

GBYP Steering Committee Meeting **(on line, 16 November 2020)**

Participants

Steering Committee (SC) members: Gary Melvin (SCRS Chair), Rui Coelho (SCRS Vicechair), John Walter (W-BFT Rapporteur), Ana Gordoia (E-BFT Rapporteur), Ana Parma (SC External Member), Camille Jean Pierre Manel (ICCAT Executive Secretary),

Invited: Miguel Neves dos Santos (ICCAT Assistant Executive Secretary), Francisco Alemany (GBYP Coordinator), Alfonso Pagá García (GBYP Database specialist) and Stasa Tensek (GBYP Assistant Coordinator). Arnaud Peyronnet was also invited by the Steering Committee, but due to the short notice, he could not participate.

Objectives

Discussion about the Independent peer review on GBYP aerial surveys and decision about the next steps towards the final decision about the future of aerial surveys. Guidance for preparing the Amendment of Phase 10 and Grant Application of Phase 11.

General remarks

The SC was informed by the Secretariat that it received information from the EU, according to which, in order to secure financing, the proposals for Phase 11 and amending of Phase 10 should be sent by the end of the week. Due to the COVID situation, EU expressed its flexibility to receive an undetailed proposal, while the more detailed proposal for amending the initial contract, with specific activities, can be sent later. Before deciding on the final activities, in depth discussion within the SC and the BFT Species Group is needed, with special concerns to the future of GBYP aerial surveys.

Phase 10 Grant Amendment

It was decided to present firstly only a proposal for the extension of 7 months of Phase 10, and not amending any activity. If necessary, the activities are going to be adjusted later by a second amendment.

Phase 11 Grant Application

GBYP Coordinator presented the draft plan of activities and budget for Phase 11 (**Annex 1**) which in general was accepted, with some modifications recommended by the SC (**Annex 2**).

Future of GBYP Aerial Surveys (AS)

The SC analysed in depth the draft version of the Independent Peer Review by the Centre for Independent Experts (CIE) of the ICCAT GBYP Aerial Survey Design, Implementation and Statistical Analyses.

It was decided that the decision of the future of AS should be taken by the BFT Group, given its large implications on the GBYP Programme and MSE. For that purpose, the Chairs will prepare a brief proposal of options to go forward to assist the BFT WG for its Dec 1-3 meeting. The CIE reports will also be provided to the Group as background documents.

It was recalled that the cut in budget for Phase 11 represents the same amount as funding the AS and these funds are still contemplated within the Phase 10. Since eventual incorporation of many of the reviewer's suggestions could imply changing the protocols, it is not possible to carry out all the recommendations of the reviewers to incorporate in field surveys in 2021 because there is no time for a proper preparation. Nevertheless, these funds may be used for some AS complementary activities, in case that the BFT Group supports the continuation of AS.

It was discussed if the existing AS series could be used, provided that they are properly corrected. It is not clear if the existing error includes minor errors in the variance calculation that could be corrected by Alnilam or the error is in larger due to using an incorrect abundance estimator and not taking into account the function of school size, which would imply that that it is needed to revise the code by the external experts (developers). Moreover, it is not clear if the existing data are sufficient for making any correction, given that they themselves might be biased. In case that the GBYP AS continues, and the existing series can be corrected, it is to be assessed if the two series can be considered compatible or the index will have to be split. However, considering Buckland's statement in his revision "given the lack of consistency in the methods used to date, such a calibration exercise would probably have limited value", some concerns were expressed about the possibility of reconciling the results from previous and future surveys. In any case, in order to move forward and assess the amount of error, Alnilam should soon provide their comments on the CIE report.

The SC noted that the CIE reviewers provided multiple changes for improving the AS, which imply considerable additional cost and it is probable that GBYP does not have enough funds to implement all. Therefore, it should be determined if all recommendations are crucial for developing an informative AS index or some could be left out. Therefore, it is recommended to make a feasibility study exploring different cost scenarios before making a final decision. It should also be taken into account the value of having an index in different areas and MSE might be a powerful tool for making this decision, as MSE can be used in a 'value of information' context to determine how influential an improved aerial survey might be in providing management advice. Instead of continuing the survey in 4 Mediterranean areas, one possibility would be to have a reliable index of the Balearics only.

Nevertheless, before it should be assessed if having only the index from one Mediterranean area such as Balearics would be useful, and also whether the survey provides a relative index or potentially can provide an estimate of absolute abundance that would be informative enough for assessment purposes, or at least informative on absolute abundance for a limited area. For either an absolute or relative index, the interannual variability in the proportion of spawners that are outside of the areas covered or deeper than can be detected by the surveys alters the proportionality between any index and the abundance of spawners. Habitat models might be useful for estimating those proportions, although even having the perfect habitat cannot guarantee the spawners will be there. In any case, the design-based estimator will likely not solve the problem derived from the survey designs covering a variable proportion of the spawning population from year to year. A step forward to address this problem should be a model-based approach with a backward capability.

In addition, with respect to the areas for possible field AS, it was noted that spawning areas might change around 15-20% between years. A habitat model might help to determine which areas to survey each year or if the areas are large enough to accommodate for this inter-annual change in spawners distribution. If the latter is the case, it was discussed which approach should be the best: surveying core areas with higher effort and the buffer zone with less effort, or

surveying the whole wider area with the same intensity. But it was also noted that habitat models may not solve the problem, as habitat may not equate with the presence of fish and the habitat models may require additional sampling to construct and validate.

Other important problem to be resolved before resuming the aerial survey is the spotters/observers issue. It should be decided how to proceed with spotters' calibration and to add a system for objective assessment of BFT counts and size, such as video-cameras, photo cameras. In addition, switching the sampling platform from planes to drones has been also recommended to be considered. Different technical approaches should be assessed, along with their financial implications. A pilot study in Balearics directed at testing new technologies may provide some answers. Also, other groups conducting the aerial surveys should be contacted to benefit from their experience.

Annex 1. Draft plan of activities and budget for Phase 11

ICCAT-GBYP PHASE 11 (1 Jan. 2020- 31 Dec. 2021) - PROVISIONAL MINIMUM BUDGET			
	ALLOCATION	amount (€)	
ACTION	(to be confirmed by SCRS and the Commission)	detail	total Phase 11
A	Coordination		375,000.00
A.1.1	ICCAT Staff	10,000.00	
A.1.2	Coordinator's and support staff salaries and benefits	277,000.00	
A.2	Travel and subsistence	40,000.00	
A.3	Computer hardware and software	10,000.00	
A.4	Consumables and supplies	3,000.00	
A.5	Contracts for external Steering Committee members	15,000.00	
A.6	ICCAT Secretariat overhead	20,000.00	
A.7	Contract for improving communication	xxx	
B	Data mining, data retrieval and data elaboration (external contracts)		75,000.00
B.1	Recovery of etags datasets	25,000.00	
B.2	Etags DB	30000	
B.3	Support for development of Biological data Information System	?	
C	Independent indices		30,000.00
C.1	Improvement of Aerial Survey protocols	30,000.00	
C.2	Support for statistical techniques for index standardization and to develop a working network for analysts to facilitate the future sharing of knowledge and tools	?	
D	Tagging		188,000.00
D.1	Conventional and/or electronic tagging (external contracts)	50,000.00	
D.3.1	Electronic tags (miniPATs) and related services	120,000.00	
D.3.2.	Maintenance conventional tagging	3,000.00	
D.4	Tag awareness, tags recovery, tags reporting and rewards (partly external contracts)	15,000.00	
E	Biological Studies (external contracts)		802,000.00
E.1	Biological studies (tissue bank, sampling and analyses)	430,000.00	
E.2	Pilot studies non-invasive methods for growth in farms	120,000	

E.3	Analyses Growth in farms (further SC analyses...)	27000	
E.4	Sampling adults in farms	80,000.00	
E.5	Work Shop close kin methodologies	30,000.00	
E.6	Work Shop larval indices methodologies	25000	
E.7	Work Shop Tagging	40000	
E.8	Work Shop sampling coordination&standardization	25,000.00	
F	Modelling		150,000.00
F.1	Modelling expert, including travels	100,000.00	
F.2	BFT MSE Technical Group meetings	25,000.00	
F.3	External review MSE (BFT group)	30000?	
F.4	Stock assessment alternative models (SC meeting Oct & BFT group)	30000?	
F.5	Contract "communicator MSE/Commission"	5000?	
	Total revised reduced minimum budget		1,600,000.00

Annex 2. Comments on the draft plan of activities and budget for Phase 11, by the Steering Committee

A7. A contract for improving communication should be planned, in order to be able to clearly communicate the achievements of GBYP over the years and practical application of its results, in not too technical manner. It is important to show to the funders how money is applied and, up to now, we have failed to achieve to communicate how important the Programme is.

B3. Creation of biological DB. Although it was planned to be done within the Secretariat staff, contracting some external expert may be necessary

C1. Improvement of aerial survey protocols is contingent upon the final decision on AS continuation

C2. Support for statistical techniques for index standardization and to develop a working network for analysts to facilitate for future sharing of knowledge and tools primarily includes funds for the meeting, without need for external experts. This activity should be matched with the workplan, although the specific matching meeting was not yet planned. Does this also do the habitat modelling and where is that component?

D.1 It was recommended to deploy a great number of electronic tags in the Mediterranean, in order to get more knowledge on the fraction of spawners that are resident in the Mediterranean Sea. Decision of which tags to purchase is going to be made during the Tagging Workshop.

D3.1. Although it was envisaged to purchase a great number of electronic tags, it was recommended to wait for a few months until it is proven that new model Wildlife computers PSATs are working properly. Decision of which tags to use is going to be made during the Tagging Workshop.

E.1. Can we see a breakdown for the biological sampling and analyses. What are we getting for all of this?

E.7 First part of tagging workshop is going to be held online, while it is envisaged to schedule a presential meeting by the end of 2021, which would be considered as the second part

E.2. As concerns pilot studies including non-invasive methods for determining growth in farms, these would include surveys in Morocco and other area in the Mediterranean (Western or Central). Nevertheless, SC expressed lot of concerns because these studies are expensive and although they are very interesting from the scientific point of view, it is not clear if they could resolve the question from the Commission. Therefore, it was decided that this point need further review of the SCRS Subgroup on BFT growth in farms.

Workshops. A general comment from the Secretariat was that a plan of activities includes too many meetings and workshops and the EU already complained about the level of SCRS meetings scheduled for 2021. GBYP has strong arguments for holding the meetings, because many GBYP workshops were postponed due to the COVID pandemics and the planned workshops mainly do not include the same scientist that are attending the SCRS meetings. Anyway, the tagging and close kin workshop have preference, while the other workshops such as larval indices have lower priority.

Travels. Since it is expected that travelling will not be possible, at least, in the first semester of the year, the budget should be reduced to about a half of usual amount.

F3. External review of MSE work would possibly include a peer review of the process or code review, although it may be already too late to initiate it in this stage. In any case, additional experts are not needed.

F4. Alternative models for improving stock assessment of E-BFT require external contracts for running ASAP and Stock synthesis model and the envisaged cost is € 30.000 per model

F5. The task of communication of MSE results between the Commission and the MSE Group will be done by the SCRS Chair.