

Advice note to DAFM 1 of 2020 June 24th 2021 (Shellfish and Environment Team, FEAS. Oliver. tully@marine.ie)

Subject: Dundalk cockle fishery

Advice for 2021 fishery

Biomass of cockles in Dundalk Bay in early June 2021 was estimated from survey to be 1,926 tonnes. Biomass of commercial size cockles (22mm and over) was 1,694 tonnes.

The 5 year Fishery Natura Plan 2021-2025, for this fishery, specifies the annual total allowable catch (TAC) is set at 0 if biomass is less than 1000 tonnes, at biomass between 1000-1500 tonnes TAC is set so that post fishery biomass is at least 1000 tonnes and where biomass is >1500 tonnes the TAC is 33% of biomass. The zero TAC at biomass <1000 tonnes is to protect food sources for overwintering oystercatchers and to provide spawning stock for the following Autumn and Spring.

The survey biomass estimate in 2021 of 1926 tonnes provides for a TAC of 642 tonnes in 2021.

All other conditions set out in the FNP 2021-2025 should apply to the 2021 fishery.

Cockle biomass (June 2021)

The 2021 cockle and benthic survey in Dundalk Bay was undertaken between June 2^{nd} and 4^{th} 2021 over an approximate survey area of 27km^2 . Biomass was significantly lower than in 2020 which in turn was lower than in 2019. Recruitment has been weak in the years 2019-2021 compared to 2018 and as a consequence the fishery is fishing down the biomass which recruited mainly in 2018.

The total biomass of cockles in the survey domain was 1,926 tonnes. The biomass over 22mm was 1,694 tonnes (Table 1).

Year	Survey Month	Biomass			Landings	
		Mean	95% CL	TAC (tonnes)	Vessels	Hand gatherers
2007	March	2277	172	950	668	Unknown
2008	August	3588	1905	0	0	0
2009	June	2158	721	719	108	0.28
2010	May	814	314	0	0	0
2011	May	1531	94	510	325	0.25
2012	May	1234	87	400	394	9.40
2013	June	1260	99	416	343	0
2014	June	972	188	0	0	0
2015	June	1032	100	0	0	0
2016	July	1878	87	616	410	0
2017	May	2316	95	772	772	0
2018	June	1644	257	542	446	0
2019	July	3789		600	595	0
2020	June	3420	870	1128	1150	0

Table 1. Annual biomass and landings of cockle in Dundalk Bay 2007-2021

2021 May 1926 537	642
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Fishery Natura Plan review

The Dundalk Cockle Fishery Natura Plan 2016-2020 and its implementation during that period was reviewed in spring of 2021. No significant effects on habitats or bird populations, with reference to conservation objectives for habitats and birds at the site, were found. The 2016-2020 plan was implemented successfully.

A third Fishery Natura Plan was submitted by the industry for assessment in summer of 2021. The plan was assessed to be compatible with the conservation objectives for habitats and birds in the SAC and SPA respectively. The plan is more conservative than the 2016-2020 plan in raising the biomass at which a fishery opens from 705 tonnes to 1000 tonnes of cockles. Also, the option to increase exploitation rates, from 33% to 50%, when biomass is over 3000 tonnes has been removed in order to sustain harvests over a number of years when recruitment is low and to maintain food supplies for overwintering birds.