



**A Proposal for Multi-lateral Co-ordination and Co-
Operation in Electronic Tag Deployment under the CCSBT
Scientific Research Programme**

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Table of Contents

Abstract..... 1
Introduction..... 1
Underlying principles..... 2
Deployment Arrangements 3

Abstract

The CCSBT Scientific Research Program (SRP) identified a number of important components where it was recognized that substantial research was being conducted by member countries and it was decided to leave the responsibility for these components to the member countries. This included archival and pop-up tagging. A primary objective of such tagging is to improve our understanding of the large scale movements and regional interactions among SBT fisheries. As such, the more tags are deployed throughout the entire region where SBT occurs, the more general and robust the results will be and thus, the more benefit that will be obtained from such tagging.

The high cost and limited opportunities to tag from longliners is a restrictive factor potentially limiting the ability of each of these individual programs to disperse tags over wide geographic ranges particular if member countries deployments are conducted in isolation. With a number of CCSBT members now planning and/or conducting archival and pop-up tagging, co-operation among members in deploying tags will benefit the overall objectives of the CCSBT SRP. It is proposed that the most sensible and immediate form for initial co-operation is for members to assist each other in the deployment of tags during tagging cruises. (e.g. on tagging cruises run by Australia, upon request Australian scientists would deploy tags supplied by other members, at no cost). A detailed protocol for such co-operative deployments is presented for consideration by CCSBT Scientific Committee.

Introduction

The CCSBT initiated a Scientific Research Programme (SRP) in 2001 with the main objective being “to improve the quality of data used as input to the stock assessment and to contribute to the development of reliable indices to monitor future trends in stock size” (Anon 2001). As defined by the CCSBT Scientific Committee, the SRP consisted of nine components. Four of these components were initially selected for directed CCSBT initiative and work. For the other the other components, it was recognized that substantial research in these areas was being conducted by member countries. As such, it was decided to leave the responsibility for these components to the member countries with the full endorsement and encouragement of continued support.

Among the SRP components that were identified for continued research by member countries was the one dealing with archival and pop-up tagging. The CCBST Scientific Committee as part of its SRP discussions has recognized that archival tags can provide valuable information on mixing and movements rates that would be important for the interpretation and analyses of conventional tag and CPUE data (both of which are among the CCSBT directly run components of the SRP). The SC noted that the cost of tagging from longline vessels can be very high and members were “encouraged to deploy PAT and archival tags rather than

focusing only on conventional tagging” when conducting longline tagging operations (Anon. 2002).

Japan, New Zealand and Australia have all initiated archival tagging program from longline vessels as part of the CCSBT SRP. These programs have somewhat different objectives. For example, the Australian and New Zealand programs are focused on juvenile SBT (2-4 year old), while the Japanese programs is directed at older fish (sub-adult and adult fish).

However, a primary objective of all the programs is to improve our understanding of the large scale movements and regional interactions among SBT fisheries. As such, all programs have a need to disperse tag deployments over as wide a geographic range as possible. The more tags are deployed throughout the entire region where SBT occurs, the more general and robust the results will be and thus, the more benefit that will be obtained from these programmes.

The high cost and limited opportunities to tag from longliners is a restrictive factor potentially limiting the ability of each of these individual programs to disperse tags over wide geographic ranges if deployments are conducted in isolation. Given the different objectives and age ranges being targeted by these programs, results from the different programs will have only a limit ability to contribute to each other objectives. Nevertheless, there is a large potential gain and avoidance of costly duplication if reciprocal arrangements exists that would allow for different programs to deploy tags for other programs. This document is a proposal for formalizing cooperative and reciprocal archival tag deployment arrangements under the CCSBT SRP.

Underlying principles

Deploying archival and pop-up tags is expensive (vessels time, scientist involvement, tag costs etc) and involves significant logistical planning and expertise in tagging methods. With a number of CCSBT members now planning and/or conducting archival and pop-up tagging, co-operation among members in deploying tags will benefit the CCSBT SRP.

The most sensible and immediate form of co-operation is for members to assist each other in the deployment of tags during tagging cruises (eg. On tagging cruises run by Australia, upon request Australian scientists would deploy tags supplied by other members, at no cost).

Below is a proposed protocol for co-operation in tag deployment.

Deployment Arrangements

1. A member wishing to have another member deploy archival tags for them will contact that member through the CCSBT secretariat as soon as possible indicating the number of tags that they would like to have deployed along with the size range and any other requirements (tagging method, data requirements etc).
2. A member receiving such a request will respond through the CCSBT secretariat as soon as possible (preferably within two weeks?) indicating whether it is able to meet the request and if not, providing an explanation of why it is unable to. If it responds positively, then it will supply information on the specific intended cruise date, the contact person for the cruise, instructions on where tags should be delivered and by when, and any other requirements.
3. A member requesting that another member deploy tags for them will be responsible for supplying the tags (including their cost) and logistical arrangements involved in getting the tags to vessel or agency conducting the tagging.
4. A member undertaking tagging for another member assumes no responsibility or liability for the tags provided.
5. To ensure consistency of tagging techniques, opportunities for sharing experience and training in tagging techniques should be encouraged. In particular, a member requesting that tags be deployed by another, are encouraged (at their own expense) to send someone to meet and work with the person or persons that will be doing the tagging prior to a cruise departure to coordinate the details of the tagging and techniques to be used.
6. Members undertaking reciprocal deployments are encouraged to provide opportunities for the exchange tagging personnel in actual field operations.
7. Any tags that were not able to be deployed will be returned to the member that provided the tags as soon after the tagging operations as possible, unless specific other arrangements have been made.
8. On completion of a cruise involving shared deployments, information will be provide to the CCSBT Secretariat on the number of shared tags deployed, number that were not able to be deployed and any problems encountered. The CCSBT Secretariat will

provide a summary report to the CCSBT Scientific Committee on all shared deployment arrangements that have taken place during a year and any problems arising from these arrangements.

9. Data under these arrangements will belong to the member providing the tag and subject to all agreed data sharing arrangement under the SRP or CCSBT data sharing requirements.
10. Members are encouraged to coordinate and collaborate on the design of archival tag release programs to maximize the overall benefit from various individual programs.