

Thorny Skate in Divisions 3LNOPs

Recommendation: This stock has remained low since the mid-1990s. Catches in Div. 3LNO in excess of recent levels (2009-11 average = 4 700 t) will increase the risk of the stock failing to rebuild.

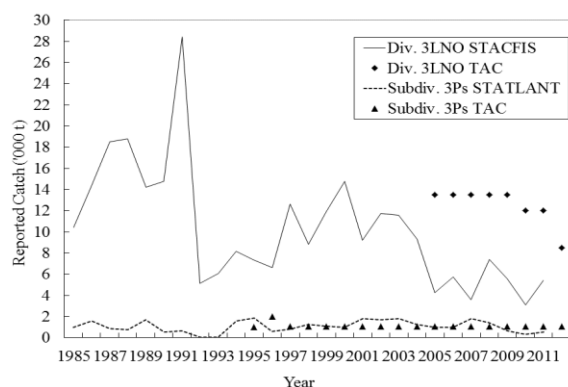
Background: Thorny Skate on the Grand Banks is managed as two units; Skate in Div. 3LNO is managed by NAFO and Skate in Subdiv. 3Ps is managed by Canada and France in their respective EEZs.

Fishery and Catches: Catches for NAFO Div. 3LNO increased in the mid-1980s with the commencement of a directed fishery for Thorny Skate. The main participants in this new fishery were EU-Spain, EU-Portugal, Russia, and Canada.

For 2010 and 2011, the TAC for Div. 3LNO was reduced to 12 000 t. The TAC was further reduced to 8 500 t for 2012. The TAC in Subdivision 3Ps is 1 050 t.

Catches are as follows:

	Catch (000 t)			TAC ('000 t) ¹
	Div. 3LNO	Div. 3LNOPs	Div. 3LNO	
	STACFIS	21	21	
2009	5.6	5.7	6.4	13.5
2010	3.1	5.4	5.7	12
2011	5.4	5.4	5.9	12
2012				8.5



There are substantial uncertainties concerning reported skate catches prior to 1996.

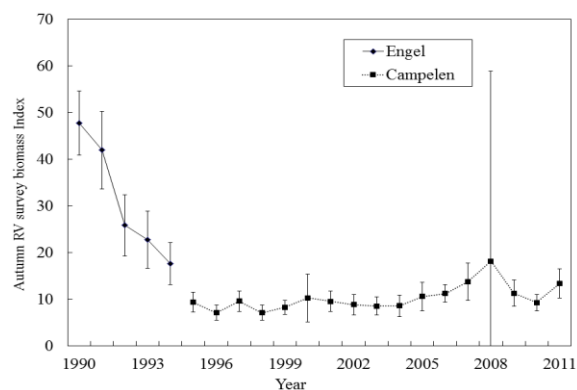
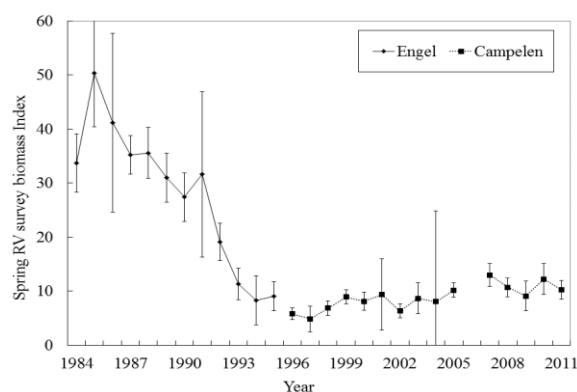
Data: Abundance and biomass indices were available from Canadian spring and autumn surveys since 1984.

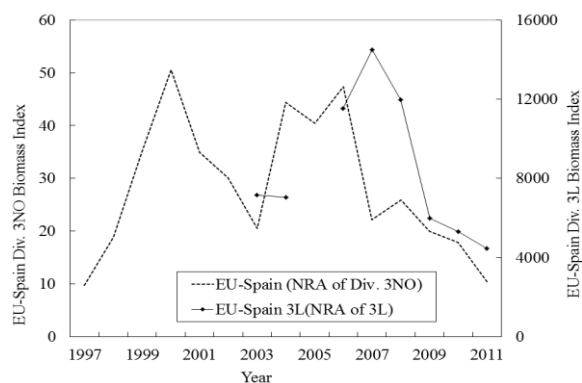
EU-Spain survey indices were available for the NAFO Regulatory Area of Div. 3NO (1997-2011). EU-Spain survey indices in the NRA of Div. 3L are available for 2003-2011.

Commercial length frequencies were available for EU-Spain, EU-Portugal, Canada and Russia.

Assessment: No analytical assessment or risk analysis could be performed, therefore, only qualitative statements about risk can be provided.

Biomass. The Canadian spring survey biomass indices fluctuated without trend prior to the mid-1980s then declined rapidly until the early-1990s. The Canadian spring Campelen series, 1996 to 2011, has been showing an increasing trend in biomass since 1997. While the Canadian autumn survey shows stability. Both EU-Spain surveys, which cover only the NRA have been in decline since 2007.



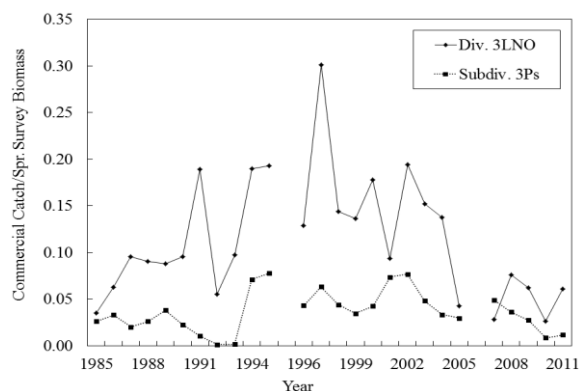


Special Comments: The life history characteristics of thorny skate result in low rates of population growth and are thought to lead to low resilience to fishing mortality.

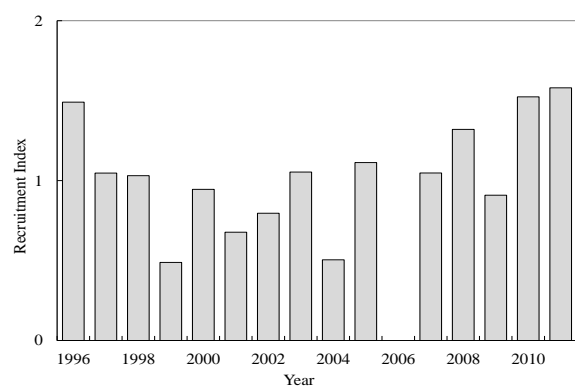
The next assessment will be in 2014.

Sources of Information: (SCS Doc. 12/5, 8, 9; SCR Doc. 12/10, 15, 21, 28)

Fishing Mortality. A fishing mortality index (Catch/survey biomass from Canadian spring surveys for Div. 3LNO) has been low since 2005.



Recruitment: Recruitment index (Skate < 21cm) has been fluctuating without any clear trend from 1996-2009. The index in 2010 and 2011 is however 50% above average.



State of the Stock: This stock has remained at low levels since the mid-1990s, with low fishing mortality index since 2005. Recruitment index in 2010 and 2011 is 50% above average.

Reference Points: None defined.