



OPRT

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FOR CONSERVATION AND SUSTAINABLE USE OF TUNAS

CITES CoP16

Current system on secret ballots should be maintained at CITES

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) will hold its 16th meeting of the Conference of Parties (CoP16) in Bangkok, Thailand, 3-14 March, 2013.

What is of concern to OPRT among various proposals to be discussed at the meeting is the revision of the current system of secret ballots. OPRT supports the current system which allows secret ballots with the support of 10 Contracting Parties. Should restrictions on the use of the secret ballot be made rigorous rendering it virtually impossible, the decisions of CITES could be unfairly distorted.

We are convinced that the secret ballot is an effective means that can ensure small countries to be free from any unfair economic and political pressure and retaliatory

action in connection with their voting. By maintaining the current system, fairness and soundness of CITES' decisions are ensured.

At the coming meeting, proposals have been tabled for the inclusion of whitetip shark, hammerhead shark, porbeagle and manta rays in Appendix II. OPRT opposes these proposals because we believe that marine species, especially highly migratory species, should be managed by the relevant regional fisheries management organizations (RFMOs) which have various practical means to conserve and manage the species with the advice of their scientific body, unlike CITES that has only trade restrictions as management measures, which could unreasonably disrupt sustainable use of the resources.

OPRT Seminar

Can WCPFC stop bigeye overfishing?

An OPRT seminar under the theme "Will overfishing of bigeye tuna in the Western and Central Pacific stop?—expectation toward the five-year program for recovery of bigeye tuna stock" was held in Tokyo on Jan. 31, 2013. OPRT Newsletter International No. 42 reported the situation in which a grave concern has emerged over the sustainability of the bigeye tuna stock in the western and central Pacific—the main producing ground of bigeye tuna in the world (See Note)—due to decline of the stock. This seminar was held with the explicit aim to deepen our understanding of the situation. A large number of people, including those related to tuna fisheries, mass media and ordinary public, attended the seminar, indicating high level of interest in the issue.

(Note: According to the statistics of the U.N. Food and Agriculture Organization (FAO) in 2010, the bigeye tuna production in the world totaled 359,000 tons, of which 109,000 tons were produced in the western Pacific.)

Lecturers at the seminar were Dr. Ziro Suzuki (who has attended tuna-related Scientific Committee meetings as a tuna biologist) and Mr. Akihiko Yatsuzuka, Director, National Tuna Fishery Association (who attended



meetings of the Western and Central Pacific Fisheries Commission (WCPFC) and has a comprehensive knowledge of the discussion in the Commission).

Dr. Suzuki made his presentation as follows.

Overfishing of bigeye tuna is now taking place in the

western and central Pacific. The WCPFC decided on measures to reduce the fishing mortality of bigeye to the 2001-2004 level. While efforts to reduce the mortality have been observed in longline fishing, the effort by purse-seine fishery has not been curtailed, but rather exceeded the target reduction level by as large as 46%. As a result, the bigeye catch by purse-seine fishing vessels reached an all-time high level of 77,095 tons in 2011.

The WCPFC also set a three-month period banning the use of Fish Aggregating Devices (FADs)--devices that catch small-size bigeye and yellowfin tunas incidentally. But the number of sets of FADs outside the banned period increased in 2011, also registering the record number of sets in 2011.

Thus, Dr. Suzuki made his comments based on the data made available at related meetings, and pointed out the fact that management measures are not working for purse-seine and FADs.

Further, he reported that the Scientific Committee recommended to the WCPFC to curtail excessive fishing capacity, including tightening of regulations on FADs operation.

Mr. Yatsuzuka pointed out that purse-seine bigeye catch exceeded the longline catch of 67,599 tons in 2011 for the first time in the past decade. When comparing by converting the catch volume into the number of fish, it follows that 96% of overall number of bigeye catch is taken by purse-seine fishing vessels, making it certain that their impact on the stock is enormous. On top of that, the number of purse-seine fishing vessels continued to increase to 283 as of 2011, and their excessive fishing capacity is posing a further serious threat.

By saying this, Yatsuzuka explained in detail the background in which the management measures to stop overfishing of bigeye tuna adopted by the WCPFC have been rendered virtually ineffective.

Further, he pointed out that cooperation by all the countries concerned with no exception is essential for the effective conservation and management of tuna resources, because of the highly migratory nature of tuna species. But the introduction of conservation and management measures with no exception at the WCPFC is difficult because there are many developing island countries in the region, to whom the WCPFC endorses special consideration for their requirements to develop their tuna fisheries. Although Yatsuzuka respects such endorsement for the developing countries, the outlook for the recovery

of bigeye stock is quite bleak, he added.

A seminar participant commented that dialogue among countries concerned should be advanced more vigorously to find solution to the issue.

Yatsuzuka responded that the WCPFC should be the forum for such efforts. But as long as he has observed the commission by attending its meetings, it appears that constructive dialogue is fairly difficult at present.

The WCPFC is expected to develop before the end of this year the multi-year management program, which purports to eliminate overfishing of bigeye in five years from 2013. There is no path toward solution of the issue, other than hoping that effective program is developed and implemented.

Dr. Miyake's Tuna Chat

Who has to provide evidence?

Dr. Makoto Miyake

Visiting Researcher at the National Research Institute of Far Seas Fisheries

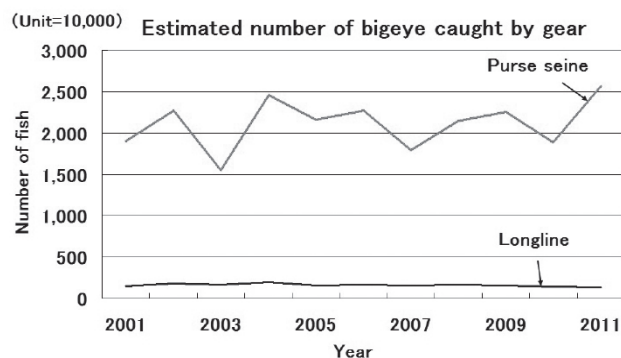
When we watch a black and white movie, most of the scene is actually filled with different tones of grey. We can not have it just in pure black and white. Similarly, there are often 'grey' areas of debate in matters relating to adopting a fishery management measures. In the court of justice in most developed states, the prosecuted is considered to be innocent, until the prosecutor proves that he is guilty with convincing evidences. The responsibility of providing evidence is on the prosecutor. On the other hand, there is other type of principle in which the prosecuted is considered guilty, until he proves himself innocent. (Criminal Procedure in Napoleon Code).



Very often, we face a similar situation to such criminal procedures, where we have to make a clear judgment and decision. When it comes to the risk management, the Napoleon code tends to be applied. i.e. until safety is confirmed, they should be considered as dangerous. Then, does 100% safety need to be confirmed, or is 80% or 60% acceptable? The problem is where the line can be drawn for making such decisions.

Since the principle of precautionary approach has been adopted in fishery management, the decision-making process is often very controversial, as the interpretation of this approach differs among people. I have had several experiences relating to this subject, and I can not forget the extreme case I had in one RFMO Scientific Committee, a few years ago.

At the floor, all of a sudden, it was proposed that all longliners must take seabirds mitigation measures in an entire Ocean. It was common knowledge that the interaction between tuna longline fishing and seabirds



(Data source:SC8-2012/ST IP-1. Table 1. 3 and 5)

occur mostly in high latitude areas. So I argued that there was no reason to expand such measures to the entire ocean, where no seabirds by-catch occurs. The group who proposed this measure insisted that there had been no report showing there is no by-catch occurred in past in the low latitude areas and hence the mitigation measures have to be applied to all the areas. I further argued that a sudden introduction of such measures would require a great cost and sacrifice in labor for fishers: without any evidence to show such interaction exists, we cannot convince fishers to accept such decision, particularly since the fishers know through experience that they would not by-catch seabirds in most of their fishing grounds. Unfortunately, the majority agreed that until evidence is given that seabirds are not captured by the longline in the tropical waters, they should take precautionary mitigation measures.

At the Commission meeting, however, this extreme recommendation was not adopted and in a couple of years, Japanese scientists gathered enough information to prove that there has been no seabird by-catch in the area under question. This is an example of a twisted application of the precautionary approach for the managements. Currently, so-called hot spots (by-catch area) have been identified and mitigation measures are introduced only to those areas.

In future, such an unexpected sudden attack to the fisheries might increase. The problem is whether the fishers have to prove all the time that they are innocent in all these problems, or such a proposal should come on the basis that fishers are guilty. The difficulty is that suspicions can be raised very easily, often based on rumor, whilst proving evidence for innocence is very difficult, even more than proving evidence for guilty. The precautionary approach should not be applied only on a baseless suspicion but instead, should be through a risk analysis based on certain evidences of guilty and/or innocent. Furthermore, even with the risk analyses, 100% probability of either side would be very rare. Therefore the decision should not be made on 100% probability but on a certain acceptable limit in the probability of risk. Besides, we should remember that those measures can be always re-analyzed and changed depending on the new situation and/or evidences.

Ziro's Critical Eye

Bluefin tuna raised by aquaculture survive at sea

Dr. Ziro Suzuki, Tuna Biologist

In 2002, Kinki University succeeded to culture bluefin tuna for the first time in the world. Last October it released 1,862 juvenile bluefin raised by aquaculture into the sea off Japan's Wakayama Prefecture. The juveniles are third generation tuna raised from the eggs in a pen. So, they have no relationship whatsoever with wild fish.

Each fish was marked with a tag. Among them, a special tag for recording the water temperature, depth, migration route etc. was attached to 11 fish. Reportedly, 8 among the



total 1,862 fish tagged were captured 30-45 days after their release. However, no special tag was recovered. Still, the results at least prove that bluefin tuna raised by artificial means can survive at sea.

From the viewpoint of a scientist, it seems that a new stage of bluefin tuna aquaculture has started. Namely, in the near future aquaculture may become a useful means to recover a stock which is overfished. There are still many problems to be solved including the impact on biodiversity, genes, etc. caused by the release of cultured fish into the sea, but I hope the study makes good progress to realize aquaculture's usefulness soon.

Editorial

Record price has no relationship to bluefin tuna conservation

The record price of USD1.76 million paid for one 222 kilo Pacific bluefin tuna during the New Year's first auction at Tsukiji fish market in Tokyo has captured the world's attention. However, the price paid for this single tuna has no relationship whatsoever to the market price for bluefin tuna in Japan or the current biological status of bluefin tuna resources.

The first auction of the year at Tsukiji fish market, the largest in the world, brings higher bidding as a traditional business ceremony in the fisheries industry circle to celebrate the New Year. In our view, however, such record price this year was brought about by a sense of national pride by the winning Japanese bidder who is the owner of a Japanese restaurant chain. The competing bidder is the owner of a Hong Kong sushi restaurant chain. Reportedly, once the bidding, which started at a much lower level, began to exceed each other's expectations, neither could give up easily. Thus, the hard bidding occurred. Our view may be confirmed by a statement of the winning Japanese owner of the restaurant chain who provided the tuna sushi at a regular cheap price saying, "The tuna was harvested off the Japanese coast. One piece for each one guest so that many Japanese people can share the happiness".

Fish is a major food for the Japanese people and tuna is one of the popular fish because it is historically consumed as traditional sushi and sashimi cuisine. Naturally, the Japanese people want the sustainable use of tuna resources and therefore support their conservation and management by regional tuna fisheries management organizations established for all the oceans because of the highly migratory nature of tunas.

Tuna Science

Pacific Bluefin Tuna: "Where does its juvenile come from?"

Osamu Abe
 Head, Pacific Bluefin Tuna Biology
 Group, National Research Institute of Far
 Seas Fisheries

Important information on the stock management

Earlier information of annual juvenile abundance is essential for planning appropriate stock management of the Pacific bluefin tuna (PBT). It would contribute to earlier estimation of annual recruitment level which facilitates more accurate, rapid stock assessment and the rational stock management.

However, as it is now, it is difficult to evaluate the annual juvenile abundance at early stage. Because its "migration route" from its spawning area has not yet been clarified until they are targeted by the pole and line fishery near Tosa Bay and Goto Islands for aquaculture seedling, we still do not have the adequate methods to monitor the juvenile abundance before its recruitment.



Difficulties in catching juveniles

The difficulties to monitor the annual juvenile stock abundance arises for several reasons: its large fluctuation in relation with the oceanographic conditions; separation of the juvenile schools from Nansei Islands into two migrating areas in the Pacific side and in the Sea of Japan; mixture of the juvenile schools in the Sea of Japan having different origins from Nansei Islands and from the Sea of Japan; and so on. Another reason was we did not have adequate methods to catch smaller juveniles (10 - 14 cm) before they are targeted by pole and line fishery.

High speed trawling technique is required to catch PBT juvenile which has high swimming ability; however, it was difficult to tow trawl nets in the high speed Kuroshio Current. Therefore, we have devised the trawl nets to be operated stably even in the strong Kuroshio Current, resulting in the first successful catch of 10 - 14 cm PBT juveniles around Amami-Oshima Islands and Yakushima Island from June to July 2011, and showed the juveniles distributed densely especially from the center to the north



Fig. PBT juvenile (11.8 cm in standard length)

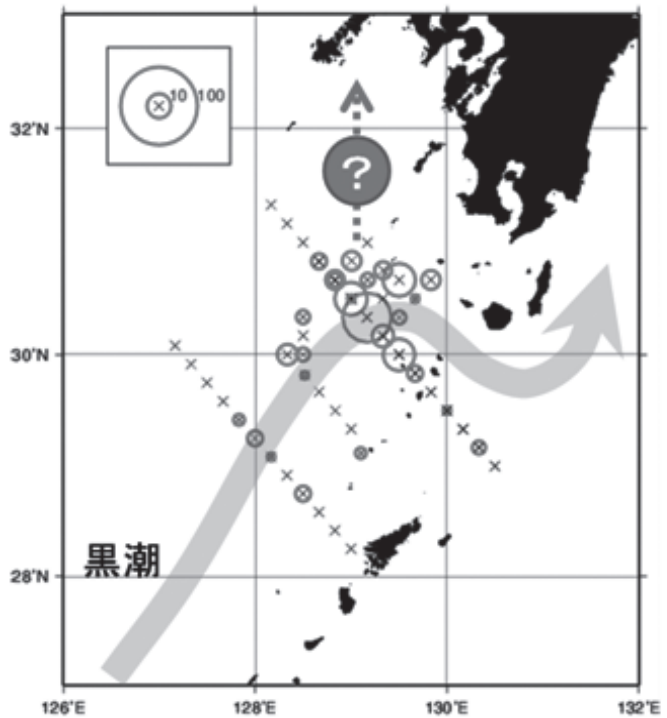


Fig. Kuroshio Current and distribution of PBT juveniles.
 A migration route of PBT is suggested; PBT schools migrating northwardly along Kuroshio Current, and some of them separate from the schools off the west coast of Yakushima Island to move up north off west Kyushu.

edge of Kuroshio off the west coast of Yakushima. The similar surveys conducted in 2012 confirmed the results obtained in the previous year.

Migration route becoming more obvious

Previous studies showed that small PBT larvae, which were less than 20 days old after being hatched, distributed widely around Nansei Islands including off Yaeyama Islands and Okinawa Main Island, while PBT juveniles of 1 - 2 months old (2 - 10 cm) were found mainly near Kuroshio Current region and the larger fish appeared coming up north. Together with the current study, the "migration route" of PBT juveniles was suggested; their schools migrate northward with Kuroshio, then some part of which separate away from Kuroshio off-west of Yakushima Island to move up northwardly off the west coast of Kyushu, and the remaining schools migrate to the Pacific side of Honshu and Shikoku.

Our study indicates that the PBT juveniles before their recruitment probably pass through off the west coast of Yakushima Island. For the future, focusing around this area, we would like to investigate developing the appropriate methods to monitor the annual juvenile abundance reasonably. Also, we would like to proceed with analyzing the marine environments to find out the key oceanographic factors to evaluate the separate ratio of juveniles to the Pacific side and to the Sea of Japan. Through these studies, we would like to contribute to improving accuracy in PBT stock assessment, and then consequently sustainability of the stock.

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