# **Atlantic States Marine Fisheries Commission**

# Guidelines for Resource Managers on the Enforceability of Fishery Management Measures

**Developed by ASMFC's Law Enforcement Committee** 

Second Edition 2015



Vision: Sustainably Managing Atlantic Coastal Fisheries

#### Introduction

The Law Enforcement Committee (LEC) of the Atlantic States Marine Fisheries Commission (ASMFC) prepared the *Guidelines for Resource Managers on the Enforceability of Fishery Management Measures* (*Guidelines*) in 2009. In keeping with ASMFC direction to periodically review and update the guidelines, the LEC has prepared this second edition, effective September 1, 2015. The core of the new *Guidelines* is an enforceability matrix for fishery management measures. The matrix table was developed from the responses to a survey of LEC members. The enforceability ratings cover a variety of management strategies that are employed in marine fisheries management programs. We include ratings for these strategies based on overall, dockside, at-sea and airborne enforceability. The LEC strongly encourages managers to take into account the enforceability of all management regulations that are developed. We believe the *Guidelines* can support and strengthen the effectiveness of ASMFC efforts to conserve our marine fisheries resources on behalf of the public we serve.

#### Acknowledgements

The LEC gratefully acknowledges current and past members who contributed time and expertise to the *Guidelines*. We thank NOAA Fisheries Northeast Division of the Office of Law Enforcement, NOAA General Counsel Northeast Enforcement Section, and United States Coast Guard Districts One and Five, authors of the *Enforceability Precepts for Northeast Regional Fishery Management Councils (June 2013)*, for sharing their publication with us and allowing us to incorporate selected material from that document. We thank Toni Kerns and Tina Berger for assistance in developing the survey and matrix. We also acknowledge the opportunity afforded our committee by the commissioners and staff at ASMFC to revise the 2009 *Guidelines*, and to make them available for general use and reference.

#### **How to Use This Document**

The *Guidelines* are organized into three sections for ease of reference.

#### **SECTION ONE (Page 3)**

This section provides guidance in the form of **general enforcement precepts** that should be considered when evaluating fishery management options or strategies. These precepts apply regardless of the species or area under consideration.

# **SECTION TWO (Page 5)**

This section presents the relative **enforceability ratings** of specific management options. Using a matrix table, readers may quickly identify the relative enforcement characteristics of the management strategies, including their overall, dockside, at-sea and airborne ratings.

#### SECTION THREE (Page 7)

This section provides details regarding the **enforcement strategies and recommendations** for the management measures covered in the *Guidelines*.

# SECTION ONE General Enforcement Precepts

#### **SIMPLICITY**

The most enforceable regulations are generally always those that are simple, realistic, easy to understand, and presented in an accessible way to the regulated community.

Simple, straightforward regulations are easier for the regulated community to understand and remember which is critical for voluntary compliance. They are also more enforceable because violations of simple regulations are easier to detect and to prove. For example, a simple regulation such as "possession of an undersized fish on a commercial fishing vessel" stands on its own. A violation of this regulation would apply regardless of where the fish was taken, how it was harvested, or any other regulatory variable. Conversely, complex regulations are more susceptible to confusion, misunderstandings, and differing interpretations among the regulated community, law enforcement personnel and the court system.

The proliferation of regulations frustrates industry as well as law enforcement personnel. Cumulative, piecemeal modification of regulations to address fishery or environmental changes inevitably leads to more complex and occasionally even contradictory regulations unless all of the regulations for a particular species are carefully reviewed together when modifications are made.

Every effort should be made to write regulations in simple, clear language that avoids jargon or technical terminology. And where possible, all related regulations for a given species should be bundled or linked together in the appropriate regulatory format.

#### CONSISTENCY

Regulations should make every effort to minimize exceptions and exemptions. Wherever possible, managers should adopt the same management measures among different jurisdictional fishery management plans, across different state boundaries, and between state and adjacent federal waters.

Anytime you have an exception to a regulation, such as under a conservation equivalency, you have potentially made the regulation more difficult to enforce. The LEC recognizes that conservation

equivalency is an important tool for fishery resource managers working within the collaborative structure of the ASMFC. However to the extent possible, states should make every effort to work within a regional or coast-wide regulatory framework. This is especially important where two or more states share contiguous waters or concentrated fishing areas. When individual states choose conservation equivalency, this document should be used to select management measures that are the most enforceable.

To the extent possible, there should be consistent definitions of terms for management measures, gear types or use, measurement standards, regulatory areas, and between federal and state waters.

#### **STABILITY**

Regulations should avoid frequent changes. Significant changes to regulations require a concerted outreach and education effort to adequately inform the public. This principle especially applies to recreational angling, where bag or size limits that change from year to year diminish enforceability and increase the likelihood of unintentional violations.

Enforcement personnel may require several years just to provide adequate training or to get the equipment necessary to implement new or modified regulations. More frequent changes in regulations might result in very little effective enforcement during those short regulatory time frames.

#### **EFFECTIVENESS**

In general, the most effective regulations from an enforceability perspective are those based on controlling effort (closed area or season), and not the outputs (catch quota, trip limits). Effective regulations promote rather than hinder voluntary compliance. Effective regulations take into account and are matched up with available enforcement staffing, funding, technologies and equipment.

In addition to adding complexity, the proliferation of new regulations often requires new or significantly enhanced enforcement resources. If new resources are not provided, enforcement will need to shift effort from what is currently being enforced. This can result in an arbitrary prioritization of enforcement effort that may or may not correspond to the conservation needs of the species affected.

Certain management measures can enhance effectiveness. For example, regulations that can be enforced through more than one means, or at more than one point during fishing operations, allow enforcement some flexibility in using available resources in the most efficient way possible. Any regulations that strengthen documentation and labeling of fish and fish products would enable law enforcement personnel to more effectively track products back to the harvester and/or the initial

purchaser and to intercept unlawful seafood at various points between harvest and final sale for consumption.

Enforcement tools such as electronic reporting and vessel monitoring systems (VMS) have greatly improved the effectiveness of certain regulations by allowing enforcement staff to focus effort on high priority areas. These tools do not replace traditional enforcement but rather complement patrol work and inspections.

#### **SAFETY**

Regulations should be designed such that they do not create an unintended safety-at-sea issue. For example, specified allowable days for fishing may increase pressure to go out to sea when weather conditions are unsafe. Likewise, establishment and design of closed areas should take into account safe and direct transit needs of fishermen when weather conditions change rapidly.

# **SECTION TWO Enforceability Ratings**

The 2009 *Guidelines* included a survey of voting members of the LEC to numerically rate the enforceability of 19 management measures based on four categories: overall, dockside, at-sea and airborne enforceability. For this revised edition of the *Guidelines*, 15 LEC members completed a new survey using a simpler, qualitative ranking and an expanded list of 26 management measures. Each management measure was rated for its overall, dockside, at-sea and airborne enforceability using a 3-tiered scale of "no" "limited" and "yes". Additionally, the overall enforceability of each management measure was rated numerically on a scale of one to five (1=poorest, 5=best).

The results of the updated survey are presented below in a visual matrix. Management measures were arranged in descending order of their average overall numerical ranking from the survey. Color coding represents the relative enforceability of the 4 enforcement categories (overall; dockside; at-sea; airborne) based on survey responses using the 3-tiered qualitative scale (yes; limited; no). Color selection was based on the following 3 rules:

- 1) If any one tier (yes; limited; no) received greater than or equal to 65% of responses, the representative color for that tier (green, yellow or red) was shown.
- 2) If only two tiers were selected, the representative color of the tier with the greater response was shown (green, yellow or red).
- 3) If all three tiers received selections, and none were equal to or greater than 65%, than that cell was shown as yellow (limited).

#### ENFORCEABILITY OF MARINE FISHERIES MANAGEMENT MEASURES

MANAGEMENT MEASURES	Average Ranking	OVERALL RATING	DOCKSIDE RATING	AT-SEA RATING	AIRBORNE RATING*
Bag and Possession Limits (low volume)	4.67				
Minimum/Maximum Size Limits	4.67				
Permits	4.67				
Prohibited Species	4.67				
Closed Seasons	4.60				
Closed Areas	4.53				
Gear Marking Requirements	4.07				
Gear Regulations except Method of Take	4.07				
Method of Take	4.07				
Bycatch Prohibitions	4.00				
Slot Limit	4.00				
Trophy Fish Allowance	4.00				
Vessel Monitoring Systems (VMS)	3.87				
Gear Restricted Areas	3.67				
Electronic Reporting	3.67				
Trip Limits (Daily)	3.47				
Days at Sea	3.27				
Annual Quotas	3.07				
ITQ/IFQ/LAP	3.00				
Bycatch Limit (weight or volume)	2.73				
Trip Limits (Aggregate)	2.73				
Catch-Release Fishing	2.60				
Bycatch Limit (percent of total catch)	2.27				
Harvest Tolerances (wt./vol./percent)	2.27				
Targeting Prohibition	2.21				
Limited Drag or Soak Time	1.93				

<sup>\*</sup>Important Note: the matrix design indicates limited applicability for most airborne ratings. The LEC stresses that this does not imply that airborne resources are ineffective. While airborne enforcement may be restricted in applicability, there are clearly times and places when it is the most effective means of enforcement, thus an important enforcement tool.

#### SECTION THREE

# **Enforcement Strategies and Recommendations**

This section provides information about each of the management measures that were considered in the *Guidelines*. Included is a brief definition of the measure, its numerical ranking based on the survey results and some points for consideration when drafting regulations. For ease of organization the management measures are listed alphabetically.

# **ANNUAL QUOTAS**

<u>Definition</u>: A specified amount of a particular species is allowed to be landed per fishing year (or fishing season). Typically a quota is established for the entire fishery, and occasionally is subdivided by region or time. Quotas are not usually employed for recreational fisheries.

Average Overall Rating: 3.07

#### Recommendations:

- A straightforward opening and closing of fishing to meet quota objectives is preferred over measures that will extend fishing, such as trip-limit triggers or progressive area closures, which complicate enforcement efforts.
- Incentives to under-report or not report are greater, so available enforcement resources must
  always be considered to ensure proper accounting of catch. Requirements for electronic
  reporting, daily or weekly reporting, on-board monitoring or tagging regulations can aid the
  enforcement effort. A well-designed catch documentation scheme to track fish from harvest to
  offloading, and through the processing and shipping phases, adds transparency and effective
  accountability.

# **BAG/POSSESSION LIMITS (low volume)**

<u>Definition</u>: A specified amount of a particular species is allowed to be landed per trip, per fisherman or per vessel. Low volume limits are generally established as some number of fish that is easily counted on board. They typically apply to recreational fisheries. In some cases, commercial fishers may also be subject to low bag or possession limits.

Average Overall Rating: 4.67

- This measure remains one of the most easily definable ways to quantify allowable harvest. It is easy to enforce and prosecute. It is simple.
- Bag and possession limits should be consistent across state and federal boundaries. The standard of measurement should be clear if the limit is based on weight.

- A possession limit is superior to a landing limit and allows for at-sea as well as dockside enforcement.
- Requiring fish to remain intact facilitates identification. Particularly for large-party charters, processing at sea or filleting out catch on board complicates enforcement. Where processing at sea is allowed, enforcement staff should be consulted. Supporting regulations requiring that skin must remain on filets, counting two filets as one fish regardless of size, or requiring retention of "racks" may aid enforceability in specific circumstances.
- Enforcement personnel find that frequently changing bag limits are difficult for fishermen to follow. Maintain limits for a minimum of 3 years to ensure consistency of enforcement and greater compliance.

# **BYCATCH LIMIT (Weight/volume)**

<u>Definition</u>: Bycatch limits restrict, but do not prevent, the incidental harvest of non-targeted or otherwise protected species in the course of legal fishing activity.

Average Overall Rating: 2.73

#### Recommendations:

- These limits, often large weights or volumes, are difficult to enforce and even more difficult to prosecute.
- Enforcement would be enhanced if bycatch was required to be segregated from the targeted species. Accurate count of catch onboard cannot easily be done at sea due to species mixing, loading, icing, safety of boarding party in accessing the fish hold at sea, etc.
- Enforcement of bycatch limits typically are time and labor intensive.
- Bycatch limits and measurement standards should be consistent across jurisdictions.

# **BYCATCH LIMIT** (percent of total catch)

<u>Definition</u>: Bycatch limits restrict, but do not prevent, the incidental harvest of non-targeted or otherwise protected species in the course of legal fishing activity.

Average Overall Rating: 2.27

- These limits, especially when there may be large quantities on board, are difficult to enforce and even more difficult to prosecute.
- Enforcement would be enhanced if bycatch was required to be segregated from the targeted species.

- Enforcement is very time and labor intensive to verify the percentage of the catch that is bycatch, and to successfully document excessive bycatch volumes.
- Bycatch limits and measurement standards should be consistent across jurisdictions.
- Regulations should specify how much target species catch is required to justify retention of bycatch species and in what amounts. This is necessary to prevent a bycatch species from becoming the target species.

#### **BYCATCH PROHIBITION**

<u>Definition</u>: Incidental retention or possession of non-targeted or otherwise prohibited species caught during normal fishing operations is prohibited. Any bycatch must be discarded immediately. It may not be retained.

Average Overall Rating: 4.00

#### Recommendations:

- A bycatch prohibition is the easiest and most effective enforcement measure for bycatch.
- The enforceability of a bycatch prohibition is reduced if adjacent or nearby jurisdictional waters allow limited bycatch quantities (weight, volume or percent of catch).
- Because of perceptions of waste from discarding bycatch, other regulations (gear specifications, soak times, area restrictions) may be implemented to minimize the likelihood of catching incidental or non-targeted species in large quantities. Enforcement challenges presented by these other regulations may negate the enforceability advantage of a full bycatch prohibition.
- Clearly identify when possession of a prohibited species is restricted (i.e., returned to the sea as soon as practicable).

#### **CATCH-RELEASE FISHING**

<u>Definition</u>: A fish or marine organism cannot be retained but must be immediately released at the site of capture without any unnecessary harm or destruction. This is typically applied to certain recreational fisheries. Temporary possession may be allowed for proper identification, photographing, or determining compliance with applicable regulations.

Average Overall Rating: 2.60

#### **Recommendations:**

• Regulatory language should clearly specify the conditions for any temporary possession of a catch-release species on board (Identifying, measuring, photographing).

#### **CLOSED AREAS**

<u>Definition</u>: Fishing in a specified area is prohibited.

Average Overall Rating: 4.53

- It is critical to have clearly defined areas. Use exact latitude/longitude and straight lines with regularly shaped areas as much as possible. Avoid general descriptions such as distance offshore, or a center point and radius. Do not use depth contours to define closed areas.
- Closed areas are more likely to be understood by fishermen, and to result in less unintentional non-compliance, if they are regular in shape, and where possible, oriented north-south and east-west in concert with latitude/longitude boundaries.
- While clearly defined, regularly shaped and large areas simplify enforcement, advances in tracking and monitoring technology are mitigating factors that might allow for smaller, irregularly shaped closed areas, especially when such areas are more likely to garner support and compliance, enhance safety at sea, or better protect fish and habitat.
- Successful prosecution of violations must generally include the capability to conduct vessel monitoring, aerial and at-sea surveillance. Even with VMS capability, law enforcement must document the violation at-sea to gather sufficient evidence for prosecuting the violation.
- Depending on the fishery and gear type, restrictions on only certain activities within a closed area may require at-sea boarding to document a violation.
- The more complete the closure to all fishing activity, the easier it is to enforce and successfully prosecute violations.
- Large, contiguous areas are preferable to more numerous, smaller areas.
- If possible, the area should be closed to transit with fishing gear onboard. If transit is allowed, regulations should clearly specify the proper stowage of fishing gear during transit through the closed area. Transit must be specified as continuous, direct and expeditious. If an allowance for loitering or stopping is included in regulations, there should be a mandatory call-in or reporting requirement.
- Gear closure areas or regulated mesh areas are very difficult to enforce. If regulations only prohibit the use of a particular gear type within a closed area, possession of that gear within the closed area should be prohibited.
- Temporary or short-term rolling closures are very difficult to enforce and increase the likelihood of unintentional violations because communicating the requirement to the fishing fleet can be challenging. In addition, shifting closed areas within a season increases the confusion of enforcement officials on the current status of an area.

#### **CLOSED SEASONS**

Definition: A specific fishing activity is prohibited during certain times of the year.

Average Overall Rating: 4.60

#### Recommendations:

- It is important to clearly define the date and times of seasonal closures, even to the minute.
- Describe what activity is allowed to occur before, during, and after the closure. For example: "all gear must be hauled in prior to the closure and gear may not be set prior to opening the closed area."
- For high-value, short-duration fisheries, fishing for other species with the same or similar gear should be prohibited for at least 72 hours before and after the established closed season.
- Minimize exemptions or exceptions to prohibited activities during the closed season. If possible, avoid allowance of gear placement or transport prior to the opening of a closed season.
- Enforcement is enhanced if retention, possession, purchase and sale of species included in a seasonal closure are all prohibited. Possible violations could then be inferred if a covered species is encountered in the market during a closed season, and would prompt an investigation into the origin of any fish or product encountered and how it got to market.
- Fisheries in which smaller vessels participate are more difficult to monitor during closed seasons. Small quantities of fish can be more easily hidden in the marketplace, or sold outside of normal market channels or dealers when the season is closed.

## **DAYS AT SEA**

<u>Definition</u>: A specified amount of days are allotted for fishing for a particular species. Days at Sea are typically allocated to individuals or groups.

Average Overall Rating: 3.27

- In its simplest form, without any exceptions or exemptions, this is enforceable. However it is manpower intensive unless VMS or other electronic tracking is implemented.
- Additional complicating regulations, such as associated trip limits, should be avoided.

#### **ELECTRONIC REPORTING**

<u>Definition</u>: Data transmission, electronic logbooks or other digital recording systems are used to record harvest activity on a vessel. Enforceability is based primarily on use in commercial fishing operations.

Average Overall Rating: 3.67

#### Recommendations:

- Reporting systems should be established to record and transmit data as soon as possible after actual harvest activity occurs.
- Delayed reporting should be specified to occur on a daily or weekly basis. Long delays between harvest activity and required reporting intervals greatly reduce the effectiveness of enforcement monitoring.
- Data storage systems should be readily accessible to enforcement personnel in the field or on the water.

#### GEAR MARKING

<u>Definition</u>: Regulations require specific marking of gear to identify the owner or permittee, to mark the location of gear that may not be visible at the surface, or for other identification purposes.

Average Overall Rating: 4.07

#### Recommendations:

- Regulations specifying the marking of gear should be clear and unambiguous as to the exact
  markings to be used, tags or tag placement, information included on any markings, visibility
  requirements or size of markings, and all other marking details to ensure standardized criteria
  can be enforced.
- Exceptions or exemptions to any gear marking requirements hinder overall enforcement efforts.
- To the extent possible, markings should be required to be located where they can be easily and quickly inspected by enforcement personnel.

# **GEAR REGULATIONS** (excluding method of take)

<u>Definition</u>: Specific gear types or gear modifications are restricted or prohibited. "Gear" might include not only the primary methods and tools to harvest the resource, but also include the vessel, horsepower, the number of traps, mesh size and other such variables. In some cases gear regulations might stipulate a particular type or design (e.g., bycatch reduction devices or escape panels on traps).

Average Overall Rating: 4.07

#### Recommendations:

- Limitations on the amount of fixed gear/hooks, traps or pots is extremely difficult to enforce and manpower intensive to monitor on the water.
- Regulations stipulating how gear is to be deployed (e.g., soak time, net or trawl depth) are
  difficult to enforce because of inspection requirements once the gear is deployed or being
  actively worked.
- Monitoring and checking gear requires specialized equipment and training, and enforcement agencies may incur liability costs while handling gear.
- If a gear limitation is employed to restrict or control catch, an associated catch limitation should also be implemented. For example, a mesh size restriction to control the size of fish caught should have a companion minimum or maximum fish-size regulation.
- Standardize gear requirements, measurement procedures, equipment and techniques across all appropriate jurisdictions and time periods.
- Trap limits are more enforceable in conjunction with trap tags being required on all traps at-sea (i.e., not transferable from trap to trap while underway).
- If a specific type of gear is prohibited for use in a fishery, then carriage of the gear type should also be prohibited.

#### GEAR RESTRICTED AREAS

<u>Definition</u>: Areas where the use of specific fishing gear is prohibited. Regulations may also prohibit the possession of such gear in the specified area.

Average Overall Rating: 3.67

- These are manpower intensive regulations to enforce. A gear restricted area often requires a boarding to determine if specific gear is legal, such as nets of a specific mesh size.
- In general, gear prohibitions are more enforceable than gear restrictions. Areas prohibiting nets are more enforceable than areas restricting certain net mesh sizes. Trap prohibitions are more enforceable than restrictions on certain trap types or sizes.
- Prohibit possession of restricted gear, rather than prohibiting "use" in a gear restricted area.
- Do not allow the use of similar gears within the area. Law enforcement assets may be able to differentiate between a trap boat and a dragger from a distance, but will probably have to conduct a boarding to differentiate between two types of draggers.

# **HARVEST TOLERANCE** (weight/volume/percent)

<u>Definition</u>: A catch is allowed to exceed a legally defined limit of allowable harvest by a defined amount. This may allow retention of over or undersized animals or retention of a defined amount of harvested species over a specified landing limit.

Average Overall Rating: 2.27

#### Recommendations:

- Tolerances are often applied to large catches or landings, and so they may require extensive time and labor to verify the weight, volume or percentage of the catch that exceeds a specified limit.
- Additional tools or equipment may be required to assess amounts of catch exceeding a specified limit.

# ITQ/IFQ/LAP

<u>Definition</u>: Individual or vessel quotas, where a specified amount of the total allowable harvest of a species is allotted to that individual or vessel. Such individual allotments may be taken over the course of a fishing season or year. This management measure is considered as it applies to commercial fishing operations only.

Average Overall Rating: 3.00

#### Recommendations:

- Enforcement is limited by the ability to monitor and verify individual quota limits and reported harvests under that quota. Real-time access to landings information is essential.
- Regulations must limit the number and location of authorized landing points to ensure proper harvest monitoring and dockside enforcement.
- Specific call-in procedures should be established to maximize dockside enforcement capability.
- Monitoring and enforcing individual quotas is labor intensive. Because of variable and extended time frames during which an individual could fish, it is difficult to focus enforcement efforts for maximum effectiveness.

#### LIMITED DRAG OR SOAK TIME

<u>Definition</u>: This management measure limits the amount of time between deploying and hauling back the gear, normally to allow for live discards of bycatch. This management measure is considered as it applies to commercial fishing operations only.

Average Overall Rating: 1.93

#### Recommendations:

- This management measure received the lowest overall rating out of the 26 measures considered in the *Guidelines*.
- Ensuring that specified time limits are followed requires close, at-sea enforcement of fishing operations, and/or onboard observer capabilities.
- Electronic reporting, onboard video monitoring, and vessel monitoring systems provide needed additional support for enforcement monitoring.

#### MAXIMUM/MINIMUM SIZE LIMIT

<u>Definition</u>: Possession of fish below/above a specified size, or inside/outside a defined "slot" limit, is prohibited.

Average Overall Rating: 4.67

#### Recommendations:

- This type of regulation is considered among the more straightforward and enforceable regulations, at least as it would apply to small quantities of catch.
- Standardized measurements, procedures, equipment and techniques must be used across jurisdictions to be effective.
- Exceptions allowing at-sea or onboard processing hinder enforceability. There should not be any allowable filleting at sea. Measurement standards should stipulate head and tail intact.
- Maintain size limits for a minimum of 2-3 years to maximize compliance.
- Clearly spell out exactly how a species is to be measured in the regulation.
- Specified size tolerances are not necessary, and complicate officer discretion in dealing with individual violations.

#### METHOD OF TAKE

<u>Definition</u>: A regulation stipulating a particular type of gear or fishing operation for legally harvesting a species. *See also "Gear Regulations (excluding method of take)"*.

Average Overall Rating: 4.07

- If a certain gear type is prohibited, that gear should not be allowed onboard if otherwise legal fishing gear or operations are being employed.
- Regulations should specifically prohibit the possession of any net with prohibited mesh sizes from being onboard the vessel; similarly, if a net, pot, longline or other gear type is required to be modified to reduce bycatch, then the possession of any gear not properly modified should be prohibited, not just prohibited from use.

#### **PERMITS**

<u>Definition</u>: Fishing (usually for an identified species) is only authorized by the issuance and possession of a permit.

Average Overall Rating: 4.67

#### Recommendations:

- This is considered among the more straightforward and enforceable regulations.
- Successful enforcement depends on real-time access to permit-holder databases.
   Technologically sound permit tracking systems should be implemented or already in place for any permit requirement.
- Laws or rules should provide for permit suspension and revocation upon successful prosecution of fishing violations.
- Permit numbers should be required to be displayed on commercial fishing vessels. Permits must be in possession of the fisherman or vessel at all times.

# POSSESSION/BAG LIMITS (low volume)

<u>Definition</u>: A restriction on the number of animals of a given species that may be caught and/or possessed by a fisherman, a group of fishermen, or onboard a vessel.

Average Overall Rating: 4.67

#### **Recommendations:**

- This is considered among the more straightforward and enforceable regulations, at least as it would apply to small quantities of catch.
- Enforcement is enhanced if any allowed bycatch species is required to be segregated from a larger catch of another or multiple species.
- Allowable quantities should be clearly stipulated and standardized across all appropriate jurisdictions.

#### PROHIBITED SPECIES

Definition: Possession or retention of a particular species or group of species is prohibited.

Average Overall Rating: 4.67

#### **Recommendations:**

• This is considered among the more straightforward and enforceable regulations.

- For difficult-to-identify species, it may be necessary to include species groupings in a prohibition, or to ensure adequate identification training and tools for both fishermen and enforcement personnel.
- Prohibitions should be restricted to a species or group of species across the board. There should be no exceptions for where it was taken or how it was harvested.
- Any permitted species kept on board must remain in a form easily differentiated from similar prohibited species.

#### **SLOT LIMIT**

<u>Definition</u>: Retention and/or possession of any species outside of a specified size range is prohibited. A slot limit may prohibit possession between a certain size range, or it may prohibit possession above or below a certain size range.

Average Overall Rating: 4.00

#### Recommendations:

- Regulations should clearly stipulate the range of the slot size and measurement standards should be consistent across all appropriate jurisdictions.
- Provisions allowing onboard filleting of fish or other processing of animals greatly hinder enforcement of slot limits.

#### TARGETING PROHIBITION

<u>Definition</u>: A regulation that prohibits the act of fishing for a particular species, to the exclusion of effort to catch other species.

Average Overall Rating: 2.21

- This management measure is among the least enforceable of the 26 considered in the *Guidelines*.
- Enforcement would require a level of physical observation and surveillance beyond the scope of most agencies.

# TRIP LIMITS (daily)

<u>Definition</u>: A specified amount of a species is allowed to be caught and possessed onboard or landed by weight, volume or number, on a daily basis. In most situations this applies to commercial fishing regulations. It is a form of possession limit intended to slow down the rate of harvest in a commercial fishery.

Average Overall Rating: 3.47

#### Recommendations:

- Enforcement is typically restricted to dockside, and requires adequate measuring capability while offloading. Checking and verifying a trip possession limit at sea is extremely difficult.
- A "possession limit" as opposed to a "landing limit" would allow more at-sea enforcement.
- There is a significant time and labor commitment to enforcing such limits, even at dockside.
- When daily trip limits are implemented a limited number of designated landing points, and advance reporting of landing would enhance enforcement.
- Limit any at-sea processing to ensure accurate identification of species subject to trip limits at dockside.
- The trip limit or possession amounts should be consistently defined and used across all
  appropriate jurisdictions, along with any measurement standards and techniques that are to be
  applied.
- Allowance for multi-jurisdictional trip limits greatly hinders successful monitoring and enforcement.

# TRIP LIMITS (aggregate)

<u>Definition</u>: A specified amount of a species is allowed to be caught and possessed onboard or landed by weight, volume or number, covering a specified number of days' daily trip limits. In most situations this applies to commercial fishing regulations. It is a form of possession limit intended to slow down the rate of harvest in a commercial fishery. Aggregate limits allow a vessel to remain at sea fishing, rather than having to come to port with each day's harvest limit.

Average Overall Rating: 2.73

- Most of the difficulties or concerns with enforcing daily trip limits would still apply to aggregate trip limits.
- It is even more difficult to enforce an aggregate trip limit at sea.
- This type of regulation allowing for a vessel to remain at sea and catch multiple daily trip limits essentially precludes any significant at-sea enforcement.
- It is extremely difficult to monitor the actual number of days at sea spent fishing, or matching up a total aggregate landing with the number of days spent fishing.

#### TROPHY FISH ALLOWANCE

<u>Definition</u>: Usually applied in recreational fisheries, it allows retention of one or more fish over a specified maximum size or slot limit.

Average Overall Rating: 4.00

#### Recommendations:

- Any allowance for filleting or processing at sea hinders enforcement of such provisions.
- Measurement standards should be consistent across all appropriate jurisdictions.

# **VESSEL MONITORING SYSTEM (VMS)**

<u>Definition</u>: A requirement to keep a positioning transmitter (transponder) onboard a fishing vessel. The transponder transmits position and movement information at specified time intervals.

Average Overall Rating: 3.87

- As VMS use is expanded it should incorporate data transmission regarding gear onboard and the fish being targeted. It can increase the efficiency and effectiveness of enforcement patrols and inspections, but does not replace on-the-water or dockside enforcement requirements.
- VMS should be considered for any large-scale fishery that is conducted in remote waters or offshore where at-sea and airborne enforcement is difficult or inefficient.