



OPRT

NEWSLETTER INTERNATIONAL MAY 2010, No. 28

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FOR CONSERVATION AND SUSTAINABLE USE OF TUNAS

Tuna research

Conservation of tuna resources --at the forefront of research in Japan--

Interview with Yoshio Ishizuka,
Executive Director (Director of Tuna Institute),
the Fisheries Research Agency

The issue of the Atlantic bluefin tuna was taken up in the agenda of the 15th Conference of Parties (COP15) of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) held in Qatar in March this year. This topic was covered extensively by the media, attracting broad public interest. It is anticipated that the importance of conservation and management of tunas (not only bluefin) which are international resources will become even greater in the years ahead. OPRT interviewed Mr. Yoshio Ishizuka of the Fisheries Research Agency on how Japan is now conducting the research of tuna resources.

Q: Does the Fisheries Research Agency have a tuna institute?

ISHIZUKA: It's called the Tuna Institute but it does not have any building dedicated for that purpose. It is the agency's program to draw together the information from tuna researchers working at the agency and promote effective studies on tunas.

It is, so to speak, a virtual institute, indicating that the agency is attaching emphasis to research on tunas.

Q: About how many people are involved in the tuna research?

ISHIZUKA: There are about 30 researchers. At the National Research Institute on Far Seas Fisheries, studies are promoted on the ecology and stock management of tunas, and there are scientists who engage in the development of bluefin tuna seeds throughout the year in Amami Oshima Islands in southernmost Japan. When the scientists who engage in the research of other fish species but also study such subjects as the ways how to provide tasty tunas to consumers are included, the number may reach 50.

There are about 500 researchers at the Fisheries Research Agency, and about 10% of them are related to the studies on tunas in some ways or other. They are working on more than 30 research themes on a daily basis.

Q: What specific studies are being carried out?

ISHIZUKA:

Research and assessment of natural resources is emphasized most. This study started soon after the end of World War II and has lasted more than 50 years.



Q: In proportion to the length of the research period, there seems to be much left unknown about tunas.

ISHIZUKA: You hit me on a sore spot. When we study tunas, there's a lot more to it than we'd think. There are many things we don't know yet. Our major research theme is to manage properly the Pacific bluefin tuna migrating around Japan. Fortunately, viewed in the span of past 50 years, the state of spawning biomass of the Pacific bluefin tuna is now said to be on the average of the 50 years.

But the number of the Pacific bluefin tuna spawned and the recruitment amount (the number of eggs hatched and grown) change drastically from year to year. There are differences in the range of about 10 times according

to years. There are times when recruitment is large even when spawning biomass is small, and there are also reverse situations. If a large number of tunas are caught when recruitment is small, there arose a possibility for the stock to decline.

For this reason, it is very important to examine accurately and quickly the stock status of tunas, such as recruitment.

Q: Why does recruitment differ so drastically from year to year?

ISHIZUKA: Even supposing that the number of eggs spawned by the bluefin tuna remains the same every year, the rates of survival from eggs to juvenile fish differ according to environmental factors, such as the amount of feed organisms.

Last year, a survey incorporating such environmental factors was carried out near the Kume Island in Okinawa Prefecture, the area said to be the spawning ground for bluefin tuna, and we succeeded in collecting many bluefin tuna juveniles for the first time in the world.

The same survey will be launched in the Sea of Japan as well in the new fiscal year.

Q: I hear that research has been promoted to reduce bycatch of immature tunas.

ISHIZUKA: There is a fishing method called purse-seining which is designed to catch tunas and skipjack tunas by finding their schools and surrounding them with large nets. This fishing method originally targets skipjack tunas, but there are cases where small bigeye tunas which will grow from now are also caught incidentally by that method. This is causing a negative impact on the population of bigeye tunas. We are also engaged in the studies to resolve such bycatch issue.

Q: In what way do you think this issue can be solved?

ISHIZUKA: We are taking various approaches such as enlarging mesh size or changing the depth of nets. We are also exploring the possibility to develop fishing methods to catch only targeted fish by using the differences of light or sound sensitivity between bigeye tunas and skipjack tunas.

Q: Recently we often hear about tuna farming.

ISHIZUKA: The number of bluefin tuna juveniles used as seeds for tuna farming in Japan is said to be 400,000 to 500,000 fish. As I said earlier, there is no problem when the recruitment is large. But when it is small, the catch can give a negative impact on the population because it is wild fish that are used for farming.

For this reason, we have been promoting development of production technology of artificial seeds in cooperation with Kinki University and private corporations. Last year, Kinki University shipped about 30,000 seeds to private tuna farmers.

Q: That means the negative impact on natural

resources would be eliminated in the near future.

ISHIZUKA: Not so soon. We still need to develop further technology. In the case of flatfish and sea bream, the proportion of eggs to grow into seed stands at several tens of percent. But in the case of bluefin tuna, it is only 1-2%. The size of bluefin parent fish is large and much care is required to manage them.

Add to that, the environment to control delicately the changes of water temperatures is necessary in order to have the parent fish to spawn eggs on a stable basis. It means there are still much to do. But these are issues that must be overcome in order to ensure sustainable utilization of tuna resources for which demand has been increasing on a global scale. It is our hope that the Japanese government will build a facility for development of such technology and contribute to the benefit of the international community.

Q: Do you think that there will eventually be no need to catch tunas in the wild?

ISHIZUKA: I don't think wild tunas will become unnecessary. Using wild tunas on a sustainable basis by using the natural productivity is an approach friendly to the environment and that should be pursued in the first place. However, research on seed production is indispensable to alleviate pressures to the natural resources as dependence on the wild resources is very heavy at present. It is needless to say that the best way is to manage the natural resources properly without causing their deterioration.

Q: I also heard that study is underway to produce high-quality tunas by examining genetic information.

ISHIZUKA: We are now analyzing the genetic base sequences of tunas with the aim to produce tunas having high growth rate and those having a strong resistance against disease. It is our hope to contribute to production of disease-resistant tunas by examining what kind of information the sequences take command.

Q: At CITES COP15, the bluefin tuna came in the limelight in the world. How should consumers understand this turn of events?

ISHIZUKA: What I wish for ordinary consumers to know is that tunas are by no means an endangered species like coelacanth. In point of fact, the tuna is a species that has sustained continuous annual catch in the amount of several tens of thousand tons. It is quite different from a rare species whose number can be scarcely counted. If tuna stock management is implemented properly, we can be assured that the stock size will increase. Fish, not only tunas, are the resources that can be used nearly permanently in the future if they are used in an appropriate manner.

It is man who should contemplate wisely on ways to avoid excessive catch. I think this is a very important point to be kept firmly in mind.

CITES on Atlantic bluefin tuna

CITES rejects the proposal to list the Atlantic bluefin tuna in Appendix I

The 15th Conference of Parties of CITES, held March 13-25, closed its session by rejecting the proposals to list the Atlantic bluefin tuna, sharks and precious corals in CITES Appendices.



Mr. Hirotaka Akamatsu, Japan's Minister of Agriculture, Forestry and Fisheries, made the following comments regarding the results of the meeting.

"Japan's position is that the most appropriate approach to fishery resource management is that the competent regional fisheries management organizations (RFMOs) manage the resources accurately based on scientific evidence with respect to the resources for which sustainable use should be ensured. The outcome of the CITES meeting this time clearly indicated that Japan's position was duly appreciated in the international society."

"At the same time, we must also admit that a considerable number of countries gave support to the inclusion of the Atlantic bluefin tuna in Appendix I, i.e. total prohibition of the trade. In the background of this move, there appears to be an awareness of the issue that the stock management by RFMOs has not achieved adequate effectiveness."

"If this situation is left as it is now, there is a concern that not only the Atlantic bluefin tuna but other tuna species may be proposed to be subject to CITES regulations in the future.

"In order to dissipate such a concern, I think it is crucial for us to make fully effective the stock management by various RFMOs and governments."

"To this end, Japan is committed to assume an even greater leadership toward establishing a scheme in which RFMOs could decide solid stock management measures based on scientific stock assessment and member States would strictly comply with those measures. Furthermore, Japan is ready to lead the effort to prevent overfishing of

tunas in close and reinforced cooperation and coordination with developing countries.

"Japan is also determined not to import any seafood caught in violation of the RFMOs' regulations."

"With respect to full-scale bluefin tuna farming that would not cause any adverse impact on the natural resources, Japan is determined to exert utmost efforts in establishing, propagating and promoting actual application of the bluefin tuna farming technology," Mr. Akamatsu said.

Pacific bluefin tuna

Japan set to reinforce management of Pacific bluefin tuna stock

The Fisheries Agency of Japan announced on May 11 its policy to reinforce stock management of the Pacific bluefin tuna as a responsibility of Japan as the biggest fishing and consuming nation of the species in the world.

Specifically, the agency will develop a stock recovery plan before the end of this fiscal year ending next March, with a special emphasis on large- and medium-scale tuna purse-seine fishing and trolling. Furthermore, the agency will introduce the registration system for bluefin tuna farms and oblige farmers to report on the results of their activities.

The agency aims to implement the plan from fiscal 2011 starting in April of that year.

Commenting on the stock management reinforcement plan, Agriculture, Forestry and Fisheries Minister Akamatsu stated that Japan has a great responsibility for sustainable use of bluefin tuna as the largest fishing and consuming nation. The agency's guidelines have, as the main pillars, the reinforcement of stock management measures by the government, effective approach in international negotiations and strengthening of research.

Akamatsu was speaking at a press conference after the Cabinet meeting on the same day.

Reflecting the rising concern over management of bluefin tuna stock in the international community, the Minister indicated Japan's willingness to continue to take a lead the promotion of stock management of the Pacific bluefin tuna, for which there is no apparent population problem under the current conditions.

The agency's basic policy is specifically intended to promote stock management of the Pacific bluefin tuna by restraining and reducing the catch of immature tunas so that grown-up tunas may be able to be harvested. The policy will also see to it that the spawning biomass of this species, which is subject to large fluctuations, will be maintained within the appropriate scope of changes in the medium- and long-term ranges of five to 10 years so that the stock may be managed not to fall below the low levels that lasted to this day.

The three major concrete steps presented in the policy are: (1) strengthening of domestic stock management; (2)

effective approaches in international negotiations; and (3) promotion of research and studies on bluefin tuna.

With respect to reinforcement of stock management in Japan, the following three approaches will be highlighted:

(1) Appropriate management measures for large and medium-scale purse-seine fisheries will be introduced which are commensurate with the fishing reality, including closed season, size regulation and individual catch quotas; (2) The registration system will be implemented with a perspective to limit the number of fishing vessels for free-type fisheries such as trolling in the future, and submission of reports on catches will be made mandatory; and

(3) The farm site should be strictly registered as the "Bluefin tuna farm" as a type of fishing-right-based fisheries, and farmers should be obliged to submit reports on farming activities in order to ensure accurate information on the actual state of farming.

As for the above (1) and (2), a stock recovery plan for the Pacific bluefin tuna will be developed within the current fiscal 2010, with a view to enforce it from fiscal 2011.

While Japan reinforces domestic fisheries management, it will approach RFMOs in a constructive manner and will engage in active negotiations with other countries. Japan will report on its policy to reinforce bluefin tuna resource management at a meeting of the Northern Committee of the Western and Central Fisheries Commission (WCPFC) to be held in September.

Japan will also act on Mexico, a country which catches the bluefin tuna from the same stock, to join in the WCPFC's framework. On May 1 this year, Minister Akamatsu visited Mexico and requested Francisco Javier Mayorga Castaneda, Secretary of Agriculture, Livestock, Rural Development, Fisheries and Food, for cooperation to the WCPFC's effort toward the stock management of the Pacific bluefin tuna.

Along with promoting reinforcement of management, Japan will also step up its endeavors in the research and studies on bluefin tuna. Especially, efforts will be directed to the collection of information on spawning grounds where only limited knowledge is currently available. The agency will also boost its effort to develop technology for full-scale tuna farming with a view to achieve artificial bluefin tuna seed release.

OPRT News

Micronesia and Malaysia join OPRT

The Federated States of Micronesia National Offshore Fisheries Association (FSM-NOFA) and the Malaysia Tuna Association (MTA) have newly joined OPRT, after their membership applications were endorsed at the OPRT Board Meeting on May 12.

This brought the number of OPRT full members to 21 organizations, of which 10 are foreign organizations.

FSM-NOFA was established in 2004 as a national

organization of the fisheries industry (which includes fisheries, seafood processing and distribution sectors). FSM-NOFA hopes to develop the country's distant-water tuna longline fishing with the cooperation of Japan. It plans to register nine fishing vessels with OPRT.

The Malaysia Tuna Association was set up in 2008 as a national organization of the tuna fisheries industry. It also hopes to develop and promote tuna fishing with the cooperation of Japan in line with Malaysia's Tuna Development Plan approved by the Indian Ocean Tuna Commission (IOTC). MTA plans to register 5 fishing vessels with OPRT.

OPRT President Toshiro Shirasu said: "We heartily welcome the membership of the two organizations. They agreed on limiting the number of their fishing vessels, which is a prerequisite for the OPRT membership. It is good to see that the number of friendly organizations increases, who join forces to promote responsible tuna fisheries, such as restraint and elimination of illegal, unreported and unregulated (IUU) fishing activities as well as control of overfishing capacity."

Editorial

Lessons from CITES COP15

The proposal to list the Atlantic bluefin tuna in CITES Appendix I was rejected at the recent CITES Conference of Parties. But why was such a proposal taken up as an issue at CITES, while there exists the International Commission for the Conservation of Atlantic Tunas (ICCAT), a full-fledged resource management organization? The prevailing view is that the biggest reason is that ICCAT failed to ensure compliance of fishing regulations it has set for recovery of the Eastern Atlantic bluefin tuna stock. Also, many people point to the responsibility of Japan as the biggest importer of the bluefin tunas from the region as another reason for inducing such non-compliance.

What then are the facts? The Japanese government has taken measures to rigorously examine the ICCAT catch documents and to suspend importation of about 2,300 tons of Atlantic bluefin tunas doubted to be caught in an illegitimate manner. Further, Japan, as a tuna consuming and importing nation, has made clear its commitment to cope with the issue responsibly in the future.

No less importantly, it is crucial for producing and exporting countries of tunas to implement strict fisheries management not to allow the catch in excess of the quotas and the export of those catches. The effectiveness of conservation and management of the resources can be ensured only when both producing/exporting countries and consuming/importing countries to fulfill their responsibility rigidly. In face of the big question mark posed by CITES as regards ICCAT's competence in resource management, we expect that ICCAT member States strive to ensure accurate compliance with ICCAT regulations in order to demonstrate that ICCAT is truly an appropriate international organization for conservation and management of Atlantic bluefin tuna resources.