

Some Considerations on SRP Tagging Program

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Japan's view and considerations on future SRP tagging program were briefly summarized. Given concerns regarding possible low recruitment in recent years, continuation of the CCSBT conventional tagging is considered important because this tagging is currently the only way to provide an indicator of fishing mortality (F) of juveniles for surface fishery. For archival and pop-up tagging, Japan prefers to establish a complete collaboration program under the CCSBT, including all processes of planning for deployment, tag purchase and deployment, and data sharing under a common database which is managed by the CCSBT Secretariat.

今後のSRP標識放流プログラムについて、日本の考えを極短くまとめた。近年の加入量は低い可能性があるかと危惧されており、CCSBTによる通常標識放流の継続は重要と考えられる。なぜなら現状では、このプログラムが、漁業指標となる表層漁業の漁獲係数(F)を提供する唯一の方法だからである。アーカイバルタグとポップアップタグの放流については、日本はCCSBTのもとでの完全な共同プログラムがよいと考えている。このプログラムは、放流計画の全過程、タグの購入と放流、及びCCSBT事務局によって管理される共用データベースのもとでのデータの共有を含む。

We reviewed the overall tagging program under CCSBT Scientific Research Program (SRP) in 2004, after completing the 3rd year conventional tagging activity of the 5-year program by the CCSBT, and tabled a discussion paper at the 9th Scientific Meeting (Takahashi et al. 2004). Japan's view on future SRP tagging has basically not changed since then. Here we briefly summarize our view and considerations on future SRP tagging program.

CCSBT Conventional Tagging

This program has been operated and managed by the CCSBT Secretariat funded by Members. The final year tagging activity of the 5-year program was completed in 2005/06 season. Japan appreciates the Secretariat's great efforts to program operations and database development/maintenance.

In principle, we hope this program to continue. This is because the program is currently the only way to provide an indicator of relative fishing mortality rates (F) of juveniles, i.e., of recruitment, for surface fishery. Given the great concern regarding possible low recruitments in recent years, the tagging indicator of surface fishery exploitation is highly valuable.

Decision of whether this tagging program is continued should be made only after reviewing

and discussing the size/scale of tagging activity (e. g., the number of tagging fish, when and where fish are tagged), program designs and implementation problems, and revising them to improve efficiency. There is one point to be noted that if the size/scale of tag deployment is discussed to reduce, the program designs should be met at least to reliably estimate relative F for surface fishery because of the reason above.

Eveson et al. (2004) concluded that a certain level of observer coverage for longline fishery would provide acceptable estimates of reporting rates, natural and fishing mortality rates for young fish and juvenile abundance. At the same time, however, there have been recognized problems with feasibility and potential costs of increasing current observer coverage. It is important to consider real situation and limitations from a cost-benefit perspective when discussing program designs and implementation issues.

Recovery effort by each Member is also important to secure tag reporting from a cost-benefit point of view, compared to increasing observer coverage. Japan has continued to make effort for tag recovery using various approaches described in the 2003 ESC report (Anonymous 2003) and Takahashi et al. (2004) (e. g., promotion and advertisement of tagging program, placing a port liaison person, publishing news letters).

Past analyses done by Australian scientists using tag-recapture data (e. g., Eveson et al. 2004, Polacheck et al. 2004, Polacheck and Eveson 2005) provided interesting approaches and results. Japanese scientists did a rough analysis using these data as well (e. g., Takahashi et al. 2004). It is worthwhile that each Member's scientists also analyze the tag-recapture data (including data obtained from Recruitment Monitoring Program conducted by CSIRO/NRIFS collaboration) from various aspects, along with the objectives of the SRP tagging program.

Aside from technical issues, there are some complaints that majority of project money goes to Australia by hiring field technicians, deployment boats and a large bulk of rewards for tag recovery (Takahashi et al. 2004).

Archival and Pop-up Archival Tagging

Archival and pop-up archival tags are the most powerful devices to investigate movement patterns, detailed swimming behaviors, and relationships between movement/behaviors and oceanographic environments. Also archival and pop-up tagging may be an useful way to address issues related to mixing rates and stock structure of larger fish. However, they will

not provide immediate information directly usable to stock assessment and management because detailed and careful examination of collected data is necessary to obtain such quantitative information. Thus, at present it will be more appropriate to rely on research efforts by individual Members.

At the same time, however, because of high cost required for purchase and deployment of tags, the number of tags that can be released by each Member every year are limited, and so collaboration of Members merits to consider. Although Australia recently developed collaboration with New Zealand and Taiwan for tag deployment, Japan prefers to establish more complete collaboration under the CCSBT, not such a combination of several bilateral collaborations. Collaboration that Japan prefers includes all processes of planning for deployment, tag purchase and deployment, and data sharing under a common database which is managed by the CCSBT Secretariat (For tags that have been already deployed independently by a Member, data obtained from these tags must be protected for the Member). In this collaboration, all expenses required for tag purchase/deployment, advertisement and database management should be shared in even bases between Members. For tag deployment, it should be noted that tagging fish in open sea often costs much more than that in coastal waters.

Until the thorough collaboration described above is established, Japan will continue archival tagging independently as far as resources and fund for tagging are available. It has been noted that pop-up archival tags do not require recaptures of tagged fish. We were not able to resolve premature releases (earlier releases of tags from fish than scheduled) in our past feasibility study of pop-up tagging. As such, we have used archival tags only in recent years and will use them from cost-benefit (quality and amount of data obtained) point of view.

It is worthwhile to discuss global movement patterns between Members at future Scientific Meetings, bringing available results from archival and pop-up tagging research conducted by individual Members until then.

For both conventional and archival tags, each member must continue to make efforts to maximize tag recovery.

References

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