification system. He also mentioned that bi-lateral negotiations could be done in other ways but more initiatives would be needed for this. Thus, consumers and corporations should be kept up-to-date on information in order for them to act appropriately.

The EU supermarkets initiatives was easy to understand as they were not selling tuna. However, in Japan, being a big consumer country, that kind of initiative would not be appropriate unless Japan adapted it. He questioned whether Japan had any approaches like this.

Dr Yamauchi responded to say that there was no big move regarding tuna and that there were lots of stakeholders, like various business corporations. Thus, there are continuing talks with business corporations. The western world and Japan are a bit different in that corporations in Western countries do opt out from dealing with tuna.

She noted that in Japan, the preparatory stage of the initiative is fairly long and that due consideration is given to check the feasibility and expected outcomes and effects of any such initiative. Consequently, through the long course of communication questions can be raised such as about the likelihood, possibility and potential expected effects.

Dr Yamauchi further added that there is neither a quick fix nor easy answers but due to recurring communications with corporations, gradual changes among the Japanese corporations can be seen as a trend. Furthermore, the number of corporations announcing initiatives in this area attests to this.

Moderator .asked whether the she could name any of the corporations.

Dr Yamauchi denied this saying that it would be better if the corporations voluntarily revealed their names themselves.

In response, Moderator requested the representatives of those companies to volunteer their names.

A representative of Ajinomoto, a major food company, stated that they would continue to investigate skipjack resources well into the future and informed that they had the marine resource institution, which was the home of Daiichi product, and the raw material they needed came from the skipjack and that they needed sustainable quantities of skipjack for their business. The fish broth derived from the skipjack was a very traditional seasoning ingredient for Japanese food and thus Ajinomoto needed it to be sustainable. They currently do not produce flakes of skipjack and instead, make fish broth by purchasing raw materials and using available resources.

In conclusion, they claimed that they could not let other people handle the issue of sustainability as it was very important for them. They maintained however that they needed to work with other people and participate in resources management to ensure resource sustainability.

Moderator summed up by saying Ajinomoto had been making efforts and trying to clearly state what they were buying, ensuring it's traceability, and validating it's management. He complimented their innovative efforts to address the management of their source fisheries.

M. Powell then commented on global sustainability efforts and mentioned that there were great differences between the sustainability efforts that were ongoing currently in Europe and those which may develop in Japan. He informed that sustainability was an everyday household word in Switzerland and he gave an example as to its importance to a business in Switzerland. He stated that a friend of his recently bought a large barbecue grill, an outdoor grill for cooking meat. There was a sticker on the outside of the box that said, 'sourced or produced using sustainable wood products'. He informed that the grill which made a gas fire for cooking meat was almost entirely made out of metal except for a very small wooden handle. Thus, in order that they could put sustainability on the box in big letters, they had this small piece of wood that said, 'produced using a sustainable wood product.'

He stressed that the supermarket and the grill producer were so eager to put the word ‘sustainability’ somewhere on the box that they created that nearly ridiculous example of a sustainably-produced grill because it had a tiny sliver of wood that was sourced from sustainable sources.

He pointed out that in an environment like that what one does on sustainability would be very different from what may happen in Japan. Thus, the consumer movement or consumer involvement in seafood and fisheries needed to be locally adapted to the culture, the traditions and the needs and acceptance of the people, consumers, businesses, fishermen, managers, etcetera and that whatever happened in Japan would not be a carbon copy of what happens in Europe, and that WWF understood that.

Moderator asked members of the audience to elaborate on a good approach to enhance the understanding of consumers and to have more consumers be interested and become knowledgeable about this issue.

?? answered that there was insufficient information made available to consumers and that very few people in the audience would be aware that 90% of bluefin tuna are caught when they are age 0 or 1. Thus, without such kind of information provided to the consumers it is difficult for consumers to speak up. He expressed his expectations that WWF Japan would disseminate that information and change people's opinions.

He went on to say that regarding the sustainability of tuna, the primary action should be imparting more information about the current state of resources and then discussing what should be done in accordance with that situation. He also regretted that the topic of resources did not come up at the symposium as there were several people from national research institutions, in charge of bluefin tuna, present who were very suited to talk about that. He elaborated that it would be easier to understand why regulation was needed and to understand why the pole and line fishermen were facing so much difficulty.

These fishermen feel that the purse seine fisheries were reducing tuna resources but the truth is that the catch by the purse seine vessels is also drastically declining.

From 2004, they started operating in the Sea of Japan and caught 3000 tons in 2005 which then reduced to 1700, 1200, 1000 ton, 500 tons respectively and this year, the catch was 200 ton. Thus, in just 5 years the catch of the purse seine vessels in the Sea of Japan reduced the spawning biomass to 7%.

Moderator agreed that more comprehensive discussion about resources to understand the resource and the stock situations would have been useful before moving onto discussion of other issues. He further asked the audience for views about what are the other things that one could do in order to stimulate consumer interest.

Mr. Wada introduced himself as being from Kamewa Shoten and that his company had first received the MSC ecolabel in 2006. His then put a question to Ajinomoto. He began by noting that this eco-label had been acquired by AEON in November of 2006 and that it was spreading more in the distribution and retail industry and that his company were also distributors. He then mentioned that when people discuss about things 'eco' that the tend to think about planting trees and reducing CO2, whereas Ajinomoto was acting in this area because fish are also an ecological issue. He went on to add that when the manufacturers do so, the impression is quite different and in fact, Ajinomoto may not be able to make their skipjack broth in the long term. He said that now though, they could act and displaying this information on products and disseminate this information among consumers?

The Ajinomoto representative responded saying that they should make an effort to communicate information about eco to the consumers. He stated that the advice was encouraging and that they were studying those issues. He added that one of the several points they needed to be cognizant of was that in some cases, it was too early to take action and that various circumstances and situations had to be taken into account in order to avoid sending out a wrong message. It was possible that people could get the impression that the company was just doing it for marketing purposes and because it was popular to do so. He declared that it could have negative effects for them as well as for the society and hence they wanted to be very careful about how it was advertised.

He further said that Ajinomoto had to consider how people would see or acknowledge the display on the product but claimed that they could actively start

doing it now that their name was known in the symposium. He hoped that with the cooperation of WWF Japan and their partners, they would like to actively participate in educating the consumers.

Moderator mentioned that from the company's perspective, they wanted to be careful but steady in moving this forward.

Another audience member stated that he would like to talk about the Coral Triangle. He informed that he was researching the Philippines and the Indonesian economy who were trying to make some business out of fishing and also seeking to stop fishing. He said that in the Mediterranean and Atlantic, stopping fishing was something that could be resolved economically unlike in the Coral Triangle where fishing is done for survival. He stated that as a consumer, his view was not limited to WWF Japan and that all the parties involved in these activities have a limited budget and do not have the money to publicize their activities and send out the message to prime time TV. He also added that even though he was not affiliated with WWF Japan, he appreciated that their donations collectively helped send the message out, and hence he was a supporting member.

He added that the budget and funding needed to be secured before their voice was raised and thanked them for the support that was given to members and donors, individuals and corporations when they conduct these activities and that all their activities were based on their donations.

Moderator then requested Dr. Jose Ingles to talk about fishing for survival in the Coral Triangle.

Dr. Ingles pointed out that there was a platform offered in the Coral Triangle wherein businesses in the seafood sector could meet and talk about various topics like their experiences, about sustainability, and about profitability in the seafood business. The WWF Coral Triangle had their first business summit last January which was attended by traders from all over the world. This was purely a business-to-business engagement where WWF was interested in businesses trading and doing business in seafood, mostly in tuna, to have some sort of a communications platform where they could do sustainability as well as profit from it.

He further informed that they were also engaged with the business sector, providing them with specific advice on where to source fish, quantities of fish, provide them with a status of the fishery, and even help guide them to certain fisheries which would be able to meet the MSC certification standards.

Dr. Ingles added that the WWF Coral Triangle had partnership agreements with the private sector, for example in Indonesia, where a supplier and buyer from the US and Netherlands provided support to improve a fishery there. Thus, there was a direct influence of the business to improve the fishery at the local site. In return for the investment made, the fish coming out of the responsibly sourced fishery was sent to the market and thus the arrangement actually profited both ways.

He pointed it out as coming from sustainable sources, and that companies could actually use this as part of their selling agenda. This went back to the question of fishing for survival which was exactly the reason why sustainable consumption should be made as part of the sustainability project. If there was no more seafood to export or eat, the people who were actually dependent on the Coral Triangle, mostly the fishers, would be impacted.

In Indonesia, there are 100,000 small scale tuna fishermen and taking their whole household into account, there would be about half a million people directly involved in small scale tuna fishing. He stated that this was something that could not be risked and that was the reason for the urgency to make the fishery sustainable.

Dr. Ingles then informed that the fishery of the Coral Triangle belonged to the Western and Central Pacific and had a healthy skipjack status with the yellowfin status being basically on the borderline. He claimed that there was overfishing occurring in that area, which meant that there were too many boats already present in the area and something needed to be done to reduce it.

He described the situation with bigeye tuna which had just entered overfished status and which meant that the regional fisheries management, the RFMO, which was the Western and Central Pacific Fisheries Commission (WCPFC), had actually recommended a reduction of 30% reduction in fishing capacity, based on a meeting held last December. He also mentioned another upcoming scientific conference

meeting, starting the following week, to discuss the science behind the new estimates, which would be monitored.

Dr. Ingles concluded by stating that the status of the fishery in the Coral Triangle was still reasonably healthy. Thus, measures needed to be implemented early on to facilitate recovery. A little sacrifice would be needed in order to make this recover, like the bigeye, which actually mostly ends up in Europe and in Japan. Thus he stressed that a fight for survival was important as WWF Coral Triangle could not afford to lose this resource because they would be losing the nation, in other words, a whole culture.

Moderator then requested the panelists to say a few words about what can be done by the consumers and everyone else to raise the level of sustainability.

Mr. Miyahara spoke about the importance of sharing information and that it would be the basis in thinking about what to do. He stated that was the very reason why he attended all meetings. It was also very important to have a commercial CM ??. He added that it was necessary to utilize every opportunity such as there was at CITES and he informed that CITES gave a very good advertisement opportunity by having a very high level of coverage by media. So, it was high time they utilized this situation.

He emphasized that the one thing he felt strongly about regarding the tuna was toro or high-fat meat. He commented that there was too much importance given to toro over the last 10 years and before that toro was negligible. Earlier, it was a kind of thing that was eaten by very affluent people and it was meant for very good restaurants. Thus, the maximum one could eat were one or two sushi pieces. He questioned the need for having toro in supermarkets and in the fast food sushi restaurants.

Mr. Miyahara pointed out that it would be very helpful for coastal fisheries people if consumers were not preoccupied with toro. He emphasized that the quality of the Oma tuna was very good but that the kind of tuna that was being caught in Oma was not very good for health in addition to being too expensive and thus it was not very good for the entire ecosystem or for the entire world. He urged the consumers to try to eat something else.

Dr Sainz-Trapaga stated that she would like to ask consumers to keep informed about the current situation, particularly the scientific advice and the measures adopted by the management of the bluefin tuna fishery in the Atlantic and Mediterranean, and accordingly, make their own decisions about what to do to give a 'consumer nod'. She stressed that the most important thing was to stay informed and updated on the information because the process was a very dynamic one. She was hopeful that the status of the toxic change would improve from the current time, but that the consumers would keep informed and act accordingly.

Dr Jose Ingles appealed to everyone, including himself, to think twice whenever confronted with the desire to eat something endangered. Thus, it could be saved for future generations.

Moderator then asked Dr. Powell to comment upon the kinds of things people could do to encourage sustainability.

Dr. Powell mentioned his very limited experience in Japan but called attention to the strong reputation of the Japanese as a food-consuming people. He added that they were famous throughout the world to be very discerning about many things and that those qualities as a food-consuming culture were not stretched by the notion of sustainability.

He commented that according to him sustainability meant quality, reliability; the very same values that the Japanese possess and value and cherish when they think about what to eat and when they prepare food to eat. Thus, the concept of maintaining the supply of the food that they love is really just part of that same food-loving culture; about quality and reliability. He claimed that sustainability was the same as the concept of 'seafood forever'.

Dr Yamauchi pointed out that there was a request made to Dr. Miyahara when the Symposium for Reasonable Tuna Consumption was first established and WWF Japan was trying to share the very concept of WWF. Thus they thought that they were the only ones who were able to take up the issue from the viewpoint of the Japanese people and Japanese situation.

WWF spent 6 whole months working on it to develop the appropriate kind of messages which are viable for both the Japanese people as well as WWF and enterprises in general. They tried to make sure to have good policies despite facing tremendous difficulty in doing so.

She related a statement issued through a press conference the day before, which said that WWF was trying to look into the matter of the Atlantic bluefin tuna and that they did not support the transaction or consumption of Atlantic bluefin tuna.

The reason for releasing the statement was to make everyone understand the importance of the matter. She hoped that everyone would take note that it was not that one should avoid eating it because of the decrease of the stock but rather to have a clear statement. So by using a very severe statement we ensure that each and every one of us can understand it. It also proved that it was possible to have a good alignment of opinions between WWF Japan and WWF International.

Dr Yamauchi explained that it was certainly not okay for WWF Japan to eliminate the purse seine fisheries as there were certain things that they were able to maintain just because they did have purse seine fisheries. She stressed the importance of having management as well as ensuring the regulations were enforced and having traceability back to the vessels.

She also explained that this would be something to keep in mind and if they would be able to secure the traceability of the vessels, then they would be able to continue fishing. Especially from the point of view of the artisanal fisheries, it would be possible to work on the trade and consumption of Pacific bluefin tuna. Thus, there was no opposition to the trade or consumption of bluefin tuna and having traceability ensured this fishery and it's trade could be supported into the long term. She further stated that Japan has a very high potential as a market and that maybe Japan could offer a solution to the tuna problem. There could be high hopes of this considering the Japan market.

Dr Yamauchi then referenced the next ICCAT Conference to be in November and that there was a lot of attention given to the CITES meeting. She hoped that ICCAT and the Japanese representatives got the same amount of attention and that the right management of the resources would be pursued.

She then read out part of the WWF bluefin tuna announcement: It's not about that you should eat less tuna. We are talking about why management is necessary and what can we do, and what conditions should be met before we can eat more, eat more freely." Dr Yamauchi requested everybody to pay attention to the very essence of the message.

Moderator then asked Mr. Matsuo for his final comments.

Mr. Matsuo pointed out that he, as a tuna producer, felt that the pole and line methods of catching tuna were the most eco-friendly and that he hoped more people would pursue those but that he understood the difficulty in implementing this. He hoped for the prevention of further reduction of resources and wished for resources to increase. He emphasized the need for positive initiatives and resource management.

Mr. Okubo then stressed the need to reduce overfishing and wasteful catching and that the fishermen, the fishermen's cooperative, and governments should all pursue new forms of resource management.
Mr. Hamabata noted that people often say that the agriculture of Japan was the mother of Japan. He hoped that one day he would be able to say without hesitation that the fishery of Japan was the mother of Japan.

Mr. Midorikawa pointed out that foods at the supermarket at their best season are the tastiest and that the same held true with seafood. Thus, he claimed that eating the most seasonable foods would be the most eco-friendly. He gave the example of the bigeye tuna having its own season and it would be nice to eat fresh tuna rather than frozen or farmed tuna. He advised the consumers to eat whatever fish were available in season.

Moderator concluded the symposium for Reasonable Tuna Consumption by requesting the audience to fill out the questionnaire form and return it as this would enable the organizers to learn and make improvements. He also extended an invitation to participants to join the reception that evening.

END

7 WWF Press Statement (2010/8/2)

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WWF for a living planet®

Press Release

For immediate release: 2 August 2010

Consumers urged to play their part in helping save Atlantic and Mediterranean bluefin tuna

【Tokyo, Japan】 On the eve of its special seafood event in Tokyo tomorrow – the Symposium for Responsible Tuna Consumption – global conservation organization WWF is urging consumers to avoid eating endangered Atlantic and Mediterranean bluefin tuna until the fisheries are sustainably managed.

WWF's symposium will gather Japanese Government representatives, seafood retailers, fish processors and traders, consumers and media to increase awareness and encourage discussion on what key stakeholders can do about the conservation and fishery crisis facing this prized seafood delicacy – of which Japan is the world's largest consumer country.

In particular, consumers are encouraged to make responsible seafood choices that will help give Atlantic and Mediterranean bluefin tuna a chance at survival and sustainability.

"WWF strongly wishes to see sustainable fisheries and consumption of Atlantic and Mediterranean bluefin tuna in Japan once again in the years and generations to come," said Dr Aiko Yamauchi, Fisheries Officer at WWF Japan. "But to allow for that scenario, science-based fisheries management, strict compliance with rules and full traceability of tuna products on the market are essential steps.

"Until we get there, however, WWF is urging for more drastic interim measures to be adopted.

For the long-term benefit of this key economic species, we cannot currently support the consumption or trade of the severely depleted Atlantic and Mediterranean bluefin tuna."

The organization responsible for managing Atlantic bluefin tuna stocks, the International Commission for the Conservation of Atlantic Tunas (ICCAT), will next meet in November 2010 in Paris, France, where member countries will set new fisheries recovery and management measures.

Key governments involved in Atlantic bluefin tuna fishing and consumption – Japan, the U.S., Canada, Norway and the EU – pledged at the meeting of the Convention on International Trade in Endangered Species (CITES) in March 2010 in Doha, Qatar, to fully adhere to scientific advice at the next ICCAT meeting. WWF is strongly expecting ICCAT members will honour these "Doha Commitments" to apply the advice of scientists in November, based on the next tuna stock assessment due in October.

ICCAT scientists recently confirmed the location of the main spawning grounds in the Mediterranean Sea – and these areas should now be made no-fishing zones during the spawning season to protect the fragile reproducing fish. Also, with new science-based quotas it is likely all large-scale industrial fishing would need to be eradicated in the Mediterranean.

But so far, ICCAT has repeatedly fallen short of sustainable fisheries management – allowing total catch to remain too high, an excessive industrial fleet capacity, and fishing to continue during the tuna's fragile spawning period. Illegal fishing for years has put great pressure on Mediterranean bluefin tuna stocks, with widespread overfishing and disregard for rules making regular news stories around the world.

As a result of this inadequate fisheries management, stocks of eastern Atlantic and Mediterranean bluefin tuna are now dwindling at less than 15 per cent of maximum historical levels.

"Atlantic bluefin tuna is in need of a break, and WWF urges ICCAT member governments to set new fisheries management measures that allow a no less than 80 per cent chance of recovery when they meet in Paris in November," said Dr Susana Sainz-Trapaga, Fisheries Advocacy Officer at WWF Mediterranean.

"For any new sustainable fisheries management plan to work, all countries must also be much stricter in ensuring implementation and compliance, and in the documentation of catches – to enable better transparency and traceability worldwide."

As soon as sustainable fisheries management is in place and well implemented, and the fish produce is traceable, WWF will support the trade and consumption of Atlantic bluefin tuna caught by artisanal fishers.

"Before we have the pleasure of seeing sustainable Atlantic and Mediterranean bluefin tuna on our shelves and menus, seafood consumers in Japan and around the world can play their part in helping save this severely depleted species and the livelihoods of people who depend on it, by short-term sacrifice and making more sustainable seafood choices," said Aiko Yamauchi of WWF Japan.

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Note to editor:

- More on the Atlantic bluefin tuna campaign at www.panda.org/tuna

For more information

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Notes to editor

- Further background on bluefin tuna at www.panda.org/tuna

About WWF

WWF is one of the world's largest and most respected independent conservation organizations, with almost 5 million supporters and a global network active in over 100 countries. WWF's mission is to stop the degradation of the earth's natural environment and to build a future in

which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

7 Presentations

5-1 Mr. Midorikawa

“Looking at Tuna from the Dinner Table: What you Need to Know about Tuna”
Satoshi Midorikawa

Tuna has become increasingly featured in the news and in documentary programs on television.
According to statistics for in-home consumption of fish and seafood last year, tunawas the third most purchased behind salmon and squid in terms of quan tity, but far and away the first in terms of dollar amount.

Looking back at the tradition of eating tuna, the highly-prized fatty bell y meat, "toro," from Albacore Tuna was never on the menu at sushi restaura nts, but was standardized as a menu item by conveyor belt sushi. In addition, until aboutfifteen years ago, only high-end sushi restaurants served toro fro m Bluefin Tuna and Southern Bluefin Tuna, because of its high price. With t he advent of tuna aquaculture, though, supplying toro has become less expens ive. Therefore, toro is becoming increasingly available at conveyor belt sushi r estaurants and supermarkets,and is now a fixed menu item at our dinner tab les. Toro has become more of an ordinary, everyday food, just as eel has.

Let us take a closer look at what types of tuna we have traditionally ea ten, in what ways, and at what differences exist between regions.

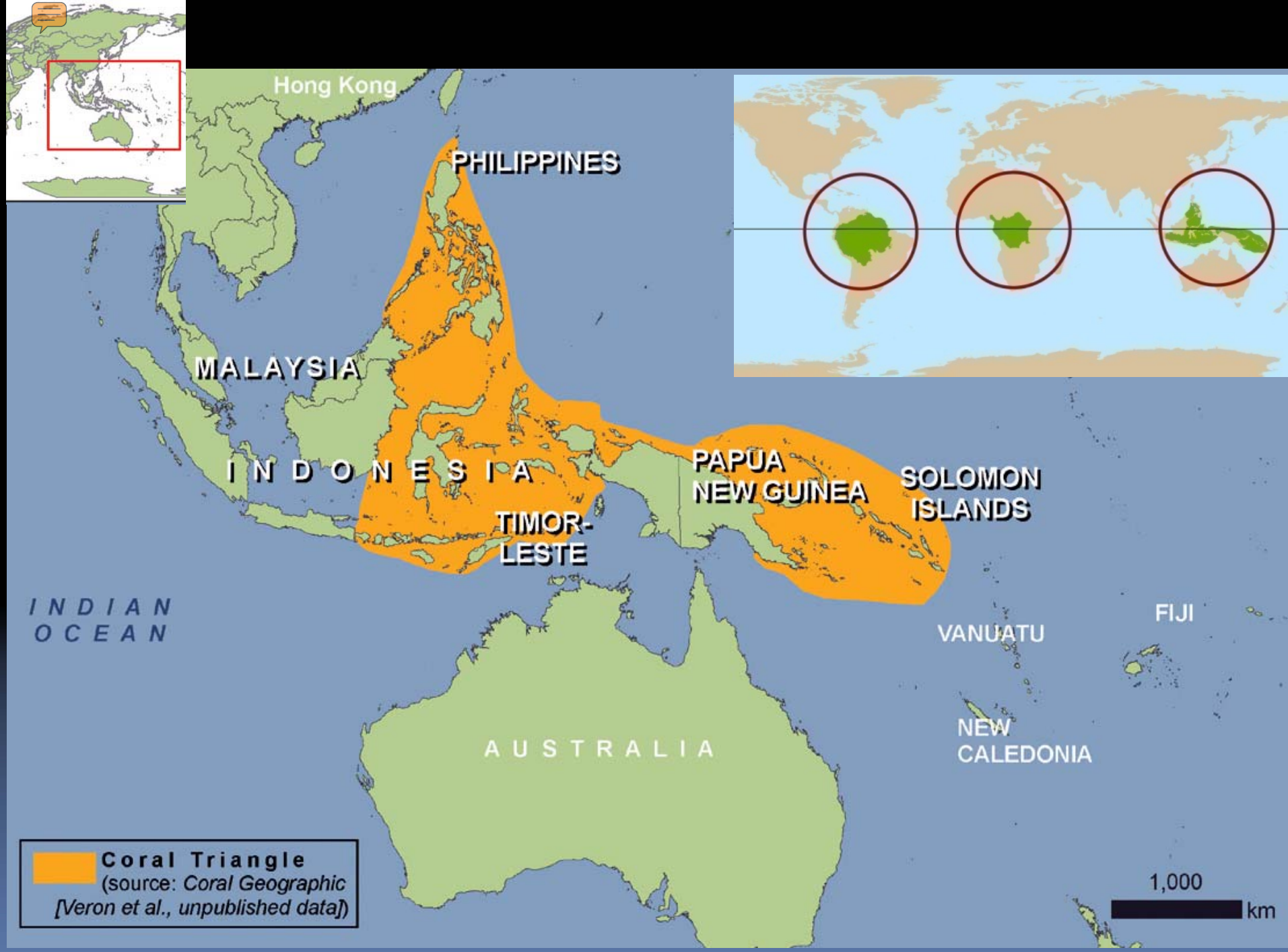
Coral Triangle Program: Promoting Sustainable Tuna Fisheries

JOSE INGLES
WWF-CTNI -Tuna Strategy Leader

Symposium for Sustainable Tuna Consumption
August 3, 2010, Tokyo, Japan

Outline of presentation

- Brief Overview of WWF Coral Triangle Network Initiative
- WWF Coral Triangle Tuna Strategy
  - goal & objectives
  - approaches & way forward


Hong Kong
PHILIPPINES
MALAYSIA
I N D O N E S I A
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LESTE
PAPUA
NEW GUINEA
SOLOMON
ISLANDS
INDIAN
OCEAN
VANUATU
FIJI
NEW
CALEDONIA
A U S T R A L I A
Coral Triangle
(source: Coral Geographic
[Veron et al., unpublished data])
1,000
km

CT's Biodiversity Assets

13.4
million km^2 of EEZ

37%
of all known reef fishes

53%
of world's coral reefs

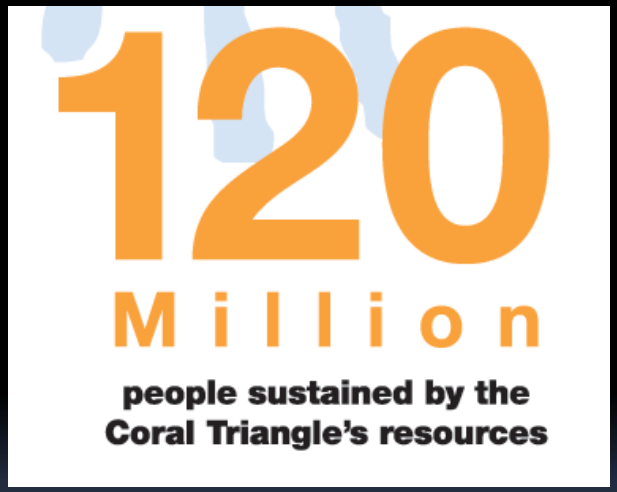
76%
of all known Coral species

6/7
Species of marine turtles

27
Species of marine mammals

5.50%
Of world's seamounts

"from fishers hauling their catch to tourists discovering coral-studded reefs, the Coral Triangle provides benefits to millions of people everyday"



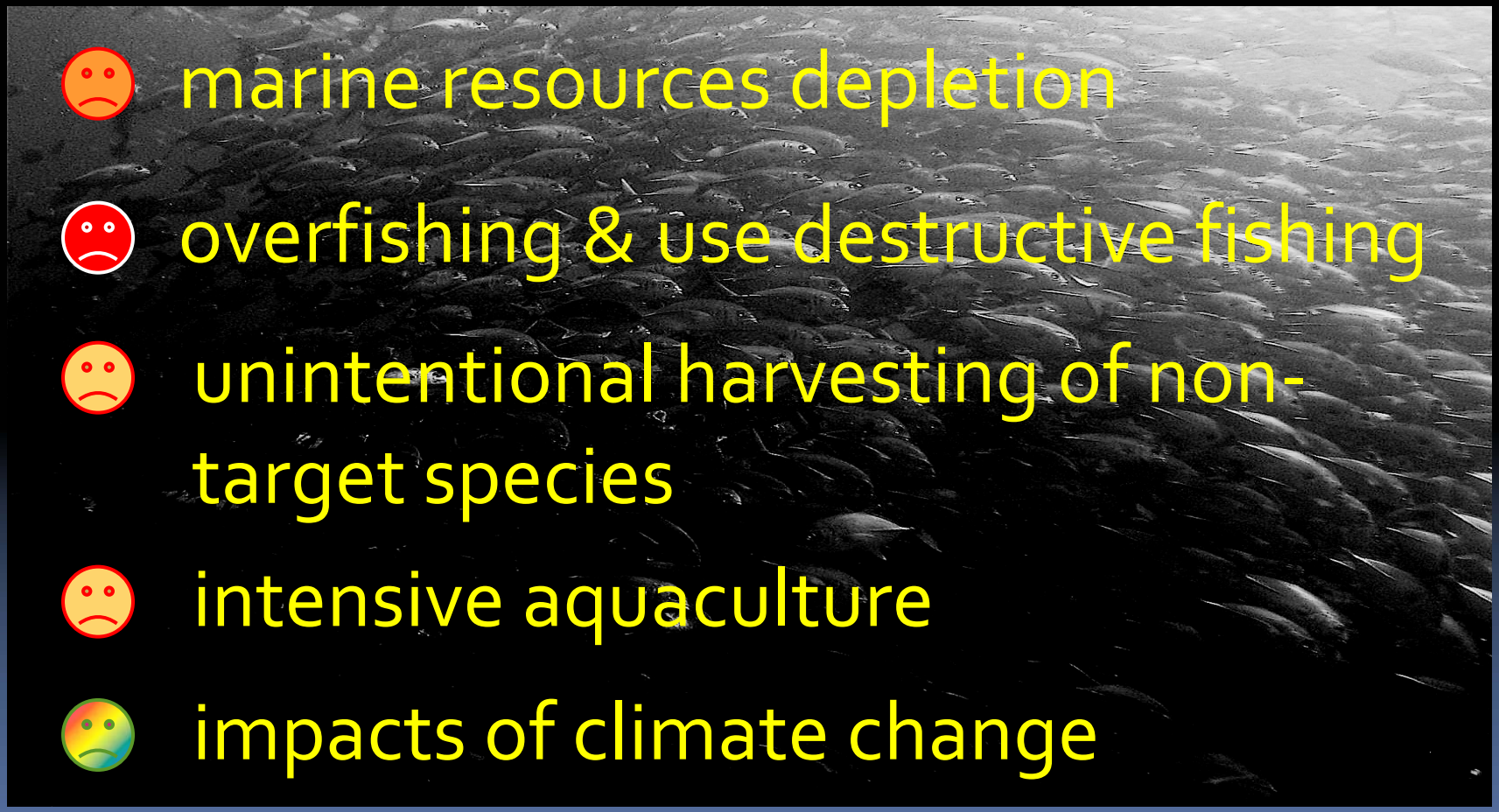
$~2.3 billion/yr — Use value of coral reefs, mangroves & other habitats

$12.0 billion/yr — nature-based tourism

$>10.0 billion/yr — Value of fisheries production and trade

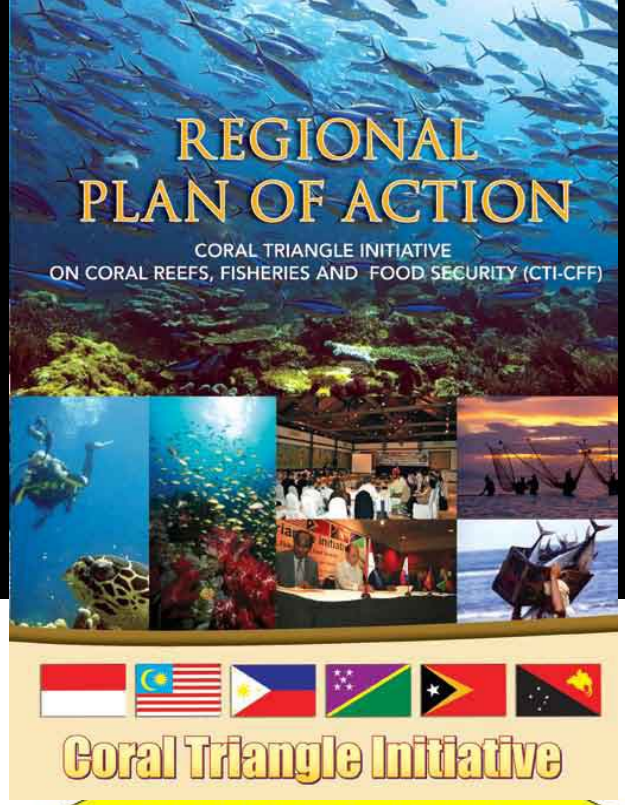
$??.0 billion/yr — protection to coastal communities from storms and surges by reef systems and mangroves

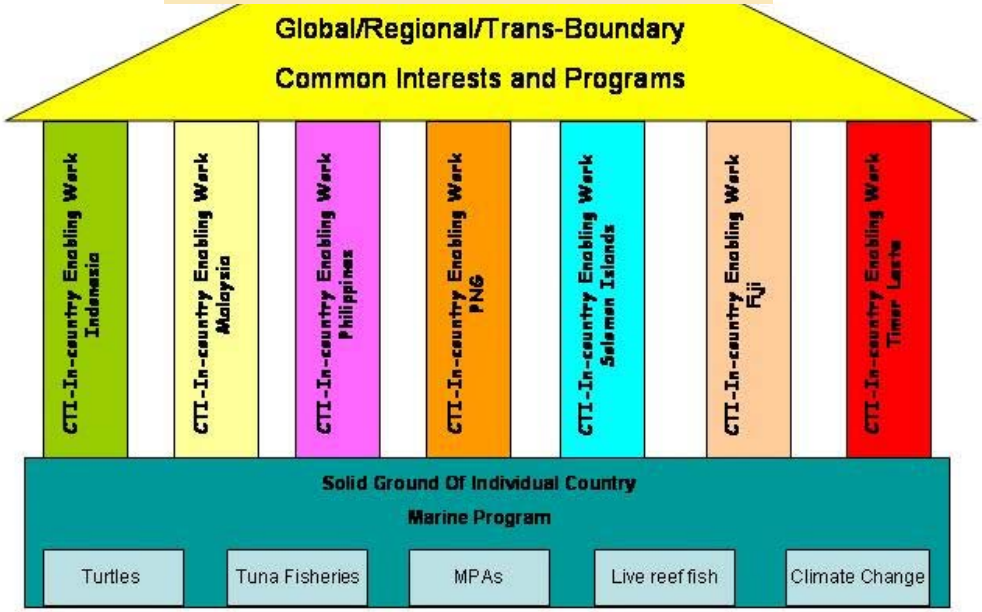
The undoing of the Coral Triangle?



- marine resources depletion
- overfishing & use destructive fishing
- unintentional harvesting of non-target species
- intensive aquaculture
- impacts of climate change

Initiative on Coral Reefs, Fisheries & Food Security

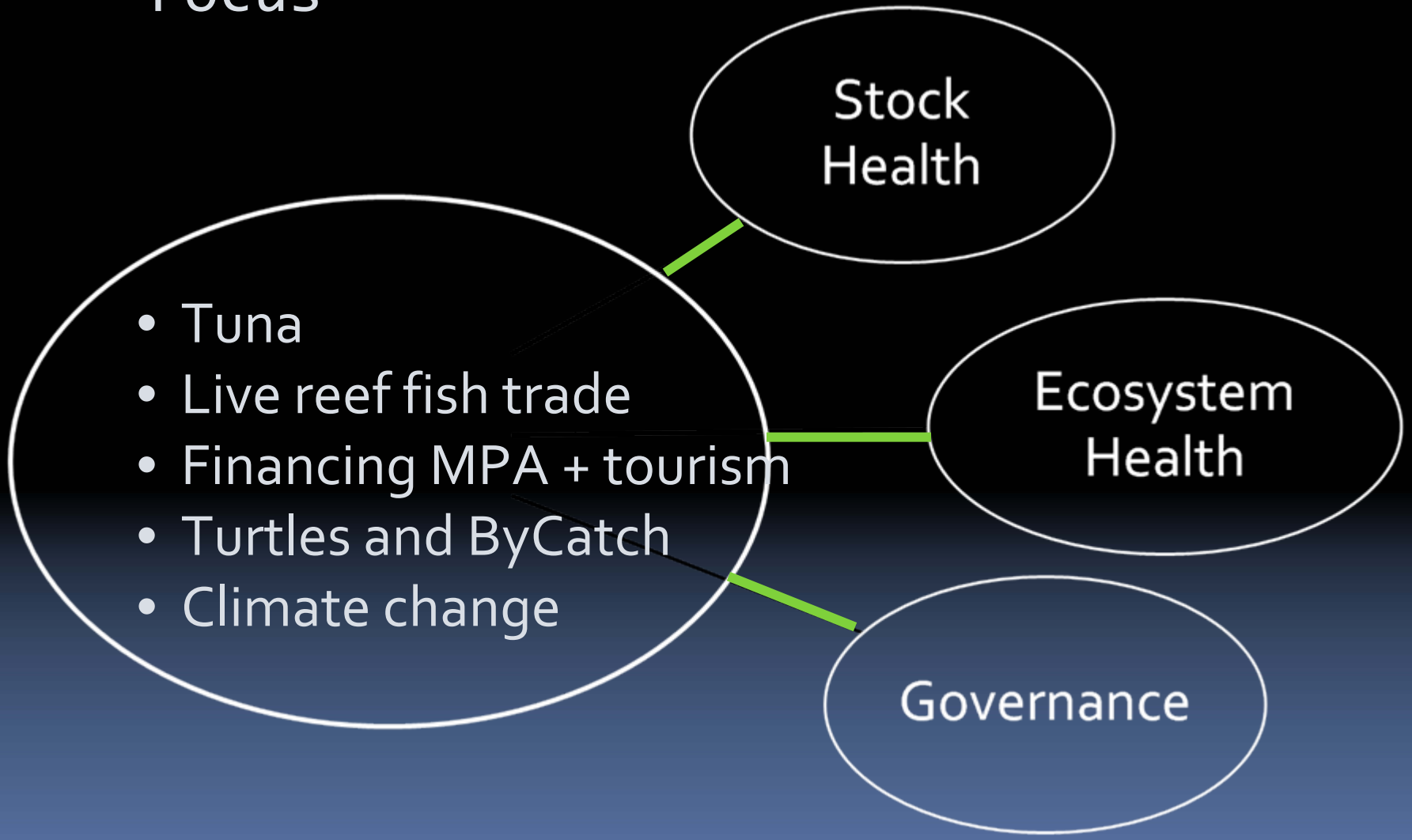


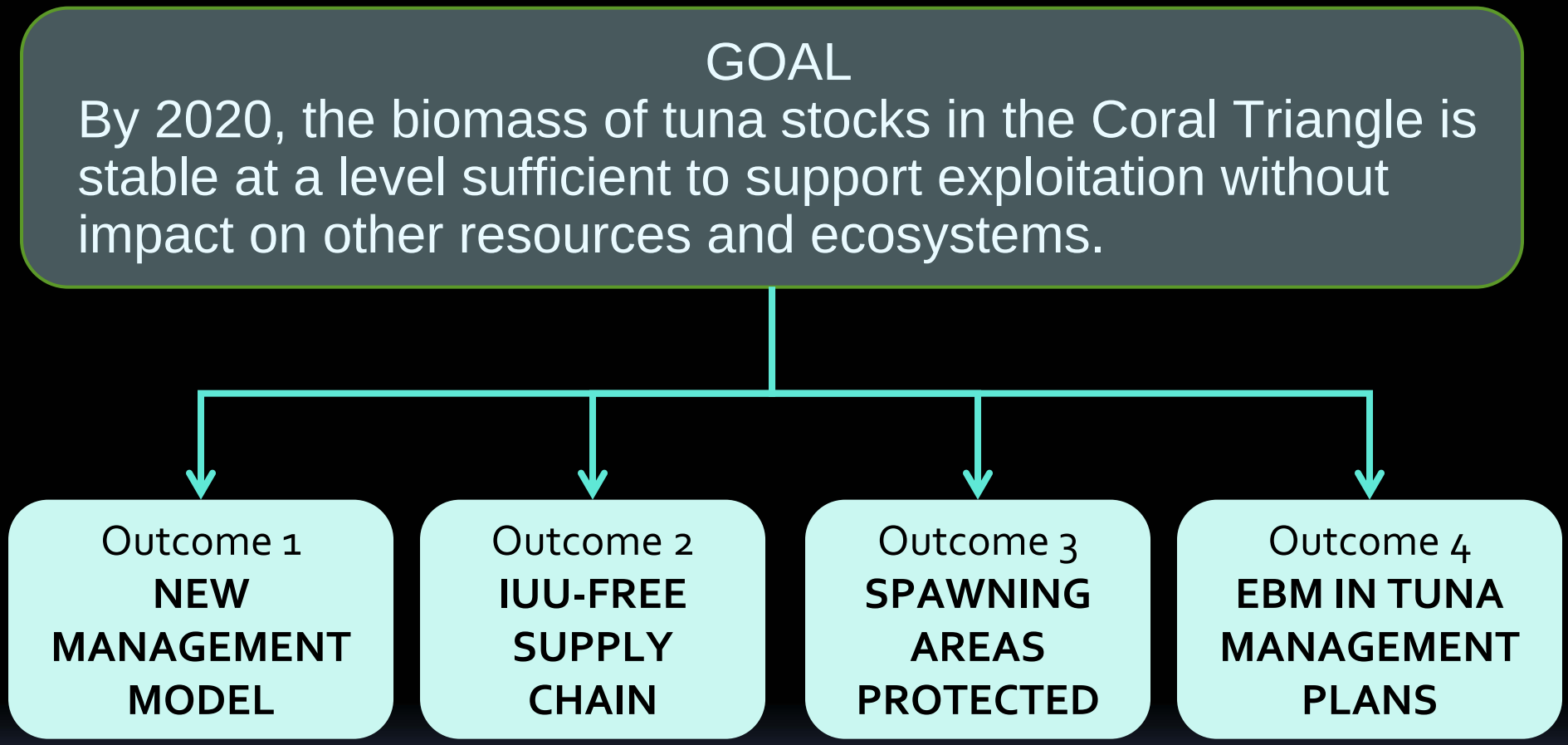


WWF CTNI Program: Approaches

- Transformational: look for novel approaches
- Strategic: regional/ global; high R-E-S impact
- Convince business sector to get involved
- campaign-like approach to advocacy

WWF Coral Triangle NI Program: Focus




GOAL
By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.
Outcome 1
NEW MANAGEMENT MODEL
Outcome 2
IUU-FREE SUPPLY CHAIN
Outcome 3
SPAWNING AREAS PROTECTED
Outcome 4
EBM IN TUNA MANAGEMENT PLANS

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

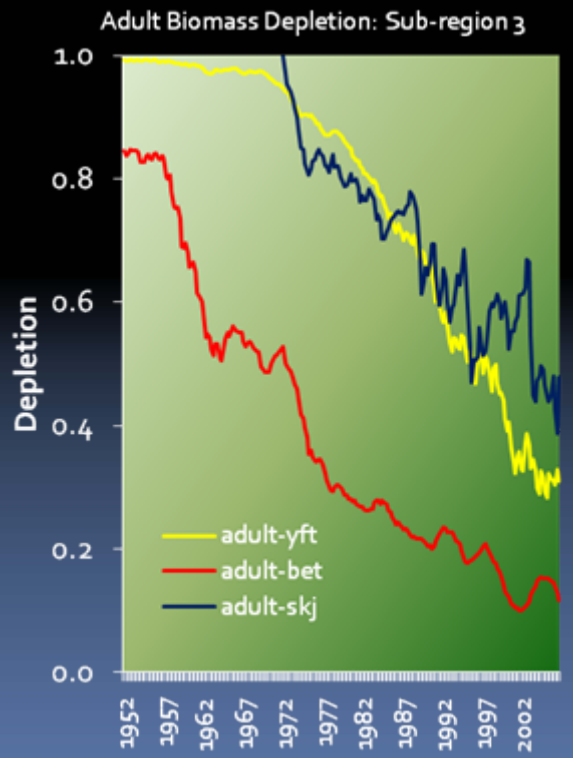
Outcome 1
A NEW MANAGEMENT MODEL

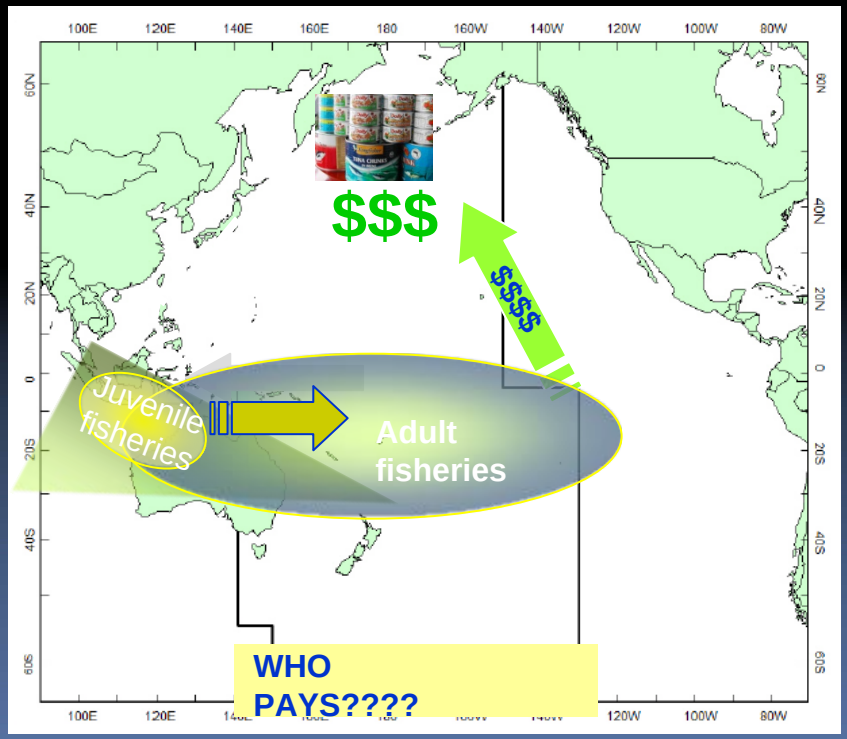
Outcome 2
IUU-FREE SUPPLY CHAIN

Outcome 3
SPAWNING AREAS PROTECTED

Outcome 4
EBM IN TUNA MANAGEMENT PLANS

Objective 1
To develop a new management model for tunas





GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Outcome 3
SPAWNING AREAS PROTECTED

Outcome 4
EBM IN TUNA MANAGEMENT PLANS

Objective 1
To develop a new management model for tunas

1. Organize a tuna think tank workshop to identify new ideas/ thinking in better management of the tunas.
2. Provide the science gaps to support the workshop
3. Develop a plan to pilot test the prototype idea(s) identified during the TTT workshop
4. Hold consultation with major stakeholders along the supply chain on the new management model to get feed back to improve and refine the model.

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Result Area 3
SPAWNING AREAS PROTECTED

Result Area 4
EBM IN TUNA MANAGEMENT PLANS

Objective 2
IUU eliminated in supply chain through policies & best practices

Responsible Sourcing Policy for Canneries

Adoption of Traceability Systems

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Result Area 3
SPAWNING AREAS PROTECTED

Result Area 4
EBM IN TUNA MANAGEMENT PLANS

Objective 2
IUU eliminated in supply chain through policies & best practices

1. Work with select processors and canneries to develop and adopt responsible sourcing policy;
2. Work with tuna processors associations to promote best practices
3. Work with national governments to enact a minimum standard for sourcing and procurement of raw materials for processing & export
4. Work with retail market in EU and US to adopt procurement policy based on the responsible sourcing policy for CT canneries

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Outcome 3
SPAWNING AREAS PROTECTED

Result Area 4
EBM IN TUNA MANAGEMENT PLANS

Objective 3
To Protect Spawning Areas and Early Life Stages of tuna

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Outcome 3
SPAWNING AREAS PROTECTED

Result Area 4
EBM IN TUNA MANAGEMENT PLANS

Objective 3
To Protect Spawning Areas and Early Life Stages of tuna

1. Fishery improvement projects in CT countries will develop policy and promote best practices designed to protect spawning area and early life stages.
2. Support Tuna Tagging to determine critical spawning areas, movement of early life stages.
3. Zonation of Philippine part of Sulawesi to declare the central part a protected area for tunas.

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

Outcome 3
SPAWNING AREAS PROTECTED

Outcome 4
EBFM IN TUNA MANAGEMENT PLANS

Objective 4
To Incorporate Ecosystem-based Fisheries Management in Tuna Management Plans

TUNA MANAGEMENT PLANS strengthened

FISHERY IMPROVEMENT PROJECTS undertaken using EBFM approach

GOAL

By 2020, the biomass of tuna stocks in the Coral Triangle is stable at a level sufficient to support exploitation without impact on other resources and ecosystems.

Outcome 1
A NEW MANAGEMENT MODEL

Outcome 2
IUU-FREE SUPPLY CHAIN

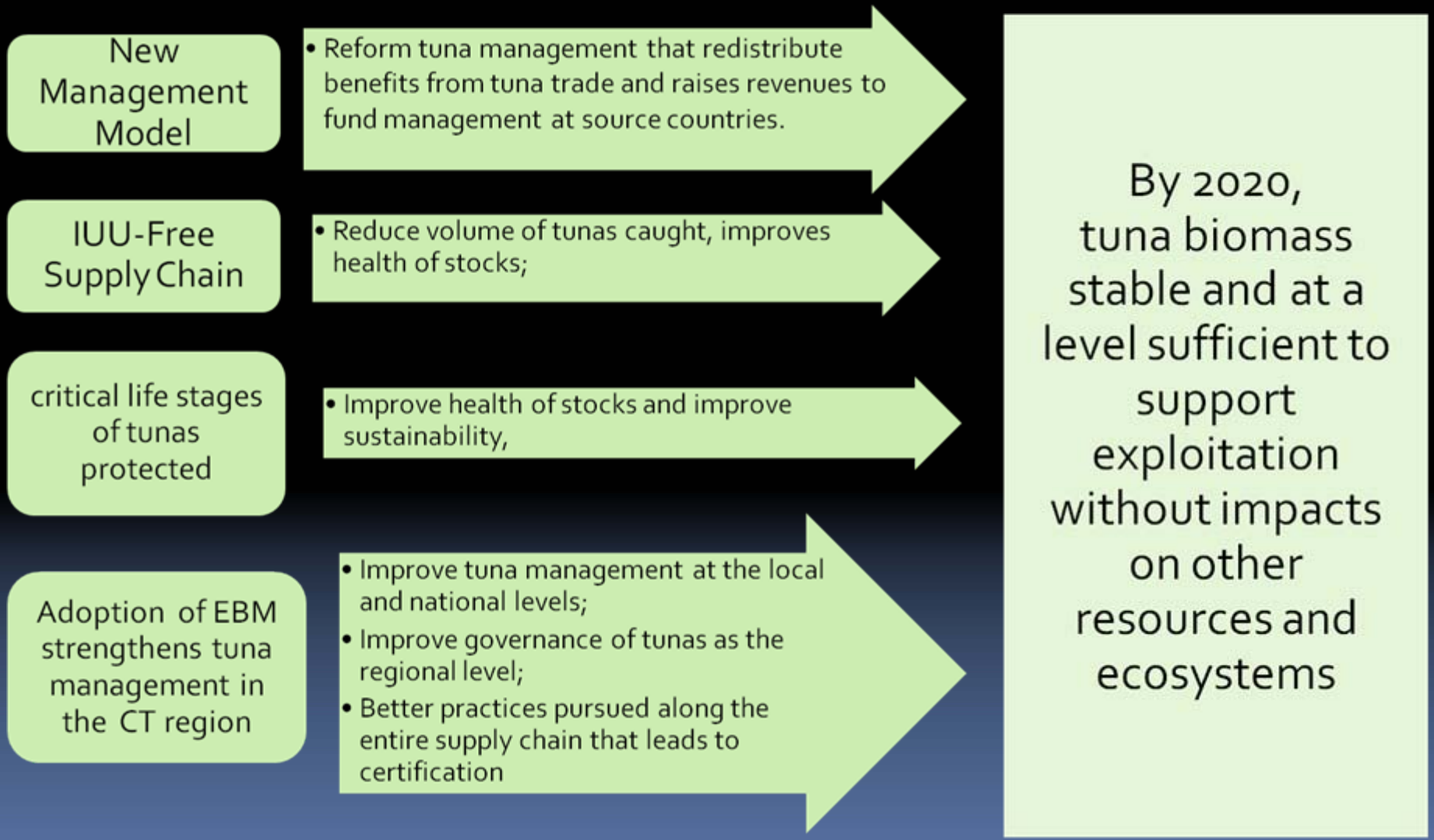
Outcome 3
SPAWNING AREAS PROTECTED

Outcome 4
EBFM IN TUNA MANAGEMENT PLANS

Objective 4
To Incorporate Ecosystem-based Fisheries Management in Tuna Management Plans

1. Identify and prepare tuna fisheries in CT countries that will be assessed against MSC standards
2. Best practices in tuna fishing (use ecofriendly gears), processing are promoted
3. Workshops held to develop and collate EBM protocols and toolkits for specific tuna fisheries.
4. Advocate increase investment in tuna research to fill in science gaps and knowledge on tuna fisheries
5. Work with Tuna associations to strengthen/ develop National Tuna Management Plans

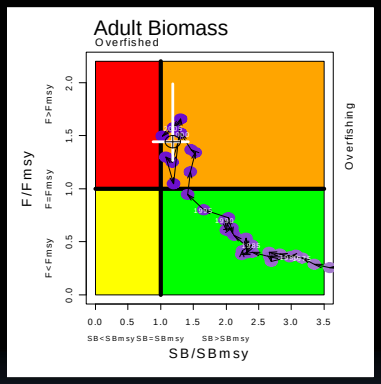
at a glance . . . .


New Management Model
• Reform tuna management that redistribute benefits from tuna trade and raises revenues to fund management at source countries.
IUU-Free Supply Chain
• Reduce volume of tunas caught, improves health of stocks;
critical life stages of tunas protected
• Improve health of stocks and improve sustainability,
Adoption of EBM strengthens tuna management in the CT region
• Improve tuna management at the local and national levels;
• Improve governance of tunas as the regional level;
• Better practices pursued along the entire supply chain that leads to certification
By 2020, tuna biomass stable and at a level sufficient to support exploitation without impacts on other resources and ecosystems

Who, what, how we work . . .

Fishery → Canneries Processors → Trading & Retail Companies → Consumers

Improve Tuna Governance at the Regional , National levels



Science

NGO partnership

Marine Stewardship Council

The Nature Conservancy

Conservation International

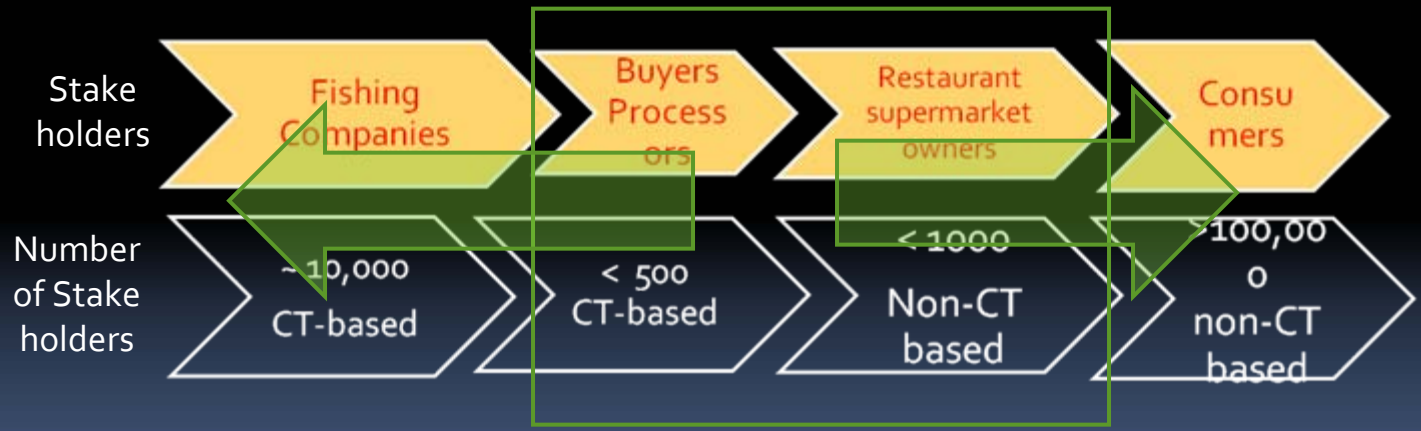
ISSF

WWF

Who, what, how we work . . .

Engage processors, canneries for best practice, sustainable sourcing/ procurement, and cleaner productions

Partnership w/ Business Sector



Who, what, how we work . . .

Fishery → Canneries Processors → Traders, Investment firms, retail companies → Consumers

Engage retail & trading companies to adopt better procurement policy; lending policies linked to resources for investment institutions

Enter partnerships with Markets

Who, what, how we work . . .

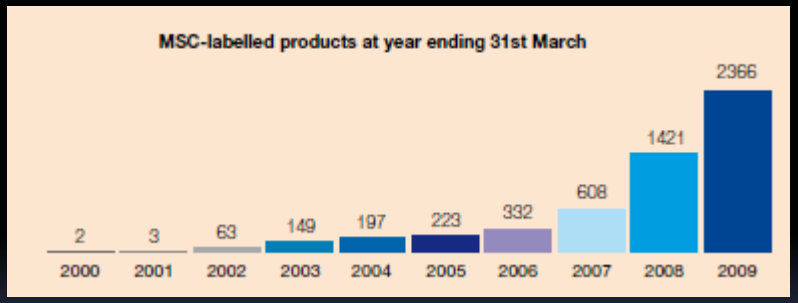
Fishery → Canneries Processors → Trading, Investment & Retail Companies → Consumers

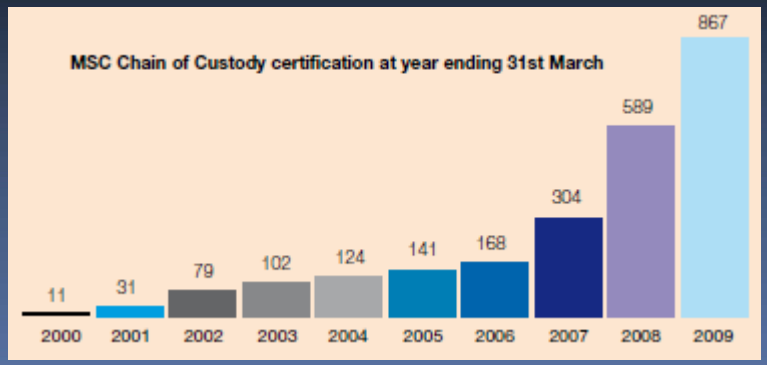
Influencing buying and consumption behavior of consumers

Seafood Campaigns

- Seafood Guides
- Retailer/trader/industry discussions
- Retailer commitments
- Seafood Charter
- Kids clubs
- MSC
- Compliment policy ask
- Celebrity chefs
- Media……

Promote Certified Products





How we work: Operationalizing

Platform #1: CTI + dev. Partners

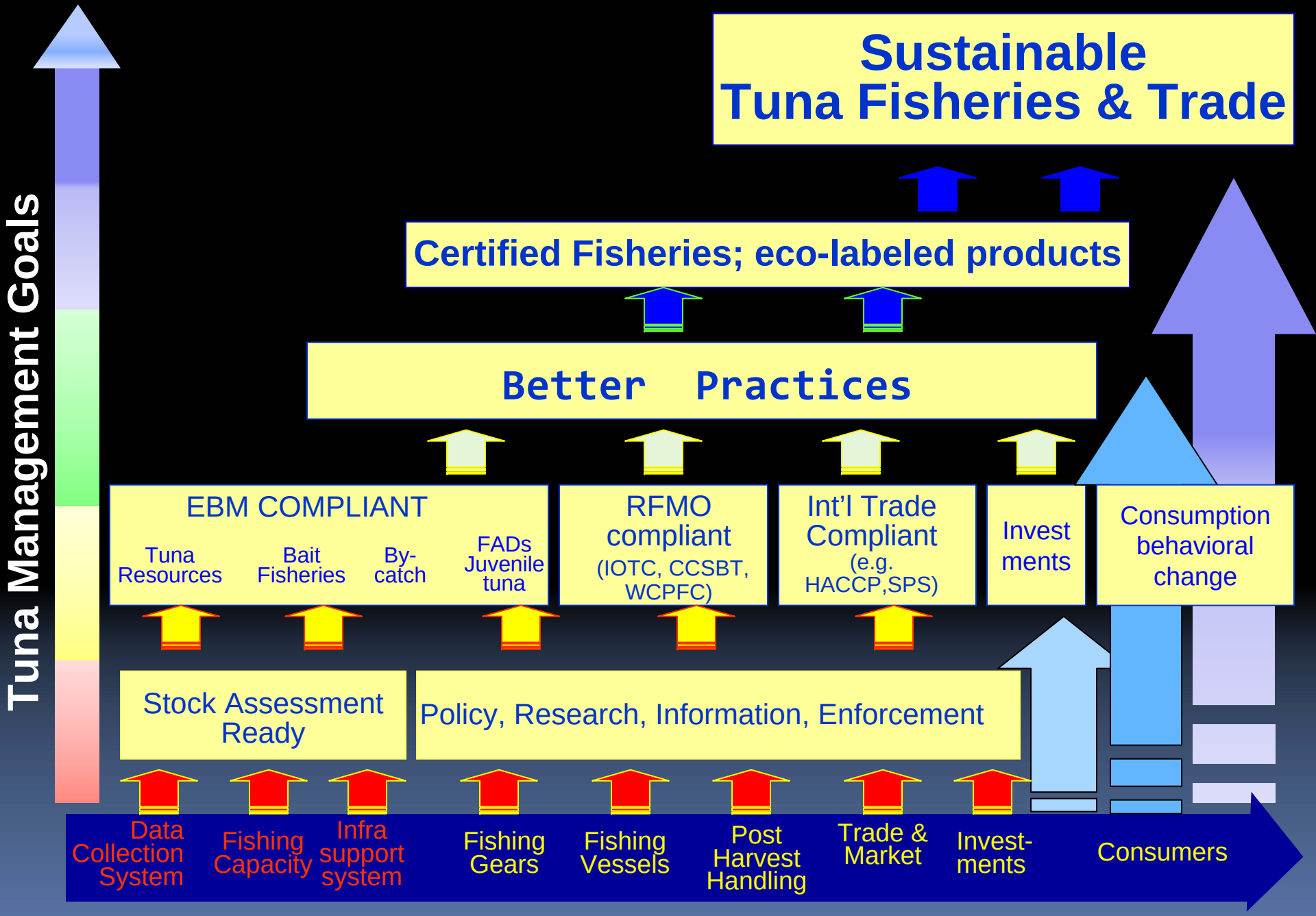
Platform #2: Maximize power of WWF network

+

other NGO's

Platform #3: Engage business : partners of change

Platform #4: communications/ advocacy


Sustainable
Tuna Fisheries & Trade
Certified Fisheries; eco-labeled products
Better Practices
EBM COMPLIANT
Tuna Resources
Bait Fisheries
By-catch
FADs Juvenile tuna
RFMO compliant
(IOTC, CCSBT, WCPFC)
Int'l Trade Compliant
(e.g. HACCP,SPS)
Invest ments
Consumption behavioral change
Stock Assessment Ready
Policy, Research, Information, Enforcement
Tuna Management Goals
Data Collection System
Fishing Capacity
Infra support system
Fishing Gears
Fishing Vessels
Post Harvest Handling
Trade & Market
Invest-ments
Consumers

どうもありがとう。

Mediterranean Bluefin tuna: Towards a sustainable fishery and consumption

Symposium for Responsible Tuna Consumption
Tokyo, August 2010

Susana Sainz-Trápaga
WWF Mediterranean

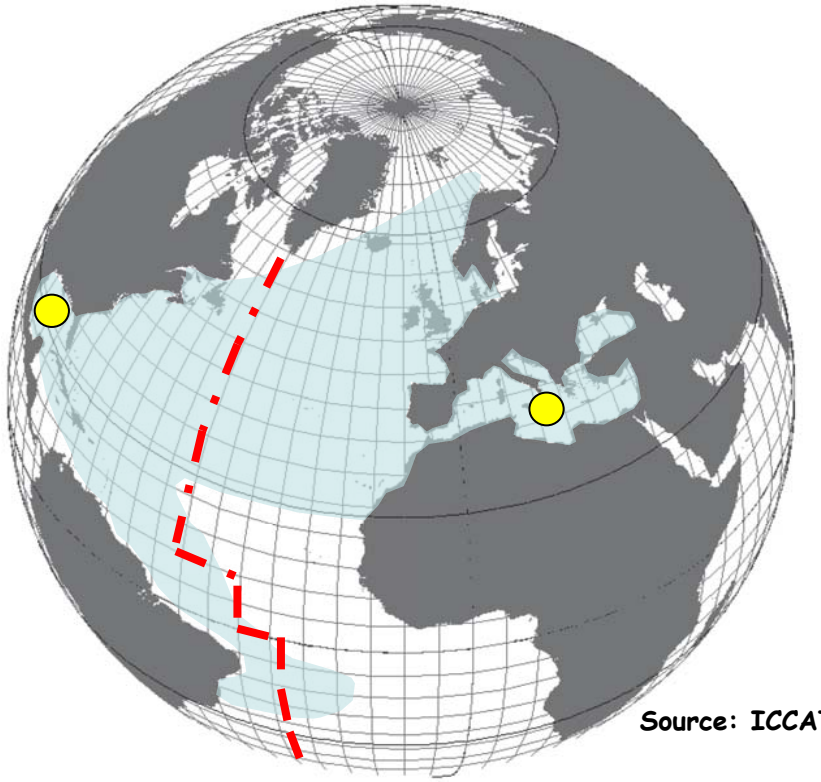
Distribution and Migration

- Bluefin tuna (BFT) is a migratory species distributed in the whole North Atlantic Ocean, from Norwegian to Brazilian waters, and the Mediterranean

- Two stocks are identified: the Western stock which spawns in the Gulf of Mexico, and the Eastern stock which spawns in the Mediterranean

- Migration purposes are basically two: feeding and reproduction

- Adult BFT from the Eastern stock use to migrate every spring (May-June) into the Mediterranean through the Strait of Gibraltar to spawn, and return later to the Atlantic (July-August) for feeding

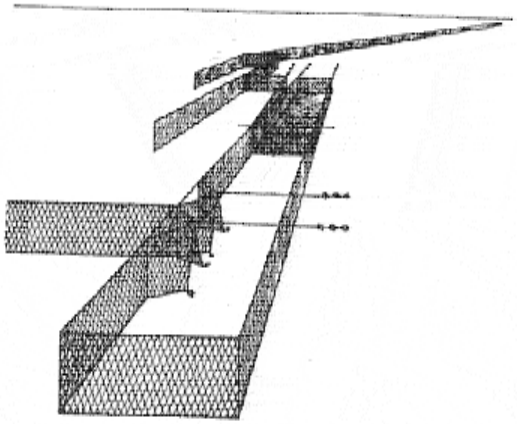


Source: ICCAT

spawning grounds

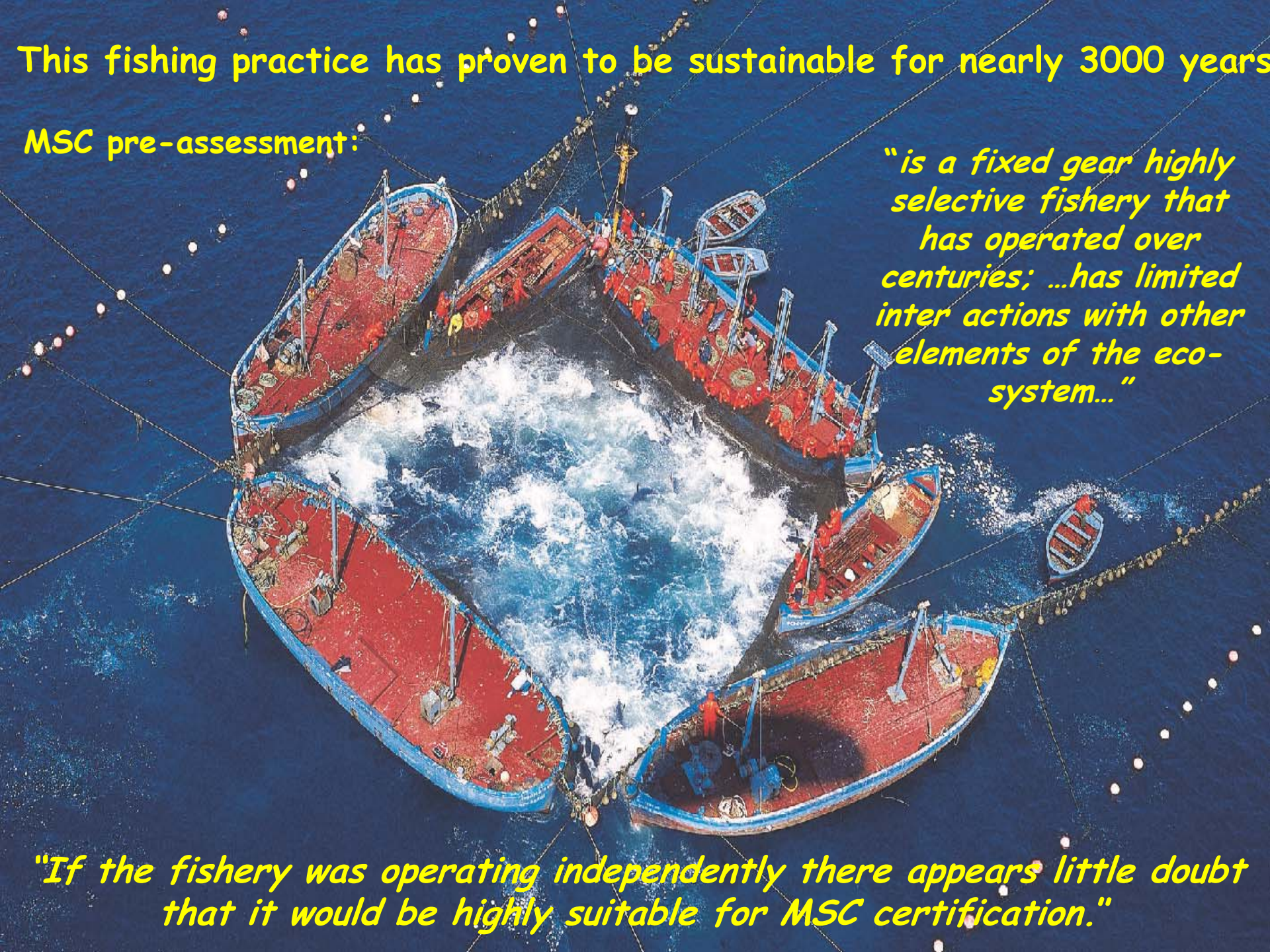
A 3000 years old fishery

- Since nearly 3000 years ago, in Phoenician times, BFT fishing started in the Strait of Gibraltar by using tuna traps (almadrabas), one of the oldest known fishing gears in the world



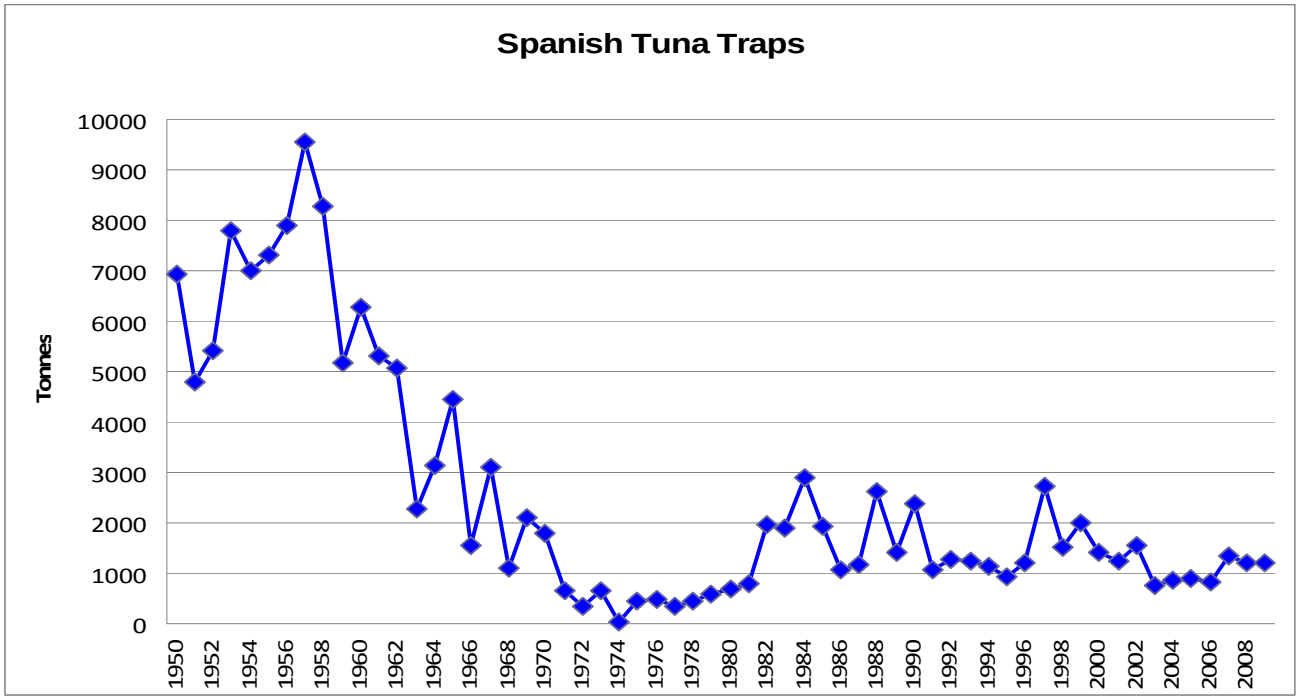
- The tuna trap is a fixed fishing gear placed at 3km from the coast. It consist of a set of vertical nets that intercepts the path of the tunas that migrate inwards or outwards the Mediterranean

Tuna trap pictures are courtesy of the Spanish Organization of Tuna Trap Producers


This fishing practice has proven to be sustainable for nearly 3000 years
MSC pre-assessment:
"is a fixed gear highly selective fishery that has operated over centuries; …has limited inter actions with other elements of the eco-system…"
"If the fishery was operating independently there appears little doubt that it would be highly suitable for MSC certification."

Spanish Tuna Traps Catches

- In the early days of the fishery the most important amount of catches was fished by the tuna traps



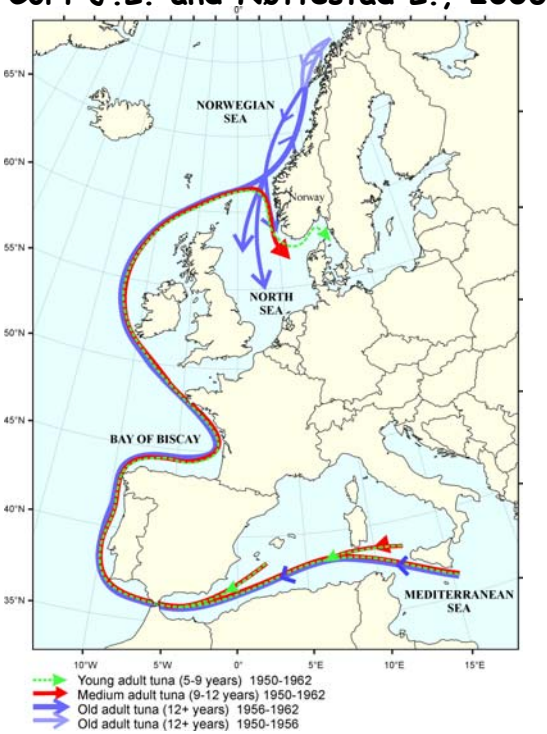
Source: ICCAT

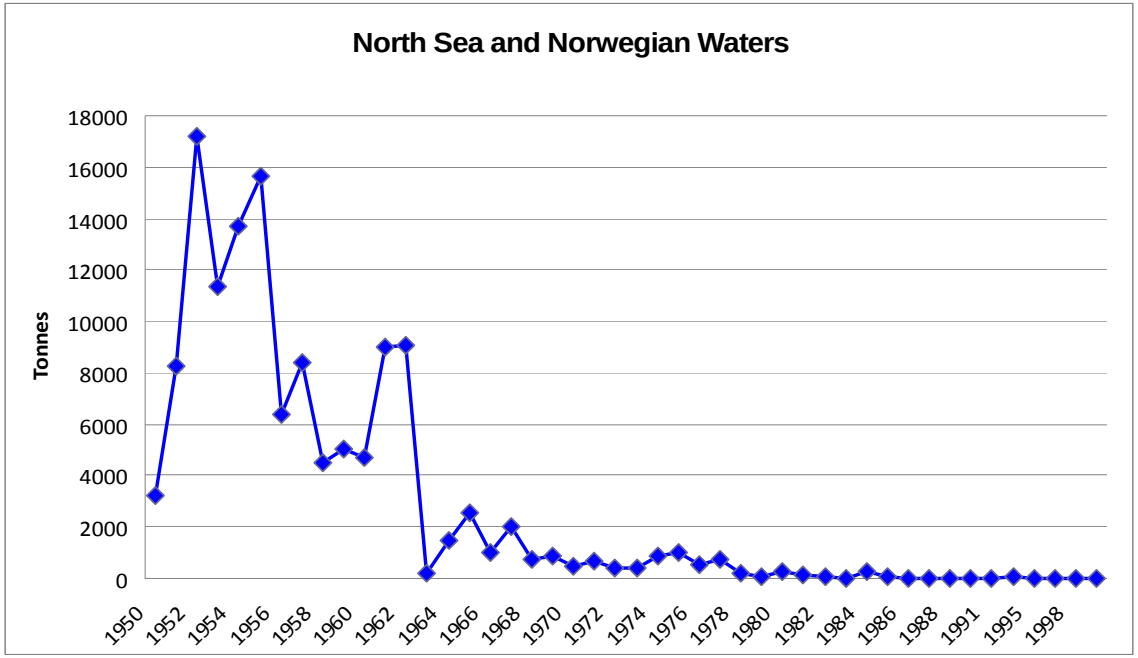
- Just after 1960 there was an abrupt decrease in catches and they never recover to the previous levels

The North Sea and Norway fishery

- In the past, the outwards migration from the Mediterranean used to reach the North Sea and the Norwegian coasts. Today, mainly due to overfishing, this migration pattern no longer takes place.

Cort J.L. and Nøttestad L., 2006



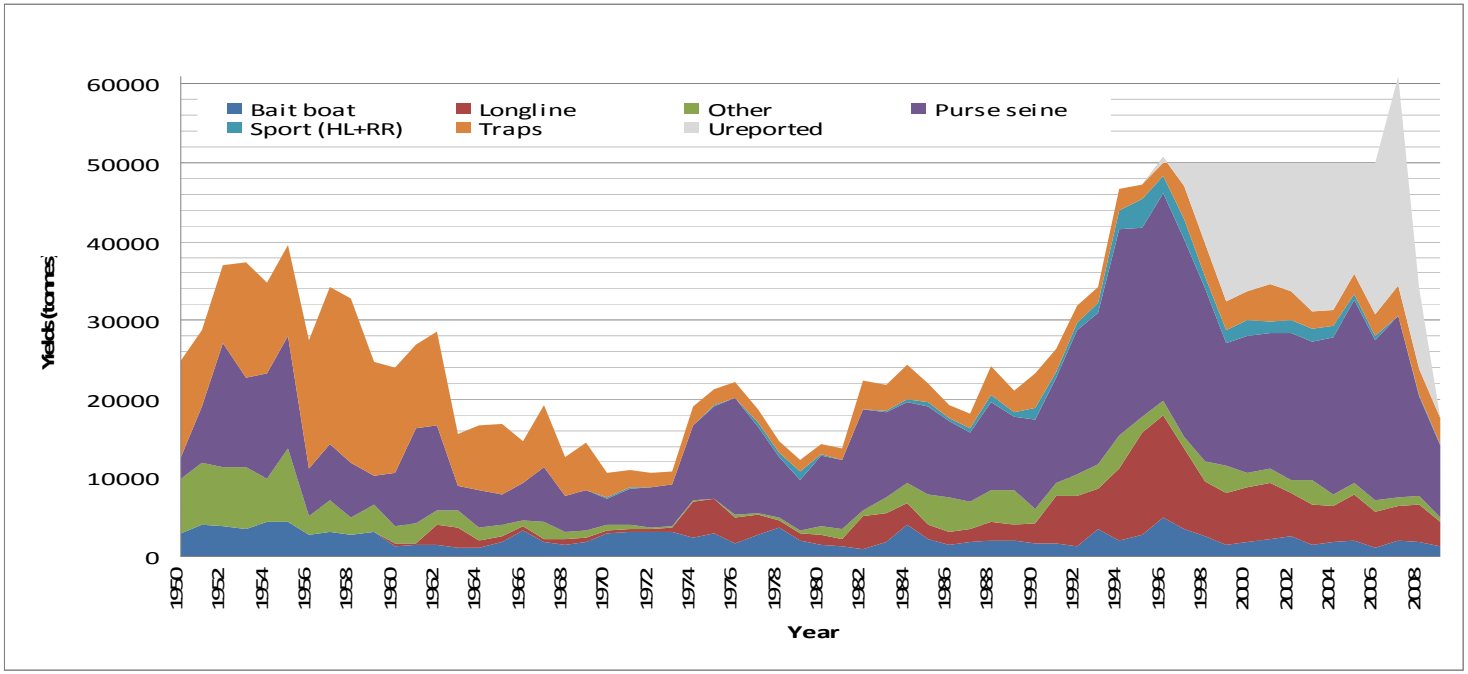


Source: ICCAT

- Catches of this fishery suffered a similar trend to that of the tuna traps. Just after 1960 there was an abrupt decrease, and the fishery finally disappeared in 1980 and never recovered since then.

Total Catches per fishing gear

- The fishing pressure on the stock started to increase in the 1970s due to the increasing demand from the Japanese market. Japanese economic support during the 80s and 90s, and joint ventures with European companies have triggered the development of a huge fishing and commercial capacity in the region.



Source: ICCAT

- After the 1990's, a huge increase in fishing pressure from LL and PS took place. The later exacerbated after the introduction of the tuna farming activities from 1996.

BFT Farming in the Mediterranean

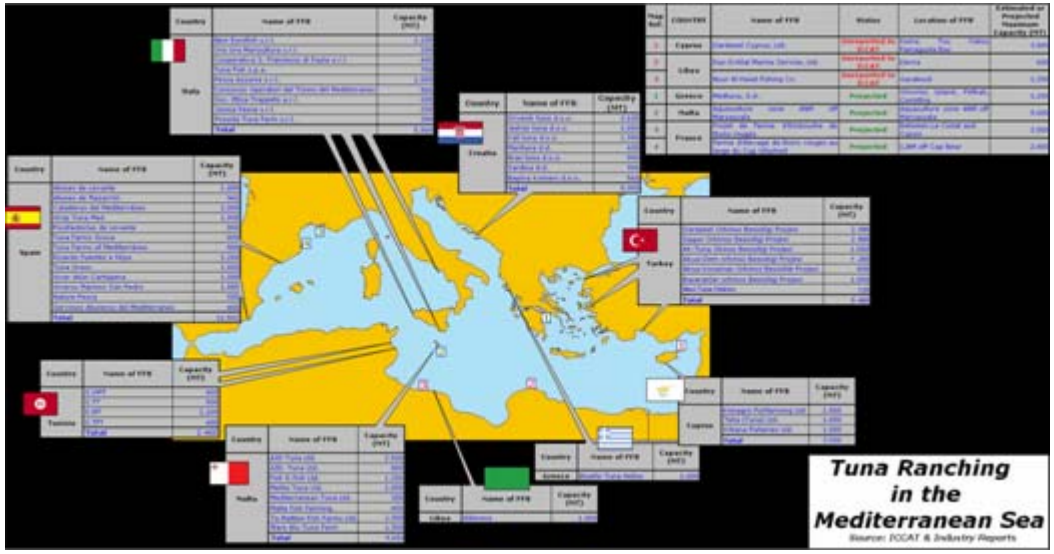
- Tuna farming in the Mediterranean started specifically with the aim of producing tuna that have the optimal fat content demanded by the sushi and sashimi market, and both, fresh and frozen tuna farmed products are exported to Japan

- Farming production in the region steadily increased from 77t in 1996 to around 30,000t in 2005

- Pioneers countries were Spain and Croatia, immediately followed by Malta, Italy, Turkey, Libya, Cyprus and Greece

BFT Farming in the Mediterranean

- Purse seine fishery became the provider of wild live fish for farming purposes
- This activity triggered the increase of the PS fishing capacity and made its catches reached in recent years over 80% of the total catch

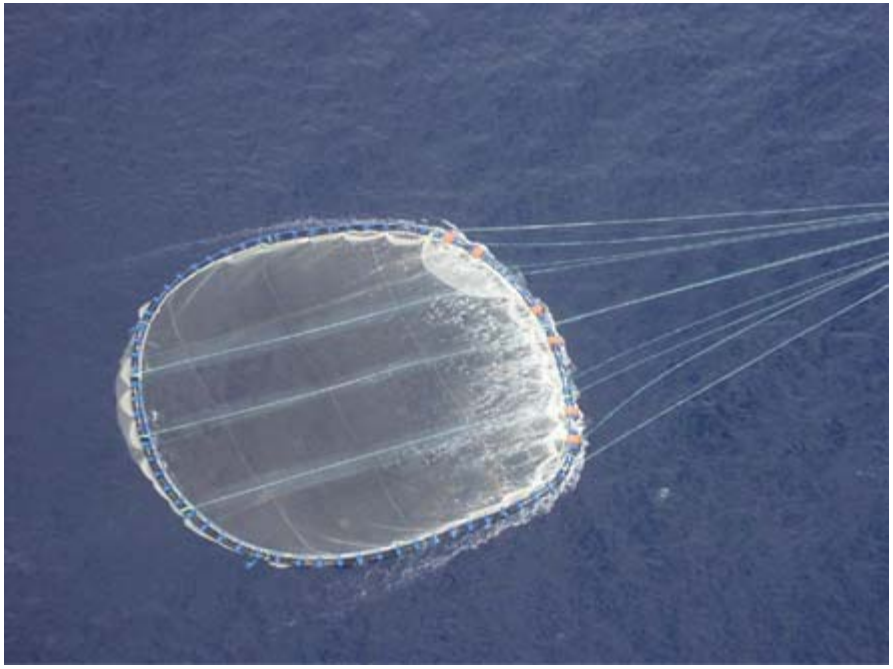


- The resultant farming capacity registered in the Mediterranean rose to overwhelming values exceeding 60,000t

Source: ATRT

BFT Farming in the Mediterranean

- Purse seiners, making use of the most efficient fishing technologies (like sonar systems) and supported by spotting planes, detect the BFT shoals and encircles them with the net

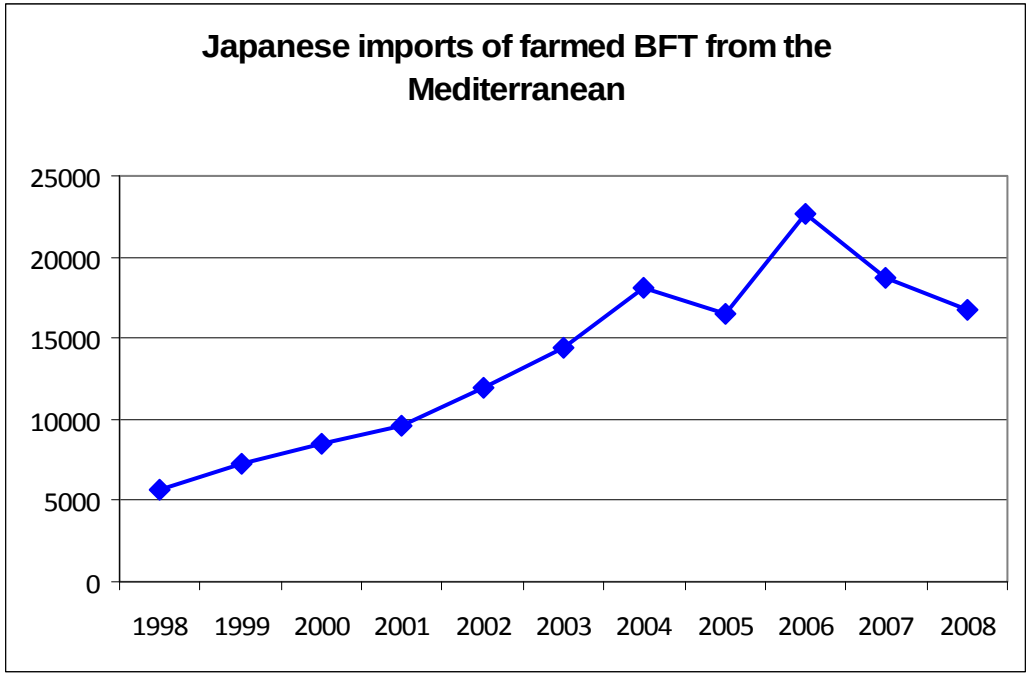


- The fish is then transferred to a transport cage which is tugged by a tug boat until an off shore farming facility

- After a fattening period, usually up to eight month, the fish is finally exported to Japan

BFT Farming in the Mediterranean

- After a limited production during the first two years, already nearly 6000t were exported to Japan in 1998

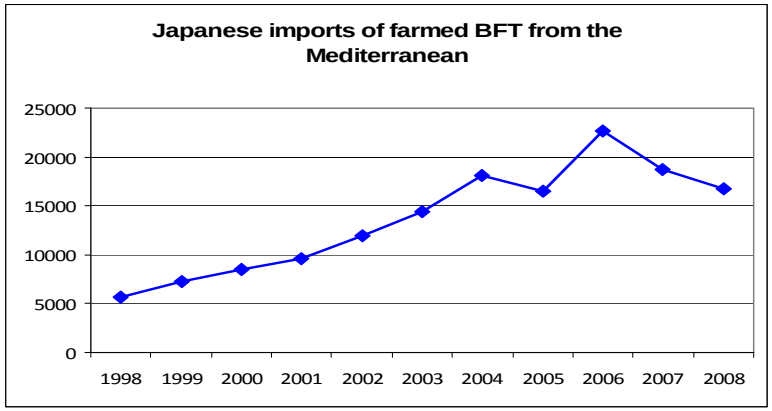


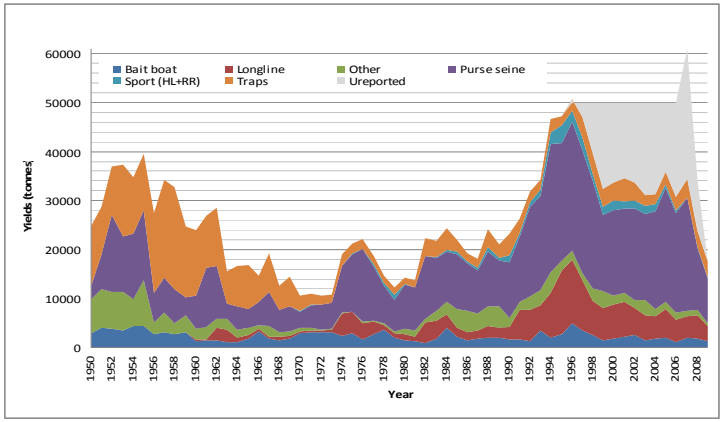
Source: Japan Fisheries

- Farming production steadily increased with time in parallel with the Japanese imports which reached a maximum of nearly 23,000t in 2006

BFT Farming in the Mediterranean

- Farming in the Med had a strong detrimental effect on the catch statistics





- Misreporting became a common practice encouraged by the difficulty in controlling all the different activities along the product chain (as fishing, transference, tugging of the fish, caging, slaughter and export)

- Another huge problem is the difficulty in determining the precise catch level from the resulted farm production

- The back calculation of the weight of wild fish caught in the sea from the amount of fish that have been fattened for some months, as demonstrated in a recent publication, has an enormous error since unrealistic weight increases, up to 142%, are officially reported (SCRS/2010/068)

Management of Atlantic BFT

- **The management of the BFT fishery is carried out by ICCAT (International Commission for the Conservation of Atlantic Tunas) which is an international organization integrated by 48 Contracting Parties**

- **ICCAT systematically ignored the scientific recommendations made by it own scientific committee to sustain the stock**

ICCAT Recom.	In force	Scientific recommended TAC	TAC	Real catches
94-11	**1996**	**25% reduction (1994 level)**	-	**8.4% higher (~50,000)**
-	**1997**	**< 25,000 (50%) or <15,000 (90%)**	-	**~ 50,000**
-	1998	< 25,000 (50%) or <15,000 (90%)	-	**~ 50,000**
98-05	**1999**	**< 25,000 (only to halt decline)**	**32,000**	**~ 50,000**
98-05	2000	< 25,000 (only to halt decline)	**29,500**	**~ 50,000**
00-09	2001	< 25,000 (only to halt decline)	**29,500**	**~ 50,000**
	2002	< 25,000 (only to halt decline)		**~ 50,000**
02-08	**2003**	**< 26,000**	**32,000**	**~ 50,000**
02-08	2004	< 26,000	**32,000**	**~ 50,000**
02-08	2005	< 26,000	**32,000**	**~ 50,000**
02-08	2006	< 26,000	**32,000**	**~ 50,000**
06-05	**2007**	**< 15,000**	**29,500**	**61,000**
06-05	2008	< 15,000	**28,500**	**34,120**
08-05	**2009**	**8,500-15,000**	**22,000 (16%)**	**?**
09-06	**2010**	8,000 (50% chance of recover)	**13,500**	**?**

Management of Atlantic BFT

- **In 1994 ICCAT scientists already started to make recommendations related to catch levels of the fishery. However, the first adopted TAC was in force in 1999, and well above of the recommendation.**

- **ICCAT systematically ignored the scientific recommendations made by it own scientific committee to sustain the stock**

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2010: Why a CITES listing proposal?

- CITES listing was proposed as a transitional mean to assist ICCAT in the future to achieve its management objectives

- It emerged due to the evidence of the infectivity of ICCAT in managing and patrolling a fishery which become totally out of control

- A compliance report in the EU states in 2008 that "the level of apparent infringements detected in the tugs and the purse seiner fleet is considerable", "the (illegal) use of spotter planes for searching bluefin tuna concentrations is still wide spread" and "as regards the recording and reporting of bluefin tuna catches … the ICCAT rules have not been generally respected"

- Infringement outside the EU were also widely reported

2010: Why a CITES listing proposal?

- An independent performance review underwent by ICCAT in 2008 considers management of the East Atlantic and Mediterranean BFT fishery to be an "international disgrace" with "indications that collapse could be a real possibility"
- The report recommends ICCAT immediately suspend fishing until its members show they "can control and report on their catch"
- Additional recommended measures include closure of spawning grounds in spawning periods
- Noting illegal fishing pushing to twice quota levels and four times scientific recommendations the report concludes "It is difficult to describe this as responsible fisheries management."

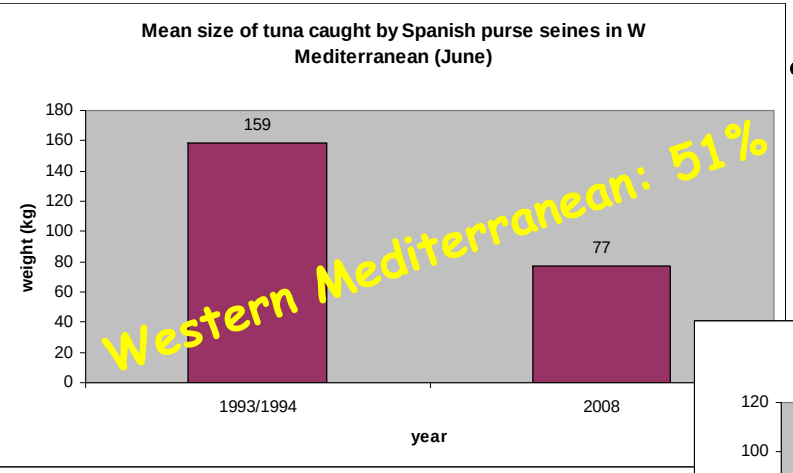
2010: Why a CITES listing proposal?

- This alarming situation made react the Principality of Monaco by presenting in 2009 a proposal for the Atlantic bluefin tuna listing in Appendix I of the CITES convention
- The CITES listing would have implemented a temporal ban of all international trade of the species, considered the main threat for its survival, until the proper measures are taken and the species starts recovering
- As you all know, the proposal did not pass through

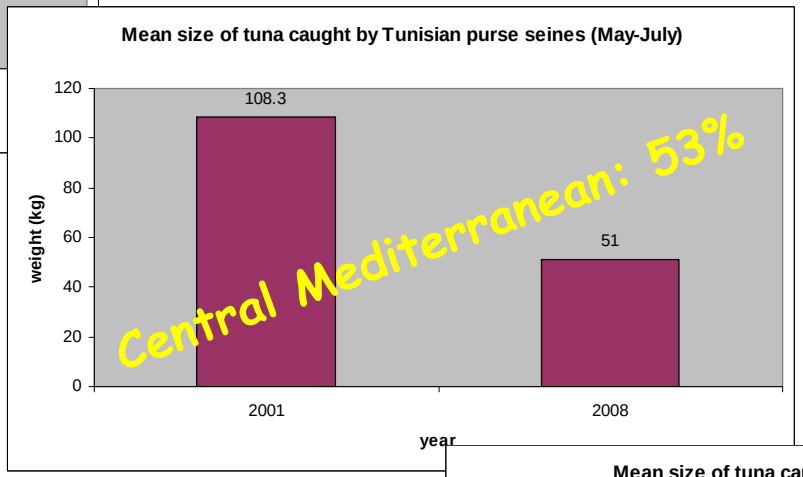
State of the Stock

- The consequence of the systematic failure of ICCAT is the current critical situation of the stock
- Decline in the spawner population is estimated by ICCAT scientists to be 85% of the historical one. This is an alarming figure which urges the protection of the spawning fish.
- Already in 2006 scientists recommended to close the purse seine fishery during the spawning months of May, June and July. Still now, in 2010, the fishery is open one month within these period (from 15 May to 15 June).

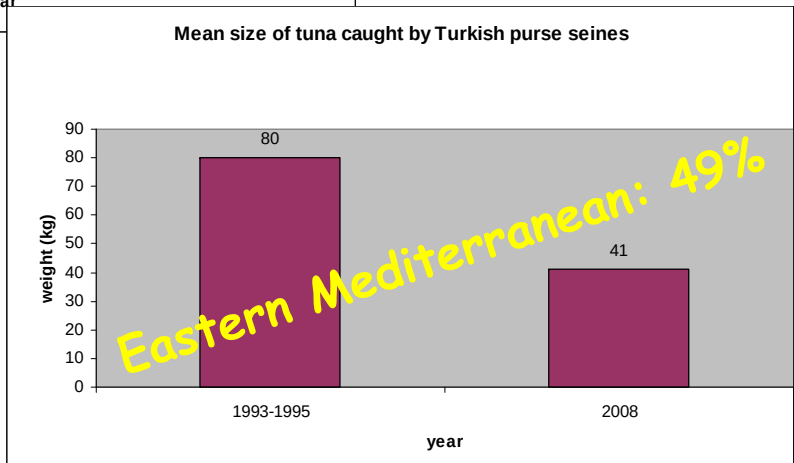
State of the Stock



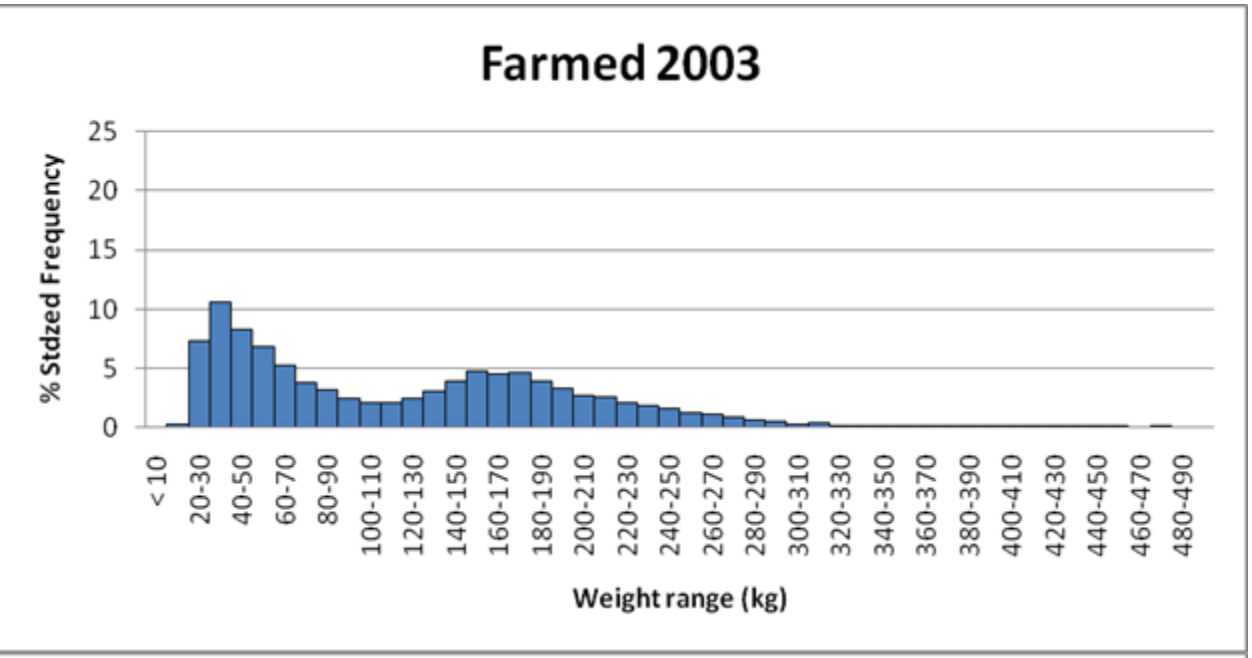
- The sharp decline in the adult population became evident by corroborating a 50 % decline of the mean size of the caught fish by purse seiners in recent years

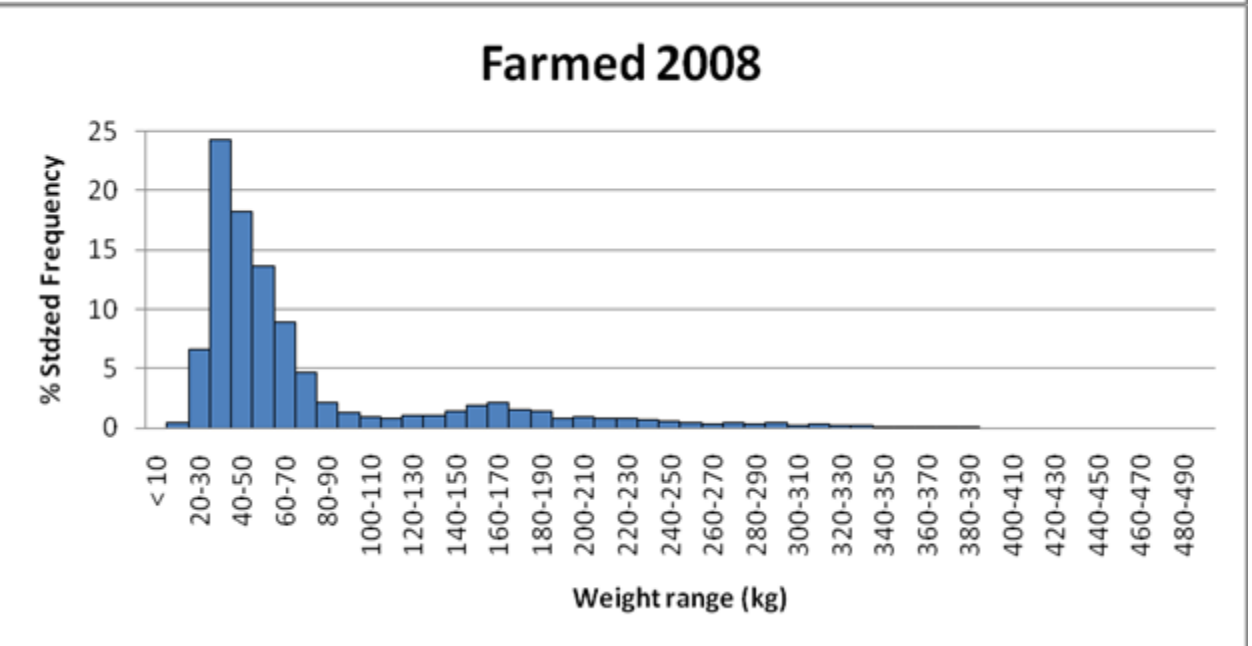


- This means that the older fish, which contributes most to the reproduction, are already wiped out from the sea



State of the Stock





- This was corroborated by a recent study, based on farmed bluefin tuna auctioned fresh in Japan, which revealed that the average size of fish declined by 37%, from 121.5 kg in 2003 to 75.99 kg in 2008

- Large tunas (8+) represented 52% of the total sample in 2003 and only 19.8% in 2008

Ref.: SCRS/2010/067

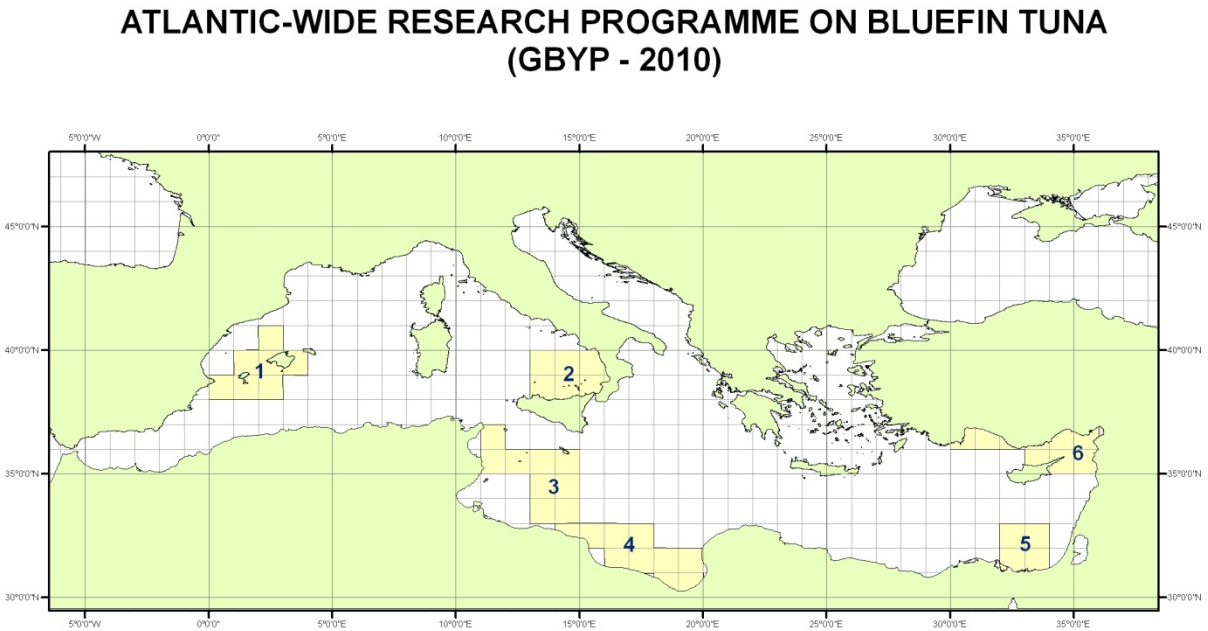
State of the Stock

- This situation reinforces the need for protection of the main spawning areas in the Mediterranean

- In 2008 ICCAT requested to its scientific committee to identify the BFT spawning grounds in the Mediterranean in view of the creation of sanctuaries

- Scientists, after reviewing the results of the aerial surveys carried out by ICCAT in the known spawning locations, confirmed the location of the following 6 spawning grounds:

State of the Stock



- **Their report states that "It is noteworthy that these areas are consistent with scientific knowledge available to SCRS. While spawning is known to have occurred outside of these general areas on the basis of location of larvae and other information, these 6 primary areas are believed to represent the dominant spawning areas in the recent past and also represent areas with heavy concentrations of fishing effort during the past few years."**

SCRS, BFT Data preparatory meeting, 2010

Needed Management Measures

- ICCAT committed to establish next November a TAC with <u>at least</u> 60% of probability to recover the stock.
- Under the current situation we should stick more than ever to the precautionary principle and consider probabilities high enough to allow real chances of recovery (~ 80%)
- Recommended TAC could be well below the current one which had already made unviable some Mediterranean Fisheries:
- Italy has already established for 2010 a moratorium for the PS fishery and committed to scrap most of the fleet
- France, aware of this situation, was one the main supporters of CITES, which would have also imply the closure of its PS fishery, considered necessary to save thousands of artisanal fishermen from the ruin

Needed Management Measures

- If we need to face a transitional period during which there is not enough quota for all fishing gears, priority should be given to the artisanal sector, which is more vulnerable and represents the higher proportion of fishermen

- Only in Spain the artisanal sector represents 2200 fishermen and the PS sector less than 100. The maintenance of only 6 PS vessels in Spain is putting at stake the livelihoods of the whole artisanal sector

- It is even posible that the situation of the stock requires a complete moratorium for all Mediterranean fisheries until the tuna is starting to show signs of recovery

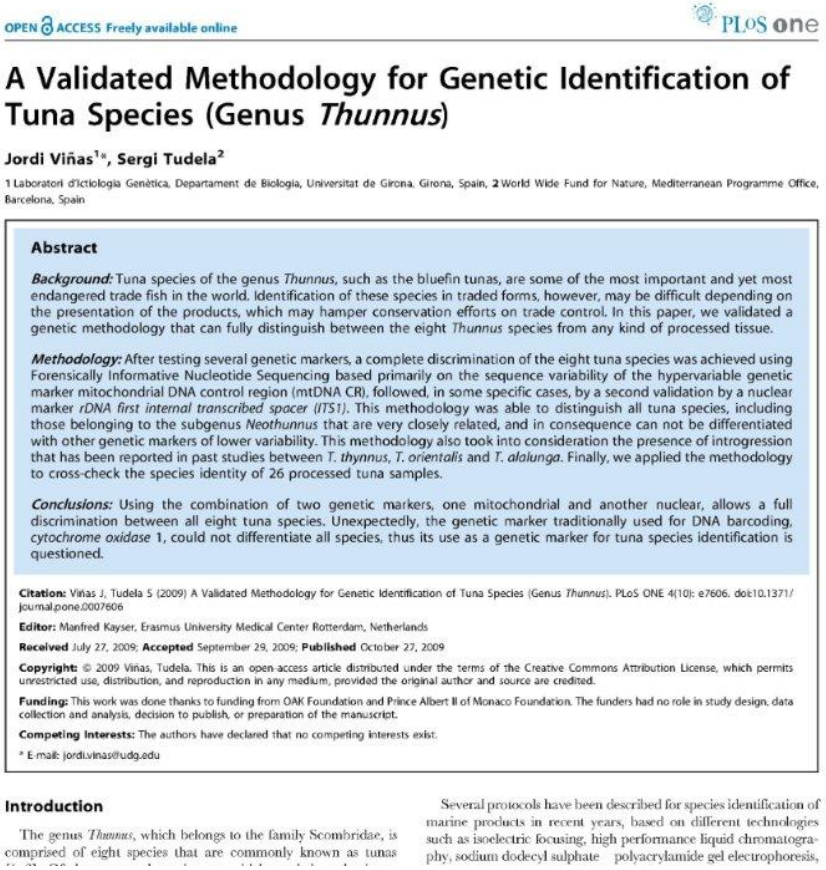
Traceability and Consumption

- After the present picture it becomes clear that Japanese traders, retailers and consumers here in Japan has the huge opportunity to make a real difference in the current mismanagement situation
- We should not allow that the short term interests of some industry players make bluefin tuna disappear, first from the ocean and then from our plates
- A millenarian fishery and thousands of livelihoods are also at stake
- Japanese consumers, by making the right choice when purchasing its fish for sushi and sashimi, have the real power to make decision makers adopt the right management and control measures
- At this stage, we can not support the consumption of this magnificent species until a precautionary and fully scientifically based management plan is in place, the fishery under control, and the stock starts recovering

Traceability and Consumption

- Today, thanks to the availability of recent genetic studies, we have the chance to verify the accuracy of the information labelled related to the origin of the fish and detect the presence of IUU tuna in the market

- We encourage government officials and industry players to apply this methodology to detect potential mislabelling of the products used to cover bluefin tuna over catches, and to contribute to eliminate IUU practices in the tuna fisheries



OPEN ACCESS Freely available online

PLoS one

A Validated Methodology for Genetic Identification of Tuna Species (Genus *Thunnus*)

Jordi Viñas[1]*, Sergi Tudela[2]

1 Laboratori d'Ictiologia Genètica, Departament de Biologia, Universitat de Girona, Girona, Spain, 2 World Wide Fund for Nature, Mediterranean Programme Office, Barcelona, Spain

Abstract

Background: Tuna species of the genus *Thunnus*, such as the bluefin tunas, are some of the most important and yet most endangered trade fish in the world. Identification of these species in traded forms, however, may be difficult depending on the presentation of the products, which may hamper conservation efforts on trade control. In this paper, we validated a genetic methodology that can fully distinguish between the eight *Thunnus* species from any kind of processed tissue.

Methodology: After testing several genetic markers, a complete discrimination of the eight tuna species was achieved using Forensically Informative Nucleotide Sequencing based primarily on the sequence variability of the hypervariable genetic marker mitochondrial DNA control region (mtDNA CR), followed, in some specific cases, by a second validation by a nuclear marker *rDNA first internal transcribed spacer (ITS1)*. This methodology was able to distinguish all tuna species, including those belonging to the subgenus *Neothunnus* that are very closely related, and in consequence can not be differentiated with other genetic markers of lower variability. This methodology also took into consideration the presence of introgression that has been reported in past studies between *T. thynnus*, *T. orientalis* and *T. alalunga*. Finally, we applied the methodology to cross-check the species identity of 26 processed tuna samples.

Conclusions: Using the combination of two genetic markers, one mitochondrial and another nuclear, allows a full discrimination between all eight tuna species. Unexpectedly, the genetic marker traditionally used for DNA barcoding, *cytochrome oxidase* 1, could not differentiate all species, thus its use as a genetic marker for tuna species identification is questioned.

Citation: Viñas J, Tudela S (2009) A Validated Methodology for Genetic Identification of Tuna Species (Genus *Thunnus*). PLoS ONE 4(10): e7606. doi:10.1371/journal.pone.0007606

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Introduction

The genus *Thunnus*, which belongs to the family Scombridae, is comprised of eight species that are commonly known as tunas

Several protocols have been described for species identification of marine products in recent years, based on different technologies such as isoelectric focusing, high performance liquid chromatography, sodium dodecyl sulphate polyacrylamide gel electrophoresis,

Traceability and Consumption

- In 2009 Monaco became the first country in the world to be bluefin tuna free, with all restaurants and retailers in the Principality, including Carrefour, stopping serving and selling the fish

- In addition, an increasing number of market players all around the world have also decided to give Atlantic bluefin tuna a break until the species shows signs of recovery

Traceability and Consumption

Carrefour Europe	Pan-European
Relais & Chateaux	France
Coop	Italy, Norway & Switzerland
Loblaws	Canada
Moshi Moshi	UK
Dörig & Brandl	Switzerland
Deutsche See	Germany
Auchan	France
Sodexho	Global
Ica	Norway
Memento	Spain
REWE	Germany
Relais de Parc	France
Ospelt Food	Switzerland
Gottfried Friedrichs	Germany
Elior	France
Migros	Switzerland

M&J	UK
Casino	France
Center Parcs	Belgium, Germany, Netherlands
Pret a Manger	UK
Itsu	UK
Edeka	Germany
Fairmont	Canada
George Knight fishmongers, Notting Hill (main branch Mayfair)	UK
Atac & Simply Market (brands of Auchan)	France
London 2012 Olympic Committee	
Eurotoques network top French chefs (Olivier Roellinger, Joel Robuchon, Alain Ducasse...)	
Sushi Taxi	Canada
Auguste	France

Now BFT needs more than ever your support!


Thank you!

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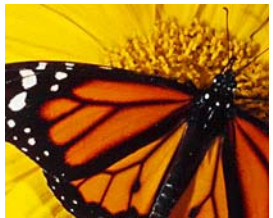
Safeguarding Our Ocean, Safeguarding Livelihoods

－Examining Tuna and Environmental Issues from WWF's Perspective－

WWF Japan
Marine Program
Fishery Officer
Aiko Yamauchi
August 3, 2010

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Before We Begin…

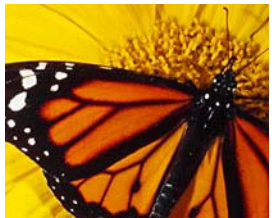
“Sustainable”
Able to be maintained at a certain rate or level.
(Especially of development, exploitation or agriculture)
Conserving an ecological balance by avoiding depletion of natural resources.

“to Sustain”
Cause to continue or be prolonged for an extended period or without interruption.

“Culture”
The customs, arts, social institutions, and achievements of a particular nation, people, or other social group. The attitudes and behavior characteristic of a particular social group.

from the New Oxford American Dictionary




WWF'S MISSION

WWF's Mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- **Conserving the world's biological diversity**
- **Ensuring that the use of renewable natural resources is sustainable; and**
- **Promoting the reduction of pollution and wasteful consumption**




Major Factors Threatening Biodiversity

Cause - Habitat Change - Global Warming - Exotic Species - Resource Exploitation - Pollution

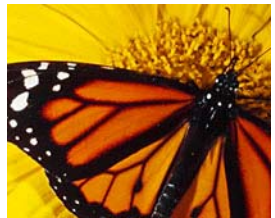
Representative Regions

原因 / 代表的景観	生息地の改変	地球温暖化	外来生物	過剰な資源利用	汚染
Tropical Forest	↑	↑	↑	↗	↑
Freshwater	↑	↑	↑	→	↑
Marine	↑	↑	→	↗	↑
Polar	↗	↑	→	↗	↑

20th Century Negative Impacts:	Weak	Moderate	Strong	Extremely Strong
20世紀中の悪影響	弱い	ほどほど	強い	非常に強い
現在の影響の傾向	そのまま	増加	急増	
Current Trend of Relevant Factor:	Stable	Increasing	Rapidly Increasing	

Marine: Overexploitation of Resources → Negative Impacts are Extremely Strong and Becoming Worse

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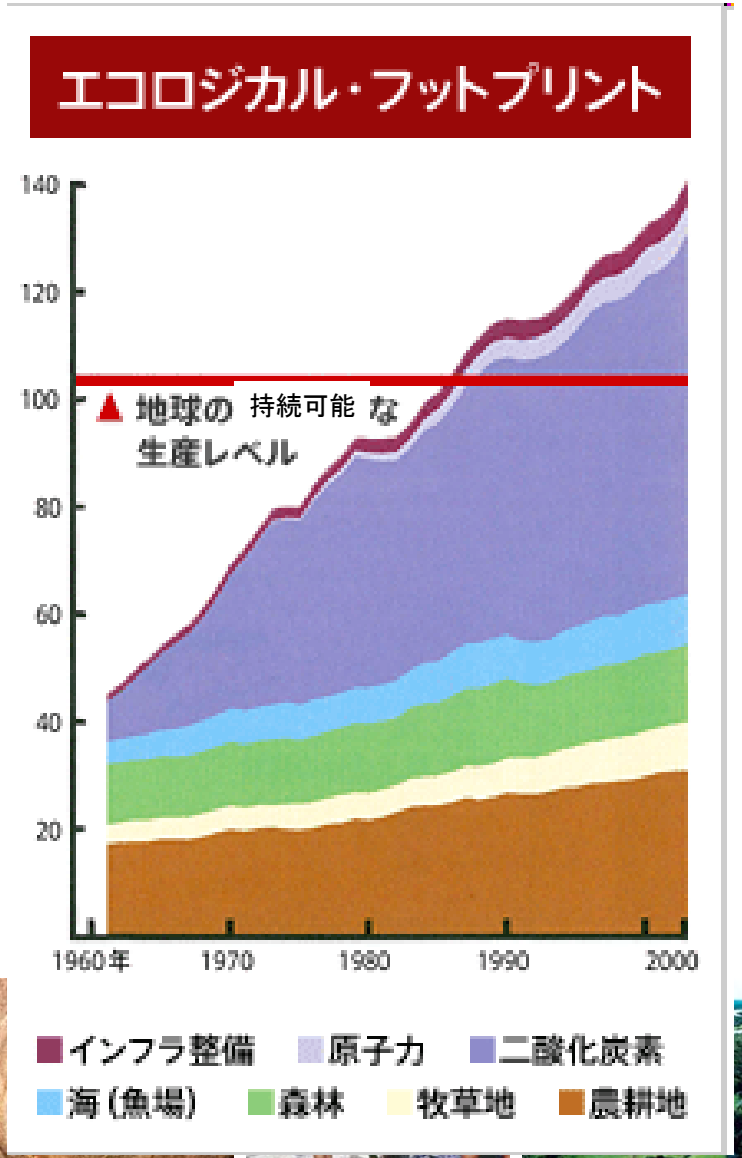
Modern Consumption and its Impact on the Environment

Ecological Footprint

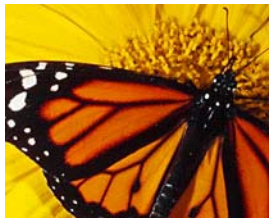
➢In the mid 1980s, humanity's ecological footprint grew to equal the total biological productivity of one planet earth (as well as its CO2 absorption capacity). As of 2005, humanity's total ecological footprint was estimated at 1.3 earths.

➢Currently, humanity's consumption exceeds regeneration capacity by the equivalent of 0.3 planet earths. This consumption takes the form of overexploitation of forest and marine resources and massive CO2 emissions. In other words, we are withdrawing an advance on the future.

➢**WWF's 2050 Footprint Goal**
By 2050, humanity's global footprint stays within the Earth's capacity to sustain life and the natural resources of our planet are shared equitably





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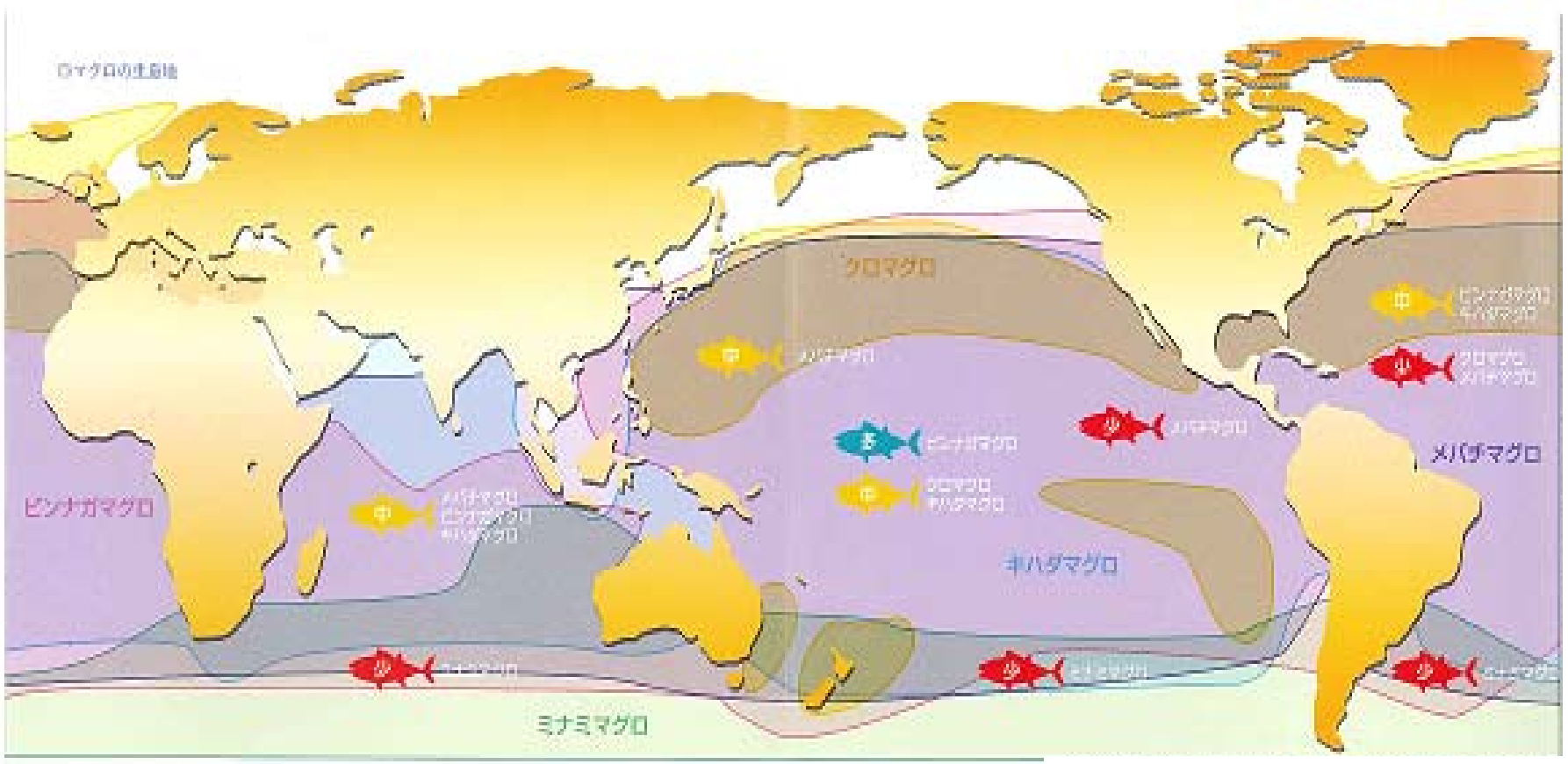
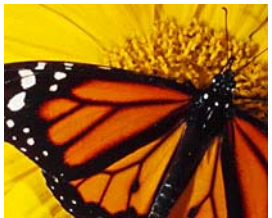
Why is WWF Tackling the Tuna Problem?



Graph shows abundance of different tuna species: Green = Abundant, Yellow = Moderate, Red = Depleted




Domestic Companies and Tunas/Skipjack

Company “A,” A Major Importing Firm - On North Atlantic Bluefin Tuna

“Our company strives to preserve the global environment and pursue sustainable development through all aspects of our business activities … We acknowledge that the Bluefin Tuna stocks in the Mediterranean are over-fished, and in all of our Bluefin Tuna businesses, we are committed to proactively working with all concerned parties to improve the conservation of Bluefin Tuna stocks. Our goal is to source all of our Bluefin Tuna in an environmentally sustainable manner and from sustainably managed fisheries.”

Company “B,” A Grocery Delivery Company

“… We deal only with those fishery products caught in accordance with international marine resource management guidelines. When dealing with pelagic fishery products, we meticulously confirm the safety and fishing method of the products. We do not deal in fishery products caught by over-fishing or indiscriminate fishing, or whose procurement was in violation of international rules.”

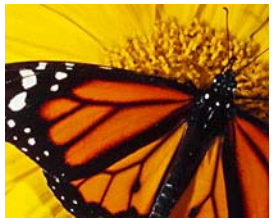
* Fishery Products Certificate of Origin - Tuna: Fishing Region, Fishing Method, Fishing Period, Nationality and Name of Fishing Vessel

Company “C,” Major Food Corporation

“Most of our Skipjack, which is an ingredient for our products, is caught in the Pacific Equatorial Region. Currently, the Skipjack population in that region is abundant and stable. In order for our customers to be able to continue to enjoy our products in the future, however, we believe that continued vigilance of the utilization of Skipjack resources and the Skipjack marine habitat is important.”

*April 2009: Company C established a pelagic fisheries research station and began to study skipjack resources in the Western Japan Pacific Coastal Region (Fishery General Research Center)

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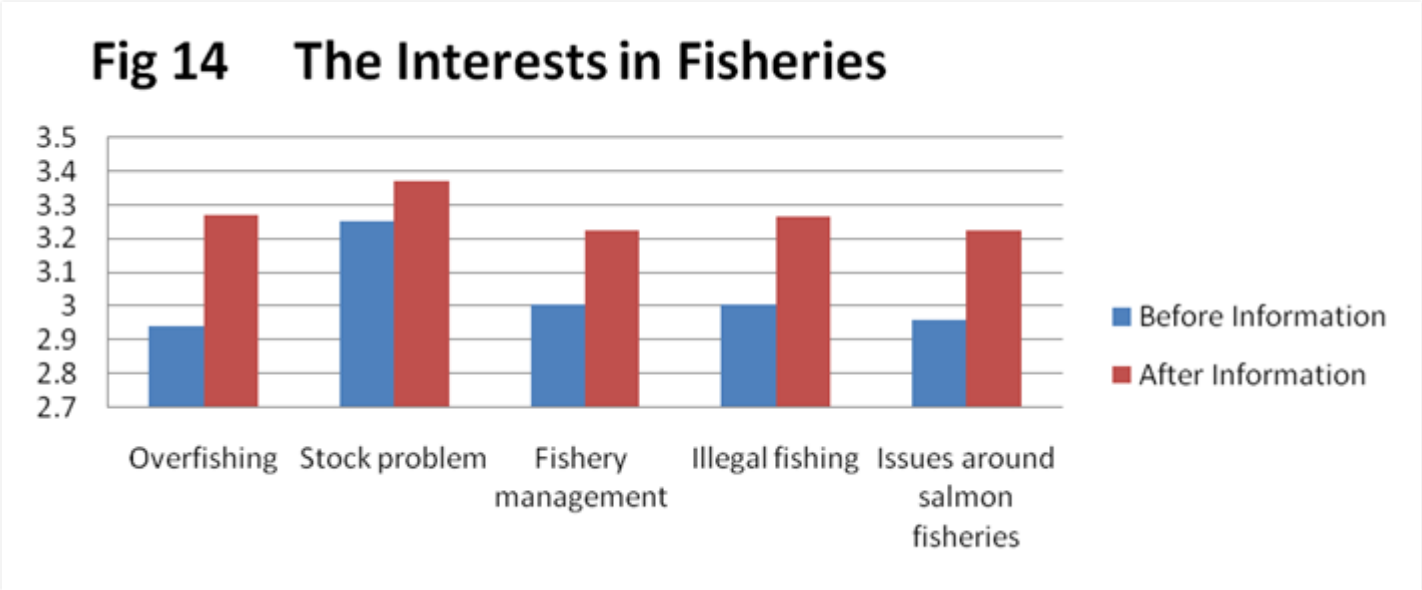
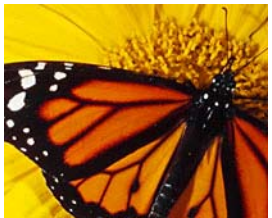
Consumers in Japan (According to WWF Surveys and Research)



WWF Japan : “Analysis of Potential Demand for Seafood Eco-Labeling in the Japan Fisheries Market” (Hiroki Wakamatsu et al.)




Conclusion

We expect consumers to contribute toward a solution to the tuna problem.

✓Choose tuna that has good traceability, and is part of an appropriately managed fishery.

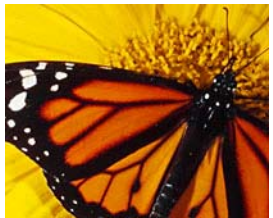
✓Ask the questions: “What type of tuna is this? Where did this tuna come from? Who caught this tuna? How was this tuna caught?”

✓Look for companies working toward sustainable tuna procurement.

✓Increase your personal awareness of the concept of “Sustainable Tuna.”

“*Knowledge itself is power.*
- Francis Bacon-

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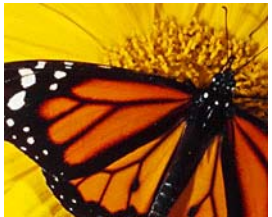
Thank you for your kind attention




Finding shared goals

- Seafood businesses
- Consumers
- Governments
- WWF

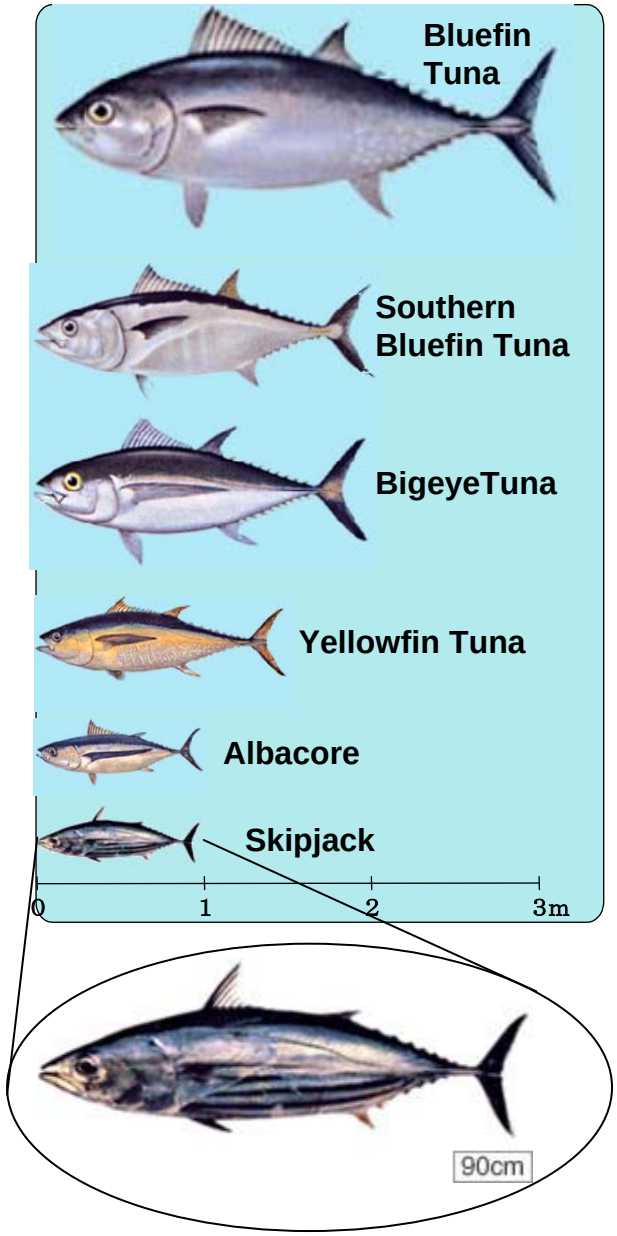
Seafood forever

- Reliable supply
- Selective catch
- Legal and traceable
- Cooperation in solving problems

CITESand
Resource Management of Tunas and Skipjack

Fisheries Agency
Resource Management Department
Masanori Miyahara

The Main Species of Tuna and Skipjack



Source: Federation of Japan Skipjack and Tuna Fisheries Cooperatives

Bluefin Tuna (kuromaguro, honmaguro):
Distributed in the Northern Hemisphere throughout most of the Pacific and Atlantic Ocean, including the Mediterranean Sea. Considered top-grade among tunas. Not found in the Indian Ocean. Eaten mostly as *sashimi* (raw fish).

Southern Bluefin Tuna (minamimaguro, indomaguro):
Concentrated distribution in the high latitude region of Southern Hemisphere. The second most highly prized behind the Bluefin Tuna. Eaten mostly as *sashimi* (raw fish).

Bigeye Tuna (mebachi):
Distributed from the temperate to tropical zones worldwide. Gets its name from its large, wide eyes. Eaten mostly as *sashimi* (raw fish).

Yellowfin Tuna (kihada):
Almost exact same distribution as the Bigeye Tuna. Takes its name from its yellow color. Eaten mostly as *sashimi* (raw fish).

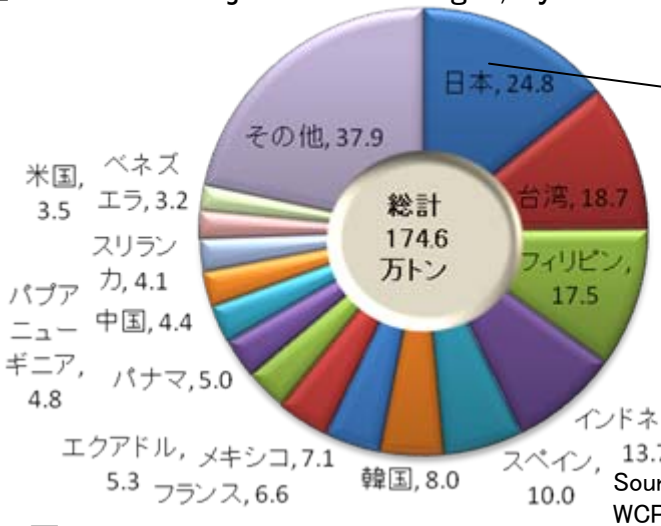
Albacore (binnaga, bincho, tombo ahi):
This small tuna is distributed in oceans worldwide. Long, blade-shaped pectoral fin is characteristic. Commonly canned, but more recently also used as *sashimi*.

Skipjack (katsuo):
Distributed in oceans worldwide. Caught year-round in southern waters. Dark blue stripes on belly are distinguishing markings. Eaten in various ways, including *sashimi*, *tataki* (seared), *katsuobushi* (dried), and canned.

A Comparative Look at Japan's Tuna Production and Consumption

- Japan produces about 14% of the world's tuna catch; is the world's largest tuna fishing nation.
- Japan consumes about 24% of the world's tuna catch; is the world's largest tuna consuming nation.
- Japan consumes 70 - 80% of the world's caught/farmed Bluefin Tuna, the most highly prized of the tunas

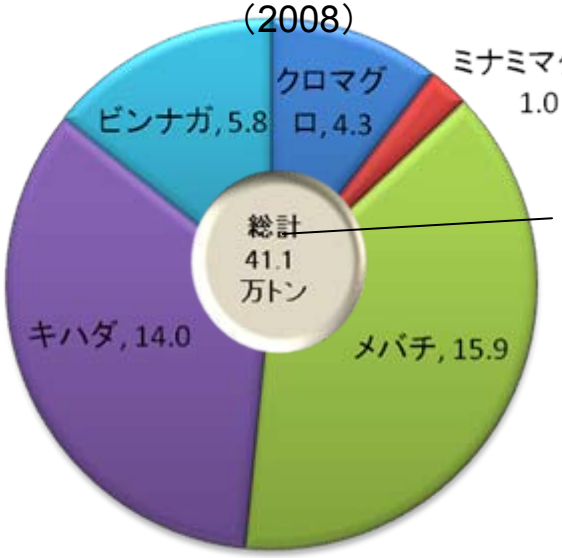
■Amount of Major Tunas Caught, by Country (2007)



Japan catches about 14% of world total

Source: FAO Statistics and WCPFC Sources

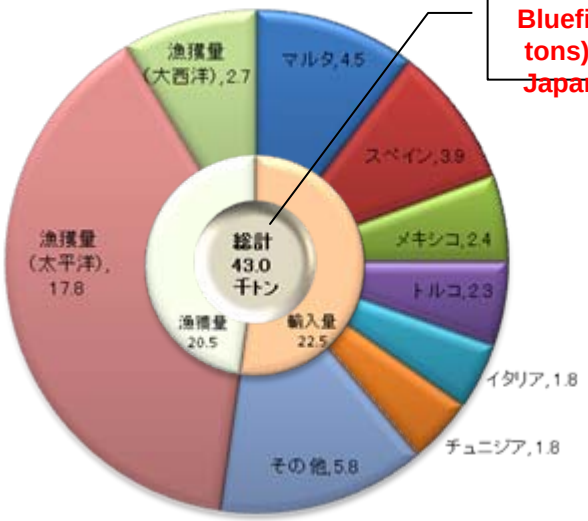
■Amount of Major Tunas Supplied to Japan, by Species (2008)



Japan receives about 24% (441,000 tons) of world total (1.75 mil. tons)

資料：農林水産省「漁業・養殖業生産統計」
及び財務省「貿易統計」に基づく推計

■Amount of Bluefin Tuna Supplied to Japan, by Country (2008)



70-80% of the world's Bluefin Tuna (57,000 tons) is supplied to Japan (43,000 tons)

資料：農林水産省「漁業・養殖業生産統計」（速報値）及び財務省「貿易統計」に基づく推計
※1　国内生産量の太平洋・大西洋の区別は、水産庁による推計（大西洋の国内生産量は漁期年「8月～翌7月」を採用）
※2　養殖による増重量の実態が必ずしも明らかでないため、正確な割合の算出は困難

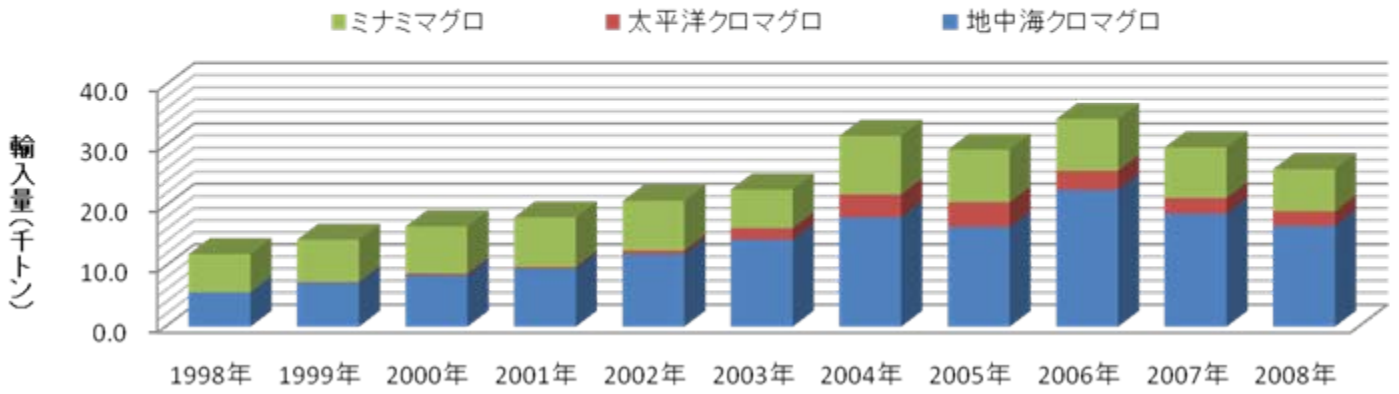
■Bluefin Tuna Supply, by Region (2008)

		Ratio
Pacific	Domestic	About 7,800 tons
	Import	About 3,800 tons
Atlantic	Domestic	About 2,700 tons
	Import	About 18,700 tons

5 : 5

Global Fluctuation in Amount of Imported Farmed Tuna

Fluctuation in Amount of Imported Farmed Tuna (product weight in thousands of tons)



Fluctuation in Amount of Imported Farmed Tuna (by country; product weight in thousands of tons)

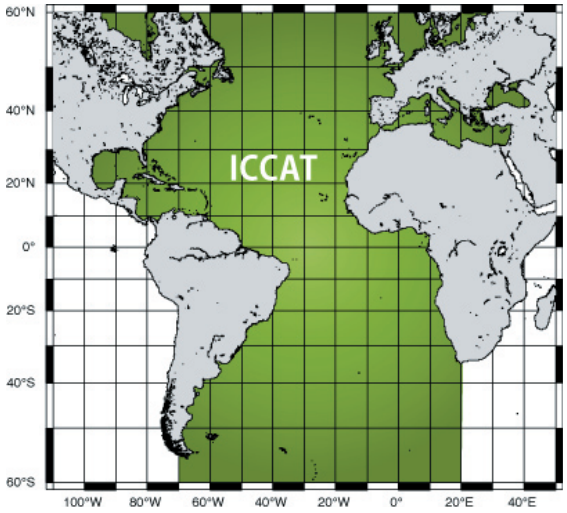
Species	Region	Country		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefin Tuna	Mediterranean	EU	Spain	3.2	5.0	4.4	4.8	4.7	4.3	4.3	4.4	3.7	3.3	3.9
			Malta	0.2	0.0	0.3	0.6	1.1	0.7	1.7	2.2	4.5	2.2	4.5
			Cyprus	–	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.1	0.8	0.7
			Italy	1.1	1.3	1.4	0.8	0.9	1.2	0.6	1.1	2.7	2.8	1.8
			Greece	0.3	0.2	0.3	0.3	0.1	0.1	0.1	0.4	0.8	0.4	0.4
			EU (Total)	4.8	6.5	6.4	6.5	6.8	6.3	7.0	8.8	12.8	9.5	11.3
		Turkey		–	–	–	–	0.3	1.6	2.8	2.8	3.2	3.4	2.3
		Croatia		0.2	0.3	0.7	1.0	2.2	2.7	3.6	2.5	4.7	4.0	1.3
		Tunisia		0.7	0.5	0.5	0.5	0.3	0.5	0.7	1.3	1.7	1.8	1.8
		Panama *1		–	–	0.9	1.6	2.4	3.3	4.0	1.1	0.2	–	–
		Mediterranean (Total)		5.7	7.3	8.5	9.6	12.0	14.4	18.1	16.5	22.6	18.7	16.7
	Pacific	Mexico		0.0	0.1	0.3	0.3	0.6	1.9	3.8	4.1	3.2	2.6	2.4
	Bluefin Tuna (Total)			5.7	7.4	8.8	9.9	12.6	16.3	21.9	20.6	25.8	21.3	19.1
Southern Bluefin Tuna		Australaia		6.3	7.0	7.8	8.2	8.2	6.4	9.7	8.7	8.6	8.4	7.0
Total				12.0	14.4	16.6	18.1	20.8	22.7	31.6	29.3	34.4	29.7	26.1

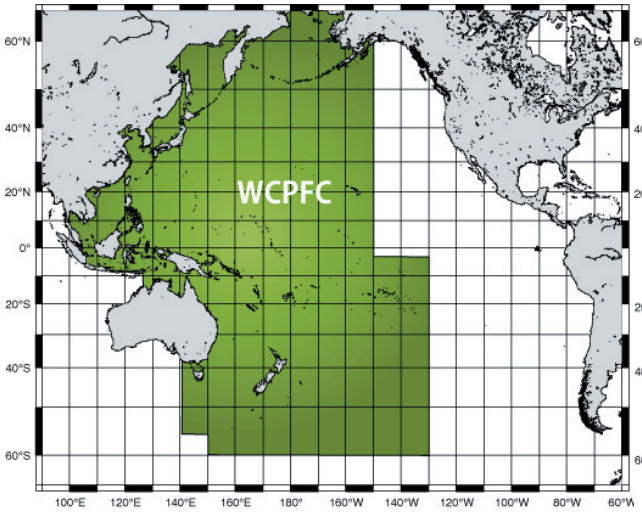
Source: Ministry of Finance Foreign Trade Statistics (deemed to be farmed tuna based on country and species), WCPFC and CCSBT sources

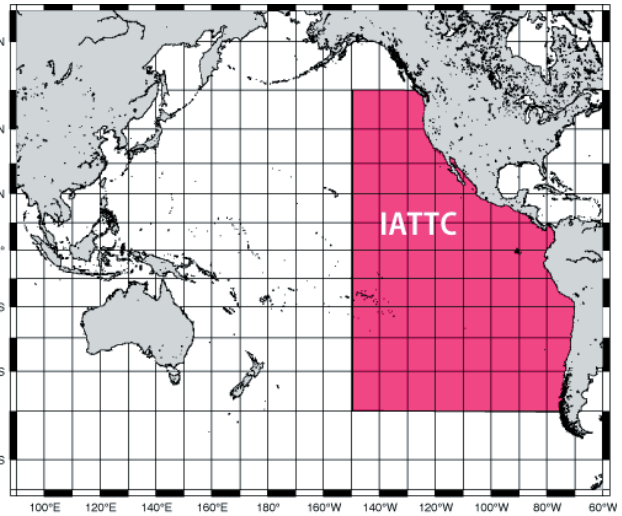
*1: Processed onboard ships registered in Panama, therefore fish is assumed to be farmed Mediterranean Bluefin Tuna

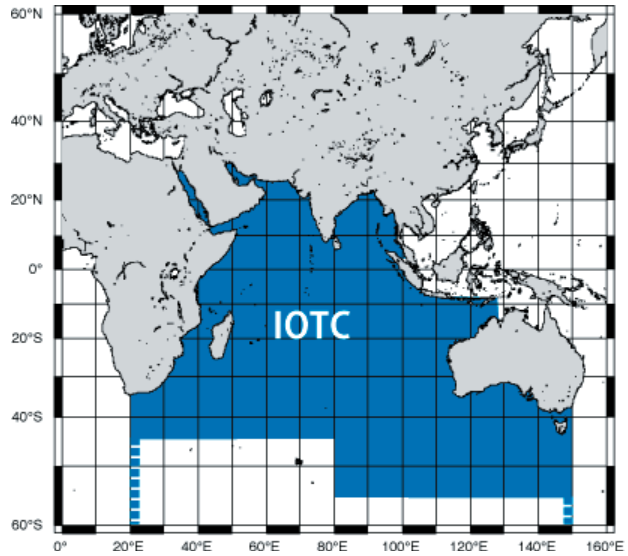
Tuna Regional Fisheries Management Organizations (RFMOs)

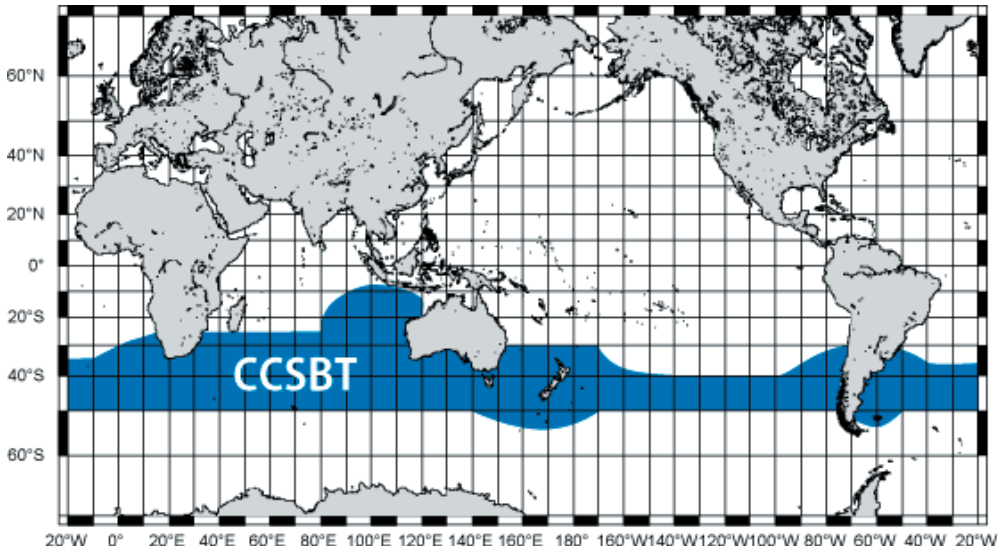
- The following five RFMOs manage the world's oceans. Japan is a member of all RFMOs.
- RFMOs implement various resource management measures based on the state of each species.
- Extremely important RFMOs for Japan are the International Commission for the Conservation of Atlantic Tunas (ICCAT), which manages the Atlantic Bluefin Tuna, and the Western and Central Pacific Fisheries Commission (WCPFC), which manages Japan's Exclusive Economic Zone.











CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington Convention)

1. Purpose

To control the exploitation and ensure protection of endangered species of wild animals and plants by regulating the international trade in specimens of wild animals and plants through cooperation from both import and export countries.

2. Timeline

March 3, 1973: Agreed upon (Wash. Conv.)
July 1, 1975: Entered in force
Nov. 4, 1980: Japan joins convention

3. Party Countries

175 (as of August 2009)

4. Conference of Parties (COP)

Usually held every other year. Proposals to amend Appendices are put to a vote, must be supported by a two-thirds majority

5. Major Regulations and Targeted Marine Animal Species

	Appendix I	Appendix II
Standards for Listing	Includes species threatened with extinction that are affected by trade.	Includes species not necessarily threatened with extinction now, but if trade is not strictly regulated there may be threat of extinction.
Major Listed Marine Species	**Whales (Minke Whale, etc.)** Monk Seal Dugong Sea Turtle Asian Arowana Coelacanth Etc.	**Whales (Those not in App. I)** Whale Shark Great White Shark Basking Shark Arapaima (Pirarucu) Seahorse European Eel Etc.
Regulation Specifics	**International trade for commercial purposes and landing of fishes in international waters is forbidden.** (For scientific research, it is still necessary to strictly regulate trade. Authority-issued import and export permits based on scientific counsel are required)	**International trade for commercial purposes and landing of fishes in international waters is allowed.** (Authority-issued import and export permits based on scientific counsel are required)

Note: Japan has Reservations to most whales listed under Appendix I and the Appendix II species that are underlined. (App. I species are treated as App. II species; App. II species are treated as unregulated)

15th Meeting of the Conference of Parties of the Washington Convention (CITES)

1. **Date** : March 13 - 25, 2010
2. **Location** : Doha, Qatar
3. **Appendix Amendment Proposal:** Proposal to Include North Atlantic Bluefin Tuna on CITES Appendix 1

4. **Result**:

(1) The issue was discussed in Committee 1 in the afternoon of March 18th. At first, Monaco presented the proposal to include North Atlantic Bluefin on Appendix 1 of CITES, after which the EU suggested an annotation for delaying the application of the listing until May 2011.

(2) Japan opposed the proposal to amend Appendix 1, stating that under ICCAT Bluefin Tuna is to be conserved and managed appropriately, that Appendix 1 opposes sustainable use and sustainable development, and that unfairness would result in an unfairness between developed countries like Japan with markets and developing countries without markets.

(3) In response to Monaco's proposal, each country expressed their opinion. The U.S., Norway and Kenya were in favor of the proposal, while Canada, South Korea, Turkey, Morocco, Namibia and Grenada opposed the proposal.

(4) A vote was called on whether to put the vote to a proposal immediately, and this was accepted. A secret ballot vote was immediately held for both proposals. The EU-amended proposal was rejected with 43 in favor, 72 opposed, and 14 abstentions. The Monaco proposal was also rejected with 20 in favor, 68 opposed, and 30 abstentions (Japan voted against).

Statement on Direction of Future Fishery Management

Minister of Agriculture, Forestry and Fisheries

At the 15th Conference of Parties of CITES (COP 15), the proposal to list Atlantic bluefin tuna in Appendix I of CITES, and the proposal to list Precious Coral in CITES Appendix II, were not adopted. Japan worked hard to convince other countries that fishery resources should be conserved and managed for sustainable use by Regional Fisheries Management Organizations (RFMOs), based on scientific stock assessments, rather than by CITES. I believe that such Japanese position was widely shared by Parties and lead to the results of COP15.

However, it is also true that a number of countries supported the listing of Atlantic bluefin tuna in Appendix I of CITES. Those countries seem to have been concerned over insufficient conservation and management effort by RFMO.

If this situation remains unchanged, not only Atlantic bluefin tuna, but also other fish species, might well be proposed for a CITES listing in future. I am convinced, therefore, it is essential to ensure that conservation and management measures adopted by each RFMO, as well as those agreed by each county, are effective enough to wipe out such a concern.

Given this background, Japan will continue to play its leading role at ICCAT and other RFMOs in preventing over-fishing by adopting effective conservation and management measures, based on scientific stock assessments, and by establishing reliable monitoring systems to ensure compliance by RFMO member countries with the adopted measures. Japan will also continue its efforts to strengthen collaboration and cooperation with developing countries toward this end.

Japan is in a position not to import any fishery products from fish not caught in compliance with RFMO rules.

Further, it is also essential for Japan to strengthen its fishery management for its domestic fisheries, in order to give more credibility to an effective leadership role at international fora. In this regard, Japan will expeditiously consider the introduction of its Income Assurance System for domestic fishermen who actively participate in proper fishery management.

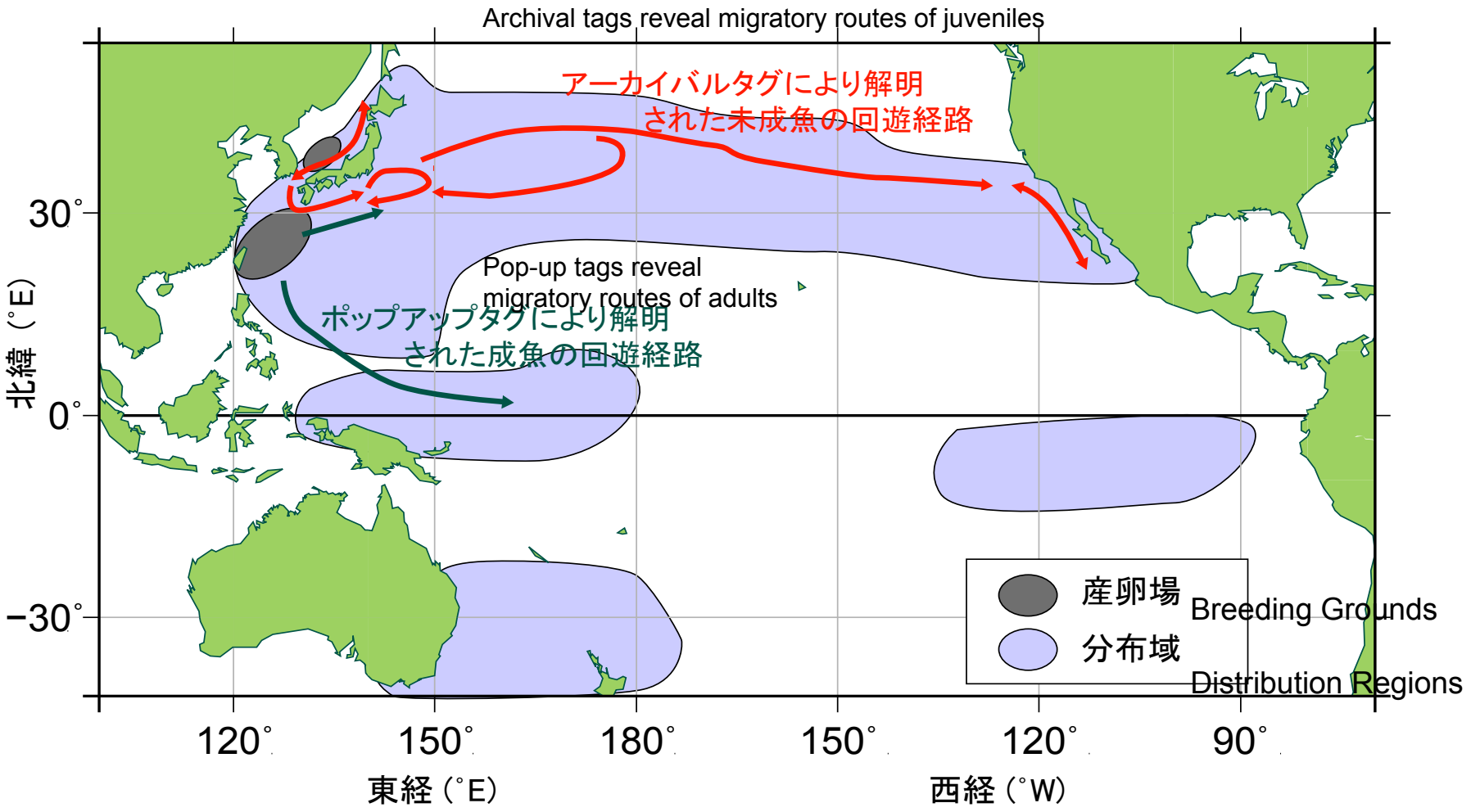
Further, Japan will work on the development and dissemination of a complete culturing technique to raise bluefin tuna so as not to affect wild fish resources.

The Ministry of Agriculture, Forestry and Fisheries will make its best effort to ensure the sustainable use of fish stocks, and to secure a stable supply of fishery products. I hope the COP15 meeting of CITES will help raise the awareness of Japanese nationals regarding the importance of eating fish from sustainable sources and a consideration of how finite fishery resources should be utilized.

March 25th, 2010

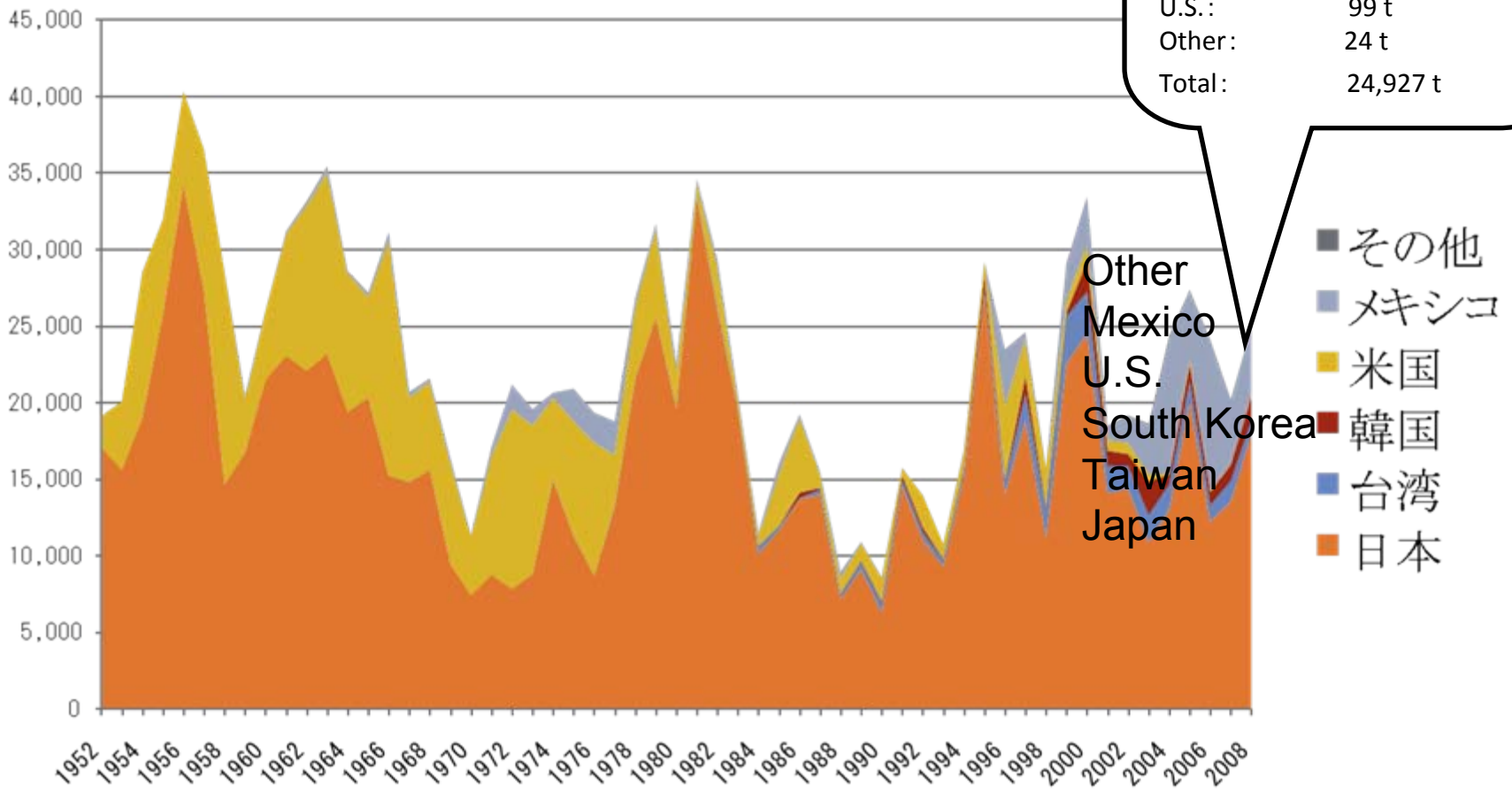
Minister of Agriculture, Forestry and Fisheries Hirotaka Akamatsu

North Pacific Bluefin Tuna Breeding Grounds and Distribution Regions
Electronic Tagging Reveals Migratory Routes



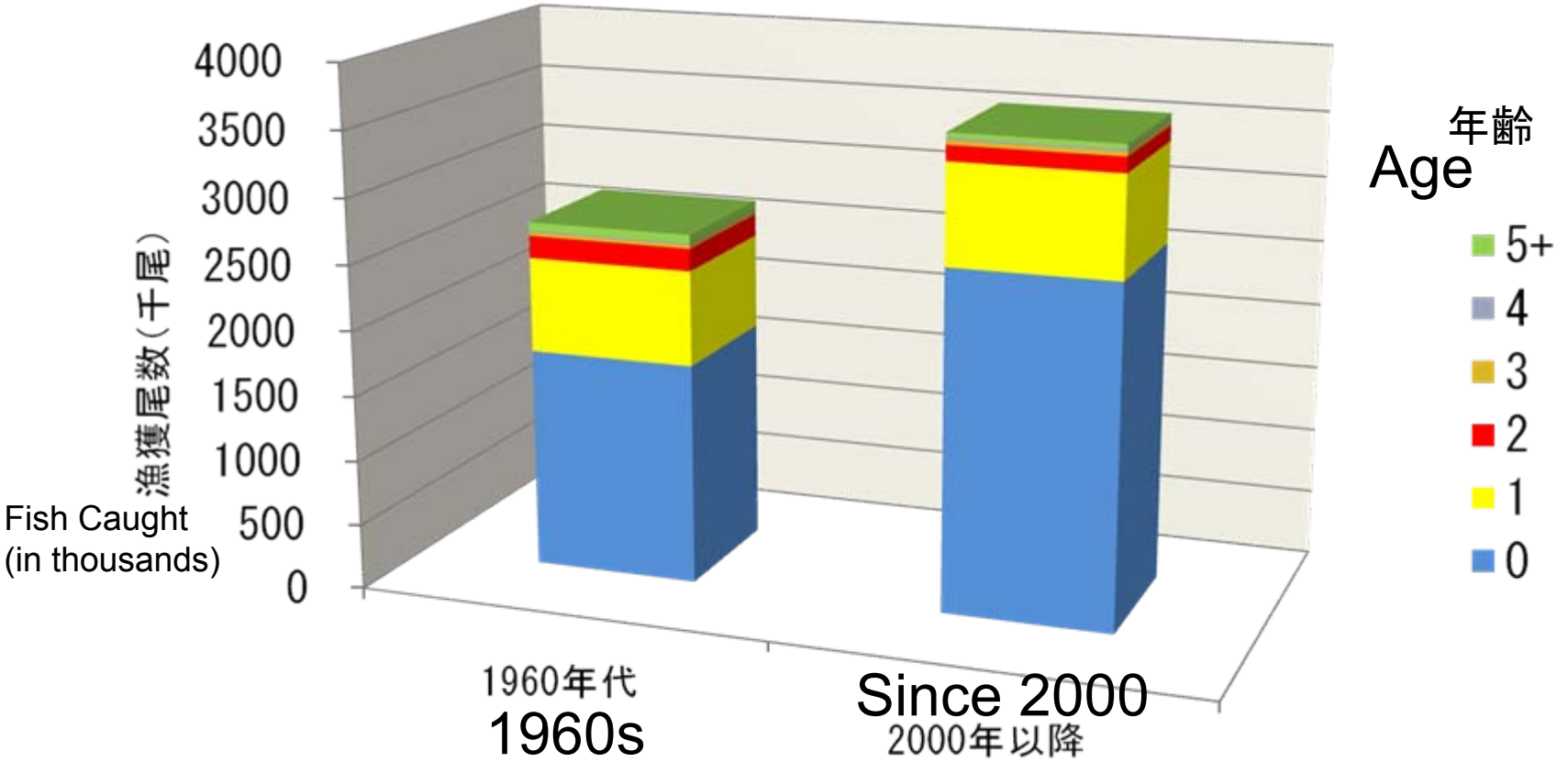
Fluctuation in Amount of North Pacific Bluefin Tuna Caught, by Country

- Except for one period in the 70s, Japan has consistently caught over half of the North Pacific Bluefin Total.
- In recent years, the amount caught by Mexico, Taiwan and South Korea has increased.



Fluctuation in the Number of North Pacific Bluefin Tuna Caught, by decade and by age of fish

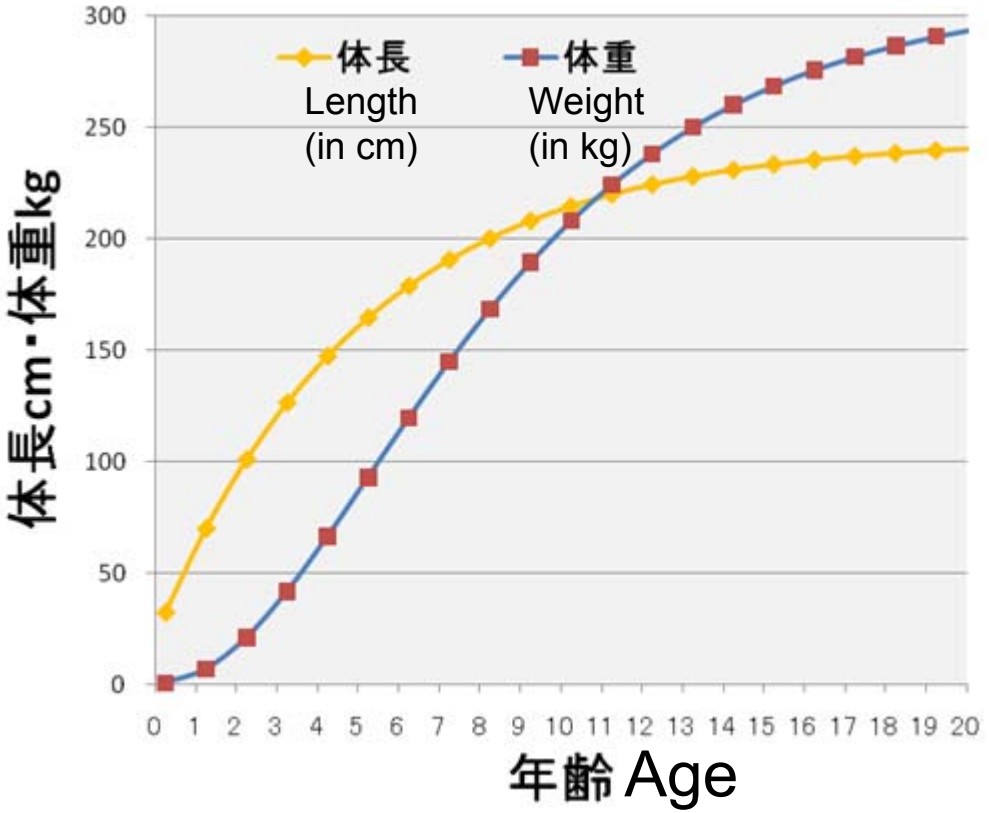
- The ratio of fish that were zero years old when caught jumped from 63% in the 60s to 73% since 2000.
- The increase in fish aged 0 - 1 when caught has caused a 30% increase in total overall catch



(Source) ISC resource evaluation estimated figures, July 2009

Relationship of Length/Weight and Age

- A two kilogram juvenile is zero years-old
- Some mature at three years-old, while all are mature at the age of five.



- 0 years-old: 32.2cm 0.7kg
- 1 year-old: 69.9cm 6.9kg
- 2 years-old: 100.9cm 21.0kg
- 3 years-old: 126.4cm 41.6kg
- 4 years-old: 147.4cm 66.4kg
- 5 years-old: 164.7cm 93.0kg

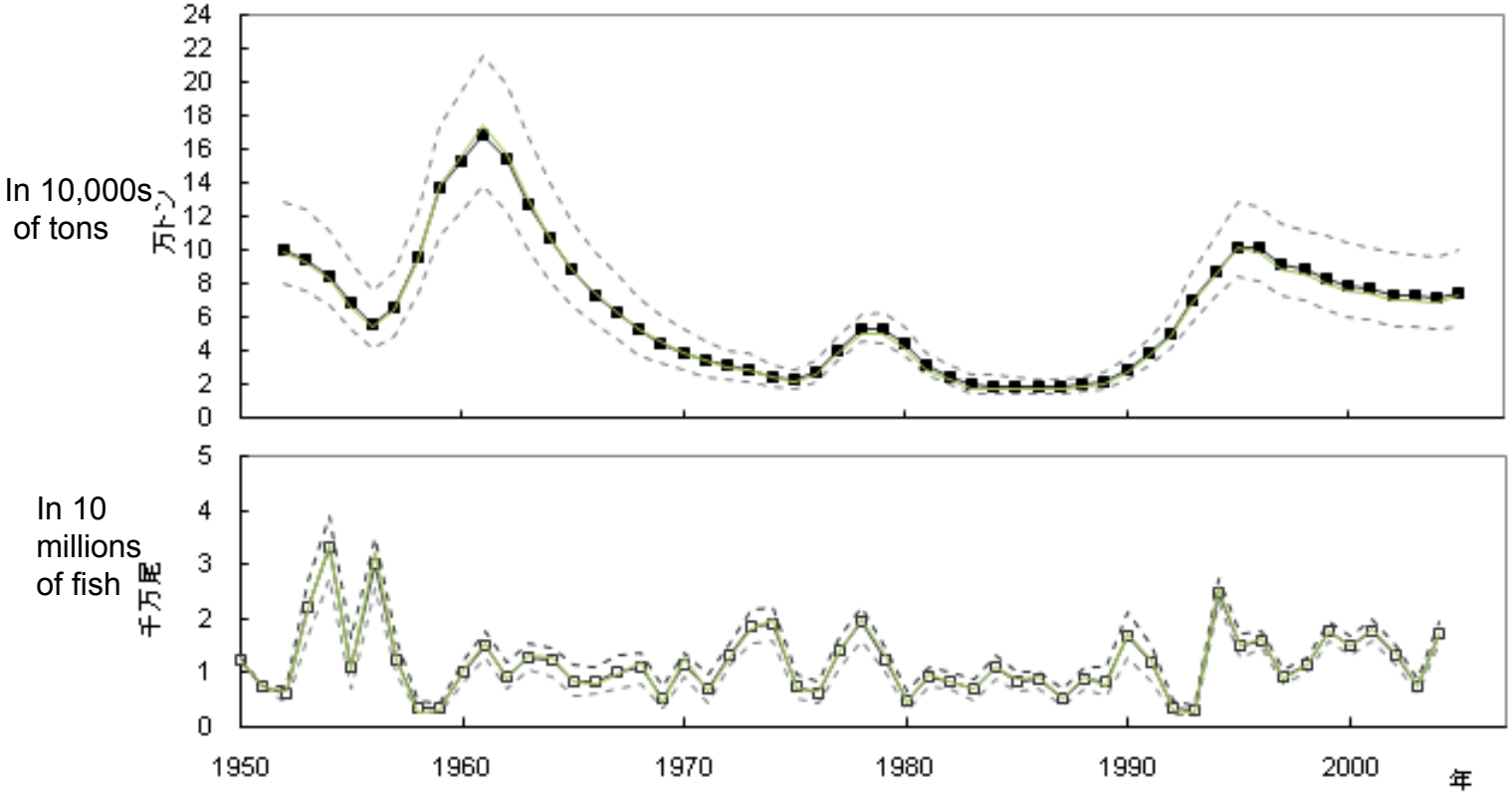
(※October Measurements)

※ Breeding season is from May to July in the Nansei (SW) Islands

(Source) Shimose et al. After calculating the October 1st length using the 2008 growth curve, the Kai 2007 length-weight conversion formula was used to calculate weight.

Fluctuation in Breeding Adults and Recruitment

・In recent years, the amount of breeding adults has been 700,000 tons
・Good recruitment appears after repeated efforts. Good recruitment has continued in recent years, but increasing pressure on fisheries in the future brings the high possibility of a reduced level of resources, according to resource evaluation.



Estimates from the 2009 resource evaluation of North Pacific Bluefin Tuna breeding adults (top) and recruitment (bottom)

Preservation and Management of North Pacific Bluefin Tuna

Developments up to Last Year

ISC (July 2009)
(International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean)

- If the current good recruitment were to end, there is the possibility that the level of resources will worsen.
- The trend to catch immature fishes (aged 3 or less) has increased
  - The U.S. emphasized the necessity to reduce the level to that of one lower than the 2002 - 2004 level.

Advice

WCPFC Northern Committee (September 2009)

- Excluding small fisheries, the catch per unit effort (CPUE) of Bluefin Tuna Fisheries is frozen at the 2002 - 2004 level.
- Based on the above, the Committee is considering reducing the CPUE of juveniles (aged 3 or less) to the 2000 - 2004 level.
- The above measures is not to be applied to the South Korea EEZ, but after receiving the report from South Korea about Japan's Bluefin Tuna fishing, the matter is under reconsideration.

Recommendation

WCPFC Annual Meeting (December 2009)

- **Original Plan was Adopted**

Amount of North Pacific Bluefin Tuna Caught by South Korea, and Amount Imported by Japan

Amount of Bluefin Tuna Caught by South Korea

Year	2006	2007	2008	2009
Amount Caught (tons)	833t	1，054t	1，563t	

(Source) ISC9 Plenary Report

This report only includes the amount caught by purse seiner

Amount of Fresh Refrigerated Bluefin Tuna Imported from South Korea

Year	2006	2007	2008	2009
Amount Imported	1，007t	988t	1，218t	918t
Via Hakata Customs	932t	962t	1，154t	833t
Via Shimonoseki Customs	74t	26t	63t	61t

(Source) Ministry of Finance
Foreign Trade Statistics

Number HS0302.35-000 (Fresh Refrigerated Bluefin Tuna)

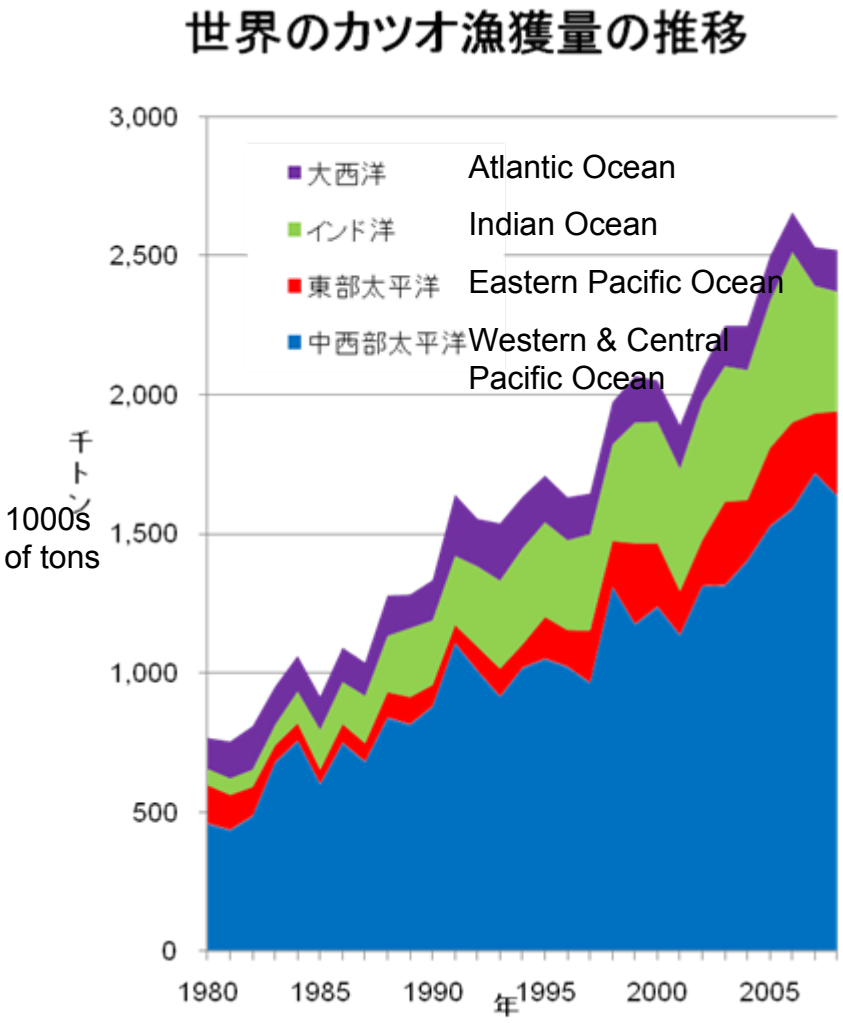
Amount of Bluefin Tuna Imported from South Korea and Sold at Fukuoka City Wholesale Maket

Year	2006	2007	2008	2009
Amount Sold at Market	740t	842t	1，193t	882t

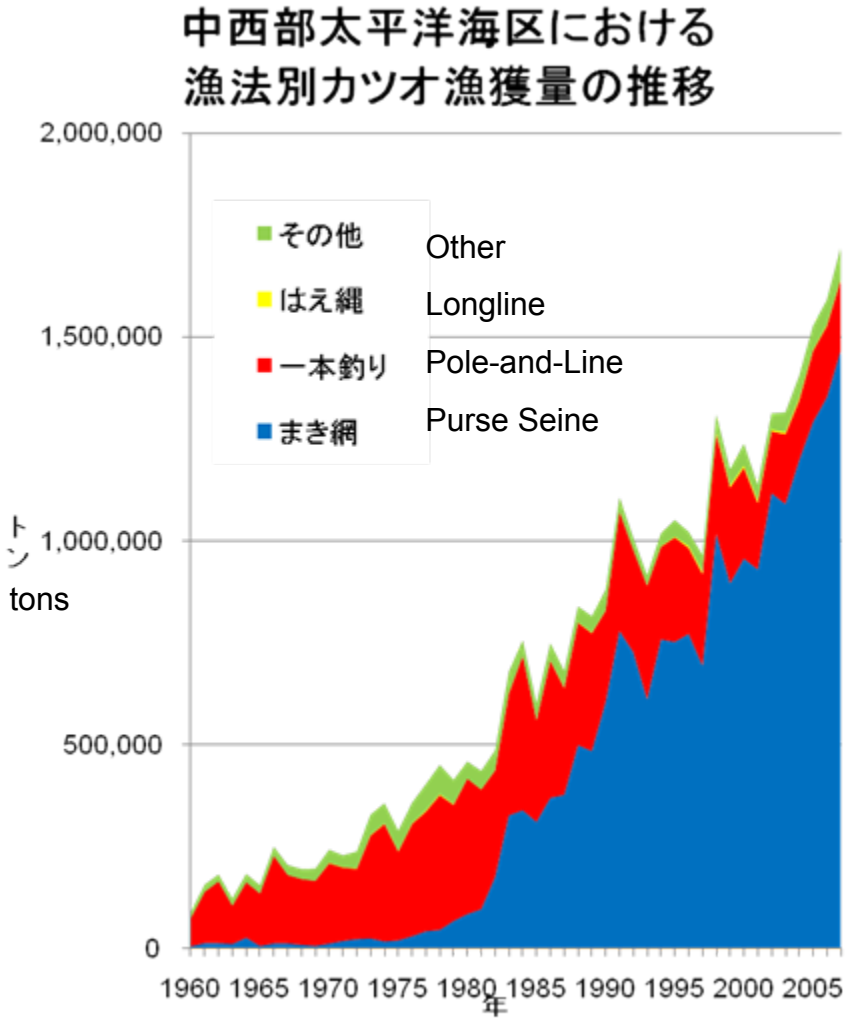
(Source) Fukuoka City Wholesale Market Annual Report, etc.

Fluctuation in the Amount of Skipjack Caught

Fluctuation in the Amount of Skipjack Caught Globally



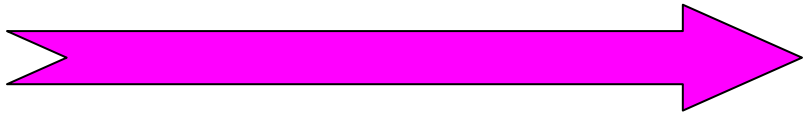
Fluctuation in the Amount of Skipjack Caught in the Western and Central Pacific Region, by Fishing Method



Fluctuation in Number of Taiwanese and Chinese FFA Registerd Purse Seiners

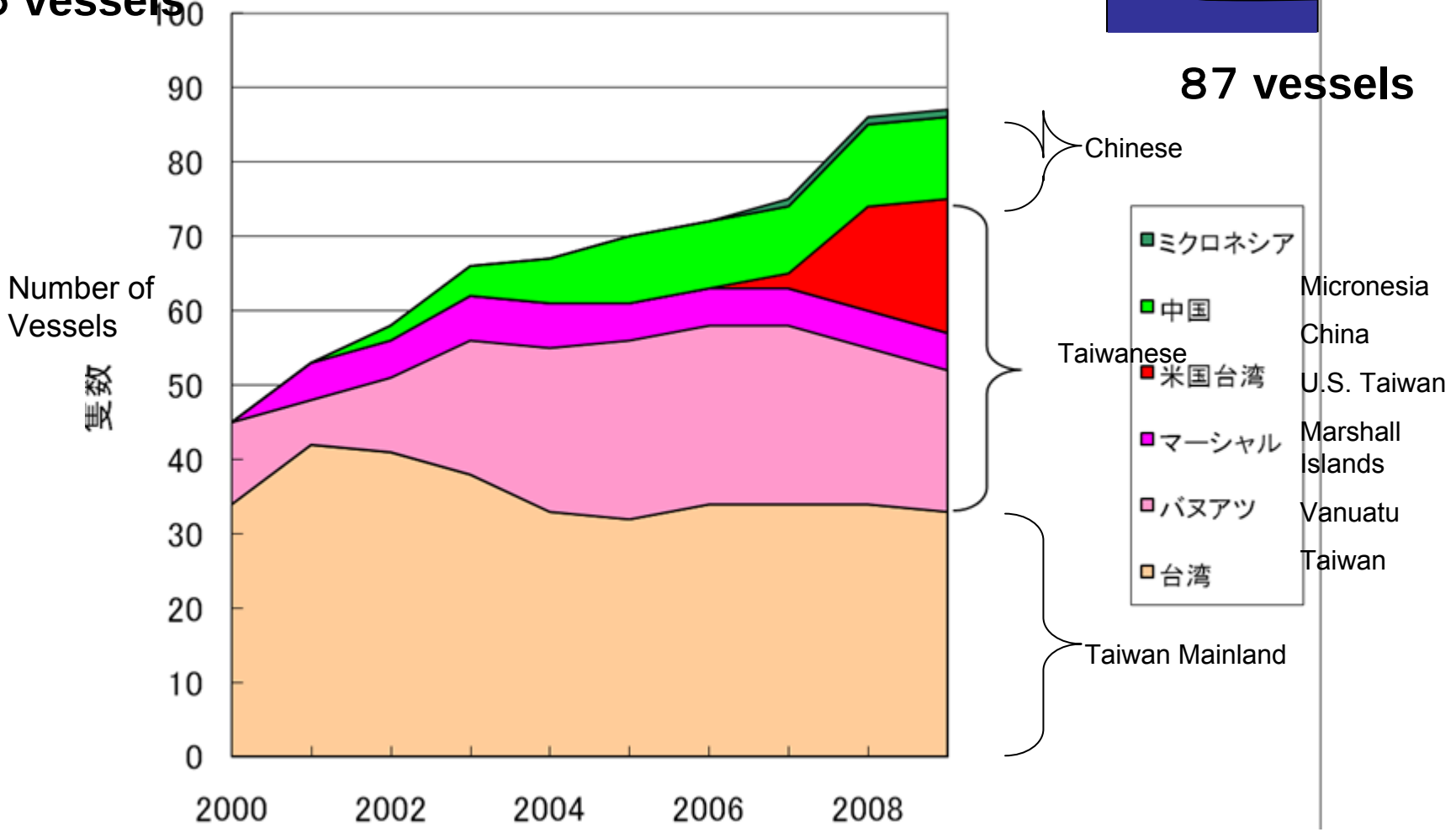
2000

45 vessels



2009

87 vessels



Schedule of Major International Conferences Related to Bluefin Tuna

２０１０年	
March 3月	•ＣＩＴＥＳ締約国会議（カタール） （大西洋クロマグロ附属書掲載問題）
May - July 5～7月	•マグロ地域漁業管理機関合同会合ワークショップ （スペイン、豪州） （監視取締、科学的助言、混獲、過剰漁獲問題の検討）
July 7月	•ＷＣＰＦＣ科学者会合（カナダ） （資源管理目標の検討等）
September 9月	•ＷＣＰＦＣ北小委員会（日本） （保存管理措置の部分見直し）
December 12月	•ＷＣＰＦＣ年次会合（ミクロネシア） （保存管理措置の採択）
２０１１年	
July 7月	•ＷＣＰＦＣ科学者会合 （資源評価の全面見直し）
September 9月	•ＷＣＰＦＣ北小委員会 （保存管理措置の全面見直し）
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CITES Conference of the Parties, Qatar
North Atlantic Bluefin Tuna Appendix Inclusion Issue