



Madrid, 27 December 2024

## ICCAT CIRCULAR # 12493/ 2024

**SUBJECT: CALL FOR TENDERS - TERMS OF REFERENCE – CONTINUATION OF THE COLLECTION OF BIOLOGICAL SAMPLES AND ANALYSIS FOR THE STUDY OF GROWTH OF BILLFISH IN THE EASTERN ATLANTIC (YEAR #6)**

I should like to transmit the Terms of Reference (ToRs) aiming at the *Continuation of the Collection of biological samples and analysis for the study of growth of billfish in the eastern Atlantic (Year #6)*.

Accordingly, ICCAT is kindly requesting a new quotation for such work, which shall be developed according to the ToRs herein attached. The detailed offer shall be submitted **only to the attention of** the ICCAT Executive Secretary, [Mr. Camille Jean Pierre Manel](#), and Cc'ing [Mrs. Stasa Tensek](#), by **23 January 2025**.

For further information concerning this quotation request, please contact [Dr. Miguel Neves dos Santos](#) at the ICCAT Secretariat.

Please accept the assurances of my highest consideration.

P.O. Executive Secretary

Miguel Neves dos Santos  
Assistant Executive Secretary

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**Attachment:** Terms of Reference for the Call for Tenders (English version only).



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## Terms of Reference (ToRs)

### Collection of biological samples and analysis for the study of growth of billfish in the eastern Atlantic (Year #6)

#### 1. Background and objectives

The main objectives of this project are to collect biological samples and conduct analysis for growth estimates for billfish (BIL) in the eastern Atlantic, to supplement collections of such sampling conducted elsewhere in the Atlantic Ocean. These samples and growth data are necessary to improve the growth parameters used in the assessment of billfish, and to help the SCRS to provide scientific advice to ICCAT for their management.

The project in 2025 aims to continue the collection of biological samples and data carried out between 2018 and 2024 and further develop the growth studies for billfish from the eastern Atlantic, including the start of age validation work. These will necessarily require an urgent need for ICCAT CPCs to engage in sampling for this program to overcome the issue related to size range gaps.

These ToRs include two specific objectives:

- The first objective is to continue the collection of hard parts (otoliths and spines), tissue samples and associated information for marlins and sailfish caught off West Africa from all fisheries, either from billfish fisheries or from those catching these species as by-catch. The sampling can cover all size classes, but greater effort should be made to obtain the high priority specimens from the size classes as described in **Annex 1**. The species focused on this call are:
  - *Makaira nigricans* (BUM)
  - *Kajikia albida* (WHM)
  - *Istiophorus albicans* (SAI)
- The second objective is to carry out the analysis of data on length and age for estimating the growth parameters of the main billfish species that occur in the eastern Atlantic, namely those that are listed above.
- The third objective is to start an age validation work specifically for blue marlin (BUM) from the eastern Atlantic region.

As part of this biological sample collection and growth studies, scientific institutes and public or private entities are requested to submit a proposal according to the project objectives. Proposals from consortia are acceptable, and may be regarded more favorably given the scope of the project. All the samples collected, and the results obtained under the Enhanced Program for Billfish Research (EPBR), shall be used only for scientific purposes and in accordance with ICCAT rules. Any other use of the data should be specifically authorized by ICCAT.



## 2. Contractor tasks

The Contractor will work in close consultation with the ICCAT Secretariat.

The Contractor will provide the Secretariat with a detailed description of the biological sampling scheme explaining how the biological activities should be conducted (species to be sampled, spatio-temporal strata of biological sampling, number of fish to be sampled, type of biological samples to be collected, etc.). It must be noted that for biological sampling and analysis, which are meant to represent the entire stock, studies that have a small temporal and spatial scale will not meet the project objectives. As such, tenders should be made on a **regional and collaborative basis**. Proponents will be expected to collect samples for a during the entire period of the contract (**January to 31 December 2025**), but samples previously collected will be accepted if they are in line with these ToRs.

The tender should be responsible for the following:

- a) The Contractor must provide the Secretariat with a detailed description of the biological sampling scheme for the three species, regarding the collection of hard structures (spines and otoliths), tissue samples, including aspects on the: biological sampling (e.g. ports/landing places and on board), type of biological samples to be collected and analyzed (otoliths and spines), number of fish to be sampled, biological parameters to be estimated, etc. The number of samples to be collected by species shall be balanced and take into consideration the samples collected throughout the previous phase of the EPBR (at least throughout 2018 and 2024) and taking into consideration targets set in the **Annex 1** and sample set costs established in **Annex 2** of these ToRs. The biological sampling period should be as long as possible, noting that the contract duration is of about **11 months**. Therefore, the proposal should include a chronogram of activities and respective budget for the period between 01 January and 31 December of 2025.
- b) The Contractor must strictly follow the protocols in the [ICCAT Manual](#) for the collection and analysis of the growth data. In the case of the collection of muscle tissue following the genetic sample protocol adopted during the 2021 ICCAT Billfish workshop on age reading (**Annex 3**).
- c) The Contractor shall provide a detailed report to ICCAT summarizing the preliminary growth parameters estimated, as well as preliminary work and results on age validation of blue marlin.

## 3. Contractor minimum qualifications

- Documented multi-year experience in billfish tuna's research (including age and growth studies) and/or research on large pelagic species with experience on fishery data collection.
- 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.



#### 4. Submission of proposals

The proposals should be developed according to the ToRs herein attached. The detailed offer(s) shall be submitted **only to the attention of Mr. Camille Jean Pierre Manel** ([camille.manel@iccat.int](mailto:camille.manel@iccat.int)), the Executive Secretary of ICCAT, and Co'ing Mrs. Stasa Tensek ([stasa.tensek@iccat.int](mailto:stasa.tensek@iccat.int)), by **23 January 2025 (18:00, Madrid time)**, including:

- a) The detailed description of the biological sampling scheme (as specified in the item (a) of the contractor tasks), the full cost of the collection of biological samples and the estimation of the growth and maturity parameters.
- b) The *curriculum vitae* of the tender (in case of individual scientists) and of any collaborator.
- c) The *curriculum vitae* of the institution (if an institution is the tenderer), with any documented experience in research on billfishes, or other large pelagic species or in data collection, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information).
- 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) A detailed list of any subcontracting activities.
- g) The declaration that the offering entity shall follow the ICCAT procedures and formats for data to be provided.
- h) A declaration that all the comments eventually made on data and/or documentation reported will be incorporated prior to submission to the ICCAT SCRS in 2025.
- i) A statement specifying the extent of agreement with all terms, conditions and provisions herein included.

If the offer fails to furnish the required documentation and information, or reject the terms and conditions of these ToRs, it will not be considered.

The Contractors can be either research institutes as government or private laboratories, universities, or private consultancy firms or individual scientists or other entities having the qualifications required.

The Contractor should be available to report to any meeting requested by ICCAT.

#### 5. Deliverables

1. A SCRS document or presentation with an update on the samples collected and of the preliminary results to be submitted by **15 September 2025** and presented during the Billfishes Species Group September 2025 meetings.
2. A **draft final report** shall be provided to the Secretariat by **15 December 2025** at the latest.

This report shall be formatted as an SCRS paper and include:

- a) Executive summary;
- b) Full description of the work carried out;
- c) Include an EXCEL file with all the data regarding the samples collected since 2018
- d) Description of the length at age and growth parameters;
- e) References and literature cited.



The relevant SCRS officers, in consultation with the ICCAT Secretariat, will review the report and provide comments and communicate any necessary revisions (if applicable) to the Contractor and/or inform of approval within 5 days of the submission(s). The Contractor shall submit the revised **final report** (if changes are request) 8 days after the aforementioned 5 days' period.

3. Labelled hard structure samples are to be shipped according to instructions determined by the Billfish Species Group and the protocols in the [ICCAT Manual](#) for the collection and analysis of the age and growth data strictly followed.

## 6. Payment details

Disbursement will be made according to the following schedule:

1. 50% of the total amount of the contract within 30 days after signature of the contract and after receiving a regular invoice for the advance payment;
2. 40% of the total amount of the contract upon reception of the draft final report of the contract (Deliverable #2) and after receiving a regular invoice.
3. 10% of the total amount of the contract upon receipt and acceptance by the Secretariat of the final report of the contract, and after receiving a regular invoice and a complete set of documents concerning the expenses incurred under the contract, no later than **31 December 2025**.

## 7. Selection of proposals

The ICCAT Secretariat will make a revision of 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. A contract 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; and, (iv) flexibility to future changes to requirements.

## 8. Logistics

All documents provided by the contractor must be in open format ODF 1.2 ([click here](#)) such as MS word or "\*.odf" de Apache OpenOffice y LibreOffice, figures must be in excel format or compatible, figures and pictures must be in JPEG or TIFF format or compatible. All documents submitted must be in English.

Data must be provided in the standard ICCAT format for statistics. The biological data must be submitted in a format to be defined by the ICCAT Secretariat.

## 9. Copyright

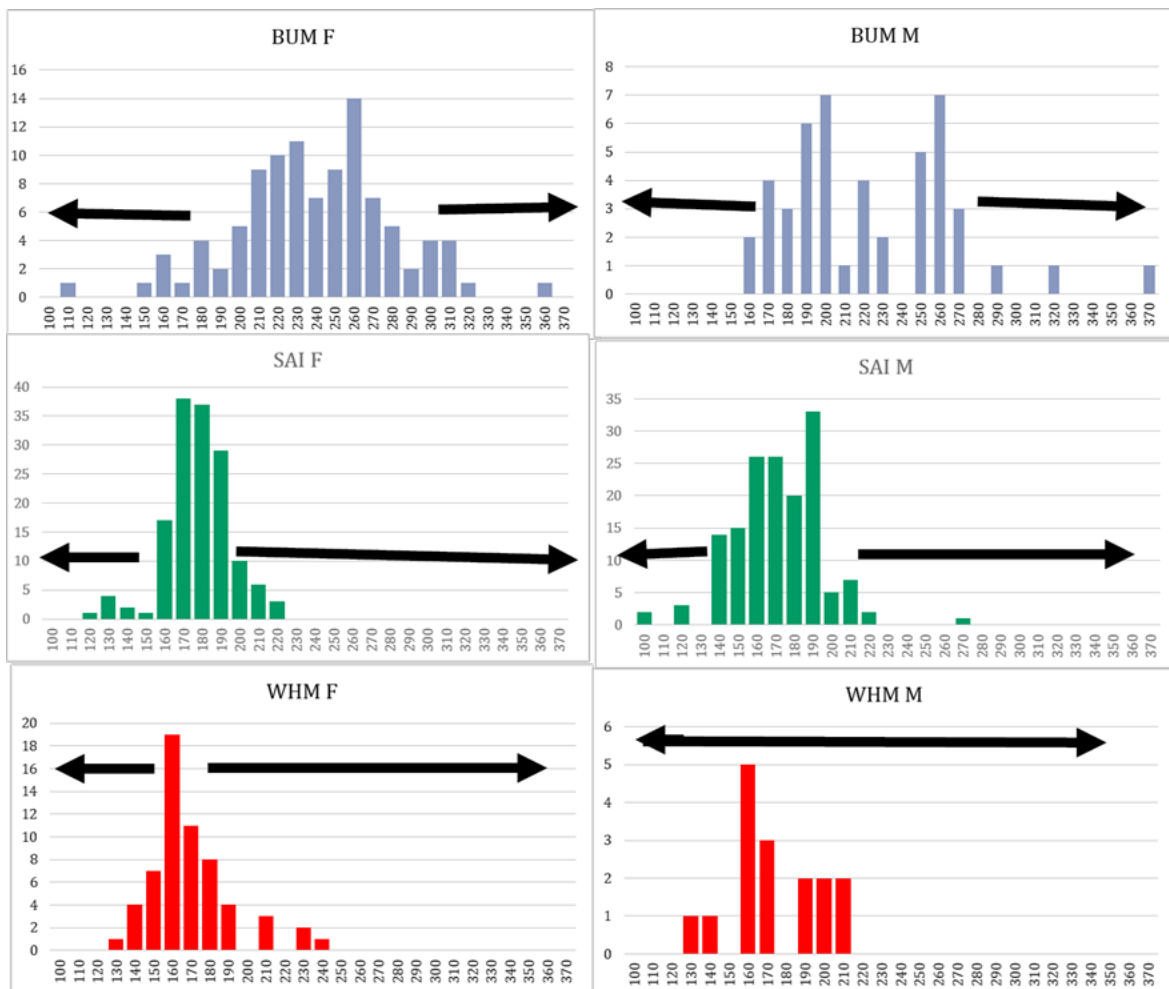
All the material produced by the Contractor will remain the property of ICCAT, will be kept confidential, and cannot, in any case, be circulated by the Contractor selected. The scientific use of the data by the Contractor shall always be notified to ICCAT in advance for clearance.

For information concerning this Call for tenders, please contact the ICCAT Secretariat at the following address: [miguel.santos@iccat.int](mailto:miguel.santos@iccat.int)

## Annex 1

This **Annex** shows the overall size classes distributions of the sampled specimens of the two marlin and sailfish species. According to these size distributions obtained from sampling activities carried out between 2018 and 2024, the collection of new samples shall focus on the size classes listed below (LJFL – lower jaw fork length), noting that the figure provides detailed information by sex:

1. BUM – sampling size classes less than 180 cm and those greater than 260 cm LJFL males and greater than 280 cm LJFL for females;
2. SAI - sampling size classes below 160 cm for females and lower than 140 cm for males, and those greater than 190 cm LJFL for both sexes;
3. WHM – sampling all sizes classes for both males and females, except the size class of 160 cm for females;



*Size distribution of samples specimen by lower-jaw-fork-length (LJFL) size classes (10 cm) by sex and species. Arrows indicates the size classes to sample during year #4, noting that ideally 10 specimens shall be sampled for hard structures (spine and otoliths) per size class and sex for each species. F - female and M - male.*



**Compensation criteria for the provision of samples**

Maximum cost to be accepted for samples depends on the following criteria:

<b><i>Full sample set; value 30€</i></b>	<b><i>Partial sample set, type 1; value 23€</i></b>	<b><i>Partial sample set, type 2; value 20€</i></b>	<b><i>Partial sample set, type 3; value 18€</i></b>
Source (consortium member)	Source (consortium member)	Source (consortium member)	Source (consortium member)
SampleID	SampleID	SampleID	SampleID
Date caught or landed	Date caught or landed	Date caught or landed	Date caught or landed
Latitude, longitude caught	Latitude, longitude caught	Latitude, longitude caught	Latitude, longitude caught
Port/Location landed	Port/Location landed	Port/Location landed	Port/Location landed
Spine (properly processed and stored)	Spine (properly processed and stored)	Spine (properly processed and stored)	Spine (properly processed and stored)
Otolith (one or two of the pair)	Otolith (one or two of the pair)	DNA kit (white marlin only)	Length (and length code) AND/OR weight (and weight code)
DNA kit (white marlin only) / Muscle tissue in alcohol 95°	Length (and length code) AND/OR weight (and weight code)	Length (and length code) AND/OR weight (and weight code)	Sex
Length (and length code) AND/OR weight (and weight code)	Gear type	Gear type	Gear type
Sex	Sex	Sex	
Gear type			



## Annex 3

### Protocol for genetic sampling

Different tissues and preservation methods should be used depending on the study objective:

- For population genetics and stocks delimitation: collect two 1 cm cubic (one sample for genetic analysis, one for backup) of tissue (preferably muscle tissue but can also be large fin clips) and place them in separate labeled 2 ml vials, immersed in 95 % or higher pure absolute (PA) ethanol. In this case the sample can be frozen before being stored in ethanol.
- For the assembling of reference genomes: collect two 1 cm cubic (one sample for genetic analysis, one for backup) of tissue (preferably muscle tissue) and place them in separate labeled 5 ml vials, immersed preferably in RNAlater or can also be stored in 95 % or higher pure absolute (PA) ethanol.
- For genome annotation and/or transcriptomics: collect two 1 cm cubic (one sample for genetic analysis, one for backup) of different tissues (muscle, heart, liver, pancreas, brain, gonads, etc.) as soon as possible after the animal was capture, and place them in separate labeled 5 ml vials, immersed in RNAlater (for this kind of sampling ethanol is not an option). The proportion of RNAlater/tissue should be 1 to 5 for the perfect preservation of RNA molecules.

For all the sampling strategies: thoroughly wash the knife before and after collecting each sample. This is important so as to avoid contamination of genetic samples. Write the sample identification number on a small slip of paper and place it in the vial with the tissue sample. Vials should be stored in the freezer at -20°C.