ASSOCIATION OF NATIONAL ORGANISATIONS
OF FISHING ENTERPRISES IN THE EU

Europêche position paper on EU proposal to include blue shark in Appendix II of CITES

Blue shark (Prionace glauca) does not meet CITES listing criteria

Europêche opposes the inclusion of blue shark in Appendix II of CITES

Brussels, 10 July 2022

Status and trends of blue shark (BSH) populations

- The biological characteristics of the species are not at all comparable to those of other elasmobranch species of the family or genera/species specifically named in the Panama proposal. The blue shark is the **most widely distributed, most fertile and fastest growing**[1] **species of elasmobranchs**.

- The available data on biomass of BSH from the different stocks widely distributed in the Atlantic, Indian and Pacific oceans evidence **high production and renovation rates**. To the point that in many cases all these factors, including the biomass, are even much higher than that of other large pelagic species of bony and cartilaginous fish. These would include some species of tuna, billfish (including swordfish) and other large pelagic sharks.

- The available data show **healthy BSH populations and abundance** (see ANNEX I) across the oceans. The high prevalence of the BSH in fisheries carried out over the course of decades may be attributed to its high renovation rate, as has been corroborated by the observations of many fleets and available biological studies[2]. Consequently, the broad geographic distribution of this species coupled with its efficient reproductive strategy are some elements that have clearly been conducive to its success as a species and high abundance.

- In the majority of RFMOs, all scenarios indicate that stocks are **not overfished, and that overfishing is not occurring**[3][4][5], therefore in good state (as further described in ANNEX I below).

- Sustainable fisheries management is the best tool to protect and sustainably harvest sharks. Scientific data evidence that many other **shark species are recovering in response to sustainable management**.[6]

Resemblance with species included in Appendix II

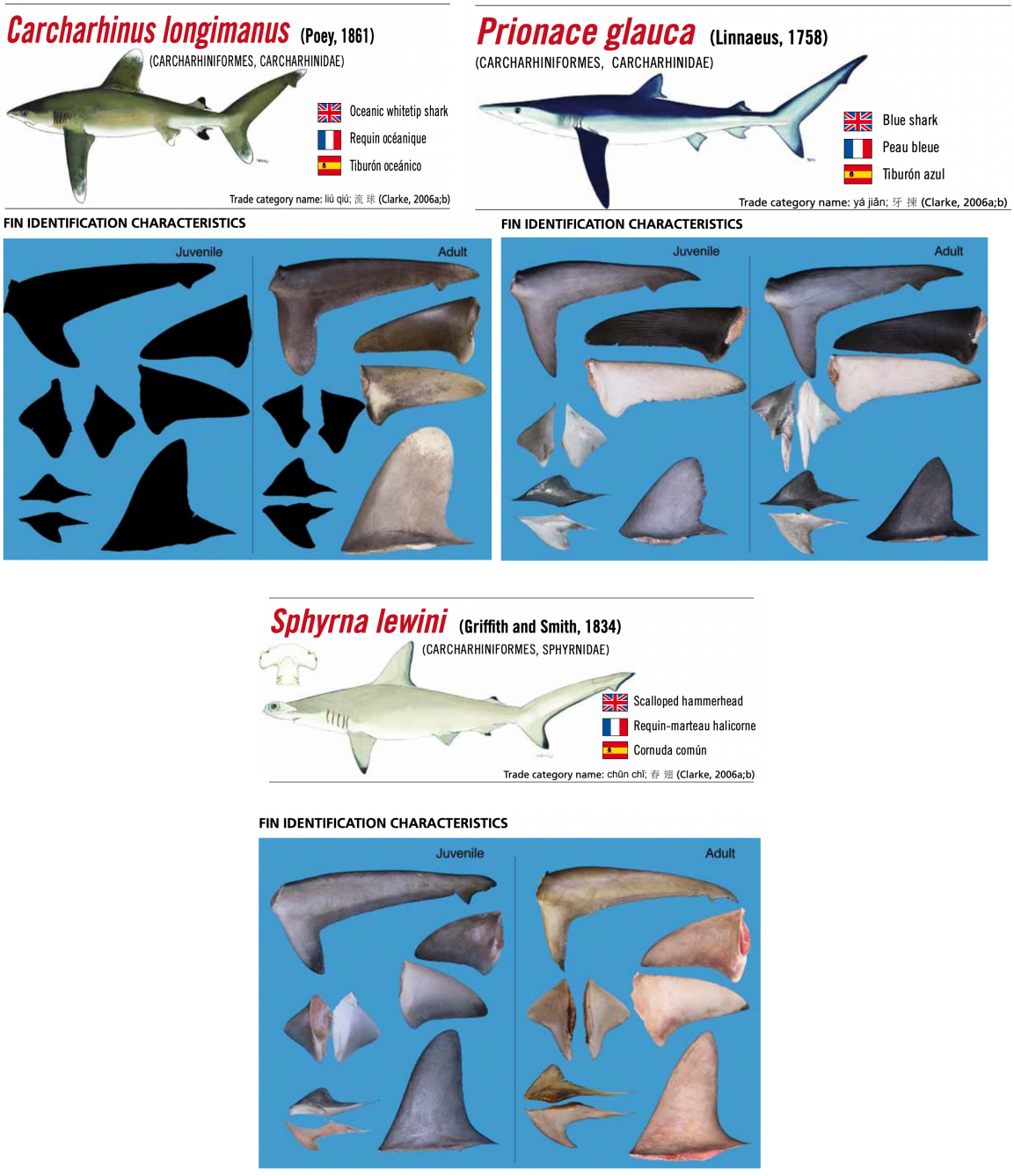
- Europêche disagrees with the statement in the Panama's proposal that visual identification between members of the family of Carcharhinidae and blue sharks is impossible. The sector is

[1] Its reproductive strategy with average litters of about 37.1 individuals (but with levels of up to 108 individuals per litter)
[2] http://www.co.ieo.es/tunidos/documentos/iccat/CV058030951.pdf
[3] https://iotc.org/documents/stock-assessment-blue-shark-indian-ocean
[4] https://www.iccat.int/Documents/CVSP/CV072_2016/n_4/CV072040866.pdf
[5] Stock assessment of Southwest Pacific blue shark: https://meetings.wcpfc.int/node/13209 (page 49)
[6] https://twitter.com/Mojoshark/status/716001072544878593?t=CtpwZTRbfzdBnTOpAshF_Q&s=08

shocked to learn that public authorities are seriously considering restricting trade just because BSH may look like other sharks for the untrained eye.

- The proposal to list all species (about 60 species) belonging to the family Carcharhinidae (requiem sharks) is **not scientifically justified** and therefore unfounded. It also **calls into question the capacity of RFMOs** to manage commercial fish stocks.

- First, blue sharks, including their fins, have **clearly distinguishable biological characteristics** that can be verified by fisheries inspectors (as it is the case with many other morphologically similar species). See below examples from the FAO "*Shark Fin Guide. A guide to the Identification of shark species from the fins*".[7]



[7] https://www.fao.org/publications/card/en/c/003a90da-eea6-4951-a2bf-c402c6ddc385/

- Second, in the EU and many other parts of the world, the fins must remain attached to the body up until the place of landing. Once landed and then exported, governments issue a **catch certificate** that accompanies the fish up until it reaches the consumer.

- The **fin** of the blue shark (Prionace glauca) is **easily distinguishable**, even separated from the body, due to its characteristic metallic blue coloration, because it lacks spines at the base of the fin and presents a typical indentation (keel) in the peduncle. IT tools such as *iSharkFin*[8] that uses machine learning techniques to identify shark species from shark fin shapes available to any user further facilitate the differentiation.

Governance & management

- Responsible fisheries decision-makers should analyse commercial species on a case-by-case basis, and not families. **RFMOs** such as ICCAT or IOTC, are **better suited** in this case to closely monitor the state and progress of blue shark stocks and to regulate the species accordingly.

- Blue sharks are **sustainably managed** by international fisheries management bodies (RFMOs) and protected thanks to strong fins-attached policies (particularly in the EU) as well as catch documentation schemes.

- All tuna RFMOs have adopted **prohibitions on fining**.

- The widely ratified **Port State Measures Agreement** requires verification and inspections on fishing vessels entering ports to ensure they comply with measures adopted by RFMOs and international conventions.

- At regional level, ICCAT has adopted strong management measures, including **total allowable catches** (TACs). In 2021, following scientific advice, ICCAT adopted 28,923 t for South Atlantic blue shark and 38.232 t for North Atlantic blue shark for 2022. These measures allow for a sustainable harvesting of blue shark populations.

Trade

- Blue sharks are largely caught during target fishing for tunas and swordfish, mostly in longline fisheries. It also represents an important part of the catch for certain EU fleets for which blue sharks are a target species. It is a rich source of protein for domestic consumption and international trade. Blue shark fins and meat are traded, however according to FAO, new austerity regulations in market states have seen **market declines in the fin trade** e.g., volumes at about half of post-2003[9].

- The Notification 2022/043 from Panama does not provide any information on the **impacts of fishing and trade on BSH populations**, that is necessary for CITES parties to examine the results and effects of listing blue shark. Particularly, there is no evidence in the information provided by Panama that international trade is driving the decline of BSH species. Furthermore, Europêche is unaware of **any report from enforcement/custom officers** reporting general issues with illegal trade of blue sharks nor difficulties in distinguishing BSH from other shark species.

[8] https://www.fao.org/ipoa-sharks/tools/software/isharkfin/en/
[9] https://www.fao.org/3/ca3914en/ca3914en.pdf

Fleet investments in sustainability

- The EU sector has been working on a **Fisheries Improvement Project** (FIP BLUES[10]) since 2019, covering 90% of the EU blue shark catches. This project is the first of its kind in the world that includes the blue shark and monitors the status of the stock.

Socio-economic impact

- Before taking any decision with an impact on commercial fish stocks, the EU is bound by the Common Fisheries Policy. This Regulation requires the EU to take decisions based on scientific advice, as well as the socio-economic dimension, and following consultation with the stakeholders. **None of these steps have been taken**.

- The listing of blue shark in Appendix II of CITES, will undoubtedly bring about unnecessary **red tape, trade disruptions and adverse socio-economic effects** to the fleet that must be analysed.

- Likewise, given the large volume of fish that will require an export permit or re-export certificate (thousands of tons), certain EU governments have already recognized the huge **administrative burden** and unfeasibility to comply with this demand.

Consultation Process

- We are facing a situation in which the **European Commission is consulting the sector once the Council has taken a decision**. What is the purpose of this consultation? Why are stakeholders consulted so late in the process? Why the EU has not consulted or waited to receive recommendations from the FAO expert panel, RFMOs nor the CITES Secretariat?

- Notification 2022/043 proposes to list not only 19 species in Appendix II that were assessed by IUCN as Endangered or Critically Endangered, but also a further 41 species of Carcharhinidae in Appendix II in order to ensure the fulfillment of the inclusion of the 19 previous species. It is essential and a prerequisite in the context of CITES that any proposal must be reviewed in accordance with the listing criteria provided in Resolution Conf. 9.24, supported by scientific evidence, to determine the suitability of listing the proposed species - 2 - **species by species**. In light of this principle, listing all 60 species of the family Carcharhinidae in one go cannot be considered a suitable approach which does not allow for any revision based on scientific evidence. It does neither pay due attention to the fact that the population status and the use of each species are quite different from one species to another.

- The Panama's proposal has not been the subject of prior debate with the FAO expert panel, RFMOs nor the CITES Secretariat which in previous cases (e.g., mako shark[11]) were opposed to the listing proposal.

EU credibility at stake

- The **EU is backing an initiative with no scientific basis** that comes from a country (Panama) against which the European Commission has reissued for the second time a yellow card, warning that it is not doing enough to fight illegal, unreported, and unregulated **(IUU) fishing[12]**.

[10] https://fipblues.com/en/fip-blues
[11] https://www.fao.org/3/ca3914en/ca3914en.pdf
[12] https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6755

ANNEX I

BSH Atlantic (2015 assessment)

North Atlantic stock (North of 5ºN):
For the North Atlantic stock, scenarios with the BSP modelling estimated that the stock was not overfished (B_{2013}/B_{MSY}=1.50 to 1.96) and that overfishing was not occurring (F_{2013}/F_{MSY}=0.04 to 0.50). Estimates obtained with SS3 varied more widely, but still predicted that the stock was not overfished (SSF_{2013}/SSF_{MSY}=1.35 to 3.45) and that overfishing was not occurring (F_{2013}/F_{MSY}=0.15 to 0.75).

South Atlantic sotck (al Sur de 5ºN):
For the South Atlantic stock, scenarios with the BSP model estimated that the stock was not overfished (B_{2013}/B_{MSY}=1.96 to 2.03) and that overfishing was not occurring (F_{2013}/F_{MSY}=0.01 to 0.11). Comparison of results obtained in the 2008 and current assessment were very similar for the BSP (B_{2007}/BMSY=1.95 and F_{2007}/F_{MSY}=0.04 for the 2008 base runs).

NORTH ATLANTIC BLUE SHARK SUMMARY

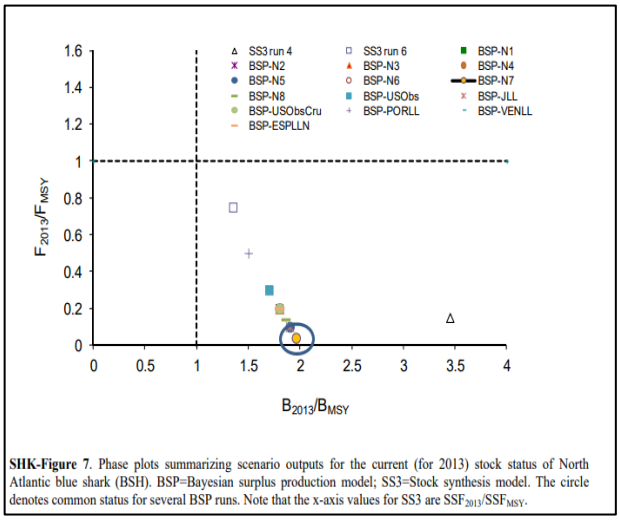
Provisional Yield (2014)		36,516 t[1]
2013 Yield		36,748 t[2]
Relative Biomass	B_{2013}/B_{MSY}	1.35-3.45[3]
	B_{2013}/B_0	0.75-0.98[4]
Relative Fishing Mortality	F_{MSY}	0.19-0.20[4]
	F_{2013}/F_{MSY}	0.04-0.75[5]
Stock Status 2013	Overfished	Not likely [6]
	Overfishing	Not likely [6]

[1] Task I catch.
[2] Estimated catch used in the 2015 assessments.
[3] Range obtained with the Bayesian Surplus Production (BSP) and SS3 models. Value from SS3 is SSF/SSF_{MSY}.
[4] Range obtained with the BSP model.
[5] Range obtained with the BSP and SS3 models.
[6] Although the models explored indicate the stock is not overfished and overfishing is not occurring, the Committee acknowledges that there still remains a high level of uncertainty.

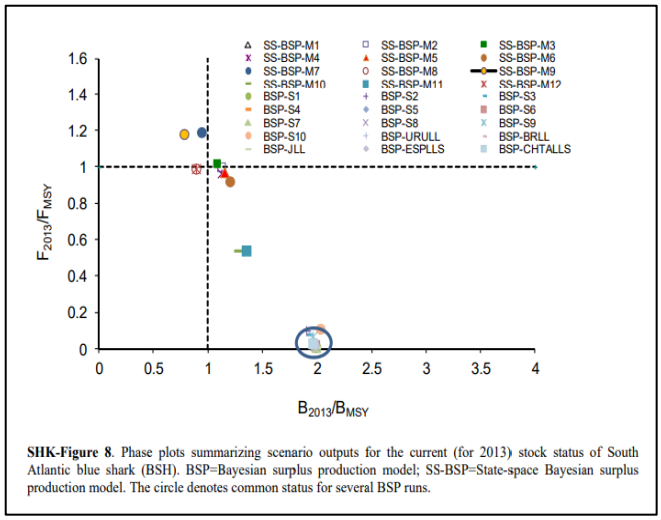
SOUTH ATLANTIC BLUE SHARK SUMMARY

Provisional Yield (2014)		25,939 t[1]
2013 Yield		20,799 t[2]
Relative Biomass	B_{2013}/B_{MSY}	0.78-2.03[3]
	B_{2013}/B_0	0.39-1.00[3]
Relative Fishing Mortality	F_{MSY}	0.10-0.20[3]
	F_{2013}/F_{MSY}	0.01-1.19[3]
Stock Status 2013	Overfished	Undetermined[4]
	Overfishing	Undetermined[4]

[1] Task I catch.
[2] Estimated catch used in the 2015 assessments.
[3] Range obtained with the Bayesian Surplus Production (BSP) and State-Space Bayesian Surplus Production (SS-BSP) models.
[4] Given the uncertainty in stock status, the Committee cannot make a determination but cautions that the stock may have been overfished and overfishing may have occurred in recent years.



SHK-Figure 7. Phase plots summarizing scenario outputs for the current (for 2013) stock status of North Atlantic blue shark (BSH). BSP=Bayesian surplus production model; SS3=Stock synthesis model. The circle denotes common status for several BSP runs. Note that the x-axis values for SS3 are SSF_{2013}/SSF_{MSY}.



SHK-Figure 8. Phase plots summarizing scenario outputs for the current (for 2013) stock status of South Atlantic blue shark (BSH). BSP=Bayesian surplus production model; SS-BSP=State-space Bayesian surplus production model. The circle denotes common status for several BSP runs.

BSH North Pacific (2017 assessment, updated in 2020)

Status of the Stock: The current assessment 2017 provided the best available scientific information on North Pacific Blue shark stocks status. The assessment uses a fully integrated approach in Stock Synthesis with model inputs that have been greatly improved since the previous assessment. Main conclusions are: "Female spawning biomass in 2015 (SB_{2015}) was 71% higher than at MSY and estimated to be 308,286 mt (Table 1E). The recent annual fishing mortality ($F_{2012\text{-}2014}$) was estimated to be well below F_{MSY} at approximately 37% of F_{MSY} (Table 1E). The reference run produced terminal conditions that were predominately in the green quadrant (not overfished and overfishing not occurring) of the Kobe plot (Figure 5E). These results should be considered with respect to the management objectives of the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC), the organizations responsible for management of pelagic sharks caught in international fisheries for tuna and tuna-like species in the Pacific Ocean.

Table 1E. Estimates of key management quantities for the North Pacific blue shark SS stock assessment reference case model and the range of values for 13 sensitivity runs.

Management Quantity	Reference Case Model	Range for Sensitivity Runs
SB_{1971}	311,312	174,381 - 980,878
SB_{2015}	308,286	140,742 - 1,082,300
SB_{MSY}	179,539	100,984 - 482,638
F_{1971}	0.13	0.01 - 0.15
$F_{2012\text{-}2014}$	0.13	0.06 - 0.15
F_{MSY}	0.35	0.26 - 0.66
SB_{2015}/SB_{MSY}	1.71	1.39 - 2.59
$F_{2012\text{-}2014}/F_{MSY}$	0.37	0.15 - 0.50

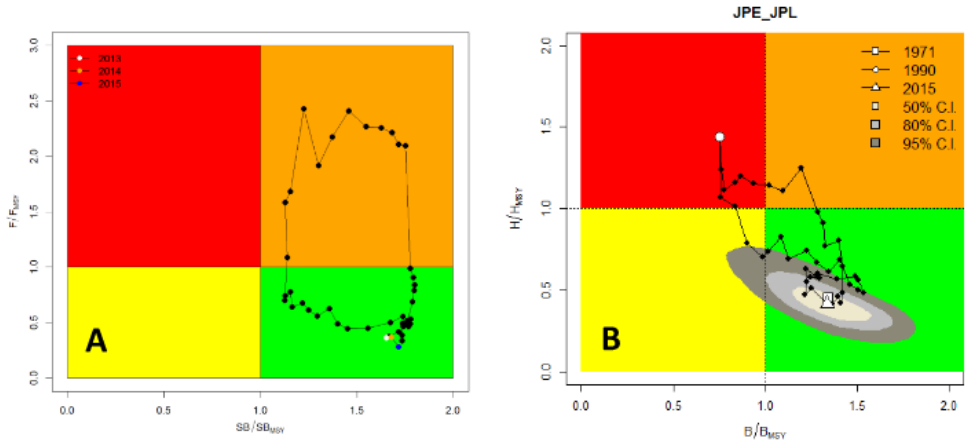


Figure 5E. Kobe plots of the trends in estimates of relative fishing mortality and biomass of North Pacific blue shark between 1971-2015 for the reference case of (A) the SS stock assessment model, and (B) the BSSPM stock assessment model.

An update sensitive analysis through 2018 of blue shark in the North Pacific was carried out in 2020. The results of this analysis show that female SB in 2018 was 65% higher than that for the MSY and estimated as 285,385 mtt. Annual fishing mortality in 2018 was estimated to be below the F_{MSY} as approximately 29% of the F_{MSY}. The new analysis show that the stock is not overfished an overfishing not occurring. Stock projections of biomass and catch of NPBSH from 2019 to 2028 were conducted assuming alternative constant-F harvest scenarios (F_{MSY}, $F_{2012\text{-}2014}$, $F_{2015\text{-}2017}$, $F_{20\%plus}$, $F_{20\%minus}$) (Figure 4E).

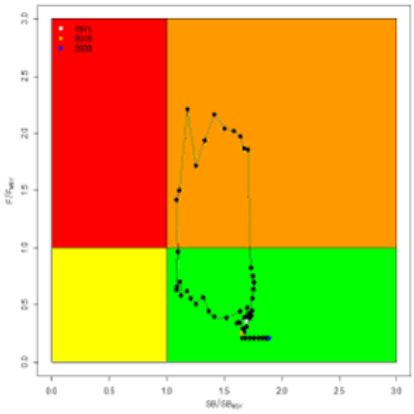


Figure 4E. Kobe plot of the trends in estimates of relative mortality (F) and female spawning biomass (SB) of the North Pacific blue shark 1971-2018 for the reference case of Stock Synthesis model.

BSH Southwest Pacific (2021 assessment)

The Southwest Pacific blue shark assessment was undertaken using the Stock Synthesis model framework and the structural uncertainty grid approach with 9 structural uncertainties (Catch, Discard, Initial-F, Rec. dev., High latitude CPUE, Low latitude CPUE, Natural mortality, survival function, growth) resulting in 3,888 models. In addition, a surplus production model was run. Both assessment methods produced similar results. The Committee agreed that the assessment 2021 was an improvement on the 2016 assessment. In particular, the catch reconstruction, CPUE time series, and re-parameterization of biological parameters using combined information from south and north Pacific assessments. The 90% of model runs indicated that F_{2020} was below F_{MSY} and 96% of model runs shows that SB_{2020} was above SB_{MSY} (Figure 34). The Committee also noted that fishing mortality has likely declined over the last decade and is currently relatively low due to the fact that most sharks are released upon capture in most longline fleets.

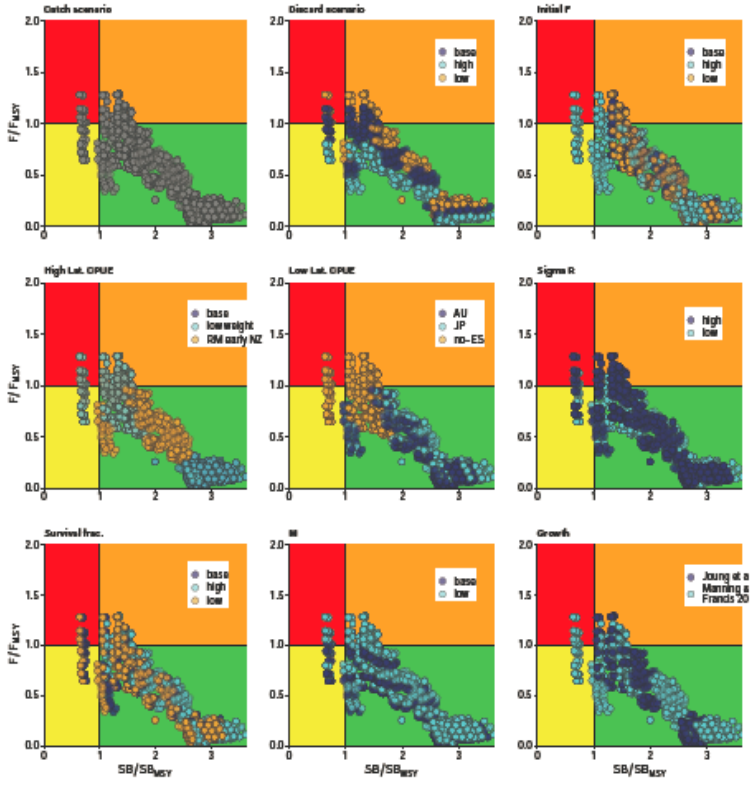


Figure 34: Kobe plots summarising status in the final year for each of the models in the structural uncertainty grid, based on SB_{latest}/SB_{MSY} and F_{latest}/F_{MSY}. The stock is considered to be overfished when $SB_{latest}/SB_{MSY} < 1$ and undergoing overfishing when $F_{latest}/F_{MSY} > 1$.

BSH Indian Ocean (2021 assessment)

Stock status: The last Blue shark stock assessment in the Indian Ocean was carried out in 2021 using an integrated age-structured model (SS3). All models produced similar results suggesting the stock is currently not overfished nor subject to overfishing (Figure 1), but with the trajectories showing consistent trends towards the overfished and subject to overfishing quadrant of the Kobe plot. On Table 2 the key management quantities from the SS3 assessment base case. Mean values estimated using SS3 model were F_{2019}/F_{MSY}= 0.64 and B_{2019}/B_{MSY}=1.34.

An additional analysis using the JABBA model also suggested a relatively healthy population (B_{2019}/B_{MSY} estimates range 1.4–1.6 and F_{2019}/F_{MSY} estimates range 0.38–0.51 from a range of CPUE grouping scenarios).

Table 2. Blue shark: Key management quantities from the SS3 assessment, assuming the base case model using GAM estimated catches for the Indian Ocean

Management quantity	Indian Ocean
2019 catch estimate (t)	43,240
Mean catch from 2015–2019 (t)	48,781
MSY (t) (80% CI)	33,600 (31,161 – 36,037)
Data period used in assessment	1950-2019
F_{MSY} (80% CI)	0.308 (0.306 – 0.31)
SB_{MSY} (t) (80% CI)	41,988 (38,867 – 44,109)
F_{2019}/F_{MSY} (80% CI)	0.643 (0.533 – 0.753)
B_{2019}/B_{MSY} (80% CI)	1.387 (1.246 – 1.529)
SB_{2019}/SB_{MSY}	1.387 (1.272 – 1.486)
B_{2019}/B_{1950} (80% CI)	0.456 (0.41 – 0.501)
SB_{2019}/SB_{1950}	0.456 (0.419 – 0.488)
B_{2019}/B_{1950}, F=0	0.398
SB_{2019}/SB_{1950}, F=0	0.456

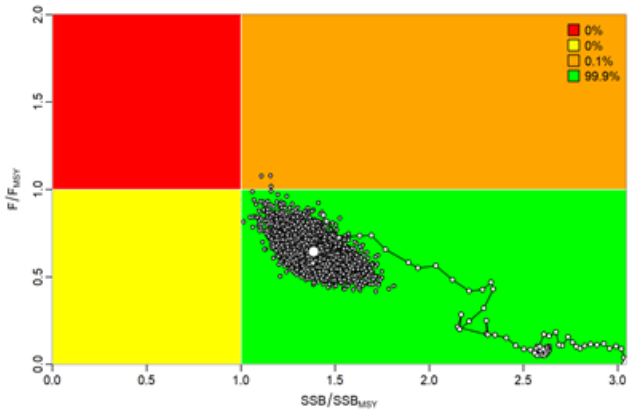


Figure 1. Blue shark: SS3 Indian Ocean assessment Kobe plot. The results are from the final base case SS3 model