

**PFMC Meeting November 13-19, 2015**

**October 25, 2015**

**In Opposition to Longlines as an alternative to Drift Gill Nets**

**Greg Stotesbury, AFTCO**

Dear Council Members-

My name is Greg Stotesbury and I work for the American Fishing Tackle Company- AFTCO, Santa Ana, CA. I have worked in the recreational fishing business for 30 years. I'm a past president of the Balboa Angling Club (400 members) and a current member of the Tuna Club of Avalon (200 members), VP of the Los Pescadores of Newport Beach (200 members) and a life member of CCA (100,000 members nationwide). I was a key member of the United Anglers of California team that successfully blocked efforts to establish a shark longline fishery here in 1988, and also a highly migratory species (HMS), California-based longline fishery twice in 1992.

I'm here to speak in opposition to the attempt to establish a California-based longline fishery for HMS to potentially replace the failing Drift Gillnet (DGN) fishery. Both gear types have a long history of economic, environmental and management problems and conflicts, and are widely considered destructive and wasteful. This is why they are banned (DGN) or highly regulated (LL) on both coasts of the United States.

Longlines are known for having by-catch of mammals, seabirds, sea turtles, sharks, and other non-target fish. Tuna and other HMS longline fisheries are responsible for the second-highest bycatch by weight of any fishery worldwide (Kelleher 2005).

As a current example of the problems caused by longlines, in Hawaii alone in year 2014 the 136 boats involved in the longline fishery caught over 11,000 marlin and released less than 60. They caught over 5000 striped marlin, which are one of our most highly prized local gamefish and long reserved for sport take only. (NMFS 2014 PIFSC logbook data) The issues with Hawaii based LL negative interactions with seals, turtles, birds and other by-catch are well documented, and their history of shark finning and discard waste is recognized worldwide.

The initial attempts to develop a longline fishery here in CA were a failure due to by-catch of unwanted species- primarily blue and juvenile mako sharks. Their experimental permit renewal was denied by the CA Fish and Game Commission in 1988.

In June 1992 there was another effort by 3 CA commercial fishermen requesting longline permits for HMS. DFG director Boyd Gibbon's recommendation at the time was to deny the permits due to excessive by-catch of sharks, the potential to catch marlin, conflicts with existing swordfish fishing and overfishing in general. (See attached DFG memo June 5, 1992)

Later in 1992 commercial fishing attorney Augie Felando lead another effort by the industry to again establish an experimental HMS LL fishery. Most of the arguments used to deny the fishery in 1988 were even more compelling in 1992, as the problems and conflicts with longlines were better documented. The CA Fish and Game Commission unanimously denied Felando's request in October 1992. The reasons for denial are summarized in the Commission's 3-page "Findings of Fact" which I have attached.

In September 1992 shortly before the DFG Commission's denial of the Felando longline permit request, DFG biologist Greg Walls authored a definitive report entitled "The Proposed Use of Longline Gear to Take Swordfish and Tuna in California". I have attached a copy of the "Walls Report" for your reference. In the report DFG biologist Walls details the pros and cons of allowing a directed LL fishery here in CA. All 3 of these issues from the report are as valid today as they were in 1992.

- Shark By-Catch- (Section 4.2)
- Swordfish Stock Utilization and Conflicts with Existing Fisheries- (Section 4.3)
- Marlin By-Catch and Recreational Conflicts- (Section 4.1)

I believe the prior denials of directed longline fisheries here in CA by the Fish and Game Commission in 1988 and twice in 1992, supported by their "Findings of Fact", along with the information contained in the CA DFG "Walls Report", provide more than enough reason to deny any CA based "new" longline fishery as a replacement for DGN. The problems associated with longlines are well documented.

I would like to strongly encourage the council members to not consider longlines, with their proven destructive and wasteful history, as a viable alternative or replacement for the failing drift gillnet fishery for HMS.

Thank you-

**Greg Stotesbury, AFTCO Mfg. Co. Inc.**

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**REPORT ON  
THE PROPOSED USE OF LONGLINE GEAR  
TO TAKE SWORDFISH AND TUNA IN CALIFORNIA**

**Greg Walls  
California Department of Fish and Game**

**September 1992**

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## SECTION 1.0

### EXECUTIVE SUMMARY

A group of commercial fishermen has requested experimental gear permits for the use of drift longlines to take tuna and swordfish. This paper is designed to provide the California Fish and Game Commission with the information necessary to evaluate this request.

The longline has proven to be an efficient gear for the harvest of swordfish and tuna throughout the world. Recent improvements in the gear, setting strategies, and the increasing demand for high quality swordfish and tuna make the use of this type of gear attractive.

However, the shark by-catch associated with the use of longline gear is likely to be as great or greater than the swordfish catch. This has proven to be the case in longline fisheries throughout the world. Many scientists feel that sharks cannot withstand high fishing pressures because sharks are slow to mature and do not have many young.

In addition, swordfish landings in California have been in decline for the past five years. Population estimates for Pacific swordfish stocks are not conclusive, but there are indications that the stocks may be fully utilized at present (Skillman 1989). Other studies suggest that the swordfish stocks are fine (Sakagawa 1989) and could withstand additional fishing.

Finally, the recreational fishery for striped marlin is lucrative and has a long history. In California, striped marlin have been reserved for exclusive sport angler utilization since 1937. The 1988 Atlantic Billfish Fishery Management Plan concluded that the greatest benefit to the nation results from reserving marlin for recreational anglers only. Longlining for swordfish and tuna is not likely to reduce striped marlin stocks given their broad distribution and limited involvement in waters off California. However, any commercial catch of striped marlin may reduce the access of sport anglers to this resource.

## SECTION 2.0

### INTRODUCTION

This report begins with the histories of longline use in California, Hawaii, the Gulf of Mexico, Mexico, and the U.S. east coast. Also discussed in the report are various issues regarding longline use, along with arguments in favor of (labeled "pro longline") and counter to (labeled "con longline") the proposed experimental longline fishery for swordfish and tuna.

Longline gear consists of a monofilament main line, with multiple leaders attached. Swordfish longlines are typically 25 to 50 miles long, with 25 hooks per mile. The hooks are attached to the mainline by droppers or leaders (also known as branch lines) made of monofilament and baited with squid and a light stick. The droppers are attached when the gear is set and removed when the gear is retrieved. Floats provide buoyancy and regulate fishing depth. The gear is set close to the surface and at night.

Tuna longlines are set during daylight hours and are allowed to fish deep below the thermocline (that portion of the water column where the temperature of the water changes more rapidly with depth than the portions of the water column above and below that area; the thermocline separates the upper, warmer zone from the lower, colder zone). Mackerel is the primary bait and light sticks are not used.

A radio beacon marks one end of the mainline while the other is attached to the boat via the line setter and main spool. The depth at which the hooks are fished is controlled by the length of the dropper and the distance between floats. The greater the space between floats, the more the mainline will sag, and the deeper the hooks will sink.

## Longline Regional Histories

### SECTION 3.1

## LOGLINE HISTORY IN CALIFORNIA

- 1955: California Department of Fish and Game (CDFG) research cruise to Central America to fish longline gear for tuna. The catch was 67.2% shark and billfish. Tuna comprised 17% of the catch.
- 1956: CDFG cruise to Central America. The catch was 62% shark and billfish, and 20% was tuna.
- 1968: NMFS used longline gear in southern California and Baja California, Mexico. Gear was used at night and baited with squid.

In California, 11 sets (3,856 hooks) yielded:  
2 swordfish, 0 marlin, 1,530 blue sharks, and 2 mako sharks.

In Baja California, Mexico, 44 sets (29,171 hooks) yielded: 193 swordfish, 1 marlin, 8,642 blue sharks, 16 thresher sharks, 472 hammer head sharks, 19 mako sharks, 3 white tip sharks, 3 black tip sharks, 1,557 assorted sharks, 112 dolphinfish, 2 rays, 2 yellowtail, 2 opah, 2 turtles, and 2 seals.

Blue shark was the most common species taken. Night longlining did not generally take striped marlin.

- 1975: Japanese tuna longliners fished within 200 miles of the west coast. All 49,000 hooks were set in August and December. The recorded catch, based on logs, was 470 albacore, 30 big eye tuna, and 7 swordfish. (No incidental catches were listed.) (Pacific Billfish Fishery Management Plan (FMP) 1981.)
- 1979: Experimental longlining for blue sharks. F/V JJ caught blue sharks from 1979 to 1982. Sharks were processed at sea to prevent urea in blood from turning to ammonia and spoiling the meat. Anomalous warm water in 1982 and 1983 displaced blue sharks. F/V JJ did not renew its efforts even when the blue sharks returned after 1983. The market demand for blue sharks is not well established.

1981: NMFS longlined for albacore 700-900 miles west of San Diego. Laurs et al. (1981) describe part of the by-catch (14 sets with 350 hooks per set): 240 albacore, 1 mako shark, 1 lancetfish, 1 pomfret, 4 stingrays, and 1 opah. Longlines were set at 300-450 feet, and the thermocline was found to be at 300 feet and deeper.

1987: Experimental longlining for swordfish north of Pt. Arguello (Santa Barbara County). F/V *TIFFANY VANCE* longlined for 19 days in two locations: 40 miles offshore just north of Pt. Arguello and 100 miles west of Monterey.

The 400 to 600 hooks per set on 20 to 38 miles of gear yielded: 2,360 blue sharks (95.4% of catch), 78 pelagic stingrays (3.2%), 32 swordfish (1.3%), and 4 big eye thresher sharks (0.1%).

1988-91: Experimental longline shark fishery.

April to November 1988: 10 boats participated.

Catch was 62% blue shark, 29% bonito shark, 8% pelagic ray, 0.1% sea lions, and the rest included sea turtles, giant seabass and hammerhead sharks.

Blue sharks were often killed for their fins.  
(51% returned alive, 30% dead, 19% questionable).

April to November 1989: 9 boats participated.

Catch was 62.1% blue shark, 28.9% mako shark, 8.7% pelagic ray, 0.1% sea lions, the rest included hammer head sharks and other species.

May to September 1990: 6 boats participated.

No observer data.

May to January 1991: 9 boats participated.

No observer data.

1992: The experimental longline shark fishery was not reauthorized.

## SECTION 3.2

### LOGLINING IN HAWAII

Longlining has a long history in Hawaii. The first longline set was made in 1917. Unwritten rules existed between longliners and fishermen using other gear types, such as handline and troll gear. Longliners knew local customs and stayed away from everybody else and conflicts were minimal.

The longline fishery expanded rapidly from 1989-90, with 23 longliners from the U.S. east coast, 60 from the Gulf of Mexico, 18 from the U.S. west coast, and 62 local boats longlining for tuna and swordfish in Hawaii in 1991. In this regard, the newcomers did not know the local customs and proceeded to fish close to shore and in areas utilized by traditional or artisan fishermen. This led to misunderstandings so the Western Pacific Fishery Management Council stepped in and instituted a moratorium on new boat entries to keep more boats from entering the fishery until the full impacts are understood. The moratorium is to remain in effect until 1994.

Swordfish is a very lucrative fishery in Hawaii, but did not gain prominence until 1988. Previously, swordfish landings were a by-catch of the tuna fishery. Restrictions and area closures for tuna and swordfish along the East coast and Gulf of Mexico prompted boats to move from those areas and target swordfish in Hawaii. Longlining for swordfish began in 1988 in Hawaii with 50,000 pounds landed. In 1989, 650,000 pounds were landed; in 1990, 3.5 million pounds were landed; and in 1991, 8.7 million pounds were landed.

In 1991, 140 vessels were active. They made 1,666 trips and set 12.2 million hooks. A total of 66,000 swordfish was caught in addition to 39,500 bigeye tuna, 38,000 dolphinfish, 36,611 marlin (50% striped marlin, 25% blue marlin and 25% other marlin) and 71,000 sharks (only 2,289 sharks were kept) (Dollar 1992). Marlin can be sold commercially in Hawaii; thus, fishermen have an incentive to catch marlin.

Landings in 1992 are down approximately 30% because longlining is no longer permitted within 50 miles of the islands. This action was taken because monk seals, an endangered species, were found with hook injuries. In addition, the action reduces gear conflicts. The closure has forced smaller boats, which lack sophisticated navigation equipment and the ability to fish for up to a month at a time, to leave the fishery (R. Dollar, pers. comm.).

Whole, large (300-400 grams) squid is used for bait. Gear is 20-50 miles long and contains 400-1,800 hooks per set. The soak time is 8 to 16 hours. Light sticks are fixed to each leader. Cost per boat per day to set gear ranged from \$1,000 to \$1,700. Boats travel 500-1,000 miles from ports in Hawaii to the swordfish fishing grounds (Dollar 1992).

Ten boats were observed during the 1990-91 season. One orca interaction (a killer whale ate all of catch, but left heads on hooks) was observed. One humpback whale was released alive. Two turtles were released alive, one was released dead. Sixteen albatross were drowned, 6 were released alive. Most of the catch (34%) was made up of sharks (64% blues, 3% thresher, and 2% mako), 26% of the catch was swordfish and 17% was tuna.

## SECTION 3.3

### LONGLINING IN MEXICO

The Japanese have used longlines for tuna and billfish off and on in Mexican waters since 1956. Shark longlining began with six boats in 1987. A chronology of longlining events off Mexico follows:

- 1956: Japanese drift longline fishery begins off Mexico.
- 1976: 200-mile Exclusive Economic Zone (EEZ) declared by Mexico.
- 1977: Mexico attempted to enforce its EEZ (commercial longlining stopped).
- 1980: Permits issued for longline joint ventures.
- 1984: Permits withheld.
- 1985: Permits reissued.
- 1986: Six Korean and six Japanese longliners operated from Ensenada for swordfish.
- 1987: 14 swordfish and marlin longliners plus six shark longliners were permitted to fish, but they were told to stay offshore.

Jim Squire of NMFS has worked extensively with the Japanese longline logs and has demonstrated that commercial longlines and recreational marlin anglers fish the same stocks of marlin. When the commercial longliners are kept from fishing marlin (in a directed fishery) the recreational catch per effort increases (Squire and Au 1988).



## SECTION 3.4

### LONGLINING IN THE GULF OF MEXICO

Longlining for swordfish is an established fishery in the Gulf of Mexico. The Japanese longlined for tuna and billfish from the 1960s to 1982 in the Gulf of Mexico. Swordfish is usually fished at night and the marlin catch is relatively low, but most boats fish for tuna as well since swordfish are scarce at times. Longlining for yellowfin tuna is a daylight fishery and the marlin by-catch is substantial. In the summer, when the weather is warm, 60% of the marlin captured by longline gear die (E. Swingle, pers. comm.).

The yellowfin tuna longline fishery began in the 1980s. The marlin by-catch increased dramatically as the fishery expanded. In 1986 and 1988, 250 longliners were targeting yellowfin tuna. In 1987, 625 swordfish longline permits were issued. From 1987 to 1989, the swordfish catch increased while the yellowfin tuna catch decreased.

Longline marlin by-catch is calculated based on an estimate of 0.98 billfish per set. Assuming 250 longliners each making 100 sets per year (a conservative estimate), the annual incidental billfish (marlin and sailfish) take is estimated to be 24,500 billfish per year. (1988 Atlantic Billfish FMP)

Observer data from the 1979 Japanese longline fishery in the Gulf of Mexico for swordfish reported 12 turtles and no marine mammals in 199 sets (451,902 hooks) [1988 Atlantic Billfish (FMP)].



## SECTION 3.5

### LOGLINING ON THE EAST COAST

Longlining is an established fishery on the east coast. Swordfish have been harvested by longline in New England and eastern Canada since the 1960s. The Japanese longlined in the Atlantic from 1956 to 1976.

Harpoon gear took 6.2 million pounds of swordfish in 1962. When longline gear was introduced in 1963, the total catch rose to 17.6 million pounds. The catch stabilized at 9.9 to 11 million pounds until 1970. From 1974 to 1983 harpooners averaged 9% of the catch and longliners landed most of the remainder (drift gill nets landed a portion beginning in 1980). In 1986 the catch on the east coast was 8.5 million pounds, rose to 10.6 million pounds in 1989, and fell to 7.5 million pounds in 1991.

In 1975, the swordfish longline fishery spread to the Straits of Florida; by 1980, 200 boats fished swordfish on Florida's east coast. The Caribbean swordfish longline fishery began in 1983-1984.

While it is difficult to generalize given the wide distribution of swordfish and the different fishing practices, several trends are apparent in the swordfish longline fishery. If the gear is set at night and is not very long in length (less than 10 miles), billfish are not captured at all (S. Berkeley pers. comm.). Most gear is longer than this (greater than 10 miles but less 40 miles) and marlin is a by-catch species. Tuna longline fishing, which occurs during the day, tends to have higher marlin by-catch rates. The shark by-catch is large and more sharks are caught than swordfish. Mako and thresher sharks are kept while other species are discarded (Berkeley 1988).

Total billfish by-catch for the Atlantic is not known; however, using an estimate of 0.86 billfish per longline set and assuming 500 active longliners each utilizing 100 sets per year, yields an estimate of 43,000 billfish captured each year by the Atlantic longline swordfish fleet (1988 Atlantic Billfish FMP).

#### Observation data: (Atlantic Billfish FMP)

1974-78: One domestic swordfish longline boat reported 13 sailfish, 42 white marlin, 3 blue marlin and 3,837 swordfish landed.

1979: A total of 295 observed Japanese longline swordfish sets (663,551 hooks) yielded 17 turtles and 5 marine mammals.

During the 1978-79 season, observers saw 7.5 million hooks set by the Japanese longline fleet and 5,300 billfish were caught (40% were released alive).

1985: Japanese longliners caught 6 turtles and no marine mammals.

1986: Japanese longliners captured 5 turtles and 2 marine mammals.

A total of 21 trips were observed aboard domestic swordfish longliners from 1985-1987; 137 billfish, 1,074 swordfish, 1,396 tuna, and 472 sharks were landed in 160 sets (78,654 hooks, 3,894 miles of gear).

The 1985 Environmental Impact Report (EIR) for swordfish attributed the increasing catch rate of small swordfish during 1980-1985 to longline gear, which tends to extend the fishing season and targets fish in warm waters where younger fish live. Competition between longliners and drift gill netters for space resulted in gear entanglement and gear loss.

## Issues

### SECTION 4.1

#### ISSUE: MARLIN BY-CATCH

##### 1) SOUTHERN CALIFORNIA IS NOT A PRODUCTIVE AREA FOR STRIPED MARLIN:

**PRO LONGLINE -** a) Incidental take of striped marlin by longline gear will not affect stocks since the species ranges throughout the Pacific (Squire and Au 1989).

**CON LONGLINE -** a) Striped marlin have been designated as being harvestable only by sport anglers since 1937.

b) Since relatively few striped marlin are in California waters, any take of striped marlin by commercial fishers will reduce the likelihood of capture by sport anglers. Squire and Au (1989) demonstrated that directed Japanese longlining for billfish in Mexico reduced the catch rate of striped marlin by sport anglers in Mexico.

c) Since 1969 recreational anglers have averaged 3,201 reported angler days and a catch of 750-800 striped marlin per year (NMFS Billfish Newsletter 1992).

d) Recreational anglers in Hawaii are concerned about sustaining sport catch rates with the recent increase in longline activity (NMFS Billfish Newsletter 1992).

##### 2) LONGLINE GEAR CAN BE MANIPULATED SO THAT MARLIN BY-CATCH CAN BE REDUCED:

**PRO LONGLINE -** a) Dr. Chris Boggs has demonstrated that longline gear in Hawaii can be manipulated to target certain species. The take of striped marlin can be avoided or minimized by:

1) Fishing at night on the surface for swordfish.

- 2) Fishing deep beneath the thermocline for tuna. Deep fishing can be accomplished by line shooters, long float lines, or zig-zag sets which put long droops in the set.
  - 3) Setting and retrieving gear quickly, to minimize time gear is in shallow waters and likely to be taken by marlin.  
(pers. comm.)
  - 4) Using larger baits (squid) and light sticks, since squid is less preferable to marlin than mackerel (pers. comm.)
  - 5) Putting hooks in during daylight and pulling at night to reduce trolling for marlin. Few long sets as opposed to many short sets also reduces the amount of time the gear is on the surface and available to marlin. (pers comm.)
- b) Striped marlin catch by Japanese longliners declined because marlin are less vulnerable to deep longlines than shallow gear (Nakamo and Bayliff 1991; Suzuki 1977).

- CON LONGLINE -
- a) Striped marlin may prefer warm waters, but Bedford and Holts (1989) demonstrated that striped marlin spend time in and below the thermocline (where the temperature is cooler).
  - b) Marlin will chase the gear when it is being set and when it is being retrieved. Marlin swim at an average speed of 0.75 to 1.54 knots and are capable of swimming faster (some have been clocked at above 3 knots for over an hour). They can grab the bait given the typical haul back and set speeds (generally less than 1 knot).
  - c) Striped marlin feed on squid in other parts of the world. Squid may not be a foolproof deterrent to a marlin biting a longline hook.

- d) It is difficult to set gear at a specific depth. The current is one problem, and Boggs indicates that predicted depth does not always correlate with actual depth. Boggs (1992) used time depth recorders to ascertain depth.
- e) Boggs' theories have not been tested in California.
- f) Longline fisheries on the east coast of the U.S., in the Gulf of Mexico, the Caribbean, Hawaii, and in areas exploited by Japan have all recorded marlin by-catches.
- g) Line shooters cost \$6,000.00. Also, other methods for deploying longlines at greater depths are time consuming and laborious (pers. comm.); therefore, they may not be employed.

### 3) LONGLINERS CAN AVOID MARLIN MIGRATION ROUTES:

PRO LONGLINE - a) From 1965-75 Japanese longline logs (Squire and Susuki 1989) demonstrated that the areas with greatest catch per unit of effort occurred off Baja California, Mexico. No spawning took place off California; southern California waters are not a major migration route and longline gear will not interfere with migration.

CON LONGLINE - a) Tagging studies (Squires and Suzuki 1989) demonstrate that striped marlin travel southeast to Baja California and westward to Hawaii; major spawning areas are in the western Pacific. They move poleward during the summer season. Since marlin movements are characterized as diffuse, longline gear may intercept marlin no matter where it is set.

### 4) STRIPED MARLIN CAN BE RELEASED ALIVE:

PRO LONGLINE - a) Boggs (1992) used sonic tags on marlin that had been captured by longlines and released. Marlin survived if the line was cut near the hook. Marlin can survive 5-9 hours after being hooked. Two bigeye tuna and 1 marlin were recaptured 3-10 months after being hooked by a longline indicating survival.

- CON LONGLINE - a) In the Gulf of Mexico longline fishery for yellowfin tuna, up to 60% of the marlin species captured were released dead (E. Swingle, pers. comm.).
- b) In observations on 21 domestic longline trips for swordfish and tuna in the Gulf of Mexico, 41% of marlin were released dead and 59% released alive. In 1982-86, foreign longliners released 65% of marlin dead and 35% alive.

5) LONGLINERS WILL MOVE OUT OF AN AREA IF LONGLINE GEAR CATCHES A STRIPED MARLIN:

- PRO LONGLINE - a) July to October (September being peak) is the recreational marlin season in California. Longliners can work around these months.
- b) Marlin anglers concentrate their efforts from Santa Cruz Island to the U.S.-Mexican border, and between San Clemente and San Nicholas Islands. Longliners can fish outside this area and not interfere with sport fishing.
- c) Longliners promise to move out of an area if a striped marlin is captured and not return for a fixed period of time.
- CON LONGLINE - a) To ensure compliance, 100% observer coverage would be required.

## SECTION 4.2

### ISSUE: SHARK BY-CATCH

#### 1) LONGLINERS ARE NOT TARGETING SHARKS:

- PRO LONGLINE -
- a) Sharks do not pay enough to keep (recent price per pound of mako was 80 cents), and would take up space that could be occupied by more valuable species. Bringing sharks on board would waste time and increase the possibility that valuable tuna and swordfish would become damaged while on the line.
  - b) Gear can be set away from heavy concentrations of sharks. In areas where sharks are common, fewer hooks can be set (to decrease overall catch).
  - c) Shark by-catch is only 1 or 2% (L. Mascola, pers. comm.).

- CON LONGLINE -
- a) Medium sized blue shark fins can be sold dry for \$14.00 a pound. Such prices for fins and mako/thresher flesh, which can average over two dollars a pound, will be incentives for fishermen to retain longlined sharks.
  - b) Even though sharks are not targeted, the shark by-catch is very high in every recorded tuna and swordfish longline fishery. The following examples list ranges of 60-96% shark by-catch.
    - 1) The CDFG longline experiment in 1955 caught 67% sharks and billfish and only 17% tuna. In 1956 longlining caught 62% sharks and billfish and 20% tuna. In 1968 off California, NMFS caught two swordfish on longlines and 1,532 sharks. In Mexico that same year, NMFS caught 193 swordfish, two tuna, and 10,712 sharks.
    - 2) In 1987 F/V *TIFFANY VANCE* fished swordfish by experimental longline permit in California and caught 1.3% swordfish and 95.6% shark.

- 3) Anderson (1985) states that longlining for swordfish on the east coast resulted in shark by-catches that are 2 to 3 times the swordfish catch for the years 1962-1986.
- c) Longline fisheries off Florida, New England, Hawaii, the Gulf of Mexico, and Mexico all report more shark being caught on longline gear than the targeted swordfish or tuna species.
- d) Some fishermen report that shark by-catch can be as high as 80-90% of the total catch during longlining.
- e) Monofilament longline gear catches more sharks than steel cable longline gear (Berkeley 1998).

## 2) SHARKS CAN BE RELEASED ALIVE:

- PRO LONGLINE -
- a) Blue sharks can be released alive by cutting the leader near the hook or using the hook extraction methods developed by Tim Athens for the experimental shark longline fishery. *(pers. comm.)*
  - b) In the Hawaiian longline fishery, 90% of the blue sharks are released alive (Dollar 1991). *preliminary*
  - c) Sharks caught in trawl gear have higher mortality rates than sharks caught on longline gear (Anderson and Teshima 1990).
- CON LONGLINE -
- a) Anderson and Teshima (1990) report mortality of discarded blue sharks in the east coast longline fishery was 25%. Other shark species had mortalities as high as 45%. The 1991 Atlantic Shark FMP states that over 50% of mako sharks hooked on longline gear die.
  - b) In Florida 66% of sharks captured by swordfish longline gear died (Berkeley 1988).

## 3) STATUS OF SHARK RESOURCES:

- PRO LONGLINE -
- a) Shark populations are not well understood. While sharks may have slow reproductive rates, adults and newborns have low natural mortality.



- b) Blue sharks are distributed Pacific-wide and worldwide (Bigelow 1948); longline by-catch will not affect the status of this resource.

- CON LONGLINE -
- a) Sharks have slow reproductive rates, and are susceptible to overfishing; they cannot withstand high fishery pressures and even incidental take may harm their population structure and abundance levels (Stevens 1992; Holden 1977).
  - b) Drift gill net and recreational fisheries already take sharks; a longline fishery would be additive.
  - c) Southern California may be a nursery area for mako sharks (Bedford 1989).
  - d) A high by-catch of blue sharks would result in wastage.

## SECTION 4.3

### ISSUE: SWORDFISH RESOURCE

#### 1) SWORDFISH STOCKS ARE NOT WELL UNDERSTOOD:

PRO LONGLINE - a) The Legislature finds and declares as follows (Fish and Game Code Section 8585):

- 1) The swordfish resource in both California waters and Pacific-wide is in a healthy condition.
- 2) A limited entry swordfish fishery should be established to allow increased access to the swordfish resource (effective until 1995; originates with drift gill net law).

b) Longline fisheries have considerable potential for increased catches of swordfish. Worldwide demand for swordfish will increase at least 5% in the future, yet because of restrictive policies in California, U.S. fishers are unlikely to take advantage of the demand (Sakagawa 1989).

c) The estimated sustainable catch of swordfish Pacific-wide is 40 million pounds (Sakagawa 1989). Current catch is 20-50 million pounds.

d) The decline of swordfish landings in California over the past five years is due to changes in the fishery. U.S. fishers are catching fish in Mexican waters and landing those fish in Mexico. Previously, they caught fish in Mexico and landed them in California (L. Mascola, pers. comm.).

CON LONGLINE - a) The swordfish fishery in the Pacific seems to be at maximum sustainable yield (18,000 tons), but more data are needed. Swordfish may be approaching that condition (overharvested) in the Pacific (Skillman 1989).

- b) Skillman, Bartoo, Coan and others consider the swordfish in the Pacific to be one stock, based on Japanese longline data. Nishizaki and Shimizu (1991), using the same data, conclude that as many as 4 stocks may exist in the Pacific. If multiple stocks exist and the stock structure is complex, the risk of overexploitation increases dramatically.
- c) Swordfish stocks on the east coast are currently considered overexploited.
  - 1) Dollar (1991) found that the majority of swordfish taken on 5 of 10 observed longline trips were "rats" (fish weighing less than 23 kg). These fish were usually released regardless of whether they were dead or alive; most were dead.
- d) Swordfish landings have declined over the past five years in California from over 5.2 million pounds in 1985 to below 1.6 million pounds in 1991.

## 2) THE EFFECTS OF LONGLINE GEAR ON SWORDFISH:

- PRO LONGLINE - a) Longline gear is used throughout the U.S. and the world and is the dominant gear for taking swordfish in all areas except off California. Longline gear may be more efficient than harpooning for swordfish; it has replaced other gears because it is more effective at producing a steady supply of swordfish.
- CON LONGLINE - a) Longline gear is not size specific (Hooker 1976, Berkeley 1981). Little can be done to prevent juvenile fish from being hooked; larger hooks make no difference (Berkeley 1981). Harpoons target big fish, while longlines catch more smaller fish (Atlantic Billfish EIR 1985).
- b) The mean weight of swordfish in the Spanish longline fishery in the Atlantic declined from 88 kg in 1975 to 58 kg in 1985. Mean weight of swordfish in the U.S. longline fishery fell from 69 kg in 1978 to 39 kg in 1987 (Berkeley 1989).

- c) Shark predation occurs on longline gear. In the eastern Pacific, 14.5% of all tuna and billfish captured by the Japanese longline fishery were shark damaged (based on scientific longline cruises in 1967-68; Taniuchi 1990).
- d) Longline gear has a relatively low catch per unit of effort (Hooker 1976).

## SECTION 4.4

### ISSUE: BY-CATCH OF OTHER SPECIES

PRO LONGLINE - a) The experimental longline fishery for shark in California captured few species aside from shark (CDFG observer data indicates that 91-92% of the catch was shark for the 1988 and 1989 longline shark fishery respectively). The five sea lions and two turtles that were observed were released alive. An experimental longline fishery for swordfish and tuna may have a similar low by-catch of marine mammals and birds.

b) Birds are taken far less frequently by longline gear than by other types of fishing gear.

CON LONGLINE - a) Longline gear impacts marine mammals.

1) Five California sea lions and two turtles were captured by the shark longline fishery in two years of limited observer coverage (10% of trips were observed).

2) Northern Hawaiian Islands are closed to longline gear because monk seals, which are considered endangered, were hooked by longline gear.

b) Logs from the 1991 Hawaiian longline fishery recorded: 60 turtles were released alive, injured or dead; seven whales/porpoise were released alive, injured or dead; 121 birds were released alive, injured or dead. These data are from 199 sets with 65 vessels reporting interactions.

## SECTION 4.5

# ISSUE: ECONOMIC IMPACT OF THE EXPERIMENTAL LONGLINE FISHERY

1) A LONGLINE FISHERY WILL MEET DEMAND FOR A QUALITY PRODUCT AND IS ECONOMICALLY BENEFICIAL TO THE STATE:

- PRO LONGLINE - a) The demand for fresh tuna has climbed dramatically since 1984. Longline gear and blast freezing (-70°C) can meet this demand.
- 1) Longline gear catches fish of better quality; fish are less bruised than with seine or other net gear. Longlined fish tend to be bigger than purse seined fish (Suzuki 1988, Lokkeborg and Bjordal 1992). Longlining is more fuel efficient than trawl gear (Nygaard 1988).
  - 2) From 1987 to 1991, longline products in Hawaii quadrupled in value. Fish taken by seiners for canning are typically sold at lower prices per pound than longlined fish, which are frozen and sold as "fresh fish" in Japan.
- b) Longlining allows for higher quality, lower quantity product, which is better for the resource.
- d) There is less chance of ghost fishing if gear is lost than with lost gill nets or traps.

- CON LONGLINE - a) While economic benefits are likely to accrue to the commercial fishing industry, there is likely to be no net benefit to the state.
- 1) Longline use (directed fishery) in Mexico reduced marlin recreational catch in Mexico (Squire and Au 1988).
  - 2) Marlin sport angler interest is directly related to the quality of the experience. Fewer fish reduces the quality and the likelihood of fishing. Each marlin angler spends \$334 per day, excluding vessel costs (Herrick 1984). This value and number of anglers may be underestimated since this report is outdated (B. Shedd, pers. comm.).

- 3) Billfish are commercially worth \$1.00 per pound on the Atlantic seaboard. Recreationally-caught marlin are worth \$22.00 per pound (Atlantic Billfish FMP 1988). The value of a dead striped marlin to sport anglers in southern California could exceed \$7,000 if you consider that most striped marlin are released alive (B. Shedd, pers. comm.).
- 4) A decrease in the swordfish stock will discourage recreational anglers from spending money to participate in the recreational fishery (B. Shedd, pers. comm.).
- b) The recreational fishery for striped marlin off the U.S. west coast is "very important" (Status of Living Marine Resources, NMFS 1991).
- c) The CDFG does not have the economic resources to monitor the experimental fishery effectively.
- d) From economic and social considerations, it is concluded that the greatest overall benefit to the nation will result from reserving billfishes for the recreational fishery (Atlantic Billfish FMP 1988).

2) THE LONGLINE FISHERY WILL PROVIDE OPPORTUNITIES FOR THE ECONOMICALLY DEPRESSED LOCAL FISHING INDUSTRY:

- PRO LONGLINE - a) The traditional San Pedro wetfish fleet is in financial trouble. Only two canneries are operable; United Food Processors (UFP) recently filed bankruptcy papers. Many fishers are experiencing financial hardship, and feel the longline fishery would:
- 1) Keep the UFP cannery afloat by attracting capital and converting the cannery into a freezer/distribution center for tuna/swordfish (L. Mascola, pers comm).
  - 2) Such action would create many jobs (drivers, packers, handlers, etc.).

- b) An experimental gear permit to use longline gear north of Pt. Arguello was issued in 1987 to Dr. Mascola (F/V *Southern Queen*), but he was unable to obtain financing. Now he has financing, but he cannot get the permit. Such action is not conducive to a business' need to plan for the future.
- c) The Pacific-wide catch of swordfish is dominated by the Japanese. California fishermen are currently taking only 3% to 10% of the catch.
- d) The world market for swordfish is strong so prices should remain high. If market grows at 5% over 3 years, it will require approximately 1,000 mt additional swordfish per year to what was landed in 1986 (Sakagawa 1989). Pacific ocean stocks are in sufficiently good condition (Bartoo and Coan 1989) to contribute to such an increase.

CON LONGLINE - a) A longline fishery is unlikely to solve the financial problems of a large number of fishermen since access to the fishery would be limited. The current poor financial condition of the wetfish fleet and the displaced gill net fleet can not be addressed by this fishery.



## SECTION 4.6

# ISSUE: CONFLICT WITH OTHER COMMERCIAL FISHERIES

1) CONFLICTS WITH OTHER GEAR WILL BE MINIMAL AND CAN BE RESOLVED:

- PRO LONGLINE -
- a) Those fishermen applying for the permit are well established, knowledgeable fishermen aware of the written and unwritten codes of the various fisheries. No conflict with other fisheries is likely to occur.
    - 1) The Mascola family has been in the business since 1870. F/V GALLANT is a seiner of long stature as is F/V MAURITANIA, F/V ST. GEORGE II, F/V GOLDEN SABLE, and the F/V SOUTHERN QUEEN.
  - b) Fish and Game Code Section 8606 states: "The Commission shall encourage the development of new types of commercial gear".
  - c) Preliminary data in Hawaii finds no correlation between longline fishery and declining catch of other gears, although more study is needed and results are preliminary (Boggs 1991).
  - d) Japan and Taiwan have harpoon, drift net, and longline fleets that seem to exploit the resource simultaneously without overt detriment to each other.
  - e) Purse seine effect on longline fishery for yellowfin tuna is greater than the effect of the longline fishery on the purse seiners. (Nakano and Bayliff 1992). Purse seiners take smaller fish than longline gear.

- CON LONGLINE -
- a) Longliners have come into direct conflict with artisan fishermen in Hawaii. This has led to a moratorium on the entry of new vessels until 1994.
  - b) The swordfish fishery in California has had conflicts between harpoon and drift gill net fishermen in the past. Longliners could add to this conflict because they will be one more user of a resource (swordfish) that has *experienced declining landings in recent years*

- c) Fish and Game Code Section 8606 also states that the Commission shall "minimize user group and resource allocation conflicts" and ensure the "proper utilization and protection of marine resources". Recreational marlin anglers have been allocated the striped marlin resource. Longlines will likely result in user group conflicts with recreational marlin fishers.

## SECTION 4.7

### ISSUE: POTENTIAL OUTCOMES IF THE PERMIT IS NOT GRANTED

- PRO LONGLINE - a) If the permit is not granted, boats not licensed in California could fish outside of State waters and fish for what they like in any manner they please. Without an FMP, CDFG or any other organization is powerless to manage these resources. Marlin could be caught in federal waters (3-200 miles) off California and landed in Mexico, Oregon, or Washington. Granting permits to these five boats will cause fewer problems than denying them and watching helplessly as non-California licensed fishers harvest outside state waters. Examples include:
- 1) Poaching occurs in the Carribean swordfish fishery and small nations have difficulty enforcing restrictions (Caribbean Fisheries Inst. 1986).
  - 2) Hawaii and Gulf states could not regulate shark and billfish fisheries without a regional plan.
- b) Without a regional plan it will be difficult to manage these far ranging species. Boats can do what they like outside state territorial waters (to some extent) (M. Justine, NMFS-NER, pers. comm.).
- c) It is unfair to regulate California fishers when non-California fishers are unregulated.
- d) California swordfish catch is small (3% to 10% of Pacific-wide take). The state will lose an opportunity to participate in federal or international management of this resource if the fishery is minor or nonexistent.

- CON LONGLINE -
- a) An FMP for the management of billfish and pelagic sharks was drafted by the Pacific Fishery Management Council in 1981. It was not implemented because the harvest of these species was minimal compared to the overall harvest of many nations and a plan as such would not address the needs of resource management unless all nations cooperated. It was also realized that most of the billfish and shark harvest on the U.S. Pacific coast occurred in California and should thus be left up to California management. The decision not to fully implement an FMP in 1981 is relatively valid today in terms of swordfish, other billfish, and sharks.
  - b) No boats have expressed interest in coming from Oregon or Washington or Mexico to fish for tuna or swordfish.
  - c) Such boats would have to travel long distances without refueling or landing their catch in California (or using California based spotter planes) to avoid CDFG jurisdiction.
  - d) An experimental longline fishery will not prevent any vessel registered outside California from longlining outside State waters. Only a Fishery Management Plan can control fishing along the U.S. west coast and even then only out to 200 miles offshore.

## SECTION 4.8

### ISSUE: THE USE OF OBSERVERS

- PRO LONGLINE -
- a) With CDFG observers in place, it should be relatively easy to monitor the fishery. Fishermen are willing to pay for the program. If the fishermen cannot avoid acceptable levels of marlin and/or shark take, the experimental permits can be revoked.
  - b) Other fisheries are managed with observers with positive results (Squire and Boggs both stress this point).
  - c) If you do not know the answer or if you do not have the data, experimenting is an approved method of discovering answers.
  - d) Safeguards can be written into the permit rules.
- CON LONGLINE -
- a) The CDFG is relatively poor in economic resources, and does not have the funds to monitor the fishery thoroughly.
  - b) While fishermen are opting to pay for observer costs, problems exist:
    - 1) Fishermen promised to pay for the experimental shark longline program in 1988. They paid all observer expenses for the first year and then split the cost with CDFG for the second year. No observer coverage was provided for the third or fourth years of the experimental shark longline fishery because the fishermen felt the program was too expensive and the data were not changing drastically from year to year.
    - 2) Salary and employment benefits were \$1,991.37 per month per observer in 1988 or \$35,844.61 per two observers for 9 months. Observer coverage was only 10% of the trips.
    - 3) Supervisory expenses have not been covered in the past. Observers need to be trained and data needs to be analyzed.

- c) The estimated cost of an observer program for this experimental fishery (at 100% coverage) is \$47,790 per boat per year.
- d) Dollar and Yomoshita (1991) found that in a sample of 96 longline boats in January 1991, 50% of log data in an observer program was accurate, and the rest was of poor or questionable quality.
- e) Dollar and Yomoshita (1991) found that the boat logs from 78 (8%) of 991 trips reported marine mammal interactions, while 6 out of 10 observers (60%) reported marine mammal interactions.

## SECTION 5.0

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## Memorandum

To : Executive Director  
Fish and Game Commission

9 JUN 92 Date June 5, 1992

RECEIVED  
CALIFORNIA  
FISH AND GAME  
COMMISSION

From : Department of Fish and Game

Subject: Agenda Item for June 18-19, 1992 Fish and Game Commission Meeting

Requests of Lou Mascola, John K. Vilicich and Frank Vuoso, San Pedro, for Experimental Gear Permits to Use a Longline to Harvest Tuna, Swordfish, and Shark for Commercial Purposes.

Messrs. Mascola, Vilicich, and Vuoso are requesting experimental gear permits to use high-seas drift longline gear to take tuna, swordfish, and sharks off the California coast. High-seas drift longline gear is often 20 to 40 miles in length and is constructed using long monofilament leaders 60 to 75 feet in length.

The Commission has considered the issue of high-seas drift longlines at several past meetings. At its November 30-December 1, 1989 meeting, it denied a similar request by Mr. Mascola. Also, at that meeting, the Department recommended that the Commission deny the renewal of any future requests for experimental gear permits which would authorize the use of high-seas drift longline gear off California.

The Department has long opposed the use of high-seas drift longline gear, especially off southern California. Marlin are very vulnerable to this gear and in all likelihood would be taken in substantial numbers. For example, during the mid-1980s, Japanese drift longline fishermen were permitted to fish off Mexico. It is our understanding that striped marlin comprised over one-half of the catch by these Japanese fishermen. Marlin are reserved for recreational fishermen and cannot be sold in California.

In addition, the use of this gear has lead to overfishing of tuna and swordfish resources off the east and gulf coasts and to conflicts off Hawaii. Therefore, its use does not seem compatible with sport and other commercial fisheries off California. Also, it appears that there could be a substantial blue shark by-catch, which was a controversial issue with the experimental drift longline fishery for shortfin mako sharks.

Executive Director  
Fish and Game Commission  
June 5, 1992  
Page Two

Finally, with the reductions in commercial fishing related revenues to the Department, the Department does not have the funds necessary to provide observer coverage for experimental fisheries.

The Department does not believe the use of high-seas drift longline gear should be permitted or encouraged off California and, therefore, recommends denial of the subject experimental gear requests.

*Kay A. Mezulis*  
for Boyd Gibbons  
Director

FISH & GAME COMMISSION HEARING - MAY 14, 1992, BAKERSFIELD, CA  
DEPARTMENT OF FISH AND GAME STATEMENT, AL PETROVICH  
DIRECTOR, MARINE RESOURCES DIVISION

"We feel that short-fin mako sharks like most other sharks species are characterized by relatively slow growth and low reproductive rates. These factors make short-fin mako sharks especially vulnerable to over fishing. In addition essentially all of the short-fin mako sharks taken off California are juveniles, indicating the waters off California, especially off Southern California, are part of a nursery area of this oceanic shark species. For these reasons the Department continues to be concerned about increased fishing effort on short-fin mako shark and in this regard there are already 2 other fisheries; a growing sportfishery and an established commercial drift gillnet shark and swordfish fishery which take significant numbers of short-fin mako sharks. Therefore, the experimental drift longline shark fishery is an additive fishery imposing additional fishing pressure on the short-fin mako shark resource and increasing the chance of overfishing.

I would also like to add that AB2924 the Hauser Bill which would authorize this legislation or would authorize this activity, we have received from the governors office an approved position of oppose. And for the reasons stated above, and for the position approved of legislation, we are recommending a termination of the experiment and denial of future fishery."



Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

**RE: Agenda Item G.2 - Swordfish Management Policy Connections**

Dear Chair Lowman and Council Members:

Ocean Conservation Society is a research-oriented nonprofit supporting educational projects and the conservation of marine mammals and their ocean habitat. Since our inception in 1998, we have sought to obtain a more comprehensive and multidisciplinary picture of the marine environment. It is this big picture approach that enables us to see the far-reaching consequences that fisheries management has on the marine ecosystem. Today, I write to encourage you to make further progress in transitioning away from the drift gillnet fishery, which continues to threaten the sustainability of marine life off the coast of California.

The swordfish fishery in Southern California remains one of the only locations in the world where drift gillnet (DGN) gear has not been upgraded to more selective and actively monitored gear. Consequently, the fishery sees inexcusably high levels of bycatch- well over 60 percent. Marine mammals, turtles, and countless other species of marine life continue to be killed in these walls of death.

We thank the Council for committing to 100 percent observer coverage of the fishery by 2018 and for establishing hard caps for nine protected species at the September meeting. Moving forward, we urge the Council to establish a timeline for authorizing the use of deep-set buoy gear. We also implore the Council to implement a concrete transition plan to phase out DGN gear.

At the upcoming November PFMC meeting in Garden Grove, we see a unique opportunity for the Council to have an active part in significantly reducing the number of marine mammal deaths in our oceans. It is our hope that you will take the necessary steps to implement more environmentally sustainable practices into the fishing industry in order to maintain our oceans healthy and abundant.

Sincerely,

*Maddalena Bearzi*

Maddalena Bearzi, Ph.D.  
President and Co-Founder  
Ocean Conservation Society

Cc:

Jerry Brown, Governor of California  
John Laird, California Secretary for Natural Resources



October 31, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

**RE: Agenda Item G.2 - Swordfish Management Policy Connections**

Dear Chair Lowman and Council Members:

Endangered Habitats League is California's sole regional conservation organization, dedicated to ecosystem protection and sustainable land use in Southern California. Our mission extends our efforts from land to sea, so we recognize the importance of recruiting the help of stakeholders to create cooperative and realistic solutions to our state's pressing environmental challenges. California is home to an unsurpassed natural heritage, in particular the Pacific Ocean bordering our beautiful coast, which is home to a vast array of marine species. It is our duty to protect and preserve this legacy for future generations to come.

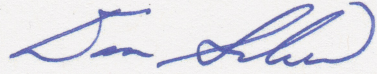
The health of our coastal ecosystem has long been a source of livelihood, state revenue, beauty and pride for Californians, yet sound policy and effective management of its resources are unfortunately lacking. The continued use of drift gillnets (DGN) in California's swordfish fishery is one such example, with over 60% of the catch thrown overboard.

Implementing a transition plan to phase out DGN gear can go a long way in protecting many species that are killed by this indiscriminate method of fishing. The Council took a promising step at the September meeting with its decision to set hard caps on nine high-priority protected species and the requirement of 100 percent monitoring of the fishery by 2018. The time is now for the Council to include a timeline for the approval and implementation of deep-set buoy gear (DSBG) under the Highly Migratory Species (HMS) Fishery Management Plan (FMS), an alternative that currently holds widespread support from both fishermen and conservation groups.

We understand the reality that many equate environmental conservation with economic sacrifice, and we implore you to recognize that the proposed alternatives to DGN are viable both now and in the long term for sustaining businesses and fishermen's livelihoods. We also recognize the complexity of reforming an industry with so many stakeholders, but we are confident that the Council can continue leading our fisheries towards a more sustainable path.



Yours truly,

A handwritten signature in blue ink, appearing to read "Dan Silver", is centered within a light gray rectangular box.

Dan Silver  
Executive Director

cc: Jerry Brown, Governor of California  
John Laird, California Secretary for Natural Resources



## AMERICAN CETACEAN SOCIETY

### Orange County Chapter

21195 Cedar Lane, Mission Viejo, CA 92691 - [info@acsorangecounty.org](mailto:info@acsorangecounty.org)

November 2, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

#### **RE: Agenda Item G.2 - Swordfish Management Policy Connections**

Dear Chair Lowman and Council members:

The American Cetacean Society (ACS) is the oldest nonprofit organization working to protect dolphin, porpoise and whale populations through education, conservation and research. I am writing to you on behalf of ACS's Orange County chapter (ACS-OC), as we see great potential for the Pacific Fishery Management Council to put an end to the many avoidable deaths of marine mammals from outdated fishing gear.

Stakeholders throughout California and across the West Coast have been calling attention to the destructive nature of drift gillnet fishing for over three decades. These mile-long drift gillnets are indiscriminate and catch many marine mammals and other non-target species. We support clear, concerted action to transition this fishery.

While we applaud the Council's recent action to set strict limits on the number of many marine mammals and turtles that can be killed over a two year period, the hard caps adopted would still allow over 200 marine mammals to die annually in our West Coast swordfish fishery. Much work remains to be done. We ask that the Council consider the following:

- Finalize a requirement of 100% monitoring of the fishery by 2018.
- Establish a clear timeline and schedule for authorizing deep-set buoy gear under the Highly Migratory Species Fishery Management Plan as soon as possible.
- Implement a transition plan to phase out drift gillnet gear.

Thank you for your tireless work to create a healthier Pacific Ocean for future generations.

Sincerely,

**FOR THE ACS-OC BOARD OF DIRECTORS**

Mike Makofske, President

Cc: Jerry Brown, Governor of California  
Chuck Bonham, Director, California Department of Fish and Game



*Protecting  
the living  
environment  
of the  
Pacific Rim*

October 30, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

RE: Agenda Item G.2 - Swordfish Management Policy Connections

Dear Chair Lowman and Council members:

The mission of Pacific Environment is to protect the living environment of the Pacific Rim by promoting grassroots activism, strengthening communities and reforming international policies. Pacific Environment members care deeply about the families and entire communities that depend on a healthy ocean. It is because of our connection to the multitude of species in our marine ecosystem that I write today seeking your help to transition the drift gillnet fishery to one that employs more sustainable alternatives.

We have followed and weighed in on the Council's actions on this issue for over a year and a half. Although some progress has been made, we have a long way to go. Drift gillnets targeting swordfish and thresher shark are indiscriminate by nature and have an unacceptably high level of bycatch; alternatives exist and it's time that the Council establish a clear, concise plan to transition the fishery.

We applaud the Council for the actions taken at the September meeting. It's reassuring to know that strict limits on marine mammals and turtles were set, along with a requirement of 100% observer coverage of the fishery by 2018. However, much work remains to be done. We suggest the following management measures:

- Implement a transition plan to phase out DGN gear
- Establish a clear a timeline and schedule for authorizing deep-set buoy gear
- Discontinue the fishing effort into the Pacific Leatherback Conservation Area

It is our hope that you recognize and weigh the ecological and economical importance of the many marine species that are continuously caught and discarded by the drift gillnet fishery.

Sincerely,

Dominique Zuber  
Advancement Director  
Pacific Environment

Cc:

Jerry Brown, Governor of California  
Chuck Bonham, Director, California Department of Fish and Game

JARED HUFFMAN  
2ND DISTRICT, CALIFORNIA

COMMITTEE ON  
NATURAL RESOURCES  
WATER, POWER, AND OCEANS – RANKING MEMBER  
FEDERAL LANDS  
COMMITTEE ON TRANSPORTATION  
AND INFRASTRUCTURE  
HIGHWAYS AND TRANSIT  
WATER RESOURCES AND ENVIRONMENT

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November 3, 2015

Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

Ms. Eileen Sobeck  
Assistant Administrator  
NOAA Fisheries  
1315 East-West Highway  
Silver Spring, MD 20910

Mr. William W. Stelle  
Administrator, Northwest Region  
NOAA Fisheries  
7600 Sand Point Way, NE, Bldg 1  
Seattle, WA 98115

**RE: Agenda Item G.2 — Swordfish Management Policy Connections**

Dear Chair Lowman and Council Members, Ms. Sobeck, and Mr. Stelle:

As a Member of the West Coast delegation, I write to express appreciation of the Pacific Fishery Management Council's recent September 2015 vote establishing hard caps for the numbers of nine marine mammal and sea turtle species that can be injured or killed in the California-based swordfish drift gillnet fishery. The conservative two-year bycatch caps for these endangered and vulnerable species are a prudent decision. I am also pleased that the Council adopted strong performance measures for other marine mammals, sharks, and finfish while establishing strict timelines by which 100 percent observer coverage will be reached for this fishery. I urge NOAA Fisheries to approve and implement these new safeguards by the start of the 2016-2017 swordfish season.

While these hard caps are a step in the right direction, I urge that this is a provisional measure while a full transition plan is developed to completely replace drift gillnets with cleaner, more sustainable gear types to provide domestic swordfish products. Recent experiments demonstrate deep-set buoy gear holds serious potential for the economic advancement of the fishery. During experiments, more than 90 percent of fish caught were comprised of marketable species, with minimal discards. In addition, all non-marketable species were released alive and within a matter of minutes<sup>1</sup>. Based upon these performance results, I encourage the Council to authorize and promote deep-set buoy gear as top priority for swordfish management in coming months. The Council's November agenda item G.2 provides an opportunity to do just that.

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I would like to reiterate that authorization of U.S. West Coast based shallow-set longlines outside the U.S. Exclusive Economic Zone (EEZ) and introduction of pelagic longlines inside the West Coast EEZ are ill advised. Years of evidence show the bycatch associated with longlines is unacceptably high. The diverse and productive Pacific waters are no place for indiscriminant fishing lines that can stretch for up to 60 miles and risk safe passage and feeding opportunities for marine wildlife. Additionally, I express strong opposition to the Experimental Fishing Permits that if approved will allow drift gillnets back into the Pacific Leatherback Conservation Area.

Thank you for your responsiveness to comments and concerns expressed on future management of the California-based swordfish fishery.

Sincerely,



JARED HUFFMAN

Member of Congress

Ranking Member: Subcommittee on Water, Power and Oceans

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<sup>1</sup> Exempt Fishery Proposal Application for Deep-Set Buoy Gear. Pflieger Institute of Environmental Research. February 2015.  
[http://www.pcouncil.org/wp-content/uploads/H3a\\_Att2\\_PIER\\_MAR2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/H3a_Att2_PIER_MAR2015BB.pdf)





November 3, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

Re: Agenda Item H.5: Drift Gillnet Management Plan including Hard Caps FPA

Dear Chair Lowman and Council Members:

As a leading advocate for recreational fishing, we encourage fisheries to reject the use of drift gillnets in favor of more responsible commercial fishing practices. At the time of this letter, the California Sportfishing League (CSL) has generated over 300 online signatures in favor of this position, and additional signatures will be submitted at the November 15<sup>th</sup> hearing.

Drift gillnets are approximately 1-mile long nets used by commercial fishermen to target swordfish and thresher sharks, but instead catch nearly 60 different species of marine life, including tunas, marlins and other fishes. The use of these nets harm recreational fishing, depleting the ocean of fishing opportunities that support local outdoor tourism and jobs.

Out of concern for recreational fishing, California anglers would also like the Council to hold the drift gillnet fleet accountable by applying hard caps and 100 percent monitoring, while fisheries transition to more selective gear types, and deny any application to open a long line fishery both outside and inside our Exclusive Economic Zone. Longlines are simply another indiscriminate form of fishing and are not the solution to the drift gillnet problem.

And lastly, no financial or other resources should be expended to develop a new swordfish fishery that uses outdated and wasteful methods. Instead, the Council and NMFS should focus their resources on transitioning to more selective and actively tended fishing gears.

Thank you for considering the point of view of California anglers. As resource users, we look forward to working together toward sustainable management of our fisheries.

Sincerely,

A handwritten signature in black ink, appearing to be "Mlikotin", written over a horizontal line.

Marko Mlikotin  
Executive Director

2795 E. Bidwell Street, #100-119, Folsom, CA 95630 [www.SportfishingConservation.org](http://www.SportfishingConservation.org)



Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

William Stelle, Regional Administrator  
NOAA Fisheries, West Coast Region  
760 Sand Point Way NE  
Seattle, WA 98115

November 3, 2015

RE: Comments on Council Agenda Item G.2

Dear Chairwoman Lowman and Council members,

As you consider the future of the swordfish fishery in California, it is critical that you fully consider the state of the oceans and the threats to ocean ecosystems in order to successfully develop a truly sustainable fishery.

**Today's management context requires highly conservative approaches.**

Today, vulnerable ocean populations are damaged not only by bycatch from industrial fishing, but also face widespread ecological collapse from the impacts of ocean acidification, exceptionally high ocean temperatures due to climate change, and the ecological impacts of the decimation of both apex predators and forage fish at the base of the food chain as well. As a result, ocean ecosystems are no longer as resilient as they were to take the insults of human activity and recover gracefully. It means that we cannot manage fisheries as if these threats do not exist, and we cannot rely on management approaches that fail to incorporate the fast moving science on marine ecosystem health or apply adequate precaution in the face of uncertain destabilizing forces.

While the institution of hard caps and performance standards is commendable, the best available science about the status of protected species makes clear these caps are still too

high. In fact, in an era of unprecedented collapse of marine ecosystems, we can no longer afford to ignore Congressional mandates to reach a zero mortality rate goal for marine mammals for all anthropogenic causes and we can no longer give short shrift to species recovery. Both of these facts unavoidably lead to the conclusion that drift gill nets and longlines must be discontinued permanently.

Furthermore, it is critical to recognize the nature of this fishery. It is a part time fishery of relatively financially well-off fishermen catering to a wealthy clientele, all the while being subsidized by all U.S. taxpayers at great risk to the environment. This management approach is simply unconscionable and grossly unfair to the millions of Californians who value and enjoy the richness of the California current but frankly derive absolutely no benefit from this fishery.

*Climate change means management must account for unexpected mortality events.*

Beyond the lack of economic merit to the driftnet fishery, twenty-first century realities of climate change demand a very different approach to fisheries management. In a nutshell, ocean conditions and ecological conditions are changing at lightning speed in unpredictable ways, which means that old management approaches cannot adequately address modern challenges, because the assumptions of relatively stable ecological conditions simply do not apply. With mounting ecological pressures on marine ecosystems from climate change, impacts from industrial fishing must be removed to compensate.

Today, outdated notions that high bycatch industrial gear are simply inappropriate because in an era of climate change, these populations are under severe stress as never before and in ways that cannot now be foreseen. For example, a recent survey of 632 surveys shows that ocean acidification and increasing temperature alone will drive substantial declines in populations of large predators and carnivores, such as sharks, tuna, swordfish, and seaturtles.<sup>1</sup> As we have seen off the California coast, the impacts of warming temperatures have driven collapses of microfauna, and commensurate declines in megafauna, including sea lions, birds, and whales. Unpredictable events, such as severe El Nino events or algal blooms<sup>2</sup>, may cause unexpected mass mortality events that render estimates of “acceptable” mortality utterly irrelevant. Thus, we have seen unprecedented mass mortality events of endangered species, such as fin whales<sup>3</sup> and humpbacks<sup>4</sup>, while current

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<sup>1</sup> I. Nagelkerke, S. Connell, *Global alteration of ocean ecosystem functioning due to increasing human CO2 emissions*, PNAS 112: 13272–13277, doi: 10.1073/pnas.1510856112

<sup>2</sup> Wilson, C., Sastre, A. V., Hoffmeyer, M., Rowntree, V. J., Fire, S. E., Santinelli, N. H., Ovejero, S. D., D'Agostino, V., Marón, C. F., Doucette, G. J., Broadwater, M. H., Wang, Z., Montoya, N., Seger, J., Adler, F. R., Sironi, M. and Uhart, M. M. (2015), Southern right whale (*Eubalaena australis*) calf mortality at Península Valdés, Argentina: Are harmful algal blooms to blame?. *Marine Mammal Science*. doi: 10.1111/mms.12263.

<sup>3</sup> Experts puzzled as 30 whales stranded in 'unusual mortality event' in Alaska, *The Guardian*, (August 22, 2015), <http://www.theguardian.com/environment/2015/aug/22/alaska-fin-whale-die-off-mystery>

<sup>4</sup> Whales Are Dying Off North America's West Coast — And it Could Signal Trouble Deep in the Ocean, *Vice News*, (August 14, 2015) <https://news.vice.com/article/whales-are-dying-off-north-americas-west-coast-and-it-could-signal-trouble-deep-in-the-ocean>



management analyses are inappropriately choosing methods designed to “yield[] estimates with less inter-annual variability” of population estimates<sup>5</sup> precisely at a time when interannual variation may well in fact be spiking because of severe variations in ocean conditions.

Indeed, we have recently seen the consequences of failing to account for climate changes in the complete elimination of the Gulf of Maine cod fishery, presumably permanently due to the catastrophic failure of the New England Fisheries Management Council to take adequately conservative measures in time, instead deferring the scientifically required action because of political and economic pressures.<sup>6</sup>

”Not accounting for [the effects of climate change] leads to quotas that are too high. The resulting fishing mortality rate was thus above the intended levels, contributing to overfishing even though catches were within prescribed limits. Socioeconomic pressures further compounded the overfishing. In order to minimize the impact of the quota cuts on fishing communities, the New England Fishery Management Council elected to defer most of the cuts indicated for 2012 and 2013 until the second half of 2013.”<sup>7</sup>

As a result of the NEFMC’s colossal mismanagement, the cod is now essentially economically and ecologically destroyed, all for a minimal short term benefit. This ought to serve as a cautionary tale for the PFMC. At a time when increasingly conservative management approaches are called for we can no longer accept high bycatch of critical protected species.

*Management must account for mortality from all sources holistically, not piecemeal, gear by gear.*

Even as highly unpredictable climatic and ecosystem impacts may be increasingly threatening megafauna species, industrial impacts are also increasing, driving defaunation of marine ecosystems globally and an exponential increase in marine extinctions.<sup>8</sup> However, to date, the analysis and management measures of the swordfish fishery have not incorporated these measures well. For example, the current hard caps, laudable as they are, fail to account for the mortality from all sources.

In the case of the western Pacific leatherback sea turtle, for example, recent analyses indicate that recovery of the species (which is imperative if the species is to survive the impacts of climate change) is not compatible with more than one leatherback sea turtle

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<sup>5</sup> See Sperm whale assessment in 2015 Draft Stock Assessment Report 80 Fed. Reg. 80 FR 58705

<sup>6</sup> Pershing, *et al.* (2015) Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery. *Science* DOI: 10.1126/science.aac9819

<sup>7</sup> *Ibid.*

<sup>8</sup> D. McCauley, M. Pinsky, S. . Palumbi, J. Estes, F. Joyce, and R. Warner (2015) Marine defaunation: Animal loss in the global ocean *Science* 347: 6219 DOI: 10.1126/science.1255641

death every six years.<sup>9</sup> However, unfortunately, a leatherback sea turtle was recently found dead, entangled in what appears to have been Dungeness crab gear earlier this year.<sup>10</sup> **This means the full take of western pacific leatherback sea turtles consistent with recovery has already been killed by derelict fishing gear. The only way to guarantee that bycatch of leatherbacks does not exceed levels consistent with recovery is to prohibit the use of longlines and drift gill nets through 2022.** A failure to close the drift gill net fishery risks the same management failure that killed to cod fishery.

In an era of dramatic impacts, the pattern of decline and danger of extinction requiring essentially zero bycatch limits is repeated or will be repeated on current trends for numerous species affected by the swordfish fishery. Several species including whales, sharks, and sea turtles are facing sharp declines and are on trend to extinction. Common thresher sharks, Bigeye thresher sharks, and smooth hammerheads are all candidate species under the ESA, while the newly listed eastern Pacific Ocean scalloped hammerhead appear to be venturing into California waters. Nearly 10% of all megamouth sharks ever found worldwide have been caught by one tiny fishery in California.

As we have described before, the task before the PFMC is not merely to manage leatherback turtles, but to effectively protect all 16 species of rare, threatened, vulnerable or endangered species taken or potentially taken by this fishery. While some measures may be modestly effective with respect to one or two species, there is no known or proposed approach that can eliminate bycatch of all these species. If we continue with our current management approaches, extinctions of many vulnerable species will be inevitable. Unfortunately, the many laudable efforts to reduce impacts on non-target species have not been enough to reverse these declines.

### Recommendations

A new Fishery Management Plan for the swordfish fishery must at minimum take a highly precautionary approach to protection of vulnerable species. The wildlife of the California Current belong to the people of the California<sup>11</sup> and of the United States as public property held in trust by the State and Federal governments. It is well established law that no fishery has a right to damage or destroy these resources wastefully in the pursuit of profit and that the State of California owes a fiduciary duty to the people of the state to ensure that the public property is not damaged or destroyed. Thus, if a fishery cannot conduct its business without damaging these critical natural resources, then the fishery should be

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<sup>9</sup> Curtis, K., J. Moore, and S. Benson (2015) Estimating Limit Reference Points for Western Pacific Leatherback Turtles (*Dermochelys coriacea*) in the U.S. West Coast EEZ. PLoS One. 2015 Sep 14;10(9):e0136452. doi: 10.1371/journal.pone.0136452

<sup>10</sup> Rare leatherback sea turtle found dead near Farallon Islands. San Francisco Chronicle (September 29, 2015) <http://www.sfgate.com/bayarea/article/Rare-leatherback-sea-turtle-found-dead-near-6538101.php>

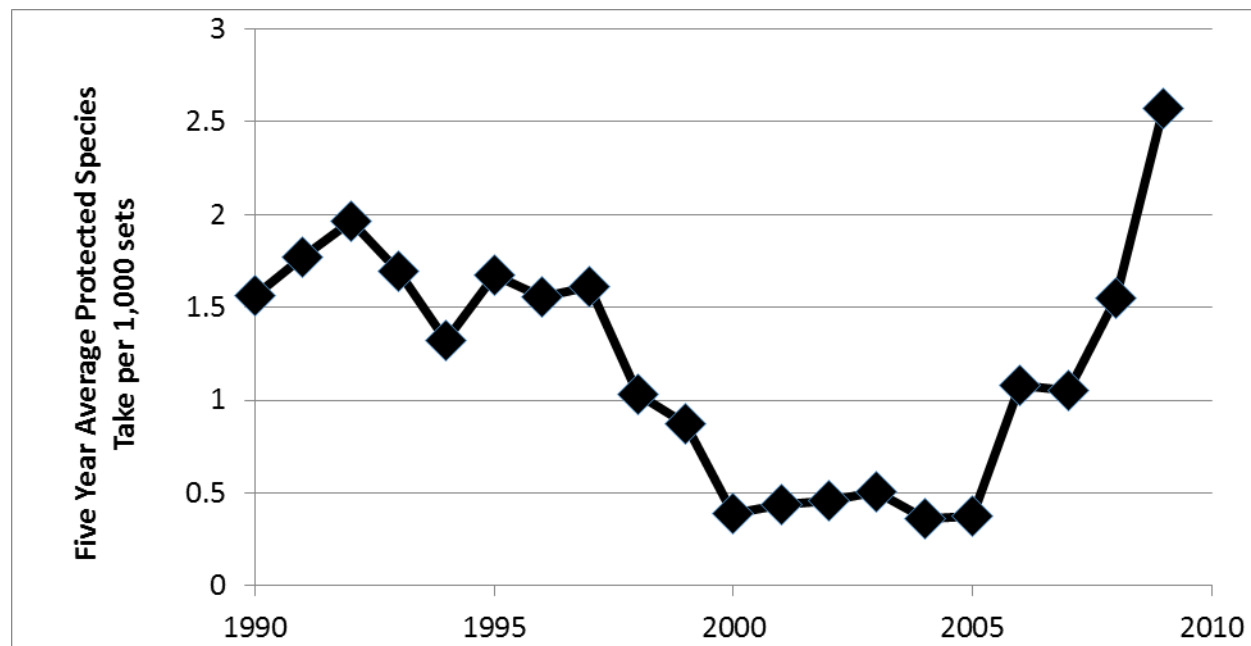
<sup>11</sup> People v. Monterey Fish Products Co. (1925) 195 Cal. 54, 563. ("The title to and property in the fish within the waters of the state are vested in the state of California and held by it in trust for the people of the state").

discontinued.<sup>12</sup> Just as a polluting industries must clean up or shut down, businesses that destroy our natural heritage merely for a few dollars must clean up or shut down.

### **The swordfish fishery must adopt a zero bycatch, truly sustainable model**

Against this backdrop as discussed above, industrial gear, such as drift gill nets or longlines, are simply inappropriate and are not compatible with conservation of our natural heritage. Although the Council recently took several strong steps of instituting hard caps, performance standards, and 100% observer coverage in the swordfish fishery, the most recent science demonstrates that even those caps are too lax if endangered sea turtles are to have a chance at recovery. The fact that the biological realities of the leatherback would dictate that all fisheries with the potential to kill leatherbacks close shines a stark light on the fact that our fisheries are in fact far from sustainable.

In fact, looking at the suite of high priority species the Council chose to protect with hard caps, twenty five years of efforts to improve bycatch rates have, empirically, failed. Looking at the overall bycatch per unit effort over the last quarter century have demonstrated that (with the exception of the institution of the PLCA in 2001) efforts to reduce *overall bycatch* have not succeeded, with protected species bycatch rates per set as high now as they have ever been.



Given the laws of physics that there is no way to control what a mile-long net left unattended will catch and the persistent record of failure, how can the public have any confidence that newly proposed measures can or will have any better success?

<sup>12</sup> *Ibid.*

Thus, in light of increased biological uncertainty about future conditions, increased pressures on ecosystems, and the long record of failure, Turtle Island Restoration Network makes four recommendations that we feel will adequately reflect the Congressional mandate of the Magnussen Stevens Act to account for social and ecosystem factors in setting optimum yield:

**1) Discontinue the use of drift gill nets in California immediately, or failing that develop and implement a plan that eliminates drift gill nets within three years.**

Such a move would remove but one of the several gear types the fishermen in this fishery currently use. With the advent of promising gear in the guise of Deep Set Buoy Gear and harpoons (along with innovative risk management financial and legal tools such as insurance, risk pooling or cooperatives), there is ample scope for a supportive plan that allows for a speedy transition. Given this reality, there is scarcely any argument for maintaining the use of destructive gears.

**2) Abandon efforts to incorporate long lines off the California Coast.**

Instituting a longline fishery in California is similarly doomed to failure. Based on leatherback bycatch and post-release mortality rates from the Hawai'i shallow set longline fishery,<sup>13</sup> a shallow set longline fishery would be expected to exceed the level consistent with recovery with 120 sets per year.<sup>14</sup> For context, the Hawai'i shallow set fleet sets upwards of 1,500 sets per year. Indeed, a recent EFP application for two boats looked to set 120 sets between them. Again, an industrial fishing fleet at anything beyond near-zero levels is simply incompatible with recovery of the leatherback sea turtle.

**3) Maintain the closure of the Pacific Leatherback Conservation Area.**

The PLCA is one of the very few management measures that has had any noticeable effect on priority species bycatch rates. This biologically rich area should not be opened to industrial gears at any time, but only to gear types that achieve a zero bycatch standard.

**4) Continue to support international efforts to reduce bycatch in foreign fisheries through demonstration of actually sustainable zero bycatch gear types**

As TIRN has noted in our prior comments, the PPMC is unfortunately setting a poor standard for U.S. protections through the maintenance of high bycatch fisheries. Since a great many U.S. laws, including the upcoming MMPA Fish and Fish Products Import Rule,

<sup>13</sup> E. Gilman, D. Kobayashi, T. Swenarton, P. Dalzell, I. Kinan and N. Brothers. 2006. Efficacy and commercial viability of regulations designed to reduce sea turtle interactions in the Hawaii-based longline swordfish fishery. Western Pacific Regional Fishery Management Council, Honolulu, HI.

<sup>14</sup> Assuming a bycatch rate of 0.005 per 1,000 hooks (see Gilman *et al.*, *supra*), 1,200 hooks per set (see ACSF EFP proposal, June 2015, [http://www.pcouncil.org/wp-content/uploads/2015/05/E2\\_Att1\\_ACSF\\_EFP\\_App\\_revised\\_JUN2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/2015/05/E2_Att1_ACSF_EFP_App_revised_JUN2015BB.pdf), and a post release mortality rate of 0.28, (see *Post-release Mortality of Longline-caught loggerhead turtles using estimated from satellite tracking Data and Anatomical hooking Location*. NOAA Pacific Islands Fisheries Science Center, Quarterly Research Bulletin, October 2013, [http://www.pifsc.noaa.gov/qrb/2013\\_10/article\\_14.php](http://www.pifsc.noaa.gov/qrb/2013_10/article_14.php).)

are set by comparability to U.S. standards, the standard set for any foreign fishery is determined by the weakest standards maintained by any U.S. management council. In the case of the exceptionally high bycatch of the drift gill net fishery, this poor performance standard sets the bar for U.S. standards and thus enables imports from a wide variety of dirty fisheries. By eliminating high bycatch gear, the U.S. will be in a position to reduce the bycatch associated with seafood imports and apply pressure for reform in foreign fisheries.

As always, I appreciate the tremendous time and thoughtfulness you each devote to these critical issues.

Most respectfully submitted,

A handwritten signature in blue ink, appearing to read 'DK' or 'Doug Karpa'.

Doug Karpa, Ph.D., J.D.  
Legal and Science Policy Director  
Turtle Island Restoration Network.

November 4, 2015

Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

**RE: Agenda Item G.2 – Swordfish Fishery Management Policy Connections**

Dear Chair Lowman and Council Members:

Thank you for taking action at the September Pacific Fishery Management Council meeting to establish hard caps, bycatch performance objectives and 100 percent monitoring for the California-based drift gillnet swordfish fishery. We view this as a strong conservation action designed to limit and control bycatch in one of the nation's dirtiest fisheries and a critical step in a transition to cleaner fishing methods. It also demonstrates the Council's commitment to moving toward a clean and sustainable West Coast swordfish fishery. Now, with the Council's action on hard caps complete, we encourage the Council to focus on a blueprint for transitioning to a selective West Coast swordfish fishery that can cleanly and effectively operate while safeguarding the diversity of ocean wildlife that inhabit, migrate to, and feed in the California Current Large Marine Ecosystem. To that end, we request the Council:

1. Focus on developing the management structure for a deep-set buoy gear swordfish fishery based on experimental and exempted fishing permit data.
2. Develop a transition plan with options for phasing out drift gillnets, motivating conversion to deep-set buoy gear and promoting the use of harpoon gear.
3. Do not allow drift gillnets into the Pacific Leatherback Conservation Area.
4. Maintain current prohibitions on pelagic longline gear inside and outside of the U.S. West Coast Exclusive Economic Zone (EEZ).
5. Support the establishment of strong import standards and restrictions on swordfish imports not meeting U.S. bycatch standards.

**I. Deep Set-Buoy Gear**

Recent experiments with deep-set buoy gear targeting swordfish demonstrate it is a cleaner, less harmful, and more selective fishing method than drift gillnets or pelagic longlines. More than 90 percent of fish caught in deep-set buoy gear off California has been comprised of marketable species, with fewer discards, no sea turtle takes and only one marine mammal interaction (a northern elephant seal which was release alive). Because deep-set buoy gear can be profitable and provide higher value products, and fished in combination with harpoon gear (e.g., searching for basking swordfish while also fishing at depth), it would provide a valuable option for West Coast swordfish fishermen.

As you are aware from previous presentations, deep-set buoy gear consists of a floating buoy supporting a single vertical line to which a baited hook or hooks are attached. This type of fishing gear is currently used to target swordfish in the Atlantic, it has been tested under experimental trials off California since 2011, and it is now being used for the first time off California under Council approved exempted fishing permits.

With respect to bycatch, experiments with deep-set buoy gear off California from 2011 to 2014 indicate it is a far superior method than drift gillnets and pelagic longlines, which currently provide most of the world's swordfish. Furthermore, visual strike indicators allow fishermen to retrieve any fish caught within minutes, minimizing post-release mortality of discarded fish and increasing the quality of retained fish.

Experiments with deep-set buoy gear off California by the Pflieger Institute of Environmental Research (PIER) and National Marine Fisheries Service (NMFS), Southwest Fisheries Science Center, have confirmed that:

- Swordfish can be selectively targeted at depth during the day.
- Non-target catch rates are lower than with drift gillnets or pelagic longlines.
- There have been minimal interactions with protected species relative to other swordfish fishing gears.
- Incidentally caught animals have a higher chance of being released alive.
- 94 percent of fish caught with buoy gear off California from 2011 to 2014 were considered marketable fish species.

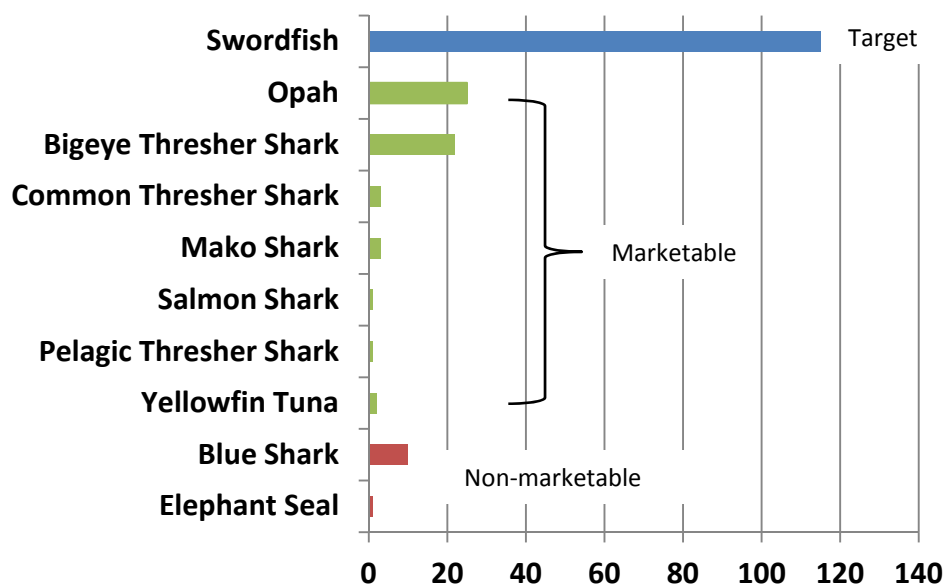


Figure 1: Collective catch from all deep set buoy gear experiments to date.<sup>1</sup>

The results of both the previous experiments and the current deep-set buoy gear EFPs can be utilized to craft appropriate management measures for a limited entry deep-set buoy gear swordfish fishery authorized in the Highly Migratory Species (HMS) Fishery Management Plan (FMP). Authorizing a DSBG fishery under the HMS FMP will require consideration of a variety of issues and management measures. We encourage a focused effort by the Council to begin this process, starting with addressing some of the most obvious questions and decision points, including:

- Under a limited entry permit system, who would be eligible for a DSBG permit and how many will be issued?
- What hard caps will be established for any marine mammal or sea turtle takes?
- What performance standards will be established for finfish & non-ESA listed marine mammals?
- Will there be any time and area closures for this gear type?
- What will be the cost of the permit?
- What level of observer coverage or electronic monitoring will be required?

#### **A. Deep-set buoy gear holds the potential for the economic advancement of the fishery**

Swordfish caught by deep set buoy gear will be a higher value product per pound than drift gillnet or pelagic longline caught swordfish (imported and domestic), due to greater freshness, quality, and market demand for sustainable seafood. Initial market research in California indicates that deep set buoy gear caught swordfish is likely to garner a market price similar to harpoon caught swordfish, which is currently approximately \$8.75 per pound for dressed swordfish.<sup>1</sup> In 2014, ex-vessel prices for harpoon-caught swordfish were greater than twice that of drift gillnet and pelagic longline caught swordfish.<sup>2</sup> A higher market price for selective gear increases its profitability and economic viability.

Switching to deep-set buoy gear may involve initial transition costs and a transition period as fishermen learn to effectively use the new gear. The experience thus far has been that swordfish catch rates have improved rapidly in the initial years of experimentation. For this reason, we hope to see and advocate for the establishment of a transition fund to assist with a transition (described further below). In addition, using deep-set buoys may provide fishermen with opportunities to fish in locations that are off limits to drift gillnets and pelagic longlines due to bycatch interactions. They may also ultimately have lower monitoring and management costs due to minimal interactions with protected species.

## **II. Develop a Transition Plan from Drift Gillnets to Deep-Set Buoy Gear**

The existence of fundamentally different techniques to catch swordfish, both harpoons and deep-set buoy gear, indicates that it is possible and practicable to target swordfish with low, acceptable levels of bycatch (figure 2) and with much higher selectivity (figure 3). Energy and resources devoted to a sustainable swordfish fishery are well spent on making the known cleaner gears more economically viable, rather than costly endeavors to manage the drift gillnet fishery so that it is only marginally better. Therefore a transition plan that includes a full prohibition on drift gillnets while authorizing deep-set buoy gear is ultimately a more cost effective and practical way to minimize bycatch while maintaining a viable swordfish fishery.

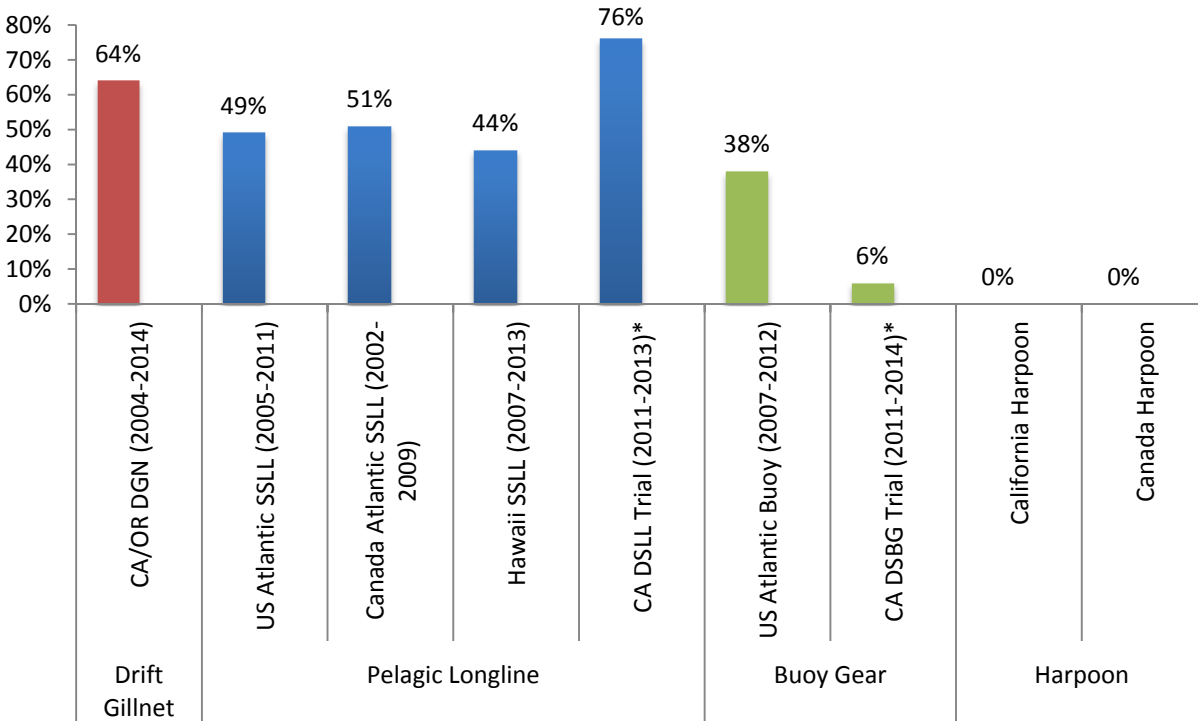
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<sup>1</sup> Sepulveda, C. et al. 2015. PIER Exempted Fishery Proposal Application for Deep-Set Buoy Gear. Agenda Item H.3.a. [http://www.pcouncil.org/wp-content/uploads/H3a\\_Att2\\_PIER\\_MAR2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/H3a_Att2_PIER_MAR2015BB.pdf)

<sup>2</sup> The average price for drift gillnet caught fish in 2014 was \$2.58/lb., the average for longline caught swordfish was \$2.60/lb. and the average for harpoon caught fish was \$5.70/lb. PFMC. Current HMS SAFE Report, at <http://www.pcouncil.org/wp-content/uploads/HMS-SAFE-Table-2.htm>



**Figure 2. Discard rates in U.S. and Canadian swordfish fisheries<sup>3</sup>** (DGN = drift gillnet, SSLL = shallow-set longline, DSLL = deep-set longline, DSBG = deep-set buoy gear).



\* Non-marketable species were assumed to be discards.

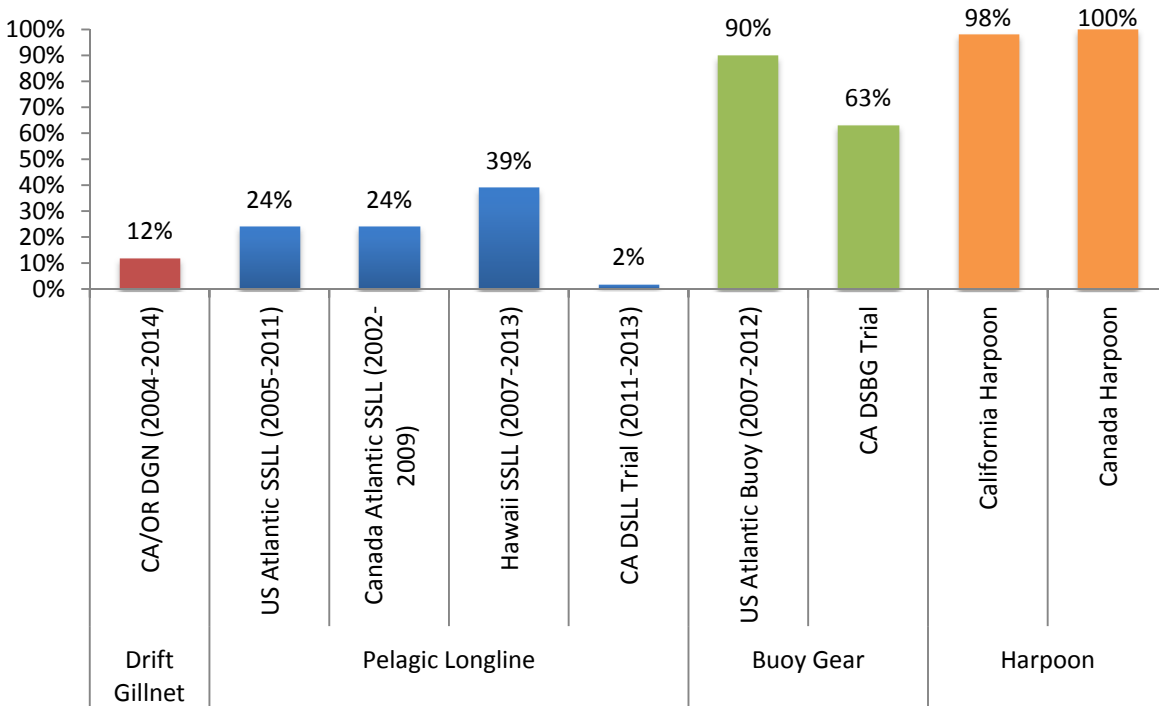
There remains a clear need for a transition plan that includes a prohibition on swordfish drift gillnet gear combined with measures to authorize and promote the use of selective gear types. In addition to considering who would receive a permit, how many would be issued, and under what terms, we envision the establishment of a transition fund that would provide financial assistance/compensation to drift gillnet fishermen to test and convert to deep-set buoy gear and/or voluntarily choose to exit the fishery. We are aware that current efforts are already underway to provide direct financial compensation to DGN permit holders that are voluntarily willing to exit the fishery. In addition, several additional funding sources may be available to provide resources to assist in innovative ways to promote sustainable fishing practices. The California Ocean Protection Council, for example, has already provided significant funding for deep-set buoy gear experiments.

We suggest that the Council begin to develop a transition plan that considers various timelines for transitioning the drift gillnet fishery to deep set buoy gear (and existing harpoon gear), including an immediate transition, three year transition, up to an approach that would grandfather in active DGN participants but sunset the DGN fishery when active fishermen voluntarily choose to exit. Examining the specifics of alternative time frames and associated trade-offs is critical to informed decision-making. Further, working collaboratively in processes beyond the Council, we also envision marketing approaches to promote deep set buoy gear or harpoon-caught swordfish.

<sup>3</sup> See 'references' for bycatch data sources for figures 1 and 2.

Given the increasing interest in deep-set buoy gear by fishermen, we believe a permit conversion from drift gillnet permits to deep set buoy gear permits could provide equivalent opportunities for those wishing to use this gear to profit from the swordfish fishery, and allow drift gillnet fishermen who wish to exit the fishery to obtain fair compensation by selling their permits. Fully exploring a range of transition options will foster informed decision-making by the Council, NMFS, and stakeholders on a future vision for this fishery. Such a gear transition could happen in a single FMP amendment that simultaneously authorizes deep set buoy gear as an allowable gear type with appropriate management measures and establishes a sunset on drift gillnet gear after which it is prohibited. We believe this to be the most effective means to achieve the Council's goal of a clean and sustainable domestic swordfish fishery off the U.S. West Coast. Beginning to develop such a transition plan now and considering the various options should be a top priority.

**Figure 3. Percentage of total catch that is swordfish**



### III. Do not allow drift gillnets into the Pacific Leatherback Conservation Area

We strongly oppose the objective of allowing drift gillnet fishing vessels to fish inside the Pacific Leatherback Conservation Area (PLCA) as described in the draft PFMC Pacific Coast Swordfish Fishery Management and Monitoring Plan.<sup>4</sup> We request that you do not adopt this objective. The PLCA has been working to reduce and avoid the bycatch of endangered leatherback sea turtles. The PLCA is a critical conservation area that protects leatherback foraging hotspots and migratory corridors for Pacific leatherback sea turtles. It would be irresponsible and dangerous to the conservation of these sea turtles to open the PLCA to drift gillnets.

<sup>4</sup> PFMC. September 2015. Agenda Item G.2 Attachment 1, at 5.

Leatherback sea turtles that nest in Indonesia and forage off the U.S. West Coast are at great risk of going extinct. The population has been in a continuous rate of decline. Scientists studying this endangered population:

*“found that the estimated annual number of nests at Jamursba Medi [Indonesia] has declined 78.3% over the past 27 years (5.5% annual rate of decline) from 14,522 in 1984 to 1,596 in 2011.”*<sup>5</sup>

A recent IUCN Red List assessment of leatherback sea turtles estimates that as few as 2,071 mature adult leatherback sea turtles (males and females) remain in the entire Pacific, and the IUCN predicts a 96 to 99 percent total population decline by 2040 under current conditions.<sup>6</sup> The Red List Assessment, published in November 2013, names fisheries bycatch as one of the biggest threats to leatherbacks globally, offering further support for reducing the threat of interactions in the California driftnet fishery.

#### **IV. Maintain current prohibitions on pelagic longline gear.**

The State of California has a long-standing ban on the use of pelagic longline gear due to bycatch concerns. Pelagic longline gear used to target swordfish and other species within the EEZ off California has been prohibited since at least 1977 when the State of California promulgated regulations declaring that “[s]wordfish may be taken only with handheld hook and line or hand-thrusted harpoon.”<sup>7</sup> Pelagic longline gear more generally was prohibited by Fish and Game Code §9028 which banned hook and line fishing gear longer than 900 feet.

The history of the West Coast-based high seas pelagic longline swordfish fishery includes numerous judicial and regulatory actions designed to mitigate and prevent foreseeable impacts to protected marine life. Most recently, in 2004 the Council and NMFS issued the HMS FMP and accompanying regulations.<sup>8</sup> The FMP brought the West Coast high seas longline fishery under federal management and included a provision prohibiting a West Coast-based shallow-set longline fishery west of 150° W longitude.<sup>9</sup> However, in its biological opinion for the FMP, NMFS concluded that allowing a shallow-set longline fishery east of 150° W longitude would jeopardize the loggerhead sea turtle. NMFS therefore issued a reasonable and prudent alternative requiring the prohibition of shallow-set longline gear east of 150° W longitude pursuant to its authorities under the Endangered Species Act.<sup>10</sup>

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<sup>5</sup> Tapilatu, R. F., P. H. Dutton, M. Tiwari, T. Wibbels, H. V. Ferdinandus, W. G. Iwanggin, and B. H. Nugroho. 2013. Long-term decline of the western Pacific leatherback, *Dermochelys coriacea*: a globally important sea turtle population. *Ecosphere* 4(2):25. <http://dx.doi.org/10.1890/ES12-00348.1>.

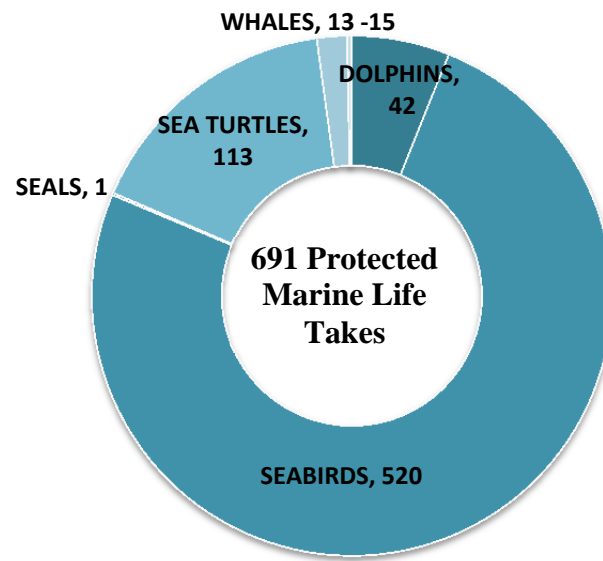
<sup>6</sup> Wallace, B.P., Tiwari, M. & Girondot, M. 2013. *Dermochelys coriacea*. In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2. <[www.iucnredlist.org](http://www.iucnredlist.org)>. Downloaded on 27 November 2013. <http://www.iucnredlist.org/details/summary/6494/0>

<sup>7</sup> 14.C.C.R. § 107. A separate provision of the Fish and Game Code, Section 8561, allowed fishing for swordfish with drift-gillnet gear, subject to numerous restrictions. These restrictions were largely carried over into federal regulations with the adoption of the HMS FMP in 2004.

<sup>8</sup> 69 Fed. Reg. 18444 (April 7, 2004).

<sup>9</sup> 50 C.F.R. § 660.712(a)(2).

<sup>10</sup> 69 Fed. Reg. 11540, 11541 (March 11, 2004); 50 C.F.R. § 223.206(d)(9)(i).



**Figure 4.** Observed Protected Marine Life Takes in the Hawaii Shallow-set pelagic longline fishery, 2007-2013

Any new West Coast-based high seas shallow-set longline fishery or pelagic longline fishery inside the EEZ (shallow or deep-set) would be inconsistent with key environmental laws. Further, it would significantly increase the bycatch of vulnerable fish population and it would take and kill protected marine life including endangered sea turtles, marine mammals and seabirds.<sup>11</sup>

Large-scale shallow-set longlines like those used off Hawaii can measure over 60 miles in length. Descending from the mainline are more than 1,000 branch lines, each ending with a baited hook. Even with circle hooks and mackerel-type bait used to decrease sea turtle mortality, the Hawaii-based fishery still caught 691 protected marine animals from 2007 to 2013 (figure 3) and discarded 44% of its catch, including over 138,000 sharks and other fishes (e.g., hammerhead sharks, blue sharks, oceanic white-tip sharks, big-eye thresher sharks, mako sharks, marlin, manta rays, and many others).<sup>12</sup>

Based on available data from pelagic longline fisheries in the Atlantic and Pacific, we do not believe there is sufficient evidence to justify their use off the U.S. West Coast. Nor do we believe that there is evidence that pelagic longlines can be or ever have been successfully employed with acceptably low bycatch and environmental impacts. Given the high bycatch associated with pelagic longline gear, we urge the Council to not consider this gear type among the portfolio of gears that could be used in a clean West Coast swordfish fishery.

<sup>11</sup> See, Oceana, Earthjustice, Turtle Island Restoration Network and Center for Biological Diversity. 2015. PFMC Agenda Item G.3. Scoping Comments, High Seas Pelagic Longline Fishery. Pacific Fishery Management Council. September 2015. [http://www.pcouncil.org/wp-content/uploads/2015/09/G3b\\_SUP\\_PubCom\\_SEPT2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/2015/09/G3b_SUP_PubCom_SEPT2015BB.pdf)

<sup>12</sup> NOAA Fisheries Observer Program. HI SSLF Fishery Observer Data 2007-2013.

**V. Support the establishment of strong import standards and restrictions on imported swordfish not meeting U.S. bycatch standards**

Globally, fisheries bycatch poses a major threat to marine mammals and sea turtles. Scientists estimate commercial fisheries around the world may incidentally take over 650,000 marine mammals per year.<sup>13</sup> Yet rather than use the enormity of the problem as an excuse to do less in U.S. waters, with the passage of the Marine Mammal Protection Act Congress intended that not only domestic marine mammal bycatch be reduced toward zero, but that we also encourage other nations to do the same. In August of this year, NMFS issued a proposed rule to revise its regulations to implement the import provisions of the MMPA.<sup>14</sup> Section 101(a)(2) of the MMPA states:

“the Secretary of the Treasury shall ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards.”

One of the primary goals of the MMPA is to reduce the incidental kill or serious injury of marine mammals permitted in the course of U.S. commercial fishing operations to insignificant levels approaching a zero injury and mortality rate (16 U.S.C. 1371(a)(2)). As the U.S. has moved toward meeting the zero mortality rate goal, it is time to require foreign imports to meet comparable standards.

We urge the Council to strongly support NMFS’s decision to issue regulations implementing the MMPA’s import requirements. With implementation of this rule, the U.S. can leverage its market power to prevent the death and injury of tens of thousands of whales and dolphins around the globe. Enforcing the import provisions of the MMPA as well as similar provisions in the Moratorium Protection Act (16 U.S.C. § 1826h) for protected living marine resources like sea turtles<sup>15</sup> is the surest way the U.S. can affect much needed change in foreign fisheries to safeguard sensitive marine life that is protected under U.S. law.

We believe this goal and effort should be an explicit component of a comprehensive plan that addresses the “policy connections” across different aspects of swordfish management. Addressing concerns over imports that do not have sufficient bycatch safeguards was one of the few consensus recommendations from the 2015 Swordfish Workshop convened by NMFS. Oceana is committed to working in partnership with the Council, NMFS, and West Coast fishery participants toward this common goal.

**VI. Conclusion**

Selectively targeting swordfish in the biological hotspot of the California Current Large Marine Ecosystem is undoubtedly a major challenge. Drift gillnets and pelagic longlines are unable to do so without high levels of bycatch and substantial impacts and risk to rare and endangered species. The existing harpoon gear and deep set buoy gear, however, appear to be able to selectively target swordfish with minimal bycatch. Attached please find Oceana’s white paper *Providing Domestically Caught U.S.*

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<sup>13</sup> Read, A.J., P. Drinker, and S. Northridge. 2006. Bycatch of Marine Mammals in U.S. and Global Fisheries. *Con Bio*. 20: 163-169.

<sup>14</sup> 80 Fed. Reg.48,172 (August 11, 2015).

<sup>15</sup> E.g. In August 2015 NMFS issued a negative certification for Mexico due to the bycatch of North Pacific loggerheads in Baja California. See:

[http://www.nmfs.noaa.gov/ia/iuu/msra\\_page/addendum\\_to\\_2015report\\_to\\_congress.pdf](http://www.nmfs.noaa.gov/ia/iuu/msra_page/addendum_to_2015report_to_congress.pdf)

*West Coast Swordfish: How to Achieve Environmental Sustainability and Economic Profitability* which further documents the current state of swordfish fisheries and opportunities for improvement.

We appreciate the Council's serious attention to the issue of developing a clean swordfish fishery while minimizing bycatch and protecting ocean wildlife. We urge the Council to focus on the development of a transition plan to selective gear types. We support a plan that includes a phase out and prohibition on the use of drift gillnets, authorizes deep-set buoy gear, encourages the use of harpoon gear, and maintains the current prohibitions on the use of pelagic longline gear.

Thank you for your time and consideration.

Sincerely,



Ben Enticknap  
Pacific Campaign Manager and Senior Scientist

Attachment: *Providing Domestically Caught U.S. West Coast Swordfish: How to Achieve Environmental Sustainability and Economic Profitability*

**References for U.S. and Canada swordfish fishery bycatch data:**

**Drift Gillnet:** NOAA. 2015. West Coast Region Observer Program: Summaries & Reports. [http://www.westcoast.fisheries.noaa.gov/fisheries/wc\\_observer\\_programs/sw\\_observer\\_program\\_info/data\\_summary\\_report\\_sw\\_observer\\_fish.html](http://www.westcoast.fisheries.noaa.gov/fisheries/wc_observer_programs/sw_observer_program_info/data_summary_report_sw_observer_fish.html)

**U.S. Atlantic SSL:** MRAG. 2013. MSC Public Certification Report for US North Atlantic Swordfish Pelagic Longline and Handgear Buoy Line Fishery.

**Canada Atlantic SSL:** Intertek Moody Marine (IMM). 2011. North Atlantic Swordfish Canadian Pelagic Longline Fishery. Volume 1: Final Report and Determination.

**HI SSL:** NMFS. 2015. Hawaii Shallow-set Longline Observer Program Data (2007-2013). Unpublished.

**CA DSL Trial:** Dewar, H., Kohin, S. 2014. Deep-Set Longline Study. [http://www.pcouncil.org/wp-content/uploads/K5b\\_SUP\\_SWFSC\\_PPT1\\_MAR2014BB.pdf](http://www.pcouncil.org/wp-content/uploads/K5b_SUP_SWFSC_PPT1_MAR2014BB.pdf)

**US Atlantic Buoy:** NMFS. 2014. Stock Assessment and Fishery Evaluation Report (SAFE) for Atlantic Highly Migratory Species; Kerstetter. 2009. Characterization of the Catch by Swordfish Buoy Gear in Southeast Florida.

**CA DSBG Trial:** Sepulveda, C. 2015. Exempt Fishery Proposal Application for Deep-set Buoy Gear. [http://www.pcouncil.org/wp-content/uploads/H3a\\_Att2\\_PIER\\_MAR2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/H3a_Att2_PIER_MAR2015BB.pdf)

**California and Canada Harpoon:** Coan Jr, A.L., Vojkovich, M., Prescott, D. 1998. The California Harpoon Fishery for Swordfish, *Xiphias gladius*, and Pacific Fishery Management Council (2015). Highly Migratory Species Stock Assessments and Fishery Evaluation Report: "Current HMS SAFE Report". <http://www.pcouncil.org/highly-migratory-species/stock-assessment-and-fishery-evaluation-safe-documents/current-hms-safe-document/> at Table 16.



*Providing Domestically Caught U.S. West Coast Swordfish:  
How to Achieve Environmental Sustainability and Economic Profitability*



Carlito Turner, Oceana Research Associate  
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November 4, 2015

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## Introduction

The California Current Large Marine Ecosystem off the U.S. West Coast is one of the richest temperate marine ecosystems in the world. Fueled by life-giving swarms of krill and forage fish like sardine and anchovy, these productive waters support a wide diversity of marine life including large and diverse populations of whales, dolphins, sea turtles and sea birds, as well as top ocean predators like white sharks, bluefin tuna and swordfish that come here to feed. The California Current ecosystem also supports many recreational and commercial fisheries. One of those fisheries, the U.S. West Coast drift gillnet swordfish fishery, is at a major crossroad.

Drift gillnets targeting swordfish are deployed at night amid this epicenter of ocean wildlife off California. This fishery is one of the dirtiest fisheries on the West Coast in terms of its overall bycatch rate and impact to protected marine life. The drift gillnet fishery must be heavily managed because its unselective fishing techniques result in the injury and death of rare and endangered species like sperm whales and leatherback sea turtles. Despite gear modifications and area closures to protect endangered sea turtles, major ecological concerns remain with the unacceptably high levels of bycatch associated with this fishing method. In addition, many fishermen have left the fishery and landings in California have decreased by 80 percent from 2000 to 2013.<sup>1</sup> Fortunately, however, there are other options that are cleaner and profitable ways to catch swordfish.

The federal Pacific Fishery Management Council is currently considering alternative swordfish fishing gears, including harpoon, shallow and deep-set longline, and deep-set buoy gear. If the gears demonstrate maximizing catch efficiency and minimizing bycatch, some of these methods have the potential to replace drift gillnets and revitalize West Coast commercial swordfish fishing. For the current drift gillnet swordfish fishery, the Pacific Fishery Management Council recently took action to implement hard caps designed to limit the take of nine species of whales, dolphins, and sea turtles. The Council also approved new monitoring requirements to be phased in by 2018, and a suite of performance metrics to reduce bycatch of other marine mammals and finfish slated to go into effect for the 2016-17 fishing season.

As fishery managers on the West Coast search for ways to boost waning regional swordfish catches, understanding the benefits and drawbacks of different gear types is essential. To that end, Oceana conducted a comparative analysis of the gear types utilized in North American swordfish fisheries, with recommendations for how alternative gear types can best replace drift gillnets. This analysis concludes with a transition plan for the drift gillnet fleet to deep-set buoy gear and harpoon gear that could lead to a clean and productive West Coast swordfish fishery.

## Bycatch

Under federal U.S. law, the term “bycatch” refers to the discarded catch of marine life and unobserved mortality due to the direct interaction with fishing gear. Under the Magnuson Stevens Fishery Conservation and Management Act, Regional Fishery Management Councils and the National Marine Fisheries Service have an ongoing responsibility to minimize and avoid

bycatch.<sup>2</sup> As stated in the National Oceanic Atmospheric Administration (NOAA) National Bycatch Report:

*Ensuring the sustainability of marine resources for future generations is the primary mission of the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS). Reducing the unintentional capture, or bycatch, of fish, marine mammals, sea turtles, and seabirds is an essential part of this goal and is required under NMFS' guiding legislation.<sup>3</sup>*

Under the law, conservation and management measures are required to minimize and avoid bycatch. Bycatch should be avoided, but where it cannot be avoided, managers must work to minimize the mortality of bycatch. In some fisheries, like the West Coast swordfish fishery, different gear types can be used that are more selective, thus target species can be selectively caught, avoiding the take of non-target marine life in the first place.

### The Drift Gillnet Fishery

Drift gillnets are a destructive fishing gear used off the California coast to catch swordfish and thresher sharks. The enormous nets, which can measure over a mile in length and two hundred feet deep, drift in the open ocean and indiscriminately entangle many forms of marine life. Due to this, drift gillnets have been internationally recognized as harmful. The practice is banned in the Mediterranean Sea and on the international High Seas. In the United States, domestic concerns over swordfish drift gillnet gear has led to prohibitions in Oregon, Washington and the U.S. Atlantic.<sup>4,5,6</sup> Despite widespread acknowledgement of the destructive nature of drift gillnets, the use of this fishing gear persists off California.

The California-based drift gillnet fishery is so wasteful that the fleet actually discards more animals than it retains. According to the NOAA Observer Program, from 2004 to 2014, the drift gillnet fishery discarded approximately 64 percent of all animals caught.<sup>7</sup> A few of the frequently discarded species include mola (ocean sunfish), blue sharks, pelagic stingrays, and shortfin mako sharks.

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<sup>2</sup> Magnuson Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1853(a)(11).

<sup>3</sup> National Marine Fisheries Service. 2011. U.S. National Bycatch Report [W. A. Karp, L. L. Desfosse, S. G. Brooke, Editors]. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-117E, 508 p.

<sup>4</sup> PFMC. 2013. Status of the U.S. West Coast Highly Migratory Species Fisheries through 2013. Stock Assessment and Fishery Evaluation Report (SAFE).

<sup>5</sup> PFMC. 2011. Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species: As Amended Through Amendment 2.

<sup>6</sup> NMFS. 2013. Amendment 8 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan: Commercial Swordfish Management Measures. 2013.

<sup>7</sup> NOAA. 2015. West Coast Region Observer Program.

[http://www.westcoast.fisheries.noaa.gov/fisheries/wc\\_observer\\_programs/sw\\_observer\\_program\\_info/data\\_summ\\_report\\_sw\\_observer\\_fish.html](http://www.westcoast.fisheries.noaa.gov/fisheries/wc_observer_programs/sw_observer_program_info/data_summ_report_sw_observer_fish.html)

Estimated marine mammals and sea turtles caught in the DGN fishery from 1990-2013.

**4,110** Dolphins  
**2,138** Seals and Sea Lions  
**500** Whales  
**306** Sea Turtles

Source: NOAA. 2015. West Coast Region Observer Program.



© NOAA, 1997. Short beaked common dolphin killed in a California swordfish drift gillnet. Its tail fin is cut off.

Since 1990, it is estimated that over 7,000 marine mammals and sea turtles have been caught in the California drift gillnet fishery.<sup>8</sup> In response to the take of marine mammals, bycatch reduction measures including buoy line extenders and acoustic pingers – devices that emit noise to keep marine mammals away from nets – were made mandatory in 1997. However, there have only been modest improvements in the fishery; from 1990 to 2000, a combined 13.7 marine mammals, sea turtles, and sea birds were caught per 100 drift gillnet sets. From 2004 to 2014, this number fell only marginally to 10.8 per 100 sets, a reduction of just 21 percent.<sup>9</sup> The National Marine Fisheries Service (NMFS) has assigned the fishery “Category I” status, signifying that marine mammals are frequently subject to serious injury or mortality.<sup>10</sup> Only six of more than 230 fisheries in the United States have earned this dubious distinction.<sup>11</sup> Today, an average of 90 marine mammal interactions are caused by the California drift gillnet fleet each year (2004-2014). A few of the protected species caught by the drift gillnet fleet include humpback, gray, and minke whales, bottlenose dolphins, Pacific white-sided dolphins, leatherback sea turtles, California sea lions, and Northern elephant seals.

Drift gillnets also threaten the existence of an entire population of endangered sperm whales living in the California Current ecosystem. In 2010, two sperm whales were observed caught by the California drift gillnet fleet. One of the whales was confirmed dead and the other whale sustained serious injuries that were likely to be fatal.<sup>12</sup> These mortalities exceeded the potential biological removal – the maximum number of deaths that the population can sustain

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> NMFS. 2014. List of Fisheries, 2014. Web. Last Accessed: October 19, 2015.

<http://www.nmfs.noaa.gov/pr/interactions/lof/final2014.htm>

<sup>11</sup> Oceana, 2015. “Exposing California’s Dirty Secret: The Truth about Drift Gillnets off our Coast.”

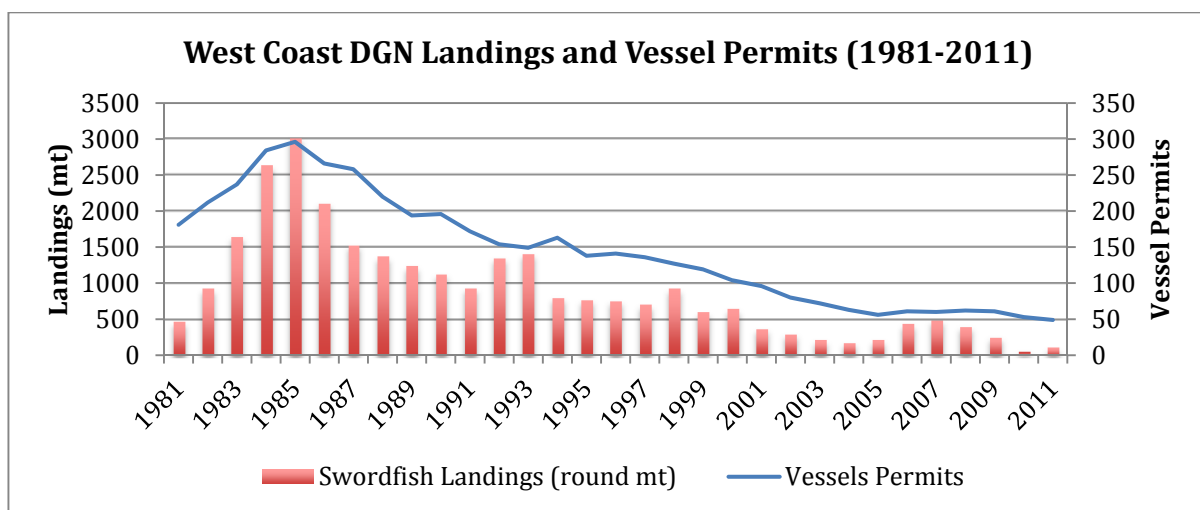
<http://oceana.org/reports/exposing-california-s-dirty-little-secret>

<sup>12</sup> Carretta, James V., and L. Enriquez. 2012. Marine Mammal and seabird bycatch in California gillnet fisheries in 2010. NOAA Fisheries. Administrative Report LJ-12-01.

[https://swfsc.noaa.gov/uploadedFiles/Divisions/PRD/Programs/Coastal\\_Marine\\_Mammal/2010\\_Bycatch\\_Estimates\\_Carretta\\_Enriquez%20LJ-12-01.pdf](https://swfsc.noaa.gov/uploadedFiles/Divisions/PRD/Programs/Coastal_Marine_Mammal/2010_Bycatch_Estimates_Carretta_Enriquez%20LJ-12-01.pdf)

and still recover — for the endangered whales under the Marine Mammal Protection Act.<sup>13</sup> The two sperm whale mortalities occurred in a set where an onboard observer noted that the acoustic pingers were functioning, both before and after the whales were killed.<sup>14</sup> NMFS estimated 16 sperm whales were injured or killed by the drift gillnet fleet in 2010 alone. Despite the efforts of fishery managers, bycatch reduction measures have failed to end the indiscriminate killing of marine life.

In addition to high levels of bycatch, participation and landings in the drift gillnet fishery are also declining. In California, annual landings by the drift gillnet fleet have declined since peaking at 2,198 metric tons (mt) in the mid-1980s.<sup>15</sup> In 2013, the California drift gillnet fleet landed approximately 61 mt.<sup>16</sup> Participation has also dropped precipitously; from 2000 to 2013 the number of drift gillnet permits that have been actively fishing declined by 84 percent, from 119 to just 19.<sup>17</sup>



West Coast DGN landings and vessel permits. Source: PFMCM HMS SAFE 2012.

## Exploring North American Swordfish Fisheries and Alternative Gears Used to Catch Swordfish

Alarmingly high levels of bycatch, frequent interactions with endangered and protected species, decreasing swordfish landings, and declining participation by fishermen, all signal that a transition from drift gillnets to clean gear types is needed. Fortunately, a number of other gear types are utilized in North American swordfish fisheries. Some of these gear types could help

<sup>13</sup> NMFS. 2014. Recommendations from the Pacific Offshore Cetacean Take Reduction Team to Minimize Sperm Whale Interactions in the West Coast Swordfish Drift Gillnet Fishery. 2014. Agenda Item K.5.b. [http://www.pcouncil.org/wp-content/uploads/K5b\\_NMFS\\_RPT\\_POCTRT\\_MAR2014BB.pdf](http://www.pcouncil.org/wp-content/uploads/K5b_NMFS_RPT_POCTRT_MAR2014BB.pdf)

<sup>14</sup> Carretta, James V., and L. Enriquez. 2012. Marine Mammal and seabird bycatch in California gillnet fisheries in 2010. NOAA Fisheries. Administrative Report LJ-12-01.

<sup>15</sup> PFMCM. 2012. Status of the U.S. West Coast Highly Migratory Species Fisheries through 2011. Stock Assessment and Fishery Evaluation Report (SAFE).

<sup>16</sup> California Department of Fish and Wildlife (CDFW). 2014. Annual Marine Fisheries Report 2014.

<sup>17</sup> PFMCM. 2014 HMSMT Report: Drift Gillnet Management. 2014. Agenda Item K.5.b. [http://www.pcouncil.org/wp-content/uploads/K5b\\_HMSMT\\_DGN\\_MAR2014BB.pdf](http://www.pcouncil.org/wp-content/uploads/K5b_HMSMT_DGN_MAR2014BB.pdf)

reestablish a productive West Coast swordfish fishery, while others might only exacerbate current problems. Exploring the methods used by other North American swordfish fisheries could demonstrate which alternative gears could help revitalize the West Coast swordfish fishery.

## Harpoon Gear

In **California**, archeological records show that harpoon fishing for swordfish has been practiced for nearly 3,000 years.<sup>18</sup> While technologies have certainly changed, the fundamentals remain the same. To catch swordfish, fishermen spot the swordfish finning, jumping, or basking near the surface, and strike the fish with a harpoon that is attached to a buoy.

California's modern day swordfish harpoon fishery first developed in the early 1900s. Logbook records from 1974 to 1993 indicate that 74 percent of pursued swordfish were harpooned and 91 percent of the harpooned swordfish were landed.<sup>19</sup> Harpoon gear was once a major contributor to the West Coast swordfish fishery and in 1978 over 300 vessels made nearly 1,700 mt in landings.<sup>20</sup> However, after drift gillnets were authorized by the California legislature as a legal gear type, many harpoon vessels converted to drift gillnets and harpoon participation and landings waned. In 2014, only six mt of swordfish were landed on the West Coast using harpoon gear.<sup>21</sup> The harpoon fishery is considered highly selective and there is near zero bycatch associated with the fishery.<sup>22</sup> However, it is estimated that nine percent of the swordfish that are struck by harpoons are not landed, possibly sustaining fatal injuries.<sup>23</sup> The California harpoon fishery has no documented incidents of marine mammal bycatch.<sup>24</sup>

There is also a **Canadian** harpoon fishery operating in the Atlantic that is allotted just 10 percent of the Canadian national swordfish quota. Holders of type "A" harpoon licenses, which receive the vast majority of the quota, were able to produce their full quota in seven of the eight years from 2002 to 2009.<sup>25</sup> From 2000 to 2013, an average of over 172 mt was landed by harpoon gear in Canada.<sup>26</sup> Like the California harpoon fishery, the Canadian harpoon fishery is clean; there is no bycatch associated with the fishery and there are no expected interactions with endangered or protected species.<sup>27</sup> The Canadian harpoon fishery's steady production for over a decade shows that modern harpoon fisheries can be financially and ecologically viable.

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<sup>18</sup> Kronman, M. 1988. Harpooning: slow but steady improvements in the technology of a timeless skill. Natl. Fisherman, August, p. 5357, as in, Coan Jr, A.L., Vojkovich, M., Prescott, D. 1998. The California Harpoon Fishery for Swordfish, *Xiphias gladius*.

<sup>19</sup> Coan Jr, A.L., Vojkovich, M., Prescott, D. 1998. The California Harpoon Fishery for Swordfish, *Xiphias gladius*.

<sup>20</sup> *Id.*

<sup>21</sup> PFMF 2015. HMS SAFE Table 16. <http://www.pcouncil.org/wp-content/uploads/HMS-SAFE-Table-16.htm>

<sup>22</sup> California Ocean Science Trust. 2013. Rapid Assessments for Selected California Fisheries.

[http://opc.ca.gov/webmaster/ftp/project\\_pages/Rapid%20Assessments/CA%20Rapid%20Assessments.pdf](http://opc.ca.gov/webmaster/ftp/project_pages/Rapid%20Assessments/CA%20Rapid%20Assessments.pdf)

<sup>23</sup> Coan Jr, A.L., Vojkovich, M., Prescott, D. 1998. The California Harpoon Fishery for Swordfish, *Xiphias gladius*.

<sup>24</sup> NMFS. 2014. List of Fisheries, 2014. Web. Last Accessed: October 19, 2015.

<sup>25</sup> Intertek Moody Marine (IMM). 2010. North Atlantic Swordfish Canadian Harpoon Fishery Public Certification Report.

<sup>26</sup> ICCAT. 2015. ICCAT Database. Web. Last Accessed: October 20, 2015.

<sup>27</sup> Intertek Moody Marine (IMM). 2010. North Atlantic Swordfish Canadian Harpoon Fishery Public Certification Report.



## Shallow-set Longline

A shallow-set longline consists of a mainline that can measure up to 60 miles long, attached to hundreds or thousands of baited hooks. Shallow set gear is set from dusk until dawn when targeting swordfish. The **Hawaii-based** shallow-set longline fleet is required to use circle hooks and mackerel-type bait, which have been effective at reducing sea turtle interactions. However, this fishery remains problematic; since reopening in 2004, the fishery has been forced to close twice due to interactions with endangered loggerhead and leatherback sea turtles. From 2007 to 2013, the fleet also caught 520 sea birds, 59 marine mammals, and 113 sea turtles.<sup>28</sup> From 2007 to 2013, on board observers noted that 44 percent of the animals caught by this fishery were discarded, often dead or dying.<sup>29</sup>



© NOAA, 2013. An endangered Pacific leatherback sea turtle ensnared by a Hawaii-based shallow-set longline.

The **U.S. Atlantic** shallow-set longline (SSLL) fishery targets primarily swordfish and tunas. Swordfish caught in the Atlantic Ocean are subject to minimum size requirements and undersized fish must be released.<sup>30</sup> These size regulations are intended to protect juvenile fish, allowing them to grow and reproduce. However, as a result of being caught underwater for hours, hooked juvenile swordfish have little chance at survival. In the Atlantic shallow-set longline fishery, between 2005 and 2011, 71 percent of the swordfish discards were released dead.<sup>31</sup> Like the California drift gillnet swordfish fishery, the Atlantic SSLL fishery has been classified by NMFS as “Category I” under the Marine Mammal Protection Act due to the frequent serious injury or mortality of marine mammals.<sup>32</sup> In 2012, NMFS estimated that the fishery caught 413 marine mammals, 1,006 leatherback sea turtles, and 681 loggerhead sea turtles.<sup>33</sup> From 2005 to 2011, the Atlantic SSLL fishery’s catch (not including the Gulf of Mexico and Caribbean) had a 49 percent discard rate and only 17 percent of the total catch was comprised of retained swordfish.<sup>34</sup>

<sup>28</sup> NOAA. 2014. Pacific Islands Regional Office Observer Program. Hawaii Longline Shallow-set Quarterly and Annual Status Reports. [http://www.fpir.noaa.gov/OBS/obs\\_hi\\_ll\\_ds\\_rprts.html](http://www.fpir.noaa.gov/OBS/obs_hi_ll_ds_rprts.html)

<sup>29</sup> NMFS. 2015. Hawaii Shallow-set Longline Data (2007-2013). Unpublished data.

<sup>30</sup> NOAA. 2014. NOAA Highly Migratory Species Commercial Compliance Guide.

[http://www.nmfs.noaa.gov/sfa/hms/compliance/guides/documents/hms\\_commercial\\_compliance\\_guide\\_april\\_2014\\_print\\_.pdf](http://www.nmfs.noaa.gov/sfa/hms/compliance/guides/documents/hms_commercial_compliance_guide_april_2014_print_.pdf)

<sup>31</sup> MRAG. 2013. MSC Public Certification Report for US North Atlantic Swordfish Pelagic Longline and Handgear Buoy Line Fishery.

<sup>32</sup> NMFS. 2014. List of Fisheries, 2014. Web. Last Accessed: October 19, 2015.

<sup>33</sup> NMFS. 2014. Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species.

<sup>34</sup> MRAG. 2013. MSC Public Certification Report for US North Atlantic Swordfish Pelagic Longline and Handgear Buoy Line Fishery.

Canada's swordfish fisheries are exclusive to the Atlantic coast and 100 percent of Canadian swordfish catch is exported to the United States.<sup>35</sup> This fishery catches an estimated 1,200 loggerhead sea turtles and 100,000 sharks per year.<sup>36</sup> The fishery also catches over eight sensitive species (marine mammals, sea turtles, and sea birds) for every 100 retained swordfish it lands; this is a higher rate than any of the other fisheries assessed in this report. Observer data shows that 51 percent of the catch was discarded between 2002 and 2009.<sup>37</sup> Despite a staggering amount of bycatch in the Canadian SSL fishery, the fleet is allotted 90 percent of the national swordfish quota.

### Deep-Set Buoy Gear

In 2006, a deep-set buoy gear fishery was established on the **U.S. Atlantic Coast**. There, fishing takes place at night, with one to two hooks attached to each buoy. Buoys are deployed and retrieved by hand and a vessel will normally deploy 11 to 14 buoys per trip. Between 2007 and 2012, the number of vessels participating in the fishery increased from 42 to 55.<sup>38</sup> Landings from logbook records show that the catch composition during that time period was over 90 percent swordfish.<sup>39</sup> Atlantic buoy gear is also subject to minimum size requirements for swordfish, but because buoy gear is constantly monitored, hooked bycatch is quickly landed and released; subsequently the fishery has very low rates of bycatch mortality. According to logbook records, between 2007 and 2012, 92 percent of the swordfish discarded were released alive.<sup>40</sup> This means that high numbers of released juvenile swordfish may grow large enough to reproduce. The buoy gear fishery has low bycatch interaction rates and NMFS has determined that the likelihood of buoy gear injuring marine mammals and protected species is remote.<sup>41</sup>

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<sup>35</sup> Department of Fisheries and Oceans, Canada. 2014. "Swordfish: Species at a glance" Last Accessed October 19, 2015. <http://www.dfo-mpo.gc.ca/fm-gp/sustainable-durable/fisheries-peches/swordfish-espardon-eng.htm>

<sup>36</sup> Christian, Claire, et al. 2013. "A review of formal objections to Marine Stewardship Council fisheries certifications." *Biological Conservation* 161: 10-17.

<sup>37</sup> Intertek Moody Marine (IMM). 2011. North Atlantic Swordfish Canadian Pelagic Longline Fishery. Volume 1: Final Report and Determination.

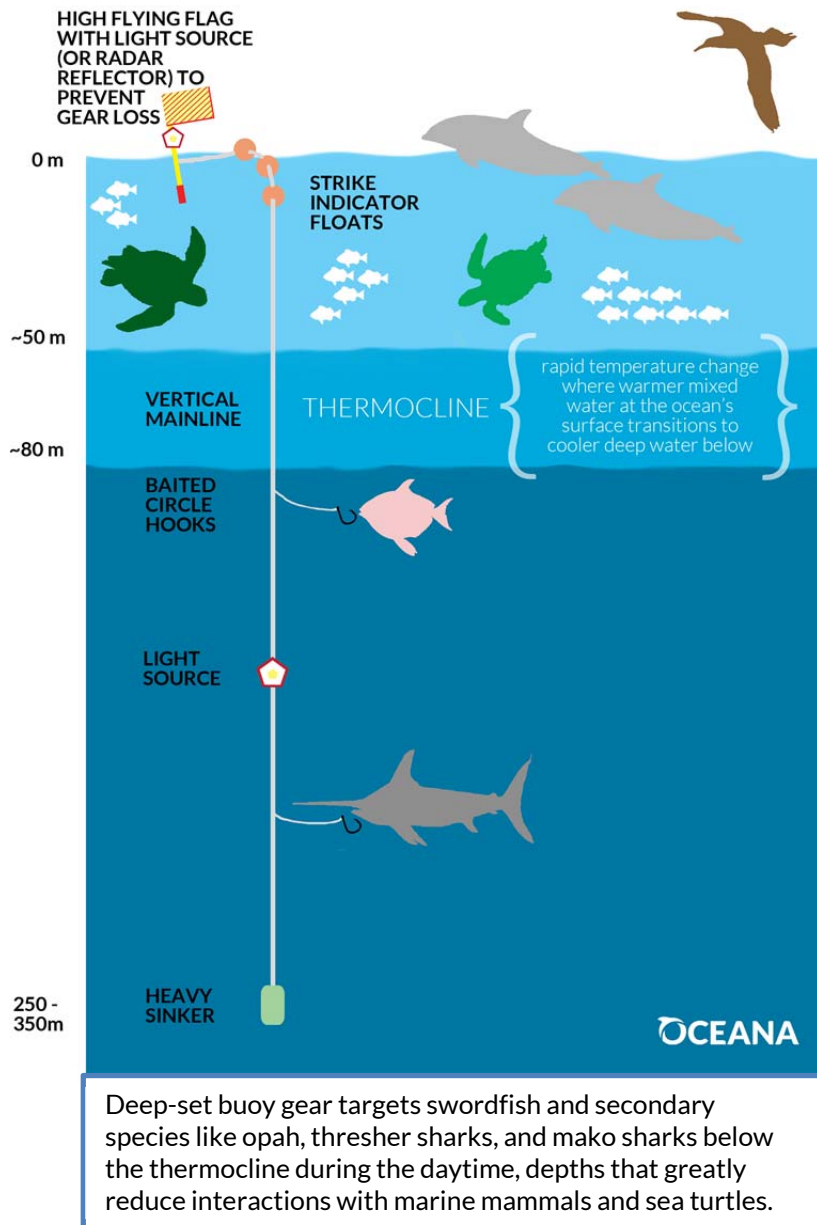
<sup>38</sup> NMFS. 2014. Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> NMFS. 2013. Amendment 8 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan: Commercial Swordfish Management Measures. 2013.

## Deep-Set Buoy Gear



Recently, researchers have begun testing new swordfish fishing gears in **California**. One of these experimental gear types, deep-set buoy gear, is modeled on the commercially successful swordfish fishery in the Atlantic Ocean. Each buoy is connected to a single vertical line with only two to three branch lines and baited hooks. The gear is deployed at depths between 250m and 350m during the daytime, beyond where species like sea turtles frequently swim. Initial results from the deep-set buoy gear trials in California are promising.

From 2011 to 2014, more than 90 percent of fish caught in deep-set buoy gear off California were marketable species, there were few discards, no sea turtle takes, and only one marine mammal interaction. The catch was primarily swordfish (approximately 60 percent), followed



by opah (approximately 20 percent), and the remainder was various shark species (mako, common thresher and bigeye thresher).<sup>42</sup>

Unlike many other gear types, deep-set buoy gear is actively tended by fishermen, and when a bite is detected the gear is immediately hauled in; this means that if bycatch is captured, it can be released quickly with a high probability of post-release survival. In fact, during the deep-set buoy gear trials, all of the non-marketable species captured were released alive.<sup>43</sup> Swordfish caught by deep-set buoy gear will be a higher value product pound for pound than drift gillnet or pelagic longline caught swordfish (imported and domestic), due to greater freshness, quality, and market demand for sustainable seafood. Initial market research in California indicates that deep-set buoy gear swordfish is likely to garner a market price similar to harpoon-caught swordfish, which is currently approximately \$8.75 per pound. In 2011, ex-vessel prices for harpoon-caught swordfish were greater than twice that of drift gillnet swordfish<sup>44</sup>. A higher market price for selective gear increases its profitability and economic viability. Switching to deep-set buoy gear may involve initial transition costs, with more time required to set and retrieve the gear relative to deploying a drift gillnet. Deep-set buoys, however, may provide fishermen with additional opportunities to fish in locations that are off limits to drift gillnets per existing regulations and where pelagic longlines are banned due to bycatch interactions<sup>45</sup>. High levels of targeted catch and low levels of discard mortality make deep-set buoy gear an encouraging choice to be further explored on the West Coast. The PFMC and NMFS approved Exempted Fishing Permits for seven vessels to commercially fish deep-set buoy gear off California beginning in 2015.

### Deep-set longline

An alternative experiment using deep-set longline gear was recently conducted off **California**. The initial results are discouraging. Just 24 percent of the catch was marketable species and less than 2 percent of the total catch was swordfish.<sup>46</sup> Deep-set longline gear is similar to shallow-set longline gear, however deep-set longlines are deployed at greater depths. The low percentage of target catch along with high bycatch rates make deep-set longline gear a poor choice for the West Coast swordfish fishery.

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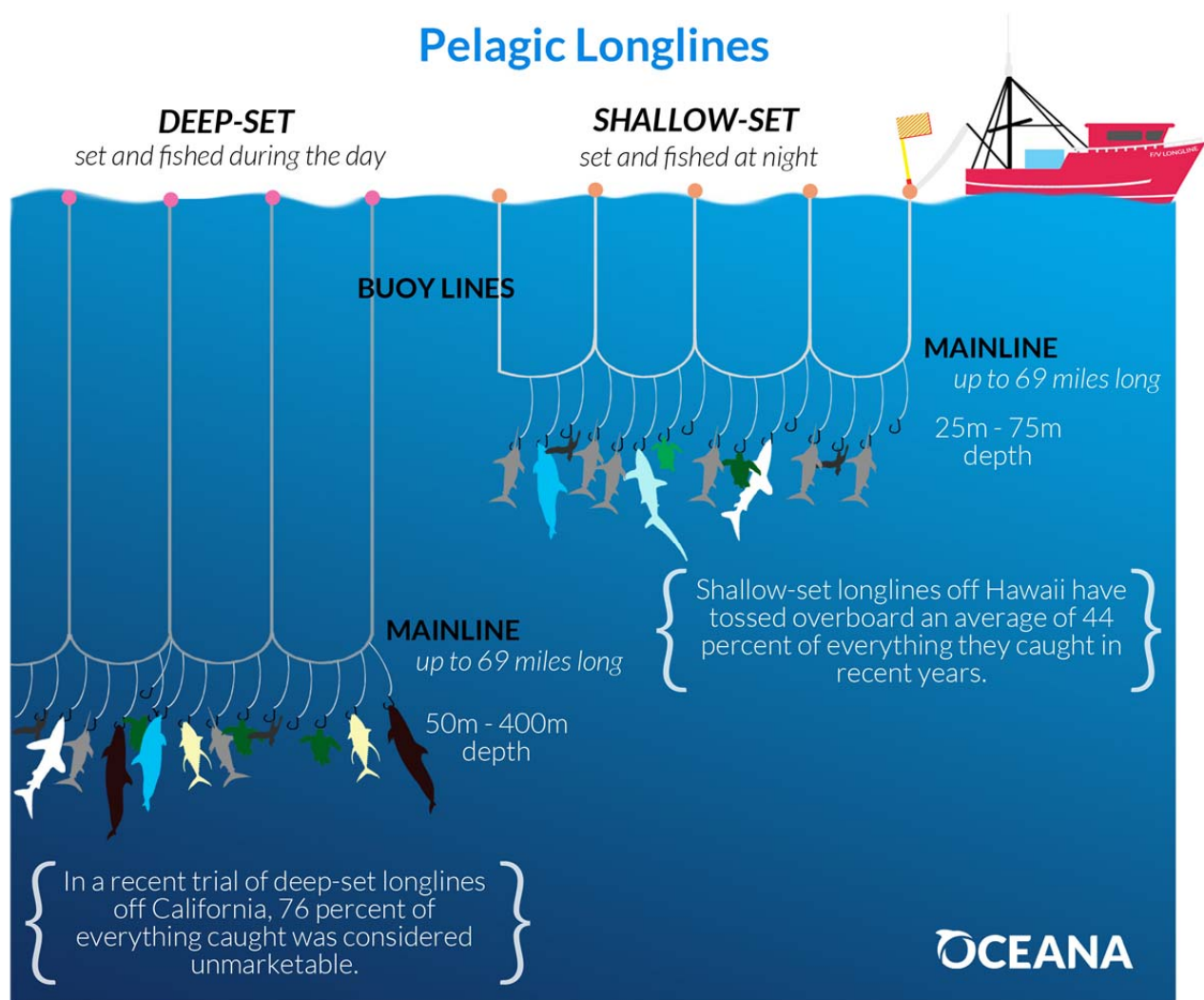
<sup>42</sup> Exempt Fishery Proposal Application for Deep-Set Buoy Gear. Pfl eger Institute of Environmental Research. February 2015. [http://www.pcouncil.org/wp-content/uploads/H3a\\_Att2\\_PIER\\_MAR2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/H3a_Att2_PIER_MAR2015BB.pdf)

<sup>43</sup> *Id.*

<sup>44</sup> Sepulveda, C. et al. 2015. PIER Exempt Fishery Proposal Application for Deep-Set Buoy Gear. Agenda Item H.3.a. [http://www.pcouncil.org/wp-content/uploads/H3a\\_Att2\\_PIER\\_MAR2015BB.pdf](http://www.pcouncil.org/wp-content/uploads/H3a_Att2_PIER_MAR2015BB.pdf)

<sup>45</sup> Sepulveda et. al. Testing Modified Deep-Set Buoy Gear to Minimize Bycatch and Increase Swordfish Selectivity. 2014.

<sup>46</sup> Dewar, H., Kohin, S. 2014. Deep-Set Longline Study. Agenda Item K.5.b. NMFS SWFSC Report. [http://www.pcouncil.org/wp-content/uploads/K5b\\_NMFS\\_SWFSC\\_ALTERNATIVE\\_GEAR\\_MAR2014BB.pdf](http://www.pcouncil.org/wp-content/uploads/K5b_NMFS_SWFSC_ALTERNATIVE_GEAR_MAR2014BB.pdf)



Both shallow-and deep-set longlines off Hawaii discard important and iconic marine life accidentally caught during fishing, including sea turtles, sharks, whales, albatrosses, and dolphins.

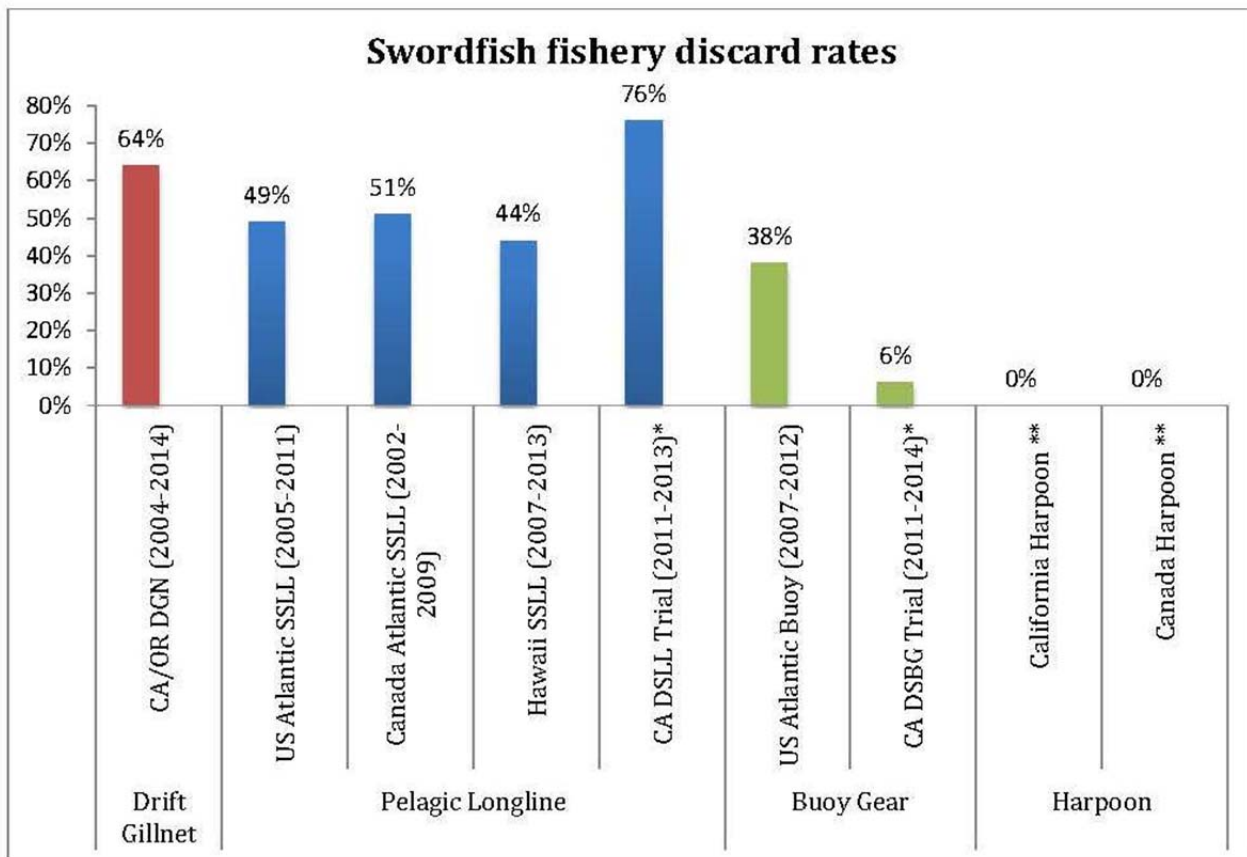
## Comparison of Swordfish Fisheries

A comparison across swordfish fisheries can show us which gear types may be best suited to transition the West Coast swordfish fishery to clean and sustainable methods. For this analysis we compared discard rates, discard mortality, percentage of total catch that is swordfish, and sensitive species caught per retained swordfish across North American swordfish fisheries. These metrics were selected because they help address current concerns in the fishery regarding total catch and selectivity. When compared, these data help elucidate the best choice for a clean and productive swordfish fishery on the West Coast.<sup>47</sup>

<sup>47</sup> Note: The sources for all data used in these comparisons can be found in the references section. Data that was collected by onboard observers has been used (to the extent available) for the purposes of this analysis.

## Discard Rate

The discard rate measures the percentage of the total catch that is discarded. Discards can be alive or dead and include undersized target catch, non-target species, or even protected species. The drift gillnet fishery has the highest discard rate of any of the commercial fisheries assessed. During a ten-year period from 2004 to 2014, the drift gillnet fishery discarded 64 percent of its catch. Data revealed that commercial longline fisheries also have high discard rates, ranging from 44 percent to 51 percent. For the experimental fisheries (deep-set longlines and deep-set buoy gear) non-marketable species have been used as a proxy for discards because non-marketable species have no economic value and are likely to be discarded. The California deep-set longline fishery's catch was comprised of an astounding 76 percent non-marketable species. The California deep-set buoy gear trials revealed that only six percent of the catch was non-marketable species and the harpoon fisheries are estimated to have a discard rate of zero.



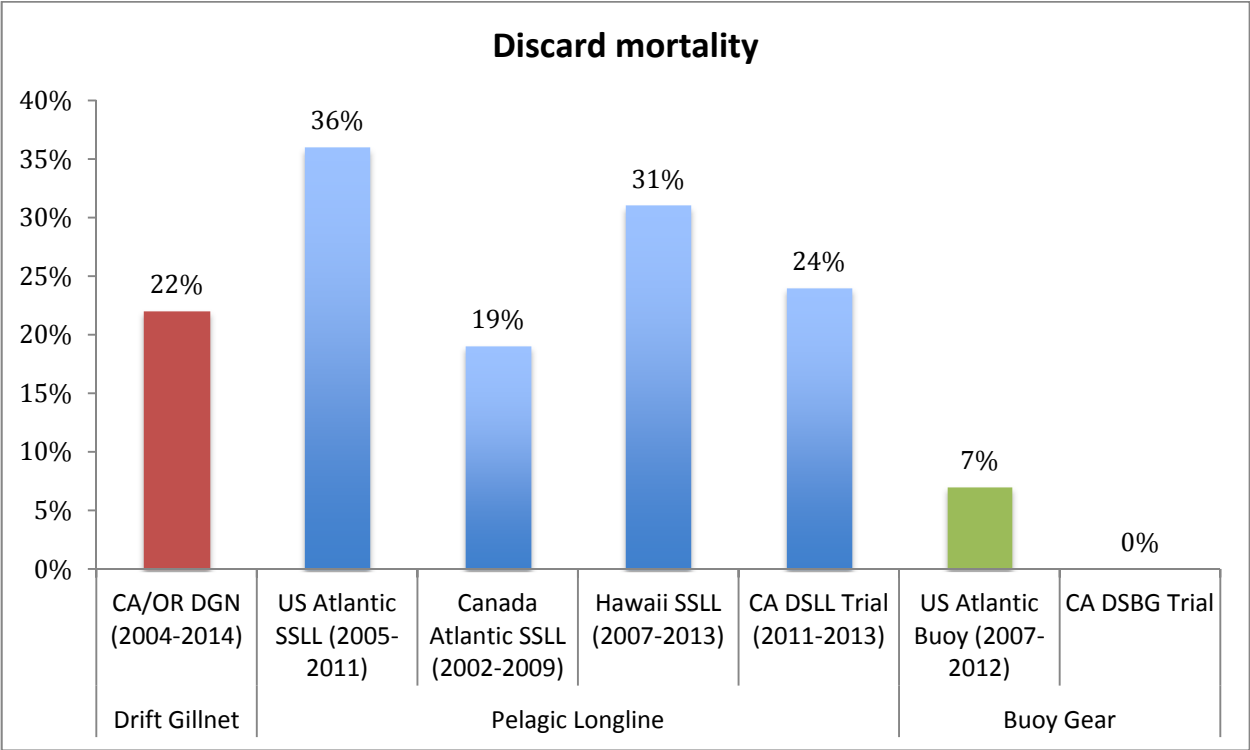
\* Non-marketable species were assumed to be discards.

\*\* Estimates based on Coan et al, 1998.

## Discard Mortality

Not all discards are released dead. Discard mortality measures the percentage of discards that are discarded dead, injured, or in an unknown state. Data shows that of the swordfish fisheries analyzed, those utilizing shallow-set longline gear, deep-set longline gear, and drift gillnets

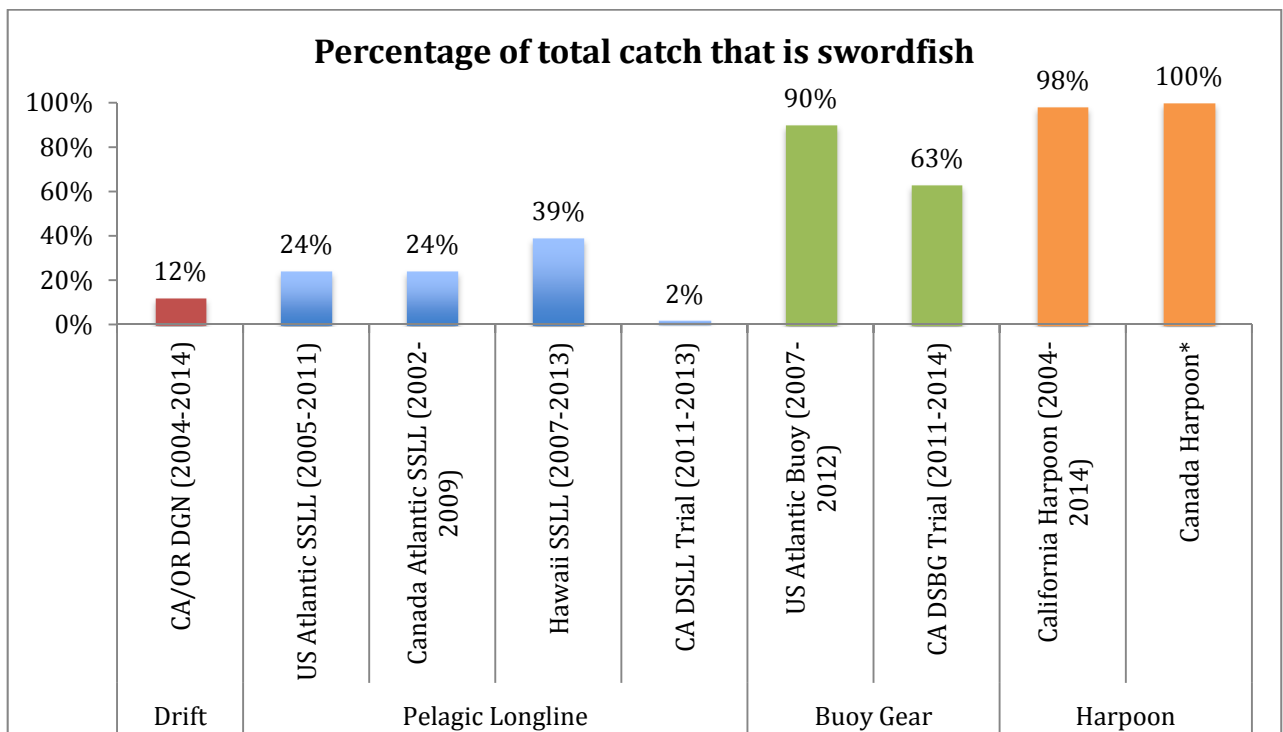
performed the worst. These gears are normally passively fished for many hours at a time; as a result, animals that are caught in the nets or longlines are often trapped beneath the surface for hours. In contrast, buoy gear is actively monitored, meaning that bycatch can be quickly released, greatly improving the chance of survival. Another important note about discard mortality is that it is not inclusive of post-release mortalities. The process of being caught in nets or on hooks can be traumatic. Some animals that are released may live for several hours or days before succumbing to injuries. Due to insufficient species-specific scientific studies, these post-release mortalities are difficult to calculate and are not counted in discard mortality estimates, thus the figures for discard mortality likely underrepresents total mortality.



Note: Discards with a status of “unknown” or “injured” are counted as mortalities.

### Percentage of the Total Catch that is Swordfish

Maximizing the catch of the target species is critical to the productivity and profitability of a fishery. The ability to catch the target species — in this case swordfish — is also a strong indicator of a gear’s efficiency. In the drift gillnet fishery only 12 percent of the animals caught were swordfish — the lowest number of any commercial fishery analyzed. Commercial longline gears performed better, with swordfish comprising between 24 percent and 39 percent of the total catch. The California DSL trials resulted in a catch composition of 63 percent swordfish, and the commercially successful Atlantic buoy gear fishery is comprised of an astounding 90 percent swordfish. Notably, 98 to 100 percent of the harpoon catch is swordfish.

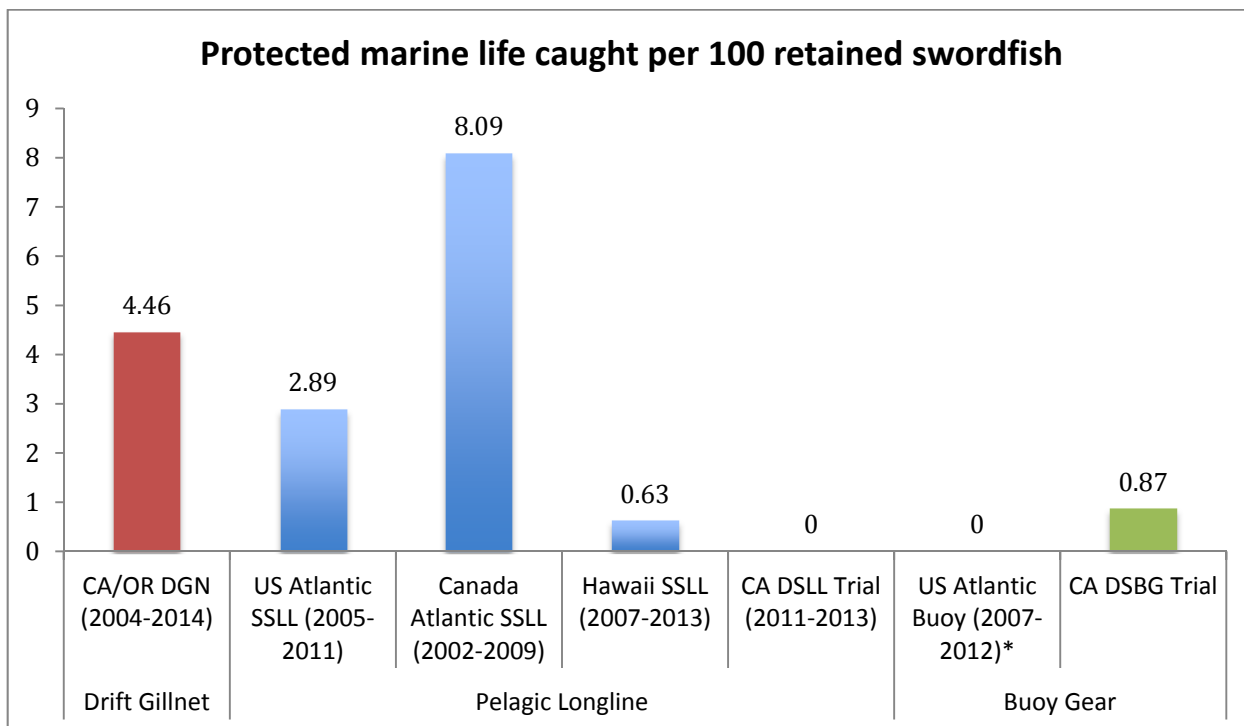


California harpoon data from 2015 HMS SAFE Table 16 <http://www.pcouncil.org/wp-content/uploads/HMS-SAFE-Table-16.htm>

\* Based on estimates from Coan et al, 1998.

## Comparing the Bycatch of Protected Marine Life to Retained Swordfish

Comparing the bycatch of protected marine life (marine mammals, sea turtles, and seabirds) with the amount of retained swordfish is a measure of the overall impact of a swordfish fishery on sensitive and important species adjusted for the amount of swordfish landed. The graph below answers the question: for every 100 swordfish kept, how many interactions did the fishery have with protected species? The highest proportion of protected species per 100 retained swordfish was recorded by the Canadian SSL fishery, which caught over eight marine mammals, seabird or sea turtles per 100 retained swordfish.



\* Based on data from Fisheries Logbook System in NMFS, 2014 and observer data from Kerstetter, 2009.

## Transitioning the West Coast Swordfish Fishery to Deep-set Buoy Gear and Supplementing with Increased Harpoon Gear

The bycatch comparisons in this report show that drift gillnet gear is one of the most destructive methods for catching swordfish among North America's swordfish fisheries. Concerns over high discard rates, frequent interactions with protected species, and waning landings and participation demonstrate a need to transition from drift gillnets to selective fishing methods.

Shallow-set longlines, a gear type that is banned off the West Coast, is not a solution as it would only create a new suite of bycatch problems including additional takes of several endangered species. Data from SSL fisheries in Hawaii, the U.S. Atlantic, and Canada, clearly show that pelagic longlines would do little to solve the bycatch issues that are pervasive in the California swordfish drift gillnet fishery. Like the swordfish drift gillnet fishery, the SSL fishery in the Atlantic has been assigned "Category I" status and there is no reason to authorize another high bycatch gear type.

Deep-set longlines are also an unacceptable alternative. The DSL trials in California have shown that less than 2 percent of the total catch is actually comprised of swordfish. Furthermore, the only other "Category I" fishery in the Pacific besides the West Coast drift gillnet fishery, is the DSL tuna fishery based out of Hawaii. A commercial DSL fishery on the West Coast would only exacerbate current bycatch issues. Although drift gillnets and longlines are poor choices for targeting swordfish, the West Coast swordfish fishery still has two excellent options: deep-set buoy gear and harpoon gear.

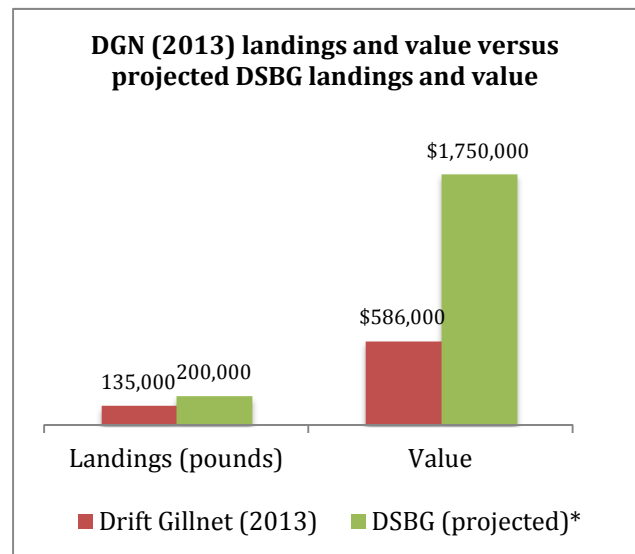
## Deep-set Buoy Gear

**Why deep-set buoy gear should replace drift gillnets:** Buoy gear is efficient and catches a high percentage of swordfish. In the deep-set buoy gear trials conducted off California, 62.5 percent of the catch was swordfish, compared to only 12 percent in the California drift gillnet fishery. In the Atlantic buoy gear fishery, 90 percent of the total catch is swordfish. Buoy gear is also highly selective. Both in the California trials and the Atlantic fishery, no marine mammals, birds, or sea turtles were killed or seriously injured. One of the major advantages of buoy gear is that it is actively monitored. Once a bite is detected, the gear is hauled in, meaning that bycatch is expected to be primarily released alive. In the Atlantic buoy gear fishery between 2007 and 2012, 92 percent of the swordfish discards were discarded alive. Based on 100 percent live discards in trials thus far, a commercial California deep-set buoy gear fishery should expect the same positive results.

**Why deep-set buoy gear can replace drift gillnets:** The Atlantic buoy gear fishery and the recent deep-set buoy gear trials in California have shown that buoy gear is productive and clean. Since its inception, participation and landings in the Atlantic buoy gear fishery have remained steady or increased, while maintaining low levels of bycatch, proving that buoy gear is commercially sustainable.

The prospects for economic success in a commercial deep-set buoy gear fishery in California are promising. It is expected that swordfish landed with deep-set buoy gear will attain high ex-vessel prices, similar to that of harpoon gear, due to freshness and quality of the landed catch. In 2014 deep-set buoy gear trials, dressed (headed and gutted) swordfish fetched an ex-vessel price of \$8.75 per pound compared to \$4.34 per pound for drift gillnet caught swordfish.<sup>48</sup> This premium price-point suggests that even if deep-set buoy gear landings are lower than drift gillnet landings, fishermen can earn profits due to markedly higher price points.

Based on data from the 2014 deep-set buoy gear trial, expenses for a two-person deep-set buoy gear operation should average \$500 per day. A crew landing one average sized swordfish (200 lbs dressed weight) per day and selling at the average ex-vessel price (\$8.75/ lb) for deep-set buoy gear, could expect to earn \$1,250 per day in profit, or \$62,500 over a 50-set season.<sup>49</sup> A fleet of 20 deep-set buoy gear equipped boats making 50 sets each per season could land 200,000 lbs of swordfish valued at \$1.75 million (\$1.25 million net profit). In comparison, the 2013 drift gillnet fleet landed just 135,000 lbs of swordfish valued at \$586,000.<sup>50</sup>



Source: CDFW, 2014. Annual Marine Fisheries Report 2014; Exempt Fishery Proposal Application for Deep-set Buoy Gear.

\* Projection is based on a 20-vessel fleet fishing 50 days per season.

<sup>48</sup> Sepulveda, C. 2015. Exempt Fishery Proposal Application for Deep-set Buoy Gear.

<sup>49</sup> *Id.*

<sup>50</sup> California Department of Fish and Wildlife (CDFW). 2014. Annual Marine Fisheries Report 2014

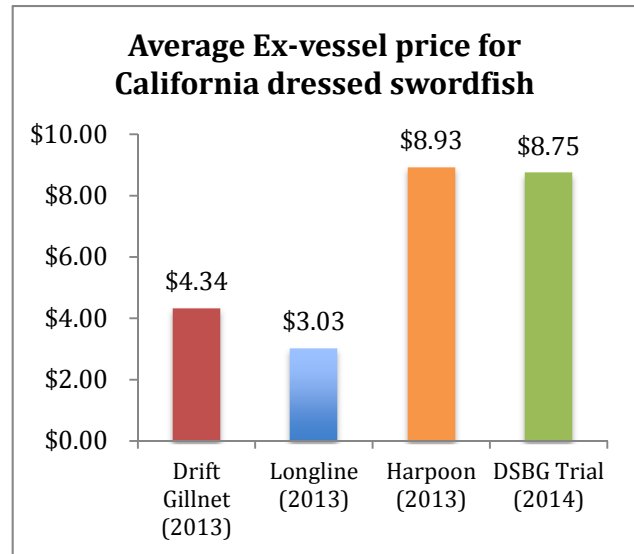


These promising ecological and economic indicators suggest that deep-set buoy gear has the potential to reinvigorate the West Coast commercial swordfish fishery. Continuing research on deep-set buoy gear is necessary, however the initial trials, along with proven commercial success in the Atlantic, shows that buoy gear is a viable commercial alternative to drift gillnet gear.

## Harpoon Gear

### Why harpoon gear can further increase sustainable West Coast swordfish landings:

Harpoon fishing is an extremely selective method that produces little to no bycatch. Skilled harpoon fishermen can target and land swordfish with precision, making it one of the cleanest gear types available. In addition, consumer demand for harpoon caught swordfish is high and customers are willing to pay for sustainably caught, high quality swordfish. In 2013, California harpooned dressed swordfish held an average ex-vessel price of \$8.75 per pound — over double the price of swordfish caught in drift gillnets and nearly triple that of longline-caught swordfish.<sup>51</sup> There are also opportunities for significant cost savings over other gear types such as drift gillnets and shallow-set longlines, which often require onboard observers to monitor fishing due to high levels of bycatch. Harpoon vessels do not require observers, saving the fleet considerable expense including the management costs associated with the observer program.



Source: CDFW, 2014. Annual Marine Fisheries Report 2014; Sepulveda, 2015. Exempt Fishery Proposal Application for Deep-set Buoy Gear.

**Why harpoon gear can complement the deep-set buoy gear fishery:** Harpoon landings reached a historic high in 1978, when 1,699 mt were landed in California.<sup>52</sup> However, since the introduction of drift gillnets, the harpoon fishery has seen declining participation and production. The harpoon fishery landed 24 mt in 2011 and just 4.2 mt in 2013.<sup>53,54</sup>

In recent years, however, it is not just harpoon caught swordfish that has been low. In 2013, California's swordfish drift gillnet fishery landed only 61 mt.<sup>55</sup> Because swordfish fishing with harpoon gear does not incur bycatch, harpoon gear isn't subject to time and area closures or other management safeguards like those needed to limit bycatch in the drift gillnet fishery. In other words, acting responsibly by fishing with clean gear types comes with the benefit of fewer management measures and more flexibility. Further, phasing out drift gillnet gear all together

<sup>51</sup> *Id.*

<sup>52</sup> Ito, R., Coan, I. 2007. U.S. Swordfish Fisheries in the North Pacific Ocean. ISC Billfish Working Group Workshop.

<sup>53</sup> *Id.*

<sup>54</sup> PFM. 2012, Status of the U.S. West Coast Highly Migratory Species Fisheries through 2011. Stock Assessment and Fishery Evaluation Report (SAFE).

<sup>55</sup> California Department of Fish and Wildlife (CDFW). 2014. Annual Marine Fisheries Report 2014.



would help shift fishing effort to other legal gear types like harpoon, and encourage a rise in harpoon landings.

The main concern with the harpoon swordfish fishery is that it is only possible during certain ocean conditions where swordfish are basking at the surface, which makes it a less dependable fishing technique if fished on its own. However, during certain periods, it can be extremely productive and could therefore be a supplement to increase swordfish landings if opportunistically fished in tandem with deep-set buoy gear.

It is unknown if harpoon landings may once again peak to historic levels seen in the 1970s, but if California can encourage the resurgence of the once robust harpoon fishery, harpoon gear could provide a valuable complement to deep set buoy gear landings.

## **The Next Step: A Drift Gillnet Transition Plan**

Oceana recommends a *transition plan for the West Coast swordfish fishery that phases out and prohibits drift gillnets within a time-certain period, while authorizing and incentivizing deep-set buoy gear and additional harpoon effort*. We envision a transition plan that would build on interim measures to limit and control bycatch in the drift gillnet fishery, such as hard caps and area closures, and continued exempted fishing permits for deep set buoy gear experimentation. Then beginning in 2017, swordfish permits would be modified to allow for drift gillnets, harpoons, and deep set buoy gear under a multi-use permit. Financial incentive packages and options should be developed for active drift gillnet fishermen, giving them the choice to (1) trade-in their drift gillnets for deep-set buoy gear (2) exit the fishery, or (3) practice using deep-set buoy gear along with drift gillnet gear under the multi-use permit option. While harpooning is already allowed, additional incentives to promote additional use of this gear could be offered. After a three year period of DSBG use by fishermen, by 2020 — adequate time to learn to use deep-set buoy gear profitably and consistently — drift gillnet gear would be banned.

### **Transition Plan — Main elements**

- 1) *Phase out and prohibit drift gillnets over a time-certain period.*

Establishing a timeline for the phase out will allow the remaining swordfish drift gillnet fleet to plan their transition to clean gear types immediately.

- 2) *Require 100 percent observer coverage and establish hard caps on bycatch in the drift gillnet fishery during the transition period.*

Drift gillnet fishing during this transition period continues to risk high bycatch levels and risks injuring and killing endangered and threatened species. Therefore instituting hard caps will ensure that immediate action is taken if interaction limits are reached. Existing conservation measures including the Pacific leatherback and loggerhead conservation areas must be maintained during this transition period.

- 3) *Do not support attempts to replace drift gillnets with gear types that are similarly destructive.*

Proposals to re-establish damaging fishing gears such as a California-based shallow-set or deep-set longline fishery should be rejected.

4) *Expand and promote the use of deep-set buoy gear and harpoon gear.*

Results from California testing and the experience in the Atlantic demonstrate that buoy gear has the potential to develop into a clean and viable fishery off the West Coast that can increase total landings above current levels. The continued research and development of buoy gear will allow for the swift authorization as an allowable gear type in the West Coast Highly Migratory Species Fishery Management Plan and inform any necessary management measures. A successful transition to deep-set buoy gear and harpoon gear will require cooperation among fishermen, fisheries managers, seafood markets and other stakeholders. Exchanging information on swordfish behavior, optimal harpoon gear, and effective harpoon techniques will give this fishery the best chance of success. Establishing a transition fund to support further testing and gear conversion will accelerate this process and provide economic incentives for fishermen to adopt new techniques.

5) *Implement the import provisions of the Marine Mammal Protection Act and ban swordfish imports from countries that do not meet U.S. bycatch standards.*

Section 101(a)(2) of the MMPA states:

“the Secretary of the Treasury shall ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards.”

The U.S. currently imports two times more swordfish than it catches domestically, including a majority of Mexican and Canadian swordfish catch. By requiring swordfish exporters to demonstrate that they are using clean methods to catch swordfish, we can influence responsible fishing abroad and hold foreign imports to the same standards as domestically caught swordfish.

## **Conclusion**

Drift gillnets and pelagic longlines targeting swordfish both have high levels of bycatch. Conversely, harpoon and buoy gear can selectively target swordfish with minimal to no bycatch. A plan should be developed to transition the current drift gillnet fishery off California from unselective drift gillnets to deep-set buoy gear and harpoon gear. Such a plan should provide fishermen a series of options, flexibility, and compensation so that they can continue to profitably catch swordfish as they learn to effectively use new, clean fishing methods. Financial compensation cushions the learning curve of a gear switch. By assisting fishermen with this transition and focusing efforts toward known sustainable fishing methods, we can achieve a clean, sustainable West Coast swordfish fishery.

## References

- CA/OR DGN:** NOAA. 2015. West Coast Region Observer Program: Summaries & Reports.
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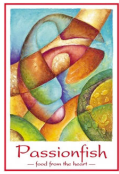
# Seafood Industry Leaders Support Buoy Gear

More than 100 businesses across the seafood supply chain call for authorization of deep-set buoy gear



**BON APPÉTIT**  
MANAGEMENT COMPANY  
*food service for a sustainable future®*





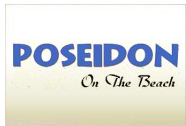
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MARIA HINES RESTAURANTS



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Chef, Auctioneer, Artist & Teacher

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Dinette Pul Keni



PEPPER'S  
FINE CATERING

November 4, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

**RE Agenda Item G.2: Swordfish Management Policy Connections; authorization of deep set buoy gear**

Dear Chair Lowman and Council Members:

More and more Americans are asking for sustainable, locally sourced seafood when they dine out. As commercial fishermen, seafood processors, distributors, chefs, restaurateurs and others along the supply chain, we take pride in our ability to provide local seafood to our customers. We are always looking for innovative ways to sell the freshest product possible, and that often means telling a story a story that separates the good fish from the bad.

That's why we are excited about an emerging innovation in the domestic swordfish fishery: deep-set buoy gear. This gear type is actively tended and minimizes interactions with non-targeted species such as sea turtles and dolphins.

Deep-set buoy gear has benefits in addition to less bycatch. Fishermen are able to land, bleed and put the fish on ice quickly, so swordfish caught with buoy gear is of the highest quality. This means a higher price to innovative West Coast fishermen and a tastier product for consumers.

The Council is now considering transitioning buoy gear from an experimental gear to a federally authorized gear under the Highly Migratory Species Fishery Management Plan. Collectively we recommend that the Council make authorization of buoy gear a priority and initiate this process early in 2016 to expedite the authorization of buoy gear as soon as possible.

We all share in the responsibility of making our fisheries more sustainable. Deep-set buoy gear is a step in that direction. The commercial market and many in the fishing fleet are ready to make this gear type a viable alternative on the water. Working together, we can deliver a sustainably caught and higher quality product to our customers.

Sincerely,

**Santa Monica Seafood**  
Anthony Cigliano  
President  
Rancho Dominguez, CA

**King's Seafood Company**  
Sam King  
Chief Executive Officer  
Orange, CA

**Bon Appetit Management Company**  
Maisie Ganzler  
Vice President, Strategy  
Palo Alto, CA

**FishWise**  
Tobias Aguirre  
Executive Director  
Santa Cruz, CA

**True Food Kitchen**

Arik Markus  
Executive Brand Chef  
Phoenix, AZ (7 CA locations)

**FishChoice**

Kristin Sherwood  
Director of Strategic Partnerships  
Fort Collins, CO

**Border Grill Restaurants**

Mary Sue Milliken  
Chef & Owner  
Los Angeles, CA (3 CA locations)

**Water Grill**

Mark Augarten  
Vice President-Operations  
Los Angeles, CA (3 CA locations)

**Seacore Seafood Inc**

Sal Battaglia  
Vice President  
Woodbridge, ON, Canada

**Seattle Fish Company**

Derek Figueroa  
Chief Operating Officer  
Denver, CO

**Chefs Collaborative**

Alisha Fowler  
Programs Director  
Boston, MA

**Fisherman's Depot**

Ty Bertrand  
General Manager  
Toronto, ON, Canada

**Providence**

Michael Cimarusti  
Co-Owner & Chef  
Los Angeles, CA

**nopa**

Laurence Jossel  
Chef  
San Francisco, CA

**Salty Girl Seafood, Inc.**

Laura Johnson  
Co-Founder  
Santa Barbara, CA

**Hayes Street Grill**

Patricia Unterman  
Owner  
San Francisco, CA

**Sardine Factory Restaurant**

Bert Cutino  
Co-Founder & COO  
Monterey, CA

**Bluewater Grill**

Albert Serrano  
Chef  
Coronado, CA

**Same Day Seafood, Inc**

Gary Root  
President  
Sausalito, CA

**Pier 46 Seafood Company**

Eric Gonzales  
Owner  
Templeton, CA

**Scoma's Inc**

Jay Schimmel  
Chief Operating Officer  
San Francisco, CA

**Pier 23 Café**

Mac Leibert  
General Manager  
San Francisco, CA

**Harney Sushi**

Dustin Summerville  
President  
San Diego, CA

**Kitchen Mafioso**

Ricardo Heredia  
Chef & Owner  
San Diego, CA

**Hyatt Regency Monterey**

Steve Johnson  
Executive Chef  
Monterey, CA

**Michael's on Main**

Michael Clark  
Executive Chef  
Soquel, CA

**Passionfish**

Cynthia Walter  
Vice President  
Pacific Grove, CA

**Samuels & Son Seafood Co.**

Joseph Lasprogata  
Vice President  
Philadelphia, PA

**Basil Seasonal Dining**

Soerke Peters  
Chef & Owner  
Carmel-By-The-Sea, CA

**Jsix Restaurant**

Christian Graves  
Chef  
San Diego, CA

**Seafood Depot**

Gino Celester  
Manager  
Vaughan, ON, Canada

**Pierside Kitchen + Bar**

Bobak Nayebedadash  
Partner  
San Clemente, CA

**Crown Prince, Inc.**

Andrea Linton  
Manager  
City of Industry, CA

**Laguna Cliffs Resort & Spa**

Greg Heneghan  
Sous Chef  
Dana Point, CA

**Ironside Fish and Oyster Restaurant**

Jason McLeod  
Chef & Partner  
San Diego, CA

**Oceana Beach Club**

Mike Reidy  
Chef  
Santa Monica, CA

**Real Bar and Bistro**

Jeffrey Eick  
Executive Chef  
Solana Beach, CA

**St. Regis**

Raj Dixit  
Executive Chef  
Mission Viejo, CA

**Beverly Wilshire Hotel- a Four Seasons Hotel**

Thomas Bellec  
Executive Chef  
Beverly Hills, CA

**Pacific Regent**

Gary White  
Executive Chef  
Bellevue, WA

**Bull Taco**

David Volk  
Chef  
Oceanside, CA (3 CA locations)

**Stehly Farms Market**

Craig Madden  
Executive Chef  
San Diego, CA

**George's at the Cove**

George Hauer  
President  
La Jolla, CA

**Tilth**

Maria Hines  
Chef & Owner  
Seattle, WA



**Golden Beetle**

Maria Hines  
Chef & Owner  
Seattle, WA

**Portland Home Chef**

Brittany Baldwin  
Chef & Owner  
Scappoose, OR

**Agrodolce**

Maria Hines  
Chef & Owner  
Seattle, WA

**Stonehill Tavern**

Hallie Untalan  
Chef de Partie  
Monarch Beach, CA

**Wally's Desert Turtle**

Michael Botello  
Owner  
Rancho Mirage, CA

**Poseidon on the Beach**

Mourad Jamal  
Executive Chef  
Del Mar, CA

**Sushi Kappo Tamura**

Taichi Kitamura  
Owner & Chef  
Seattle, WA

**Edible Seattle**

Alex Corcoran  
Publisher  
Seattle, WA

**Restaurant Picco & Pizzeria Picco**

Jared Rogers  
Executive Chef  
Larkspur, CA

**One Market**

Mark Dommen  
Chef & Partner  
San Francisco, CA

**Galaxy Taco**

George Hauer  
President  
La Jolla, CA

**Café Mare**

Andrea Mura  
Co-Owner  
Santa Cruz, CA

**Baci Ristorante**

Philip D'Amato  
Manager  
San Diego, CA

**The Fish Hopper Restaurant**

Mo Tabib  
Chef  
Monterey, CA

**The Admiral Risty**

Wayne Judah  
Owner  
Rancho Palos Verdes, CA

**Humphrey's**

Nicolas Bour  
Chef  
San Diego, CA

**Brooklyn Girl Eatery**

Michael McGeath  
Owner  
San Diego, CA

**Parkers' Lighthouse**

David Maskello  
General Manager  
Long Beach, CA

**Queensview Steakhouse**

David Maskello  
General Manager  
Long Beach, CA

**Flying Fish Company**

Lyf Gildersleeve  
Owner  
Portland, OR

**Diane's Market Kitchen**

Diane Lavonne  
Owner & Chef  
Seattle, WA

**Lark Restaurant**

John Sundstrom  
Chef & Owner  
Seattle, WA

**That Brown Girl Cooks!**

Kristi Brown  
Chef  
Seattle, WA

**Rocker Oysterfeller's Kitchen + Saloon**

Brandon Guenther  
Owner  
Valley Ford, CA

**Firefly Catering**

Brandon Guenther  
Owner  
Valley Ford, CA

**Union Restaurant;**

Bruce Kalman  
Chef & Co-Owner  
Pasadena, CA

**Knead & Co Pasta Bar + Market**

Bruce Kalman  
Chef & Co-Owner  
Pasadena, CA

**Two Local Girls**

Corinne Kinczel  
Co-Owner  
Oakland, CA

**Higgins Restaurant & Bar**

Greg Higgins  
Owner/Executive Chef  
Portland, OR

**Indigenous**

Stephen Phelps  
Chef & Owner  
Sarasota, CA

**Mozzarella Company**

Paula Lambert  
Founder  
Dallas, TX

**Chef Kirsten Helle Personal Chef Services**

Kirsten Helle  
Chef & Owner  
Sammamish, WA

**Suda**

Mo L'Esperance  
Executive Chef  
Santa Cruz, CA

**Crave**

Robin Leventhal  
Owner & Chef  
Seattle, WA

**Sweet Organic Love**

Annalise Brolaski  
Chef & Owner  
Carlsbad CA

**Above All Catering**

Shahan Mouradyan  
Executive Chef  
Anaheim, CA

**Chef Kirsten Helle Personal Chef Services**

Kirsten Helle  
Chef & Owner  
Sammamish, WA

**Marriott Coronado Island Resort & Spa**

Michael Poompan  
Executive Chef  
Coronado, CA

**4<sup>th</sup> St. Bistro**

Natalie Sellers  
Chef & Owner  
Reno, NV

**Dining Out**

Josh Dinar  
Co-Founder  
Denver, CO

**PIK Sustainable LLC**

William Germain  
Founder  
Denver, CO

**Town Hospitality Group: Town Kaimuki,  
Kaimuki Superette, Mud Hen Water**

Ed Kenney  
Chef & Owner  
Honolulu, HI

**Neesvigs/Empire Fish**

Matt Cretzmeyer  
Sales Consultant  
Minneapolis, MN

**Local 121**

Nancy Miller  
Proprietor  
Providence, RI

**World-Eats**

Judith Klinger  
Founder  
New York, NY

**The Village TeaRoom, Restaurant & Bake Shop**

Agnes Devereux  
Owner  
New York, NY

**The Market Place Restaurant**

William Dissen  
Executive Chef & Owner  
Asheville, NC

**The Maryland Club**

Curtis Eargle  
Executive Chef  
Baltimore, MD

**Dinette**

Sonja Finn  
Chef & Owner  
Pittsburgh, PA

**K Restaurant**

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Chef & Owner  
Orlando, FL

**Spoonful Kitchen and Catering**

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Owner  
Schaghticoke, NY

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Chef & Partner  
New York, NY

**Makan**

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Co-Owner & Executive Chef  
Decatur, GA

**Ecofish**

Henry Lovejoy  
President  
Dover, NH

**Peppers Fine Catering**

John Lawrence  
Chef & Co-Owner  
Northborough, MA

**Coastal Provisions**

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Chef & Co-Founder  
Southern Shores, NC

**Imagine Food**

Maxime Bilet  
Founder & CEO  
Seattle, WA

**The Kitchen**

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Executive Chef  
Boulder, CO

Barry Jarvis  
Publisher, Edible Tulsa  
Tulsa, OK

Kathleen Bauer  
Good Stuff NW  
Portland, OR

Katherine Alford  
Food Network  
New York, NY

Chef Nathan Lyon  
Los Angeles, CA

Karen Jurgensen  
Chef Instructor  
Seattle Culinary Academy  
Seattle, WA

Brandie Roberts  
Culinary Support Manager  
Bauman College  
Berkeley, CA

Genevieve Doll  
Culinary Program Director  
Bauman College  
Berkeley, CA

Kirsten Walker  
Executive Chef  
Tender Greens  
Woodland Hills, CA

Ruth Reichl  
Principal  
Ruth Reichl Publishing  
New York, NY

Jason Connolly  
Sous Chef  
Pamplemousse  
San Diego, CA

Stephanie Hsu  
Solid Ground  
Seattle, WA

Didi Wilson  
American Farmland Trust  
Sacramento, CA

Jon Rowley  
Jon Rowley & Associates  
Seattle, WA

Jesse Leadbetter  
Founder  
Freshlist  
Charlotte, North Carolina

Todd Knoll  
Jordan Vineyards & Winery  
Heraldsburg, CA

Logan Kock  
Chief Sustainability Officer  
Santa Monica Seafood

David Litle  
Senior Vice President of Sales  
Santa Monica Seafood

Patrick Glennon  
Vice President of Business Development  
Santa Monica Seafood

John Cigliano  
Vice President of Sales  
Santa Monica Seafood

Cindy Duncan  
Vice President of Sales  
Santa Monica Seafood

Gennaro Cigliano  
Vice President of Sales  
Santa Monica Seafood

James Chandler  
Vice President of Sales  
Santa Monica Seafood

Michelle Tryon  
Corporate Administration Manager  
Santa Monica Seafood

Tommy Criger  
Regional Manager  
Santa Monica Seafood

Sue Watson  
Senior Account Executive  
Santa Monica Seafood

Gwilym Williams  
Sales Executive  
Santa Monica Seafood

Judy Nishikuni  
Account Executive  
Santa Monica Seafood

Chad Parsells  
Account Executive  
Santa Monica Seafood

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Sales Representative  
Santa Monica Seafood

Richard Thackerson  
Sales Representative  
Santa Monica Seafood

Samuel Cisneros  
Customer Service Representative  
Santa Monica Seafood

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Marketing Assistant  
Santa Monica Seafood

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Vice President of Sales  
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Vice President of Sales  
Santa Monica Seafood

Lisa Hogan  
Regional Vice President of Sales  
Santa Monica Seafood

Jay Gallagher  
Regional Vice President of Sales  
Santa Monica Seafood

Oss Tostado  
Customer Service Seafood Specialist  
Santa Monica Seafood

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Account Executive  
Santa Monica Seafood

Rigo Bojorquez  
Account Executive  
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Brian Sullivan  
Sales Executive  
Santa Monica Seafood

Deborah Pettit  
Sales Representative  
Santa Monica Seafood

John Principato  
Sales Representative  
Santa Monica Seafood

Brenda Miramontes  
Customer Service Representative  
Santa Monica Seafood

Melinda Liddicote  
Account Executive  
Santa Monica Seafood

Katie Remine  
Customer Service  
Santa Monica Seafood

Christina Cigliano  
Account Executive  
Santa Monica Seafood



Kit Dahl - NOAA Affiliate &lt;kit.dahl@noaa.gov&gt;

---

**Fwd: Agenda Item K.5.b – Drift Gillnet Management**

1 message

**PFMC Comments - NOAA Service Account** <pfmc.comments@noaa.gov>

Thu, Nov 5, 2015 at 7:24 AM

To: Kit Dahl - NOAA Affiliate &lt;kit.dahl@noaa.gov&gt;

Cc: Kerry Griffin - NOAA Affiliate &lt;Kerry.Griffin@noaa.gov&gt;

----- Forwarded message -----

From: [miia.suuronen@gmail.com](mailto:miia.suuronen@gmail.com) <[miia.suuronen@gmail.com](mailto:miia.suuronen@gmail.com)>

Date: Wed, Nov 4, 2015 at 3:25 PM

Subject: RE: Agenda Item K.5.b – Drift Gillnet Management

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Dear Chair Lowman and council members,

As you look toward future regulations of the drift gill net fishery for off the west coast, I encourage you to make the 2013 NOAA Fisheries emergency rule to protect sperm whales permanent. These permanent protections should include:

- Immediate closure, for the remainder of the season, of the drift gillnet fishery if one sperm whale is observed killed or injured in drift gillnet gear.
- 100% observer coverage on all drift gillnet fishing vessels from August 15 to January 31 in all areas deeper than the 1,100 fathom depth contour.
- Installation and operation of a vessel monitoring system (VMS) prior to embarking on a drift gillnet fishing trip.

Nothing has substantively changed regarding this fishery since these temporary regulations expired that would alter the outcome of probable sperm whale bycatch. As long as drift gillnets operate off the West Coast, there will be a likelihood of interaction with whales, as well as other marine mammals and fish. In order to minimize interactions and properly account for all incidental catch of other species, these temporary regulations should be made permanent before the start of the 2014-2015 drift gillnet fishing season.

In addition to making these protections for sperm whales permanent, I ask that you continue developing comprehensive new measures to monitor and limit interactions with mammals, turtles, and other ocean life, and continue supporting research on new commercial fishing methods that will further minimize harm to the Pacific Ocean ecosystem by phasing out the use of all drift gillnets. Preliminary studies suggest that fishing techniques like deep-set buoy gear can be effective at catching prized swordfish while avoiding species like protected leatherback turtles and sperm whales.

Thank you for your conservation leadership on this pressing issue.

Sincerely, Miia Suuronen

Miia Suuronen  
Tampere  
Muut (ulkomailla)

—

Thank you for your comments to the Pacific Fishery Management Council. Your comments have been received and will be forwarded to the appropriate staff member for processing.

Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220  
Phone: [503-820-2280](tel:503-820-2280)  
Toll Free: [1-866-806-7204](tel:1-866-806-7204)  
Fax: [503-820-2299](tel:503-820-2299)  
Twitter: <http://Twitter.com/PacificCouncil>

Mrs. Irene Lopez  
4986 Field St  
San Diego

RECEIVED

CA 92110

NOV 3 2015

PFMC

Dear Mrs. Lopez,

I'm from the UK and never saw a live whale until I came here, or any sea mammal. Yeh here instead of protecting these wonderful creatures fishermen are killing hundreds every year as they get caught in the nets and drown! As it is 90% of all large open ocean fish are gone, that just leaves 10%! like tuna, swordfish, marlin and large ground fish! Please implement the strongest possible hard caps



for 2015/2016 fishing season  
and beyond the endangered fin,  
humpback (one was caught in fishing  
line off our coast this week) and  
sperm whale, short fin pilot whales  
and common bottlenose dolphin as  
well as for the endangered leatherback,  
loggerhead, olive ridley & green  
turtles. These mammals are in  
great danger from drift gillnet  
fishery! as it is these fishermen  
are killing all the coral around  
the world! I would be so  
very grateful and would  
appreciate a kind reply.

Sincerely  
Sue



November 4, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

**RE: Agenda Item G.2 - Prioritize the Authorization of Deep-set Buoy Gear**

Dear Chair Lowman and Council Members:

More and more Americans are asking for sustainable, locally sourced seafood when they dine out. As sales and customer service executives at Santa Monica Seafood, we take pride in our ability to provide the highest quality seafood to our customers. We are always looking for innovative ways to sell the freshest product possible, and that often means telling a story a story that separates the good fish from the bad.

That's why we are excited about an emerging innovation in the domestic swordfish fishery: deep-set buoy gear. This gear type is actively tended and minimizes interactions with non-targeted species such as whales, dolphins, sea turtles and sharks.

Deep-set buoy gear has benefits in addition to less bycatch. Fishermen are able to land, bleed and put the fish on ice quickly, so swordfish caught with buoy gear are of the highest quality. This means a higher price to innovative West Coast fishermen and a tastier product for consumers.

The Council is now considering transitioning buoy gear from an experimental gear to a federally authorized gear under the Highly Migratory Species Fishery Management Plan. Collectively we recommend that the Council make authorization of buoy gear a priority and initiate this process early in 2016 to expedite the authorization of buoy gear as soon as possible.

We all share in the responsibility of making our fisheries more sustainable. Deep-set buoy gear is a step in that direction. The commercial market and many in the fishing fleet are ready to make this gear type a viable alternative on the water. Working together, we can deliver a sustainably caught and higher quality product to our customers.

Sincerely,

Anthony Cigliano  
President

Logan Kock  
Chief Sustainability Officer

David Little  
Senior Vice President of Sales

Patrick Glennon  
Vice President of Business Development



John Cigliano  
Vice President of Sales

Cindy Duncan  
Vice President of Sales

Gennaro Cigliano  
Vice President of Sales

James Chandler  
Vice President of Sales

Michelle Tryon  
Corporate Administration Manager

Tommy Criger  
Regional Manager

Sue Watson  
Senior Account Executive

Gwilym Williams  
Sales Executive

Judy Nishikuni  
Account Executive

Chad Parsells  
Account Executive

Jeff Unkel  
Sales Representative

Richard Thackerson  
Sales Representative

Samuel Cisneros  
Customer Service Representative

Rosalyn Troeung  
Marketing Assistant

Todd White  
Vice President of Sales

Kathleen Hanson  
Vice President of Sales

Lisa Hogan  
Regional Vice President of Sales

Jay Gallagher  
Regional Vice President of Sales

Oss Tostado  
Customer Service Seafood Specialist

Ben Chandler  
Account Executive

Rigo Bojorquez  
Account Executive

Brian Sullivan  
Sales Executive

Deborah Pettit  
Sales Representative

John Principato  
Sales Representative

Brenda Miramontes  
Customer Service Representative

Melinda Liddicote  
Account Executive

Katie Remine  
Customer Service

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, Oregon 97220

Re: Agenda Item G.2 – Swordfish Management Policy Connections

Dear Chair Lowman and Council Members:

As members of the sport angling community, we write in support of the Council's recent actions to clean up the drift gillnet fishery for swordfish in California and provide the following recommendations. Specifically, we believe the Council should hold the drift gillnet fleet accountable through use of hard caps and 100 percent monitoring while transitioning the fishery to actively tended and more selective gear types and deny any application to open a longline fishery.

The drift gillnet fishery catches several species marine life that are ultimately thrown overboard including recreationally important species like striped marlin. Drift gillnets are inherently nonselective and will have unintended interactions even with increased monitoring and management. Therefore, we encourage the Council to move away from drift gillnets and transition the fishery to more selective and actively tended gear types like harpoon and buoy gear.

We also write to express our concern with the Council considering the authorization of a longline fishery both outside and inside our Exclusive Economic Zone. Longlines are simply another indiscriminate form of fishing and are not the solution to the drift gillnet problem. Resources should not be focused on developing a new swordfish fishery that uses outdated and wasteful methods. Instead, the Council and NMFS should focus their resources on transitioning to more selective and actively tended fishing gears.

As long as the drift gillnet fishery exists, we ask the Council to hold the fleet accountable. We support the Council's implementation of hard caps on protected and vulnerable species and 100 percent monitoring to ensure those hard caps are adequately enforced. Because the catch of some species is a rare event, the Council will not have a clear picture of how many animals are caught in the drift gillnet fishery and cannot enforce hard caps on protected species until every fishing trip is observed. We support the use of electronic monitoring, but only if it is proven to be as effective as onboard observers. Until electronic monitoring is available, the Council should impose 100 percent observer coverage.

Thank you for your consideration of these comments. As resource users, we look forward to working together toward sustainable management of our fisheries.

Sincerely,

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Susan Dougherty  
Santa Barbara, CA

Patty Swift  
Oceanside, CA

Kieran Navarro  
Menifee, CA

Colin Dougherty  
Lake Elsinore, CA

Maureen Hernandez  
Huntington Beach, CA

Pablo Hernandez  
Huntington Beach, CA

Lauren Dougherty  
Huntington Beach, CA

Chris Carlson  
Incline Village, NV

Amy Carlson  
Incline Village, CA

Kelsey Swift  
Oceanside, CA

Andrew Carlson  
Incline Village, NV

Ken Schurman  
Capistrano Beach, CA

Matt McGeam  
San Clemente, CA

Cory Alderson  
San Clemente, CA

Dan Pope  
Newport Beach, CA

David Leicht  
Dana Point, CA

Jason Huggins  
San Diego, CA

Scott Shew  
San Clemente, CA

Gary Zell  
Newport Beach, CA

Brian Wilson  
Dana Point, CA

Mark Barish  
Seal Beach, CA

Richard Waite  
Riverside, CA

William Garcia  
Chino, CA

Beau Adamson  
Costa Mesa, CA

Barrett Howarth  
Aldelanto, CA

Gwyneth Hooper  
Mission Viejo, CA

Mike Hooper  
Mission Viejo, CA

Kevin Anderson  
Huntington Beach, CA

Ralph Rivadereyva  
Huntington Beach, CA

Jackson Aoki  
Fountain Valley, CA

Robert Durio  
Cypress, CA

Aaron Bower  
Yorba Linda, CA

Hale Dougherty  
Laguna Niguel, CA

Patricia Dougherty  
Laguna Niguel, CA

Paul Tardiff  
Laguna Niguel, CA

Leslie Tardiff  
Laguna Niguel, CA

Frank Adler  
Newport Beach, CA

John Dougherty  
Newport Beach, CA

Mary Perisin  
Peoria, IL

Chuck Fleischnen  
Taos, NM

Gary Black  
Gardnerville, NV

John  
Minden, NV

James Drew  
Los Angeles, CA

Tony Middleton  
Los Angeles, CA

Michael Pease  
Westchester, CA

Yoshi Tagawa  
Los Angeles, CA

Eric Scholbohm  
Los Angeles, CA

George Pamper  
Los Angeles, CA

Ron Padberg  
Los Angeles, CA

Joshua Hendricks  
Downey, CA

Jim Hendricks  
Downey, CA

Robert Prieto  
Hawthorne, CA

Eric Hardman  
San Marcos, CA

Miguel Yuja  
Maywood, CA

Kevin Sheridan  
Pacific Palisades, CA

Autumn Gallese  
Palos Verdes, CA

Paul Bucci  
Palos Verdes, CA

Shige Kadowaki  
Rancho Palos Verdes, CA

John Mathis  
Redondo Beach, CA

Rafael Gonzalez  
South Gate, CA

Sydney Lener  
Playa Del Ray, CA

Ad Liebersbach  
Torrance, CA

David Vradomo  
Torrance, CA

Mark Rayor  
Torrance, CA

Mike Gunsalves  
Torrance, CA

Orion Castaneda  
Torrance, CA

Tony Gonzalez  
Whittier, CA

Joe Kuns  
Whittier, CA

Ed Johnson  
La Habra, CA

Alex Kriedl  
Montebello, CA

Ron Hester  
Norwalk, CA

Tom Mato  
Pico Rivera, CA

David Carlisle  
Avalon, CA

Jeremy Martinez  
Bell Flower, CA

R. Cilva  
Harbor City, CA

Richard Dykens  
Lakewood, CA

Freddi Suniga  
San Pedro, CA

Monica Hall  
San Pedro, CA

Arturo Espinoza  
San Pedro, CA

Lisa Ornelas  
San Pedro, CA

Randy Lyon  
Los Angeles, CA

Bipin Mandalis  
Long Beach, CA

Erik Bombard  
Long Beach, CA

Patrick Serge  
Long Beach, CA

David Schwartz  
Long Beach, CA

D. Wolgy  
Long Beach, CA

Bob Carley  
Long Beach, CA

Jason Wood  
Long Beach, CA

John Lincoln  
Long Beach, CA

Joe Allen  
Long Beach, CA

John Salcowski  
Long Beach, CA

Elizabeth Petit  
Altadena, CA

SJ Petit  
Altadena, CA

Sean Chiles  
Pasadena, CA

Janet Baer  
Pasadena, CA

Patricia Andrews  
Los Angeles, CA

Stephen Garner  
Chatsworth, CA

Ann Cleary  
Newbury Park, CA

Cary Gold  
Porter Ranch, CA

Andrew Horowitz  
Stevenson Ranch, CA

Kent Iwata  
Canyon Country, CA

Terry Mullen  
Santa Clarita, CA

Kathy Hoxsie  
Burbank, CA

Jeff Harrison  
Rancho Cucamonga, CA

Jeff Marquez  
Chino, CA

Mason Marquez  
Chino, CA

Hobed Enriquez  
Covina, CA

Stephen Wilcox  
Mira Loma, CA

Fran Placentia  
Rosemead, CA

Rod Campbell  
West Covina, CA

Tim Gunter  
Carlsbad, CA

John Delaurentis  
Carlsbad, CA

Gerald Graf  
Carlsbad, CA

John Orozco  
Carlsbad, CA

Ed Maron  
Del Mar, CA

Ian Tucker  
Oceanside, CA

Harvey Tucker  
Oceanside, CA

Rick Tierrney  
Oceanside, CA

Rich Hirasuna  
Oceanside, CA

Eric Oletes  
Poway, CA

Stacy Pate  
Poway, CA

Paul Benner  
San Marcos, CA

Jeff Gammin  
Vista, CA

Mike Ragan  
Vista, CA

Michael Lackey  
San Diego, CA

Bruce Smith  
San Diego, CA

Loli  
San Diego, CA

David Domaguin  
San Diego, CA

Collin Wilson  
San Diego, CA

John Martinez  
San Diego, CA

Robert Luna  
San Diego, CA

Rick Bryar  
San Bernadino, CA

Wayne Thompson  
Riverside, CA

Ron Wade  
Moreno Valley, CA

Ernesto Cabrera  
Hemet, CA

Dan Alexander  
Moreno Valley, CA

Jeff Simpson  
Murrieta, CA

Paul Barrientes  
Menifee, CA

Tony Paiwo  
Temecula, CA

Bob Olinskas  
Irvine, CA

Scott Bucherd  
Corona Del Mar, CA

Jeff Wood  
Costa Mesa, CA

John Willis  
Costa Mesa, CA

Peter Binaski  
Costa Mesa, CA

Greg York  
Costa Mesa, CA

Jake Watson  
Dana Point, CA

Richard Malland  
Lake Forest, CA

Alan McClain  
Lake Forest, CA

Nancy Okada  
Huntington Beach, CA

Luis Toban  
Huntington Beach, CA

Fiona Fodorule  
Huntington Beach, CA

Alejandro Guerra  
Huntington Beach, CA

Michael Gilmour  
Huntington Beach, CA

David Foster  
Huntington Beach, CA

Jack Uribe  
Huntington Beach, CA

Karl Adrian  
Huntington Beach, CA

Zach Porter  
Laguna Beach, CA

Paul Hansen  
Newport Beach, CA

Dawn Davis  
Newport Beach, CA

Noel Benson  
Newport Beach, CA

Frank Seres  
San Clemente, CA

Janice Krause  
San Clemente, CA

David David  
San Clemente, CA

Scott Hunt  
San Clemente, CA

Patrick Harrington  
San Juan Capistrano, CA

Steve Serna  
Laguna Niguel, CA

Tim Baskin  
Laguna Niguel, CA

Victor Lanfranco  
Laguna Niguel, CA

Bryce Edlund  
Trabuco Canyon, CA

Larry Moore  
Westminster, CA

Frank Baughman  
Mission Viejo, CA

Scott McIver  
Mission Viejo, CA

Mark Gist  
Santa Ana, CA

Susan Groff  
Santa Ana, CA

Mitch Schroeder  
Anaheim, CA

Andy Murphy  
Anaheim, CA

Aaron Maczynski  
Fullerton, CA

Martin Carreon  
Fullerton, CA

Desiree Escarcida  
Fullerton, CA

Douglas Jack  
Fullerton, CA

Yeriane Slovsky  
Fullerton, CA

Greg Madrigal  
Garden Grove, CA

Scott Fogarty  
Garden Grove, CA

Vern Martin  
Garden Grove, CA

Stan Grecian  
Yorba Linda, CA

Jason Lockworth  
Ventura, CA

Wayne Pero  
Ventura, CA

Jaime Diamond  
Carpinteria, CA

Mike Brien  
Fillmore, CA

Vance Manakas  
Moorpark, CA

Hector Barragan  
Oxnard, CA

Nico Beard  
Simi Valley, CA

Darrell O'Connell  
Simi Valley, CA

Mike Maron  
Bakersfield, CA

Michael Cavanaugh  
Bakersfield, CA

Whitney Uyeda  
Buellton, CA

Stephanie Robison  
Lancaster, CA

Rick Liebersbach  
Mammoth Lakes, CA

Nancy Libersbach  
Mammoth Lakes, CA

Steve Rohrer  
San Leandro, CA

David Cousineau  
Vida, OR

Dan Keegan  
Los Angeles, CA

Arstyn Kelly  
Los Angeles, CA

Allen Letcher  
Apple Valley, CA

Andrew Alvarez  
Anaheim, CA

Anthony Clandabella  
Los Angeles, CA

Rich Hollo  
Bloomington, CA

Ben Secrest  
San Clemente, CA

Bryan De Los Reyes  
Los Angeles, CA

Dave Burck  
Los Angeles, CA

David Blackwell  
Los Angeles, CA

Ed Escalante  
Los Angeles, CA

Robert Vallone  
Los Angeles, CA

Norman Havens  
Wrightwood, CA

Gary Fogel  
Los Angeles, CA

Blake Uradomo  
Irvine, CA

Jack Nilsen  
Corona, CA

John Boranian  
Long Beach, CA

John Yakstas  
Long Beach, CA

Julia Orozco  
Long Beach, CA

Karla Burch  
Long Beach, CA

Kenny Bobo  
Long Beach, CA

Kurt Artwer  
Long Beach, CA

Chris Wheaton  
Long Beach, CA

Bryan Holcroft  
Long Beach, CA

Maria Luna  
Long Beach, CA

Mark Bowman  
Long Beach, CA

Michael Garcia  
Long Beach, CA

Richard Cara  
Long Beach, CA

Robert Espinoza  
Farmington, NM

Raymond Sandod  
Long Beach, CA

Capt. Robert LeTournau  
San Diego, CA

Steven Hryaw  
Long Beach, CA

Thomas Aranda  
Imperial Beach, CA

Terry Snyder  
Long Beach, CA

Ivonne Billoso  
Long Beach, CA

Victor DeMonte  
Long Beach, CA

Williams Hinson  
Long Beach, CA

William Davis  
Monrovia, CA

Cody Smith  
Santa Fe Springs, CA

Juan Zanona  
Long Beach, CA

Carlos Vidal  
Santa Ana, CA

Austin Graham  
Gainesville, FL

Gary Shiebler  
Apopka, FL

Tim Duke  
Orem, UT

Keri Marquez  
Yuma, AZ

Karen Johnson  
Payson, AZ

Danny Dukat  
Sparks, NV

Joe Shugner  
Los Angeles, CA

Angel Garcia  
Los Angeles, CA

Roy Lucero  
Los Angeles, CA

Jay Statman  
Los Angeles, CA

Colleen McKenna  
Los Angeles, CA

Aaron Mitchel  
Los Angeles, CA

Hashem Nahid  
Westchester, CA

David Ruger  
Westchester, CA

Mark Manoogian  
Westchester, CA

Garrett Ching  
Los Angeles, CA

Lawrence Diggins  
Compton, CA

Kent Cook  
Hawthorne, CA

Cody Briggender  
Hawthorne, CA

Scott Sweel  
Pacific Palisades, CA

Brett O'Keefe  
Palos Verdes, CA

Eric Gordillo  
Rancho Palos Verdes, CA

Chris Cooper  
Redondo Beach, CA

Nathan Maciel  
Topanga, CA

Mike Hall  
Torrance, CA

Terry Crockett  
Torrance, CA

Jun Watanabe  
Torrance, CA

Ryan Reed  
Whittier, CA

Victor Juarez  
Whittier, CA

Ernest Martinez  
Whittier, CA

Gary Cox  
La Palma, CA

Paul Martyn  
Cypress, CA

Ralph Bogazi  
Montebello, CA

Albert Hernandez  
Montebello, CA

Sergio Chavez  
Norwalk, CA

Celia Delaloza  
Santa Fe Springs, CA

Rick Sombounkhane  
Avalon, CA

Chris Schofield  
Bell Flower, CA

Alexander Jopes  
Harbor City, CA

Jacquelyn Doy  
Bell Flower, CA

Ruben Arambola  
Paramount, CA

Brad Renfrow  
San Pedro, CA

Arturo Alvarez  
Seal Beach, CA

Philip Friedman  
Surfside, CA

Kevin Douglas  
Surfside, CA

Carolyn Gonzalez  
Wilmington, CA

Brian Maca  
Wilmington, CA

Borris Tilin  
Signal Hill, CA

Sivory Castellanos  
Long Beach, CA

Steph Props  
Long Beach, CA

Ernie Estrada  
Long Beach, CA

Rachel Mills  
Long Beach, CA

Scott Onaha  
Long Beach, CA

Guiermo Delgadío  
Long Beach, CA

Jacob Moreno  
Long Beach, CA

Hope Ezcurra  
Long Beach, CA

Daniel Bass  
Long Beach, CA

June Park  
Long Beach, CA

Colin Beau  
Long Beach, CA

Willianne Perry  
Altadena, CA

Don Estes  
Altadena, CA

Walter Trupucko  
Sierra Madre, CA

Joe Knight  
Sierra Madre, CA

Howard Zether  
Tujunga, CA

Sal Vallon  
Pasadena, CA

Paul Cowell  
Pasadena, CA

Samantha Garner  
Chatsworth, CA

Ed Andrews  
Chatsworth, CA

Larry Martinez  
Newhall, CA

Steve Garmin  
Pacoima, CA

Jordan Drew  
Sylmar, CA

Paul Apolinario  
Santa Clarita, CA

Ryan Myers  
Valencia, CA

Paul Ortiz  
Thousand Oaks, CA

Erik Guzman  
Panorama City, CA

Olan Daid  
Panorama City, CA

Cheryl Vanbukirk  
Sherman Oaks, CA

Ziggy Gonzalez  
North Hollywood, CA

Kirk Halladay  
Chino, CA

Richard Rudryz  
Covina, CA

Berry Blosser  
Covina, CA

Sergio Dilkes  
Covina, CA

Miguel Juarez  
Rancho Cucamonga, CA

Tim Ritter  
La Verne, CA

David Mass  
Monterey Park, CA

Steve Nedillan  
San Gabriel, CA

Khristopher Dagam  
West Covina, CA

Ramon Panado  
West Covina, CA

Tom Smith  
Chula Vista, CA

Evan Wagley  
La Mesa, CA

Ed Eastman  
Carlsbad, CA

Myles Moser  
Carlsbad, CA

Chris Stump  
Carlsbad, CA

Mike White  
Oceanside, CA

Peter Kastorf  
San Marcos, CA

Sarah Cruz  
Vista, CA

Gordon Lackey  
San Diego, CA

Don Jones Jr.  
Hesperia, CA

Jack Baum  
Hesperia, CA

Jos Sudol  
Highland, CA

Jay Vasquez  
Redlands, CA

Vincent Rubio  
Perris, CA

Robert Devive  
Wildomar, CA



Sarina Zhao  
Irvine, CA

Alyaa Stephenson  
Irvine, CA

Jamie Thinnd  
Costa Mesa, CA

Scott Sneathen  
Costa Mesa, CA

David Miller  
Dana Point, CA

Si Taylor  
Huntington Beach, CA

Jeff Helfan  
Huntington Beach, CA

Ed Paculba  
Huntington Beach, CA

Bill Buchanan  
Huntington Beach, CA

Wade Cunningham  
Huntington Beach, CA

Will Derrick  
Huntington Beach, CA

Rosa Tena  
Laguna Hills, CA

Charlie Albright  
Newport Beach, CA

Brent Valentine  
Newport Beach, CA

Brenson Sekas  
Newport Beach, CA

James Gowans  
Newport Beach, CA

Jim Holden  
San Clemente, CA

David Powerll  
San Clemente, CA

Ron Wilbur  
Trabuco Canyon, CA

Rick Raskin  
Trabuco Canyon, CA

Bob Genzel  
Westminster, CA

Alfred Fosco  
Westminster, CA

Paul Gaebler  
Rancho Santa Margarita, CA

Tom Gorney  
Rancho Santa Margarita, CA

Todd Harkouess  
Fountain Valley, CA

Vincent Vu  
Anaheim, CA

Jake Atunny  
Anaheim, CA

Lium Condin  
Anaheim, CA

Marlon Meade  
Anaheim, CA

Tony Garza  
Anaheim, CA

Noelle Desmailis  
Long Beach, CA

Gar Logalbo  
Fullerton, CA

Kim Stansfield  
Garden Grove, CA

Dave Fink  
Orange, CA

Mitne Aray  
Placentia, CA

Wayne Chartier  
Corona, CA

Pat Duarte  
Corona, CA

Charles Hinson  
Corona, CA

Daniel Esperg  
Corona, CA

Terrisa Duenas  
Ventura, CA

Terri French  
Ventura, CA

Louie Garcia  
Inglewood, CA

Ray Hoover  
Fillmore, CA

Richard Hooper  
Oak View, CA

George French  
Oxnard, CA

Michael Kennedy  
Simi Valley, CA

Charles Christman  
Santa Barbara, CA

Jack Fischer  
Goleta, CA

Greg Verbeck  
Bakersfield, CA

Mark Trejo  
San Luis Obispo, CA

Vince Sloane  
Acton, CA

Rick Simons  
Acton, CA

Anthony Simpson  
Palmdale, CA

Patrick O'Donnell  
Palmdale, CA

Robert Miguel  
Reedley, CA

William Crolie  
Novato, CA

Al Nuna  
Manteca, CA

Adrian Romero  
Rancho Cucamonga, CA

Alexa Perez  
Long Beach, CA

Patricia Duncan  
Long Beach, CA

Ashley Blair  
Rancho Santa Margarita, CA

Pate Yeoman  
Long Beach, CA

Brett MacBeth  
Long Beach, CA

Brian Larsen  
Escondido, CA

Brittany Bowman  
Rancho Cucamonga, CA

Bill Ritter  
San Diego, CA

Doug Cutcer  
Long Beach, CA

Glenn Vanhest  
San Marcos, CA

David Nilsen  
Corona, CA

Delicia Silva  
San Diego, CA

Douglas Nilsen  
Corona, CA

John Banacky  
Rancho Cucamonga, CA

George Cudney  
Rancho Cucamonga, CA

Albert Gormillon  
Long Beach, CA

Ken MacBeth  
Oceanside, CA

Lomie Prieto  
Long Beach, CA

Michael Sloss  
South Pasadena, CA

Oliver Ngy  
La Puente, CA

Rick Arcc  
Long Beach, CA

Kevin Brannon  
Port Hueneme, CA

Robert Creez  
Long Beach, CA

Jeff Scruitt  
Orange County, CA

Carolyn Sherman  
Camarillo, CA

Taylor Hann  
San Clemente, CA

Freddie Ramirez  
Fresno, CA

Warren Sanders  
Arroyo Grande, CA

Zuleika Caldwell  
Los Angeles, CA

Richard Hoffonced  
Long Beach, CA

David Runstrom  
Arroyo Grande, CA

Michael Mellano  
Bonsall, CA

Cody Palmer  
Stanton, CA

Maral Kalinian  
Dana Point, CA

Ray Smith  
Culver City, CA

Robert Ramage  
Stockton, CA

Komron Azizi  
Irvine, CA

Don Hanson  
St. Paul, MN

Michael McDermaid  
Cocoa Beach, FL

Connor Dougherty  
Santa Barbara, CA

Robin Matlock  
Laguna Niguel, CA

Bryan Stowell  
Colorado Springs, CO

Nahid Farahbod  
Laguna Niguel, CA

Kimberle Meredith  
Laguna Niguel, CA

Frank Polak  
Los Angeles, CA

Kasra Farahbod  
Laguna Niguel, CA

Chris Kavanagh  
Laguna Niguel, CA

Greg Milleman  
Newhall, CA

Art Jitratanajinda  
Laguna Niguel, CA

Ben Kavanagh  
Laguna Niguel, CA

Michael Ament  
Rancho Santa Margarita, CA

Aree Jitratanajinda  
Laguna Niguel, CA

Dick Johnson  
Laguna Niguel, CA

Robert Petrina  
Costa Mesa, CA

Andrew Jitratanajinda  
Laguna Niguel, CA

Susan Johnson  
Laguna Niguel, CA

Jonathan Day  
Los Angeles, CA

Aaron Jitratanajinda  
Laguna Niguel, CA

Lilian Ferguson  
Laguna Niguel, CA

John Szymura  
Marina Del Ray, CA

Yaonaluck Pongsmart  
Laguna Niguel, CA

Laura Thornton  
Laguna Niguel, CA

David Brackmann  
Huntington Beach, CA

Edward Yang  
Laguna Niguel, CA

Heidi Himer  
Laguna Niguel, CA

Gary W. Boland  
Garden Grove, CA

Ruth Au-Yeung  
Laguna Niguel, CA

Wynnie Primas  
Laguna Niguel, CA

Bruce Severns  
Bakersfield, CA

Amy Reyes  
Laguna Niguel, CA

Theresa Kennedy  
Laguna Woods, CA

Carly Firestein  
Los Angeles, CA

Marie Gentosi  
Newport Beach, CA

Richard Srayha  
Laguna Niguel, CA

Rory Firestein  
Studio City, CA

Victoria Morgan  
Laguna Niguel, CA

Lily Anderson  
Laguna Niguel, CA

Mitchell Firestein  
Los Angeles, CA

Whitney Morris  
Laguna Niguel, CA

Andrea Avery  
Laguna Niguel, CA

Kisa Brannen  
Los Angeles, CA

Gary Meredith  
Laguna Niguel, CA

Jackie Kurth  
San Juan Capistrano, CA

Quintan Dougherty  
Santa Barbara, CA

Jay Matlock  
Laguna Niguel, CA

Michelle Bian  
Laguna Niguel, CA

Marsha Etinghoff  
Laguna Niguel, CA

Heru  
Laguna Niguel, CA

Sonia Koo  
Los Angeles, CA

Hyekyung Lee  
Pasadena, CA

Shirley Yap  
Buena Park, CA

Jessica Au-Yeung  
Los Angeles, CA

Kevin Yap  
Cerritos, CA

Andrew Yap  
Buena Park, CA

Bette Adamo  
Laguna Woods, CA

Kathy Scroggie  
Carson, CA

Jane Kurth  
Carson, CA

Barbara Morgan  
Carson, CA

Lee Kucera  
Long Beach, CA

Mandy Flemming  
Laguna Niguel, CA

Pochan Boyson  
Laguna Woods, CA

Ingrid Magnuson  
Laguna Woods, CA

Patty Lance  
Newport Beach, CA

Andi'm rew Yu  
Irvine, CA

Lisa Trieb Wasser  
Laguna Beach, CA

Daniel Ong  
Los Angeles, CA

Vadim Gorin  
Santa Monica, CA

Alex Yaftali  
Los Angeles, CA

Jason Wang  
Los Angeles, CA

Karen Wei  
Santa Monica, CA

Darren White  
Los Angeles, CA

Ted Randall  
Manhattan Beach, CA

John Law  
Los Angeles, CA

Erika Gable  
Los Angeles, CA

Julie Dobson  
Laguna Hills, CA

Scott Dobson  
Laguna Hills, CA

Jennifer Turner  
Laguna Hills, CA

John Bailey  
Laguna Hills, CA

Carly Bailey  
Laguna Hills, CA

Nina Savlov  
Mission Viejo, CA

Gary Savlov  
Mission Viejo, CA

Maddy Savlov  
Mission Viejo, CA

Ann Shores  
Mission Viejo, CA

Cal Shores  
Mission Viejo, CA

Nick Bricteux  
Lake Forest, CA

Janis Bricteux  
Lake Forest, CA

Bruce Kirschner  
Trabuco Canyon, CA

Sarah Nye  
Trabuco Canyon, CA

Anna Marquiz  
Garden Grove, CA

Greg Craycraft  
Mission Viejo, CA

Judy Wistanef  
Lake Forest, CA

Kim Bush  
Mission Viejo, CA

Iony Masea  
Garden Grove, CA

Mewnda Price  
Lake Forest, CA

Sandy Scott  
Laguna Niguel, CA

Bud Scott  
Laguna Niguel, CA

Sherri Neal  
Newport Coast, CA

Cynthia Gladstone  
Los Angeles, CA

Debbie Moyers  
Mission Viejo, CA

Estelle Kartrovitzky  
Alisa Viejo, CA

Connie Meckel  
San Juan Capistrano, CA

Robert Meckel  
San Juan Capistrano, CA

Donna Nett  
Laguna Niguel, CA

Beth Cusimano  
Trabuco Canyon, CA

Jeff Thomas  
Lake Forest, CA

Kathy Thomas  
Lake Forest, CA

Ken Thomas  
Lake Forest, CA

Sue Ries  
Mission Viejo, CA

Zohan Ries  
Mission Viejo, CA

Lorraine Kehoe  
Lagula Niguel, CA

Brody Bailey  
Laguna Hills, CA

Chris Turner  
Laguna Hills, CA

Tricia Turner  
Laguna Hills, CA

Troy Turner  
Laguna Hills, CA

Lexi Marten  
Foothill Ranch, CA

Phil Brewster  
Laguna Niguel, CA

Jim Lumley  
Placentia, CA

Stacey Lumley  
Placentia, CA

Barbara Steinberg  
Laguna Woods, CA

Nancy Sulmey  
Lake Forest, CA

Steve Frugs  
Rancho Santa Margarita, CA

Kristine Whitesides  
Trabuco Canyon, CA

Mark Horsemas  
Mission Viejo, CA

Arletta Mastropaolo  
Laguna Niguel, CA

Greg Mastropaolo  
Laguna Niguel, CA

Lance Capel  
Laguna Niguel, CA

Zack Capel  
Laguna Niguel, CA

Mary Ellen Connelly  
Rancho Santa Margarita, CA

Randa Wasserman  
Mission Viejo, CA

Carly Wasserman  
Mission Viejo, CA

Sam Wasserman  
Mission Viejo, CA

Karen Hill  
Trabuco Canyon, CA

Shannon Craycraft  
Mission Viejo, CA

Diane Jacobs  
Lake Forest, CA

Nancy Savier  
Mission Viejo, CA

Danny Rockett  
Simi Valley, CA

Joe D'Amagio  
Thousand Oaks, CA

Debbie Schweickert  
Newport Beach, CA

Deborah Newmeyer  
Newport Beach, CA

Michael Lupo  
Oxnard, CA

Thomas Masterson  
Chico, CA

Robert Ber  
Scarsdale, NY

Tim Harden  
Redwood City, CA

Robert Day  
Chula Vista, CA

Robert Pranin  
Newport Beach, CA

David Marinsik  
Santa Rosa, CA

Dorian Khouri  
Los Angeles, CA

Frank Scifres  
Lake Forrest, CA

Fadi Shabshab  
Studio City, CA

Chris Wheaton  
Fullerton, CA

Robert Willet  
Auburn, CA

Andrew Miller  
Los Gatos, CA

Joe Margiotta  
Kernville, CA

Richard Takacs  
San Clemente, CA

Neal McNamara  
Kentfield, CA

Bryan Kistler  
Escondido, CA

Marlin Grosz  
La Jolla, CA

Kenneth Cook  
Pittsburg, CA

John Willis  
Mission Viejo, CA

Paul Himmelberger  
San Diego, CA

Carlos Orellana  
Los Angeles, CA

Medwin Peck  
Huntington Beach, CA

Ace Carter  
Pearblossom, CA

David Torre-Carpenter  
Costa Mesa, CA

Dan Weigel  
Ventura, CA

Dennis Statza  
American Canyon, CA

Beverly Seltzer  
Los Gatos, CA

Eli Turner  
Roseville, CA

Kenneth Fritz  
Orangevale, CA

David Shill  
Costa Mesa, CA

Kyle Wootten  
Long Beach, CA

Jeffrey Salinger  
Los Angeles, CA

Gerald Lively  
San Diego, CA

Charles Lung  
Huntington Beach, CA

Curtis Woolsey  
Huntington Beach, CA

Gavin Simmons  
Encinitas, CA

Patricia Perez  
Corona, CA

Mike Isaacs  
Irvine, CA

George Flores  
Orange, CA

Michael Cavanaugh  
Bakersfield, CA

Clare LeDuff  
Palo Alto, CA

David Lemus  
Inglewood, CA

Kenneth Kunkel  
Irvine, CA

Komron Azizi  
Irvine, CA

James Kiech  
Costa Mesa, CA

Philip Hunkins  
Orange, CA

Zachary Lehmann  
Fullerton, CA

Scott Twombly  
Irvine, CA

Rick Chalmers  
Mission Viejo, CA

Charles Wheeler  
Placentia, CA

Marie Brown  
Playa del Rey, CA

Andrew Garcia  
Lake Havasu, AZ

Larry Brown  
Playa del Rey, CA

Randy Lyons  
Elk Grove, CA

Albert Lee  
Corona, CA

Kai Lu  
Oxnard, CA

Richard Covington  
Pasadena, CA

Chris Barrick  
Chula Vista, CA

Joseph Marshall  
Laguna Beach, CA

Stephen Morse  
Oxnard, CA

James Tolonen  
Soquel, CA

Ronald Kruse  
Ontario, CA

Phil Hamner  
Lake Havasu, AZ

Ken Elie  
Cotati, CA

Kevin Burke  
Los Angeles, CA

John King  
Avalon, CA

Warren Brown  
San Jose, CA

Val Adams  
Fair Oaks, CA

David Keen  
Huntington Beach, CA

Peter Rasmussen  
Goleta, CA

Gordon Jones  
Anaheim, CA

Bill Gorham  
Huntington Beach, CA

Robert Deitz II  
Placerville, CA

Richard Combs  
Anaheim, CA

Nathan Shill  
San Juan Capistrano, CA

Matthew Hurdle  
San Diego, CA

Dennis Zimmerman  
Plano, TX

Zach Gardiner  
Oceanside, CA

Ace Carter  
Pearblossom, CA

Peter Muhr  
San Diego, CA

Mike Isaacs  
Irvine, CA

Dennis Monahan  
Lancaster, CA

Scott Underhill  
Bakersfield, CA

Mark Machado  
Newport Beach, CA

Glenn Smith  
San Diego, CA

Sammy Levuong  
Garden Grove, CA

Mark Ricci  
Point Arena, CA

Christopher Britton  
Osseo, MN

Andrew Bennett  
Huntington Beach, CA

Christopher Berthiaume  
Aptos, CA

Jon Myers  
Soquel, CA

Rene Olinger  
Lompoc, CA

Timothy Hunt  
San Diego, CA

Kevin Wasserman  
Los Angeles, CA

Kat Stephens  
Newport Beach, CA

John Pizza  
Santa Rosa, CA

Russell Vardaman  
Van Nuys, CA

Jeff Krieger  
Simi Valley, CA

Mike Davis  
El Monte, CA

Glenda McGill  
Ventura, CA

Matthew Irie  
Fillmore, CA

Shelly Johnson  
Oxnard, CA

Janette Sosothikul  
Oxnard, CA

Larry Chambers  
Forest Knolls, CA

Hal Forsen  
San Clemente, CA

Erik Gibbs  
San Juan Capistrano, CA

John Braun  
San Pedro, CA

Jan Suckut  
Simi Valley, CA

Shane Woolsey  
Encinitas, CA

Kyle Killips  
Simi Valley, CA

Heather Furlong  
Simi Valley

Jason Fukumitsu  
Simi Valley, CA

Jordan Cavanaugh  
Fountain Valley, CA

Ray Ng  
San Francisco, CA

Ronald Stewart  
San Clemente, CA

Paul Iden  
Carlsbad, CA

William Osborne  
Bend, OR

John Batzloff  
Solana Beach, CA

Carl Stewart  
San Diego, CA

Chuck Delao  
San Diego, CA

Lynn Pizza  
Santa Rosa, CA

Jeff Buttemer  
San Diego, CA

Lawrence Duffin  
San Diego, CA

Clyde Summers  
Running Springs, CA

Bianca Diaz  
San Diego, CA

Joel Smith  
San Diego, CA

Darcy Duffin  
San Diego, CA

Kerry Nelson  
Long Beach, CA

Michael Feinberg  
Santa Monica, CA

Ginny Courtois  
Fillmore, CA

Mike Armenta  
Ventura, CA

Robert Chavers  
Laguna Hills, CA

Michael Steele  
San Diego, CA

Jeff Wood  
Costa Mesa, CA

Gerry Quesnel  
Garden Grove, CA

Dave Cairncross  
San Diego, CA

George Rodriguez  
Goleta, CA

Tyler McCraney  
Lawndale, CA

Ryan Koubeserian  
Coronado, CA

James Winn  
Phelan, CA

Nicholas Tharp  
Goleta, CA

Ryan Ellingson  
Los Angeles, CA

Grant Norman  
Carlsbad, CA

Michel Murciano  
La Jolla, CA

Stephen Molina  
Murphys, CA

Lorraine Jones  
Simi Valley, CA



Zach Zorn  
Carlsbad, CA

Anthony Sabatino  
Huntington Beach, CA

Bart Glass  
Avalon, CA

Robert Van der Capellen  
Mission Viejo, CA

John Lyddon  
Newport Beach, CA

Todd Garrett  
Agoura Hills, CA

Michael Fowlkes  
Laguna Beach, CA

William Warmington  
Newport Beach, CA

Tony Garza  
Anaheim, CA

Susan Smith  
Port Angeles, WA

Christopher Craven  
San Diego, CA

Joan Dickenson  
Newport Beach, CA

Gene Fong  
Newbury Park, CA

Drew Brahs  
Costa Mesa, CA

Terry Gordon  
Ventura, CA

Tony Escalante  
San Diego, CA

Tim Mullahey  
Anaheim, CA

Jim Carmack  
Newport Beach, CA

Thomas Scott  
Long Beach, CA

Brian Rothenberg  
San Diego, CA

Steve Landsberg  
Long Beach, CA

Greg Hickman  
Newport Beach, CA

John Haugland  
Huntington Beach, CA

John Blas  
Paramount, CA

Terry Richardson  
San Clemente, CA

Alfred Barker  
Bloomington, CA

Paul DeDalvo  
Huntington Beach, CA

Jonathan Dunn  
Oakland, CA

Jack Gross  
Halfmoon Bay, CA

David Casey  
Huntington Beach, CA

Kevin Harvey  
Redwood City, CA

Forbes McGrane  
Sonoma, CA

Geoffrey Albrecht  
San Clemente, CA

Nicholas Maurer  
Fremont, CA

Paul Haase  
Huntington Beach, CA

Patrick Donohoe  
La Honda, CA

Bruce MacKimmie  
Moss Beach, CA

Eric Gottlieb  
Menlo Park, CA

Jean-Michel Sicaud  
San Jose, CA

Melinda Martin  
Newport Beach, CA

Luis Solemnidad  
El Sobrante, CA

Richard Palus  
San Clemente, CA

Justin Molloy  
Kelseyville, CA

David Bany  
Windsor, CA

Hans Jones  
Danville, CA

Harry James  
Union City, CA

Barbara Ungersma  
Benicia, CA

Mike Andresen  
Fremont, CA

Adrian Cruz  
Canoga Park, CA

Charles Capparelli  
Newbury Park, CA

Steve Pazol  
San Diego, CA

Donald Coelho  
Stockton, CA

Janice Coelho  
Stockton, CA

Peter Margiotta  
Alamo, CA

Jeff Ishikawa  
Fremont, CA

Paul Zenner  
Encinitas, CA

Nancy Murrillo  
Houston, TX

Chris Cammack  
Carlsbad, CA

John Zenner  
Alameda, CA

Dan Ward  
Huntington Beach, CA

Terry Quinn  
Carlsbad, CA

Bobby McDonald  
Santa Maria, CA

Jessica Roame  
Santa Ana, CA

Toni Medina  
Orange, CA

Julian Cornelio  
Costa Mesa, CA

Katie Manzella  
Long Beach, CA

Wesley Turner  
Newport Beach, CA

Brandon Rodriguez  
Santa Ana, CA

Alexandra Wiggins  
Santa Ana, CA

Roxanne Alexander  
Riverside, CA

Jessica Mata  
Santa Ana, CA

Kiet Mguyen  
Riverside, CA

Walter Miano  
Las Vegas, NV

Sylinda Miano  
Las Vegas, NV

James Chapman  
Long Beach, CA

Adam Rodriguez  
Long Beach, CA

Kim Vu  
Garden Grove, CA

Brian Wenburg  
Huntington Beach, CA

Scott McLemon  
Torrance, CA

Stephen LeDuc  
Santa Ana, CA

Robert McKenna  
La Cañada Flintridge, CA

Mark DiBella  
Whittier, CA

Phillip Monaskanian  
San Juan Capistrano, CA

Martin Ruelas  
Mission Viejo, CA

Alireza Pourmorad  
Mission Viejo, CA

Allan Salie  
Anaheim, CA

Nicole Craffrey  
San Diego, CA

Matt Gilbert  
Escondido, CA

Emanuel Villalobos  
San Juan Capistrano, CA

Alex Cano  
Redlands, CA

Laila Elemadi  
Lake Forest, CA

David Demesa  
Santa Ana, CA

Rubi Barreto  
Santa Ana, CA

Raul Santos  
Santa Ana, CA

Francisco Pasas  
Alhambra, CA

Gregory Nash  
Laguna Niguel, CA

Matt Crochet  
Huntington Beach, CA

Gary York  
San Anselmo, CA

Bruce Zenner  
Davis, CA

Bob Ciapponi  
Santa Cruz, CA

Tim Morley  
Martinez, CA

Curt Cotner  
Gilroy, CA

Michael Tarpey  
Forest Knolls, CA

Rick Evans  
Huntington Beach, CA

Arnold Joe  
Danville, CA

Donald Tippie  
Torrance, CA

Therese Dayrit  
Carson, CA

Franklin Bodwin  
San Manteo, CA

Lloyd Hiramoto  
Sunnyvale, CA

Michael Farrior  
Rancho Santa Fe, CA

Michael Mellano  
Bonsall, CA

Cody Palmer  
Stanton, CA

Maral Kalinian  
Dana Point, CA

Ray Smith  
Culver City, CA

Robert Ramage  
Stockton, CA

Don Hanson  
St. Paul, MN

Michael McDermiad  
Cocoa Beach, FL

Bryan Stowell  
Colorado Springs, CO

Frank Polak  
Los Angeles, CA

Greg Milleman  
Newhall, CA

Michael Ament  
Rancho Santa Margarita, CA

Robert Petrina  
Costa Mesa, CA

David Brackmann  
Huntington Beach, CA

Gary Boland  
Garden Grove, CA

Bruce Severns  
Bakersfield, CA

John Morris  
Malibu, CA

Gregg Solomon  
Laguna Hills, CA

Michael Evans  
Los Angeles, CA

Louis Almeida  
San Diego, CA

Brian McIvor  
Mission Viejo, CA

John Pasqua  
San Diego, CA

Rick Liebersbach  
Mammoth Lakes, CA

Marsha Freed  
Portland, OR

Wayne Kotow  
San Diego, CA

Darrel Andrada  
Pleasanton, CA

Rex Strong  
Las Vegas, NV

Bill Shedd  
Santa Ana, CA

Gary Johnson  
Oxnard, CA

Joyce Johnson  
Oxnard, CA

Peter Gray  
San Diego, CA

Isaac Middendorf  
Belmont, CA

Gary Stringer  
Garden Grove, CA

Robert Groeber  
Three Rivers, CA

Nathaniel Shearer  
Newport Beach, CA

Thu Nguyen  
Westminster, CA

Doug Wille  
Los Angeles, CA

Brian Lim  
Redondo Beach, CA

Ben Hong  
Gardena, CA

Cullen Townsend  
Los Angeles, CA

Greg Phillips  
Seal Beach, CA

Charles Cook  
Orange, CA

Alex Acosta  
San Diego, CA

Rock Schumacher  
Long Beach, CA

Glenn Miyazono  
West Covina, CA

Aaron Smith  
Torrance, CA

Gary Hoxie  
Fallbrook, CA

Dustin Cookman  
Avalon, CA

Michael Emerton  
San Diego, CA

Gary Trevor  
Santa Barbara, CA

Saverio Simone  
Stevenson Ranch, CA

Terry Wade  
San Diego, CA

Chris Halliday  
Huntington Beach, CA

Joseph Hong  
Gardena, CA

Lenard Weaverling  
Burlingame, CA

Peter Phu  
Mission Viejo, CA

Grant Hendricks  
Downey, CA

Scott Bixler  
Menifee, CA

Jeff Hix  
Venice, CA

Michael Monteleone  
Huntington Beach, CA

James van Evera  
Encinitas, CA

Matthew Couch  
Long Beach, CA

Mario Natividad  
Rancho Cucamonga, CA

Alan Breininger  
Lakeside, CA

Todd Setzer  
San Diego, CA

Brett O'Keefe  
Palos Verdes Peninsula, CA

Bill Albright  
Long Beach, CA

Denise Bradford  
Coyote, CA

Michael Sujishi  
Yorba Linda, CA

Brandon Hendricks  
Fresno, CA

Robert Clarke  
Newport Beach, CA

Ray Smith  
Culver City, CA

Ray Millman  
Rancho Palos Verdes, CA

Casey Kelley  
Ellensburg, WA

Joseph Mahfet, Jr.  
Los Angeles, CA

Chris Shaffer  
Chatsworth, CA

Lin Peterson  
Rowland Heights, CA

Jong Park  
Los Angeles, CA

Michael Uyeda  
San Diego, CA

Nick Nichols  
El Cajon, CA

John Caulfield  
Elk Grove, CA

Mark Iwadare  
Harbor City, CA

Norm Campbell  
Lakeside, CA

Kevin Smith  
Newport Beach, CA

Len Schoppe  
Island Park, ID

Melissa Paltin  
Torrance, CA

Mike Isaacs  
Irvine, CA

William Parks  
Laguna Hills, CA

Gasper Carmona  
El Cerrito, CA

William Charter  
Granada Hills, CA

Jim Duntley  
Rancho Palos Verdes, CA

Brandon Paciotti  
Menifee, CA

James Kelley  
La Mesa, CA

Stephen Plummer  
Aliso Viejo, CA

Mogeb Alomeri  
Camarillo, CA

Andrew Person  
San Diego, CA

John Ruiz  
Fontana, CA

Michael Godfrey  
Granada Hills, CA

Corbin Stark  
Fallbrook, CA

Hal Kern  
Pine Grove, CA

Romie Adanza  
Irvine, CA

Shane Yellin  
Carlsbad, CA

Dirk Perriseau  
Calabasas, CA

David Cheaney  
Menifee, CA

Chris Culver  
Encinitas, CA

Paul Nagata  
Concord, CA

Travis Ohrtman  
Imperial Beach, CA

Charles White  
Fallbrook, CA

Greg Stotesbury  
San Clemente, CA

Manna Warburton  
San Diego, CA

John Clark  
Orange, CA

Bill Secor  
Thousand Oaks, CA

Jesse Fuller  
Citrus Heights, CA

Michael Carroll  
Vista, CA

Denis Brailovski  
Reseda, CA

Joe Ochoa  
Murrieta, CA

Bob Foushanes  
Rancho Palos Verdes, CA

Hector Herrera  
Compton, CA

Theodore Feit  
Los Angeles, CA

Jeff Lowe  
Chula Vista, CA

Mike Pelletier  
Murrieta, CA

Spencer Williams  
Temecula, CA

Avery Bean  
Lake Forest, CA

Travis Weber  
Laguna Niguel, CA

Shane Mansur  
Dana Point, CA

Cate Nemann  
Laguna Beach, CA

Sean Hutchinson  
Dana Point, CA

Jack Preste  
Dana Point, CA

Kal Actaki  
Laguna Niguel, CA

Steve Wendkos  
San Clemente, CA

Marcus Bailey  
Dana Point, CA

Eric Yee  
Irvine, CA

Stanton Mahler  
Trabuco Canyon, CA

John Hansen  
Jackson, WY

Tom Kretschmar  
Yucca Valley

Ron Okada  
Laguna Niguel, CA

Tom Purke  
Laguna Niguel, CA

Santos Muiniz  
San Juan Capistrano, CA

Jeronimo Perez  
San Clemente, CA

Guillermo Silva  
Orange, CA

William Hogan  
Laguna Niguel, CA

Mike Hecor  
San Juan Capistrano, CA

Daniel Weilbacher  
Temecula, CA

David Milligan  
San Clemente, CA

Darrin Moore  
San Bernardino, CA

Stan Jackson  
San Clemente, CA

Kimberly Salas  
Rancho Palos Verdes, CA

Pamela Cortez  
Long Beach, CA

Thomas Daley  
Redondo Beach, CA

Rocky Frost  
La Jolla, CA

Ramon Torres  
San Diego, CA

Darren Miller  
San Diego, CA

Jake Alander  
Imperial Beach, CA

Stephen Simon  
Los Angeles, CA

Larry Brown  
Playa del Rey, CA

Sal Vallone  
Pasadena, CA

Ken Lund  
West Covina, CA

Charles Lopez  
Corona, CA

Keith Lambert  
Los Angeles, CA

Michael Skibba  
Newport Beach, CA

Mark Melnick  
Hillsborough, CA

Mark Schrun  
Victorville, CA

Matt Borgen  
Los Alamitos, CA

Skip Johnson  
Lakeside, CA

Robert Fiske  
Long Beach, CA

Ryan Vaickus  
San Diego, CA

Gary White  
Lawndale, CA

Bob Godfrey  
Marina Del Rey, CA

Bryan Timm  
Vista, CA

Barry Emerson  
Torrance, CA

James Warner  
Spring Valley, CA

Jeff Burroughs  
Concord, CA

Mark Steffens  
Garden Grove, CA

Rex McNamara  
Rancho Santa Margarita, CA

Eugene Wessel  
Oceanside, CA

Terrie Lavery  
Los Angeles, CA 90066

Tanner Smith  
Long Beach, CA 90808

Albert Lee  
Corona, CA 92882

James Van Evera  
San Marcos, CA 92078

Lap Nguyen  
Alhambra, CA

Sao Vue  
Sacramento, CA

Peter Willk  
Malibu, CA

Larry Chin  
Newbury Park, CA

James Klein  
Santa Barbara, CA

Jorge Bernal  
Lake Elsinore, CA

John Keating  
Santa Barbara, CA

Stephen Santen  
Woodland Hills, CA

Robert Abad  
Spring Valley, CA

Nolan Wong  
Alhambra, CA

John Morris  
Lake Arrowhead, CA

Gene Gembarowski  
Long Beach, CA

Kelly Gunning  
San Diego, CA

Frank Sullivan  
Oxnard, CA

Ron Matsuno  
Glendale, CA

Shari Latta  
Malibu, CA

Rick Riddle  
Victorville, CA

Michael Mark Brady  
Pasadena, CA

Chip Lievers  
Encintas, CA

Thomas Lawrence  
Burbank, CA

Terrence O'Rourke  
Santa Monica, CA

Jessica Vincent  
Graham, NC

Shannon Farlow  
Graham, NC

Rachel Stas  
Carmel By The Sea, CA

Cameron Cole  
Kelseyville, CA

Dave Knecht  
Encino, CA

Thomas Mulally  
Los Angeles, CA

Doug Knecht  
Northridge, CA

Ray Sponsler  
North Hills, CA

Bob Leighton  
Costa Mesa, CA

Ed Duran  
Orange, CA

Fernando Guerrero  
Costa Mesa, CA

Bryan Harten  
Long Beach, CA

Anthony Rodriguez  
Downey, CA

Mike Garcia  
Corona, CA

Bill Johnson  
Irvine, CA

Paul Hudzinc  
Laguna Niguel, CA

Peter Baldermann  
Dana Point, CA

Tammy Killingsworth  
San Clemente, CA

Debbie Cooper  
Huntington Beach, CA

William Bonghi  
San Clemente, CA

Mike Outlaw  
San Juan Capistrano, CA

Stephen Wilson  
San Juan Capistrano, CA

Jinhu Wang  
Irvine, CA

Jeff Randall  
San Clemente, CA

Chris Delaney  
Lake Forest, CA

Ralph Pisano  
Laguna Hills, CA

Thomas Wright  
Huntington Beach, CA

Raney Chy  
Westminster, CA

Lapolum Perry III  
Paramount, CA

Rod Lanier  
Wildomar, CA

Shirley Lanier  
Wildomar, CA

Robert Federoff  
Dana Point, CA

Deane Federoff  
Dana Point, CA

Terry Aldinger  
Dana Point, CA

Linda Aldinger  
Dana Point, CA

Ana Tessada  
Rancho Santa Margarita, CA

Sean Frazier  
Laguna Hills, CA

Robert G. Peterson  
Orange, CA

Robert L. Peterson  
Orange, CA

John Alldredge  
Laguna Niguel, CA

Jenna Alldredge  
Laguna Niguel, CA

Leslie Winter  
San Clemente, CA

David McComas  
Honolulu, HI

James Trombetti  
Costa Mesa, CA

James Chylewski  
Laguna Niguel, CA

David Dreyer  
Oceanside, CA

Ray Payan  
San Clemente, CA

Troy Saldana  
Laguna Niguel, CA

Danny Miller  
Dana Point, CA

Scott Seymour  
San Clemente, CA

Greg Seymour  
Laguna Beach, CA

Vanessa Wenninger  
Costa Mesa, CA

Christian Wenninger  
Costa Mesa, CA

Nonna Kuznetsova  
Newport Beach, CA

Rami Abu-Ghazala  
Riverside, CA

Manuel Lopez  
Tustin, CA

Marisela Nigera  
Santa Ana, CA

Jesse Patrick  
Dana Point, CA

Terrence O'Hagan  
Mission Viejo, CA

Connor Button  
Mission Viejo, CA

Vinee Ferraiuplo  
San Clemente, CA

Dime Lee  
Anaheim, CA

Manr Stanb  
Henderson, NV

Anthony Yoro  
Irvine, CA

Robert Peterson  
San Clemente, CA

Vince Mai  
Ontario, CA

Tina Gyulnazaryan  
Riverside, CA

Mauricio Morgan  
Yucaipa, CA

William Peters  
Banning, CA

Reece Fenning  
Irvine, CA

Michael McRonels  
Dana Point, CA

Rachel Deehan  
Dana Point, CA

Anthony Rosett  
San Juan Capistrano, CA

Cesar Rojas  
Rialto, CA

Beto Perez  
Costa Mesa, CA



Marco Avalos  
Orange, CA

Jennifer Kuri  
Newport Beach, CA

Phil Barroca  
Long Beach, CA

Steve Sidell  
San Diego, CA

Todd Iwata  
Orange, CA

Clinton Gulick  
Palmdale, CA

Ken Davis  
Moorpark, CA

Gerald Quillin  
Santee, CA

**Recreational Angler Comments to Governor Brown re: Drift Gillnet Fishery, May-Nov. 2015**  
**Agenda Item G.2: Swordfish Management Policy Connections**

Dear Governor Brown:

I have been a conservationist since I was a young boy, I am now 60. I was involved in helping eliminate inshore gill nets which produced a stunning comeback of White Sea bass along the California coast.

Likewise, eliminating this indiscriminate killer from off shore use will help wild populations of sea creatures to return to normal levels. Please support this important effort, it could well be one of the most important and long lasting policy decisions of your administration. Supporting this goal ensures your legacy as not simply a pro-green governor, but will cement your reputation as a leader that made tough policy decisions as a champion of real and positive change in fisheries' management.

**John Morris**  
**Lake Arrowhead, CA (92352)**  
**Member of Marina Del Rey Anglers**

I started ocean fishing in the 1930's. I witnessed the successful operation of broadbill harpoon boats in Southern California waters for years. The professional boats harvested 150 to 300 broadbills per boat for years without killing any marlin, mammals or other marine life. And they did it until the gill nets were permitted to move in and put the traditional harpoon boats out of business. Eventually, the gill nets not only destroyed the broadbill fishery, but heavily impacted recreational marlin fishing and other marine life as well.

As chairman of the Billfish Advisory Panel to the Pacific Fisheries Management Council, I, among others, advocated for banning gill nets from California waters, which was eventually done. SURPRISE! The broadbill fishery slowly returned and recreational angling for Marlin improved.

Let us not permit the destructive effect of gill nets to continue to decimate California waters.

**Ed Martin**  
**Huntington Beach, CA (92646)**  
**Member of Balboa Angling Club & Harbour Rod & Reel Club**

I am against all types of gillnets and trammel nets or commercial nets in general. There is too much waste of untargeted species caught in these nets that are just killed and tossed back into the ocean, which is a complete waste of the resources. Commercial netters - or all netters - should be responsible for everything they catch, and should utilize everything that is caught in

their nets.

We sportfishermen have to follow regulations on possession, and size limitations and releasing fish in good condition. Netting is too indiscriminate, killing everything that is caught. Unwanted fish are wasted and could be used for feeding the poor and hungry.

**Nolan Wong**  
**Alhambra, CA (91801)**  
**Member of Challengers Angling Club**

The drift gillnet fishery catches several species of marine life that are ultimately discarded, including recreationally important species like striped marlin. Drift gillnets are inherently nonselective and will have unintended interactions even with increased monitoring and management. Therefore, we encourage the commercial industry to move away from drift gillnets and transition to more selective and actively tended gear types like harpoon and buoy gear.

As long as the drift gillnet fishery exists, we ask that the culpable parties be held accountable. We need to have a clear picture of how many animals are caught by the drift gillnet fishery. Enforcement of hard caps on protected species will not happen until every fishing trip is observed.

Thank you for your consideration of these comments. As resource users, we look forward to working together toward sustainable management of our fisheries.

**Michael Godfrey**  
**Granada Hills, CA (91344)**  
**Member of Los Angeles Rod & Reel Club**

Dear Governor Brown,

Thank you for the opportunity to present my views on drift gillnets and the possible use of longlines off the California coast. These two methods of commercial fishing are some of the most destructive currently in use.

While typically targeting swordfish, the incidental bycatch associated with drift gillnets is truly an "eye opener". Efforts have been underway for a number of years to phase out drift gillnets in favor of more sustainable fishing gear i.e. buoy gear and traditional harpooning. Both of these options result in a higher quality product being sold to the consumer while virtually eliminating an unnecessarily destructive and indiscriminate form of fishing that kills untold numbers of whales, porpoises, sea lions, turtles, birds and marlin and other fin fish.

Additionally, the Pacific Fishery Management Council is considering an experimental longline fishery within the 200 mile U. S. Exclusive Economic Zone (EEZ). While one might debate whether longlines or drift gillnets are more destructive, it is safe to say that neither method has a place in today's eco-based approach to fishery management. Both are 20th century methods that have outlived their usefulness.

It would be greatly appreciated if you would consider writing to the Chair of the Pacific Fishery Management Council requesting the following actions: 1. that drift gillnets be transitioned to a more sustainable gear without the high levels of bycatch. 2. that there be 100% observer coverage (either human or electronic) on all drift gillnet boats. 3. that hardcaps be established for protected species. 4. that longlines (experimental or otherwise) be kept out of California waters.

Thank you for your consideration of these very important fishery management issues.

**Robert R. Kurz**  
**Laguna Niguel, CA (92677)**  
**Member of Laguna Niguel Billfish Club**

Typical anglers who use fishing rods (i.e. recreational fishermen) take the hit for unregulated commercial fleets that decimating our tuna, marlin & swordfish populations. Keep gill nets and long lines away from California waters.

**Robert Mahony**  
**Tustin, CA (92782)**

Dear Governor Brown: I rely on the recreational fishing industry to support my family. I have been in the tackle business for 15 years and have seen a sharp decrease in pelagic game fish off the West Coast of California. The observer data has proven that west coast gill net boats have way too much by-catch while targeting swordfish. Their destructive commercial fishing gear is depleting mammals, turtles, and game fish such as striped marlin and sharks. Please consider a mandatory gear change for all drift net boats to harpoon and deep set buoy gear for targeting west coast sword fish.

**Bob Hoose**  
**Costa Mesa, CA (92626)**  
**Member of Balboa Angling Club**

I was personally Involved in both harpooning and drift gill netting in Southern California for over 30 years cannot believe the devastation caused by drift gillnet practices. They have wiped out a number of different species. Other animals can get caught, including whales, seals, dolphins, and turtles. It is absolutely ridiculous to continue to allow drift gill nets to be used.

**David Black**  
**Borrego Springs, CA (92004)**

The drift gillnet fishery catches several species of marine life that are ultimately discarded including recreationally important species like striped marlin. Drift gillnets are inherently nonselective and will have unintended interactions even with increased monitoring and management. We must move away from drift gillnets and transition the fishery to more selective and actively tended gear types like harpoon and buoy gear.

**Robert Van Der Capellen**  
**Mission Viejo, CA (92692)**

I've been fishing the coast of Southern California since 1965. Over the years I've seen a dramatic decline of swordfish, marlin, and sharks. Please help regain our living ocean for future generations!

**Jeff Acampora**  
**Laguna Niguel, CA (92677)**  
**Member of Dana Angling Club**

The drift gillnet fishery catches several species of marine life that are ultimately discarded including recreationally important species like striped marlin. Drift gillnets are inherently nonselective and will have unintended interactions even with increased monitoring and management. I encourage you to spark a transition away from drift gillnets and transition the fishery to more selective and actively tended gear types like harpoon and buoy gear. I strongly support the implementation of hard caps on protected and vulnerable species, and 100 percent monitoring to ensure those hard caps are adequately enforced.

**Scott Dafferner**  
**Costa Mesa, CA (92627)**

As long as the drift gillnet fishery exists, I ask that you hold the fleet accountable. I fully support the implementation of hard caps on protected and vulnerable species, and 100 percent monitoring to ensure those hard caps are adequately enforced. Enforcement of hard caps on

protected species will not happen until every fishing trip is observed. Thank you for your consideration.

**Jeff Tuttle**  
**Newport Beach, CA (92663)**

Considering the unfair attack on fishing and hunting rights in this state, it would seem to be a no-brainer to move towards eliminating drift gill nets, which indiscriminately kill fish, mammals, turtles, and birds. No one supports them but lazy commercial fishermen (They should go out, find the game and catch them by rod and reel). Inshore gill nets were banned decades ago....so why, if not for some political reason rather than resource management, have offshore nets prevailed in their unseen slaughter of a decimated stock of species in the Eastern Pacific?

**Bruce Collins**  
**Laguna Niguel, CA (92677)**  
**Member of Dana Sportfishers**

I have been a commercial and sport fisherman for the last 40 years in San Diego. I have seen the horror of the indiscriminate killing that the gill nets cause to the marine environment. I implore you to do what ever it takes to out law this kind of fishing. The oceans have never been in worse condition for fishing, and the use of gill nets will ensure that the conditions continue to worsen. Please do your part to end this type of fishing along the coast of California. I thank you and all of the anglers in the state thank you also.

**William Garland**  
**Laguna Niguel, CA (92071)**  
**Member of San Diego Rod and Reel Club**

The commercial industry is ruining a sport that I enjoy, and has largely ruined it for the younger generation. It's never been about the individual anglers, it's always been about the commercial folks and the money behind it. Please STOP this destruction by the gill netters!

**Brian Cyr**  
**Vista, CA (92081)**

We should eliminate the use of gill nets as well as long line fishing. The government blames recreational fishermen for many of the ills of the ocean, when in fact it is the greed of politicians that allow the commercial take and method to continue largely unchecked.

**Randy Miner**  
**Anaheim, CA (92805)**  
**Member of Balboa Angling Club**

As an avid recreational angler, I feel that adding longlines to the California fisheries would negatively impact our marine life here in California. We are blessed to live in one of the most beautiful places in the world, and to have one of the most abundant areas of sea life to go with that. Please don't add long liners to our waters, and please consider transitioning to more sustainable fishing gear with less bycatch. We as anglers would like to keep our gamefish population stable for future generations to enjoy.

**Robert Bents**  
**Costa Mesa, CA (92626)**  
**Member of Balboa Angling Club**

I have personally witnessed the severe, destructive power of the use of drift gill nets and other forms of indiscriminate commercial fishing practices off of the Soouthern California coast over the course of my personal and professional life. Growing up on the beach in the 1970's and constantly interacting with the ocean at almost every level, I witnessed the decline of the California Halibut and California White Sea Bass due to the use of near-shore gill nets. The return of these fish in both size and number directly reflected the limiting of these nets to outside the 3 mile limit. The same result may be seen when pelagic drift gill nets are removed. I remember the days of my youth, when a crossing to Catalina from any port along the coast included sightings of many sharks of various types and during the Summer months, these would be mixed with sightings of marlin and swordfish. Those days disappeared by the mid 80's. I am now employed as a tug boat captain for a company that tows barges of freight to and from Catalina Island. I have a front row view of the waters surface on a daily basis and with constant vigilance, will only sight a few sharks or large fish a few times a year. In comparison to the bounty of sea life to be viewed in my earlier years, the ocean off the California Coast is a desolate wasteland. Please support legislation to remove all forms of indiscriminate commercial fishing with the first step being the complete removal of all pelagic drift gill nets from California waters and I believe the result will be swift and positive. Influencing the Mexican Government to do the same, will multiply the effect by many fold because most of our larger pelagic species of fish migrate from Mexican waters. Removing pelagic drift gill nets is not a "fix-all" solution. I believe, it is the first step in a succession of changes that will bring back the fishery for both sport enthusiasts and the commercial industry. California will then reap the financial benefits from a healthy and sustainable fishery. Thank you.

**Capt. Alan R. Schlange**  
**Long Beach, CA (90807)**

Being involved in several kids' organizations, the most memorable events that we organize are those when we can introduce kids to the sport/hobby of fishing. Many take to this new experience and it becomes their #1 activity. Gill nets kill unintentionally kill many nontarget species. Less game means less of an experience for these young folks, who enjoy catching more than fishing.

**Allan Roman**  
**Newport Beach, CA (92625)**

It is long overdue that drift gillnetting is outlawed in California coastal waters. This is an indiscriminate method of take that produces a high amount of non-targeted bycatch. In addition, abandoned or lost drift gillnets continue to take game and other fish, with no chance of harvest. I strongly urge you to eliminate this particular method of commercial fishing. Thank you.

**Will Ebersman**  
**Los Angeles, CA (90019)**  
**Member of Los Angeles Rod and Reel, Challengers, Turners Outdoorsman, and Westwood Sportsmans Club**

I am a resident of Colorado, but visit California 4-6 times each year to visit my brother and elderly parents. I bring the entire family. We spend most of our vacation money visiting the beach, ocean fishing and Catalina Island. We are not rich, but spend our discretionary tourism dollars on ocean activities. Drift net and long line fishing have an will decimate the tourist fishing industry. All told, the tourism industry brings in more money than gill nets and long lines.

**Chris Thompson**  
**Littleton, CO (80123)**

Please ban drift net fishing off California. Drift nets create lots of bycatch, including fish, birds, and turtles. It's OK to fish for swordfish, but better fishing gear needs to be used.

**James Burmeister**  
**Vista, CA (92084)**  
**Member of the Challengers**



The drift gillnet fishery catches several species of marine life that are ultimately discarded including recreationally important species like striped marlin. Drift gillnets are inherently nonselective and will have unintended interactions even with increased monitoring and management. Therefore, we encourage swordfish fishermen to move away from drift gillnets and transition to using more selective and actively tended gear types like harpoon and buoy gear.

Resources should be focused on developing a new swordfish fishery that uses better, more sustainable methods.

As long as the drift gillnet fishery exists, we ask that you hold the fleet accountable. Enforcement of hard caps on protected species will not happen until every fishing trip is observed. We support the use of electronic monitoring, but only if it is proven to be as effective as onboard observers. Until electronic monitoring is available, the fishery should be regulated by 100 percent observer coverage.

It is well past time to be rid of this destructive and wasteful use of our resources. Phase out the drift gill net fishery please! I am a commercial fisherman and truly drift gill netting is the same as clear cutting forests it is just not as obvious when you're standing on land. Thank you!

Thank you for your consideration.

**Mark Barbour**  
**Santa Cruz, CA (95065)**

Commercial gillnetting has decimated fish stocks in Southern California. Having actively fished in SoCal waters for 45 years, I can testify to the carnage wrought by gillnetting and longline fishing. We never see swordfish anymore. They are all gone. This is not rocket science, just eliminate this type of fishing and pray the stocks recover.

**Paul Arentsen**  
**Newport Beach, CA (92660)**  
**Member of Balboa Angling**

This is clearly the correct path to manage a resource. To let this go unchecked sends a clear message to all recreational anglers that the Governor is only interested in the money behind the commercial fishing industry. In the near future the recreational anglers will have as much influence as the NRA.

**Norm Campbell**

**San Diego, CA (92106)**

**Vice President of San Diego Rod and Reel**

I truly remember the days of the "boils." Birds, bait, yellows, bonito and just ripping the lips of anything that you didn't want. It was as if you found the end of the rainbow. My brother's Bayliner didn't fit the bill as a fishing boat at the time, but we were on it and it was great. That's why I came back. I got hooked. My son, too, has become totally engrossed and we enjoy spending time together fishing. We don't find the "boils" any longer due the commercial raping of the ocean. I hope one day that my son and his future siblings can enjoy the sea as I was as lucky to have back in the day...

**Peter Grandia**

**Huntington Beach, CA (92649)**

The first thing I want to say is that you are doing a great job. I can't imagine a more frustrating occupation, but hang in there; you are making a difference. To add one more thing for your plate, gill netting and purse seining, in my opinion, is the same thing that happened to our redwood forests a 100 years ago. They say it's for the better good of man, but I wonder if it is not for the better good of a few large corporations? If we went back to line-and-hooking, it would put a lot more people to work and it would allow fish populations to grow.

**Rob Burns**

**Newport Beach, CA (92663)**

**Member of Balboa Angling Club**

Please stop the devastation that drift gillnets create. The fish just seem to be gone, here in Southern California. One of the greatest passions of my life faces ruin. Anything we can do at this point must be done to save what is left.

**Steve McInteer**

**Huntington Beach, CA (92646)**

Fishing with my son is one of the greatest joys of my life. I want him to be able to fish with his children and his children's children. Please support this initiative.

**Jim O'Donnell**

**Los Angeles, CA (91403)**

**Member of L.A. Rod & Reel (LARRC)**

Please preserve the fisheries for rod and reel for future generations of humans to seek their own food without the destructive overfishing of commercial nets indiscriminately destroying the fisheries world wide. Thanks in advance.

**Guy Westgaard**  
**Laguna Beach, CA (92651)**

I ask for Governor Brown to stand with IGFA and other angler associations and clubs to use his influence and authority to stand and support this document. Thank you for your consideration.

**David Bacca**  
**Riverside, CA (92507)**

I have fished all my life; commercially and recreationally for 65 years. I have never agreed with gill netters, no matter what country I was fishing in they because extensive damage. That is the best anyone can say about gill nets. Please ban gill nets in the US of A. Thank you for your time.

**Rutledge Bray Jr.**  
**Ventura, CA (93001)**

Stop the destructive gill net operations.

**Mike Nelson**  
**Huntington Beach, CA (92646)**

Thank you for your assistance, Governor Brown!

**Jillene Roldan**  
**La Mesa, CA (91942)**  
**Member of IGFA**

Do the right thing Governor Brown.

- Transition from drift gillnets to more sustainable gear types without high levels of bycatch
- Demand 100% observer coverage on drift gillnet boats
- Place strict hard caps on protected species
- Keep longlines out of waters off the coast of California

**Ryan McGinnis**  
**Costa Mesa, CA (92626)**

Please outlaw drift gill nets!

**Paul Roos**  
**Palm Springs, CA (92262)**

As a life-long resident of California, I enjoyed the days when I was a child in only the 1980s to fish off the beaches of Laguna, catch and release any number and variety of species of sharks at the 14 mile bank / Laussen Knoll, and be able to catch good sized marlin and tuna in the summers. I was amazed when fishing was shut down for recreational anglers along the coast in so many areas - it's no wonder the few sharks that do exist are now congregating at all of our beaches. While I can't ever remember even hearing about one as a child, it's not uncommon now to have 1-2 great white sightings a year from Manhattan to San Clemente, along with the gross overpopulation density of sea lions in local harbors.

The 'scientific methods' used to determine conservation and recovery are at times grotesque. Having spent several years at MIT with some of the best and brightest minds in the world while I worked towards my doctorate degree, I can not imagine putting together large scale economy-influencing regulatory practices without truly digging into the model for what will happen throughout the cycle of rebuilding. Within the first month of the closure of fishing in the protected zones along the populated areas of southern CA, I commented to my friend, a Fireman in Laguna, that he'd probably have a shark attack to deal with within the next 7 years. I was a little off as the first attack has now occurred in Manhattan Beach instead, but he has also told me he's received more sightings in the last two years than in his prior 20 in service.

As this new round of discussion ensues, I would ask that you please consider the people of California and the immeasurable beauty of our beaches and oceans as you decide how to influence the direction of these talks. I would encourage you to read the short description on JD's fish report from 5/8 about travelling to Catalina and seeing dozens of sharks every time as well as the wonderful fish migrations we used to enjoy - this was a real experience and I can only hope with your guidance we can eventually get back to it through commercial conservation and protection activities for the citizens of the state.

**Robert Hefty**  
**Laguna Niguel, CA (92677)**  
**Los Pescadores affiliate (non member)**

Please help out the ocean without eliminating the commercial fishermen.

**John Whitaker**  
**Manhattan Beach, CA (90266)**  
**Member of King Harbor Marlin Club**

No nets!!! Their destruction is not reversible!

**Kathy Ecklund**  
**San Pedro, CA (90732)**  
**Member of Balboa Angling Club, Los Pescadores Fishing Club, King Harbor Marlin Club**

No more driftnets. They are too indiscriminate to continue to be used.

**Gregory Karcher**  
**Los Angeles, CA (91423)**

Our children will thank you. Please be responsible.

**James Kirchhan**  
**Laguna Niguel, CA (92677)**

Governor Brown, please save our fisheries from the gill net killing machines!

**Cole Lennon**  
**Dana Point, CA (92629)**

Please eliminate gill nets and long lines from California waters.

**Jim Black**  
**Trabuco Canyon, CA (92679)**

Stop Gillnets! I want my children to enjoy the west coast fishery!!

**Jeremy Hufnagel**  
**Tustin, CA (92780)**

No gill nets or longlines off of the California coastline - too much bycatch!!

**Jay Reed**

**Newport Beach, CA (92662)**

Please remove this destructive fishing method from our ocean. Thank you.

**Zachary Story**  
**Camarillo, CA (93010)**

Stop gillnetting and stop the tunnel to Southern California and stop the bullet train.

**Al Barr**  
**Rohnert Park, CA (94928)**  
**Member of SOC & Coastsiders clubs**

Please stop gill netting. It is indiscriminate slaughter

**Gene Fukumoto**  
**Pasadena, CA (91030)**  
**Member of the Challengers**

If you can do anything right help us get rid of gill nets in California.

**Kyle Dickerson**  
**Costa Mesa, CA (92626)**  
**Member of BAC Newport Beach**

Please do not allow drift gillnets.

**Ryan June**  
**Stanton, CA (90680)**

Please get this taken care of before it's too late!

**David Shaffer**  
**Los Angeles, CA (91405)**

Please stop the gill netting; it takes way too many species.

**Keith Jones**  
**Los Angeles, CA (91313)**

Get rid of gill nets. Let us also focus on water storage and conservation.

**David Ackerman**  
**Novato, CA (94949)**

Stop the gill nets, Governor Brown. Keep them off of the California coast.

**Tom Ruiz**  
**Newport Beach, CA (92663)**

STOP THE NETTING, START THE CONSERVING!!!

**Takeshi Kawai**  
**San Jose, CA (95135)**

Save fishing for future generations!

**Jeff Kinglsey**  
**Newport Beach, CA (92660)**  
**Member of Balboa Angling Club**

This method for trapping fish should be banned. It is similar to steel traps for wildlife. Neither has a place in our society.

**Ray Wampler**  
**Hemet, CA (92543)**  
**Member of the Catalina Marlin Club**

We cannot afford to tolerate gillnets and longlines any longer. We must maintain a sustainable number of fish for all to enjoy.

**Dale Waldron**  
**Capistrano Beach, CA (92624)**  
**Member of Laguna Niguel Billfish Club**

Stop the gillnets!

**Dean Bornstein**

**Westlake Village, CA (91361)**

Please help.

**David Carlson**

**Moorpark, CA (93021)**

**Member of L.A. Rod and Reel**

I urge you to support the transition from drift gill nets to more sustainable gear types.

**John Ballotti**

**Torrance, CA (90501)**

**Member of Los Angeles Rod and Reel Club**

Please remove all gill nets.

**George Brown**

**Lodi, CA (95242)**

Governor Brown,

Drift nets have a very large negative impact on the Pacific Coast fishery.

These devices need to be eliminated from the West Coast of California, Oregon and Washington.

**Richard Miller**

**Castlerock, WA (98611)**

**Member of Cowlitz Game & Anglers**

Drift gill nets create droughts of a different sort, but are just as costly.

**Steven Petit**

**La Canada Flintridge, CA (91011)**

**Member of Pacific #1**

Please help transition from drift gillnets to more sustainable gear types, which do not produce high levels of bycatch.

**James Carlisle**

**Long Beach, CA (90803)**



We believe in a better world for all. Responsible anglers accept that responsibility and work to improve our fishery resources.

**Michael S. Goodman**  
**Los Angeles, CA (91403)**  
**Member of Los Angeles Rod and Reel**

Dear Governor Brown,  
Gill nets are an outdated mode of fishing and should be eliminated ASAP. If you don't take action now, you will be in a similar situation as the current drought, and there will be no quick or easy solution.  
Please act on this issue.

**Brad Stich**  
**Wilmington, NC (28411)**  
**Member of Los Angeles Rod & Reel Club**

Gillnets are destructive to nontarget species. They should be banned because of the ecological waste they create.

**Eric Rogger**  
**Los Angeles, CA (90049)**  
**Member of Los Angeles Rod & Reel Club**

Please enact more responsible fishing practices.

**Dirk Perriseau**  
**Los Angeles, CA (91305)**  
**Member of Los Angeles Rod & Reel Club**

As a sportfisherman, I have seen a dramatic decrease in our fisheries. Please do the following:

- Transition from drift gillnets to more sustainable gear types without high levels of bycatch
- Demand 100% observer coverage on drift gillnet boats
- Place strict hard caps on protected species
- Keep longlines out of waters off the coast of California

**Paul Lepore**

**Dana Point, CA (92629)**

We absolutely can NOT have drift gill nets in our oceans, for they harvest too many other species as bycatch. These gill net practices are destroying our oceans and the recreational fishery. I have three children that would love to continue recreational fishing for the rest of their lives, but with continued practices, they may not have the opportunity.

**Geoffrey Hersch**

**Newport Beach, CA (92660)**

Hopefully this does not fall onto deaf ears.  
DO YOU HEAR ME GOVERNOR BROWN?

**Andy Martinez**

**Newport Beach, CA (92663)**

Please take time to see the issues here. Thank you.

**Alex Brandon**

**San Clemente, CA (92673)**

**Member of Dana Angling Club**

All the work to limit fishing in areas and times (SMR's and MPA's) is for nothing as long as you allow the indiscriminate method of gill net fishing in California waters. Ban them before all of our offshore sharks and pelagics are wiped off the earth by this method of commercial fishing.

**Len Schoppe**

**Santa Monica, CA (90405)**

**Member of King Harbor Marlin Club**

I have been fishing in California for 60 years and would like to continue to fish with my grandchildren. We need these regulations. Thank you.

**Stephen Simon**

**Los Angeles, CA (91601)**

**Member of Los Angeles Rod and Reel Club**

Our fisheries are subject to both man-made and natural issues already; let's not make it worse by using "old" technology to catch "random" fish. Let's catch sustainable amounts of what we target. Thanks.

**Glenn P. Murray**  
**San Diego, CA (92122)**  
**Member of San Diego Rod & Reel**

Stop gill nets and restricting sportfishing. It's the greedy 1% commercial fleet that rape the oceans and blame others. Greed and money spoils the world! Start doing the right thing, simply as a fellow human being, and stop worrying about your political future. You and your decisions effect lots of people! Please do the right thing.

**Jeffrey Albro**  
**San Diego, CA (92122)**  
**Member of San Diego Rod & Reel**

Governor Brown, let's not regress. There is no place in the environment for drift gill nets.

**Mark Manculich**  
**Porter Ranch, CA (91326)**  
**Member of Los Angeles Rod and Reel Club**

It is time to stop this ridiculous form of fishing before it's too late. If it isn't already. Sincerely,  
Jim Simonsen

**James Simonsen**  
**Valley Center, CA (92082)**  
**Member of San Diego Rod & Reel**

These measures are needed to reduce the amount of bycatch of non-target species off California.

**Michael Couffer**  
**Newport Beach, CA (92625)**  
**Member of Balboa Angling Club**

It is a disgrace that, in this day and age, we are still allowing gillnets off of our coast.

**Allison Vitsky**  
**San Diego, CA (92116)**

I am a recreational scuba diver/photographer. I do not fish at all, but am totally onboard with the recreational anglers on this issue. Just say NO to gillnet and longline fishing. Both are too indiscriminate and the amount of bycatch they produce is totally unacceptable.

**Gayle Van Leer**  
**San Diego, CA (92130)**

Please protect the ocean.

**Bill Thornton**  
**Mission Viejo, CA (92692)**

Fish populations must be allowed to expand, or we're going to wind up with NONE. The only way to do that is to cease/curtail these gill nets, as well as all other irresponsible fishing practices, so that these populations can replenish themselves.

**Kurt Gross**  
**San Diego, CA (92176)**

Responsibility and accountability should be first before the money.

**Bill Beebe**  
**Hawthorne, CA (90250)**

Drift gill nets should not be used for any reason.

**Ron Hawkins**  
**Los Angeles, CA (91630)**

Stop this type of senseless fish killing...

**Doug Wetton**  
**Costa Mesa, CA (92626)**  
**Member of Balboa Angling Club**

I have seen with my own eyes the decline in pelagic shark and billfish populations over the past 40 years. California is demanding that fish like the delta smelt be saved, but is willing to stand by while something more tragic is happening in our ocean.

**Marlow Peterson**  
**Rancho Santa Margarita, CA (92688)**

Governor Brown,  
Please put an end to this destructive and inefficient method of harvesting the sea. Our fish stocks will be healthier for it. Thank you!

**Donald Murray**  
**Costa Mesa, CA (92626)**

Please help save our fish.

**Deborah Neiblinglorbeer**  
**90803 long beach**  
**Member of Balboa Angling Club**

I've seen first hand the degradation of the local offshore scene...fewer marlin, swordfish, tuna and sharks. Please stop this type indiscriminate gear from killing more fish than necessary.

**Jason Blower**  
**92705 santa ana**  
**Member of Balboa Angling Club**

Please, no more gill nets!

**Cami Garnier**  
**Irvine, CA (92603)**  
**Member of Balboa Angling Club**

Phase out gill nets.

**Richard Dyer**  
**92886 yorba linda**  
**Member of Balboa Angling Club**

Governor Brown, stop the senseless slaughter of fish and marine mammals; outlaw drift netting.

**John Campbell**  
**Irvine, CA (92620)**  
**Member of Balboa Angling Club**

Sustainability!

**Bradley Genovese**  
**Laguna Niguel, CA (92677)**  
**Member of Balboa Angling Club**

Mr. Brown,  
Please remove gill net fishing from California waters to help preserve the resources. Thank you.

**Guy Grant**  
**Gardena, CA (90248)**  
**Member of Balboa Angling Club**

This effort is long overdue, and must be addressed now.

**Ted Mortenson**  
**Newport Beach, CA (92663)**  
**Member of Balboa Angling Club**

Please make drift gill netting illegal within 200 miles of the California Coast.

**Chris Allen**  
**Newport Beach, CA (92660)**  
**Member of Balboa Angling Club**

It is time to start managing our oceans/protect from unwanted by-catches that threaten to harm many species and reduce commercial gains in sport fishing industry.

**David Denholm**  
**Mission Viejo, CA (92690)**  
**Member of Balboa Angling Club and the Tuna Club of Avalon**

Please help stop the drift net business off our coast. This should not be practiced here. Mexico sets up nets and catches the fish at the border so please help communicate with Mexico also. Thanks.

**John Tully**  
**San Clemente, CA (92672)**  
**Member of Dana Point Angling Club**

Gill nets that indiscriminately kill anything that passes through are bad for all species of fish and marine animals. Our waters are a nursery and migration ground for many species of fish, including prized game fish.

The glitter has everything to gain, and every other person wishing to enjoy the Ocean completely loses. A bad idea.

**Trent Smith**  
**Newport Beach, CA (92663)**  
**Member of Tuna Club of Avalon, Balboa Angling Club**

I first began fishing for broadbill swordfish, marlin, and tuna in the late 60's. At the time these species, sharks, and other smaller gamefish (bonito, yellowtail, barracuda, bass) were still fairly plentiful, even though their populations had markedly declined over the previous 30 years. Unfortunately, Southern California waters today are for all intents and purposes a pelagic desert. Why on Earth would policy makers want to approve commercial fishing equipment that will ONLY reduce populations further???

**Jack Williams**  
**Manhattan Beach, CA (90266)**

As an avid coastal sport fisherman since 1953, I have witnessed the indiscriminate and wasteful damage that gillnet and long line fishing can do to the natural marine population along our coastline. Just now, marine life is starting to recover from what we have done. Please, please, strongly support phasing out drift gillnets and long lines along our coast.

**Mark Fitch**  
**Santa Ana, CA (92705)**

Time to wake up. There are so many fish that are on there way to being extinct; it's sad. These gill netters need to be stopped.

**Craig Hansen**  
**Los Alamitos, CA (90720)**

Please stop gill netting. There are much better and more responsible methods to fish commercially. Thank you.

**Paul Cooper**  
**San Juan Capistrano, CA (92675)**

Our ocean and fisheries have been improving greatly. We all know it is a crime to the environment to place a huge drift net and let it kill anything in its path. Stop them once and for all.

Please help sustain our fisheries for the generations to come. There is no need for drift gill nets in California waters.

**Thomas Elsten**  
**Costa Mesa, CA (92627)**  
**Member of Balboa Angling Club**

This is a highly destructive, non-selective fishing method that has no place in today's sensitive marine environments. Please take all available measures to halt this type of irresponsible fishing practice once and for all.

**Mike Moore**  
**Ojai, CA (93023)**

You must take a close look at change here. As California recreational sport fishermen have been restricted more and more, we all feel that commercial activity, especially using drift gill nets, is the top destructive means of harvest.

**Joseph Leavitt**  
**Santa Ana, CA (92799)**  
**Member of Teem Oma**

No more drift nets.

**Hassan Kataf**



**Rancho Santa Margarita, CA (92688)**

Gov. Brown,

Drift gill nets are a destructive fishing method that inhibits effective fishery management of key pelagic species, which have high sport value, but next to no market and culinary value. We need your help.

**Mike Villano**

**Alisa Viejo, CA (92656)**

**Member of Balboa Angling Club**

Join the intelligent managers on the gulf coast and ban this highly non-discriminate weapon for killing fish and Federally Protected Mammals of our state.

**David Carpenter**

**Costa Mesa, CA (92627)**

There is no need for these tactics this day in age. More efficient methods of fishing exist, which produce less bycatch. Drift nets are all-consuming to what lays in their path and allow for zero resuscitation capabilities of bycatch. 21st century technology coupled with this technique cripples ecosystems.

**Kyle Rockwood**

**Vista, CA (92083)**

Keep the sport in fishing!

**Todd Aldama**

**Irvine, CA (92604)**

Please save our fisheries from nets!

**Jeff Kraus**

**Newport Beach, CA (92663)**

There has to be a more selective way to catch fish than with gillnets; gillnets catch everything that swims by.

**Stan Ecklund**

**San Pedro, CA (90732)**

**Member of Balboa Angling Club, Los Pescadores, King Harbor Marlin Club**

Stop gill netting and long liners off California coast.

**Jim Todd**

**Rocklin, CA (95677)**

We need to save SoCal sport fishing for generations to come.

**Steve Hammerschmidt**

**Newport Beach, CA (92663)**

**Member of Los Pescadores**

Please do the right thing for our local oceans. Thank you.

**Gary Schall**

**Huntington Beach, CA (92646)**

Please stop the destruction of our fisheries with these nets.

**Jean Dupre**

**Alisa Viejo, CA (92656)**

Please halt the gill nets off of California's coast.

**Randy Harris**

**Riverside, CA (92505)**

Let common sense prevail. Protect our oceans and lakes, while maintaining access.

**Tom MacDonald**

**Member of San Diego Rod and Reel**

**San Diego, CA (92116)**

The well-being and stocks of our apex predatory fish are far more important a resource than tablefare and livestock feed.

**Matthew Moran**

**San Diego, CA (92101)**

It is time that everyone becomes aware of the indiscriminate damage that gill nets do to the fishing industry.

**Jimmy Horvat**

**Newport Beach, CA (92662)**

Please ban all drift gill nets in California. The unintended levels of by-catch are seriously straining an important natural resource. The time has come to ban gill nets; other sustainable fishing methods are readily available. Thank you.

**Dan Gorman**

**San Clemente, CA (92672)**

**Member of Dana Point Angling Club**

Governor Brown:

I would appreciate your support in moving away from Drift Gillnets and eliminating Longline fishing in California waters.

**Robert Clarke**

**Newport Beach, CA (92663)**

Help stop the indiscriminate slaughter.

**Mike Hagerty**

**Los Angeles, CA (91345)**

Kill the CRAZY TRAIN and heal our WATER PAIN!!! I support this letter 100%!!!! Thanks, Jerry.

**Scott Houghton**

**Murrieta, CA (92563)**

Gillnets are very destructive, and they NEVER target one species.

**Michael Hildebrand**

**Goleta, CA (93117)**

Please, please get rid of drift gillnets.

**Cory Cammack**  
**Capistrano Beach, CA (92624)**

Gill nets, of any kind, should not be allowed. Commercial fishing is fine, but some gear, such as gill nets, are destructive and wasteful. Thank you.

**Michael Gilmour**  
**Huntington Beach, CA (92648)**

Everyone who enjoys the ocean's resources has an obligation to utilize the resources in a reasonable and respectable way, thereby allowing future generations to share the same love and experiences that we have for years.

**Paul Hoofe**  
**Costa Mesa, CA (92627)**  
**Member of Laguna Niguel Billfish Club, Tuna Club of Avalon**

We need you to take action with regard to putting policies in place to ensure sustainable fishing practices in California!

**Jonno Boyer-Dry**  
**Los Angeles, CA (90036)**

No more gill nets. Thanks!

**Brian Knott**  
**Laguna Beach, CA (92651)**

We are doing well, but we can do better. Let us not do the same to the fish as we did to the whales. It takes hundreds of years to restock the ocean. Sport fishing is an art and a challenge. Netting fish is, or should be, a crime. Please outlaw all gill nets!

**Tay Burgess**  
**Laguna Beach, CA (92651)**

It's time to use our resources responsibly.

**Anndera Hoofe**  
**Costa Mesa, CA (92627)**

Please be aware of the destructive fishing gear that is producing much bycatch in our waters. Don't allow them, buy them out and quit re-issuing new permits. Support cleaner fishing

measures such as sportfishing, commercial swordfish harpooning, hook-and-line low bycatch-style fishing and commercial fishing with little or no bycatch.

**David Dodge**  
**Long Beach, CA (90802)**

Follow the money and give the small private boaters a chance.

**Greg Hamilton**  
**Oceanside, CA 92054**

I am an avid spear fisherman, and have been for over 40 years. Spear fishing is the most selective way to take fish. I encourage you to consider the harm gill nets and long-lines have done, with their indiscriminate killing of "by-catch" and take note of the wonderful life in our oceans in the decisionmaking process.

**Eric Schlobohm**  
**Los Angeles, CA (90064)**  
**Member of Long Beach Neptunes**

Stop gillnetters!!!

**Richard Malland**  
**Lake Forest, CA (92630)**

Sport fishing has a long history in California. Long lining and gill nets took our great fishing to record lows in the 60's, 70's, and 80's. Now, the benefits of the ban on gill nets are finally showing up with the return of White Seabass, Yellowtail, Tuna, Halibut & Rockfish in California waters. We're catching fish, now, that I only heard stories about when I was a kid. Both the size and numbers have increased since I was a young kid fishing on party boats.

**Erasmo Chavez**  
**Norwalk, CA (90650)**  
**Member of Marina del Rey Anglers**

Please vote for a transition away from gillnets to help improve California fisheries!

**Paul McEachern**  
**Long Beach, CA (90803)**

It is time for new thoughts in fisheries management. Thank you.

**Gary Hoskins**  
**Cypress, CA (90630)**

Help sustain the fishing in California.

**Christopher Clark**  
**Hacienda Heights, CA (91745)**

Eliminate drift gillnets and longlines on the West Coast.

**Wayne Pero**  
**Redding, CA (96003)**

I think these methods of fishing are dangerous to the fishery and only benefit a select few. There are more traditional methods that would protect the interests of all fishermen.

**John Monarez**  
**Carlsbad, CA (92008)**

Gillnetting is the equivalent of strip mining, it indiscriminately slaughters sea life as well as decimates fish populations in regions. As an avid fisherman I see sea floors destroyed every time gillnetters are within vicinity. Thank You for your astute consideration.

**Danny Rockett**  
**Simi Valley, CA (93063)**

Please ban the use of these destructive nets

**Joe D'Amagio**  
**Thousand Oaks, CA (91360)**  
**Member of IGFA**

Stop long liners and Seiners from scooping up all our fish!!!

**Debbie Schweickert**  
**Newport Beach, CA (92660)**

Drift nets are indiscriminate killers of sea life. We need to move immediately to more sustainable fishing methods.

**Robert Berg**  
**Scarsdale, NY 10583**

Governor Brown,  
Please help all of us concerned about our oceans and fisheries stop the use of gill nets. They are harming valuable wildlife and the environment overall. Your help with this initiative is greatly

appreciated.

**Captain Robert Day**  
**En La Mosca Adventures**  
**Chula Vista, CA (91910)**  
**Member of Golden State Flycasters**

Stop California from being raped by gill netters, oil companies, and miners. Our waters and hills are in trouble. OPEN your eyes.

**David Marinsik**  
**Santa Rosa, CA (95401)**  
**Member of IGFA**

California has the opportunity to be a global leader in fisheries conservation and the valuation of recreational and community fishing rights over those of commercial interests. Let's do for marine conservation what we've done for renewable energy.

**Andrew Miller**  
**Los Gatos, CA (95032)**  
**Member of IGFA**

I have lived in California since 1965 (when your Dad was Governor) and have witnessed a steady decline in the quality of the fishery. I have seen increasing pollution, mismanagement of the fishery and an absence of effective efforts to correct problems like this destructive gillnet practice. I'm sure I don't have to remind you, as Governor, you have a responsibility to protect California's fishery resource.

**Joe Margiotta**  
**Kernville, CA (93238)**

Govenor Brown; Please restrict the use of gill nets and Long Line fishing in California waters. These nets and long lines are destroying the ecological reproduction of fishes and mammals. How many whales migrating annually or seal lions, and dolphins are caught in these nets and long lines die. I thought you were in support of the environment for the benefit of our children and their children. I guess me and thousands of others were wrong. How disappointing to hear you're going to allow this indiscriminate KILLING of Blue Fin Tuna and Turtles. Money Talks.

**Richard Takacs**  
**San Clemente, CA (92672)**  
**Member of Oceanside Senior Anglers**

Sharks are often killed by nets and longlines. The reduction of the shark population has contributed to the overpopulation of the seals & sea lions which need to have their numbers

reduced by natural means. This includes not having them "rescued" & returned to the wild when nature attempts to balance the herd by disease and starvation.

**Paul Himmelberger**  
**San Diego, CA (92122)**  
**Member of Mission Bay Marlin Club**

Please help protect our fisheries future by banning this indiscriminate method of fishing.

**David Torre-Carpenter**  
**Costa Mesa, CA (92627)**

Mr. governor. indiscriminate killing of anything is not wise. thank you for reading this. YBF.

**Dennis Statza**  
**American Canyon, CA (94503)**

As a retired commercial fisherman I seen have firsthand the destructive and indiscriminate impact that both gillnetting and longline fishing practices have on non-targets species.

**Beverly Seltzer**  
**Los Gatos, CA (95033)**  
**Member of Full Speed Fishing Club**

Governor Brown, your decision on these matters will either serve to enhance our resources, or continue to deplete them. Please choose wisely! Thank you David Shill

**David Shill**  
**Costa Mesa, CA (92627)**  
**Member of Fibers Fishing Club**

Governor Brown,

How could you allow in good heart such clear waste and destruction to continue to hurt California waters like this.

Please help us do something about this and make a real change.

**Kyle Wootten**  
**Long Beach, CA (90815)**

The impetus to prohibit Drift Gilnets runs much deeper than mere recreational fishing. Rather, the senseless killing marine life not targeted by these nets is astounding. The sea life impacted can include whales, turtles and numerous other species of fish. Unless the fish and mammals



caught in these nets are going to be used their death is nothing more than a contribution to the extinction of additional species and a prime example of wanton and reckless behavior in search of profits. I would strongly urge you to consider the fact other options do exist for commercial fishing of swordfish (as numerous jurisdictions ban Drift Gillnets). Please consider taking this positive step towards helping conserve California's marine life and recreational industries (which contribute significant additional income to our great state). Thank you.

**Jeffrey Salinger**  
**Los Angeles, CA (90071)**  
**Member of Laguna Niguel Billfish Club**

Governor Brown, Fishing methods which include Wasteful By-Catch as in Drift Gill netting is not an acceptable or sustainable method of catch. Please vote to remove Drift Gill nets from California Waters.

**Curtis Woolsey**  
**Huntington Beach, CA (92649)**  
**Member of Tuna Club of Avalon**

As a fisherman who enjoys and respects our resources, PLEASE ban drift gill nets COMPLETELY. They indiscriminately destroy everything in their path. I'm all for catching any type of fish as sport, with rod and reel, so the fish has a fighting chance. I also respect our resources and only keep a few fish. I believe catch limits should be reduced for all species and slot limits may be the answer to sustaining our resources for our children and grandchildren to enjoy.

**George Flores**  
**Orange, CA (92869)**

Gill nets are bad. Drift nets are worse and they should be banned first then Long Lines and Seiners at least within 200 miles from our line of demarcation

**Michael Cavanaugh**  
**Bakersfield, CA (93311)**

Protect our fishing industry by outlawing gill nets.

**Kenneth Kunkel**  
**Irvine, CA (92612)**  
**Member of FIBer's Christian Fishing Club**

I support the PFMC in getting rid of long lining types of fishing. Thank you

**Rick Chalmers**

**Mission Viejo, CA (92692)**  
**Member of FIBer's Christian Fishing Club**

Dear Governor Brown,  
Using non-discriminatory commercial fishing gear is highly inefficient and irresponsible. It is inefficient because the commercial fisherman do not have to pay for all the by-catch fish and mammals they catch and kill. They are considered FREE and not part of their official accounting of costs and profit. If they were charged the true value of each mammal or turtle they killed, they would have incentives to minimize this behavior. It is irresponsible because of the huge known by-catch and killing of precious life that is absolutely untargeted, unwanted and discarded.

Please help us put an end to drift nets, long lines and other indiscriminate fishing gear.

Thank you,

**Larry and Marie Brown**  
**Playa Del Rey, CA (90203)**

Dear Governor Brown,

Please really spend time to openly discuss, and removal of gillnets and other commercial ways of taking fish of our California Coast. I just got back from sport fishing yesterday, and was happy that I was able to catch 1 small Yellowfin Tuna. I overheard the captain on the boat that he overheard that a commercial seinar took 100-120 tons of these fish the day before. This is why we need to put an end of this madness, or limit commercial fishing.

**Kai Lu**  
**Oxnard, CA (93036)**

It is time to care about all forms of living creatures. Indiscriminate killing of thousands of life forms for no reason other than they got in the way is wrong! Gill nets are indiscriminate! It is not right!

**Richard Covington**  
**Pasadena, CA (91104)**  
**Member of Challengers Angling Club**

I hope our children have the same opportunities to fish and enjoy the life in our oceans that we are so fortunate to have today. Politicians can make intelligent choices, the research speaks for itself if you take the time.

**Stephen Morse**  
**Oxnard, CA (93035)**

**Member of IGFA**

If we don't manage our fish stocks now, there will be none to manage soon. Restrictions on the taking of forage fish! No drift or gill nets! Strict regulations regarding certified limits on endangered bycatch! No long lines!

**Jame Tolonen**  
**Soquel, CA (95073)**

The decision of banning gill nets is a no brainer . With the poor decisions of the past years against scientific research, imposed against the general population fisherman, after we practice conservation more than any commercial domestic or foreign fleet it is time to put a clamp on the possibility and proven killing of by-catch sea life we need to do all that is possible to preserve what is left of our dwindling resources you of all people with your track record should be up to preservation of what fisheries we barely have left

**Phil Hamner**  
**Lake Havasu, AZ (86404)**  
**Member of Dana Anglers**

Gill nets are responsible for the indiscriminate killing of too many unintended species - even those that are on the ESA list.  
I realize the world demands seafood but there are safer, more friendly methods available  
Thanks

**Ken Elie**  
**Cotati, CA (94931)**

Please help us to improve the fishery off the California Coast and remove the drift gill nets that are so indiscriminate.

**John King**  
**Avalon, CA (90704)**

Hi Governor  
In my great accumulated wisdom, it is obvious the resources of our planet are most visible at the apex of ocean life. That would be found at the top of the food chain. We are now 'throwing out' the BABY with the excess bath water. It is obvious we cannot continue harvesting ocean brood stock without seeding the next generation. We must correct our current inefficient methods and document all catch information. It is up to us to act responsibly. We have gotten this far. Let us continue to insure our future.  
Thank you

**Warren Brown**  
**San Jose, CA (95112)**  
**Member of Humboldt Tuna**

Drift gillnets that kill indiscriminately are not a responsible nor acceptable method of harvesting the ocean. Period!

**David Keen**  
**Huntington Beach, CA (92648)**

GET RID OF ALL GILL NETS, LONG LINES

**Peter Rasmussen**  
**Goleta, CA (93117)**  
**Member of Santa Barbara SFC**

Please help our fisheries by protecting them from international or unscrupulous profiteers  
And reserve the rights of your constituents and recreational anglers to pass on the legacy of  
California's bounty of natural resources to future generations

**Gordon Jones**  
**Anaheim, CA (92806)**

Keep long lines off the coast of California waters.

**Richard Combs**  
**Anaheim, CA (92807)**

Ban the gill nets please, it is not for our oceans!

**Jon Myers**  
**Soquel, CA (95073)**

Gov Brown please ban the drift gill nets and stop trying to have the twin tunnels installed in the delta. Oh and stop letting big oil dump in California's oceans and aquifers!

**Jeff Krieger**  
**Simi Valley, CA (93063)**

Mr. Brown,  
Please continue your pursuit to do the right thing for Californians and rid our ocean of the gillnets. They are killing species we, as anglers, don't. They are raping our waters, and you alone can help us stop this criminal act.

Thank you for your consideration, sir.

**Mike Davis**  
**El Monte, CA (91731)**  
**Member of Challengers Angling Club**

This is not right catching the fish with nets when anglers trying to fish for them. Its going to reduce the population and may catch endangered species fish.

**Matthew Irie**  
**Fillmore, CA (93015)**

Lets be sure to begin this overdue protection to our fisheries before it is too late. Since fish can't vote I will vote for their protection.

**Shelly Johnson**  
**Oxnard, CA (93035)**  
**Member of Channel Islands Yacht Club**

I believe gillnets are indecrimate & continue to destroy species of fish which are essential to aqua ecology. It may be unintentional, but extremely shortsighted & w/o care for our future generations.

**Janette Sosothikul**  
**Oxnard, CA (93035)**  
**Member of Channel Islands Yacht Club**

As a lifelong waterman and Californian I urge you to help ban the indiscriminate killer: drift gillnets.

**Hal Forsen**  
**San Clemente, CA (92672)**

Governor Brown, please set the example and commit to taking the appropriate steps in order to preserve the ocean life.

**Erik Gibbs**  
**San Juan Capistrano, CA (92675)**

Listen to the recreational fishermen, we support conservation and size and bag limits and open and closed seasons, but not total closures!

**Jordan Cavanaugh**  
**Fountain Valley, CA (92708)**

These nets are the one of the most destructive killers of all marine life. Protected, endangered or targeted, from turtles to whales. If you're serious about protecting marine life then this form of fishing needs to be banned. There are much more efficient and non destructive ways to catch fish.

**John Batzloff**  
**Solana Beach, CA (92075)**

Thank you in advance for all the future anglers of this fishery

**Chuck Delao**  
**San Diego, CA (92108)**

Help save the few fish we have left and let our grandchildren enjoy a healthy environment

**Lawrence Duffin**  
**San Diego, CA (92109)**

No more gill nets!!!!

**Michael Feinberg**  
**Santa Monica, CA (90403)**

Please stop the gillnets so that our children and their children can enjoy fishing the way I have with my father and brother.

**Jeff Wood**  
**Costa Mesa, CA (92626)**  
**Member of Balboa Angling Club, Los Pescadores, and Light Tackle Marlin Club**

They need too check what the Gill Nets did too the Cod fishing out Of Gloucester years ago, it destroyed a Great fishery, the stocks to this day are still way down

**Garry Quesnel**  
**Garden Grove, CA (92841)**

Thank you Gov. Brown for making the correct choices to protect our fisheries and way of life on the California coast.

**George Rodriguez**  
**Goleta, CA (93117)**

Drift gillnetting is a wasteful and destructive fishing method. Banning drift gillnetting would motivate fishermen to use more efficient methods such as deep-set longline or harpoon that do not result in bycatch of marine mammals or sea turtles. Thank you.

**Tyler McCraney**  
**Lawndale, CA (90260)**

Ban all gillnet activities and make commercial only rod and reel.

**Ryan Koubeserian**  
**Coronado, CA (92118)**

No more gillnetting and longlining off the California coast and up to 200 offshore!!! Transition to selective harvest fishing techniques in order to minimize bycatch!

Thank you!

**Nicholas Tharp**  
**Goleta, CA (93117)**

Dear Mr. Brown from a financial stand point, besides a conservation stand point, the sportshifting industry supports more jobs then commercial fishing and creates much more for the state in taxes! Please help us save our ocean from further decline and ban gillnets to protect our Californian waters from any more random killing.

**Jason Blower**  
**Santa Ana, CA (92705)**  
**Member of Balboa Angling Club**

When the entire east coast of the US has been overfished with gill nets and they have been outlawed there, why would we even consider allowing this type of indiscriminate gear to be put into our State Waters. It staggers the imagination that it is even here. Governor Brown, please do something about this. Thank you.  
Sincerely,

**Bart M. Glass**  
**Avalon, CA (90704)**  
**Member of Tuna Club of Avalon**

I've fished Southern California coastal waters since 1959 and have seen first hand the incredible wholesale slaughter and damage caused by the virtually unregulated and horribly managed commercial fishing enterprises harvesting our local waters with virtually no fines for violating existing laws. California needs fisheries management through science and not politics and the laws need to be enforced with sever penalties. The elimination of the inshore gill net slaughter

through AB132 years ago has brought both our white and black sea bass back from the brink of extinction, as well as the of our California halibut. Please, I beg you, transition immediately from the offshore drift nets to harpooning for the swordfish and eliminate the massive, often 90% of a hull is sea lions, turtles and shark, all killed and discarded without so much as a second thought. The economic impact a revitalized sportfishing industry would produce for the State in and of itself should be enough to get these much needed and long overdue laws passed and then, most importantly enforced. Thank you.

**Michael Fowlkes**  
**Laguna Beach, CA (92651)**  
**Member of Tuna Club of Avalon**

There is no question we must push hard to save our fishing grounds.

**William Warmington**  
**Newport Beach, CA (92663)**  
**Member of Tuna Club of Avalon**

We, as sport fishermen always seem to get the short end of the stick when it comes to fishing regulations. Commercial fishermen deplete our resources and the sport angler gets more restrictions and limits. Most of us are OK with size limits, zone restrictions, and "seasons", but are the commercial fishermen playing under the same rules?

I'm in the sport fishing business and pay an excise tax of 10% of my total sales that I'm told is going to the DFG to promote and ensure the future of sport fishing in California. I'm in this business because I love the sport. We are losing the battle to keep and add new fishermen to our industry.

Hook and line fishermen take 1 fish at a time with many anglers releasing ALL fish they catch. Size limits and species regulations can be observed. Drift gillnets kill all fish that swim into them.

**Tony Garza**  
**Soft Steel USA**  
**Anaheim, CA (92807)**

Protect our ocean environment for the future!

**Christopher Craven**  
**San Diego, CA (92110)**

Please remove gillnets from the California coast. Other means of fishing are okay but not gillnets. Thank you



**Gene Fong**  
**Newbury Park, CA (91320)**

Please do this. Look at the number of whales being harmed

**Tim Mullahey**  
**Anaheim, CA (92807)**  
**Member of Tuna Club of Avalon**

Protect our fisheries for future generations

**Jim Carmack**  
**Newport Beach 92660**  
**Member of NHYC Anglers**

As years have past we, the fisherman of southern California, have watched the steady decline of pelighalic sea life offer our coast. The biggest decline has been since the appearance of gillnets, and longlines, in the eastern pacific ocean. Any reduction of either could do nothing but help the decline.

**Terry Richardson**  
**San Clemente, CA (92672)**  
**Member of Harbour Rod & Reel Club**

Dear Governor Brown,  
It has been over 30 years since we last visited. In the 80s as Chamber president of Mammoth Lakes, California I asked you for your assistance regarding a critical challenge with our town's infrastructure. You personally traveled to Mammoth to meet with us and for that I will be forever grateful.  
I have one other favor to ask of you. That is to help us in our endeavors in banning of Drift Gillnets in Southern California waters. Im sure you are aware of the devastation it has caused to the Pacific fish and mammals that can only be protected by legislation.  
Whatever you can do to help will be very much appreciated.

**Paul DeSalvo**  
**Huntington Beach, CA (92649)**  
**Member of Harbour Rod & Reel Club**  
**Staff Commodore, Huntington Harbour Yacht Club**

Governor Brown,

It's a "No Brainer" that Gill Nets should be banned due to their indiscriminate killing of non-targeted species by Fishermen.

It is long over due to end the use of Gill Nets. Please help make this a reality by leading the way for all of California's waters.

Thank you,

**Jack Gross**  
**Halfmoon Bay, CA (94019)**  
**Member of Coastside Fishing Club**

Can't see any reason not to approve the cessation of Drift Gill Nets. Washington and Oregon are miles ahead of us in protecting sea mammals, why not California

**Forbes McGrane**  
**Sonoma, CA (95476)**  
**Member of Coastside Fishing Club**

Please Remove Drift Gillnets off the California Coast!

**Geoffrey Albrecht**  
**San Clemente, CA (92673)**

Long line fishing destroys everything that it comes into contact with (by catch). For a state that prides itself on conservation, helping the environment and creating sustainable fisheries this as well as ground trawlers are the most destructive and irresponsible ways to fish and do nothing more than destroy the environment and hurt the fisheries. This should be a no brainer Gov Brown.

**Nicholas Maurer**  
**Fremont, CA (94536)**

Please stop the indiscriminate slaughter of marine life through the use of drift gill nets and long line fishing. The time has come to end these archaic practices and usher in a new era of sustainable fishing for our resources.

**Patrick Donohoe**  
**La Honda, CA (94020)**  
**Member of Coastside Fishing Club**

Please stop the driftgill nets.

**Justin Molloy**  
**Kelseyville, CA (95451)**  
**Member of Coastside Fishing Club**

This is nonsense all our areas are being closed by Mlpa nonsense and now what lil grounds we can access are being ravaged in mere days if even that the Steiners should be required to keep a minimum distance of x amount of miles so they are not killing off systems by taking by catches which changes an entire ecosystem

**Adrian Cruz**  
**Canoga Park, CA (91304)**  
**Member of San Fernando Valley Saltwater Fishermen**

Dear Governor Brown  
The ocean fishery off the coast of California is one of the state's most under appreciated assets. With climate change and drought upon us it will also increase in importance as a sustainable recreational fishery. Please do your part to protect and preserve the fishery by imposing stricter regulations and oversight of the gill net and long line commercial fishing industry.

Thank you.

**Charles Capparelli**  
**Newbury Park, CA (91320)**

Gill nets are not sustainable harvest and continue to damage our fisheries. Please provide your support to move away from gill net fisheries.

**John Zenner**  
**Alameda 94501**  
**Member of Coastside Fishing Club**

Ban the gill nets and save thousands of fish that are killed by the nets.

**Dan Ward**  
**Huntington Beach, CA (92649)**  
**Member of Harbour Rod & Reel Club**

This type of fishing kills sustainability

**Bobby McDonald**  
**Santa Maria 93455**  
**Member of Anglers Anonymous**

I didn't like Arnold but he was very good at preserving our wildlife. You need to be too!

**Gary York**  
**San Anselmo 94960**  
**Member of Coastside Fishing Club**

Gill nets have no place in either commercial or sport fishing. They create huge environmental and navigational hazards, are indiscriminate with respect to species targeted, and are frequently lost to the fishery using them, but persistent in continuing to cause the deaths of multiple non-targeted species.

Banning these nets is a simple, universally supported measure; please implement the petition as a fish and game regulation as soon as possible.

Sincerely,

**Bruce Zenner**  
**Davis, CA (95618)**

Stop the waste

**Donald Tippie**  
**Torrance, CA (90505)**

Please stop gill netting.

**Therese Dayrit**  
**Carson, CA (90745)**

Please help stop the indiscriminate by- catch slaughter that gill nets cause.

**Michael Farrior**  
**Rancho Santa Fe, CA (92067)**  
**Member of Tuna Club of Avalon**

Dear Governor Brown,  
We represent the responsible recreational anglers in southern California that are concerned with our limited resources. We cherish our right to fish and are trying to be good stewards of our resources. Please help us to make sure we have fishing available for future generations.

**Wayne Kotow**  
**San Diego, CA (92129)**  
**Member of CCA California**

The state has been restricting areas where recreational fishing is allowed on the California coast. Recreational fishermen will never deplete a species.  
We need to restrict gill nets and long line fishing on the California coast if we are serious about depleting fish species and the harm to the environment and waste this type of commercial fishing causes.

**Darrel Andrada**

**Pleasanton, CA (94566)**  
**Member of Coastside Fishing Club**

Both Gillnets and long lines have proven themselves to be harmful in other parts of the US and we don't need or want them off the California shore.

**Bill Shedd**  
**Santa Ana, CA (92707)**

The commercial fishermen are raiding our seas to unsustainable amounts of fish.

**Charles Cook**  
**Orange, CA (92867)**

Governor Brown,  
Please support the transition from drift gillnets to a sustainable means of fishing without by catch. Provide 100% observation on all gillnet boats. Put hard caps on protected species. Completely ban longline fishing in California waters. Thank you for your attention to this matter. It's of paramount importance to the sustainability of our fisheries.

**Ronald Stewart**  
**San Clemente, CA (92672)**

Please stop this indiscriminate killing!

**Grant Hendricks**  
**Downey, CA (90242)**

The anglers of California have had to endure numerous assaults on our rights to fish and the mismanagement of the Department of Fish and Wildlife isn't helping. The request to require observers on gill net fishing to reduce by catch numbers is a step forward in preserving the fishery in coastal waters without having to close areas to fishing or reducing daily limits. We need the support of our governor to continue to keep California a great place to live and work and look out for the industry that contributes millions to the states pocketbook. Thanks for your help.

**Michael Monteleone**  
**Huntington Beach, CA (92646)**  
**Member of CCA- California**

Please remove the Gill Nets. Thank you.

**Mario Natividad**  
**Rancho Cucamonga, CA (91739)**

Gov. Brown,

I am a longtime supporter of you and the party. This issue should be very easy for you to sort out. I have been fishing and surfing the California coast my entire life. Moreover, I have traveled extensively throughout Mexico, and Central America; as well as a few island nations in Asia (Phillippines, Indonesia). The reason I mention this is that I have seen first hand the destruction gill nets have on target species fish stocks as well as unintended bycatch. Horrific stuff. This practice is a slow poison that turns vibrant diverse ecosystems into ocean deserts. Again I have seen the results and they are profoundly shameful acts driven by greed. The oceans are being raped at unsustainable levels. Catching and killing wild animals on an industrial scale is morally wrong. We are fortunate to have some, albeit weak management, of wild ocean resources. I believe STRONGER conservation and STRICT ENFORCEMENT of a total ban on gill nets is a MUST. More proactive leadership and communication about fisheries management is needed to help protect these amazing animals who lack anyone to speak on their behalf. Forage fish and Tuna are being decimated....gill nets are just part of the story. Please act!

**Brett O'Keefe**  
**Palos Verdes Peninsula, CA (90274)**  
**Member of King Harbor Marlin Club**

Please stop letting gill netters ruin the CA fishery. Not only do they ruin the fishery but there are so many mammals that get stuck in them and die as well. Help protect our ocean!

**Michael Sujishi**  
**Yorba Linda, CA (92886)**

Transition from drift gillnets

**Joseph Mahfet, Jr.**  
**Los Angeles, CA (91403)**  
**Member of LA Rod & Reel Club**

Governor Brown,

Please join California anglers to help manage our local fisheries for future generations to enjoy, by requiring the Pacific Fishery Management Council to:

- Transition from drift gillnets to more sustainable gear types without high levels of bycatch
- Demand 100% observer coverage on drift gillnet boats
- Place strict hard caps on protected species
- Keep longlines out of waters off the coast of California

Thanks for your support!

**Doug Wille**  
**Los Angeles, CA (90025)**  
**Member of CCA-California**

Listen to the anglers as they know what is right as what we catch in a year we will never equal what the gill netters kill in by catch in one week.

**Terry Wade**  
**San Diego, CA 92120**

Governor Brown It is imperative that drift gillnets be removed from waters off CA. They kill indiscriminately. Thanks for listening.

**Ray Millman**  
**Rancho Palos Verdes, CA (90275)**

Gillnets are the main cause of fisheries depletion, not sportfishing!!!

**Rock Schumacher**  
**Long Beach, CA (90808)**

Help us help the next generation of fishermen/women enjoy the greatest pastime we have to offer; Control the senseless bycatch and maintain our fisheries at a healthy sustainable level by removing longlines from our coastal waters to ensure our grandkids and beyond have the opportunity to experience the thrill of catching fish with friends and family.  
Thanks,

**Gary Hoxie**  
**Fallbrook, CA (92028)**  
**Member of Oceanside Anglers**

Dear Governor Brown:

Please support the transition from Gill Nets to more sustainable methods. This can be incredibly cruel to wildlife which gets entrapped and it also translates into a huge waste of bycatch.

Respectfully

**Bob Clarke**  
**Newport Beach, CA (92659)**

Hello Govenor Brown, this is a no-brainer. Please do the politically correct thing as well as the overall big picture correct thing. Thank you.

**Norm Campbell**  
**Lakeside, CA (92040)**  
**Member of LA Rod & Reel Club**

Why allow micro management via closed coastline and allow this type of blanket killer method to co exist?

**Ien Schoppe**  
**Island Park, ID (83429)**  
**Member of King Harbor Marlin Club**

Get rid of the gillnets, please.

**Gasper Carmona**  
**El Cerrito, CA (94530)**

Governor Brown Please ban these destructive gillnets off our coasts. The indiscriminate bycatch is horrific. Please put a stop to this type of fishing.

**William Charter**  
**Granada Hills, CA (91344)**  
**Member of West Valley Sportfishing**

Gillnets are too destructive on the non-targeted species including other fish, mammals and reptiles. Thank you.

**Jim Kelley**  
**La Mesa, CA (91941)**  
**Member of CCA-California**

Gillnets do nothing but ruin the fishery for our future.

**Andrew Person**  
**San Diego, CA (92123)**

PLEASE REVISE THE REGULATIONS FROM GILL NETS TO MORE SUSTAINABLE GEAR TYPES TO REDUCE HIGH LEVELS OF BYCATCH. THANK YOU.

**Michael Godfrey**  
**Granada Hills, CA (91344)**  
**Member and past President of The Los Angeles Rod & Reel Club**



Mr. Brown,

Despite being republican I have to say you are doing a pretty good job. I would like to ask that you support this effort if you think it is worthwhile, I know we anglers believe it is

Thanks,

**David Cheaney**  
**Menifee, CA (92584)**  
**Member of Casting for Christ Ministry**

This and the use of seiners in our local waters, are a disgrace to conservation for future generations. This year the recreational limit on blue fin tuna was lowered to 2 fish per angler, while commercial seiners were wrapping nearly the whole school of adult 200+lb fish (breeders). These fishing practices don't give the fish a fighting chance, and will eventually wipe out the species. Mexico is much worse, I personally witnessed 26 seiners in sight with 5 helicopters and 2 planes all making sets on the migrating tuna. Anything that can be done about this will greatly affect California. Thank you for your consideration.

**Chris Culver**  
**Encinitas, CA (92024)**

Please move away from Gillnets off of California. Also no more Longlines off the coast either. Too many non targeted fish are caught and diminishing our resources. Thank you for listening

**Jesse Fuller**  
**Citrus Heights, CA (95610)**

The ocean is a beautiful place governor. Scuba dive just once to see the beauty it has to offer. Gill netting is doing massive damage to the fragile ecosystem. The DFG does a great job regulating and protecting the oceanic wildlife but most of the damage comes from commercial fishing and not the private weekend angler.

**Denis Brailovskiy**  
**Reseda, CA (91335)**

Gill nets are an ecological disaster. We need to transition from gill nets to preserve sustainable fish species.

**Theodore Feit**  
**Los Angeles, CA (91423)**  
**Member of LA Rod & Reel Club**

Dear Governor,

My wife and I are avid scuba divers, recreational anglers and ardent conservationists. We strongly support greater controls and reductions of all non-specific commercial fishing gear which inherently produces an irresponsible amount of by-catch, including protected and endangered species.

Please help protect our oceans by:

- Demanding a transition from drift gillnets to more sustainable gear types without high levels of bycatch
- Demand 100% observer coverage on drift gillnet boats
- Place strict hard caps on protected species
- Keep longlines out of waters off the coast of California

Thank you for fulfilling your promise to protect our environment.

**Larry Brown**

**Playa del Rey, CA (90293)**

**Member of LA Rod & Reel Club and Marina del Rey Anglers**

All the species need equal protection and chance to maintain a healthy and sustainable level. For sport fishing and for commercial fishing. The technology change has to be watched and balanced with the need for viable and healthy biomass levels. The big picture matters a lot.

**Keith Lambert**

**Los Angeles, CA (90066)**

**Member of Westwood Sportsman Club and Marina del Rey Anglers**

Please keep the gillnets off our coast!

**Michael Skibba**

**Newport Beach, CA (92660)**

**Member of Challengers Angling Club**

Can you do all you can to transition away from destructive drift gillnet gear off the California coast?

Thank you.

**Matt Borgen**

**Los Alamitos, CA (90720)**

Please remove drift nets and long lines before they completely destroy our valuable fishery that brings large revenue from locals and tourists.

**Skip Johnson**

**Lakeside, CA (92040)**

Ban these nets in state waters. Stop the indiscriminate killing of marine mammals, turtles, and under-sized swordfish.

**Bob Godfrey**  
**Marina Del Rey, CA (90292)**  
**Member of Marina Del Rey Anglers**

Please stop this and preserve our natural resources for our children and their children.

**James Warner**  
**Spring Valley, CA (91978)**  
**Member of San Diego Kayak Fishing**

Please stop allowing commercial drift gill net use off our coast!

**Jeff Burroughs**  
**Concord, CA (92840)**

Gillnets no longer belong in California. The kill indiscriminately in by-catch. There is no control over the discarded nets that keep killing.

**Mark Steffens**  
**Garden Grove, CA (92840)**  
**Member of Big Waters Edge Kayak**

Please help protect our fisheries - it's time to transition away from destructive gill nets.

**Rex McNamara**  
**Rancho Santa Margarita, CA 92688**  
**Member of California Conservation Association**

Please protect our sea mammals and fish from drifting gill nets.

**Terrie Lavery**  
**Los Angeles, CA (90066)**  
**Member of Marina Del Rey Anglers**

Gill nets are an unnecessary evil in the fishing world that tarnishes the reputation of "fishing." Sport fishermen have a terrible image in society... We want to help the species.

**Tanner Smith**  
**Long Beach, CA (90808)**

Need better management of our resources, and gill netting is no longer a viable option.

**Albert Lee**  
**Corona, CA (92882)**

Please consider this ban. After the inshore gillnet ban was implemented the seabass fishing has become much better. This is my source of recreation.

**Peter Willk**  
**Malibu, CA (90265)**

Let's take some positive action in California for sport fishing for a change.

**Kelly Gunning**  
**San Diego, CA (92129)**

This will make a significant difference in restoration of the West Coast Fishery.

**Frank Sullivan**  
**Oxnard, CA (93035)**  
**Member of Channel Islands Yacht Club Anglers**

We need sustainable fishing in all areas for the "little" guys. Us that dive, kayak fish, and fish from small crafts for our personal consumption.

**Shari Latta**  
**Malibu, CA (90265)**

Cut the net!

**Rick Riddle**  
**Victorville, CA (92395)**

Please stop the indiscriminate killing of marine life by drift gillnets.

**Thomas Lawrence**  
**Burbank, CA (91504)**

Governor Brown,  
As a lifelong recreational saltwater angler, I urge you to transition California away from drift gillnets and ban longlines off our coast.

**Rachel Stas**

**Carmel By The Sea, CA (93921)**

Stop the the gillnets -- they are not good for anybody.

**Cameron Cole  
Kelseyville, CA 95451  
Member of Pro Fishing**

Governor Brown,  
Please strongly consider the banning of gill nets off the California coastline. They are extremely damaging to fish and wildlife stocks while a huge by-catch rate. There are much more environmentally conscious ways of commercial fishing.

Thank you

**Dave Knecht  
Encino, CA (91316)**

Please protect our local waters from these industrial fishing methods.

**Thomas Mulally  
Los Angeles, CA (90066)  
Member of Marina Del Rey Anglers**

These nets are also jeopardizing the welfare of marine mammals.

**Phil Barocca  
Long Beach, CA (90803)**



Dear Ms. Lowman,

The Deadly Driftnet Fishery for swordfish is operating in violation of conservation laws protecting marine mammals. Driftnets have been banned on the High Seas and along most of the U.S. West Coast because of high bycatch of marine life including endangered whales, dolphins, sea turtles, shark, tuna and other non-target fish.

I urge you to begin to phase out the fishery along our coast and instead to support sustainable fishing practices that don't compromise the health of endangered species, sperm whales, fisheries and our oceans.

Sincerely,



*NJR*

*Loggerhead sea turtles are caught and killed in the CA driftnet fishery.*



[www.seaturtles.org](http://www.seaturtles.org)



Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

As of the supplement public comment deadline for the November Council meeting, November 4, 2015, 25 of these postcards were received.