Science, Service, Stewardship

Final Rule to Require Use of Weak Hooks on Pelagic Longline (PLL) Vessels in the Gulf of Mexico (GOM)

Atlantic Highly Migratory Species (HMS)
Advisory Panel Meeting – April 5-8, 2011

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What is a Weak Hook?

- A ***weak hook*** is a circle hook that meets NOAA Fisheries' current size and offset restrictions and is constructed of round wire stock that is thinner-gauge (*i.e.,* no larger than 3.65 mm in diameter) than the circle hooks currently used in the PLL fishery
- NMFS' research shows that weak hooks can allow incidentally hooked bluefin tuna (BFT) to escape capture because the hooks are more likely to bend and potentially straighten when a large fish is hooked

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Weak Hook Research (2008-10)

Species	% Change in CPUE (# fish/1,000 hooks)
Bluefin tuna caught	-56.5
Wahoo caught	-26.6
Yellowfin tuna retained for sale	-7.0
Swordfish retained for sale	-41.2
White marlin/roundscale spearfish caught	52.7

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BFT Weak Hook Rule

Requires the use of weak hooks by Atlantic Tuna Longline permitted vessels fishing with PLL gear in the GOM

- Proposed Rule published January 13, 2011 (76 FR 2313)
- Over 57,000 public comments received (many from public comment campaigns)
- Final rule published April 5, 2011
- Effective May 5, 2011

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BFT Weak Hook Rule

Requires vessels with PLL gear onboard, at all times, in all areas of the GOM, to possess onboard and use only circle hooks meeting current size and offset restrictions as well as being constructed of only round wire stock that is no larger than 3.65 mm in diameter

Examples of weak hook models:

- **Mustad Model # 39988 D – 16/0**
- **Eagle Claw Model # L2048ELM - 16/0**

Other hook manufacturers may offer models that also meet the requirement, and NMFS does not endorse any particular make or model.

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Weak Hook Voucher Program - National Fish and Wildlife Foundation (NFWF)

- Atlantic Tuna Longline (ATL) permit holders using PLL gear in the GOM may obtain an initial supply of weak hooks
- NFWF will mail vouchers to ATL permit holders that used PLL gear in the GOM in 2009-2010
- ATL permit holders that have not received the NFWF voucher in the mail by April 12, 2011, and are planning to fish with PLL gear in the GOM this year, may request a voucher by contacting:

  Mary Beth Charles, NFWF, at 202-595-2445 or Marybeth.charles@nfwf.org.
- Weak hook vouchers are for hooks that will be used in the Gulf of Mexico and NFWF will consider requests for vouchers on a case-by-case basis

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Objectives of the Final Rule

1. Increase the survival of spawning BFT in the GOM, particularly the 2003 year class
2. Enhance BFT stock rebuilding
3. Minimize negative ecological impacts on non-target or protected species
4. Allow the PLL fleet to continue to fish year-round for yellowfin tuna (YFT) and swordfish (SWO)
5. Reduce the need for BFT sub-quota reallocation from directed fisheries (or the Reserve) to cover PLL BFT bycatch

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Alternatives Considered

Alternative 1 - Status Quo / No Action

Alternative 2 - Require all PLL vessels fishing in GOM to use weak hooks (Preferred Alternative)

Alternative 3 - Additional time/area closures in the Gulf of Mexico

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Public Comments

Comment: Support expressed for implementation of weak hooks in the GOM PLL fishery year-round and prior to the spawning season

Response:

- The final action provides protection for the 2003 BFT year class
- Reduces impact of the GOM PLL fleet on western BFT
- Reduces the likelihood of PLL fishery interruption due to Longline Category exceeding BFT subquota

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Public Comments

Comment: Weak hooks are unproven in reducing BFT mortality

Response:

- Reduced post release mortality is expected because BFT have the highest level of energy available when they are first hooked likely straighten weak hooks relatively quickly
- NMFS intends to conduct additional research with weak hooks using hook timers to determine the length of time that fish remain on the hook

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Public Comments

Comment: NMFS should only implement weak hooks seasonally when BFT are present

Response:

- BFT are also present in the GOM outside of the spawning season in lower numbers
- Enforcement of the weak hook requirement is made easier through year-round application
- Research showed that higher catch rates of YFT with weak hooks in the late summer months may indicate a lower economic impact if weak hooks are used after BFT spawning season

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Public Comments

Comment: Weak hooks in the GOM PLL fishery will have negative economic impacts

Response:

- NMFS anticipates negative impacts in the short-term
  - Potential reduction in revenue due to reduced targeted catch
  - Initial compliance costs
- Higher catch rates of YFT with weak hooks in the late summer months may indicate a lower economic impact
- NMFS gear researchers have found that fishermen tend to improve their performance with new technology over time
- NFWF voucher program for initial supply of weak hooks

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Public Comments

Comment: In order to comply with the weak hook requirement, fishermen need a reasonable amount of time and an adequate supply of weak hooks

Response:

- The final rule will become effective 30 days after publication in the Federal Register
- NMFS is investigating hook manufacturer and distributor inventories and believes that the supply of weak hooks will be sufficient to initially outfit the GOM PLL fishery
- NFWF voucher program for initial supply of weak hooks

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Public Comments

Comment: NMFS should reduce mortality on the 2003 BFT year class in other domestic and international fisheries

Response:

- 2010 SCRS report noted that ICCAT may wish to protect the 2003 year class and that maintaining catch at 1,800 mt may offer some protection
- ICCAT Recommendation 10-03 reduced the TAC to 1,750 mt for 2011 and 2012, which may offer further protection
- Implementation of weak hooks in the GOM PLL fishery is expected to reduce the catch and mortality of spawning age BFT including the 2003 year class

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Public Comments

Comment: NMFS should conduct education and outreach programs for the GOM PLL fleet

Response:

- NMFS intends to conduct outreach and education workshops around the GOM to help fishermen learn the benefits of and techniques for fishing with weak hooks

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Public Comments

Comment: NMFS should continue to conduct and expand research on weak hook technology to answer questions about increased white marlin (WHM) and roundscale spearfish catch and to determine effects on interactions with sea turtles and other species

Response:

- NMFS intends to continue weak hook research and collect information through the pelagic observer program to, among other things, better understand the effect of weak hooks on WHM, roundscale spearfish, sea turtles, and other species
- NMFS may conduct subsequent rulemaking to address management needs in the future

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Public Comments

Comment: With weak hooks, the number of swordfish retained may decrease and fishermen may increase their fishing effort to make up for lost revenue, resulting in increased bycatch

Response:

- NMFS will continue to monitor fishing effort and catch
- Existing bycatch mitigation measures will continue
- Fishermen may not experience reductions in targeted catch, thus the incentive to increase fishing effort may not be realized
- Some fishermen during the weak hook research experienced increased targeted catch and are voluntarily using weak hooks
- Higher catch rates of YFT with weak hooks in the late summer months may indicate a lower economic impact

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Public Comments

Comment: Enforcement will be difficult because weak hooks look much like the standard hook

Response:

- NMFS intends to fully enforce the weak hook requirement along with U.S. Coast Guard and state joint enforcement partners
- Hook gauge – proven tool for measuring hook wire size

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Public Comments

Comment: Weak hook research shows an increase in WHM/roundscale spearfish catch by 52.7%, which is concerning given the poor health of white marlin

Response:

- The difference between hooks was not statistically significant
- NMFS does not believe that this increase, if it occurs, is likely to have population or ecosystem effects
  - Predicted increase in WHM dead discards is <0.8% of the total international WHM catch in the North Atlantic
- NMFS will continue weak hook research and monitoring
- NMFS may conduct subsequent rulemaking to address management needs in the future

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Public Comments

Comment: If YFT catches actually increase overall as a result of weak hooks, increased YFT fishing mortality may be detrimental to the YFT population

Response:

- Latest YFT stock assessment (2008) – not overfished; overfishing not occurring
- YFT are managed by ICCAT, which has adopted a limit on effective fishing effort, but not adopted a TAC or individual country quotas
- If catch of YFT in the GOM increases due to weak hooks, the negative impacts on YFT population are expected to be relatively minor
- NMFS will continue to collect information on YFT and other species caught on PLL gear to better understand the effects of weak hooks

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Public Comments

Comment: NMFS should reexamine the use of the Final EIS for the 2006 Consolidated HMS FMP or the 2004 BiOp for the PLL fishery as support for the Finding of No Significant Impact

Response:

- NMFS believes that the above documents remain applicable and support this final action
- The closure analysis in the 2006 Consolidated HMS FMP still reflects likely impacts considering redistribution of fishing effort
- This action is not expected to alter current fishing practices or bycatch mortality rates
- This action should not have adverse impacts on protected species or further impacts beyond those considered in the 2006 Consolidated HMS FMP

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Public Comments

Comment: Commenters both supported and opposed implementing weak hooks in Atlantic PLL fisheries outside the GOM

Response:

- NMFS research was conducted to evaluate the efficacy of 16/0 weak hooks in reducing BFT catch in the GOM YFT fishery
- The benefits of weak hooks may not be the same outside the GOM PLL fishery given differences in catch composition and the way fishermen fish PLL gear in strong currents such as the Gulf Stream
- Research on weak hook use in the Atlantic for reducing marine mammal bycatch is underway
- Further research is needed to determine applicability of weak hooks outside the GOM and impacts on target catch, BFT, marine mammals, and other incidentally caught animals

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Public Comments

Comment: NMFS should prohibit PLL gear in the GOM or should implement a seasonal closure for PLL during BFT spawning

Response:

- 2006 Consolidated HMS FMP time/are closure analysis was incorporated by reference
- In 2006, NMFS did not prefer new time/area closures because no closure(s) would reduce the bycatch of all species considered, assuming there is redistribution of effort
- NMFS believes the closure analysis conducted in 2006 remains the best available science
- Therefore, NMFS does not prefer alternative 3 for the same reasons as described in the 2006 Consolidated HMS FMP
- NMFS intends to review time/area closure analyses in the near future

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Public Comments

General Comments:

- Promote more selective gears for YFT and SWO
- Implement bycatch caps for species of concern in the GOM
- Due to the DWH/BP oil spill, NMFS should err on the side of caution with implementation of fishery management measures
- Allowing the PLL fleet to continue to fish will cause BFT to become extinct

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Questions?