

White Hake in Divisions 3NO






Advice June 2015





Recommendation for 2016-2017

Given the absence of strong recruitment, catches of white hake in Divs. 3NO should not exceed their current levels of 100-300 t.

Management objectives

No explicit management plan or management objectives defined by Fisheries Commission. General convention objectives (NAFO/GC Doc. 08/3) are applied. Advice is based on survey indices and catch trends in relation to estimates of recruitment.

Convention objectives	Status	Comment/consideration
Restore to or maintain at B_{msy}		B_{msy} unknown, stock at low level
Eliminate overfishing		F_{msy} unknown, fishing mortality low
Apply Precautionary Approach		Reference points not defined
Minimise harmful impacts on living marine resources and ecosystems		No specific measures, general VME closures in effect
Preserve marine biodiversity		Cannot be evaluated

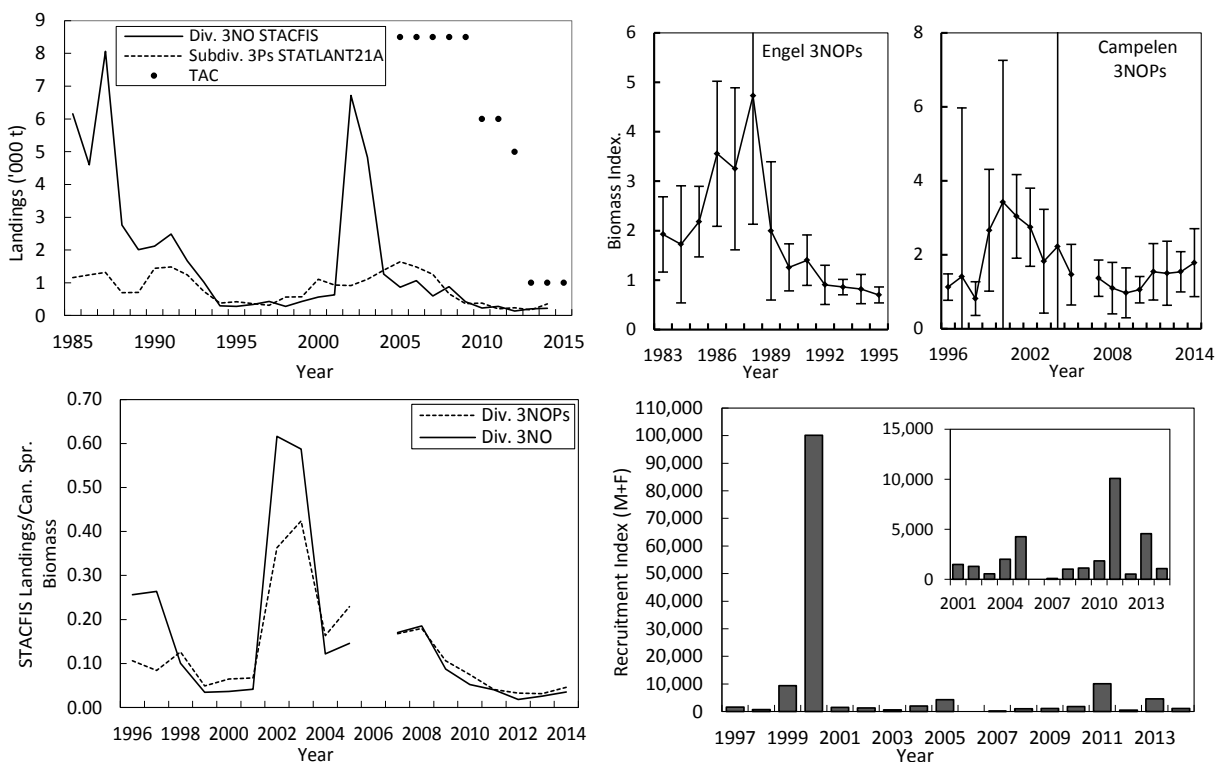
 OK
 Intermediate
 Not accomplished
 Unknown

Management unit

The management unit is confined to Divs. 3NO, which is a portion of the stock that is distributed in Divs. 3NO and Subdiv. 3Ps.

Stock status

The stock biomass is at an average level. No large recruitments have been observed since 2000. Recruitment was higher in 2011, but not comparable to the very high recruitment observed in 2000. Fishing mortality is low.



Reference points

Not defined. Attempts were made to define reference points in 2015 (STACFIS, 2015) but were not successful.

Assessment

Based upon a qualitative evaluation of stock biomass trends and recruitment indices. The assessment is considered data limited and as such associated with a relatively high uncertainty. Input data are research survey indices and fishery data (STACFIS 2015). The next full assessment of this stock will be in 2017.

Human impact

Mainly fishery related mortality has been documented. Mortality from other human sources (e.g. pollution, shipping, oil-industry) are undocumented.

Biology and Environmental interactions

On the Grand Bank, white hake are near the northern limit of their range, concentrating along the southwest slope of the Grand Bank at temperatures above 5°C. The major spawning area is located on the shelf-edge on the Grand Bank. Weaker ocean currents on the continental slope during the spawning period are hypothesized to reduce potential losses of eggs and larvae due to entrainment in the Labrador Current and increase recruitment potential.

White hake feed mostly on crustaceans and fish. Larger individuals are reported to be cannibalistic and to feed upon eggs and juveniles. In nearshore areas, white hake are also thought to predate on smaller juvenile cod. Predators of white hake include Atlantic cod, other fish species, Atlantic puffins, Arctic terns, other seabirds and seals.

Fishery

White hake is caught in directed gillnet, trawl and long-line fisheries. In directed white hake fisheries, Atlantic cod, black dogfish, monkfish and other species are landed as bycatch. In turn, white hake are also caught as bycatch in gillnet, trawl and long-line fisheries directing for other species. The fishery in NAFO Divs. 3NO is regulated by quota.

Recent catch estimates and TACs ('000 t) are:

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Divs. 3NO										
TAC	8.5	8.5	8.5	8.5	6	6	5	1 ¹	1 ¹	1 ¹
STATLANT 21	1.2	0.7	0.9	0.5	0.3	0.2	0.1	0.2	0.3	
STACFIS	1.1	0.6	0.9	0.4	0.2	0.2	0.1	0.2	0.3	
Subdiv. 3Ps										
STATLANT 21	1.5	1.3	0.7	0.4	0.4	0.2	0.2	0.2	0.4	

¹May change in-season. See NAFO FC Doc. 15/01, quota table.

Effects of the fishery on the ecosystem

No specific information is available. General impacts of fishing gears on the ecosystem should be considered.

Special comments

No special comments.

Sources of Information

SCR Docs. 15/09, 22, 23, 40; SCS Docs. 15/05, 06, 07, 08, 09.