

Terms of Reference (ToR) for the provision of scientific services to SIOFA Scientific Committee

Project title: Genetic analysis to inform the stock structure of Patagonian toothfish (*Dissostichus eleginoides*)

Project Code: SER2022-TOP1

1. INTRODUCTION

SIOFA CMM2018/01 (paragraph 6a) requires the SIOFA Scientific Committee to provide advice to the Meeting of Parties on the status of stocks of deep-sea fishery resources, including Patagonian toothfish (*Dissostichus eleginoides*). In 2020, the SIOFA Scientific Committee (SC3) conducted the first preliminary analysis of the Patagonian toothfish fishing data from the Del Cano Rise in the SIOFA Area. Those approaches were in early stages and to estimate stock structure in the SIOFA Area, more robust approaches and data would be needed.

This document describes the project Terms of Reference (ToR), milestones, and administrative matters for a consultancy to undertake Patagonian toothfish stock assessments. Once appointed, the Consultant should direct any questions and clarifications to the SIOFA Science Officer (Marco Milardi, marco.milardi@siofa.org) who will coordinate the project and its interactions with the project advisory panel, the relevant SC HoDs and the SIOFA Scientific Committee Chair, as appropriate.

This project aims to design a genetic stock discrimination project. Note that the collection of samples, analysis, and a full review of the stock structure of Patagonian toothfish will be conducted under SIOFA Project SER2022-TOP2.

2. TERMS OF REFERENCE

The project objectives and tasks are described below. The Consultant shall undertake these tasks and consult with the project coordinator, to ensure that the project objectives are met.

A project advisory panel consisting of the SIOFA Scientific Committee Chair, selected members of the SIOFA Scientific Committee, and the SIOFA Secretariat will meet periodically with the consultant to assist the consultant access and interpret reports, data, and to provide advice on relevant analyses or data interpretation for the project.

2.1 Overall objectives

Objective 1: Provide advice to the SIOFA Scientific Committee on the design of a genetic stock discrimination project to understand the stock structure of Patagonian toothfish in the SIOFA Area, including linkages to Patagonian toothfish in the CCAMLR Convention Area.

2.1.1 Task 1: Literature review

Review the previous stock assessments, SIOFA reports and publications, CCAMLR scientific papers and reports, the general scientific literature, and other relevant information sources, including Patagonian toothfish stocks in other areas, to design and a genetic analysis of Patagonian toothfish stock structure in the SIOFA Area. The outcomes of this project will be used to support SIOFA project SER2022-TOP2: Stock structure of Patagonian toothfish.

2.1.2 Task 2: Review of catch-effort and other relevant data

Review the relevant catch-effort and scientific observer data (e.g., age, length, and other biological data) held by SIOFA, and available bathymetric, oceanographic, and other relevant environmental drivers to design a genetic analysis sampling project of Patagonian toothfish in the SIOFA Area. This will also include consideration of potential linkages with Patagonian toothfish stocks in the Indian Ocean sector of the CCAMLR Convention Area¹.

2.1.3 Task 3: Genetic stock discrimination

Evaluate the feasibility of genetic stock discrimination for Patagonian toothfish, including the development and design of a genetic stock discrimination project to improve the understanding of stock structure in the SIOFA Area, by:

- (i) evaluating the feasibility of a genetic stock discrimination project, and
- (ii) develop and design a genetic sampling project including specifications of the number of samples, locations and timing for the collection of samples using commercial fishing operations, the contents of a genetic sampling kit for observers and/or vessels, timelines, and costs for the project.
- (iii) describe the contents of genetic sampling kits and collection protocols for distribution to SIOFA vessels and observers to enable them to collect samples

2.2 Reporting requirements

1. Provide updates and engage with the project advisory panel that will assist the consultant access and interpret reports, data, and to provide advice on relevant analyses or data interpretation for the project
2. Provide a draft report detailing the methods, outcomes of reviews, conclusions, and recommendations to the SIOFA project advisory panel for review by 31 January 2022.
3. Update the draft report in (2) by considering any comments and advice from the project advisory panel and submit this report to SIOFA Secretariat for submission to the SIOFA Scientific Committee meeting in 2023 by 15 February 2023
4. Present the draft report in (3) to the SIOFA Scientific Committee to its meeting in March 2023 by videoconference.
5. Provide an amended final report to the SIOFA Secretariat, considering any comments made at the SIOFA Scientific Committee meeting in March 2023, by 15 April 2023
6. Provide all the information collected to the SIOFA Secretariat (including that sourced from the Secretariat) before the final payment of the contract is made to the consultant. Such information includes electronic data files, analysis codes, biological samples, and other relevant data if applicable.

2.3 Confidentiality and distribution of project outcomes

The Consultant shall not release confidential data provided for conducting this study to any persons nor any organisations, other than SIOFA Secretariat. The consultant shall delete all the confidential data

¹ CCAMLR Convention Area includes the South African, French and Australian management areas

after the completion of the contract. Any arrangements for ownership, storage, or disposal of physical samples shall be agreed by SIOFA as a part of the contract.

All Intellectual Property generated as a part of this contract shall become the property of SIOFA unless otherwise excluded in the proposal and agreed by SIOFA in the contract.

All reports and presentations will be reviewed by the SIOFA Secretariat prior to any form of further distribution. The Consultant will revise the report according to comments received from the review process before the report or presentation is accepted as a submission against the requirements in the Terms of Reference.

2.4 Relevant SIOFA information

1. SIOFA data (provided by the SIOFA Secretariat upon request)
2. SIOFA reports:
 - a. SIOFA SC reports and National Reports. Scientific Committee Meeting | SIOFA (siofa.org)
 - b. MoP reports. Meeting of the Parties | SIOFA (siofa.org)
 - c. SIOFA technical and scientific reports (public reports available from siofa.org, and restricted reports available from the SIOFA Secretariat to the project consultant)

2.5 Relevant CCAMLR information

1. CCAMLR papers and reports that consider linkages with Patagonian toothfish stocks in the Indian Ocean sector of the CCAMLR Convention Area
2. Previous studies on the genetic stock structure of Patagonian toothfish in the CCAMLR and adjacent areas
3. Patagonian toothfish management options currently in use for these stocks in the CCAMLR Convention Area

3. WORK PLAN AND PAYMENT SCHEDULE

The funds for this project are budgeted under General Objective 1 of the SIOFA/EU Grant Agreement SI2837681 - Scientific Work Support, for a total allocated budget of 8,333 euro (including all costs and including any travel related expenses). Any report and/or presentation, in paper or electronic form, must indicate that this task has received EU funding and display the EU emblem.

The consultant shall follow the timeline described in Table 1 below.

Table 1: Timeline for payments, milestones, and report submission

Milestone	Date	Activities
Initiation of contract	6 January 2022	First instalment payment (30% of the total contract sum)
Delivery of draft report	15 February 2023	Submission of draft report to SC8
Delivery of final report	15 April 2023	Submission of final report and project information to SIOFA.

		Final instalment payment (70% of the total contract sum) on acceptance of the final report and the submission of project information
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4. SUBMISSION OF APPLICATIONS

The applicants should have appropriate experience and knowledge of developing stock structure hypotheses and preferably on the stock dynamics and life cycle of Patagonian toothfish. The applicants should submit a proposal to the project coordinator (SIOFA Science Officer - Marco Milardi, marco.milardi@siofa.org) containing the following items:

1. A current CV that summarises the applicant(s) relevant educational background and professional experience
2. A brief proposal (indicatively 1-2 pages) outlining the proposed methods and analyses, including a description of how the objectives of the ToRs will be achieved
3. Any proposed exclusions to the intellectual property clause
4. The proposed consultancy price (including all consultant expenses and project related costs), noting that the available budget for this work is a maximum of €8,333
5. Identification of any project risks and associated mitigation and management required to successfully complete the project
6. A statement that identifies any perceived, potential, or actual conflicts of interest of the applicant(s), including those described in paragraph 4 of the SIOFA recruitment procedure (see Box 1), and
7. Any additional relevant information the applicant(s) wish to submit.
8. We note that similar projects for alfonsino and orange roughy in the SIOFA Area are also available, and we encourage consultants to submit combined proposals for these projects if appropriate.

Applications received before 12 AM (9 AM UTC) on Friday the 13th of January 2023, Reunion Island time, will be considered in the following selection process.

5. EVALUATION CRITERIA FOR THE SELECTION OF CANDIDATES

The selection criteria will be developed by the evaluation panel along with the project manager, the Secretariat, and the Chairpersons of the relevant subsidiary bodies. The criteria may include following items:

1. Adequate submission of information to allow the panel to evaluate the candidate
2. Evaluation of the proposal from the candidate, including the proposed contract price
3. Ability to undertake and complete the analyses or work required in the ToR
4. The candidate's agreement with confidentiality provisions required for the project
5. Acceptable conflict of interest statement
6. Agreement with the data submission and intellectual property terms required in this ToR, and
7. Financial and resourcing considerations.

6. CONFLICTS OF INTEREST. PARAGRAPH 4 OF SIOFA'S RECRUITMENT PROCEDURE

To ensure that situations relating to potential and actual conflict of interests are avoided, persons falling into the following categories may not normally be considered for SIOFA consultancy: (i). any person

designated as a designated representative or alternate representative of a CCP to the Meeting of Parties (MOP) as per Rule 3.1 of the Rules of Procedure, and to the SC and any other subsidiary bodies of the MOP, as per Rule 21.3 of the Rules of Procedure; (ii). Any person fulfilling the function of Chair or Vice-Chair of the MOP or Chair or Vice-Chair of a SIOFA subsidiary body or working group; (iii). Any person acting as a member of a delegation involved in the SIOFA decision-making process resulting in recommendations and/or approval for the SIOFA work requiring the engagement of a consultant; and (iv). Individuals who were SIOFA Secretariat staff members at the time when the recommendations and/or approval for the SIOFA works were adopted or who are members of immediate family (e.g., spouse or partner, father, mother, son, daughter, brother, or sister) of any Secretariat staff member or of the persons identified in 4 (i), (ii), and (iii).

7. CONTACTS

Project Coordinator – SIOFA Science Officer (Marco Milardi, marco.milardi@siofa.org)

Administration – SIOFA Executive Secretary (Thierry Clot, thierry.clot@siofa.org)