

JOINT NATIONAL MARINE FISHERIES SERVICE AND  
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT  
FEDERAL MANAGEMENT OF THE  
LARGE-MESH DRIFT GILLNET LIMITED ENTRY CALIFORNIA SWORDFISH  
FISHERY: ISSUES AND SOLUTIONS FOR CONSIDERATION

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## Background

At its March, 2014 meeting, the Pacific Fishery Management Council (Council) requested that NOAA's National Marine Fisheries Service (NMFS) provide a report to the Council at the June 2014 meeting "on issues and possible solutions to more comprehensively placing a transitioning swordfish fishery under MSA<sup>3</sup> authority, including Federal permit options that would replace the current California State permit regime." The request results from the limited entry program for large-mesh drift gillnet<sup>4</sup> (DGN) permits which continued to be issued under State of California authority even after the Highly Migratory Species (HMS) Fishery Management Plan (FMP) was completed in 2004. Otherwise, the FMP adopted all Federal conservation and management measures already in place under the Marine Mammal Protection Act, Endangered Species Act, and all State of California gear restrictions and time/area closures. The only exception to incorporating pre-existing regulations pertaining to this fishery was California's DGN limited entry permit program. The DGN regulations are codified at 50 CFR§ 660.713.

The commercial fishing gears allowed under the FMP and used in the fishery other than DGN are harpoon and hook and line (other than longline gear). Both the harpoon and hook and line gears operate under an existing open-access permit system also managed by the State of California. With the 2001 implementation of the Pacific Leatherback Conservation Area (PCLA) under federal ESA authority, a precipitous decline in DGN effort and participation resulted since most fishing times and areas where swordfish are most abundant became closed to fishing with DGN gear. However, the PCLA remains open to swordfish harvest with the other two legal gears, yet there has not been an increase in harvest or participation with either of these gears. Because there has been no reason for the HMSMT, NMFS or the Council to consider limited entry for these gears to date due to low catch and effort levels, the scope of this white paper only covers the current DGN thresher shark/swordfish fishery. In addition, while various other state restrictions on gear for HMS targeted fisheries exist in Oregon and Washington, they are also outside the scope of the paper and not discussed here.

## Issues and Possible Solutions

**Issue 1: State Management of DGN Permits:** The State of California legislature established

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<sup>1</sup> NMFS – West Coast Region-Sustainable Fisheries Division

<sup>2</sup> California Department of Fish and Wildlife

<sup>3</sup> Magnuson-Stevens Fishery Conservation and Management Act

<sup>4</sup> Large-mesh drift gillnets use 14 inch (35 cm) inch stretched mesh or greater.

the DGN fishery as a limited entry fishery in 1980, setting a maximum number of issued permits at 150. The number issued today is well below that maximum number and there is no risk the state will issue additional permits up to that number due to other rules on permit acquisitions and transfers. As mentioned above, the Council decided to leave the state's management of the limited entry permit system in place when the FMP was adopted, where it remains today.

California DGN fishery permits are issued to individual fishermen rather than vessels. Permit holders are required to be onboard during fishing operations, and fishermen are required to declare the fishing vessel being operated under the California DGN permit. The permit is only transferable under very restrictive conditions. To keep a permit active, current DGN permit holders are required to renew their permit from one consecutive year to the next but are not required to make landings as a basis for their renewal. In addition, a general resident or non-resident commercial fishing license, a general gill and trammel net permit, and a current vessel registration are required to catch and land fish caught using DGN gear. A gillnet logbook is also required to be kept onboard and completed and submitted to CDFW.

In addition to the California permits required for DGN fishermen, the HMS FMP also requires an HMS permit issued to vessels that recreationally or commercially fish for HMS offshore or land HMS in the States of California, Oregon, and Washington. Permits are issued by NMFS on a biennial term at a cost of \$30, and issued on a rolling basis throughout the year coinciding with the vessel owner's date of birth. There are no eligibility criteria except that the applicant is a U. S. citizen and has not triggered any of actions NOAA uses to sanction or deny a permit at subpart D of 15 CFR §904.301

HMS permits authorize the use of specific fishing gear on the vessel identified by the applicant. Vessels can list more than one gear. In 2013, there were 2,003 HMS permits and 94 of these had DGN gear listed as one or more of the authorized gears. In 2014, the number of valid HMS permits was 1,768 and 76 identified DGN as an authorized gear.

**Solution:** Should the Council decide to move forward with developing a limited entry program attached to federal HMS permits, an FMP amendment would be required. The HMS FMP notes that implementation of limited entry programs is considered a long-standing (fixed) element of the FMP; fixed elements require plan amendments. If and when the Council decided to move forward with an FMP amendment for a DGN limited entry program, and if NMFS approved the Council's recommendations, NMFS would promulgate new regulations to codify the new permit program. Once a federal limited entry program goes into effect, the State of California would be expected to repeal its large-mesh DGN limited entry permit program as it has with other permit requirements for federally-managed fisheries. In the event California did not repeal its permit program, the state program would most likely be pre-empted under the MSA, at least with respect to fishing in the EEZ.

**Issue 2: Defining Excess Harvesting Capacity:** In a 2008 report to Congress, NMFS defined "harvesting capacity" as the "maximum amount of fish that the fishing fleets could have reasonably expected to catch or land during the year under the normal and realistic operating conditions of each vessel in the fleet, fully utilizing the machinery and equipment in place, and

given the technology, the availability and skill of skippers and crew, the abundance of the stocks of fish, some or all fishery regulations, and other relevant constraints” (NMFS, 2008).

A concern about latent permits and excess capacity in general is that the issue represents available but unused opportunity for fishing vessels to participate in a fishery. If these latent permits were to suddenly start fishing, it certainly would put pressure on the swordfish population, but more importantly, may pose greater risks to protected species.

Fishing operations that potentially pose unacceptable threats to protected marine species may be subject to other environmental laws, such as the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA) (NMFS, 2008). Measures implemented pursuant to the ESA and MMPA can constrain or even prohibit certain fishing operations, despite what MSA might otherwise authorize. Under these circumstances, some level of fishing capacity<sup>5</sup> must be deployed elsewhere, reduced, or deactivated (NMFS, 2008).

Excess capacity and overcapacity rates in and of themselves do not determine if capacity should be reduced, by how much to reduce it, how to reduce capacity, or the urgency for reducing it. However, excess harvesting capacity can aggravate certain undesirable management outcomes, including overfishing, poor economic performance, less viable fishing communities, high rates of bycatch, excessive harm to habitats, poor at-sea safety, and a regulatory process that is complicated, contentious and costly (NMFS, 2008).

Currently, the total number of DGN permits issued by the state of California is 72 , with approximately around 25 of those actively fishing since 2010. Based on the level of declining DGN fishing activity over the last decade due largely to the constraints imposed by ESA and MMPA that prevent access to the most productive swordfish fishing times and areas, the ratio of active permits to total permits strongly suggests that today’s DGN fishery exhibits excess capacity .

**Solution:** An estimate of excess capacity could be undertaken, taking into consideration the effects of the fishery on species protected under the ESA and MMPA. This analysis might allow use of bycatch management in manners similar to those employed for managing overfished species under the west coast limited entry groundfish program. In its 2008 report, NMFS noted that efforts to assess and address excess harvesting capacity were in most cases measured in terms of “inputs”, such as the numbers and sizes of fishing vessels. The agency went on to note its preference to define and measure harvesting capacity in terms of “outputs,” specifically, the potential harvest of a fishing vessel or fleet of vessels. However, for assessing capacity in the context of protected species or undesirable outputs (e.g., protected species bycatch), it is difficult to estimate expected performance of a fleet’s bycatch when the number of limited entry vessels that will actively participate in the fishery is largely in question - similar to the challenges that come with projecting impacts from fisheries which are open-access rather than limited entry.

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<sup>5</sup> NMFS defines three measures or indicators of excess (i.e., too much) harvesting capacity: (1) excess capacity (the difference between harvesting capacity and actual harvests); (2) overcapacity (the difference between harvesting capacity and the commercial quota, or its proxy; and (3) over harvests (the difference between actual harvest and the commercial quota, or its proxy (NMFS, 2008).

A number of quantitative and qualitative methods have been developed in the economics literature that may be used to estimate various types of fishing capacity (Ward, 2000). In the past, NMFS has selected harvesting data envelopment analysis (DEA) as an appropriate qualitative analytical tool to generate estimates of capacity (NMFS, 2008). The Council may want to explore this option. Further, the Council may want to consider identifying optimal capacity as a range rather than a specific quantity (FAO, 1998). The estimate could be expressed, either in terms of the number of vessels that are issued permits to fish (i.e., should the number of permits be reduced), or if in effort, by permitted vessels might be constrained by other regulatory or non-regulatory means (i.e., limited by observer availability/observer lotteries, trip limits on catch or bycatch, time closures or constraints, fishing platoons, etc.).

**Issue 3: Managing Excess Capacity:** Only a moderate annual fee is required to renew the annual permit. Consequently, it may be reasonable to assume that many of the inactive or latent permits will remain as such simply because there has not been any economic incentive for those permit holders to become active, and meanwhile, there are no disincentives to not renew except for the \$462 annual fee.

**Solutions:** In terms of solutions for managing excess permit capacity, three major approaches exist: a permit management program, exclusive quota rights or rights-based management, and a buyback of permits and/or vessels or even the fishing gear.

- **Permit Management:** A permit management program would entail establishing a maximum number of permits in the fishery and at least two options are available for achieving this:
  - *Control Date:* Control dates are intended to discourage speculative entry into a fishery. Generally, a control date is a date after which those that enter a fishery may not be guaranteed access to that fishery if access to it is limited by regulation. The Council adopted a control date of March 9, 2000, in case a limited entry program was needed in the future under the HMS FMP. Considering that the control date is now almost 15 years old, the Council may be inclined to revise the date in order to better evaluate the level of potential participation in the DGN fishery and address any level of excess capacity. One option would be to set a new control date for potential use in determining historical or traditional participation in the DGN fishery based on the publication date of notification in the Federal Register of the change. Should the Council consider establishing a future date, the risk exists that permit holders previously not actively participating in the fishery could resume fishing activity.
  - *Qualifying Criteria:* The Council could also recommend a management regime such as documentation of landings or fishing effort for determining eligibility for participating in the federal limited access fishery. Qualifying criteria could include such approaches as the number of landings made within a particular timeframe, or within a given period, a number of years where landings were made. In other words, the Council may wish to maintain the control date but

essentially not use it, and instead develop qualifying criteria that would allow fishery participation after the original control date to be evaluated for purposes of permit qualification.

- Rights-based Management: Rights-based management or exclusive quota programs directly address the issue of individual incentives by allowing ownership of quota shares whether those are expressed in terms of catch or effort. Such a program would mostly likely be impractical for the DGN fishery because it depends on the availability and stock status of transboundary species subject to the fishing pressure of many fishing nations. Secondly, no Pacific quotas or allocations have been established for either catch or effort for Pacific swordfish, and the Council would most likely need to first act unilaterally in establishing a national quota in order to distribute quota pounds to owners. Because there has been no interest in the two Pacific tuna regional fisheries management organizations to actively co-manage the Pacific swordfish stock, it may be impractical for the Council to consider acting unilaterally.
- Buyback Program: This program involves the purchase of permits, vessels or gears for the purpose of permanently retiring capacity from a limited-entry fishery. With a buyback program, capacity reduction can be planned and targeted and the mechanism provides probably the most direct and explicit option for removing excess capacity. A buyback program can be designed to permanently remove only active permits, inactive permits, or both. Purchases of active permits could provide incentives for inactive permits to start fishing. Without the purchase of inactive permits – or a change in the requirements of a federal limited entry program that removed inactive permits through other means of disqualification – inactive permits can potentially start fishing at any time. A buyback program must also specify whether or not to retire a vessel from all U.S. fisheries, all west coast fisheries, or to allow it to continue fishing in another fishery.

The Pacific Council is familiar with buyback programs in its groundfish fishery. Two options exist for a buyback program:

- *Publicly and Privately Funded Buyback*: Section 312(b) of the MSA authorizes NMFS to conduct a fishing capacity reduction program if funds are provided and it is determined that such a program is necessary to prevent or end overfishing, rebuild stocks of fish, or achieve measurable or significant improvements in the conservation and management of the fishery. Most likely, a need to reduce capacity due to fishery risks identified under MMPA and/or ESA would meet this MSA standard, as described in Issue 1 above. Early East Coast buybacks tended to be publicly funded and later West Coast and Alaska programs were financed largely, although not entirely, by industry. However, with the current national budget situation, the trend from publicly funded and towards industry funded programs will probably continue.
- *Private Organization Funded Buyback*: Another approach is the private financing of a vessel or permit buyout from a conservation organization. With this approach, some vessel owners would agree to sell their fishing vessels or permits, and the private entity, agrees to buy and possibly retire those fishing vessels or permits. The Nature Conservancy's (TNC) private purchase of west coast

groundfish permits is an example of private involvement in a fishery.

With regard to the DGN fishery, TNC has conducted exploratory discussions with members of the DGN fleet in determining interest in this approach. An important distinction from the groundfish buyback is that with DGN, TNC is not able to become a permit holder, but would essentially pay latent permit holders to not renew their permits and thereby let them lapse. Additionally, the focus would be on inactive permits that are not making landings and therefore impacts to infrastructure or communities reliant on fishery activity would be unlikely to occur. Based on the current national budget situation, a private entity buyout may be a more practical option moving forward.

**Issue 4. Timing in Efforts to Reduce Excessive Capacity:** Assuming the Council decides to recommend establishing a federal limited entry permit program, the timing of addressing excess capacity with this program could have considerable impact to its work schedule. That is, the question arises whether a reduction in excessive capacity within a federal permit system is a priority for the Council, considering others.

**Solution:** Because the workload associated with reducing excess capacity may be high, the Council may want to consider supporting efforts for capacity reduction prior to initiating the FMP process to establish a federal limited entry DGN permit program. The permit management, rights-based management and public buyback options most likely could not be undertaken at the federal level as long as the permit program remained under State of California control. Alternatively, a non-profit entity buyback could take place while the permits were still under state control as the transaction would be considered a private party transaction conducted outside of the permit administration process. This approach would necessitate consideration as to timing of when an FMP amendment to establish federal DGN permits might best proceed.

## References

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