

## GROUND FISH ADVISORY SUBPANEL REPORT ON CONSIDER STOCK COMPLEX AGGREGATIONS

The Groundfish Advisory Subpanel (GAP) was briefed by the Groundfish Management Team (GMT) on the analyses done in consideration of restructuring stock complex aggregations and offers the following comments and recommendations.

The GAP repeats concerns about the disruption of fisheries that can occur by a restructuring of current stock complexes (see [Agenda Item F.8.b, Supplemental GAP Report, June 2013](#) for further details regarding the costs associated with stock complex restructuring). As more management units are created by either removing too many stocks from stock complexes and managing them with stock-specific harvest specifications or by a proliferation of more complexes to address concerns about potential overfishing, the fishery will face more constraints and will become much less efficient (e.g., negating gains brought about by trawl rationalization). The GAP understands this action is being considered to address perceived concerns regarding potential overfishing of more vulnerable stocks. However, the GAP believes recent information indicates these concerns may be unwarranted. Further, the GAP believes there are other less onerous actions that should be contemplated to address potential overfishing concerns that will not incur the high costs to fisheries that would be created by restructuring stock complexes. The following points are offered regarding the GMT analyses and concerns raised by the GMT for individual stocks that appear to be more vulnerable to overfishing. The GAP also offers alternative measures that should first be considered to address potential overfishing concerns that will be less disruptive to fisheries.

Vulnerability to potential overfishing was first raised with the GMT's Productivity and Susceptibility Assessment (PSA), a subjective scoring mechanism to rank a stock's relative productivity and susceptibility to overfishing. The PSA tool may have some value when there is little other information regarding a stock's vulnerability to overfishing. However, the GAP believes that the performance of the PSA and the PSA scores themselves have not been fully evaluated and the GAP cautions against using PSA results alone to unnecessarily overhaul the fishery. For example, three of the six most vulnerable stocks from the GMT's PSA analysis (i.e., aurora rockfish, roughey rockfish, and copper rockfish)<sup>1</sup> were assessed this year and each stock was estimated to have a healthy status. Clearly, the vulnerability to overfishing of these three stocks is not as high as the PSA analysis would suggest. The GAP also notes the data-poor overfishing limit (OFL) estimates using depletion based stock reduction analysis (DB-SRA) were significantly lower than the OFLs estimated from the new assessments of these stocks. This underscores the need to evaluate all sources of information, and not just PSA scores, before reacting aggressively to address potential overfishing concerns.

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<sup>1</sup> The other three most vulnerable stocks from the GMT's PSA analysis are China rockfish, quillback rockfish, and shortraker rockfish. Concerns with managing quillback and China rockfish, component species in our current nearshore rockfish complexes, can be addressed with management measures, and the GAP poses arguments in this report why shortraker rockfish should not be a concern in west coast groundfish management.

Despite these cautions, the GAP agrees some changes to our current stock complexes may be in order. The GAP also believes there are measures other than complex restructuring that should be considered for many of those stocks where there is a concern of vulnerability to overfishing. In this spirit, the GAP addresses each of the five species groups under consideration for this action (i.e., slope rockfish, shelf rockfish, flatfish, cartilaginous fish, and roundfish) and poses solutions to potential stock vulnerabilities to overfishing for component stocks in each group.

### Slope Rockfish

The GAP recommends maintaining the status quo slope rockfish complexes north and south of 40°10' N lat. Any restructuring of these complexes will require a change in the formal Amendment 21 sector allocations for slope rockfish complexes. Removing any of these stocks from these complexes will require a sector allocation process since the trawl and non-trawl allocations differ for these complexes north and south of 40°10' N lat. Not only would the reallocation for the removed stock be necessary, a reallocation of the remaining stock complexes would also be required. This is because sector allocations are decided on historical and current dependence of these stocks by trawl and non-trawl sectors and sector constraints. The need for the harvestable surplus changes as the mix of stocks in each complex change. The GAP does not believe the disruption of a sector allocation process is worth the perceived benefit of restructuring the slope rockfish complexes. This process will consume time and resources better dedicated to preparing a comprehensive Tier 1 specifications environmental impact statement or addressing other higher priority items such as trawl rationalization trailing actions or sablefish permit stacking and control issues.

There are three component species within these complexes that have very high PSA vulnerability scores (i.e., aurora rockfish, roughey rockfish, and shortraker rockfish) and one with a high vulnerability score (i.e., blackgill rockfish). As stated before, the new assessments for aurora and roughey rockfish indicate a healthy status for these two stocks and the OFLs estimated from these new assessments are significantly higher than those previously estimated using the data-poor DB-SRA method. The GAP focused on the GMT's catch-based risk analysis by comparing coastwide OFLs for these stocks to recent total catches. Recent catches of aurora rockfish have been well below the new OFLs estimated in the aurora rockfish assessment indicating little risk of future overfishing. A similar comparison for roughey rockfish indicates catches have exceeded the OFLs estimated in some recent years, particularly in the 2009-2011 period. Roughey catches in the bottom trawl sector were relatively high in 2009 and 2010 due to higher trip limits and the lack of consequence for targeting slope rockfish prior to trawl rationalization. Since 2011, slope rockfish targeting has decreased dramatically (only 17% of the 2011 quota of the northern slope rockfish was attained) under management with individual fishing quotas (IFQs). The 2011 catch levels are more likely than those preceding implementation of trawl rationalization given how IFQ management works. Higher than normal catch of roughey in the 2011 catcher-processor (CP) sector occurred because the CP sector fished much later in the year and more concentrated than usual off northern Washington that year. This is not typical behavior. Roughey bycatch is highly variable in the CP sector and largely depends upon where the fleet operates. For instance, this year fishing is concentrated off Oregon where roughey are less prevalent and the roughey bycatch is considerably lower (at present less than 5 mt). The CP fleet is employing measures to avoid roughey, which should reduce the risk of future high bycatch of roughey.

Shortraker rockfish is a minor species on the west coast and at the tail end of the distribution of the stock. They are only caught incidentally in the bottom trawl fishery off northern Washington and that bycatch is effectively controlled with current management. The vast majority of the shortraker rockfish biomass and catch occurs north of the West Coast Exclusive Economic Zone in waters off British Columbia and Alaska. Therefore, catches in west coast fisheries have little effect on overall stock status.

Blackgill rockfish occur primarily south of 40°10' N lat. and are caught in trawl and fixed gear fisheries. This stock was assessed in 2011 and estimated to be in the precautionary zone. Conservation measures were implemented in 2013 (e.g., a harvest guideline (HG) and significantly reduced fixed gear trip limits) to address concerns for blackgill rockfish. The inseason tracking of blackgill catch using PacFIN's quota species monitoring indicates current management has effectively reduced blackgill catches by eliminating target opportunities.

Specific to Council action for this stock complex, the GAP recommends development of harvest guidelines and reliance upon voluntary industry actions. The GAP opposes addressing slope rockfish stock concerns with stock complex restructuring.

#### Shelf Rockfish

The GAP believes there is no reason to consider restructuring the current shelf rockfish complexes north and south of 40°10' N lat. given the protections afforded by the comprehensive network of Rockfish Conservation Areas (RCAs) in place since 2003. An example of this is the biomass trajectory of greenspotted rockfish from the 2011 assessment. Prior to implementation of RCAs and other conservation management measures in the 2000s, greenspotted rockfish experienced overfishing and spawning stock biomass was driven to low levels of depletion. Since RCA implementation, the catch of greenspotted rockfish has been reduced dramatically and spawning stock biomass has quickly increased as a result. Lack of access to shelf rockfish alleviates concerns of potential overfishing.

The GMT's catch-based risk analysis indicates there are no concerns for shelf rockfish except for some slight catch overages of tiger rockfish, a minor species on the west coast. The OFL contribution of tiger rockfish is 1 mt and slight catch overages of such a minor species should not be a concern. The stock is distributed from Cape Mendocino north through the Gulf of Alaska and the Aleutian Islands. A major restructuring of the shelf rockfish complexes to address slight catch overages of such a minor species appears to be a needless and resource-intensive exercise.

#### Other Flatfish

The current Other Flatfish complex is comprised of species with very low vulnerabilities to overfishing and is a well-constructed complex of mostly trawl-dominant species. The GAP does not believe there should be any restructuring of this complex, which might also entail an Amendment 21 reallocation process.

The GMT identified two species, curlfin sole and flathead sole, with some slight catch overages in recent years relative to their contribution OFLs. Curlfin sole is a very shallow water species with highest densities in the 4-50 fm depth range. This is a species that has only been

incidentally caught in bottom trawl gear primarily in efforts targeting California halibut. The GAP notes the bottom trawl groundfish fishery is not allowed to operate in state territorial waters off California and Washington and very little trawling occurs in such shallow depths off Oregon. This is a species that is not targeted and is hardly one that would compel a restructuring of the complex. Flathead sole catch averages relative to the contribution OFL of 35 mt occurred prior to 2007 and catches have not been a concern since (annual catches have been less than 5 mt since 2007). This is another fringe species on this coast with the bulk of its distribution off British Columbia and the Gulf of Alaska. West coast catches of any magnitude should not affect flathead sole, a species which sustains catches of about 18,000 mt annually in the Gulf of Alaska. The GAP suspects the drop in catch since 2007 may be due to the closure of shallow water trawling north of Cape Alava, Washington to protect canary rockfish. Current management will likely keep flathead sole catches down in the future and there should be no stock concerns for either species on the west coast.

#### Other Fish (Cartilaginous Fishes and Roundfishes)

The GAP agrees with the Council priority to consider restructuring the Other Fish complex. This complex is an assemblage of species with disparate life histories, distributions, co-occurrence in the fishery, and vulnerabilities to overfishing which should not be managed together. The GAP also agrees with the recommendation to first consider splitting the cartilaginous stocks from the roundfish stocks currently managed under the Other Fish complex.

##### *Cartilaginous Stocks:*

The GAP prefers an alternative for cartilaginous species that manages skates from the other cartilaginous species (spiny dogfish and ratfish). The GAP believes this is sensible given their disparate life histories, distributions, and vulnerabilities. The GAP does not recommend further subdividing skates into shallow and deep complexes, as it would unnecessarily create an additional complex that is not fully supported by the analyses. Skate species caught in west coast groundfish fisheries have a wide depth range with a great deal of overlap of the stocks contemplated for the shallow and deep skate complexes.

If the Council decides to remove spiny dogfish from the complex and manage the stock with stock-specific harvest specifications, then the GAP strongly recommends the use of harvest guidelines as the preferred management tool. The GAP opposes development of spiny dogfish quota shares.

Additionally, the GAP does not recommend an alternative that adds brown catshark to the fishery management plan (FMP) and complex. Brown catshark is a species not caught in great amounts in any groundfish fishery with a depth distribution far deeper than the trawl fishery can be prosecuted (i.e., deeper than 700 fm), which is the only fishery with any kind of historical bycatch of this species.

##### *Roundfish:*

The GAP recommends creating a nearshore roundfish complex. The GAP also recommends removing Pacific grenadier from the Other Fish complex and not adding the other grenadier species to the FMP, as well as removing finescale codling (aka Pacific flatnose) from the FMP

since the distribution of grenadiers and finescale codling extends far deeper than the 700 fm trawl limit and no fisheries target these species on the west coast.

The GAP does not recommend adding California slickhead, a deepwater species, which is distributed deeper than 700 fm and is not targeted on the west coast. The GAP also does not recommend adding the California and Oregon cabezon substocks into a new nearshore roundfish complex. The GAP is satisfied that under state and federal management, these stocks are managed well with stock-specific harvest specifications and management measures (e.g., state trip limits). Further, it is not clear to the GAP how management of stock complexes in general using indicator stocks is done or how it improves our current management system.

PFMC  
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