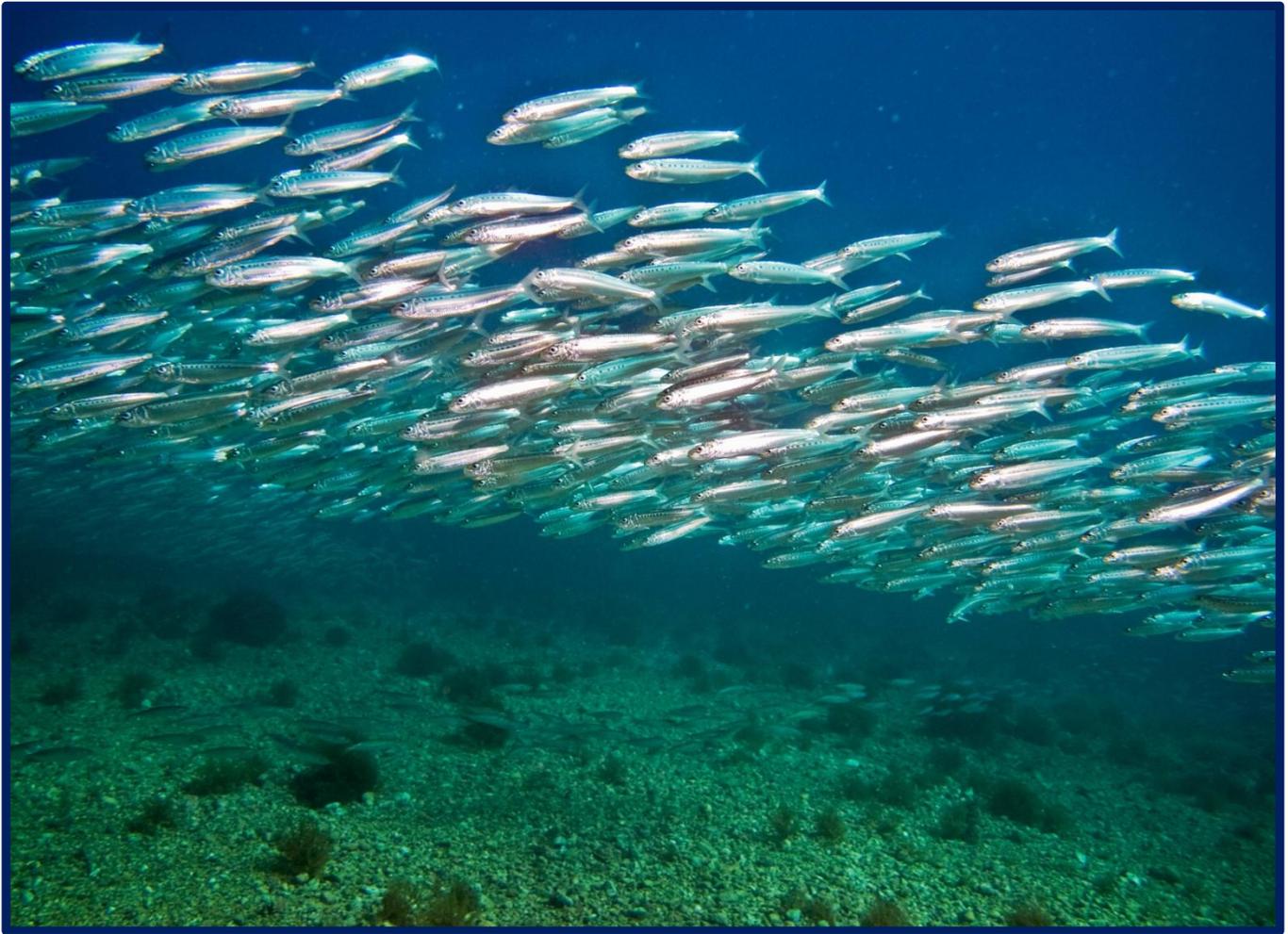


**Pacific sardine school**



### **III. REFLECTING ON KEY WORKSHOP ISSUES**

This section attempts to capture the views, concerns, questions, comments, and recommendations expressed by workshop participants (i.e., audience, stakeholder panelists, case study presenters, and the small groups) in short narratives organized by major topics and subtopics that are most related to either catch share management or to CPS fishery management in general.

#### **A. ISSUES RELATED TO CATCH SHARE MANAGEMENT**

This section includes the issues participants raised that were more specific to catch shares. Subtopics were organized according to the frequency with which those issues were raised at the workshop (i.e., more frequently discussed issues first).

# 1. Program Design and Implementation

Case study panelists advised that gaining consensus on the issues to address is important to the negotiation process of designing and implementing a catch share program. The panelists pointed out that different program designs yield different outcomes. They emphasized the desirability of shares to represent a well-defined right to a portion of the TAC and whatever their form, be tradable in open markets.

Participants frequently expressed concern for the amount of time and costs they expected for the design and implementation of a CPS catch share program. Reoccurring attention was paid to:

- Determination of initial allocations at either the vessel, sector, or regional level
- Adequate consideration of small landings interests and niche markets
- Opportunities for new entrants to the fishery (e.g., recently purchased vessels have no catch history)
- Consolidation and potential creation of monopolies or oligopolies
- Potential for the placement of marine reserves to have disproportionate impacts on CPS management
- Incentives to high grade
- Stock fluctuations across regions
- Inherently short-term availability of stocks
- Sector or regional allocation options (i.e., particularly with regard to niche markets)
- Sub-allocation within sectors or regions
- Transferability among sectors or regions
- Timing of fishing access
- Biological differences across species ranges
- Windfall profits under ITQs
- Equality in initial allocations
- Environmental protection

## *a. Scope of program*

Participants noted a potential need for variation among the types of programs used to manage the different species of the fishery.

## *b. Buybacks*

A few industry members expressed concern over the possible inclusion of buybacks in catch share programs. It was noted that under low biomass conditions, a buyback program could generate unnecessary government spending. Case study panelists suggested that buybacks will likely be unnecessary under catch share programs because some shareholders may willingly sell all their shares. This would result in fleet reduction and consolidation.

## *c. Duration of rights*

A general sense among case study panelists was that the more durable the use right or privilege established by the catch share, the stronger the incentive on the part of the holder(s) to maintain a sustainable resource. For example, in the New Zealand rock lobster fishery, the perpetuity of the use rights established natural capital assets for the holders which enhanced stewardship and co-management.

## *d. Flexibility and transferability*

Some members from industry acknowledged that catch share management may provide more flexibility for vessels, processors and other fishery entities in terms of planning and executing fishing operations.

Case study presenters recognized that it has often been desirable to constrain trade of quota shares during the early implementation stages of catch shares. However, as the programs matured, fishery participants often found it desirable to relax some of the transferability constraints.

## 1. Program Design and Implementation (continued)

### *e. Initial allocations*

How initial allocation would be constructed appeared to be a paramount issue for participants considering catch shares for CPS finfish fisheries. Their concerns focused on eligibility to obtain permits, to hold shares as well as the process used for determining how many shares each permit would receive. The central issue with eligibility was whether or not both vessels and processors should receive quota shares.

The case study presenters addressed initial allocation as a major program design issue. The case study panelists deemed the process of deciding an equitable initial allocation mechanism as the most difficult part of program development, but they generally agreed that once allocation was accomplished the rest of the design and implementation process went relatively smoothly.

#### *i. Uncertainty*

Members of industry expressed concern about the uncertainty in the information needed to make initial allocation decisions, especially in terms of splitting the HG into shares. Participants expressed a need for routine data from Mexico and Canada on fishing activity and catches to reduce uncertainty in coastwide stock assessments.

#### *ii. Equity*

Some members of industry pointed to an assurance of equity in fishing opportunities between regions as an advantage of some catch share arrangements. Conversely, they felt a disadvantage of catch shares might be the deterrence of new entrants into the fisheries.

#### *iii. Displaced capacity*

Some consideration was given to the plight of entities that may not satisfy qualifying criteria for receiving shares. It was recognized that without transferability, some entities may not be able to acquire enough quota to work in the fisheries.

### *f. Spatial allocations*

Many participants expressed interest in exploring regional allocations as a possible first step to introducing catch share management into CPS finfish fisheries. The regions could then decide how to best sub-allocate among entities within the region.

#### *i. Welfare implications*

Participants in small group three agreed that profit maximization and protecting community structure are not mutually exclusive goals, but recognized that goal-setting may entail trade-offs likely to be approached differently across the regions and communities of the fisheries. Under catch shares, higher value products from higher quality production and enhanced timing or continuity of landings could increase the net value of the fishery. For example, in the austral hake fishery, ITQs correlated with an increase in product diversification and increases in market prices. Participants in a survey in the austral hake fishery indicated that fishing effort was more cost-effective after the ITQ program was established. However, several participants in the CPS fisheries were concerned about communities from an equity standpoint. They expressed concern about some fishermen qualifying for catch shares and apprehension about winners and losers resulting from the initial allocation of quota shares.

#### *ii. MPAs*

Some members of industry expressed concern over the potential loss of fishing grounds and how some entities might be disproportionately impacted by the placement of marine reserves. A case study panelist warned that permits in a catch share system may be perceived to be of less value when MPAs superimpose spatial constraints on fishing activities.

## *f. Stock Research*

Participants regularly expressed consternation over large amounts of money being directed toward the development of catch share programs when they felt the funds could and should be dedicated to research.

Case study panelists asserted that users with exclusive rights have increased their participation in monitoring programs.

For example, in the New Zealand rock lobster fishery, where catch shares have been implemented, co-management and resource stewardship improved in large part because of industry's long-term investment in the resource under a more secure rights structure. Industry is more willing to support and participate in research efforts that promote better conservation and management when return on their investment is more secure (e.g., a right to harvest).

F/V Eileen, Capt. Nick Jurlin wraps a Pacific sardine school



## 2. Markets

Participants expressed the need to protect niche sub-sectors (e.g. small landings vessels, bait fisheries, niche products) that supply specialty markets because the “race for fish” threatens the viability of these sectors under the current harvest guideline allocation mechanism.

Case study panelists indicated that under catch share programs, there are likely to be more opportunities to develop or supply specialty markets because of the anticipated improvement in quality and consistency of landings. Further, these improvements may increase the value of CPS fishery production. In this regard, market driven aspects of sardine prices must be understood at an international level. However, global market dynamics do not have to dictate what happens with quota shares.

### *a. Consolidation*

Participants expressed concern over the potential concentration of quota shares and the formation of monopolies or oligopolies. This could occur through the sale or lease of quota shares. In this regard, case study panelists suggested constraints be placed on how much quota share individual entities may acquire in existing programs. For example, excessive share limits were established in Alaska to ensure that no person may harvest more than 17.5 percent of the TAC. Excessive share provisions can also be used to prevent the concentration of shares in a particular port or geographic region.

## 2. Markets (continued)

### **b. Biological implications**

Participants raised concerns about the spatial-temporal variability of CPS, their availability to the commercial fishery, and how their availability related to the value of quota shares. One case study panelist asserted that the definition of rights would provide mechanisms for the market to appropriately price fish. It was explained that one would generally expect, with all else equal, the value of quota shares would be highest for those who have the greatest opportunity to use them. Therefore, in the event that the sardine biomass disappears from one region for any length of time, the use value of catch shares in that region would be expected to approach zero. However, in the region(s) where sardine remained harvestable, quota shares would retain value, so there would likely be a transfer of shares from the former to the latter region(s).

### **c. Derby fishery**

Many members of industry considered the derby fishery as only a short-term problem and questioned whether or not it was necessary to address. However, case study panelists regularly referred to the inflexibility and economic inefficiencies caused by derby fishery as the impetus for the catch share programs implemented in fisheries elsewhere. A few workshop participants suggested that fishery managers consider allocation options that prevent a derby fishery. Some discussion ensued over a need to establish control dates to avoid anticipatory positioning by fishing entities. Several participants suggested that management options other than catch share programs could solve exacerbated derby fishery conditions.

### **d. Globalization**

Based on experience in fisheries where catch shares have been introduced, the programs could promote development of higher quality, more efficiently produced CPS products. This could result in less reliance on global CPS commodity markets and a higher value fishery.

**Pacific sardine over edamame salad**

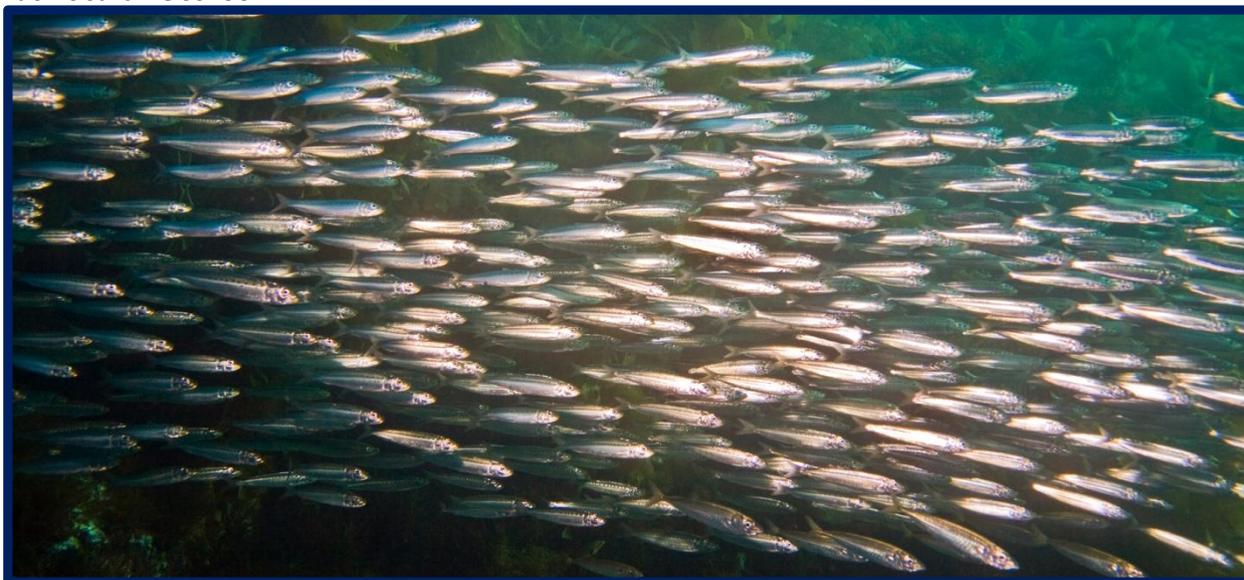


### **e. Risk**

Workshop participants raised concerns about product continuity and fleet safety. Risk related considerations dealt with planning for the impact of climate change and the likelihood of a continued decline in the harvest guideline for sardine.

Case study panelists generally concluded that fishing operations are less likely to engage in risky situations under catch shares as there is reduced incentive to race for fish. In the South Australian sardine fishery, the certainty of ITQ management resulted in lower operational costs due to the increased ability of businesses to plan for the entire fishing season, the development of value-added products and market diversification.

Pacific sardine school



## B. ISSUES RELATED TO CPS MANAGEMENT IN GENERAL

Throughout the workshop, participants discussed a variety of CPS issues for management to consider or reconcile. While many of their comments addressed these issues in regard to catch share management, it was acknowledged that many of the issues were not specific to catch shares and were applicable to CPS management in general. The issues to be considered by management under any type of allocation system are discussed in this section. Subtopics were ranked according to the frequency with which those issues were raised at the workshop (i.e., more frequently discussed issues first).

### 1. Current Conservation

Participants generally stated that by MSA National Standards, CPS stocks are conservatively managed. However, case study panelists affirmed, and many participants agreed, that management of allocations should be effective whatever the status of the stock.

#### *a. Overfishing*

Participants stressed the fact that the sardine stock is not experiencing overfishing and is not overfished. However, there was concern that catch shares, by increasing the incentive to high grade, could lead to overfishing and an overfished stock.

Many participants felt there was little need to consider catch shares when CPS fisheries are not experiencing overfishing. Case study panelists warned that catch shares do not fix overfishing and asserted that overfishing is prevented by setting appropriate harvest limits. They cautioned that a management system is not reliable if it only works when the TAC is not fully utilized.

#### *b. Bycatch*

It was noted that CPS fisheries experience little, if any, bycatch and only occasional waste; the latter is usually associated with a gear malfunction that results in unmarketable fish.

Left to right – Sampling on NOAA research vessel, Culled Pacific sardine for sampling, Numbered Pacific sardine samples, Data collection



## 2. Scientific Understanding of CPS Populations

Members of industry generally agreed that the scientific understanding of the population dynamics of CPS can be improved and that scientific research by NMFS is inadequate to predict stock size with an acceptable level of confidence. In this regard, many participants frequently conveyed needs for more extensive, scientifically-based population surveys that could produce better data to support the stock assessment process. Some argued that better science would result in higher quotas and obviate the need to make management changes; this argument being based on “high biomass” conditions prior to 2008 which resulted in the harvest guideline not being fully utilized.

A number of the case study panelists also emphasized that accurate and reliable stock assessments are the cornerstone of successful output controls, such as quota-based conservation and management, but that better biomass estimates alone may not eliminate the utility of catch shares or rights-based management. While better biomass estimates address the conservation side of the picture, they do not address issues associated with efficient utilization of the resulting HG upon which the fishery operates.

### *a. Ecosystem-based management*

Participants felt it was important to understand and account for the ecological interactions of CPS.

### *b. Climate change and regime shifts*

Many participants expressed concern over how quota shares would be redistributed if sardines were no longer available in an area (e.g., a contraction from the PNW). This concern is related to that of the observed cyclical nature of the Pacific sardine resource that is associated with decadal scale climate variability. A case study presenter advised that in the context of catch share management, transferability provisions should consider the possibility of shifts in resource distribution. Other participants urged the importance of taking environmental considerations, such as regime shifts, into account for setting harvest levels under any management regime.

### *c. Data needs*

Members of industry in group three of the small group discussion session provided suggestions for improving stock research. These suggestions focused on understanding stock structure and movement (e.g., age structure and habitat use as it pertains to the stocks’ spatial distribution). Participants felt that addressing these data needs were critical to tailoring stock research to management needs.

Left to right – CPS fleet at Terminal Island, CPS fleet in Astoria



### 3. Current Management

Members of industry often questioned whether there was a problem with current management that warranted consideration of catch shares. In fact, the phrase “if it (management) isn’t broken, don’t fix it” was heard on several occasions. Some participants questioned the need for new management structures when much simpler solutions could be used to address management issues. During the CPS interests panel session however, some panelists opined that there was a lack of integrity in management; that management was reactive instead of adaptive; and that the current management process was too politicized.

The case study panelists advised that it was important to keep working to address difficult issues and conflicts that arise in the fishery whether for catch share management or management of some other form. One panelist suggested that while the current system may not be broken, it might be in need of a “tune up”. Another panelist warned that it is not constructive to simply focus on who gets what in a political system. Participants were encouraged to think beyond the inevitable political system to consider whom and how people will have the “privilege” to make decisions in management and whether or not those decisions can be made external to the political system.

The breakout groups expressed several concerns about current management, including:

- It does not address transboundary stock issues
- It uses an inflexible harvest strategy
- It does not deal well with cyclicality and uncertainty
- There are harmonization problems between federal and state permits due to different rules across states with current limited entry
- It is cumbersome
- It does not work well when biomass is low
- It does not result in fishing communities that are sustainable

Conversely, current management was perceived to work well by some members of industry because it achieved coastwide equity by not locking up fish in allocation fights. Some participants suggested that simply adjusting the season starting dates for the sardine fishery could lead to more flexibility for industry in terms of the timing of fishing operations and could be more cost-effective than changing the management system.

### ***a. Limited entry permits***

Members of industry frequently expressed concerns over the current limited entry program. These concerns related to the difference between federal FMP limited entry permits and the limited entry permits in Oregon and Washington. The federal limited entry program effecting California vessels has a harvesting capacity cap (PFMC 2002); state programs in Oregon and Washington do not have capacity caps.

### ***b. Harvest capacity***

Several participants asserted that there is overcapacity in the harvesting sector (i.e., more harvesting capacity than is necessary to harvest the annual quota). The fishery in the PNW is not under a capacity cap, as is the California fishery (i.e., under the CPS FMP). Many participants of the California fishery expressed their beliefs that the potential for the PNW to increase capacity gives the PNW an unfair competitive advantage in the current management system.

The case study panel pointed out that with catch shares, the need for capacity limitations tends to disappear because as derby conditions are eliminated, capacity becomes more evenly matched with the allowable catch ( i.e., there is less incentive to build bigger, faster boats).

### ***c. Transboundary management***

Participants generally felt that Mexico and Canada set their own quotas as they saw fit because they did not trust our science. Many feel that the countries will not want to engage in cooperative transboundary conservation and management of the sardine resource for this reason. A suggested step to improve coordination would be the establishment of international quota shares. Overall there is too much harvest capacity trilaterally; participants suggested the creation of transboundary agreements on harvest limits.

### ***d. Jones Act***

Several participants frequently expressed concerns about the U.S. Jones Act exception which allows foreign vessels to participate in American fisheries when the vessels are less than five tons. Participants regularly related this concern to overcapitalization largely in the harvest sector and ironically, attributed this foreign source of excess capitalization to a result of the rationalization program in the Canadian herring fishery.

### ***e. Other management options***

Several members of industry often expressed their views that other management measures may be more acceptable than catch shares and that catch shares might not lead to an improvement in the fishery. Stacking of limited entry permits was one management option mentioned as an alternative that could achieve stability in production. However, there was concern expressed about drafting transferability provisions and the potential for latent capacity to accrue.

### 3. Community Impacts

Participants generally acknowledged that the CPS fisheries are a keystone to southern and central California fishing communities. The fisheries keep skilled people employed when other species are not available—much like groundfish does for more northerly ports that also fish crab and salmon. It was also recognized that different types of fishing groups (e.g. recreational anglers) are also part of these communities. In both cases, communities differ socially and culturally.

Members of industry and other management and conservation interests expressed interest in furthering their understanding of how community impacts are formally defined and analyzed as well as the capacity to assess community impacts and needs when considering management actions. CPS interests panelists expressed views that socio-economic considerations were often overlooked and that there was inadequate accounting of community impacts when making management decisions. Some participants noted a need to reconcile differences between the three fishery sectors when allocating quota by communities. The panel expressed particular concern about employment impacts related to expected fleet and processor reductions under a catch share program. After discussing community impacts of alternative allocation structures in the small group sessions, some participants developed unique design ideas for management systems. Participants proposed a need to determine the social values of the fishing communities. For example, is a community goal maximizing profits or is it maintaining the social structure? It was recognized that goals for profit maximizing and protecting community structure may require trade-offs and that cultural differences within the fishery may lead to different perspectives on the relative importance of profit maximization and community integrity.

CPS fleet in Monterey, California



#### *a. Life style considerations*

Participants discussed the changes that catch shares would likely induce to fishermen lifestyles and the culture of fishing communities which have adapted to the conservation and management systems currently in place. Some members of industry expressed their desire to maintain current fishing lifestyles and stated that any modification of the management system should minimize disruption. Some participants acknowledged these views and shared the perspective that the fishery lifestyle is exuded in the excitement of dealing with the vagaries of nature, which is embodied in the competition characterizing an open-access fishery, i.e., the “joy of fishing hard.”

#### *b. Small scale operations/live bait*

Beyond the comments expressed above with regard to markets, participants recognized the socioeconomic benefits generated by the “little guys and part-timers” (e.g., small landings vessels, bait fisheries and niche products). Most workshop participants felt that there was justification for small user set-asides.