

Agenda Item I.5.b  
Supplemental Public Presentation 1  
November 2018

# Shallow-Set Longlines – Achieving Optimum Yield and Reducing Reliance on Imported Swordfish

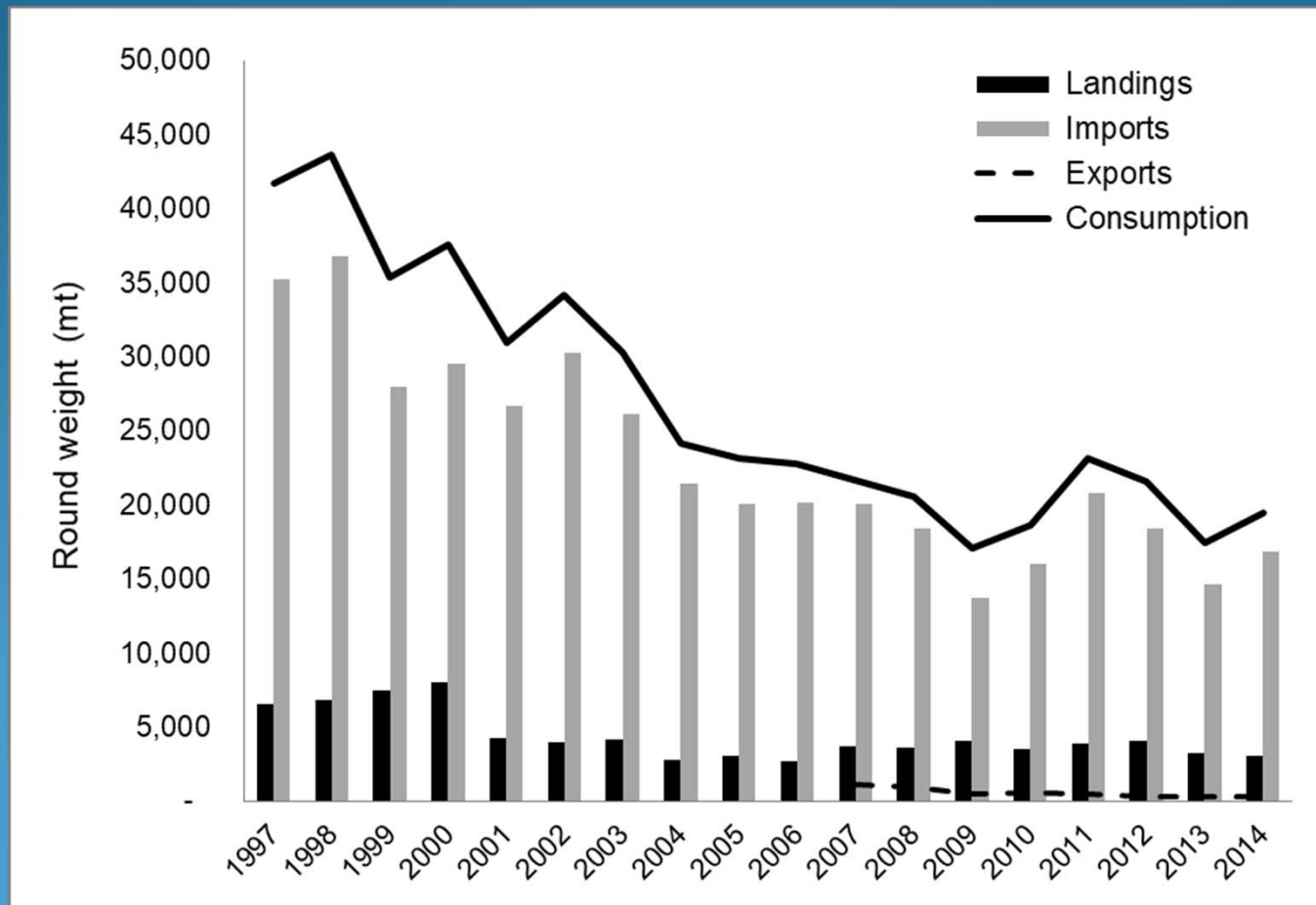
Mark Helvey (NMFS retired)  
for the  
**California Pelagic Fisheries Association**

November 8, 2018

# Definition of Optimum Yield

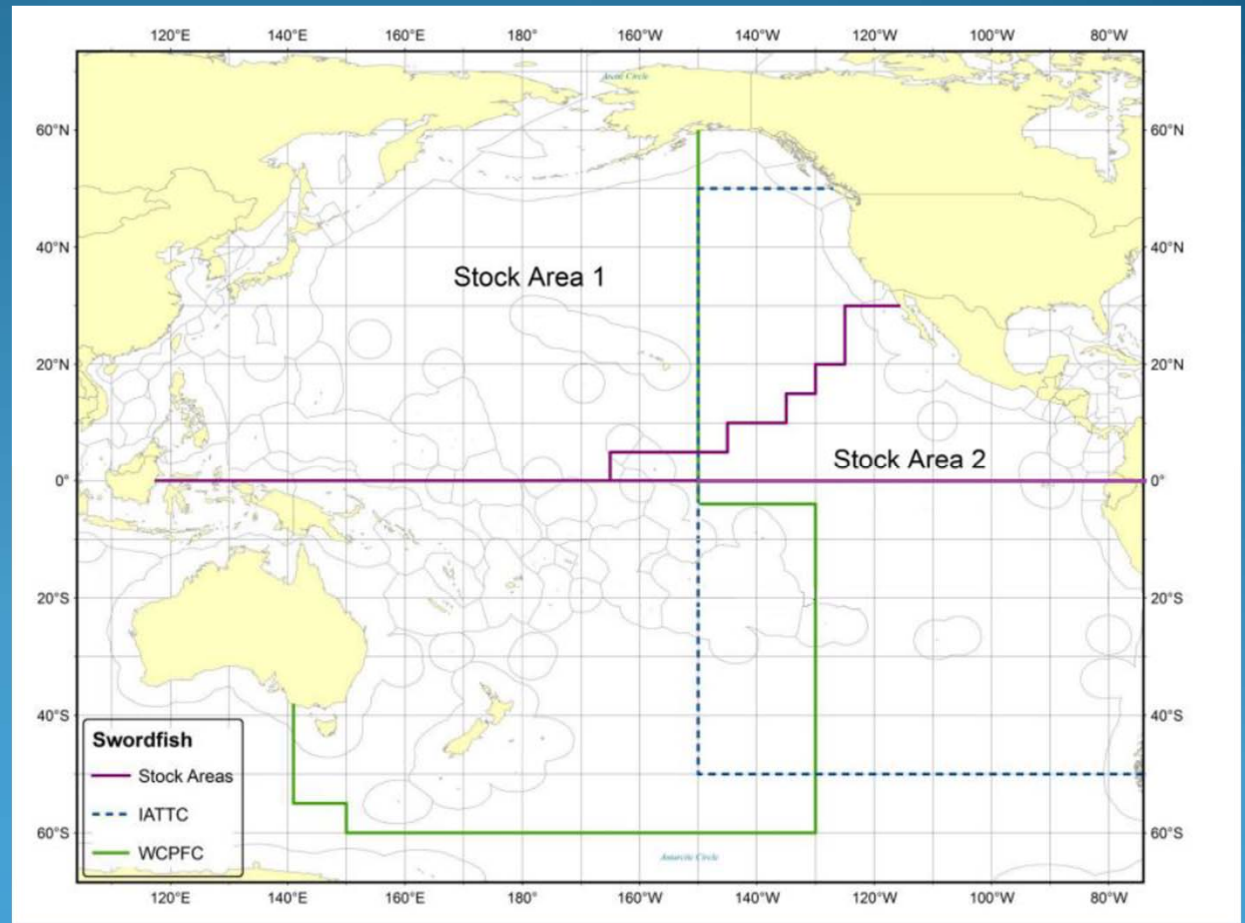
“The term "optimum", with respect to the yield from a fishery, means the amount of fish which – (A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; (16 U.S. Code §1802(33)).

# U.S. Consumption of Swordfish



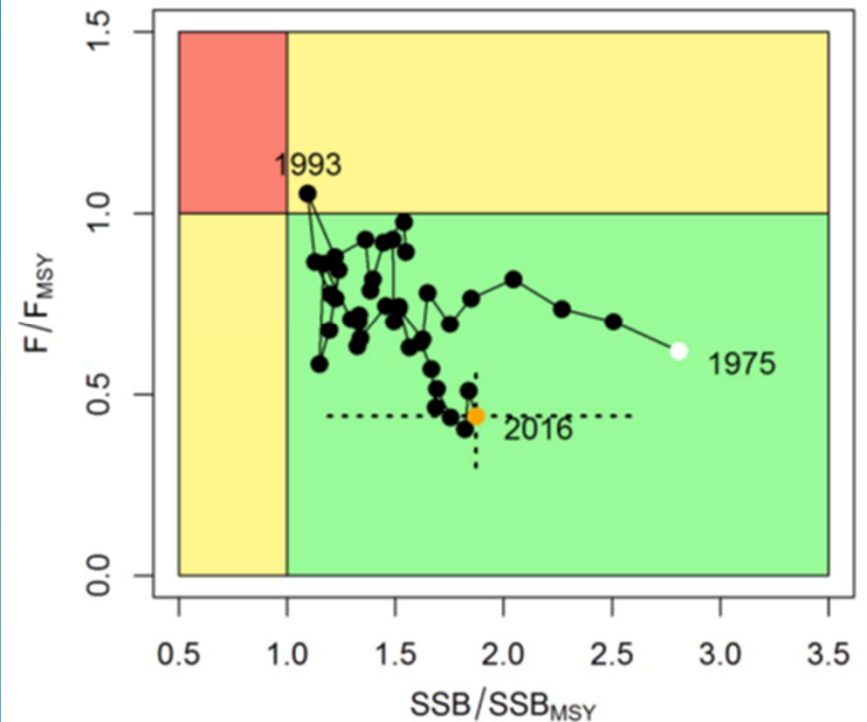
# North Pacific Swordfish

- ✓ 2 stocks
- ✓ West Coast SSLL fishery would be fishing on the WC-NPO stock



# Healthy WCNPO Swordfish Stock

- ✓ 2018 ISC stock assessment determined stock not subject to overfishing and not overfished
- ✓ MSY level = 14,941 mt
- ✓ Stock has produced annual yields of around 10,200 mt per year since 2012, or about 2/3 of the MSY catch amount



# MSY-Based Swordfish Surplus

Source	Market Price	Avg. Catch (mt) 2012-2016	Cumulative % Catch of MSY Amount (14,941 mt)
CA Harpoon	high	9	0.1 %
CA DSBG (hypothetical)	high	632*	4.3 %*
US Other	high	10	4.4 %
CA DGN	medium	125	5.2%
HI Longline	medium	1,569	15.7%
All Other Pacific Fisheries	low - medium	7,815	68.0 %
<b>Available Surplus</b>			<b>32.0 %</b>

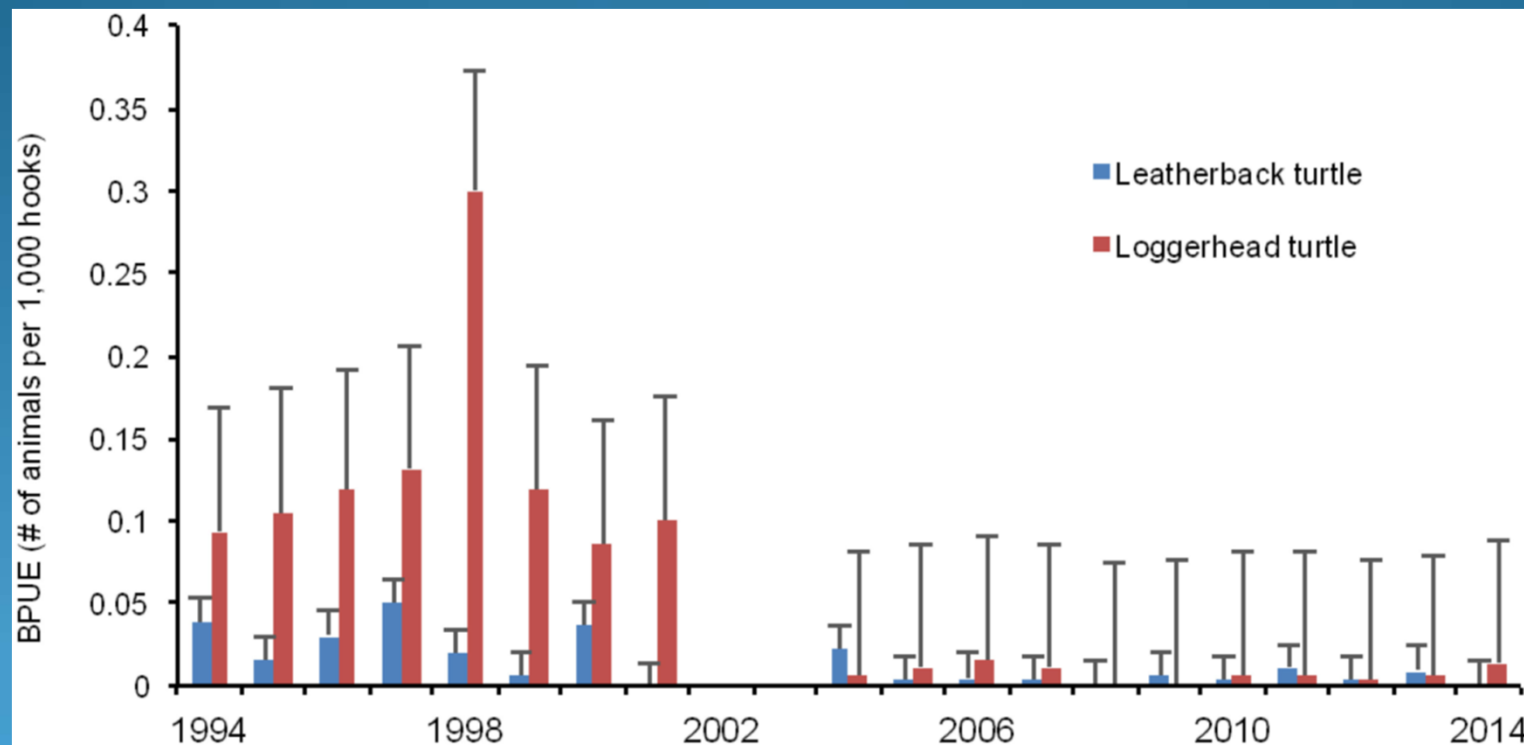
\* hypothetical projection for 150-DSBG permits from PFMC Supplemental HMSMT Report 2, June 2018

The background of the slide is a solid blue color with a wavy, undulating pattern at the top, resembling ocean waves. The waves are in shades of light blue and cyan, creating a sense of movement and depth. The main body of the slide is a darker, uniform blue.

# SSL and Protecting Marine Ecosystems



## Sea Turtle BPUE (# individuals caught/1,000 hooks) in HI SSL\*

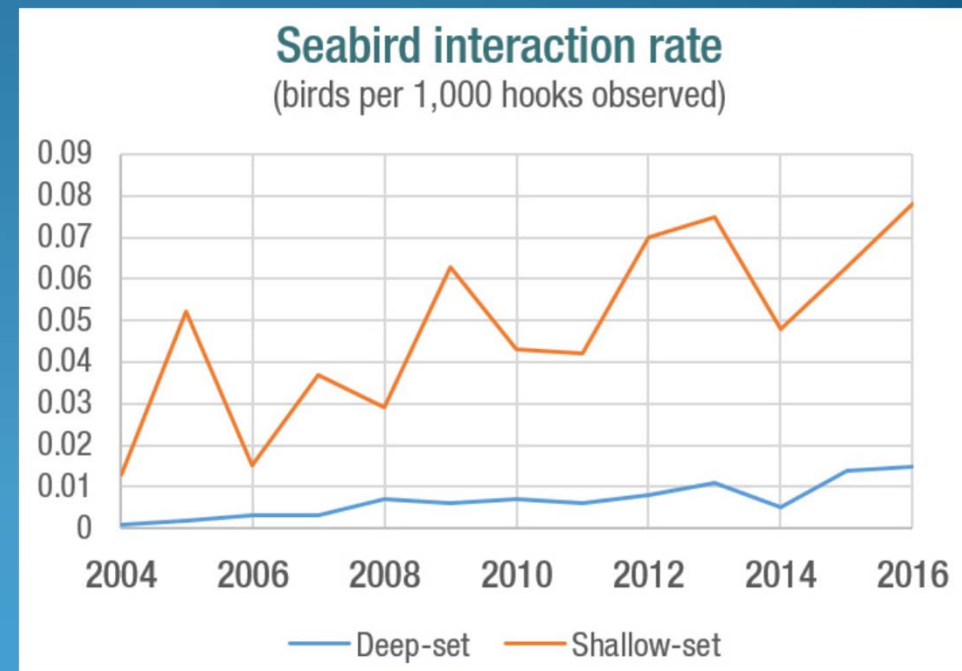


\* Swimmer et al. (2017). Sea turtle bycatch mitigation in U.S. longline fisheries. *Front. Mar. Sci.* 4:260



# Hawaii SSL Seabird Interactions

- NMFS estimated 2,433 seabird interactions in the Hawaii longline fisheries in 2000
- 81 seabirds observed in 2015 and 65 in 2016 while interaction rate was 0.063 in 2015 and 0.078 in 2016
- Decreasing ocean productivity in recent years may be contributing to the increasing trend in the nominal seabird interaction rate



NMFS PIRO 2018. Seabird interactions and mitigation efforts in Hawaii longline fisheries. 2016 ANNUAL REPORT. 15 pp.

# Continuing Seabird Management Efforts

- Effective management in the Hawaii SSL fishery has greatly reduced seabird interactions, primarily through mitigation measures required during gear setting
- Mitigation research now focused on gear retrieval
- Bird curtains continue to hold promise - effective both at avoiding bird captures during haulback and commercially viable

# Conclusions

- 1) Current portfolio of SWO fishing gears will not achieve OY and high reliance on imports will continue
- 2) Even if DSBG authorized to 300 permits and estimated catch of 1264 mt is reached—will still not achieve OY
- 3) Research efforts continue to make SSL gear more selective
- 4) SSL offers the most productive fishing opportunity on the West Coast
- 5) PFMC should prioritize SSL amendment scoping in its March agenda planning and remove DGN performance metrics review