

Guidance on Options for Determining Percentage of Resource Share

Prepared by: Transboundary Management Guidance Committee
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Introduction

At its inaugural meeting on 13 September 2000, the Transboundary Management Guidance Committee was charged with establishing rules and clarifying its work mandate. The following Terms of Reference were agreed:

1. Recommend F-based harvesting strategies that are consistent with US and CDA objectives. (and laws.)
2. Provide guidance on options for determining percentage of resource share.
3. Develop process for implementation of TMGC's recommendations.
4. Make recommendations for actual US and CDA harvest levels.
5. Make other recommendations that are mutually beneficial to US and CDA fisheries.

This report addresses Term of Reference #2.

Procedure

It was agreed to apply an approach that accounts for historical utilization and that adapts to shifts in resource distribution. The sharing agreement applies to the following management units: haddock 5Zjm, cod 5Zjm, and the entire Georges Bank yellowtail flounder. There are four major components to the agreement:

- The use of resource survey data based on the three bottom trawl surveys (NMFS spring, DFO winter and NMFS fall) to calculate the annual proportion of the resource on either side of the boundary. After combining the percent resource distribution from the three surveys, 30% loess smoothing was applied to the most recent 33 years. This same procedure (30% loess smoothing applied to the most recent 33 years) will be used to update resource distribution.
- Historic proportions of fishery landings data calculated from the period 1967-1994 inclusive.
- The following formula was agreed for calculating the respective country shares:

$$\% \text{country share} = \alpha_{\text{year}} \text{ country utilization} + \beta_{\text{year}} \text{ resource distribution}$$

where α_{year} = percentage weighting for utilization in year

β_{year} = percentage weighting for distribution in year

$\alpha_{\text{year}} + \beta_{\text{year}} = 100\%$

country utilization = 1967-1994 historic catch percentage share

resource distribution = 30% loess smoothing of most recent 33 years

- Initial sharing formulas are based on proportions of resource distributions from surveys (60% of the formula) and average percentages of the 1967-1994 landings by country (40% of the formula). The percentage weighting would change in equal increments from the starting point to 90% (resource surveys) and 10% (fishery landings data).
- Starting date for the agreement is 2003, with the end of the transition to a 90/10 weighting formula in the 2010 fishing year according to the following schedule.

2003	2004	2005	2006	2007	2008	2009	2010
60/40	60/40	65/35	70/30	75/25	80/20	85/15	90/10

- The resource sharing allocations will be updated annually to reflect shifts in resource distribution. The catch distributions used in the sharing formula remain fixed according to the 1967-1994 period and are:

	<u>USA</u>	<u>CANADA</u>
COD (5Zjm)	40%	60%
HADDOCK (5Zjm)	45%	55%
YELLOWTAIL	98%	2%

- Update of the database on resource distribution will occur as soon as possible after completion of a calendar year and no later than 15 February. The calculation of updated percentage of resource sharing allocations will be reviewed by TMGC no later than 1 April.
- TMGC will draft an advisory communication, to be conveyed to fisheries management authorities in Canada and USA, reporting on the determination of percentage of resource sharing allocations for fishing years for which management plans are being developed. It will be recommended that respective Canadian and USA fisheries management plans be based on the same determination for a fishing year most closely corresponding to the calendar year. For example, the USA fishing plans for May 2003-April 2004 and Canadian fishing plans for Jan-Dec 2003 would both be based on the determination made using end of year 2001 information.

For each of the resources, details of the survey series mixing and specific starting conditions based on current resource distributions would be:

GEORGES BANK YELLOWTAIL:

The management unit for which this agreement applies is the entire Georges Bank yellowtail flounder resource. Resource distributions based on research vessel surveys use the three surveys equally weighted. The calculated proportions of the resource on each side of the boundary in 2000, based on smoothed survey data are Canada 46% and USA 54%. Based on catch distributions (for 1967-1994), current information on resource

distribution and a weighting factor of 60/40 for initial allocations, the starting allocations would be:

Canada Proportion: 28%
USA Proportion: 72%

Without change in the resource distribution, the allocations in 2010 would be:

Canada Proportion: 42%
USA Proportion: 58%

5Zjm HADDOCK:

The management unit for which this agreement applies is the 5Zjm haddock resource. Resource distributions based on research vessel surveys use the three surveys equally weighted. The calculated proportions of the resource on each side of the boundary in 2000, based on smoothed survey data are Canada 80% and USA 20%. Based on catch distributions (for 1967-1994), current information on resource distribution and a weighting factor of 60/40 for initial allocations, the starting allocations would be:

Canada Proportion: 70%
USA Proportion: 30%

Without change in the resource distribution, the allocations in 2010 would be:

Canada Proportion: 77.5%
USA Proportion: 22.5%

5Zjm COD:

The management unit for which this agreement applies is the 5Zjm cod resource. Resource distributions based on research vessel surveys use the two seasons equally weighted, with DFO and NMFS spring surveys averaged to represent the winter-spring season and the NMFS fall survey representing the summer-fall season. The calculated proportions of the resource on each side of the boundary in 2000, based on smoothed survey data are Canada 82% and USA 18%. Based on catch distributions (for 1967-1994), current information on resource distribution and a weighting factor of 60/40 for initial allocations, the starting allocations would be:

Canada Proportion: 73%
USA Proportion: 27%

Without change in the resource distribution, the allocations in 2010 would be:

Canada Proportion: 80%
USA Proportion: 20%