

# ICCAT-GBYP Steering Committee

Sete; December 12-14, 2012

Participants: Jean Marc Fromentin, Driss Meski, Tom Polacheck, Clay Porch and Josu Santiago. Invited: Antonio Di Natale, M'Hamed Idrissi, Laurie Kell.

## 1. Appointment of Chairman and Rapporteurs

Josu Santiago was selected as chair for the meeting, L. Kell and T. Polacheck acted as rapporteurs. A. Di Natale and M. Idrissi edited the report.

## 2. Meeting Arrangements and Documents

The Meeting was hosted by ICCAT in cooperation with IFREMER at the Le Grand Hotel, Sete. The draft agenda was reviewed and adopted (**Appendix 1**). Principle documents were distributed to the meeting participants via the e-mail prior to the meeting and a complete set of documents were distributed to the participants at the beginning of the meeting on USB memory stick. The full list of documents is provided in **Appendix 2**.

## 3. Review of Action Items from Previous Meetings

A table of **Actions and Recommendation** from the previous Steering Committee meeting is attached as **Appendix 3**. This table was used to help review activities in Phase 3, see below.

## 4. Summary and Revision of the activities in Phase 3

### 4.1 Review of Activities and Procedures

The Coordinator provided in advance an executive summary covering the activities carried out under Phase 3. Some activities are still in progress as the completion date for Phase 3 is January 20, 2013.

The Steering Committee then considered the individual activities of the GBYP

### 4.2 Data Recovery

The main data recovery activity identified under Phase 3 was an assessment of the data available in the Ottoman Archives with respect to historical catches of BFT in tuna traps. No bids were received in the initial call for tenders for this work, but after a second call a contract was awarded to a Turkish specialist (Dr. Ali Fuat Orenç, Istanbul) to document the Ottoman Archives and provide a plan for recovering the data in Phase 4. The final report including documentation of the extent and type of available data will be delivered in January 2013. It may be necessary to hold a meeting in Istanbul in 2013 to help clarify the types of information available and to fully develop a plan for the best strategy for recovering the relevant data.

### 4.3 Biological and Genetic sampling

The SC noted that substantial work on the analyses of collected biological samples was completed in 2012 during the Phase 2 extension (REF: Biological & Genetic Sampling and Analyses – Final Report). Contractual problems meant that the start of the contract and work were delayed in Phase 3. Nevertheless, the Consortium was able to achieve its main objectives with respect to collection of biological samples (**Table 1**). The SC noted that no samples were able to be collected to date by the Consortium from the southern Mediterranean and that this could compromise the robustness of the overall conclusions from this work. The SC recommended that efforts should be made to rectify this. In particular, it was noted that biological samples had been collected in Libya this year but difficulties have been encountered in having these samples transmitted to the Consortium. The SC recommended that a solution to this problem should be sought before the end of the Phase 3 work so as to improve the geographical coverage of the collected samples. No information was available at the meeting on the analyses of the biological samples that had been completed under the Phase 3 contract. However, the work is still in progress and the final report was not due until the end of January. The SC recommended that extension of the Phase 3 contract beyond its end date should not be undertaken because of the increased administrative work involved in any such extension.

Overall, the SC considers that this program has been highly successful in the progress it has made in the collection and analyses of biological samples and that these will provide the basis for a greatly increased understanding of the biology of BFT particularly with respect to stock structure, growth and the age structure of the catch. The achievements to date are particularly noteworthy in light of the considerable logistic problems involved in this work compounded by the contractual delays.

<b>Table 1. ICCAT-GBYP 01/2012 1B - Phase 3 "BioGen Sampling &amp; Analyses" - Short Report of November 5, 2012, updated table December 10, 2012</b>							
Sampling for BFT individuals (nb.)							
		<b>Larvae</b>	<b>Age 0</b>	<b>Juveniles</b>	<b>Medium</b>	<b>Large</b>	<b>Total</b>
Objective		100	300	400	550	400	1750
Achieved		89	360	482	357	656	1944
% achievement		89%	120%	121%	65%	164%	111%
Biological samples (nb.), collected from BFT individuals sampled							
		<b>Otolith</b>	<b>Spine</b>	<b>Gonad</b>	<b>Muscle/Fin</b>		<b>Total</b>
Objective		1450	1250	250	1550		4500
Achieved		1105	949	147	1909		4110
% achievement		76%	76%	59%	123%		91%

#### 4.4 Electronic Tagging activity of Adult

Tagging activities in Morocco were carried out as planned. The preliminary results were reported in SCRS/2012/143 and confirmed the general results with respect to horizontal movements obtained in 2011. Three tags are still attached to the tuna and it is hoped to recover the data from these tags in the future when the tags are released from the tuna. The long attachment time for these tags was seen as encouraging. The results after two years of tagging can provide an initial basis to quantify the amount of time and conditions under which spawners spend time at the surface in Mediterranean during the spawning season. Such estimates will be useful for undertaking calibrations of the aerial survey data for adults (SCRS/12/143) if the adult aerial surveys are resumed. Initially, this was the primary objective for undertaking this tagging activity. The SC noted, however, that the results have also provided important insights about the movement of adult BFT, which can contribute to the development of a BFT operating model. Both of these objectives are seen as important in for continuing to tag in the future.

#### 4.5 Juvenile Tagging Activities

In total, the Consortium tagged and released 5,235 bluefin tunas with conventional tags during Phase 3 and 51% of these were double tagged. These in combination with the releases in Phase 2 represent the largest tagging effort on BFT to date. In spite of this significant accomplishment, the number released was substantially below the target number for the program (45% of the objective). Tagging was undertaken in four areas and the target number of releases was only able to be achieved in the Bay of Biscay (**Table 2**). Substantial difficulties were encountered in the three other areas with 46 % of the target number of releases having been achieved in Gibraltar and only small number of releases in the other two areas (10 and 5% of the objective in the Gulf of Lyon and Central Mediterranean areas respectively). A combination of factors contributed to the inability to achieve the objectives in the Western Mediterranean and Gibraltar areas. Environmental and weather conditions were unusual and there was a lack of availability of age 1 and 2 BFT in the periods and specific areas where the vessels were operating. The lack of local knowledge by the tagging crew about tuna distributions and behavior in the areas being targeted, availability and local distribution of bait, permit issues and port access all contributed to the problems in meeting the objectives. Also, because of budget limitations and the fact that the operational costs in the tenders received were substantially higher than anticipated, the available amount of time and fishing effort was substantially less than what had been conceived when the activities and objectives were developed. There was also less flexibility in where and when vessels could operate than had been anticipated under the original recommendations for implementing the work. This was recognized at the beginning of tagging activities and in light of this the objectives for this year's tagging program were recognized as highly optimistic.

In conjunction with the conventional tagging, electronic tagging had been included in the tagging program to provide additional information on movements relative to the incomplete mixing issue. The Consortium implanted 40 miniPATs (100% of the objective) and 38 internal archival tags (76% of the objective) (**Table 2**). While reasonable success was achieved relative to overall objective in terms of numbers of electronic tags to be released, similar problems were encountered with respect to their geographical distribution. In particular, the lack of any releases from the central Med was a substantial concern.

The SC considered that the failure to achieve substantial number of releases in the Western and Central Mediterranean was a serious issue because of problems that incomplete mixing of animals can cause in the analyses of tagging experiments. Without a wide distribution of releases, it is not possible to assess the extent of non-mixing and account for this when analyzing the tag return data. The SC considered that it was critical to explore alternative approaches for tagging fish in the Western and central Mediterranean, but also in the eastern Mediterranean.

In terms of the implementation of the tagging work, the close collaboration and coordination between the Consortium scientific coordinator (N.Goñi from AZTI) and the GBYP Coordinator, which involved contacts almost every day, including the week-ends and late in the evenings) proved very effective and worked very well to resolve the myriad of logistical and operational problems encounter in this year's implementation. The SC acknowledged and thanked these two individuals for their dedication and extensive efforts.

**Table2**

<b>AREAS</b>	<b>Spaghetti Tags</b>	<b>MiniPATs</b>	<b>Internal Archival Tags</b>	<b>Total</b>	<b>double tagging</b>
<b>Bay of Biscay</b>	<b>3386</b>	<b>14</b>	<b>13</b>	<b>3413</b>	<b>1399</b>
<b>Sub-Total Central Mediterranean</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>0</b>
<b>Sub-Total Gulf of Lion</b>	<b>309</b>	<b>5</b>	<b>0</b>	<b>314</b>	<b>90</b>
<b>Sub-Total Strait of Gibraltar</b>	<b>1443</b>	<b>21</b>	<b>25</b>	<b>1489</b>	<b>1195</b>
<b>Total</b>	<b>5235</b>	<b>40</b>	<b>38</b>	<b>5313</b>	<b>2684</b>
<b>OBJECTIVES</b>					<b>51%</b>
<b>Bay of Biscay</b>	<b>3350</b>	<b>10</b>	<b>13</b>	<b>3373</b>	<b>1340</b>
<b>Central Mediterranean</b>	<b>2000</b>	<b>10</b>	<b>12</b>	<b>2022</b>	<b>800</b>
<b>Gulf of Lion</b>	<b>3200</b>	<b>10</b>	<b>12</b>	<b>3222</b>	<b>1280</b>
<b>Strait of Gibraltar</b>	<b>3200</b>	<b>10</b>	<b>13</b>	<b>3223</b>	<b>1280</b>
<b>ICCAT-GBYP 01/2012 A Contract</b>	<b>11750</b>	<b>40</b>	<b>50</b>	<b>11840</b>	<b>4700</b>
<b>ACHIEVEMENTS</b>					
<b>Bay of Biscay</b>	<b>101%</b>	<b>140%</b>	<b>100%</b>	<b>101%</b>	<b>104.4%</b>
<b>Central Mediterranean</b>	<b>5%</b>	<b>0%</b>	<b>0%</b>	<b>5%</b>	<b>0.0%</b>
<b>Gulf of Lion</b>	<b>10%</b>	<b>50%</b>	<b>0%</b>	<b>10%</b>	<b>7.0%</b>
<b>Strait of Gibraltar</b>	<b>45%</b>	<b>210%</b>	<b>192%</b>	<b>46%</b>	<b>93.4%</b>
<b>Achievement on ICCAT-GBYP 01/2012A objectives</b>	<b>45%</b>	<b>100%</b>	<b>76%</b>	<b>45%</b>	<b>57.0%</b>

## **4.6 Use of Research Mortality Allowance**

This was the first year the GBYP implemented the ICCAT Rec. 11-06, which recognized that BFT mortalities were unavoidable in several GBYP activities. The total RMA for 2012 was 20 tons of which 5,039.5 kilograms have been utilized to date (**Table 3**). The real time certification system put in place for monitoring the take under this RMA worked very well and allowed for closed monitoring of the research mortalities. There were a few problems with having the forms completed fully and accurately that required forms being closely reviewed by the GBYP Coordination staff. Most of the quantity taken under the RMA was donated for charities except where local regulation prevented or made difficult such donations.

**TABLE 3. Research Allowance Mortality (Phase 3)**

Total Quantity: 5039,5 kg										
Activity		By area (kg)					Destination (kg)			
Tagging	Biological sampling	Bay of Biscay	Strait of Gibraltar	Western Mediterranean	Central Mediterranean	Eastern Mediterranean	Charity	Consumption	Scientific	Discarded
52%	48%	894,9	1762,0	40,5	2254,1	88,0	2110,4	1471,4	857,5	600,2
Number of Fish: 662 BFT individuals										
Activity		By area (Nb Fish)					Destination (Nb Fish)			
Tagging	Biological sampling	Bay of Biscay	Strait of Gibraltar	Western Mediterranean	Central Mediterranean	Eastern Mediterranean	Charity	Consumption	Scientific	Discarded
34%	66%	130	44	2	163	323	159	91	390	22
Number of Forms: 94										
Activity		By area (Nb Forms)								
Tagging	Biological sampling	Bay of Biscay	Strait of Gibraltar	Western Mediterranean	Central Mediterranean	Eastern Mediterranean				
62%	38%	22	35	2	32	3				

## 4.7 Tag Awareness Program

The awareness activity continued in Phase 3. Poster and related material were provided to all entities requiring it. Also detailed information on the program was provided to everybody who requested it. The Coordination team took the opportunity of the 2012 ICCAT Tag Lottery for circulating an official press release and asked all SCRS scientists to diffuse it to the local mass-media. Several articles were published about GBYP tagging and rewarding activity in 2012 in various CPCs.

In 2012, according to the latest information, it was possible to recover data from 42 fish which had been conventionally tagged (5 of these had been double tagged and both tags were recovered in every case). Of these 42 fish<sup>1</sup>, 16 had been tagged by the GBYP in 2011 or 2012 while most of the rest had been tagged in previous years by CPC initiated programs (primarily recreational releases). The number of recovered tags in 2012 was substantially greater than in 2010 or 2011, which suggests that reporting rates may be increasing. However, this is hard to determine with the available data as the number of tagged fish available for recapture has also increased substantially as a result of the GBYP. Recovery rates are not only dependent upon the reporting rate but the actual recapture rates (which is dependent upon the fishing mortality rates for the age/size classes that have tags and the spatial distribution of tagged fish relative to fishing effort). Nevertheless, the increase in the number of recoveries is encouraging.

The SC noted that a number of previously recommended activities with respect to the recovery campaign (particularly contract with individuals in various CPCs for monitoring port activities) had not been undertaken and that the funds allocated for this purpose had not spent. It re-iterated that based on experience from other tuna tagging programs, direct and personal contact is essential for achieving high reporting rates from fishermen. The distribution of posters, related material and media publications and broadcast are a critical part of the tag promotion campaign but they are unlikely to be sufficient if high reporting rates are to be achieved in fisheries without observers.

## 4.8 Modeling approaches

Three modeling activities were conducted in 2012, i.e. a Risk Analysis, Data Imputation and Statistical Conversion of size data to age using age-length keys (ALKs).

The Risk Analysis was conducted at the SCRS and the Commission meeting, although returns from the Commission meeting have been low and there is a need to conduct a follow up survey to get more returns. The Risk Analysis provides a transparent way for identifying the main concerns of stakeholders related to uncertainty.

The Data Imputation call is progressing well and will be finished in time, this call will provide a statistically rigorous way to estimate uncertainty in when raising Task 1 and 2 data.

<sup>1</sup> One additional tag was reported, but it was a Japanese trade tag used for tagging fish directed to the domestic market, which was recovered stranded in Norway. Investigations are going on for better defining this finding.

The ALK call is also progressing well and will be finalised on time. This call will enable the data from the biological sampling programme to be used in stock assessment.

Due to the GBYP budget only being agreed late in 2012 it was not possible to publish further calls, e.g. on the development of the operating model and so not all the modelling budget was allocated.

#### 4.9 Budget implementation

The budget and expenditures are summarized in **Table 4**. All available and confirmed budget funds have been spent or already committed<sup>2</sup>.

As noted previously by the SC, the short time frame between when calls for tenders are made and when the work needs to be initiated has been a consistent problem with the implementation of the GBYP activities. A clarification of ICCAT flexibility with respect to tenders was provided to the SC. ICCAT is able to release tenders prior to funds being actually fully secured in situations where the prospects for the funds are high. The tenders need to specify that they are contingent upon the funds being received. The SC recommended that this approach for tendering be used in the future when appropriate and that the SC annual planning meeting be advanced as early as possible (e.g. when indicative funding for the next year's work is available) to allow for advancing the call for tenders.

<b>ICCAT-GBYP PHASE 3 (2012) - BUDGET EXPENDITURE</b>			
<b>ALLOCATION</b>	<b>Budget</b>	<b>Budget committed at January '13</b>	<b>Residual Budget</b>
<b>Coordination</b>	225.000,00 €	216.990,81 €	8.009,19 €
<b>Data mining, data retrieval and data elaboration (external contracts)</b>	30.000,00 €	30.692,85 €	692,85 €
<b>Aerial surveys</b>	- €	- €	- €
<b>Tagging (external contracts)</b>	1.175.000,00 €	1.130.656,99 €	44.343,01 €
<b>Biological sampling (external contracts)</b>	430.000,00 €	396.000,00 €	34.000,00 €
<b>Modelling</b>	65.000,00 €	44.720,00 €	20.280,00 €
<b>Total revised reduced minimum budget</b>	<b>1.925.000,00 €</b>	<b>1.819.060,65 €</b>	<b>105.939,35 €</b>

#### 5. Long Term Strategies for Achieving Fishery Independent Index

The SC had extensive discussion about the best strategy for achieving the objective of providing fishery independent (i.e. non CPUE) information for tuning the assessments and conditioning BFT operating models (relative abundance indices, absolute estimates of abundance and/or estimates of fishing mortality rates). The SC recalled that this was one of the principle objectives when the program was established. The SC reiterated previous discussion on the desirability of having fishery independent indices for both the adult and juvenile components of the stock. The SC noted that it had originally recommended two approaches for achieving this objective based on the general framework for the GBYP. It

<sup>2</sup> The total available budget, received, confirmed or committed at the date is 1,819,618.81 Euro, because four ICCAT CPCs did not confirmed their share of GBYP funds in Phase 3.

had originally recommended that aerial surveys be conducted to meet this objective for the adult component of the stock and large scale conventional tagging be undertaken for the juvenile conditions of the stock. Based on the results to date in combination with changes in the fishery and population, the SC considered that it was important to consider possible modifications in the application and implementation of these approaches. It emphasized that achievement of this objective required multi-year commitments and continuity in the activities, both in terms of implementation and personnel. The SC noted that there are differences in the type of information, the resource requirements and the time required for tagging and aerial survey approaches to produce useful results. These have been discussed and documented extensively. These differences are important to keep in mind when considering long term strategies.

## 5.1 Aerial Survey

The feasibility of conducting an aerial survey of juveniles was discussed as either an alternative or in addition to surveys for adults. The distribution of juveniles appears to be more restricted and consistent than that for adults. This alleviates some of the difficulties encountered with implementing the aerial survey on adults (i.e. permits and funding resources). A juvenile aerial survey would likely require substantially less effort than that required for one on adults to achieve the same level of precision. However, information about juvenile concentration in the southern portions of the Mediterranean is limited and some concerns were expressed that the total area needed to be surveyed may be larger than anticipated. It was also noted that for a juvenile survey to be robust that it would need to also survey outside of the Mediterranean (e.g. in the Bay of Biscay). In the North Mediterranean BFT are generally found in single species schools and species identification can be made from the air. However, in the south, concerns were raised that juvenile BFT are often found in mixed species schools (e.g. albacore). This would require developing a method to estimate the proportion of BFT in such schools (e.g. cameras).

A major problem with aerial surveys is the estimation of the size/age range of the fish within a school and the actual number of fish or biomass of detected schools. While distinguishing juvenile from adult schools appears to be reliable, methods for reliably estimating the size distribution within schools does not exist, except for professional spotters working on adult fish. Thus, either an adult or juvenile survey will produce a composite index spanning a number of age/size classes, but this does not preclude such indices from being informative. More problematical is the issue of estimating school sizes. One approach is simply to estimate the abundance of schools and to assume that the mean school size does not vary over time. This is the approach used by IFREMER for producing an index from its juvenile survey. A major concern with this assumption is that school sizes may vary with abundance which could introduce substantial biases in any temporal trend. Even if school size is not related to abundance, it is likely to vary among areas and years so increased variability would be expected. The other approach that has been used is to have spotters make visual estimates of the size of the school. It has been suggested that professional spotters can produce reliable relative estimates of school sizes, if not precise, based on the feedback gained from having spotted schools subsequently harvested. Professional spotter estimates were used in the analyses of the GBYP adult surveys to produce estimates of total biomass and this is also the approach that has been used by CSIRO for SBT (along with calibrating estimates among spotters). There are issues with this approach related to the fact that differing proportions of the school may be visible at the surface and estimates by different spotters may not be consistent in magnitude even if correlated. The best approach for dealing with this problem of school size estimation is not clear and needs further consideration.

The SC noted that data on the distribution of BFT schools with respect to oceanographic covariates can be one way to account for and reduce measurement and process error that is due to environmentally induced variability in surfacing behavior, detectability and/or geographic distribution. Such analyses should be considered within the long term strategy for aerial surveys both within the estimation of the index and in their use in the evaluation of MP in an operating model context.

## 5.2 Tagging

As a result of changes in the BFT fishery and the results of attempting to tag juveniles in the Mediterranean using pole and line vessels, the SC recognized that there was a need to modify the strategy it has adopted with respect to juvenile tagging. An alternative approach for tagging juveniles in the Mediterranean is required. To this end discussions were initiated with various local fishermen (ref. official offers from fisher's associations.). A suggested approach was to use purse seiners to capture fish and hold the fish and then tagging the fish using pole and line gear from a small vessel placed within the net alternative. Another similar alternative was also suggested which was to use a purse seiner to capture the fish but transfer them to a towing cage for holding prior to tagging from a small vessel placed within the cage. The SC recommended that this general approach should be attempted noting that there are a number of technical and logistical aspects that will need to be clarified and developed.

The SC also noted that this year (2012) the Bay of Biscay pole and line fishery leased nearly 100% of its quota. This meant that the only commercial fishery catching any substantial number of juvenile fish was that in Croatia. If this persists, then it will require several years at least before significant number of recaptures could be expected from juvenile releases. In addition, because of natural mortality, the number of releases to achieve significant number of recaptures is larger (particularly for age 1), which would suggest that targeting older age juveniles (e.g. 2 and 3) would be more cost effective.

Last year SC meeting had recommended that scientific recaptures be undertaken in 2013 and that this approach be used to generate Petersen type estimates of abundance. The failure to reach the tagging objectives in 2012 and the general problem of poling large number of juvenile fish in the Mediterranean suggests that a strategy based on a combination of scientific and commercial recaptures is likely to be more productive and efficient.

The potential for conducting conventional tagging experiments on the adult component was also discussed. Whenever this possibility has been discussed previously, no cost effective and efficient approach to undertake the releases was available, but the potential value of such experiments was recognized. However, the results and experience gained from the electronic tagging of fish released from traps suggest that this may be a viable and cost effective approach for conventionally tagging adult fish in sufficient numbers to allow for an adult conventional tagging program. Recent changes in management and the fishery has meant that large numbers of adults are now being released and could likely be tagged for relatively low cost. Electronic tagging of fish with an accompanying conventional tagging by divers has proven viable with no associated tag mortality and tag shedding appears to be low. In addition, recent development in laser and optical stereo camera systems means that sufficiently accurate length data on released tagged fish could be obtained simultaneously without having to remove fish from the water. The SC also considered that it was likely that this technique could be adapted for tagging large fish using purse seiners without having to brail the net.

The SC also noted that the situation with respect to tag recoveries for adult BFT has changed substantially in recent years. In the past, ensuring high returns rates and having a method for estimating reporting rates from the fisheries harvesting adults were problematical. However, currently, a very high percentage of the adult catch is either caught in traps or placed in farm cages. In addition, there is now 100% observer coverage of these fish when they are harvested from the traps and cages. This means that both high return rates for recapture tagged fish and a 100% reporting rate for these fisheries should be achievable.

The SC noted that results from successful tagging experiments involving releases from only a limited number of years of releases can be highly informative in terms of providing fishery independent estimates for tuning assessments and conditioning operating models. This allows for flexibility in the age ranges targeted for release and for a long term strategy that involves both juvenile and adult if cost effective methods for tagging both components of the stock exist.

As part of its consideration of long term strategies, the SC discussed the possibility of using a genetic tagging approach. The main advantage of this approach for tagging animals is that it eliminates the problems of tag loss and tag reporting. There are very little differences in the cost and problems of tagging and releasing fish with this approach (the cost of genetic tagging is somewhat higher because of the cost of doing the genetic analysis). Access to a large number of fish for sampling at the time of capture is the main issue and the logistical problems involved in dealing with very large numbers of genetic samples. Given the current structure of the bluefin fishery (e.g. cages and traps with observers), the potential gains of using genetic tagging were not clear while there were large additional costs and complications.

The SC noted that close kin genetic tagging approach had been recently been developed and applied for estimating the spawning stock for SBT. This approach estimates the size of the spawning stock from the number of off-springs from sample of the adult stock that can be identified in a sample of juveniles. The approach uses genetic techniques to determine parent/off-spring pairs. One main advantage of this approach is that marking and recaptures can be obtained directly from the catch and does not require at sea tagging as long as a sufficient number of animals from both the adult and juvenile components of the stock is available for genetic sampling. For BFT, the current structure of the fishery would make this problematical for the juvenile component of the stock. In addition, there are complications in applying this approach when there are stock and sub-stock issues and when substantial portions of the spawning stock do not spawn every year. While this approach is interesting and potentially promising, it would be a major new undertaking. The SC concluded that the GBYP was not in a position to consider initiating such an undertaking at this time.

## 6 Recommended Activities for 2013

### 6.1 Aerial Surveys

The SC had extensive discussions about possible activities that might be undertaken within the aerial survey component of the GBYP during Phase IV. It noted previous recommendations of the SC and SCRS to suspend the aerial survey for adults until there was improvement in the situation with respect to the likelihood of obtaining permits and to the availability of sufficient mutual annual funds for expanding the survey to achieve comprehensive coverage. The SC discussed the option of shifting the aerial survey to one for juveniles in Phase IV (see above for a more general discussion about juvenile aerial surveys). The SC considered that there was a need to assess the feasibility of being able to conduct surveys in the main juvenile feeding areas given the “average” weather conditions that were likely to be encountered in these areas during the appropriate season. The Bay of Biscay, in particular, was identified as a critical area that would need to be surveyed and for which concerns existed about the feasibility of conducting a survey. The SC recommended that a feasibility study be undertaken in Phase IV with respect to the areas and design required for a juvenile survey so that the SC would be able to assess whether a juvenile survey would be a meaningful alternative in the future if a comprehensive survey for adults could not be undertaken due to either permit or funding constraints. Nevertheless, the SC still considered that a survey for adults, if feasible, was the preferred option at this point. The SC acknowledged and thanked the Italian fishers Association for its offer to work with the GBYP to implement the aerial survey in 2013, providing up to a total of 40-hour flight time for free. The SC considered that this offer should be taken into account in case the survey will be resumed in Phase 4 and should be officially included in a tender.

In regard to resuming the aerial survey for adults, the SC was informed that the situation with respect to obtaining permits appears to have improved and that there appears to be a reasonable probability of obtaining permits to allow sufficient coverage for a comprehensive survey to be conducted. However, it was noted that certainly about this was not possible until the actual permits were applied for and that applications for permits cannot be done until tenders with identified aircrafts have been accepted. The SC agreed that future contracts for the aerial survey should be contingent upon all of the contractors obtaining the required permits and if a sufficient number of permits could not be obtained to provide adequate coverage for the entire Mediterranean then all of the contracts would be terminated and no funds paid. The SC noted that the total funding available for Phase IV was substantially less than that which had been requested (1,250,000 € for aerial survey, see budget table presented by SCRS Chair at 2012 Commission Meeting). The SC, after considering the possible trade-off required to accommodate the short fall in funding, recommended that 498,000 € provisionally be made available for conducting an adult aerial surveying. In making this recommendation, the SC recognized that this amount of funds was significantly less than the amount identified as necessary to undertake a comprehensive survey. Nevertheless, the SC noted that this allocation of funds would allow approximately 42,000 km of surveying to be conducted, which is not insubstantial. The SC was not in a position to assess whether this amount of effort would likely be able to provide meaningful results – i.e. to achieve an estimate with a sufficient level of precision. The SC considered that a minimum of three replicates was required, which would allow ~14,000km per replicate. Given the above uncertainties, the SC recommended that the following decision process be used to determine whether in fact an adult aerial survey would be conducted in Phase IV:

1. A preliminary survey design should be constructed based on a total of 42,000km of searching effort. This design should be evaluated with respect to the likely level of CV that could be expected to be achieved using the results from the 2010 and 2011 surveys. If the estimated CV from this exercise was deemed to be within an acceptable range (i.e. <~45%), then the SC would recommend that a call for tender be made. If the CV was too great, then the SC would recommend that the aerial survey would continue to be suspended for at least another year. This exercise should be completed by mid-January 2013.
2. If the decision was to proceed with a call for tenders, a tender or tenders would be accepted conditional upon the contractor being able to secure sufficient permits by May 1, 2013. The SC would evaluate whether the permits which the contractors were able to obtain by this date were deemed sufficient to allow for a comprehensive coverage. If this was the case, then the survey would proceed. If not, the SC would recommend that the aerial survey would continue to be suspended for at least another year. A final decision as whether to recommend proceeding or not would be made by May 10, 2013.

In the event that the decision was made to continue the suspension of the survey, the SC recommends that the funds that had been allocated for this work be distributed among the biological & genetic sampling and analyses, electronic tagging, conventional tagging and modelling work with specific allocations recommendations to be developed based on e-mail discussions.



## **6.2 Tagging**

### **6.2.1 Juveniles**

Noting the success in tagging fish in the Bay of Biscay and the partial success in Strait of Gibraltar, the SC recommended that these activities be continued in Phase IV. It noted that the tagging operations in these two areas would provide for some scientific recoveries and given the number of releases from the last two years, recoveries or lack of them during the tagging activities should be informative. For this reason and based on discussions above (Section 5) the SC recommended that tagging activities be focused on age 2 and 3 year old fish. Moreover, it strongly recommended that ways to improve the tagging success in Gibraltar be sought by seeking increased flexibility when tagging occurred so that tagging effort took place when juvenile BFT were abundant. In particular, consideration should be given to basing the payment or part of the payment on the number of fish tagged. The SC recommended that 500,000 € be allocated for the tagging in the Bay of Biscay and Gibraltar and that the total target number of fish to tag in both areas to be 5,000 -10,000. Given the previous problems encountered with tagging in the Western and Central Mediterranean, the SC recommended that an alternative approach be sought based upon the discussions and suggestions with the fishing industries in these areas (see section 5). This approach would involve the use of a purse seiner to catch and to hold the fish either in the net or in a holding cage while a smaller vessel using pole and line gear entered the net or cage to tag the fish. The SC noted that there are technical and logistical problems that would need to be resolved in the implementation of this approach. The SC acknowledged and thanked the Italian and Croatian fisheries for their offers to work with the GBYP to implement this approach; the Italian association offered also some free vessel/days. While there is some risk that this approach may not be able to tag large number of fish as it has not been tried previously, the SC considered that this approach is the most promising available and recommend that this approach be used for tagging juveniles in the Mediterranean during Phase IV. As tagging from purse seiners for adults is also being recommend by the SC (see section 6.2.2), consideration should be given to combining these two activities within a single call for tender and contract(s). This would allow increased flexibility, maximized the likelihood that appropriate sized fish would be found and reduce the cost of implementing the work.

The SC noted that it is preferable to conduct these tagging operations at the end of the fishing season. This reduces the likelihood of short-term recaptures which are not informative in terms of the main objective of the tagging program. This also is generally more convenient for the fishing vessels.

### **6.2.2 Adults**

Given the discussion reported above (Section 5), the SC recommended that two adult pilot tagging projects be conducted in Phase IV. One would involve conventional tagging of adults from traps and the second would involve conventional tagging of adults from fish caught and temporarily held in a purse seine or a towing cage. In both cases, tagging would need to be done by divers and a laser or stereoscopic photographic technique be used to estimate the size of the fish being released. The SC noted that if it was not feasible to photograph individual fish as they are being tagged that a sample of the size distribution of the fish in the trap at the time of release would be an acceptable but less preferable alternative. The overall approach would most likely require a tagging team of two divers – one for tagging and the other for photographing, but the logistics and technical arrangements will need to be worked out with the fishing industry and contractor undertaking this work. The SC recommended that for the trap releases experiment that this should be attempted in two areas (Morocco and Sardinia). Based on reports of the number of fish that were released from traps in these areas, tagging a 1,000 fish would be a reasonable objective for this project in Phase IV.

The SC recommended that a total of 485,000 € be allocated for these two adult tagging projects and the purse seine component of the juvenile tagging program.

### **6.2.3 Tagging Awareness**

As discussed extensively by the SC, it is essential for the success of conventional tagging experiments to obtain high reporting rates for recapture fish and ensure that reporting rates are estimable for the major fisheries recapturing tagged fish. Generally, substantial resources need to be devoted to these (e.g. up to half the cost of the overall experiment). For BFT in recent times, a high percentage of the current legal commercial catches have been caught by purse seiners or, in a lower percentage, by traps, and placed in cages. In both of these situations, a 100% of the catch is observed by independent observers at the time when fish are harvested from the cages. For these fisheries, the SC considered that it would be reasonable to assume that reporting rates are 100% as long as close collaboration and communication are maintained between the observers (ROPs and Nationals) and the GBYP Coordinator. Nevertheless, the SC considers that it would still be valuable to verify this using tag seeding experiments in cages as recommended in previous years. The SC also noted that the Bay of Biscay BFT fishery has 20% observer coverage. This combined with the good

working relationship between this fishery and local fishery research institutions should result in both high reporting rates and data to estimate them (e.g. comparison of return rates from vessels with and without observers). In 2012, the Bay of Biscay fishermen sold their entire quota except for 100t so only small numbers of recoveries would be expected if catches remain this low. For all the fisheries with observers, it is critical that arrangements be made so that the available observer data (including size information on fish being caught) can be used for the analyses of recovery and reporting rates from these fisheries. In order to ensure that observers collect all tags with the appropriate information, the SC recommended continuing to have briefings with observers before each year's fishing season to maintain motivation and to address appropriate issues. It also recommended that a debriefing take place after the fishing season to identify any problems related to tag recoveries (e.g. whether divers may be removing tags, etc.) and ensure all recaptured tags have been reported.

The SC had considerable discussion about catches by recreational, small scale and IUU fisheries and the problems of achieving high recovering tags from these fisheries. These are likely to be the main source of the recaptures for juvenile tagged fish besides those caught by the Bay of Biscay and Croatia fisheries which have observer coverage. It is uncertain what the magnitude of the catches are from these other sources, which makes it difficult to prioritize the amount of recovery activity that should be given to them, although it was suggested that the recreational catches are probably large in terms of number of individuals, particularly in the size range of released tagged fish. The number of recreational fishers is large and very dispersed making cost-effective promotion activities difficult – particularly direct contacts. The SC recommended to re-contact individuals who had been sent tag posters and other promotional material last year to ensure that these materials had been distributed in appropriate places and to see if further materials are required. Emphasis should be given to the placement of posters and distribution of materials in locations where recreational and small scale fishers are likely to see them (e.g. fishing tackle stores, fuel docks, boat ramps, etc.). The SC also recommended promotion of tag recoveries using broadcast and print media that target recreational and/or small scale fishermen. The *Medi 1 Radio*, broadcasting from Tangiers, Morocco, and covering the Western Mediterranean area, was identified as an example that could be used for this purpose. The SC recommended that this and similar outlets in other countries be identified and contacted for this purpose. It also encouraged promotion of articles on the tagging program in appropriate local newspapers and magazines. One important message to emphasize is the confidentiality of the information retrieved. The SC recommended allocating 20,000 € for these media promotional activities.

The SC noted the problems that had occurred in the last year with respect to retrieval of the actual tag return data that had been collected by other research institutions. The SC recommended that efforts be undertaken to improve coordination with these institutions to ensure that all data on BFT tag recoveries are reported to ICCAT in a timely manner. It is also critical that rewards are provided to tag finders as soon as possible. A minimum amount of 15,000 € is allocated for tag recovery rewarding in Phase IV.

## 6.3 Electronic Tagging

The SC reiterated its conclusions on the value of electronic tagging for the overall objectives of the GBYP. The data provided by these tags are important for understanding movement patterns (e.g. the mixing problem in tagging experiments) and surfacing behavior (e.g. detectability in aerial surveys). The SC recommended a total budget 100,000 € for purchase and deployment in Phase IV. **Table 5** summarizes the recommended number, type and areas for electronic tagging (12 archival tags are available from previous purchases that were not able to be deployed last year).

**Table 5**

Area	Internal Archival tags	MiniPATs
Adriatic	12 - juvenile	7 - juvenile
Bay of Biscay		7- juvenile
Strait of Gibraltar		6- juvenile
Morocco – Atlantic		5- adult*
<b>Total</b>	<b>12</b>	<b>25</b>

\*This work is being done collaboratively with the Moroccan Fisheries Authority, BFT Fishing Industry and WWF and the total number of tags available is likely to be greater.

## 6.4 Data Mining

The SC recommended that the data from the Ottoman archive be recovered based on the information provided to the SC that data on catches for an extensive period are available. These data should provide important insight into the historical

eastern Mediterranean component of the BFT population(s). The SC recommended that the recovery activities be done over two years and that 20,000 € be allocated for this work during Phase IV.

The SC noted the large amount of trade and market data that had been recovered under the GBYP data mining activities. Analyses of these data in terms of providing estimates of total catch and their size distribution was agreed to be of primary importance both for the stock assessment and for conditioning operating models. The analyses will also need to consider the BCD data. It was noted that in deriving such estimates that a number of assumptions are likely to be required. In such cases, the implications for a range of reasonable and plausible hypotheses should be explored and a set of estimates encompassing this range should be produced rather than a single best estimate. The SC considered that it was essential that an expert on Japanese market and trade statistics be involved in these analyses, along with the expert who kindly provided the data to GBYP. The SC recommended that 50,000 € be allocated for this joint task.

For the ongoing data statistical / standardization and analyses an amount of 30,000 € is allocated for GBYP internal costs.

The SC noted the encouraging progress made with the analyses of the VMS data during Phase III. It was informed that CPC scientists intended to progress with these analyses in 2013. As such, the SC considered that it was not necessary to allocate any funds for this work in Phase IV but encouraged that the analyses be undertaken.

The SC also considered the analysis of the data on fish harvested from farms in terms of size composition and total catches to be of critical importance. It recommended that analyses of these be completed during Phase IV. It was informed that the Secretariat would be able to undertake these and the SC considered this to be the best strategy for having the work done.

## **6.5 Biological & Genetic Sampling and Analyses**

The SC recognized that there was a tradeoff between the collection of new samples and completion of analyses on samples already collected. With respect to the issue of stock structure, it considered that sufficient samples existed for this except from regions where sampling has been difficult (i.e. eastern and southern Mediterranean). Thus, for the genetic component of this project, the SC recommended that priority be given to the analyses of existing ~~data~~ biological samples (quality checked and stored) and the collection of samples from missing areas. For the samples intended for direct ageing for use in the construction of ALK, the SC noted the importance of having annual data and noted that if samples were not collected in any given year that the data could never be obtained for this year in the future (but if they were collected and archived, then the data could be recovered in the future). Thus, it recommended that samples for this purpose continue to be collected in Phase IV. It noted that there was a need to determine in the longer term the sample size requirement for this if this is to be an on-going activity and to resolve whether otoliths or spines were preferable in terms of information content and costs. If otoliths or spines are to be collected for the ageing samples, then a small sample of tissue for genetic analyses can easily be collected at the same time. Thus, if otoliths or spines samples are collected in Phase IV, the SC recommended that tissue samples also be collected and archived in case sample sizes in the current analyses need to be augmented. The SC recommended that the potential to have ROP and national observers collect the biological samples for ALK be investigated as part of their routine activities. It was noted that collection of otoliths by observers using drills has been done in other tuna fisheries and that this procedure can be done without compromising the market value of the fish.

The SC recommended that for Phase IV that a total of 100,000 € be allocated for biological and genetic sample collections and 200,000 € for data analyses. Spatial and temporal variation in growth needs to be considered in the analyses of the age at length data. In terms of the age at length analyses, it is critical that a complete set of data be provided one month prior to the SCRS BFT Biological Data Meeting scheduled for 7-13 of May 2013. It also noted that the results of the genetic analyses are essential for the development scenarios for the operating models. As such it is critical that preliminary results including a written report be presented at the GBYP-Biological modeling meeting (to be held 14-16 of May 2013). The analyses to be reported should focus on the development of a range of alternative plausible hypotheses for stock structure consistent with the data (including relative likelihoods if possible) rather than significance testing. The contract for the Biological & Genetic Sampling and Analyses should be structured to reflect these priorities and deadlines.

## **6.6 Modeling**

The beginning of a draft multi-year proposal for the modeling work to meet the Commission's request to the SCRS (Doc. No. PA2-617A/2012 COM) was presented to the SC which includes objectives, timelines and deliverables. The SC considered that this structure was very useful for the SC to be able to plan future activities, make recommendations

about budget allocations and review progress. It recommended that this draft be completed and circulated to the SC and that a similar approach be adopted for structuring the work under the other GBYP modeling activities. The SC noted that there was a need to identify which components of this overall proposal should be under the GBYP and which components are the responsibilities of the SCRS, the CPCs or the Secretariat.

In terms of being able to meet the Commission's request, the SC recommended that a group be formed under the SCRS to develop an operating model. This group would work intersessionally to produce a draft agreed, written design for an operating model that would be presented at a meeting to be held in May 2013 directly after the Biological meeting. The SC recommended that this meeting be 3 days and that its objective would be the development of detailed specifications for the operating models. Specific terms of reference and a draft agenda for the workshop would be developed by the Secretariat.

The SC recommended that a total of 80,000 € be allocated for the operating model development work in Phase IV. 20,000 € was to be used for a contract on management procedures and 60,000 € would be for external expert assistances with the operating model development.

## **6.7 Summary of Recommended Phase IV Activity and General Matters**

**Table 6** provides an overall summary of the SC recommended activities and budget allocations for the various components of the GBYP based on the above discussions.

The SC recommended that terms of references and calls for tender for the various recommended GBYP activities be completed as soon as possible, noting the clarification discussed above that tenders can be released before funds have been received as long as the tenders are contingent upon the funds being confirmed. This is important to be able to provide contractors as much lead time as possible for organizing work and for ensuring that contracts are in place prior to the time when the work needs to commence.

The SC noted that the Coordinator frequently needs advice, clarification and recommendations relative to the recommendations from the meetings of the SC via e-mail. Receiving responses in a timely fashion has in some instances been difficult and has resulted in actions being delayed. In order to prevent such delays in the future, the SC agreed that such request should be circulated with a specified deadline for a response. The deadline should balance the timeframe needed for a response and consideration of the other time demands of the SC members. Null replies will be considered to imply acceptance or no comment, although in some cases SC members may be out of e-mail contact.

The SC recommended that efforts be continued to achieve multi-year funding commitments for GBYP activities and to achieve funding commitments well in advance when activities need to be commenced.

The SC recommended that a mid-term review of the GBYP be undertaken during Phase IV. The review should be conducted by two external experts who have knowledge of BFT, its assessment, the implementation of large scale research programs and the research needs for assessments and operating models. The SC in collaboration with the Coordinator and the Secretariat will develop the terms of references for the review. To facilitate this, Dr. Polacheck was requested to draft an initial set of terms of references. The SC recommended 40,000 € be allocated for this review.

The SC acknowledged the generous offer from the Italian fishery industry to provide free of cost 40 hours of flying time for aerial survey work and the use of purse seine vessels for tag release activities. The SC appreciation and thanks for this offer should be extended to the industry. The SC recommends that efforts should be undertaken to determine if and how best to utilize these offers. In particular, it recommends that a MoU be established providing the detail of how the cooperation would be structured and achieved. In the case of the purse seine offer, the SC recommended that efforts be made to use these to extend either or both of the purse seine tagging activities it recommended under Phase IV.

The SC recommended that the Phase-V SC planning meeting be held as early as possible, and no later than early December, preferably before the SCRS annual meeting. It also recommended that the meeting be three (3) days in length. This year's meeting demonstrated that a meeting of this length is necessary to allow sufficient time for review of past activities and planning for future ones.

Table 6.		ICCAT-GBYP - Phase 4 (2013) BUDGET							
ACTIONS		ALLOCATION	Phase 3 - budget			budget proposed to the 2012 Commission		As set by GBYP-SC (13/12/12)	
Phase 3	Original		detail	total Phase 3	%ge	total Phase 4	detail	total Phase 4	%ge
<b>A</b>	<b>A</b>	<b>Coordination</b>		<b>225.000,00 €</b>	<b>10%</b>	<b>400.000,00 €</b>		<b>402.000,00 €</b>	<b>16%</b>
A.1	A.1	Coordinator's and supporting staff's (P3) salary and benefits	150.000,00 €				266.000,00 €		
A.2	A.2	Travels and subsistence (including SC)	45.000,00 €				45.000,00 €		
A.3	A.3	Computer hardware and software	- €				5.000,00 €		
A.3	A.4	Consumables and supplies	5.000,00 €				6.000,00 €		
A.4	A.5	Contracts for external Steering Committee members	15.000,00 €				30.000,00 €		
A.5	A.6	ICCAT Secretariat overhead	10.000,00 €				10.000,00 €		
		GBYP Mi-Term External Evaluation (2 exp.)	- €				40.000,00 €		
<b>B</b>	<b>B</b>	<b>Data mining, data retrieval and data elaboration (external contracts)</b>		<b>30.000,00 €</b>	<b>6%</b>	<b>250.000,00 €</b>		<b>100.000,00 €</b>	<b>4%</b>
B.1	B.1	Data mining and data retrieval exercise:							
	B.1a	Ottoman archives	10.000,00 €				20.000,00 €		
	B.1b	Recent (2000-2011) data recovery	- €				- €		
	B.1c	Historical data gaps including environment	- €				- €		
	B.1d	model with thermocline data	- €				- €		
	B.1e	SST data 2012	- €				- €		
B.2	B.2	Data analyses activities:	- €				- €		
	B.2a	Data standardisation and basic analyses	20.000,00 €				30.000,00 €		
	B.2b	VMS Data Analysis	- €				- €		
	B.2c	Market data analyses	- €				50.000,00 €		
	B.2d	GBYP biological and data meeting	- €				- €		
	<b>C</b>	<b>Aerial surveys (note 1)</b>		<b>- €</b>	<b>30%</b>	<b>1.250.000,00 €</b>		<b>498.000,00 €</b>	<b>20%</b>
	C.x1	Design revision	- €				9.000,00 €		
	C.x2	Workshop and training	- €				19.000,00 €		
	C.x3	Aerial survey activity	- €				460.000,00 €		
	C.x4	Aerial survey data analyses	- €				10.000,00 €		
<b>C</b>	<b>D</b>	<b>Tagging</b>		<b>1.175.000,00 €</b>	<b>40%</b>	<b>1.700.000,00 €</b>		<b>1.120.000,00 €</b>	<b>45%</b>
C.1	D.1	Tagging in the Bay of Biscay and Strait of Gibraltar	1.080.000,00 €				500.000,00 €		
	D.2	Tagging trials with purse-seiners and tuna traps	- €				485.000,00 €		
C.2	D.3	Electronic tags	45.000,00 €				100.000,00 €		
	D.4	Conventional tags and applicators	- €				- €		
C.3	D.5	Tag awareness and rewards campaign (partly external contracts)	50.000,00 €				15.000,00 €		
	D	other costs (broadcasting and communication)	- €				20.000,00 €		
<b>D</b>	<b>E</b>	<b>Biological sampling (external contracts)</b>		<b>430.000,00 €</b>	<b>12%</b>	<b>500.000,00 €</b>		<b>300.000,00 €</b>	<b>12%</b>
D.1	E.1	Biological and genetic sampling;	330.000,00 €				100.000,00 €		
	E.2	Sampling operational meeting	- €				- €		
D.2	E.3	Analyses of samples	100.000,00 €				200.000,00 €		
	E	other costs	- €				- €		
<b>E</b>	<b>F</b>	<b>Modelling</b>		<b>65.000,00 €</b>	<b>2%</b>	<b>100.000,00 €</b>		<b>80.000,00 €</b>	<b>3%</b>
E.1	F.1a	Technical meetings on modelling	10.000,00 €				- €		
	F.1b	GBYP methods meeting	- €				- €		
E.2	F.2	Risk analysis (external contract)+travels	25.000,00 €				- €		
	F.3	Historical data analysis (external contract)	- €				- €		
	F.4	Distribution analysis of areas where juveniles may concentrate	- €				- €		
E.3	F.5	Alternative management advice frameworks	10.000,00 €				- €		
	F.6	Managements procedures (ext.contract)	- €				20.000,00 €		
	F.7	External expert assistance for initial mod.devel.	- €				60.000,00 €		
E.4	F.8	Performing simulation trials (external contracts)	20.000,00 €				- €		
		<b>Total revised reduced minimum budget</b>		<b>1.925.000,00 €</b>		<b>4.200.000,00 €</b>		<b>2.500.000,00 €</b>	

## 5. Close of the Meeting and Adoption of the Report

At the end of the meeting, the SC expressed its continued thank and gratitude to the Coordination staff for their dedication and extensive efforts and acknowledged the large amount of difficulties that needed to be overcome when implementing the GBYP activities.

The meeting also thanked IFREMER and J.M. Fromentin for organizing the venue, which was excellent. It also thanked the chair and rapporteurs for their efforts. The draft report was not able to be completed at the meeting. T. Polacheck agreed to complete the draft, which would then be circulated to the SC for comments and adoption.

**ICCAT-GBYP STEERING COMMITTEE MEETING – 04/2012**

**Sète - 12-14 December 2012**

**DRAFT AGENDA**

- A) Appointment of Chairman and Rapporteur**
- B) Meeting Arrangements and Documents**
- C) Review of Action Items from Previous Meetings**
  
- D) Summary and Revision of the activities in Phase 3**
  - 1) Coordination activity – Review of the project activities and procedures (Table 1. for expenditures in details)**

The GBYP Coordinator will provide in advance a short executive summary report concerning all the activities carried out so far in Phase 3 (taking into account that some activities will be completed on January 2013), with budgets details by item, including the followings:

    - a. Data Recovery (calls and results, data revision and analyses, total cost);
    - b. Biological and genetic sampling (preliminary interim report, total cost)
    - c. Tagging activity (tagging in Morocco, Consortium activity – draft final report, total cost)
    - d. Use of Research Mortality Allowance (ICCAT-GBYP RMA)
    - e. Tag awareness programme
    - f. Modelling approaches (activities in 2011, results, total costs)
  - 2) Budget implementation (fund raising and expenditures) (Table 2a & 2b., respectively for fund raising and overall expenditures)**
  - 3) discussion on Phase 3 activities**
  - 4) Proposal for the last part of Phase 3 (use of any residual budget, request for prorogation for completing the genetic analyses) (Table 2b.)**
  
- E) SCRS and ICCAT Commission discussions (corresponding documents are in the Folder, in the USBs)**
  - a. SCRS recommendations
  - b. Summary of ICCAT Commission discussions on GBYP
  - c. Specific issues on Doc. PA2-617/2012
  - d. Need to re-define the general programme and get a new approval by the Commission.
  - e. Contacts and agreements with other CPCs or entities
  - f. Reports on informal discussions with fishing industry on how best to tag juveniles in the Med.
  - g. Progress on multi-year and advance timing of funding/contracting
  
- F) Discussion on Long Term Feasibility and Strategy For Achieving Primary GBYP Goal of A Fishery Independent Index**
  
- G) Information about permits issues**

A comprehensive summary report about the permit issues for GBYP activities will be provided by the Coordinator for informative purposes.

## **H) Planning of activities for 2013**

### **1) Phase 4**

- a. Funding Situation and likely Budget (**Table 3.**, and **Table 4.** for a multiyear funding, up to 2019)
- b. Activities:
  - Data recovery and elaboration (result of the survey among GBYP contributors, data recovery activities, market data, planning for the meeting in May, budget);
  - Aerial survey (SWOT analyses, opportunities and limits, in-kind contributions, strategy and plan, need for an updated design, Operational meeting and training; budget);
  - Tagging (electronic and conventional, strategy, in-kind contributions, need for preliminary contacts, Operational meeting on tagging, need for periodic monitoring, budget);
  - Tag awareness (tag liaison officers, meeting with fishermen, observer contact, tag retrieval coordination, reminding activities, external meetings, ROP cooperation, budget);
  - Biological and genetic sampling and analyses (strategy, plan and activities extended to other areas, improving the analyses, Operational meeting on biological and genetic sampling, ROP assistance, need for periodic monitoring, budget);
  - Modeling approaches (strategy and activities, 1 workshops for Modeling Approaches (Methods), budget);
  - Coordination (activities and budget);
  - Identification of the best possible scenario (limits and opportunities, budget alternatives).
- c. **External mid-time evaluation**
  - Proposals and budget
- d. **Milestones and deliverables**
  - milestones – yearly SC and SCRS review and approval
  - deliverables – GBYP summary reports, GBYP detailed reports, sub-programmes reports by tenders, products, powerpoint presentations, WEB info, obligations by the grant agreement.

### **2) Other issues**

## **(I) Review and adoption of Report**

The full list of the documents provided (GBYP SC Meeting, 12-14 Dec. 2012)

## **ICCAT GBYP 01. AERIAL SURVEYS**

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### **AERIAL SURVEYS - Background Documents**

#### **Aerial Surveys – Phase 1**

ICCAT GBYP 01.1. Design of 2010 Aerial Survey – Sub-Areas 1 to 6 in the Mediterranean

ICCAT GBYP 01.2. Aerial Surveys of 2010: Reports from Contractors (Grup Air Med -Spain- , Périgord Travail Aérien -France- & Unimar -Italy- )

ICCAT GBYP 01.3. Data Recovery Plan – Elaboration of 2010 Data from the Aerial Survey on Spawning Aggregations - Final Report; 27th September 2010

ICCAT GBYP 01.4. Data Recovery Plan – Elaboration of 2010 Data from SST and the Aerial Survey on Spawning aggregations - Final Report; 3<sup>rd</sup> December 2010

#### **Aerial Surveys – Phase 2**

ICCAT GBYP 01.5. Design of 2011 Aerial Survey – Sub-Areas 1, 2, 3CM and 6 in the Mediterranean

ICCAT GBYP 01.6. Aerial Surveys of 2010: Reports from Contractors (Grup Air Med -Spain- , Périgord Travail Aérien -France- & Unimar -Italy- )

ICCAT GBYP 01.7. Data Recovery Plan – Elaboration of 2011 Data from the Aerial Survey on Spawning Aggregations - Final Report; 15<sup>th</sup> December 2011

#### **Maps**

ICCAT GBYP 01.8. (1) Air Spaces in the Mediterranean and (2) Synthesis of the aerial surveys carried out so far (Spawning Aggregations and Juveniles)

#### **SWOT Analysis**

ICCAT GBYP 01.9. ICCAT-GBYP Aerial surveys: Juveniles versus Spawners. A SWOT Analysis of both perspectives; GBYP Coordination – ICCAT SCRS Bluefin Tuna Stock Assessment Session (SCRS/2012/140); ICCAT, Madrid, September 4-11, 2012

## **ICCAT GBYP 02. BIOLOGICAL & GENETIC SAMPLING AND ANALYSES**

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### **BIOLOGICAL & GENETIC SAMPLING AND ANALYSES - Background Documents:**

#### **SAMPLING DESIGN**

ICCAT GBYP 02.1. Programme d'échantillonnage biologique du GBYP, dans le cadre du Programme de Recherche de l'ICCAT sur le thon rouge couvrant tout l'Atlantique (ICCAT/GBYP - Phase 2/2011) ; Avril 2011

#### **REPRODUCTION OF BFT & MAPS**

ICCAT GBYP 02.2. Eastern Atlantic Blufin Tuna (*Thunnus thynnus*, L.): Reproduction and Reproductive areas and seasons; BFT Stock Assessment Session, SCRS/2012/149; ICCAT, Madrid, 4-11 September 2012

ICCAT GBYP 02.3. Maps of Bluefin tuna Spawning Areas in both the Mediterranean Sea and the Atlantic Ocean (extracted from SCRS/2012/149)

ICCAT GBYP 02.4. Map of the EEZ of Spain

ICCAT GBYP 02.5. Map of the EPZ of Italy

#### **LENGTH FREQUENCIES (Farming cages data vs. those used in Stock Assessment)**



ICCAT GBYP 02.6. Graphs of BFT size distributions from cages, compared to those used for stock assessment (years 2008 and 2009); by Alain Fonteneau (EU Head Delegate to ICCAT SCRS)

**BIOLOGICAL & GENETIC SAMPLING AND ANALYSES (ICCAT-GBYP 01/2012 B – Phase 3 Short-Term Contract): Deliverables, GBYP Comments & Remarks and Payments:**

ICCAT GBYP 02.7. Interim Report (+ PPT Presentation); by the Consortium; November 5th, 2012

ICCAT GBYP 02.8. An updated summary table of sampling (BFT individuals and Biological and Genetic Sampling); by the Consortium; December 10, 2012

ICCAT GBYP 02.9. GBYP Coordination's Comments & Remarks: GBYP 01/2012B Summary Table of Objectives vs. Achievements, up to November 5, 2012

ICCAT GBYP 02.10. GBYP Coordination's Comments & Remarks: GBYP 01/2012B Summary Table of Objectives vs. Achievements, up to December 10, 2012

ICCAT GBYP 02.11. GBYP Coordination's Comments & Remarks: GBYP 01/2012B Summary Table focusing the remaining biological & Genetic samples stored at AZTI, up to December 10, 2012

ICCAT GBYP 02.12. Payments to the Consortium made up to November 27, 2012 (an Excel table plus a PDF file)

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**ICCAT GBYP 03. TAGGING & TAG AWARENESS + TAG RECOVERY REWARDS**

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**TAGGING - Background Documents**

ICCAT GBYP 03.1. Tagging design for the Atlantic-Wide Research Programme for Bluefin Tuna (ICCAT - GBYP); by the Contactor; February 2011

ICCAT GBYP 03.2. Tagging manual for the Atlantic-Wide Research Programme for Bluefin Tuna (ICCAT - GBYP); by the Contactor; February 2011

ICCAT GBYP 03.3. SWOT analysis to evaluate different tagging strategies; by the Contractor; February 2011

ICCAT GBYP 03.4. Map of the BFT ages 0 distribution in the Mediterranean Sea as elaborated by the GBYP Operational Meeting; April 2012

ICCAT GBYP 03.5. Map of the BFT ages 1 & 2 distribution in the Mediterranean Sea as elaborated by the GBYP Operational Meeting; April 2012

ICCAT GBYP 03.6. Excel files of the different scenarios of Mark-Recapture Estimates; by the GBYP SC Members; Nov. – Dec. 2012

ICCAT GBYP 03.7. Photos from the Ionian Sea showing presence of BFT juveniles; October 15, 2012

**TAGGING (ICCAT-GBYP 01/2012 A – Phase 3 Short-Term Contract): Deliverables, GBYP Comments & Remarks and Payments**

ICCAT GBYP 03.8. Draft final report on the activities of the ICCAT/GBYP Phase-3 Tagging Program (2012); by the Contactor; December 1, 2012 (updating the short reports of Sept. 17 and Nov. 05, 2012)

ICCAT GBYP 03.9. Data Worksheets and Annexes, along with the Draft final report on the activities of the ICCAT/GBYP Phase-3 Tagging Program (2012)

ICCAT GBYP 03.10. GBYP Coordination's Comments on the Draft final report on the activities of the ICCAT/GBYP Phase-3 Tagging Program (2012); December 4, 2012

ICCAT GBYP 03.11. GBYP Coordination's Excel Summary Table on the activities of the ICCAT/GBYP Phase-3 Tagging Program (2012), December 1, 2012

ICCAT GBYP 03.12. The request from the Consortium Coordinator for a deadline extension for the final report; November 26, 2012

ICCAT GBYP 03.13. ICCAT-GBYP Excel Summary Table for the 80% payments made up to October 24, 2012

### **TAGGING – Awareness & Recovery Rewards**

ICCAT GBYP 03.14. A world map showing the geographical distribution of BFT Tag awareness material; up to July 2012

ICCAT GBYP 03.15. ICCAT 2012 lottery for the reported tags – Press Release; November 2012

ICCAT GBYP 03.16. GBYP Excel Summary Table for the recoveries made under GBYP activities, reporting up to December 4, 2012

### **TAGGING – Electronic Tags thru COOPERATION “ICCAT/GBYP – WWF - BFT FISHING INDUSTRY”**

ICCAT GBYP 03.17. 2012 ICCAT-GBYP pop-up tagging activity, in Larache (Morocco);; SCRS/2012/143

ICCAT GBYP 03.18. A world map showing the geographical distribution of BFT Tag awareness material; up to July 2012

### **TAGGING - IOTC Symposium**

ICCAT GBYP 03.19. GBYP Presentation on Tagging Programme for Bluefin tuna, SCRS/2012/139

## **ICCAT GBYP 04. DATA MINING & RECOVERY PLAN**

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### **DATA MINING & RECOVERY PLAN - Background Documents**

ICCAT GBYP 04.1. BFT catch and size historical data recovered under the Atlantic-Wide Research Programme for Bluefin Tuna (ICCAT-GBYP PHASE 1 AND 2) - Preliminary report / ICCAT Secretariat; SCRS/2012/141

ICCAT GBYP 04.2. Review and preliminary analyses of size frequency samples of bluefin tuna (*Thunnus thynnus*) 1952-2010; by ICCAT Secretariat; SCRS/2012/116

ICCAT GBYP 04.3. ICCAT GBYP Data Recovery and Data Mining activities: in which way we should proceed?; Results of the GBYP survey carried out during ICCAT 2012 Commission “Legal framework for providing Task II data (Length and weight) to ICCAT”, November 12-19, 2012

### **DATA MINING & RECOVERY PLAN – OTTOMAN ARCHIVES (ICCAT-GBYP 05/2012 – Phase 3 Short-Term Contract)**

ICCAT GBYP 04.4. Offer from Dr. Ali Fuat Oreñç (Istanbul – Turkey); October 22, 2012

ICCAT GBYP 04.5. Report of the ICCAT Secretariat Evaluation Committee; September 24, 2012

## **ICCAT GBYP 05. MODELLING APPROACHES**

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### **MODELLING APPROACHES – RISK ANALYSIS (ICCAT-GBYP 02/2012 – Phase 3 Short-Term Contract)**

ICCAT GBYP 05.1. Offer from Imperial College (London – UK); September 14, 2012

ICCAT GBYP 05.2. Report of the ICCAT Secretariat Evaluation Committee for the unique ICCAT-GBYP 02/2012 bid; September 18, 2012

### **MODELLING APPROACHES – SUPPORT TO BFT STOCK ASSESSMENT (ICCAT-GBYP 03/2012 a & b– Phase 3 Short-Term Contract)**

ICCAT GBYP 05.3. Offer for the 03/2012 a “ICCAT Catch-at-size to Catch-at-age data”, from IPMA & JFL (Lisbon – Portugal); September 30, 2012

ICCAT GBYP 05.4. Offer for the 03/2012 b “ICCAT Catch-at-age Imputation”, from Dr. Tom Caruthers (Vancouver – Canada); September 29, 2012

ICCAT GBYP 05.5. Report of the ICCAT Secretariat Evaluation Committee for the two bids “ICCAT-GBYP 03/2012 a & b”; October 9, 2012

ICCAT GBYP 05.6. GBYP Modelling - Modelling in Support of Bluefin tuna Stock Assessment and Management Advice – Modelling; by ICCAT Population Dynamics Expert; December 12, 2012

ICCAT GBYP 05.7. Summary of Potential Approaches for Obtaining Fishery Independent Tuning for BFT – Draft for discussion; by the GBYP Steering Committee (Tom Polacheck); December 12, 2012

## **ICCAT GBYP 06. RESEARCH MORTALITY ALLOWANCE -RMA-**

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### **ICCAT GBYP - RMA**

ICCAT GBYP 06.1. Recommendation 11-06 by ICCAT concerning the Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) - Research Mortality Allowance

ICCAT GBYP 06.2. GBYP Excel Summary Tables & Graphs of the RMA, up to November 29, 2012

## **ICCAT GBYP 07. ICCAT GBYP – STEERING COMMITTEE REPORTS**

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### **ICCAT GBYP Steering Committee Reports (Sept. 2011 – March 2012) & Dec. 2012 Meeting Agenda**

ICCAT GBYP 07.1. Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) - Report of the *Ad horas* meeting of the GBYP Steering Committee; Madrid, September 29, 2011

ICCAT GBYP 07.2. Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) - Report of the Steering Committee meeting 01/2012; Madrid, 07-08 February 2012

ICCAT GBYP 07.3. Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) - Report of the Steering Committee meeting 02/2012; Madrid, 20-21 March 2012

ICCAT GBYP 07.4. Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) - Report of the *Ad horas* meeting of the GBYP Steering Committee; Madrid, September 07, 2012

ICCAT GBYP 07.5. GBYP Steering Committee December 2012 Meeting – Agenda & GBYP Coordination Summary Report and Tables

ICCAT GBYP 07.6. Summary table of Actions/Recommendations items set by the GBYP/SC in its previous meeting, and by who/when they were concretized, plus the status/notes/further actions; by the Steering Committee and GBYP Coordination (Polacheck and Di. Natale); December 11, 2012

## **ICCAT GBYP 08. ICCAT GBYP COORDINATION**

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### **2012 COMMISSION TENTATIVES RECOMMENDATIONS FOR GBYP**

ICCAT GBYP 08.1. Explicative note on the draft Recommendation by ICCAT establishing a scientific quota for the funding of the Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) , plus, the Draft Recommendation by ICCAT establishing a scientific quota for the funding of the GBYP; by SCRS Chair, at ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.2. Recommendation by ICCAT amending the previous recommendation by ICCAT to establish a multi-annual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean; proposal by the European Union, at ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.3. Draft Recommendation by ICCAT establishing a scheme for the funding of the (GBYP); proposal by Japan, at ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.4. Draft supplemental recommendation by ICCAT concerning the western Atlantic Bluefin Tuna Rebuilding Program; Proposal by the United States, at ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.5. Commission's requests to SCRS in direction to the eastern Atlantic and Mediterranean bluefin tuna (To be attached to the Report of Panel 2); Submitted by EU and Japan, at ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.6. Presentation of the SCRS Chair on East Atlantic & Mediterranean Bluefin Tuna, at PANEL 2 - ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.7. Presentation of the SCRS Chair on Panel-2 Recommendations with Financial Impacts, at STACFAD - ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

#### **2012 SCRS PAPERS & SCI DOCUMENTS**

ICCAT GBYP 08.8. SCRS 2012 Annual Meeting Report - Special Research Programs: Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) and Scientific Quota; Pages 204 & 207 of the Report; Madrid, 1-5 October, 2012

ICCAT GBYP 08.9. SCRS 2012 Annual Meeting Report - General recommendations to the Commission that have financial implications; Page 210 of the Report; Madrid, 1-5 October, 2012

ICCAT GBYP 08.10. Annual Meeting Report - Proposed calendar of ICCAT scientific meetings in 2013; Page 209 of the Report; Madrid, 1-5 October, 2012.

ICCAT GBYP 08.11. The ICCAT Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) Programme 201 2: GBYP Coordination detailed activity report for Phase 2 (last part) and Phase 3 (first part); by GBYP Coordination; SCRS/2012/139, SCRS Meeting, Madrid, 1-5 October, 2012

#### **2012 SCRS RECOMMENDATIONS FOR GBYP**

ICCAT GBYP 08.12. Recommendation by SCRS for establishing a scientific quota for the funding of the Atlantic-Wide Research Programme for Bluefin Tuna (GBYP) ; by SCRS Chair at Panel-2 Presentation; ICCAT Commission, Agadir (Morocco), 12-19 November, 2012

ICCAT GBYP 08.13. Recommendation 11-06 by ICCAT concerning the Atlantic-wide Research Programme for Bluefin Tuna (GBYP); ICCAT Commission, Istanbul (Turkey), 12-20 November, 2011

#### **ADMINISTRATIVE RULES**

ICCAT GBYP 08.14. Administrative rules as provided to all ICCAT GBYP Consortia; GBYP Coordination; 2011 & 2012

#### **BUDGET FOR PHASE 3 – 2012**

ICCAT GBYP 08.15. A folder with: An Excel Summary Table with CPCs' contributions to Phase 3 (2012) GBYP Budget (up to Nov. 30, 2012), plus all letters sent/received to/from CPCs concerned

ICCAT GBYP 08.16. Excel files with 2012 (Phase 3) GBYP expenditures and commitment

#### **BUDGET FOR PHASE 4 – 2013**

ICCAT GBYP 08.17. Excel files with 2013 (Phase 4) GBYP Budget – Expectations (Proposal of the SCRS Chair to the 2012 Commission) and the Final Budget set by the GBYP Steering Committee (Dec. 14, 2012)

#### **OFFERS BY FISHING INDUSTRIES**

ICCAT GBYP 08.18. Offer for cooperation with ICCAT-GBYP from Fedecoopesca for Aerial Surveys and Tagging; November 28, 2012

ICCAT GBYP 08.19. Offer for cooperation with ICCAT-GBYP from Tuna Producers Association -TPA- for Aerial Surveys ,Tagging and Biological Sampling ; November 23, 2012

ICCAT GBYP 08.20. Turkey's availability and willingness to cooperate in supporting and facilitating the GBYP research activities; November 30, 2012

ICCAT GBYP 08.21. Some exploratory figures about the expected prices per flight hour for a possible aerial survey in the Mediterranean for GBYP Phase 4; by end of November 2012

## **OPERATIONAL WORKSHOPS**

ICCAT GBYP 08.22. ICCAT-GBYP Presentation to the Operational meeting on tagging, biological and genetic sampling and analyses; Madrid (Spain), April 17 & 18, 2012

ICCAT GBYP 08.23. ICCAT-GBYP Report of the Operational meeting on tagging, biological and genetic sampling and analyses; Madrid (Spain), April 17 & 18, 2012; Doc. No. SCI-036 / 2012; 2012 SCRS

## **POWER POINT PRESENTATIONS**

ICCAT GBYP 08.24. A Power Point Presentation given by the ICCAT-GBYP Coordinator in 2010 to SCRS Plenary

ICCAT GBYP 08.25. A series of three Power Point Presentations given by the ICCAT-GBYP Coordinator in 2011 to RAC Med and SCRS Plenary

ICCAT GBYP 08.26. A series of six Power Point Presentations given by the ICCAT-GBYP Coordinator in 2012 to SCRS BFT Stock Assessment Session and SCRS Plenary

## **SUMMARY REPORT**

ICCAT GBYP 08.27. ICCAT-GBYP Coordination Summary Report - Phase 3; at December 12, 2012

## **VARIOUS ANALYSES**

ICCAT GBYP 08.28. ICCAT-GBYP Excel Table with different indicators concerning: Tagging, Aerial Surveys and Biological & Genetic Sampling Analyses (Phases 1, 2 and 3)

ICCAT GBYP 08.29. ICCAT-GBYP Note about the permits issues (Air Spaces and EEZ or Internal waters)

ICCAT GBYP 08.30. ICCAT-GBYP Excel Table with analyses of permit issues for operating in ICCAT CPCs areas

## REVIEW OF ACTIONS AN RECOMMENDATIONS

Ref	Activity	Action/Recommendations	Who	Date	Status/notes/action
SC-2/12	Coor.	Improve salary and level of Coor. Staff	ICCAT Sec	3/2012	Finalized
SC-2/12	DM	Publication of Special Issue from Trap Symposium	ICCAT Sec		Completed
SC-2/12	DM	Set cutoff date for submission of papers from Trap Symp.	ICCAT Sec		Completed
SC-2/12	DM	Recovery of trap data from Ottoman Archives	Contract		Exploratory contract underway – to be discussed at SC meeting
SC-2/12	TAG	Official ICCAT press rel	Coor		Done for lottery
SC-2/12	TAG	Improving contacts with journalists and media for tag awareness	Coor	On-going	Progress to be reported at SC meeting
SC-2/12	TAG	Establish In port tag liaison persons - voluntary and contracted	Coor	4/2012	Some voluntary established, no contracts. To be discussed
SC-2/12	TAG	Establish details of cooperation with obs. in Bay of Biscay for tag recovery	Coor	5/2012	Still needs to be discuss
SC-2/12	TAG	Tag seeding cages in Croatia – develop arrangement	Coor	5/2012	Meeting delayed with Croatia
SC-2/12	TAG	Purchase archival tags using residual of funds from Phase 2 extension	Coor	4/21/12	completed
SC-2/12	Gen	Long term plan for extension of GBYP	SC/Coor	9/2012	No progress
SC-2/12	Gen	Strategy for multi-year funding	SC/Coor	9/2012	No progress
SC-2/12	AS	Explore feasibility and min. requirement (spatial coverage, etc) for juv. aerial sur.	Contract	9/2012	No suitable person found – internal SWOT analysis – to be discussed as SC meeting
SC-2/12	TAG	Investigate feasibility of close kin genetic tagging	SC/Tom	9/2012	Tom provided background papers
SC-2/12	TAG	Investigate feasibility of mark-recapture genetic tagging	SC	9/2012	No progress
SC-2/12	DM	Analyses of VMS data for CPUE standardization	Contract	-	Suspended till Phase 4 But some internal work done at ICCAT and presented to Assessment meeting, To be discuss at SC meeting
SC-2/12	DM	Contact EU for permission to use fine scale VMS data	ICCAT Sec	9/2012	Data already available
SC-2/12	Gen	provide the Commission and	SC/Coor	9/2012	To be discussed at SC

		CPs with a mid-term review of the GBYP and a proposal for the future			meeting
SC-2/12	TAG	Establish Tag Coor.	ICCAT Sec /Coor	ASAP	Under contract
SC-2/12	TAG	printing of posters in Mandarin Croatian and Russian, printing	Coor	19/4/12	Completed
SC-2/12	TAG	Contract for costs for the satellite data for the mini-PATs	Coor	19/4/12	Completed
SC-2/12	TAG	Order additional Conventional tags	Coor	19/4/12	Completed
SC-2/12	DM?	Develop. Standards for Videoing Transfer to towing cages	Contract	19/4/12	No offers – some individual CP doing work
SC-2/12	DM	Initiate a working group for incorporating recovered data into the stock assessment	ICCAT Sec		Meeting set for May 2013
SC-2/12	Tag	implement cooperative agreements with ROP observers in cages for ensuring a full tag reporting	ICCAT Sec /Coor		Completed but problems with implementation – issues remain about data availability
SC-2/12	Tag	Explore possibility of placing tag recovery technicians aboard vessel without observers – beginning in 2013 season	Coor ?		No progress – but situation changed
SC-2/12 SC-7/11	Coor	enlarging the SC membership to another external member	SCRS/Com		No discussion/no progress
SC-2/12	Tag	Hiring Tag Coor -ASAP			Incorporated into tender
SC-2/12	Tag	Contracting/chartering a minimum of three bait-boat vessels for tagging			Incorporated into tender but not as planned
SC-2/12	Tag	Contact EU - DG MARE to assist with obtaining permits for accessing national areas for tagging	ICCAT SEC /coor	4/2012	Completed
SC-2/12	Tag	Contracting or hiring tagging teams			Incorporated into tender
SC-2/12	Tag	Seek advertising possibilities in relevant trade magazines for tag promotion	Coor		No progress
SC-2/12	Tag	Facilitate the publication of articles in local newspapers and relevant trade magazines for tag promotion	Coor	On-going	Some articles published and some WEB sites
SC-2/12	Tag	Encourage the presentation of interviews and relevant documentary material in local TV and Radio programming for tag promotion	Coor	On-going	Some by Contractors but none by ICCAT
SC-2/12	Biol	reduce the bureaucratic burden	Coor		Completed

		relative to deliverables for biological sampling			
SC-2/12	Mod	2 technical consultations	Laurie		Laurie to report
SC-2/12	Mod	Short-term contract for conducting a risk analysis.	Laurie		Contract let
SC-2/12	Mod	Perform simulation trials	Laurie		Laurie to report
SC-7/11	TAG	contract (Call for Tenders) for a short time contract for analyzing the PIT tagging issue and create a report for the SCRS;			No progress
SC-9/12	DM	Explore way to evaluate how to use trade data – including budget and experts			To be discuss, included in proposed budget of coor
SC-9/12	Coor	Issues to be raised with Commission via SCRS			Completed
SC-9/12	Biol	Seek a resubmission for a revised and updated proposals from Consortium			Completed
SC-9/12	Coor	Explore the possibility of making the administrative procedure requested by the current EC Grant simpler	Coor		Meeting planned but cancelled