## GROUNDFISH MANAGEMENT TEAM REPORT ON 2023-24 PACIFIC SPINY DOGFISH MANAGEMENT MEASURES

The Groundfish Management Team (GMT) considered and discussed the analysis provided in the briefing book (Agenda Item F.4, Attachment 2, April 2022). In this report, the team provides a synthesis of the Pacific spiny dogfish analysis and management considerations in the 2023-24 biennium as well as some additional thoughts.

The GMT notes that the depletion level for Pacific spiny dogfish cited in the Attachment 2 analysis is incorrect, and the correct depletion level is 42 percent, putting the stock above the 40 percent management target (<u>Draft Status of the Pacific Coast Groundfish Fishery: Stock Assessment and Fishery Evaluation</u>). The analytical document will be corrected as such prior to the June Council meeting. Based on the stock assessment, the 2023 and 2024 Pacific spiny dogfish annual catch limits (ACLs) are lower than the 2021-22 ACLs and could be at risk of being exceeded if high bycatch events occur.

Pacific spiny dogfish exhibit seasonal migration patterns that result in higher concentrations of trawl bycatch in the late fall and winter months with trawl bycatch accounting for 75-90 percent of total mortality. Additionally, the stock's abundance is highest off of Washington and declines in abundance southward off of Oregon and California. The analysis reflects this in Table 2-20 of Attachment 2, which shows that shorebased individual fishing quota (IFQ) trips that caught greater than 5 mt of Pacific spiny dogfish tended to occur north of 47° N. lat. whereas trips with less than 5 mt tended to occur at lower latitudes.

The majority of Pacific spiny dogfish catch is by midwater trawl gear targeting Pacific whiting in the at-sea and shoreside whiting fleets, with some notable amount also caught by bottom trawl gear in the IFQ fishery. Occasionally, midwater trawl gear targeting rockfish stocks will also catch some Pacific spiny dogfish, particularly in high bycatch years such as 2018 (Figure 2-1; Attachment 2). Nearly all bottom trawl catch is discarded at sea and not reported inseason since Pacific spiny dogfish is not managed as an IFQ quota species. However, total catch in the at-sea Pacific whiting sectors as well as landings in the shoreside Pacific whiting sector can be monitored inseason, the latter of which makes up roughly 99 percent of shoreside Pacific whiting catch due to maximized retention. Therefore, the GMT's ability to track total Pacific spiny dogfish catch inseason is incomplete.

The GMT notes that industry avoidance and bycatch response measures are generally nimbler and more reactive than National Marine Fisheries Service (NMFS)-implemented inseason spatial management measures, and such management measures should only be used as a last resort to protect the stock. In particular, the at-sea fleet uses move-along measures and communicates within and across cooperatives to avoid stocks that are of high concern. Additionally, bycatch by the at-sea and shoreside Pacific whiting fleets may be lower in the future than in 2018 and 2019 (high bycatch years), because the Pacific whiting season start date is scheduled to start two weeks earlier and may result in a shift in effort.

If the Pacific spiny dogfish ACL is exceeded or projected to be exceeded, based on incomplete inseason tracking, the Council can use inseason action to implement Bycatch Reduction Areas (BRAs) for midwater trawl gear coastwide, Block Area Closures (BACs) off Oregon or California for bottom trawl gear, or modify the 100-150 fathom trawl Rockfish Conservation Area (RCA) currently off Washington. However, Pacific whiting vessels are exempt from trawl RCA restrictions, and therefore, this would not likely be a useful tool for Pacific spiny dogfish bycatch mitigation. The analysis indicates that BRAs would be too broad given that they are a coastwide measure that would not capture the abundance distribution of Pacific spiny dogfish and would unnecessarily impact trawl vessels in southern latitudes. Therefore, the GMT does not see merit in conducting further analysis on BRAs for bottom trawl gear. Seasonal closures for the entire trawl fishery or certain sectors can also be implemented to prevent exceeding the ACL.

BACs are currently only applicable to bottom trawl gear and therefore do not account for the majority of Pacific spiny dogfish trawl-based mortality, which is attributed to midwater trawl gear. Based on the analysis and Council guidance, the GMT plans to analyze the use of BACs for groundfish bycatch mitigation purposes by both midwater and bottom trawl gear off all three states (i.e., coastwide) for potential inseason use starting in 2023. While analysis on the use of BACs for bottom trawl gear off Washington can largely be tiered from the Amendment 28 analysis, given that it was within the range of alternatives but not considered for final action, the use of BACs for midwater trawl gear coastwide will need to be added as a new management measure to the Action Item checklist (Agenda Item F.4, Attachment 1, April 2022).

The completed analysis will be provided for the June Council meeting and will largely be qualitative and generalized across all groundfish species, because more detailed and situationally dependent analysis (potentially species-specific) would be conducted immediately prior to any inseason BAC action in the future. It would be difficult to predict at this time all factors that could influence the Council's decision to take inseason action using BACs years from now, such as changing oceanic conditions, fishery allocations and behavior, or species distribution. Additionally, the GMT considers it equitable to include both bottom and midwater trawl gear, because it is difficult to accurately predict impacts from either gear type. The analysis would focus on identifying potential sources of data that can be used inseason to assess possible closure areas as well as impacts to groundfish stocks and socioeconomic impacts. Further, the analysis will attempt to outline factors the Council should consider when deciding to implement a BAC inseason, such as length of implementation and which sectors or species it would apply to.

PFMC 03/29/22