Queen scallop, Aequipecten opercularis, North Coast

ADVICE

Landings of queen scallops should be reduced in line with the survey index. It is advised that landings in 2023 should be no more than 36 tonnes.

FISHERY AND STOCK TRENDS

The primary areas for queen scallop fishing adjacent to NI are the Irish Sea (ICES rectangles 36E5, 36E6 and 37E5) and the North coast (ICES rectangles 39E3 and 40E3).

In 2021 54 tonnes of queenies were landed from the North Coast area. Prior to 2021, the last landings were made in 2018 (72 tonnes). This was a decrease from a peak of 6861 tonnes in 2012 (Fig 1). The Landings Per Unit Effort (LPUE) has been increasing in recent years but overall has declined from a peak in 2009.

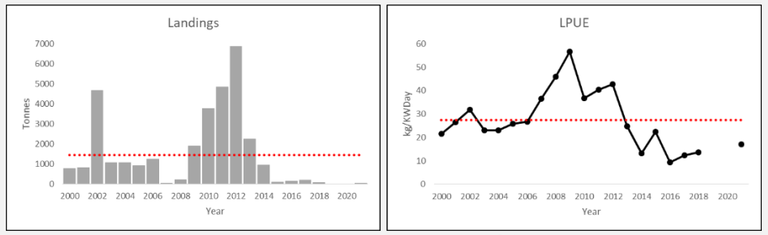

Fig 1. Queenies in ICES rectangles 39E3 and 40E3. Summary of the stock assessment. Landings, LPUE. Red dashed line represents average over analysed time period

Stock Survey

A survey has examined trends in queen scallop stocks within 39E3 and 40E3 since 2013. The survey is based on Under Water Towed Video (UWTV) counts and fishing catches. No survey was possible in 2020 due to Covid-19 restrictions. In 2019, due to vessel breakdown, fishing tows were not possible. The survey estimated biomass has decreased from the beginning of the time series. Average abundance (100m^2) from UWTV counts increased during the 2021 survey. While biomass and abundance should follow a similar trend they may not be exact. For example, in 2017 estimated biomass decreased but abundance increased. This is due to a higher estimated proportion of pre-recruits (<40mm) which have a lower biomass.

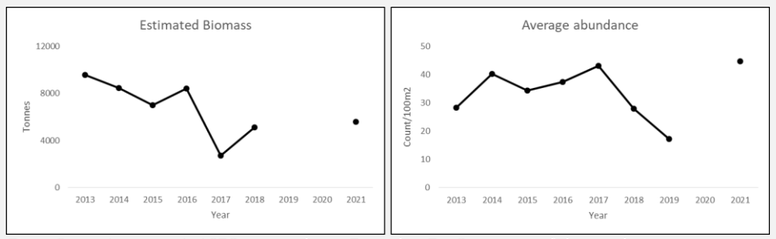

Fig 2. Queenie survey in ICES rectangles 39E3 and 40E3. Summary of the stock assessment. Estimated biomass and abundance.

Table 1. Queen scallops in ICES rectangles 39E3 and 40E3. State of the stock relative to qualitative fishing pressure and survey index.

Fishing Pressure					Survey Index				
2018	2019	2020	2021	Increasing; below historic average	2018	2019	2020	2021	Increasing; above historic average
↘	↘	→	↗		↘	↘	-	↗	

ADVICE BASIS

The Northern Ireland annual queen scallop survey is used to indicate stock trends (UWTV count per 100m^2). The advice is based on the ratio of the mean of the last two index values (Index A) and the mean of the three preceding values (Index B), multiplied by the recent average catch (3 years).

The precautionary buffer was considered but is not applied as the there is an increasing trend in LPUE.

Table 2 Queen scallops in ICES rectangles 39E3 and 40E3. Basis for advice.*

Index A (2019-2021)	30.98
Index B (2016-2018)	36.14
Index ratio (A/B)	0.86
Recent landings for 2018 – 2021**	42.21 t
Precautionary	Not Applied
Landings advice***	36.2 t
% Advice change ^	-14.28 %

* The figures in the table are rounded. Calculations were done with unrounded inputs and computed values may not match exactly when calculated using the rounded figures in the table.
** 2020 landings excluded due to Covid-19 impacts on landings
*** [Mean recent landings (2018 – 2021)] × [Index Ratio] × [Precautionary buffer].
^Advice change is based on the current advised landings compared to mean recent landings.

REFERENCE POINTS

The stock status relative to candidate reference points is unknown.

QUALITY OF THE ASSESSMENT

The assessment is based on landings from ICES rectangles 39E3 and 40E3 by UK registered vessels. These landings are made into NI, other UK and Irish ports.

Commercial landings and effort information is derived from reported landings data from all UK vessels. This data is reliant on accurate self-reporting from commercial fishers. Methods for automated data collection would provide more detail on effort trends, including the duration over which pots are deployed.

ISSUES RELEVANT FOR THE FISHERY

EU Minimum Landing Size of 40mm.

Commercial landings and effort information is derived from reported landings data from all UK vessels. Irish vessels may fish in the indicated ICES rectangles also, but information is not recorded in this assessment.

The landings and effort in 2020 may have been impacted by Covid-19 due to market factors and public restrictions to limit Covid-19 spread.

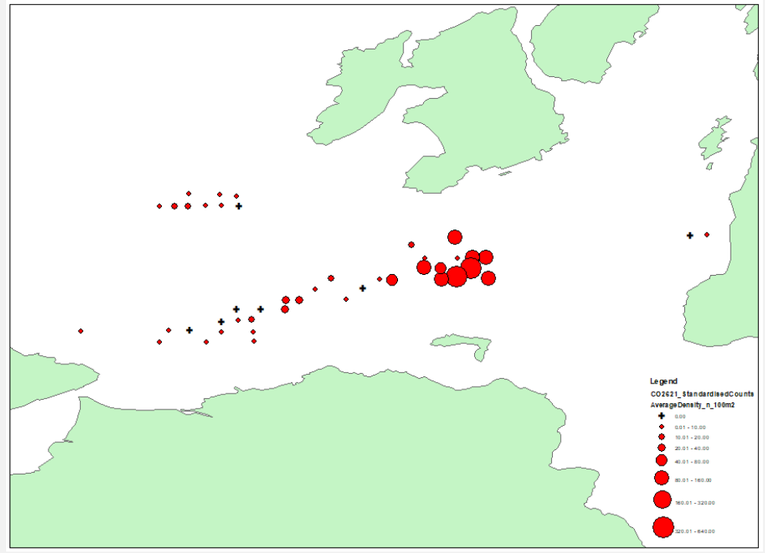

Fig 2. *Location of camera tows carried out during the 2021 queenie survey. Size of dots are indicative of queenie abundance at that location.*

SUMMARY OF THE ASSESSMENT

Table 3 *Pecten maximus* in ICES rectangles 39E3 and 40E3. Assessment summary.

Year	Landings Tonnes	Effort kwDays	Average survey density (100m^2)
2000	782.03	35453	-
2001	814.86	30036	-
2002	4658.37	147081	-
2003	1076.43	53922	-
2004	1082.09	56775	-
2005	920.84	41997	-
2006	1235.49	49311	-
2007	40.66	1345	-
2008	220.55	4866	-
2009	1897.72	35364	-
2010	3756.90	97694	-
2011	4849.09	116714	-
2012	6860.76	154879	-
2013	2235.85	91150	28.39
2014	956.02	65313	40.42
2015	89.08	4027	34.34
2016	144.97	14354	37.37
2017	196.31	14372	43.13
2018	72.40	5856	27.92
2019	0	-	17.27
2020	0	-	-
2021	54.23	3066	44.69