

7th MEETING OF THE SCIENTIFIC COMMITTEE

La Havana, Cuba, 7 to 12 October 2019

SC7-Obs02

Draft Conservation and Management Measure for Jumbo flying squid

CALAMASUR

CMM xx-2020 (draft)

Conservation and Management Measure for jumbo flying squid (*Dosidicus gigas*)

The Commission of the South Pacific Regional Fisheries Management Organisation;

Objective

The objective of the CMM is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation and sustainable use of the *Dosidicus gigas* squid resource and the non-target or associated and dependent species, and, in doing so, to safeguard the marine ecosystems in which these resources occur.

Definitions

For the purposes of this CMM, the term “fishing year” means the period starting 00:01 hours UTC on 1 January and ending 23:59 hours on 31 December in the same year.

General provisions

1. This CMM applies to the entire Convention Area.
2. This CMM is adopted as cautious preliminary CMMs consistent with Article 22(1) of the Convention.
3. This CMM applies to all fishing vessels flying the flag of a Member or Cooperating non-Contracting Party (CNCP) to the South Pacific Regional Fisheries Management Organisation (SPRFMO) engaging or intending to engage in fishing for *Dosidicus gigas* in the Convention Area.
4. Members and CNCPs shall prohibit vessels flying their flag from participating in *Dosidicus gigas* fishing in the Convention Area other than in accordance with the provisions of this CMM.
5. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and CNCPs shall participate in the fishery for *Dosidicus gigas* squid in the Convention Area.
6. This CMM is not to be considered a precedent for future allocation decisions.

Effort management

7. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Dosidicus gigas* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in [2007 or 2008 or 2009] in the Convention Area and as set out in Table 1, Annex 1. Such Members and CNCPs may substitute

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

Commented [G1]: In the event of coastal states consenting to apply this CMM to the waters within their EEZs, as is done by for jack mackerel, additional text would need to be added e.g.

“and, in accordance with Article 20(4)(a)(iii) and with the express consent of [coastal state 1], to fisheries for *Dosidicus gigas* undertaken by [coastal state 1] in areas under its national jurisdiction, and with the express consent of [coastal state 2], to fisheries for *Dosidicus gigas* undertaken by [coastal state 2] in areas under its national jurisdiction.”

Commented [G2]: These are the years used for the jack mackerel fishery. They should be changed to something more appropriate to the squid, to be determined by the Commission, with advice from the SC.

their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

8. In 2020 the total catch of *Dosidicus gigas* in the area to which this CMM applies in accordance with paragraphs 1 and 3 shall be limited to xxx,xxx tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1, Annex 2 of this CMM.
9. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
10. Fishing for *Dosidicus gigas* under this CMM shall be restricted to jigging vessels only, all other methods of capture are prohibited except as permitted under CMM 13-2019 (Management of New and Exploratory Fisheries in the SPRFMO Convention Area).
11. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, Annex 2 the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
12. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Dosidicus gigas* in the Convention Area to catches less than the limits set out in Table 1, Annex 2. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
13. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, Annex 2 without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
14. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Dosidicus gigas* in 2020 throughout the range of the stock should not exceed yyy,yyy tonnes.

Commented [G3]: To be agreed at SC.

Commented [G4]: Greater or equal to xxx,xxx in paragraph 8, to be agreed at SC.

Data collection and reporting

14. Members and CNCPs participating in the *Dosidicus gigas* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
15. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
16. Except as described in paragraph 14 above, each Member and CNCP participating in the *Dosidicus gigas* fishery shall collect, verify, and provide all required data to the Executive

Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

17. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (fishing event based reporting). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
18. Members and CNCPs participating in the *Dosidicus gigas* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.
19. Each Member and CNCP participating in the *Dosidicus gigas* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
20. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).
21. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the relevant (next) Scientific Committee meeting. Members and CNCPs shall also provide observer data for the current fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so at least one month before the Scientific Committee meeting.
22. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Dosidicus gigas* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2019 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
23. The information collected under paragraphs 14, 16 and 21, and any stock assessments and research in respect of *Dosidicus gigas* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its current SC Multi-annual workplan or equivalent agreed by the Commission, in order to provide updated advice on stock status, scientific and management needs.
24. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Dosidicus gigas* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Dosidicus gigas* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP.

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.

Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCs under international law. In particular, nothing in this paragraph shall be construed to affect:

- a) the sovereignty of Contracting Parties and CNCs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
- b) the exercise by Contracting Parties and CNCs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.

25. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCs participating in the *Dosidicus gigas* fishery shall ensure a minimum scientific observer coverage of fishing events as described in Annex 3 for all vessels flying their flag fishing for *Dosidicus gigas* and ensure that such observers collect and report data as described in this CMM and CMM 02-2018 (Data Standards).

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

26. Members and CNCs participating in *Dosidicus gigas* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraphs 1 and 3, and Members and CNCs participating in *Dosidicus gigas* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation of the stock(s) and management of the fisheries. Members and CNCs participating in *Dosidicus gigas* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 14-25, insofar as they are applicable, to vessels associated with the *Dosidicus gigas* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Dosidicus gigas* in areas under their national jurisdiction.

Special requirements of developing States

27. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review and assessment of *Dosidicus gigas* stocks and their fisheries

28. Where stock assessments have been accepted by the Scientific Committee, they shall be used as the basis for developing management advice for the Commission.
29. When there is no accepted stock assessment, the Scientific Committee shall undertake an annual review of the effort directed at catching *Dosidicus gigas* and the resultant catches, and provide advice to the Commission on:
- whether the current or proposed levels and methods of *Dosidicus gigas* fishing are likely to contribute to a significant risk of overfishing *Dosidicus gigas* stocks for which no stock assessment has been completed; and

- whether any proposed or additional mitigation measures, including limits to catch and/or effort would reduce such risk to an acceptable level and the most appropriate measure(s) to apply.

30. In its review of catch and effort, the Scientific Committee may use additional information available to it, including information from other fisheries in the region or similar fisheries elsewhere.

31. The Secretariat shall make publicly available on the SPRFMO website all submitted stock assessments of the *Dosidicus gigas* stocks and reviews of fisheries as well as the Scientific Committee's review of such assessments in accordance with its usual procedures, and shall invite comment on assessments and reviews.

Monitoring and control of *Dosidicus gigas* fishing activities

32. Members and CNCPs shall:

- a) ensure that vessels that fly their flag and participate in the *Dosidicus gigas* fishery:
 - i. are equipped and configured so that they can comply with all relevant SPRFMO CMMs;
 - ii. act in accordance with CMM06-2018 (Commission VMS), polling at least once every 4 hours when within the Convention Area or an adjacent EEZ;
 - iii. report fishing event start and end position to 1/100th degree resolution-decimal format, notwithstanding the Annexes of CMM 02-2018 (Data standards).
- b) only authorise vessels flying their flag to fish in the Convention Area where they are able to exercise their responsibilities as a flag State under the Convention and all relevant SPRFMO CMMs;
- c) ensure that they meet the level of observer coverage specified in Annex 3 to collect data in accordance with this and other CMMs;
- d) prohibit vessels flying their flag from participating in fishing for *Dosidicus gigas* if the agreed minimum required data submissions have not been provided in accordance with the agreed subset of the vessel identification data requirements;
- e) in respect of each vessel that flies their flag and participates in *Dosidicus gigas* fishing, submit VMS reports to the Secretariat in accordance with CMM 06-2018 (Commission VMS) and submit VMS data in real-time to a VMS monitoring system based in the Secretariat.

Commented [G5]: CMM-06-2018 requires:

Members and CNCPs shall ensure that VMS position reports are reported by each of their vessels

a) at least once every hour if fishing using benthic or benthopelagic trawling, bottom long-line gear or potting or if operating within 20 nm of an EEZ boundary;

b) at least once every four hours in other circumstances;

The Bottom Fishing CMM has 30 minute polling.

The VMS reporting frequency is scheduled to be review by the Commission at its meeting 2020 at the latest.

Marine mammals, seabirds, reptiles and other species of concern³

33. Members and CNCPs shall require vessels flying their flag and undertaking *Dosidicus gigas* fishing to record and report catch numbers [by species] of all marine mammals, seabirds and other species of concern and shall report annually to the Commission on bycatch rates and total bycatch estimates in accordance with CMM 02-2018 (Data Standards) and the Guidelines for Annual National Reports to the SPRFMO Scientific Committee.

Commented [G6]: Ensure this is compatible with the Data Standards CMM

³ "Other species of concern" means the list contained in Annex 14 of CMM 02-2018 (Data standards).

34. The Scientific Committee shall provide advice biennially to the Commission on:

- a) direct and indirect interactions by gear type and location between *Dosidicus gigas* fishing and marine mammals, seabirds, reptiles and other species of concern³;
- b) any recommended spatial or temporal closures or spatially/temporally limited gear prohibitions for any identified hotspots of these species; and
- c) any recommended limits to bycatch and/or other measures to mitigate interactions (e.g. offal management, encounter protocols, etc.) for any of these species.

Observer Coverage

- 35. All Members and CNCPs participating in *Dosidicus gigas* fishing pursuant to this CMM shall ensure scientific observer coverage of trips for vessels flying their flag consistent with the minimum observer coverage levels set out in Annex 3 and shall ensure that such observers collect and report data as described in paragraphs 33-34 and secondarily in CMM 02-2018 (Data Standards).
- 36. Nothing in this measure shall affect the rights of Members and CNCPs to apply higher levels of observer coverage than set out in Annex 3, in accordance with their domestic requirements.

Electronic Monitoring

- 37. By 2025, Members and CNCPs shall require vessels flying their flag to have an electronic monitoring system installed and operating that is capable of recording (including using digital cameras and video) and storing recordings of fishing events for data collection and verification purposes for all vessels of each Member and CNCP greater than 15 m LOA.

Review by the Commission

- 38. The Commission shall review this CMM annually (or at a frequency as determined by the Commission), and in doing so, take appropriate action to meet the objectives of this CMM and the Convention, in view of the advice and recommendations of the Scientific Committee. Each such review shall consider the progress in developing, the status and quality of stock assessments and the need for and adequacy of limits to catch and/or effort.
- 39. Without prejudice to Members and CNCPs without an entitlement in Table 1, Annex 2 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 8, the percentages included in Table 2, Annex 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2020 to 2022 inclusive.

Commented [G7]: This could be a single year (2020) if this is easier to agree.

The year(s) and those in the footnote to Table 2, Annex 1 need to match.

Annex 1: Effort (Tonnage Limits)

Table 1: Vessel tonnage limits *Dosidicus gigas* fishing vessels for Members and CNCPs. The total tonnage that fished as described in paragraph 7.

Member / CNCP	Vessel Tonnage (GT or GRT)
Australia	xx,xxx
Chile	xx,xxx
China	xx,xxx
Cook Islands	xx,xxx
Cuba	xx,xxx
Ecuador	xx,xxx
European Union	xx,xxx
Faroe Islands	xx,xxx
Korea	xx,xxx
New Zealand	xx,xxx
Peru	xx,xxx
Russian Federation	xx,xxx
Taipei	xx,xxx
USA	xx,xxx
Vanuatu	xx,xxx
Colombia	xx,xxx
Curaçao	xx,xxx
Liberia	xx,xxx
Panama	xx,xxx

Commented [G8]: Draft numbers to be added by the SC for the Commission to consider.

Data from the Secretariat?

Annex 2: Catch Limits

Table 1: Tonnages in 2020 *Dosidicus gigas* fishery as referred to in this CMM.

Member / CNCP	Tonnage of <i>Dosidicus gigas</i>
Australia	www
Chile	xxx
China	yyy
Cook Islands	zzz
Cuba	aaa
Ecuador	bbb
European Union	ccc
Faroe Islands	ddd
Korea	eee
New Zealand	iii
Peru	fff
Russian Federation	jjj
Taipei	ggg
USA	kkk
Vanuatu	hhh
Colombia	lll
Curaçao	mmm
Liberia	nnn
Panama	ppp

Commented [G9]: Draft numbers from the data held by the Secretariat to be added by the SC for the Commission to consider.

Table 2: Percentages⁴ related to the catches of *Dosidicus gigas* referred to in paragraph 10 of this CMM.

Member / CNCP	Percentage (%)
Australia	ww.wwwww
Chile	xx.xxxx
China	yy.yyyy
Cook Islands	zz.zzzz
Cuba	aa.aaaa
Ecuador	bb.bbbb
European Union	cc.cccc
Faroe Islands	dd.dddd
Korea	ee.eeee
New Zealand	ii.iiii
Peru	ff.ffff

Commented [G10]: Draft numbers from the data held by the Secretariat to be added by the SC for the Commission to consider.

⁴ These percentages shall apply from 2020 to 2020 inclusive.

Russian Federation	jj.jjjj
Taipei	gg.gggg
USA	kk.kkkk
Vanuatu	hh.hhhh
Colombia	ll.llll
Curaçao	mm.mmmm
Liberia	nn.nnnn
Panama	pp.pppp

Annex 3: Observer Coverage

Rationale for the need for observers in the *Dosidicus gigas* fleet and for the level of coverage.

It is noted that:

- The fishery for *Dosidicus gigas* is large and extensive;
- Like many squid species, *Dosidicus gigas* expresses a highly 'plastic' phenotype, where it can grow at substantively different rates and mature at different sizes between years and within years in different areas;
- The level of interactions between the *Dosidicus gigas* fishery and marine mammals, seabirds, reptiles and other species of concern is not fully documented in all areas or for all gear types.

In order for the Scientific Committee and for those conducting stock assessments and reviews of the *Dosidicus gigas* fishery to be able to develop appropriate stock assessment methods and apply them and to be able to fully explore the patterns of capture and catch per unit effort (CPUE) in numbers of squid it is critical that the within and between year spatial and temporal differences in biology, growth and reproduction are fully understood.

In order to achieve an adequate knowledge of the spatial and temporal differences in the biology of the *Dosidicus gigas* and the impact that this has on the fishery performance and on stock assessments *Dosidicus gigas* there needs to be biological data collected from all areas of the fishery, throughout the season and over a number of years. This implies a substantive level of observer coverage.

In addition to collecting the biological information necessary to properly manage the *Dosidicus gigas* fishery, observers can, in addition, collect samples in support of genetic stock structure studies on *Dosidicus gigas*, and the necessary information to understand the fishery interactions with marine mammals, seabirds, reptiles and other species of concern.

Observer coverage required:

30% coverage of all fishing events per month, i.e. jigging days, for all vessels of each Member and CNCP greater than 15 m LOA.

Commented [G11]: It is an assumption that 30% observer coverage will give sufficient spatial coverage across the season to support adequate understanding of the fishery and support stock assessment needs.

Commented [G12]: The minimum vessel size for carrying observers needs to be defined so as to capture enough of the fishing effort but to exclude smaller vessels where carrying an observer is likely to be either impractical or dangerous to the observer, crew or vessel.