13th MEETING OF THE SCIENTIFIC COMMITTEE

8 to 13 September 2025, Wellington, New Zealand

SC13 - Obs 03.1
CALAMASUR letter to the SPRFMO Executive Secretary

CALAMASUR

--- English version below ---

7 de Agosto de 2025

Estimado James Brown,
Secretario Ejecutivo de la OROP-PS

El Comité para el Manejo Sustentable del Calamar Gigante (CALAMASUR) es un grupo comprendido por actores líderes de la industria (representantes de los sectores artesanal, industrial y de procesamiento) de Chile, Ecuador, México y Perú, que se encuentran involucrados en la pesca de calamar gigante y trabajan juntos para su sostenibilidad. Nos conformamos en el año 2018 y, desde ese mismo año, somos oficialmente observadores de la Organización Regional de Ordenamiento Pesquero del Pacífico Sur (OROP-PS).

Nuestra motivación principal es aportar, desde nuestro rol de observadores y de representantes de los sectores productivos de los países costeros, a la transición hacia un manejo basado en ciencia en el calamar gigante extraído en aguas internacionales administradas por la OROP-PS y en las aguas jurisdiccionales de los países ribereños. Nuestro trabajo comenzó en un momento en el que aún no existía la Medida de Conservación y Manejo CMM-18 para el calamar gigante y en el que diversos actores de la comunidad científica consideraban al calamar gigante como parte de la pesca ilegal, no declarada y no reglamentada (INDNR) por su naturaleza pobremente regulada. La limitada productividad científica y la falta de medidas de manejo precautorias para la pesquería se traducen en riesgos que comprometen su viabilidad en el largo plazo, lo cual puede desencadenar pérdidas masivas de empleos, particularmente, en actividades artesanales que operan con un uso intensivo de mano de obra, como ocurre en el caso de los actores que representamos.

En el contexto descrito, creemos que, en la limitada capacidad que tiene un observador, hemos jugado un rol clave en que se adopte la CMM-18, así como algunas otras mejoras clave para esta pesquería. En un inicio, nuestro rol estaba limitado a emitir documentos de posición expresando nuestra preocupación sobre la falta de progreso en algunas materias clave para el manejo sustentable del calamar gigante. Poco a poco hemos aprendido a ser más pragmáticos y proactivos. Es así como empezamos a contribuir con trabajos científicos para avanzar en el desarrollo de la evaluación de stock. A la fecha, hemos presentado cinco reportes científicos[1,2,3,4,5] que han contribuido al debate respecto del modelo de evaluación de stock regional del calamar gigante. Estos esfuerzos contribuyen al cumplimiento del Plan Científico Multianual del Comité Científico, el cual, desde hace muchos años,

[1] *Roa-Ureta, R. H., Peralta, M., & Pacheco, J. L. (2021). Stock assessment of the flying jumbo squid in Ecuadorian waters with generalised depletion models: A proof of concept note (9th Meeting of the Scientific Committee SC9-SQ08). South Pacific Regional Fisheries Management Organisation.* https://www.sprfmo.int/assets/Meetings/SC/9th-SC-2021/squid-wg/SC9-SQ08-Stock-assessment-jumbo-squid-in-Ecuador.pdf

[2] *Wiff, R., & Roa-Ureta, R. H. (2021). Regional stock assessment of flying jumbo squid in the south-eastern pacific: A conceptual proposal. tech. rep., SPRFMO: 9th MEETING OF THE SCIENTIFIC COMMITTEE.* https://www.sprfmo.int/assets/Meetings/SC/9th-SC-2021/observer-papers/SC9-Obs04-Regional-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-a-conceptual-proposal.pdf

[3] *Roa-Ureta, R. H., & Wiff, R. (2022). Regional stock assessment of the flying jumbo squid in the South-Eastern Pacific. In SC10-Obs03, 10th Meeting of the SPRFMO Scientific Committee.* https://www.sprfmo.int/assets/Meetings/SC/10th-SC-2022/SC10-Obs03-Regional-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-CALAMASUR.pdf

[4] *Roa-Ureta, R. H., & Wiff, R. (2023). Regional Assessment of the Jumbo Squid in the South-Eastern Pacific with Peruvian, Chilean and Asian fleets data and Impacts of El Niño Environmental Cycle: 1969 to 2020.* https://www.sprfmo.int/assets/Meetings/02-SC/11th-SC-2023/Observer-Papers/SC11-Obs03_rev1-CALAMASUR-Jumbo-Squid-Stock-Assessment.pdf

[5] *Roa-Ureta, R. H., & Wiff, R. (2024). Ecosystem-based and habitat-specific stock assessment of the flying jumbo squid in the South-Eastern Pacific, 1969 to 2022.* https://www.sprfmo.int/assets/Meetings/02-SC/12th-SC-2024/Observers/SC12-Obs05-CALAMASUR-Ecosystem-based-and-habitat-specific-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-1969-2022.pdf

arrastra materias irresolutas sobre el calamar gigante, como revelan sus distintas actualizaciones[6]. A pesar de que el desarrollo de una evaluación de stock es una alta prioridad, no se ha logrado avanzar más rápido en la adopción de un modelo por razones ajenas a nosotros. Nuestros esfuerzos hasta la fecha han sido positivos y altamente valorados. Ello ha sido expresamente reconocido en el *Second SPRFMO Panel Review*[7], en diversas publicaciones científicas, en los reportes de las diferentes reuniones del Comité Científico e, inclusive, en los reportes escritos y orales de los diversos científicos participantes del Comité Científico de la OROP-PS. Muchos de ellos han sabido reconocer que CALAMASUR tiene una actitud transparente de cooperación en la realización de análisis y en el intercambio de información pública disponible en nuestros países de origen. Esto último es clave para facilitar que la labor científica no se obstaculice ante la falta de operativización de los mecanismos oficiales de compartición de datos básicos.

En la Décimo Segunda Reunión del Comité Científico de la OROP-PS, desarrollada en Lima, Perú, los Estados Miembros acordaron expresamente que debían incrementar la cooperación en diversos temas concernientes al calamar gigante (párrafos 220[8] y 221[9] del reporte de la reunión). Ello nos da la legitimidad para permitirnos sugerir respetuosamente, tanto a los presidentes de comisiones como al personal de la Secretaría de la OROP-PS, que es necesario ponerle más ahínco al cumplimiento de dichos acuerdos y recomendaciones en materia de investigación científica.

Desde CALAMASUR seguiremos con el mayor compromiso de seguir apoyando al Comité Científico de la OROP-PS, y específicamente al Grupo de Trabajo de Calamares, en el desarrollo de un modelo de evaluación de stock del calamar gigante que sea científicamente sólido. Para ello seguiremos en nuestros esfuerzos por hacer notar la necesidad de que se cumplan los acuerdos que constan en las actas del Comité Científico, así como en su plan de trabajo multianual. También seguiremos participando activamente en las discusiones científicas, así como también seguiremos cooperando - en la medida de nuestras posibilidades - con aportes técnicos y con la compartición de datos públicos a los que podamos acceder siguiendo el ordenamiento jurídico que nuestros países nos exigen.

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[6] Todas las versiones del Plan de Trabajo Multianual pueden encontrarse en: https://www.sprfmo.int/meetings/scientific-committee

[7] *"The SC, especially through its Squid Working Group, has focused on evaluating assessment methods, fishing effort, and observer coverage, alongside a deeper understanding of the biological and ecological characteristics of the stock. Much of this progress has been supported by voluntary contributions, both in-kind and financial, from Members and Observers, notably CALAMASUR.". Párrafo 115 de Robertson, K. Mundnich, S. Crothers, J. Mitchell, Second SPRFMO Performance Review: Panel Report and Recommendations (Tech. Rep. SPRFMO, 2024); https://www.sprfmo.int/assets/Meetings/01-COMM/13th-Commission-2025/Reports/SPRFMO-Second-Performance-Review-1.-Main-Report.pdf*

[8] *Paragraph 220: "The SC agreed:*

- ***a) to enhance cooperation among members in the collection and sharing of data in support of stock assessment and other scientific research on jumbo flying squid.***
- *b) that assessment model and simulation code should be shared on SPRFMO's GitHub to make it available to members and ensure transparency.*
- ***c) provide a single template for data collection to implement the stock assessment methods currently in use. Additionally, provide templates for desirable data that should be collected in the future to improve current approaches.***
- *d) the need to reinforce research on the jumbo flying squid, in particular on the relationship between the resource and the environment.*

Full report: https://www.sprfmo.int/assets/Meetings/02-SC/12th-SC-2024/SC12-Report_rev2-18Feb2025.pdf

[9] *Paragraph 221: "The SC recommended:*

- ***a) The Commission requests that coastal members make their data from jurisdictional waters available and ensure transparency in the process of estimating key quantities needed to implement current approaches for assessing jumbo flying squid.***
- *b) to support the exploration and development of new management strategies for jumbo flying squid that are specifically tailored for short-lived species.*
- c) *that the Commission supports research on the jumbo flying squid, in particular on the relationship between the resource and the environment.*

Full report: https://www.sprfmo.int/assets/Meetings/02-SC/12th-SC-2024/SC12-Report_rev2-18Feb2025.pdf

Además, seguiremos incorporando mejoras al modelo que estamos desarrollando, a partir de nutrirnos de los aportes que nos han hecho todos los importantes científicos con los que tenemos la oportunidad de realizar intercambios en el Comité Científico de la OROP-PS y sus comisiones.

Mediante la presente carta tenemos el gusto de presentar una nueva iteración de nuestro trabajo, la cual sometemos a la Décimo Tercera Edición del Comité Científico, a desarrollarse en Wellington, Nueva Zelanda, en septiembre de 2025. Esta vez hemos incorporado diversas mejoras, la mayoría de las cuales han sido sugeridas por diversos científicos del Comité Científico. Estas se pueden resumir en los siguientes puntos:

- Actualización de la evaluación de stocks hasta el año 2024.
- Programación y aplicación de un modelo de depleción con 4 flotas, separando a las flotas artesanales e industriales chilenas, y manteniendo las flotas peruanas y asiáticas.
- Programación y aplicación de un modelo de dinámica de biomasa en el que el efecto del ciclo El Niño – La Niña depende de la magnitud de las anomalías térmicas y puede ocurrir desfasadamente.
- Programación y aplicación de tres[10] configuraciones del modelo de depleción:
    - (1) tres flotas y una tasa de mortalidad natural promediada a través de los años y de la región,
    - (2) cuatro flotas y una tasa de mortalidad natural promediada a través de los años y de la región, y
    - (3) tres flotas y tres tasas de mortalidad natural promediada a través de los años pero diferentes para regiones de alta mar, aguas peruanas y aguas chilenas-

Por medio de la presente solicitamos nos brinden la oportunidad de presentar dicho trabajo durante la reunión de Wellington, al igual que ha sucedido, sin excepción, en todas las ediciones pasadas del Comité Científico. Dicha solicitud no solo se sustenta en el seguimiento de los usos y costumbres que ha tenido como tradición la OROP-PS a lo largo de su historia, sino también en la Regulación 9 de las Reglas de Procedimiento de la Comisión[11]. La presentación de este trabajo permitirá a los Estados miembros de la OROP-PS seguir dinamizando discusiones científicas clave en el seno de su Comité Científico. Asimismo, nos permitirá seguir recogiendo retroalimentación para seguir mejorando continuamente a lo largo de las siguientes iteraciones de nuestro trabajo.

Finalmente, queremos señalar que estamos dispuestos a seguir trabajando con apertura para considerar en futuros trabajos otras posibles hipótesis sobre la estructura del stock. Para avanzar en dicha dirección, creemos que la forma correcta es proceder a través de un debate científico transparente en las instancias que el Comité Científico de la OROP-PS tiene previsto para ello.

Sin otro particular, me despido, no sin antes expresarle mi mayor estima.

[10]. Nos queda pendiente la programación y aplicación de una cuarta configuración (4): cuatro flotas y tres tasas de mortalidad natural promediadas a través de los años pero diferentes para regiones de alta mar, aguas peruanas y aguas chilenas.

[11] *Regulation 9 of the Rules of Procedure of the Commission:*
"(…) *Observers may participate in the deliberations of the Commission and its subsidiary bodies but shall not be entitled to participate in the taking of decisions.*
Observers may submit relevant documents to the Secretariat for distribution to the Members of the Commission or its subsidiary bodies as information documents and shall be given timely access to all documents subject to any rules relating to the confidentiality of certain data and other commercially sensitive information that the Commission may decide (…)"
En línea: https://www.sprfmo.int/assets/Basic-Documents/Rules-of-Procedure-31Mar20.pdf

Atentamente,

Alfonso Miranda,
Presidente de CALAMASUR

7 August 2025

Dear James Brown,
SPRFMO's Executive Secretary

The Committee for the Sustainable Management of the Jumbo Flying Squid (CALAMASUR) is a group made up of leading industry stakeholders (representatives from the artisanal, industrial, and processing sectors) from Chile, Ecuador, Mexico, and Peru, who are involved in the jumbo flying squid fishery and work together for its sustainability. We were formed in 2018 and, since that year, we have been officially recognized as observers of the South Pacific Regional Fisheries Management Organization (SPRFMO).

Our primary motivation is to contribute, from our role as observers and representatives of the productive sectors of coastal countries, to the transition towards a science-based management of the squid harvested in international waters managed by SPRFMO and in the jurisdictional waters of the coastal countries. Our work began at a time when the Conservation and Management Measure CMM-18 for squid had not yet been established and when various actors in the scientific community considered jumbo flying squid to be part of illegal, unreported, and unregulated (IUU) fishing due to its poorly regulated nature. The limited scientific productivity and the lack of precautionary management measures for the fishery translate into risks that compromise its long-term viability, which can lead to massive job losses, particularly in artisanal activities that operate with labor-intensive methods, as is the case for the stakeholders we represent.

In this context, within the limited capacity of an observer, we believe we have played a key role in the adoption of CMM-18, as well as in some other key improvements for this fishery. Initially, our role was limited to issuing position papers expressing our concerns about the lack of progress on specific key issues for the sustainable management of the squid. Gradually, we have learned to be more pragmatic and proactive. This is how we began to contribute to scientific work to advance the development of stock assessment. To date, we have presented five scientific reports that have contributed to the debate regarding the regional stock assessment model for the jumbo flying squid[12,13,14,15,16]. These efforts contribute to complying with the Scientific Committee Multiannual Workplan, which, for many years, has been carrying unresolved issues regarding the jumbo flying squid, as revealed by its various updates[17]. Although developing a stock assessment is a high priority, progress towards adopting a

[12] *Roa-Ureta, R. H., Peralta, M., & Pacheco, J. L. (2021). Stock assessment of the flying jumbo squid in Ecuadorian waters with generalised depletion models: A proof of concept note (9th Meeting of the Scientific Committee SC9-SQ08). South Pacific Regional Fisheries Management Organisation.* https://www.sprfmo.int/assets/Meetings/SC/9th-SC-2021/squid-wg/SC9-SQ08-Stock-assessment-jumbo-squid-in-Ecuador.pdf

[13] *Wiff, R., & Roa-Ureta, R. H. (2021). Regional stock assessment of flying jumbo squid in the south-eastern pacific: A conceptual proposal. tech. rep., SPRFMO: 9th MEETING OF THE SCIENTIFIC COMMITTEE.* https://www.sprfmo.int/assets/Meetings/SC/9th-SC-2021/observer-papers/SC9-Obs04-Regional-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-a-conceptual-proposal.pdf

[14] *Roa-Ureta, R. H., & Wiff, R. (2022). Regional stock assessment of the flying jumbo squid in the South-Eastern Pacific. In SC10-Obs03, 10th Meeting of the SPRFMO Scientific Committee.* https://www.sprfmo.int/assets/Meetings/SC/10th-SC-2022/SC10-Obs03-Regional-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-CALAMASUR.pdf

[15] *Roa-Ureta, R. H., & Wiff, R. (2023). Regional Assessment of the Jumbo Squid in the South-Eastern Pacific with Peruvian, Chilean and Asian fleets data and Impacts of El Niño Environmental Cycle: 1969 to 2020.* https://www.sprfmo.int/assets/Meetings/02-SC/11th-SC-2023/Observer-Papers/SC11-Obs03_rev1-CALAMASUR-Jumbo-Squid-Stock-Assessment.pdf

[16] *Roa-Ureta, R. H., & Wiff, R. (2024). Ecosystem-based and habitat-specific stock assessment of the flying jumbo squid in the South-Eastern Pacific, 1969 to 2022.* https://www.sprfmo.int/assets/Meetings/02-SC/12th-SC-2024/Observers/SC12-Obs05-CALAMASUR-Ecosystem-based-and-habitat-specific-stock-assessment-of-the-flying-jumbo-squid-in-the-South-Eastern-Pacific-1969-2022.pdf

[17] All available versions of the Scientific Committee Multiannual Workplan can be accessed at: https://www.sprfmo.int/meetings/scientific-committee

model has not been expedited due to reasons beyond our control. Our efforts to date have been positive and highly valued. This has been explicitly recognized in the Second SPRFMO Panel Review[18], in various scientific publications, in the reports of the different Scientific Committee meetings, and even in the written and oral reports of the various scientists participating in the Scientific Committee of SPRFMO. Many have acknowledged that CALAMASUR has a transparent cooperative attitude in conducting analyses and exchanging publicly available information of our countries of origin. This is key to ensuring that scientific work is not hindered by the lack of operationalization of the official mechanisms for sharing basic data.

At the Twelfth Meeting of the Scientific Committee of SPRFMO, held in Lima, Peru, Member States expressly agreed to increase cooperation on various issues concerning squid (paragraphs 220[19] and 221[20] of the meeting report). This gives us the legitimacy to respectfully suggest to both the committee chairs and the staff of the SPRFMO Secretariat that it is necessary to put more effort into complying with these agreements and recommendations regarding scientific research.

In CALAMASUR, we will continue with our strongest commitment to support the SPRFMO's Scientific Committee, and specifically the Squid Working Group, in developing a scientifically robust stock assessment model for squid. To this end, we will continue our efforts to emphasize the need to comply with the agreements recorded in the minutes of the Scientific Committee, as well as in its multiannual work plan. We will also continue actively participating in scientific discussions and cooperating, to the extent of our capabilities, with technical contributions and sharing public data that we can access under the legal framework mandated by our countries. Additionally, we will keep improving the model we are developing by incorporating insights provided by the important scientists with whom we have the opportunity to exchange points of view in the Scientific Committee of the SPRFMO and its working groups.

Through this letter, we are pleased to present a new iteration of our work, which we submit to the Thirteenth Edition of the Scientific Committee to be held in Wellington, New Zealand, in September

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[18] "The SC, especially through its Squid Working Group, has focused on evaluating assessment methods, fishing effort, and observer coverage, alongside a deeper understanding of the biological and ecological characteristics of the stock. Much of this progress has been supported by voluntary contributions, both in-kind and financial, from Members and Observers, notably CALAMASUR.". *Paragraph* 115 in Robertson, K. Mundnich, S. Crothers, J. Mitchell, Second SPRFMO Performance Review: Panel Report and Recommendations (Tech. Rep. SPRFMO, 2024); https://www.sprfmo.int/assets/Meetings/01-COMM/13th-Commission-2025/Reports/SPRFMO-Second-Performance-Review-1.-Main-Report.pdf

[19] *Paragraph 220: "The SC agreed:*

- ***e) to enhance cooperation among members in the collection and sharing of data in support of stock assessment and other scientific research on jumbo flying squid.***
- *f) that assessment model and simulation code should be shared on SPRFMO's GitHub to make it available to members and ensure transparency.*
- ***g) provide a single template for data collection to implement the stock assessment methods currently in use. Additionally, provide templates for desirable data that should be collected in the future to improve current approaches.***
- *h) the need to reinforce research on the jumbo flying squid, in particular on the relationship between the resource and the environment.*

Full report: https://www.sprfmo.int/assets/Meetings/02-SC/12th-SC-2024/SC12-Report_rev2-18Feb2025.pdf

[20] *Paragraph 221: "The SC recommended:*

- ***d) The Commission requests that coastal members make their data from jurisdictional waters available and ensure transparency in the process of estimating key quantities needed to implement current approaches for assessing jumbo flying squid.***
- *e) to support the exploration and development of new management strategies for jumbo flying squid that are specifically tailored for short-lived species.*
- f) *that the Commission supports research on the jumbo flying squid, in particular on the relationship between the resource and the environment.*

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2025. This time we have incorporated various improvements, most of which have been suggested by different scientists from the Scientific Committee. These can be summarized in the following points:

- Update of the stock assessment until 2024.
- Programming and application of a depletion model with 4 fleets, separating the Chilean artisanal and industrial fleets, while maintaining the Peruvian and Asian fleets.
- Programming and application of a biomass dynamics model in which the effect of the El Niño – La Niña cycle depends on the magnitude of thermal anomalies and may occur with a time lag.
- Programming and application of three[21] configurations of the depletion model:
    - (1) three fleets and a natural mortality rate averaged over the years and the region,
    - (2) four fleets and a natural mortality rate averaged over the years and the region, and
    - (3) three fleets and three natural mortality rates averaged over the years but different for high seas, Peruvian waters, and Chilean waters.

Through this letter, we request the opportunity to present this work during the meeting in Wellington, as has been done, without exception, in all previous editions of the Scientific Committee. This request is not only based on the customary practices that have historically been the tradition of SPRFMO but also on Regulation 9 of the Rules of Procedure of the Commission[22]. The presentation of this work will allow the member states of SPRFMO to continue fostering key scientific discussions within their Scientific Committee. Additionally, it will allow us to continue gathering feedback to further improve continuously throughout the next iterations of our work.

Finally, we want to emphasize that we are willing to continue working openly to consider other possible hypotheses about the stock structure in future work. To advance in this direction, we believe that the correct approach is to proceed through a transparent scientific debate in the forums that the Scientific Committee of SPRFMO has planned for this purpose.

Without further ado, I bid you farewell, not without first expressing my highest esteem.

Sincerely,

Alfonso Miranda,
President of CALAMASUR

[21] We are still pending the programming and application of a fourth configuration (4): four fleets and three natural mortality rates averaged over the years but different for high seas regions, Peruvian waters and Chilean waters.

[22] *Regulation 9 of the Rules of Procedure of the Commission:*
"(…) *Observers may participate in the deliberations of the Commission and its subsidiary bodies but shall not be entitled to participate in the taking of decisions.*
Observers may submit relevant documents to the Secretariat for distribution to the Members of the Commission or its subsidiary bodies as information documents and shall be given timely access to all documents subject to any rules relating to the confidentiality of certain data and other commercially sensitive information that the Commission may decide (…)"
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