

Fishery Natura Plan for cockle (*Cerastoderma edule*) in Dundalk Bay, 2021-2025

This plan was developed by the cockle fishermen who held cockle permits for
Dundalk Bay cockle fishery in 2016-2020

Introduction

This plan sets out the management measures to be undertaken by the vessel owners holding permits to fish Cockle (*Cerastoderma edule*) in Dundalk Bay. The aim of this plan is to ensure a fishery that is sustainable, that minimises Ecosystem impact and that further develops on the previous two 5-year plans.

This Plan seeks to continue the best practice developed over the course of the previous plans while at the same time introducing some additional control measures to ensure long term sustainability

Fishing area

The proposed fishing area covers a total of 77.8km² of intertidal sand flat in Dundalk Bay. This larger area has been defined to allow for the inter annual variability in location of commercial densities of cockles and to enable the fleet to avoid areas that may have concentrations of juvenile cockles. In any given year the actual area fished will probably be between 10-20km² as was the case during the period 2007-2015. The area fished in any given year is determined by the distribution of cockles at densities over 4m: as advised by annual surveys.

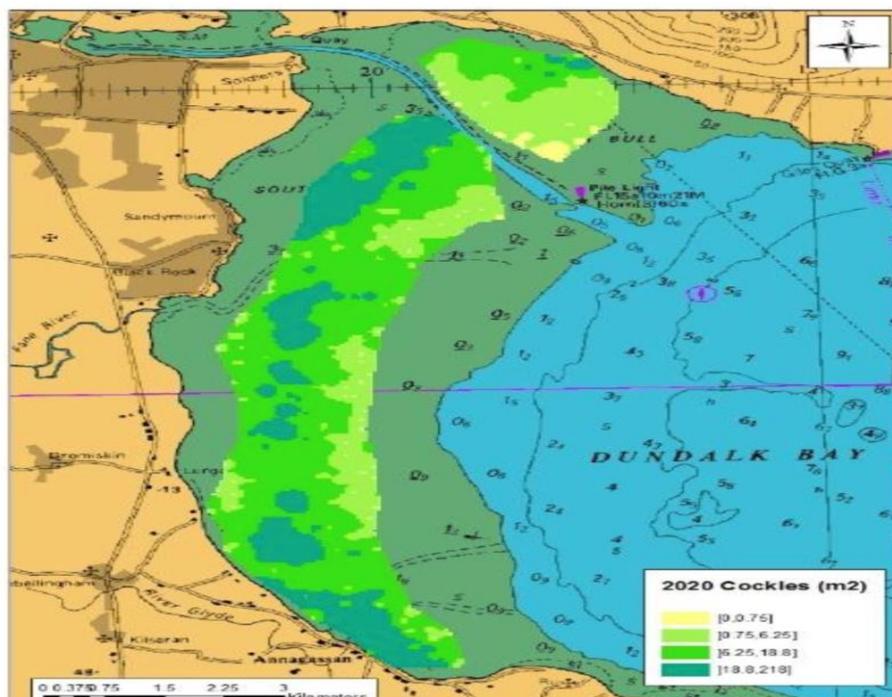


Figure 1. Proposed area for cockle fishing during the period 2021-2025.

Fishery control rules and justification

Various fishery control rules, representing a series of complementary safeguards against over exploiting of the stock, that minimise ecosystem effects and that ensure economic viability of the fishery are included in the management plan. Specifically, these are rules in relation to

1. Harvest rates in relation to annual biomass estimates
2. Minimum legal landing size
3. The in-season depletion of catch
4. Spatial control on fishing to protect seed cockles
5. Seasonal closures to minimise disturbance to waterbirds and habitats
6. Daily catch allowances to ensure equitable distribution of catch
7. Gear specifications and restrictions
8. A limit on the number of vessels in the fishery
9. A limited amount of hand gathering

Harvest rates

The harvest rate (% of biomass) rules will determine the Total Allowable Catch (TAC) in any given year of the plan. The following rules, justification is provided, will apply

1. At biomass between 1000-1500 tonnes harvest rate will always result in 1000tonnes biomass being maintained post season
2. At biomass >1500 tonnes harvest rate is 0.33

Any proposed change to the harvest rates as outlined above will trigger a review of the entire plan

Biomass	TAC MI plan with bottom biomass of 1200	Biomass unfished	TAC Old 33%/50%plan	Biomass unfished	New 2021/2025 TAC plan	Biomass unfished
4000	1200	2800	2000	2000	1320	2680
3800	1200	2600	1900	1900	1254	2546
3600	1200	2400	1800	1800	1188	2412
3400	1200	2200	1700	1700	1122	2278
3200	1200	2000	1600	1600	1056	2144
3000	1200	1800	990	2010	990	2010
2800	1200	1600	924	1876	924	1876
2600	1200	1400	858	1742	858	1742
2400	1200	1200	792	1608	792	1608
2200	1000	1200	726	1474	726	1474
2000	800	1200	660	1340	660	1340
1800	600	1200	594	1206	594	1206
1600	400	1200	528	1072	528	1072
1400	200	1200	462	938	400	1000
1200	0	1200	396	804	200	1000
1000	0	1000	330	670	0	1000
800	0	800	264	536	0	800
600	0	600	0	600	0	600
400	0	400	0	400	0	400
200	0	200	0	200	0	200
0	0	0	0	0	0	0

Figure 2 proposed new TAC Plan for 2021-2025

Minimum legal landing size

The legal landing size will be 17mm shell width but operationally, as reflected in the bar spacing used on the grader on board the vessels, the effective minimum landing size will be 22mm shell width. The higher minimum size is designed to optimise the price and to separate Dundalk cockle from cockle landed in UK fisheries in the market place.

The in-season depletion of catch per day

If catch rates decline to 250kg per vessel per day the fishery will close irrespective of other harvest rules. In calculating the catch per vessel per day

- i. the first weeks fishing will be excluded because operators are fine tuning gear at the start of the fishery
- ii. only vessels that have fished the entire tidal period each day for at least 2 days each side of the high tide will be included
- iii. The catch data will be provided by fishermen and will be cross checked with SFPA issued gatherers docketts

Seasonal closures to protect waterbirds and allow recovery of habitats

The fishery will close on November 1st provided this is preceded by a period of 14 weeks during which the fishery is open to allow sufficient fishing opportunity to take any available quota. Otherwise the closing date will be later as required.

Daily catch allowances to ensure equitable distribution of catch

- a. A daily maximum catch of 1000kg per vessel will generally apply provided this is sufficient to allow the quota to be taken in 14 weeks

Gear specifications

- b. The dredge blade width will be 0.75m in the case of suction dredges and 1.0m in the case of non-suction dredges

Days per week and time restrictions

- c. Fish tides 4.2m or higher provided this is sufficient to allow the quota to be taken in 14 weeks
- d. Fishing will be allowed on one tide per day only

Access and conditions on the Natura permit

The number of permits should be limited to 33 as in the fishing plan for 2011-2015 and 2016-2020

Hand gathering

This plan specifically pertains to fishing of Cockle from fishing vessels. The vessel owners acknowledge the tradition of hand gathering in certain areas of the fishery, however, the requirements, methods and arrangements for the health and safety of hand gatherers, is outside of the knowledge and experience of the drafters of this plan.

It is therefore recommended that any plan for the issuance of hand gathering permits should be developed separately to the vessel fishing plan.