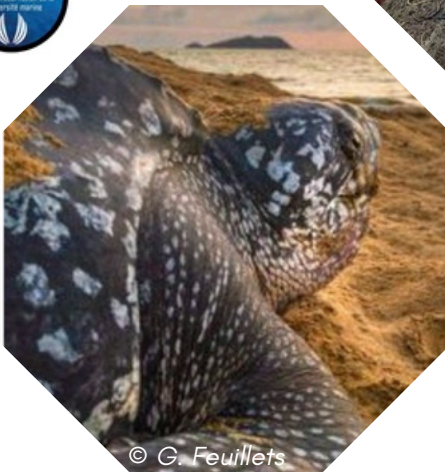


# Impact of IUU fishing on northern Brazilian shelf marine eco-complex biodiversity and implications of climate change

## Session 1 Report

COP30 – UN Climate Change Conference  
19 November 2025 | Belém, Brazil





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## Recap

The session focused on **Illegal, Unreported, and Unregulated (IUU) fishing** activities and their impact on **marine biodiversity** along the **Guianas**. Presentations covered various **fishing fleets, illegal fishing hotspots**, and the **threat to sea turtle, marine mammal, elasmobranch**, and important **commercial fish** populations. Knowledge was presented on the conservation status of marine species, including **leatherback turtles, Sotalia dolphins, sharks, rays**, and two historically and economically important commercial fish species: **Southern Red Snapper and Acoupa Weakfish**.

The session highlighted the **tendency of IUU to persist and rise in the region**, with the result being the up listing to Endangered of many emblematic and commercial species. While better monitoring is always important, the **risk of seeing a systemic collapse of marine resources** should be met with precautionary measures in the region. However, at this stage, a reduction in the levels of IUU does not seem to be a priority for political agendas. Hence, the **IUCN will develop a program to expose the current situation to regional stakeholders** with the perspective of enticing governments to seriously take IUU and its immediate impact on the future of livelihoods and biodiversity into consideration and take urgent action.



# Session general summary

## Marine Species Conservation in French Guiana

The session focused on the major fisheries of the **northern Brazilian Shelf eco-complex**, of which the Guianas Shield is a vital component, particularly important for marine megafauna (dolphins, turtles, and sharks) and two very important commercial species.

**The session aimed to synthesize the current conservation status and knowledge of important marine species and assess whether or not experts on these species considered IUU fishing to be a direct and imminent threat to the populations of which they are specialists.** When possible, the session highlighted the proportion of IUU in each EEZ and fleet as a proxy for further degradation, where a high proportion of IUU would inevitably contribute to further population degradation. **The findings presented seemed to indicate that the prevalence of IUU is so important in the region that it seems unlikely that conservation efforts will result in positive outcomes for biodiversity and fisheries sustainability unless IUU is met with an immediate, important and regionally coordinated effort.**

To expose the current situation, several presentations were delivered to give an **overview of the fisheries**, the **level of IUU fishing**, the **conservation status of different megafauna taxa**, and finally, an example of how **Fishers' Ecological Knowledge (FEK)** can be used to establish, when data is lacking, the trends in historical fishing effort. All along the way, the audience was reminded about how **climate change** exacerbates the already critical situation by reducing the ecosystem's resilience capacity. The conclusion is bleak because numbers presented indicate that **at least 50% of the fishing effort across sectors is directly linked to IUU fishing over the entire region.** Furthermore, population trends of multiple taxa of megafauna seem to indicate severe declines due notably to bycatch. Indeed, bycatch levels from known legal fisheries can hint at bycatch levels of the very same fisheries that, on the other hand, operate outside of all national jurisdictions. The Species Survival Commission (SSC) of the **IUCN** and **TOTM**, hosts of this event, hope that this session and the resulting documents will help shed light on the obscure situation and entice national competent authorities to seek further engagement with one another to work collectively toward the eradication of IUU. The IUCN Species Survival Group (SSG) members and other presenters of this session wish to organize a regional exchange to address more deeply the topics described in this 1.5-hour "lightning session". **They believe that the only way to address IUU is to work at a regional level since all nations present have been unable to reduce IUU activities in their waters individually.**

# Individual Presentation Summaries

Below is a brief description of the presentations given by the speakers and the major highlights of their presentations.

## Recent Trends of Fisheries of the Region



**Tony Nalovic** (SSG' member) introduced the subject of fishing by going over the major shared habitats of the region, which are under the influence of the outflow from the Amazon and the Northern Brazilian Current. The entire region, therefore, has essentially the same ecological configuration and hence almost the same fisheries, without at this stage making a distinction between the legal and IUU components of the fisheries in each nation. Two regional maps were presented showing the **change in fleets between 2020 and 2025**.

Tony presented the **various fishing fleets** operating in the region, including **gillnet boats targeting coastal whitefish, shrimp trawlers targeting marine shrimp or very coastal Seabob shrimp, Fish Trawlers (only in Suriname), and Southern Red Snapper boats using fish traps and/or handlines**.

Overall, we can observe a **decline in the level of shrimp trawl fisheries** and what seems to be a **stable number of gillnetting boats and Southern Red Snapper boats**. **Approximately 50% of the boats in the gillnetting fleet are unregistered vessels**. The Southern Red Snapper fleet also has a high prevalence of IUU boats where censuses take place (50% in Brazil).



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## High Proportion of Illegal Fishing in EU Waters of French Guiana



**Laurent Kelle** (WWF France) presented on **illegal fishing activities in the northern Brazilian Shelf marine eco-complex**, with a particular emphasis on French Guiana.

He highlighted the significant **lengths of gillnets used by illegal fishing vessels**, which can measure **up to 20 kilometers**. Data was presented on **illegal fishing hotspots and pressures**, showing that **IUU fishing pressure from gillnet boats has doubled within French Guiana waters over the past 10 years**, even though French Guiana is in fact part of the EU and has considerably more means allocated to combating IUU than the neighboring countries.



## IUU and Marine Turtles of the Northern Brazilian Shelf



**Almodis Vadier** (French Office of Biodiversity) presented the **National Action Plan (NPA) for marine turtles in French Guiana**, which aims to **protect turtle populations by improving scientific knowledge and reducing threats**. She showed that **French Guiana's beaches are major nesting sites for the North-West Atlantic**. She also showed marine turtle trends at a global level, and regionally, nesting numbers for leatherbacks and green turtles have **declined drastically**. She explained that **foreign IUU boats using gillnets in French Guiana were considered by the NPA as a major theme and threat that jeopardizes the success of the conservation efforts on the ground**. She ended her talk by exposing a **petition letter signed in 2023 by all members of the NPA**, including the Local French Guiana Government (CTG), the Fisheries representatives from the French Guiana Fisheries committee, scientific entities, and environmental NGOs.



**Damien Chevallier** (CNRS) discussed **new research on IUU fisheries and Marine turtle interacting habitat overlap**. He emphasized that this new research, jointly developed between the **CNRS** and **TOTM**, showed the **perfect and devastating overlap of IUU fishing pressure and the interacting zone of leatherbacks**, further solidifying the long-suspected link between leatherback population collapse and high levels of foreign IUU occurring in French Guiana.



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The results are very clear and indicate a more than regrettable and perfect superposition of the two, which confirms the intrinsic understanding that **IUU is directly linked to the collapse of leatherbacks**, whose nesting population was, just 12 years ago, the most important in the world.

Damien further expanded to show that **green turtle populations** from the French West Indies and French Guiana were the same as the ones nesting in Brazil, hinting at the fact that conservation cannot be successful if we only address turtle bycatch in one country's EEZ. The turtle experts emphasized the **importance of cross-border cooperation to effectively address IUU fishing and protect sea turtle populations**, as turtles move across borders and cannot be saved in one country if they are being bycaught and killed in others. If to this one adds the increase in temperature's impact on the hatchlings and the erosion of the nesting sites due to climate change, it is understandable that marine turtle scientists of the region are worried about the immediate future and survival of these species.



© Jody Amiet/Damien Chevallier

## IUU and Marine Mammals In French Guiana



**Amandine Bordin** (Eden-I association) presented on a small cetacean, **Sotalia guianensis**, a small dolphin that historically occurred in the very coastal and shallow waters of eastern South America from Uruguay to Nicaragua. Now, **their populations are largely reduced** and found in only a few places of their historical pre-gillnetting range. Species data for **strandings and bycatch in French Guiana** were presented, highlighting the need for improved monitoring and mitigation measures.



**Monique Pool** (Green Heritage Fund Suriname) discussed their research on the same species now only found in the Suriname River. She emphasized the **lack of management plans** and the **urgent need for mitigation measures against bycatch and noise pollution**. One could wonder why the only stable population of *Sotalia* is limited in its range to the Suriname River, where gillnetting does not occur. Based on available information from IUU in French Guiana we see the zones occupied both on the eastern and western sides of French Guiana by IUU fleets from neighboring countries. We also see that these zones are now relatively poor in marine mammal presence compared to what was reported in 2009. If we consider on top of **IUU induced bycatch** the vulnerability of these mammals to **climate change** and **anthropogenic activities**, including **oil-associated infrastructure and activities**, these combined factors that will necessarily further impact these already critically endangered animals negatively.



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## Elasmobranch Diversity and Conservation Status in the Region



**Armelle Jung** (Des Requins et des hommes /IUCN Shark SSG) presented on the **diversity and threats facing sharks and rays in the region**, highlighting the critical IUCN status of many species commonly found in the Guianas. She emphasized the **impact of fisheries bycatch, IUU, and the resulting illegal trade on these species**.

Armelle presented the case of **sawfish** and illegal trade, highlighting their vulnerability due to **long life cycles, specific habitat needs** and **bycatch sensibility**, as exhibited by the newly established **Important Shark and Ray Area (ISRA)** work that should be taken into consideration to establish time and space management schemes.



## Important Fisheries Species Conservation Status and IUU

### Southern Red Snapper (*Lutjanus purpureus*)



**Beatrice Padovani Ferreira** (IUCN Snapper SSG) briefly described the **Red Snapper fishery in Brazil** and the recently published literature that exposes its situation, focusing on illegal fishing practices and the challenges in fisheries management measures enforcement. **The legal fleet is represented by 150 boats, but another 150 boats are also suspected to operate in parallel without authorizations.** This results in a considerable risk since this fish is mainly exported. She exposed the fact that the Southern Red Snapper Red List assessment is currently being reviewed and should be available in January 2026. **The assessment for Southern Red Snapper shows that, although still under the vulnerable category in some regions, the species would be listed as Endangered in its entire range as future projection do not seem to address management needs in the region.** She concluded by emphasizing **the need for immediate implementation of all proposed management measures in Brazil; need for a comprehensive approach to address illegal fishing, including cooperation between countries and addressing the underlying economic drivers.** She invited participants to a session 2 intitled "Climate resilience of fisheries: is there a risk of collapse of fisheries resources of the Northern Brazilian Shelf marine eco-complex? "on the 20th of November 2025, this time specifically focused on Southern Red Snapper and Acoupa Weakfish *Cynoscion acoupa* of the northern Brazilian Shelf.



## Acoupa Weakfish (*Cynoscion acoupa*)



**Fabian Blanchard** (Ifremer French Guiana) presented research using the **IUU evaluation** presented earlier by WWF in conjunction with Acoupa Weakfish stock assessment.

The presentation showed that **the French Guiana legal fishery by itself is considered sustainable**, even underexploiting but when adding the effort from IUU (even for the lowest estimated levels), it drastically changes the results. The presentation highlighted concerns about **declining fish landings, overfishing due to disproportionality high levels of illegal fishing negatively impacting stock health**. It was noted by **Tony Nalovic** that the **Acoupa Weakfish** is currently considered **Vulnerable** according to IUCN Red List assessment standards but **could be reclassified as Endangered by 2026 if IUU fishing continues**, with efforts needed to reduce fishing pressure and address illegal activities.

## Overfishing Crisis measured using Fishers' Ecological Knowledge

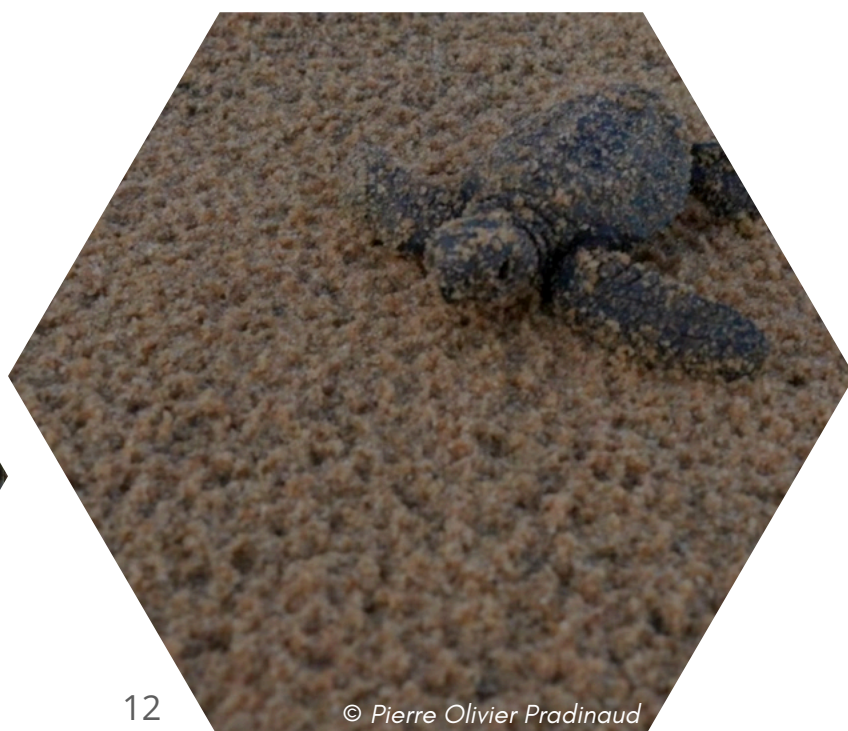


**Tony Nalovic** (SSG) presented results of a publication from 2023 from **Suriname and Guiana** based on data collected in 2018, showing that **four most important commercially exploited Scianids species were already overfished eight years ago**, with illegal, unreported, and unregulated (IUU) fishing having increased over the past decade. He also shared data from **interviews with fishermen in Suriname**, which revealed **significant increases in net length and fishing duration over the past 40 years**, leading to a dramatic decline in fish biomass. He indicated that though the data for Guyana was not presented, the profile of overfishing is the same. Tony emphasized that governments have had sufficient information to address the crisis but have yet to act and invest, warning that ignoring the science will lead to imminent collapse of Acoupa Weakfish and other associated species across the region, **threatening the local blue economy and the local communities depending on it**.

## Conclusion


Tony recalled the conclusions of previous speakers concerning different taxa of animals. According to specialists, including IUCN experts, **all taxa of marine animals explored during this session are being driven into depletion in the Northern Brazilian Shelf Marine ecosystem.** Based on the information presented during the session, it is likely that **at least 50% of the fishing effort along the entire region is illegal**, with extreme examples in EU waters of French Guiana where research highlights that **IUU boats from Brazil, Suriname, and Guyana represent up to 75% of the total fishing effort!** The region is characterized as not having official numbers for the sizes of their national fleets. In the end, **if nothing is done to address IUU at a regional level rapidly, the results will be the further degradation and collapse of Leatherback turtles, Sotalia, Elasmobranchs, and important commercial fish species.**

When considering the uncertainty that **climate change** introduces and the potential it has to further amplify the degradation of habitats, collapse of the ecosystem's productivity and the supported marine wildlife, it is important to **take precautionary measures** to prevent overfishing, which unfortunately is not the current tendency in the region.



## Next Steps

To address these challenges, **the members of the different SSG of the IUCN will develop a program to bring together relevant national stakeholders from the countries of this region with the objective of guaranteeing that all parties are brought up to date on the current state of knowledge that is already readily available.** It is the IUCN SSC's hope that this effort will bring governments into a consortium to sustainably address the negative impact that IUU is causing on the entire region. Ignoring the current situation will be disastrous, and the aftermath will have unprecedented long-term and costly socio-economic impacts.

 To watch the recorded session, please follow this [link](#)  
passcode : QX&4U\$?5

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