

# **Overview of the 2009 yelloweye rockfish stock assessment**

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# Yelloweye biology and data sources

## Biology:

Very slow-growing (95% of  $L_{max}$  at >55 years)

Late-maturing (50% at 13 years)

Fecundity relationship – big fish produce disproportionately more eggs than small ones

Long-lived (Maximum observed age 147 years)

## Fishery independent data:

- IPHC longline (1999-2008, OR and WA)
- NWFSC trawl survey (2003-2008, OR)
- Triennial trawl survey (1980-2004, WA)

## Fishery data: Recreational and commercial

- Catch estimates: 1916-2008  
(landings and discard combined)
- Historical rec. CPUE: CA, CA charter, OR, WA (~1979-1999)
- Recent recreational CPUE (Oregon observer, 2004-2008)
- Biological data: ages and lengths  
(port samples and observer data)



# Assessment model:

Areas: Washington, Oregon, California

## Stock structure:

Recruitment linked, adults non-migratory

## Parameters:

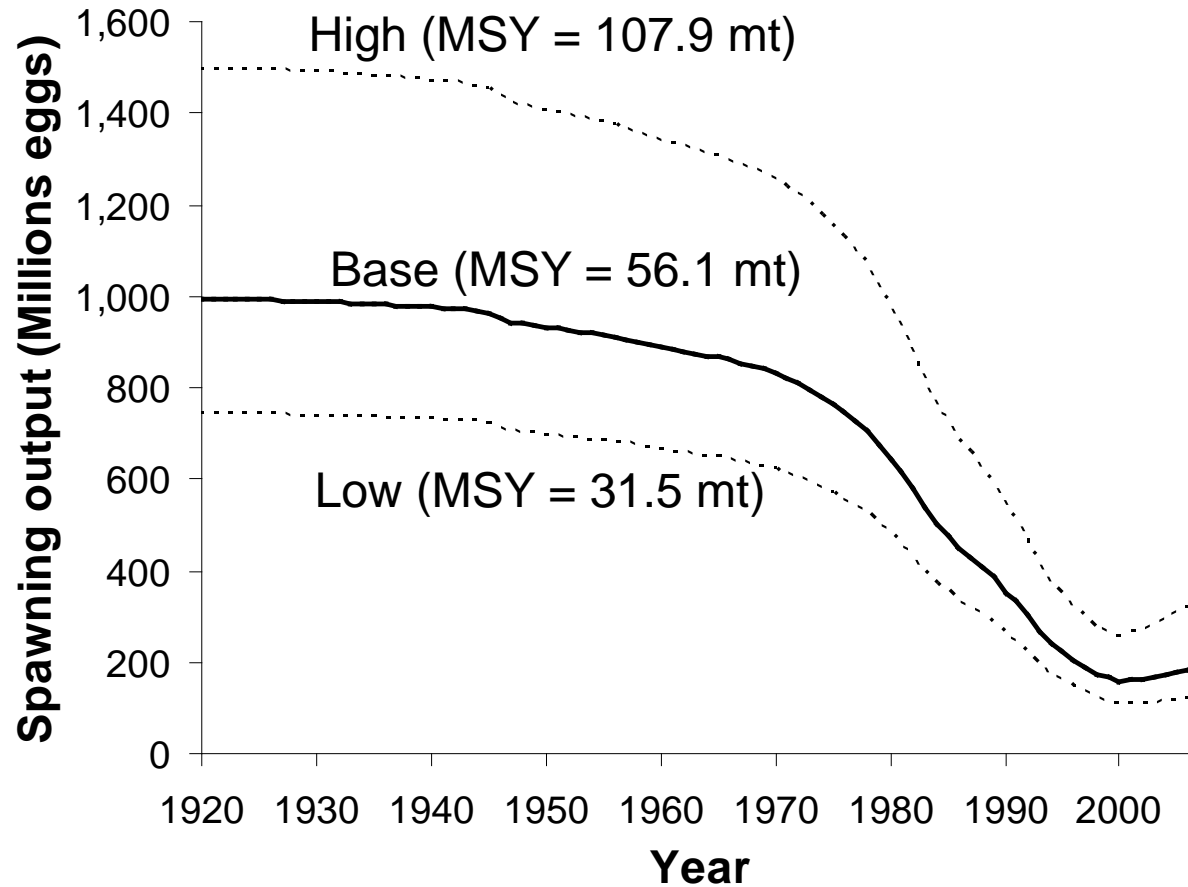
All biological input parameters recalculated  
Growth, steepness (productivity),  
natural mortality estimated

## Uncertainty:

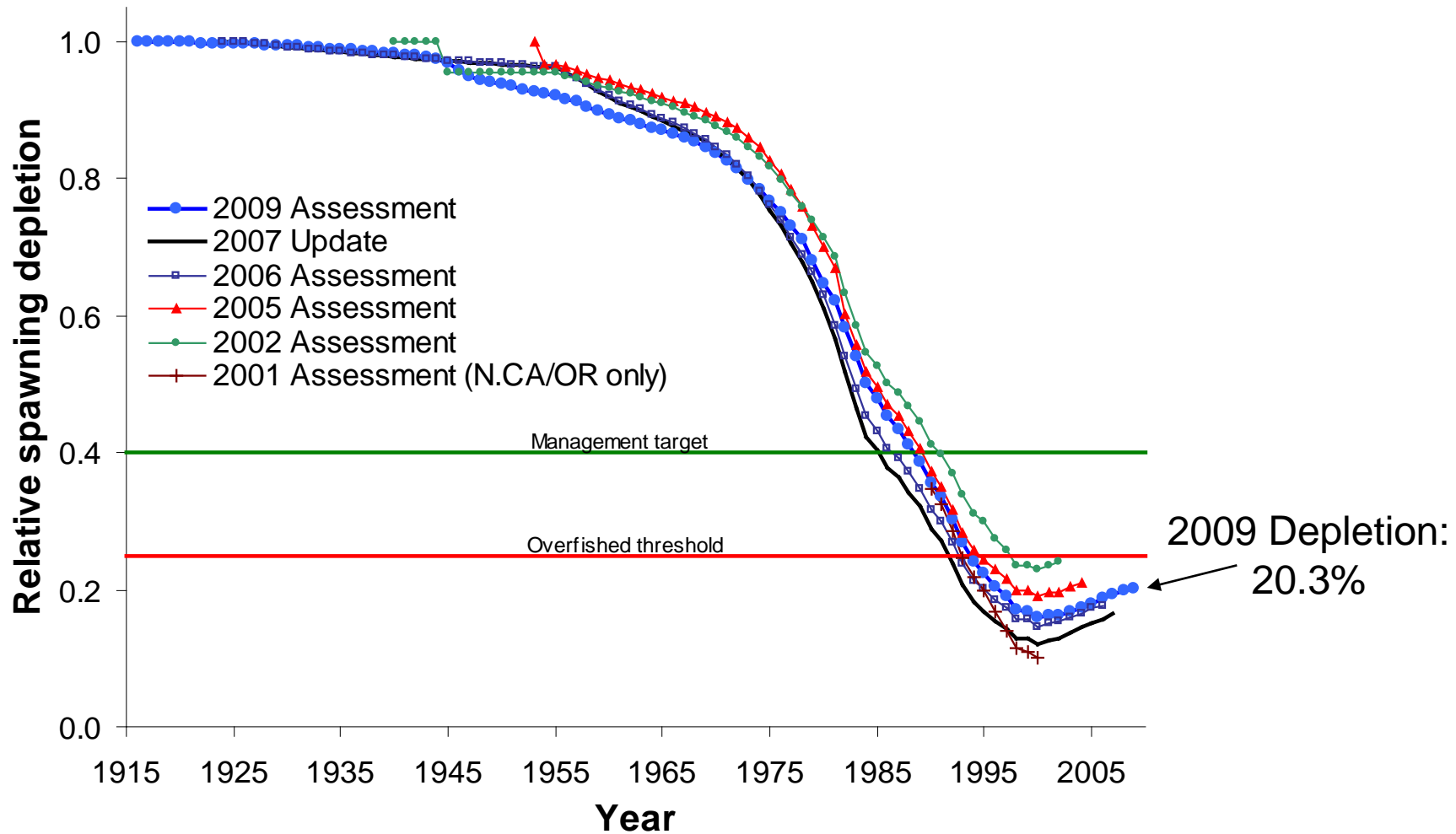
Catch series before 2000  
Estimated steepness



# Results – spawning output



# Management reference points



# Short-term forecast implication: 2011-2012 OYs (mt)

Based on 17 mt OY in 2010, 2005-2007 allocation, and current SPR=71.9% target

**Note:** These values will be replaced by the rebuilding plan analysis.

Axis		Historical catch percentage		
		level	75%	100%
Steepness	0.3440	2011: 13.2 2012: 13.4	2011: 17.8 2012: 17.9	2011: 27.0 2012: 27.3
	0.4168	2011: 15.6 2012: 15.9	<b>Base case</b> 2011: 20.9 2012: 21.2	2011: 31.6 2012: 32.0
	0.5075	2011: 18.4 2012: 18.8	2011: 24.6 2012: 25.0	2011: 37.0 2012: 37.6