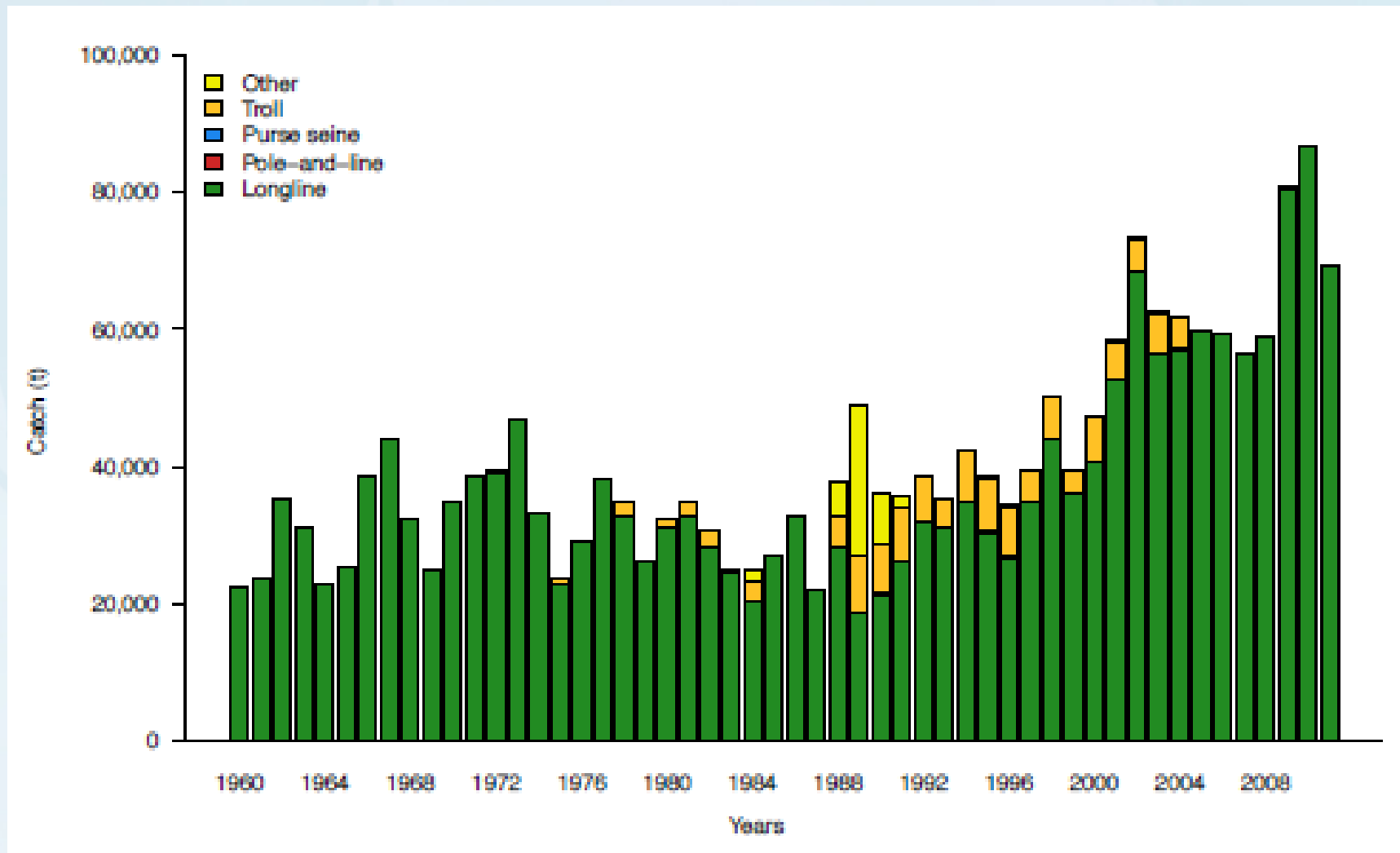




South Pacific Albacore Stock Assessment 2012

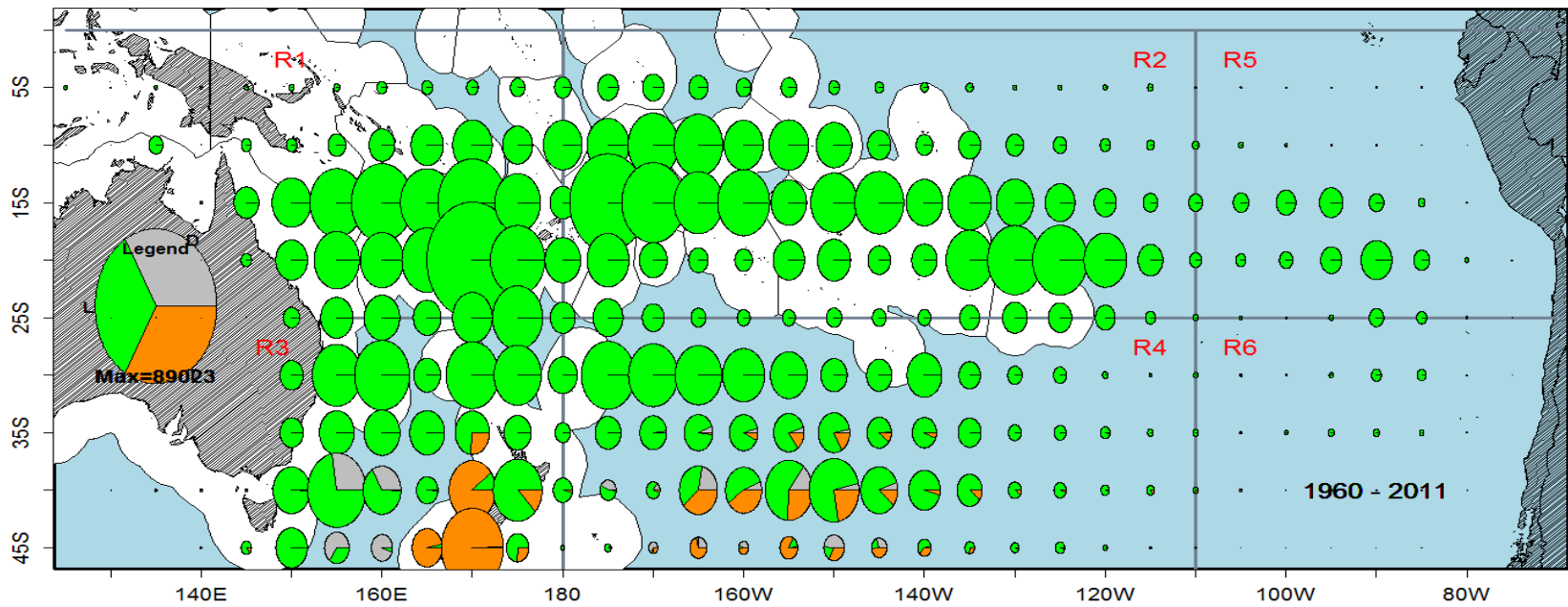


South Pacific Albacore Tuna



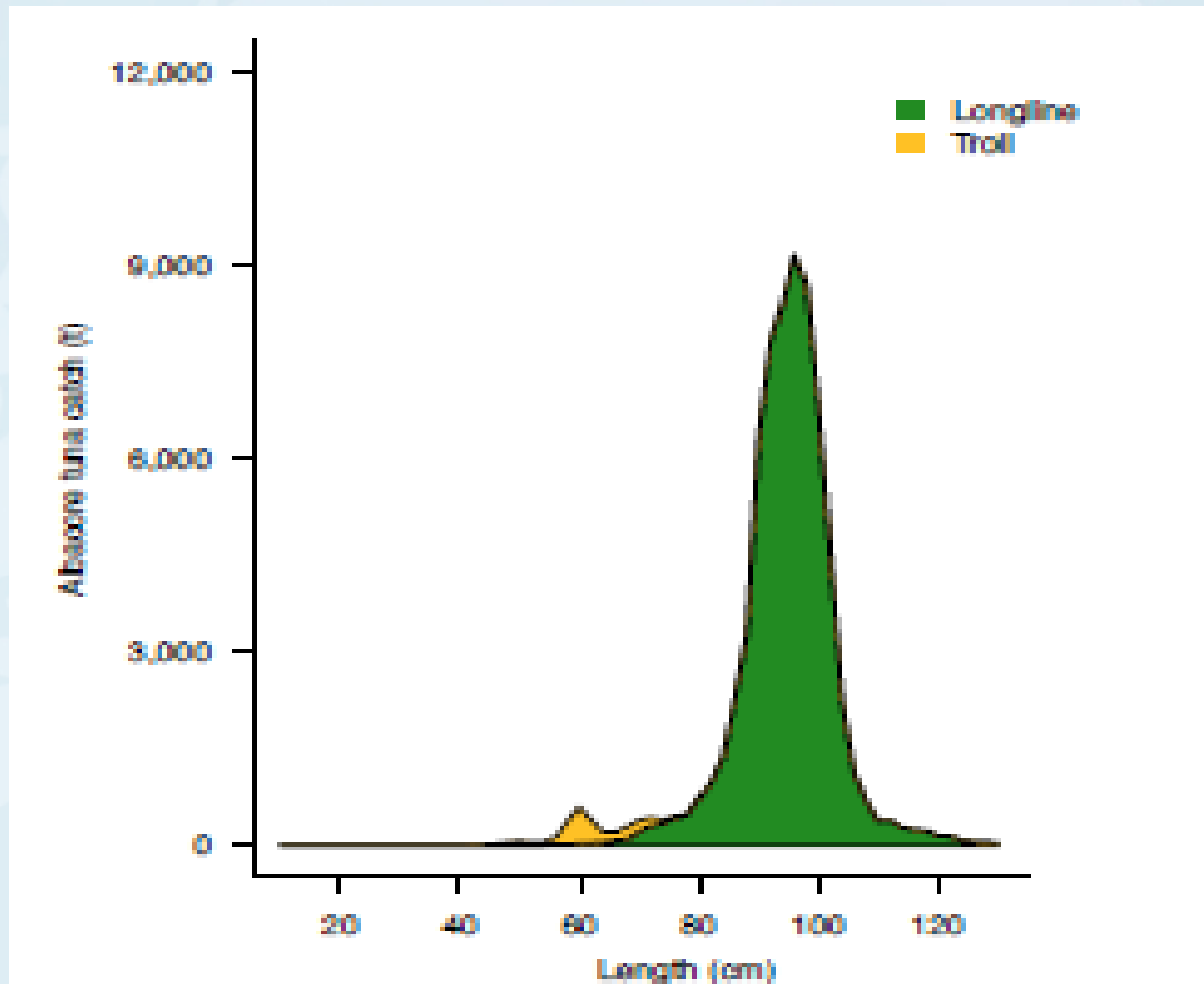


Catch Distribution





Size Composition



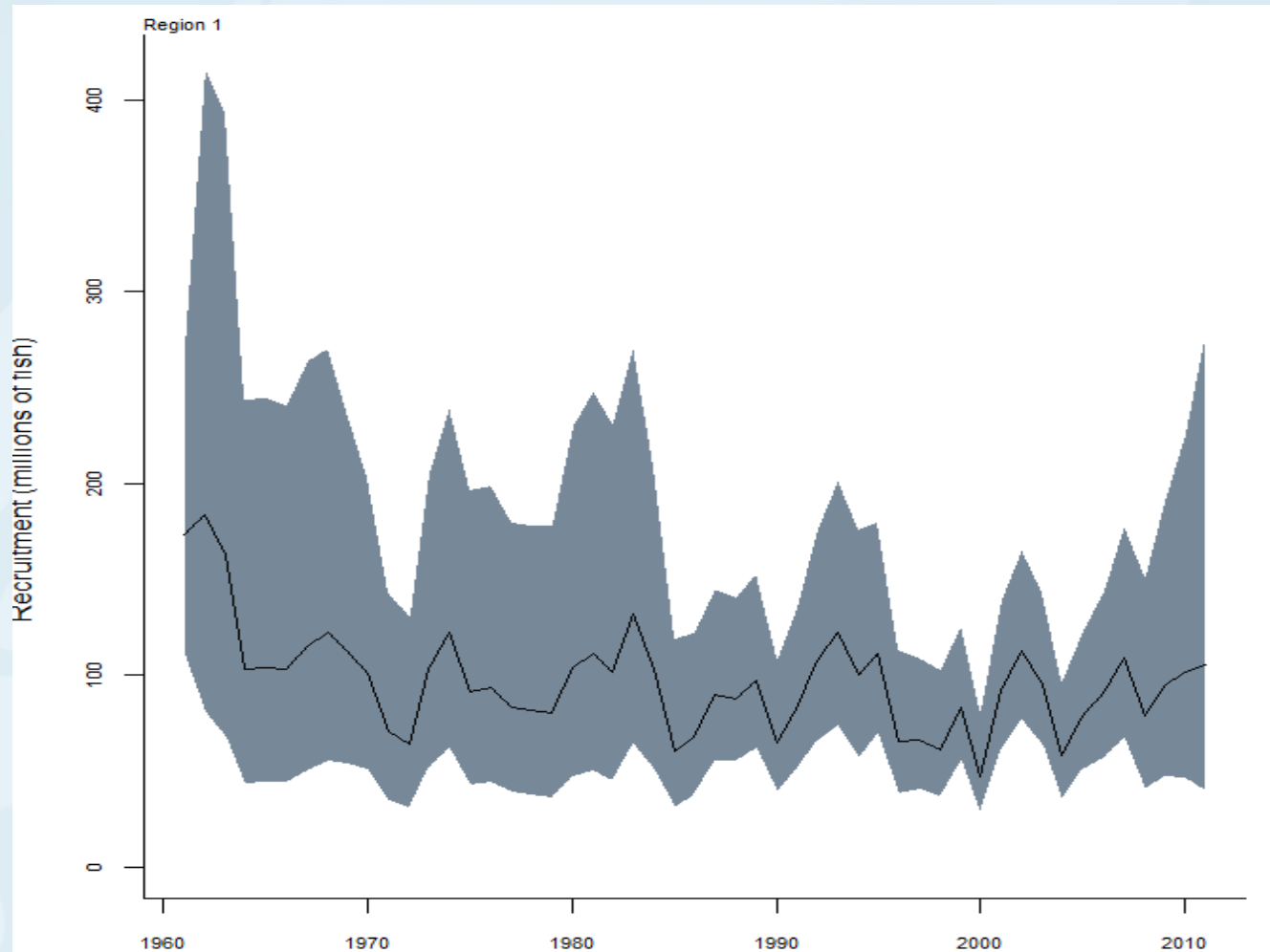


Assessment

- One spatial region – South Pacific-wide – for population dynamics
- Six spatial regions for fisheries definitions
- Annual recruitment
- Natural mortality fixed (0.4 yr^{-1})
- Growth estimated

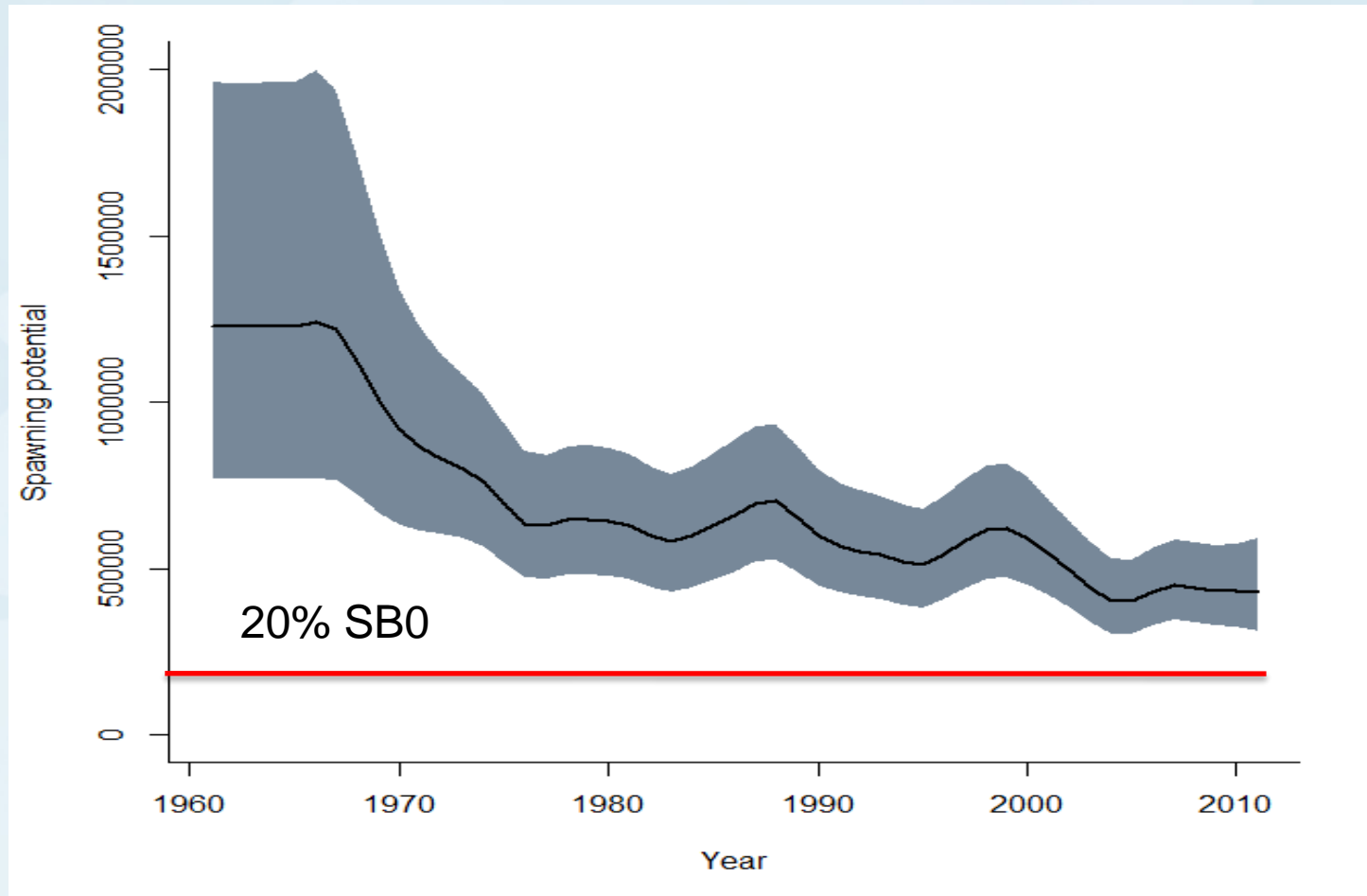


Recruitment



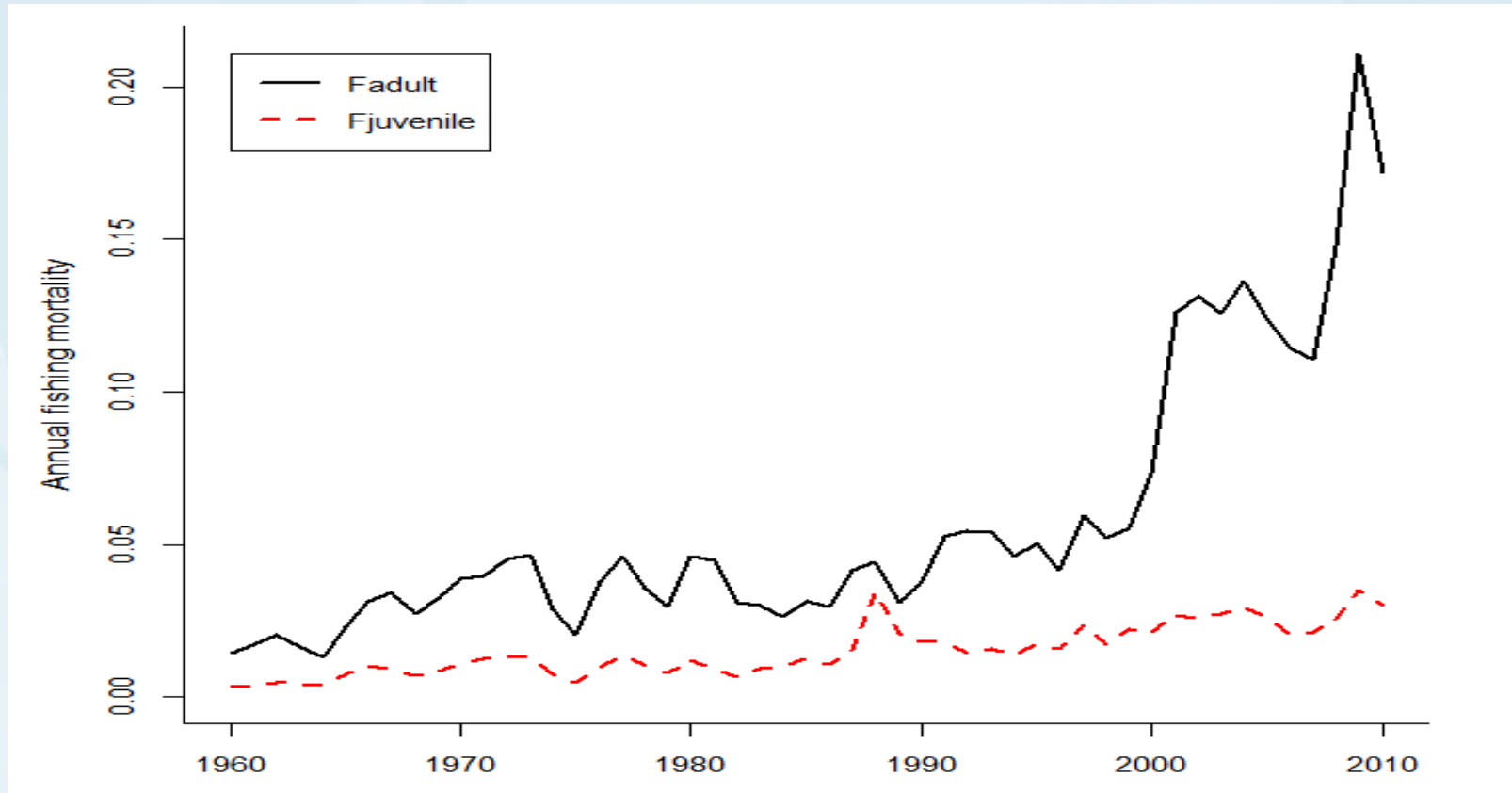


Spawning Potential



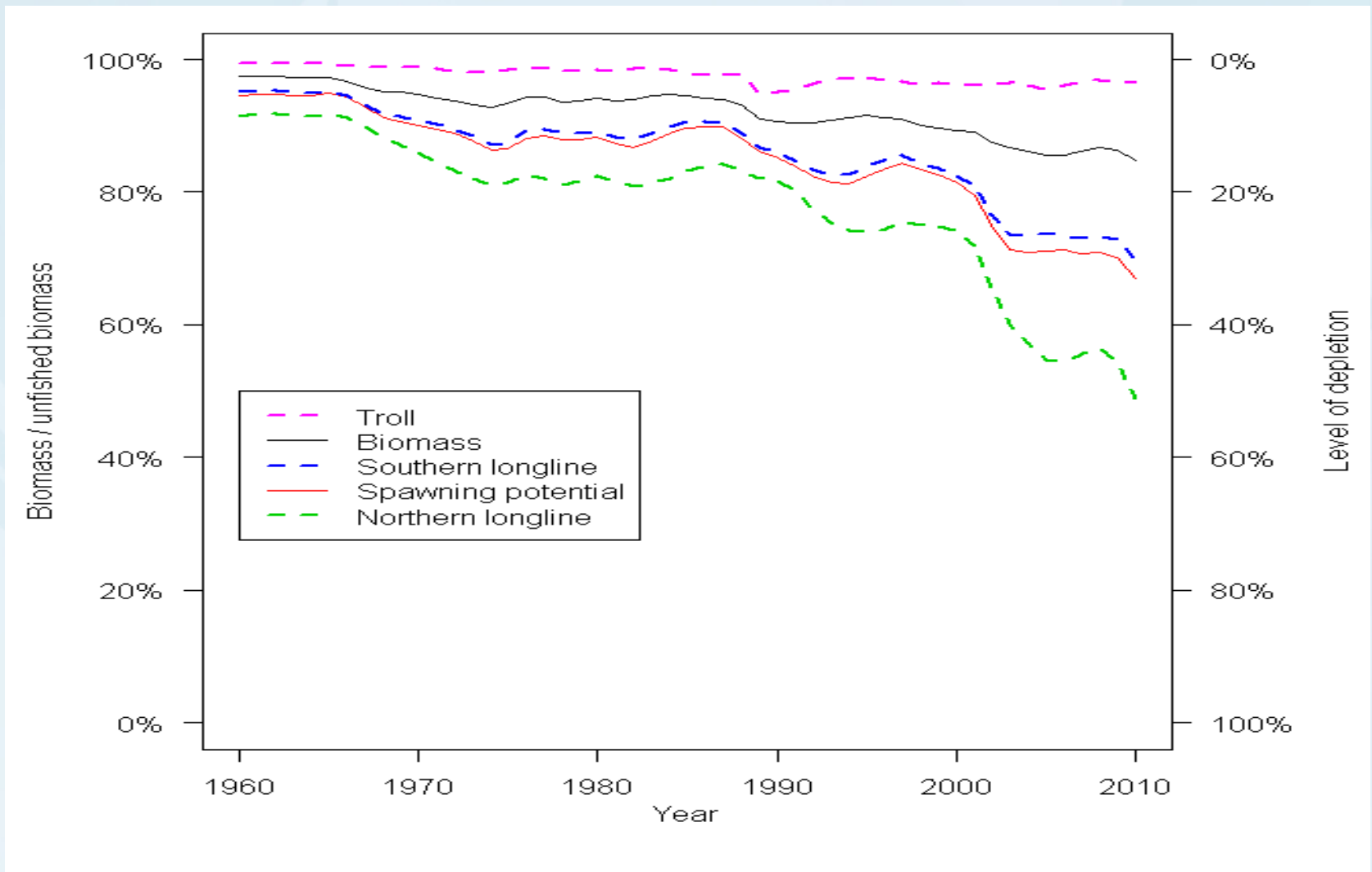


Fishing Mortality





Depletion



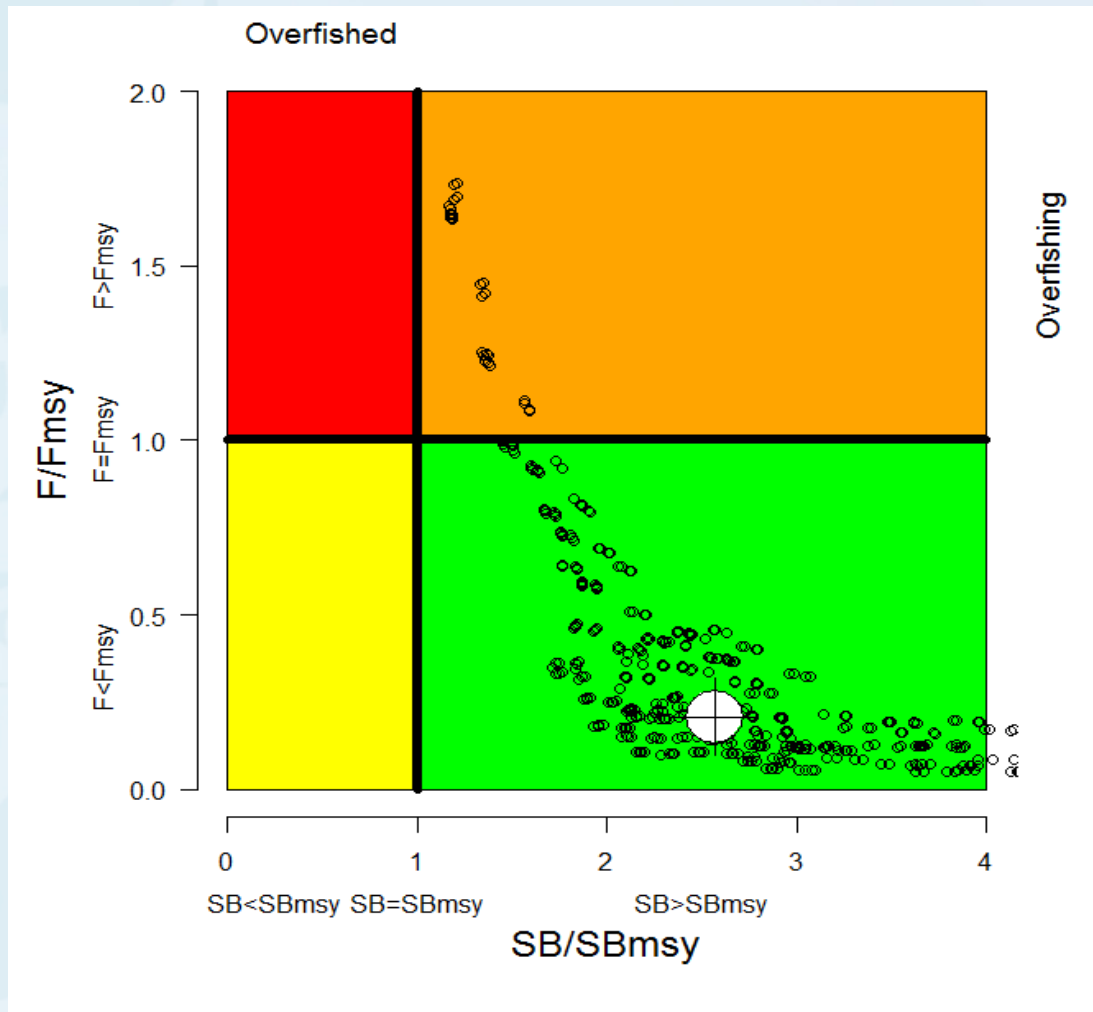


Structural Uncertainty Grid

Structural features	Scenarios							
Steepness	S1	S2	S3					
	0.65	0.8	0.95					
Growth L_{max}	G1	G2	G3	G4	G5	G6	G7	
	Estimated	$L_{max_base} + L_{diff}$	$L_{max_base} + \frac{L_{diff}}{2}$	L_{max_base}	L_{max_base}	Estimated	Estimated	
K	Estimated	$K_{base} + \frac{K_{diff}}{2}$	$K_{base} + \frac{K_{diff}}{2}$	$K_{base} + \frac{K_{diff}}{2}$	$K_{base} + \frac{K_{diff}}{2}$	$K_{base} + \frac{K_{diff}}{2}$	$K_{base} + \frac{K_{diff}}{2}$	
Effort creep	Cr1	Cr2						
	None	0.5% p.a.						
Natural mortality	M1	M2	M3					
	0.3	0.4	0.5					
CPUE data	CPUE1	CPUE2	CPUE3	Reference case model settings in bold 756 combinations				
	All regions	Western regions	Eastern regions					
Early CPUE	EC1	EC2						
	Down-weighted	Estimated weights						



SP Albacore: Stock Status





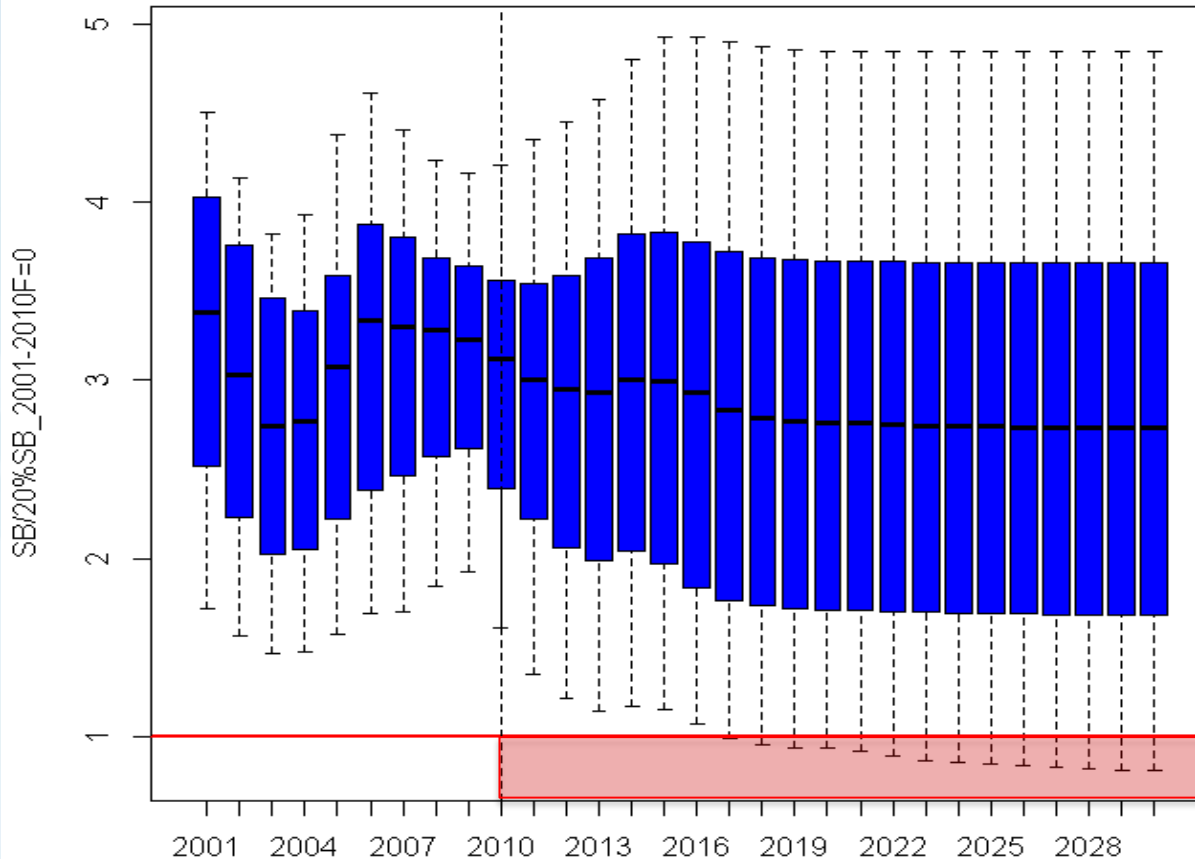
Key Management Quantities

Last assessment:		2012
Median of the grid of model runs:		
MSY	SB_{curr}/Sb_{msy}	F_{curr}/F_{msy}
99,085 t	2.56	0.21



Deterministic Projections

- status quo (2010) effort
- Mean B&H SRR recruitment



Line: median
Bar: 1st/3rd quartile
Whiskers ~ 95CI

Risk₂₀₃₀ = 4%



Management Issues

- Increased catches & assessment uncertainty pose some risk of exceeding limit RP
- Issues for PICT's fishery CPUE and profitability, particularly with current low price
- Attempts underway to develop zone-based catch limits