INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS

COMMISSION INTERNATIONALE POUR LA CONSERVATION DES THONIDES DE L'ATLANTIQUE

COMISION INTERNACIONAL PARA LA CONSERVACION DEL ATUN ATLANTICO

Madrid, 9 July 2024

ICCAT CIRCULAR # 07036 / 2024

SUBJECT: CALL FOR TENDERS – TERMS OF REFERENCE – ATLANTIC BLUE MARLIN GULF OF MEXICO REPRODUCTIVE BIOLOGY STUDY

The SCRS has, over the past years, identified several sources of uncertainty that affect its ability to provide accurate stock status of marlins. Recent studies suggest that sex maturity schedule, size of males and females, and reproductive contribution of blue marlin in the Gulf of Mexico are different from what has been traditionally assumed for this species in other areas of the Atlantic Ocean (Ramírez-López, 2018). As such, in 2023 the Billfish Species Group recommended a scientific research study on the reproductive biology of blue marlin in the Gulf of Mexico. The SCRS recommended initiating a coordinated research study, to advance knowledge on the reproduction of blue marlin in the Gulf of Mexico, to be able to provide more accurate scientific advice to the Commission. Improved knowledge of key biological processes and parameters are required to reduce uncertainty in stock assessment and to provide robust management advice. Moreover, the estimation of comprehensive biological parameters is considered a priority as part of the process of evaluating Atlantic blue marlin stock capacity for a successful rebuilding program.

Among the key biological parameters are the ones related to the reproductive capacity of Atlantic blue marlin stock, which include maturity schedules (L_{50}), sex at size, sex ratios and egg production (size/age related fecundity). In order to estimate comprehensive biological parameters related to the reproductive capacity of Atlantic marlin stock, an enhanced collection of sex-specific gonad samples, sex identification, size and macroscopic reproduction status need to be implemented in the Gulf of Mexico area. The collection of samples shall be pursued by national scientists from those fleets known to fish in the identified area and willing to collaborate in the collection of samples for the analysis. Potential CPCs that could collaborate with the sampling program may include (but not limited to) Mexico and USA.

Therefore, ICCAT is kindly requesting proposals for such work, which shall be developed according to the Terms of Reference herein attached. The detailed offers shall be submitted **only to the attention of Mr. Camille Jean Pierre Manel**, the Executive Secretary of ICCAT, and Cc'ing Mrs Stasa Tensek, at the following addresses: camille.manel@iccat.int and stasa.tensek@iccat.int, by **19 July 2024 (18:00h Madrid time) at the latest**.

I would be grateful if you could distribute this announcement to qualified individuals who might be interested.

Please accept the assurances of my highest consideration.

Executive Secretary

Camille Jean Pierre Manel

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Attachment: Terms of Reference (only provided in English).

Terms of Reference

Atlantic Blue Marlin Gulf of Mexico Reproductive Biology Study

1. Background and Objectives

The SCRS has, over the past years identified several sources of uncertainty that affect its ability to provide accurate stock status of marlins. In 2018, the Billfish Species Group recommended a scientific research study to evaluate reproductive biology of blue marlin in the Gulf of Mexico. Recent studies suggest that sex maturity schedule, size of males and females, and reproductive contribution of blue marlin in the Gulf of Mexico are different from the what is has been traditional assumed for this species in other areas of the Atlantic Ocean (Ramírez-López and Gutiérrez-Benítez, 2018). As such, the SCRS recommended initiating a coordinated research program, to advance knowledge of this stock and be able to provide more accurate scientific advice to the Commission. Improved knowledge of key biological processes and parameters are required to reduce uncertainty in stock assessment and to provide robust management advice. Moreover, the estimation of comprehensive biological parameters is considered a priority as part of the process of evaluating Atlantic blue marlin stock capacity for a successful rebuilding program.

Among the key biological parameters are the ones related to the reproductive capacity of Atlantic blue marlin stock, which include maturity schedules (L50), sex at size, sex ratios and egg production (size/age related fecundity). In order to estimate comprehensive biological parameters related to the reproductive capacity of Atlantic marlin stock, an enhanced collection of sex-specific gonad samples, sex identification, size and macroscopic reproduction status need to be implemented in the Gulf of Mexico area. The collection of samples shall be pursued by national scientists from those fleets known to fish in the identified area and willing to collaborate in the collection of samples for the analysis. Potential CPCs that could collaborate with the sampling program may include (but not limited to) Mexico and USA.

The objective of this contract is to enhance the biological sampling and conduct analyses in order to improve the knowledge about Atlantic blue marlin spawning (area and season) in the Gulf of Mexico area, maturity at age, and fecundity. Expected results will include a comprehensive definition of sex-specific maturity development for blue marlin.

2. Contractor tasks

The main tasks to be carried out are:

- Collection (through observers onboard and through monitoring of the landings) of reproductive tissue (gonads), other related tissues (e.g. spine, otolith, liver) and associated biological information [date, lower-jaw-fork length, total weight, gonad weight, liver weight, position (Lat/Long), sex, oceanographic data (e.g. SST)] in blue marlin caught by fishing vessels operating in potential spawning areas of the Gulf of Mexico.

- Provision of gonad samples in formalin of males and females, suitable for histological analysis for the classification of the reproductive (maturity) stages.

- Record of digital images for contrasting macroscopic evaluation of reproductive status for males and females

The contractor must follow the protocols in the ICCAT Manual for the collection and analysis of maturity data .

3. Deliverables

1. Deliverable #1 - The contractor shall give a SCRS presentation **during the 2024 Billfish Species Group meeting** (Madrid, Spain, September 2024). Such presentation shall describe, in detail, the methodology and activities to be carried out during the study. These results will be discussed in the light of the current knowledge, with the aim to highlight the knowledge contribution made by the study on the state of the art.

2. Deliverable #2 - Under scenario 1, a **draft final report** shall be submitted by **15 December 2024** at the latest, and shall include:

a) Executive summary;
b) Full description of the work carried out;
c) Detailed description of the sampling carried out;
d) Detailed description of final results achieved;
e) List of references and literature cited.

In case the contract is extended until 31 December 2025 (scenario 2), the Deliverable #2 shall consist of a **SCRS document** to be provided **during the 2025 Billfish Species Group intersessional meeting**. Such document shall describe the activities developed and preliminary results achieved.

3. Deliverable #3 - Under scenario 1, the **final report** shall be updated taking into account the comments provided by the Billfish Species Group rapporteur, the SCRS Chair and the Secretariat and be submitted by **31 December 2024** at the latest.

Under scenario 2, the Deliverable #3 shall consist of a **draft final report** to be submitted by **15 December 2025** at the latest, and shall include:

a) Executive summary;
b) Full description of the work carried out;
c) Detailed description of the sampling carried out;
d) Detailed description of final results achieved;
e) List of references and literature cited.

4. Deliverable #4 - Under scenario 2, the **final report** shall be updated taking into account the comments provided by the Billfish Species Group rapporteur, the SCRS Chair and the Secretariat and be submitted by **31 December 2025** at the latest.

4. Contractor minimum qualifications

- Documented multi-year experience in billfish and tuna research and/or research on large pelagic species with experience on biological samples collection and reproduction studies.
- University degree in one of the following: fisheries science, marine biology, statistics, natural sciences, biological sciences, environmental sciences or closely related fields (in case of individual scientists).
- Excellent working knowledge of one of the three official languages of ICCAT (English, French or Spanish). A high level of knowledge of English is desirable

5. Duration of the contract

The work under this contract shall be executed by **31 December 2024**. However, in case the necessary funds are made available, the contract will be extended for another 12 months (until **31 December 2025**). The Contractor will be notified about the possible extension by 31 November 2024.

6. Submission of bids

Scientists and public or private Scientific Institutes or entities interested shall submit detailed offer(s) only to the attention of Mr. Camille Jean Pierre Manel, the Executive Secretary of ICCAT, at the following address: camille.manel@iccat.int and Ms. Stasa Tensek (stasa.tensek@iccat.int) by **19 July 2024 (18:00h Madrid time) at the latest**, including:

a) A description of methodology to be used;
b) The detailed budget proposal (scenario 1 – work until 31 December 2024), taking into consideration a possible extension (scenario 2 – work until 31 December 2025);
c) A short Curriculum vitae of the tenderer (in case of individual scientists, i.e. the 5 most relevant papers and involvement in recent projects);
d) The name, address, and telephone number of the tendering body;
e) The institutional and administrative background of the tendering body (e.g., statutes, type of institution, annual budget, budget control procedures, etc.), if applicable;
f) Acknowledgement of this Call for Tenders; and
g) A statement specifying the extent of agreement with all terms, conditions, and provisions herein included.

If the tender is submitted by an institute, it must indicate the expert(s) who will be dedicated to the design and programming tasks and that they will be available to attend the 2024 and 2025 Billfish Species Group meeting.

Offers sent after the deadline, or that fail to furnish the required documentation and information or reject the terms and conditions of the Call for Tenders will not be considered.

Interested scientists and public or private scientific institutes or entities interested to apply shall provide a detailed budget and clearly identify costs related to main activities of the work (e.g. including estimated number of days of work; daily rates, sample shipping, travelling and subsistence).

7. Selection of bids

The ICCAT Secretariat will review the offer(s). Following the revision process, the ICCAT Executive Secretary will notify the entity selected for the contract as soon as the selection process is completed. Contracts will be awarded on the basis of competitive tendering and the evaluation of proposals will be undertaken objectively, consistently and without bias towards particular suppliers.

Proposal(s) will be evaluated against a pre-determined set of criteria, which include: (i) cost; (ii) proven track record; (iii) technical merit based on work plan; (iv) flexibility to future changes to requirements; and (v) contribution to the overall objectives of the ongoing ICCAT Research for Atlantic Blue marlin.

8. Payment details

Disbursements will be made according to the following schedule:

1) **40% of the total amount of the contract upon signing of the contract** and receiving and after receiving a regular invoice for the advance payment;
2) **30%** after the provision of presentation to the 2024 Billfish Species Group meeting (**Deliverable #1**) and after receiving a regular invoice;
3) **20%** after the reception of the **draft final report** by the ICCAT Secretariat and after receiving a regular invoice and a complete set of documents concerning the expenses incurred under the contract;

4) **10%** after the approval of the **final report** by the ICCAT Secretariat, upon incorporation of comments made by the ICCAT Secretariat and after receiving a regular invoice and a complete set of documents concerning the expenses incurred under the contract, which shall be provided by **31 December 2024** under scenario 1, or **31 December 2025** under scenario 2.

9. Logistics

The text report shall be in MS Word or compatible software. All other documents provided by the Contractor must be in Open Office, Latex or compatible software. All documents submitted must be in English.

10. Copyright

All the material produced by the Contractor will remain the property of ICCAT. All software written by the Contractor will be licensed under GLP or similar open-source license.

For additional information concerning this Call for Tenders, please contact ICCAT Secretariat at the following address: miguel.santos@iccat.int.

References

Ramírez-López K., Gutiérrez-Benítez O. 2018. Análisis de la captura, distribución de longitud, relación longitud-peso y proporción de sexo del marlín azul (*Makaira nigricans*) capturado incidentalmente por la flota palangrera mexicana en el golfo de México. SCRS/2018/188 (withdrawn).