

2016 Executive Summary: Queen scallop (*Aequipecten opercularis*) stock within the Isle of Man territorial sea

2016 Survey

From 25th April—8th May 2016 an annual survey of queen scallop stocks was undertaken in the Isle of Man's territorial sea aboard R.V. Prince Madog. A total of 49 survey stations were sampled by dredge (Fig 1) In addition, overnight multi-beam and side-scan sonar work was undertaken to map a horse mussel reef (*Modiolus modiolus*) at Little Ness.

2015/16 Fishery

In total 35 of the 47 licenced vessels took part in the queen scallop fishery in the territorial sea from July to October 2015 landing a total of 1,240t (Trawl fishery: 31 vessels; Dredge fishery: 12 vessels). Landings from outside the territorial sea added a further 6760t to the total landings for the wider stock unit (ICES Statistical Rectangles 36, 37 & 38 E5) for the 2015/2016 fishing season (1st June 2015 - 30th April 2016). The fishery inside the territorial sea was regulated with restricted licences, curfews and weekly bag limits and uptake was monitored with daily catch returns and GPS loggers. Four higher areas with relatively high densities of spawners were strategically closed around the island to try and promote improved recruitment to the fishery.

2016 Stock Assessment

The 2016 stock assessment was conducted using the CSA V.3.1.1 model and included Stations 3, 4, 5, 9, 10, 14, 17, 20, 21, 22, 23, 24, 25, 32, 35, 36, 38, 39 and 45 as well as historical stations (CHI, EDG, LAX, POA, PSM, RAM, SED and TAR). For the stock assessment unit (Isle of Man territorial sea):

- Landings had risen from 1,000t in 2014/15 to 1,240t in 2015/16 (Fig. 2).
- Median estimated biomass had fallen from **5328t** for the 2015/16 fishing season (80% confidence intervals of 3780t and 7749t) to **4678t** for the 2016/17 fishing season (80% confidence intervals of 3022t and 6928t) (Fig. 3).

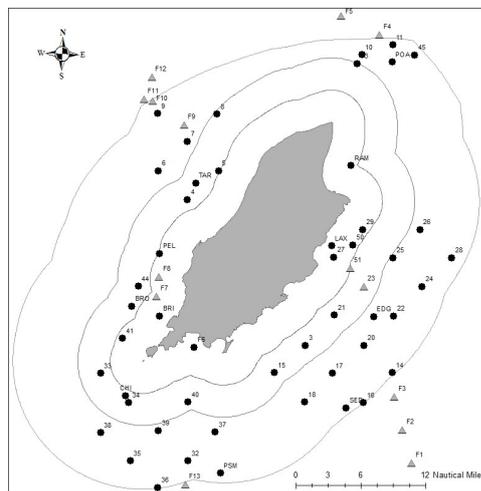


Fig 1. Stations surveyed in 2016 (black circles surveyed; grey triangles not surveyed)

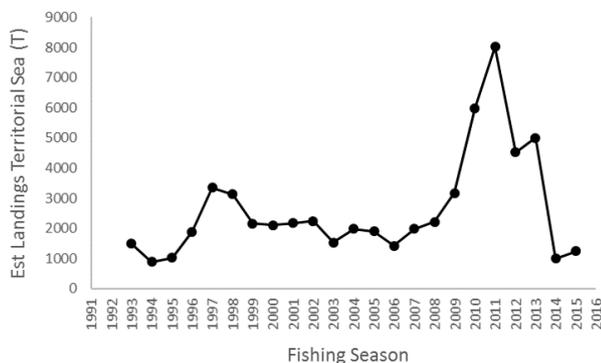


Fig. 2. Summary of estimated total landings (t) from territorial sea.

Advice for 2016

Estimated biomass for the territorial sea remains below the minimum threshold and so a scientifically advised TAC has not been recommended for the 2016/17 fishing season.

Biomass within the territorial sea has returned to around average historical levels (average 4873t: 1993-2006; 2014-2016) following increased management. Despite year on year fluctuations for that period the overall biomass trend remained relatively stable with an average of 1845t removed (range 886-3343t) (Fig. 2 and Fig. 3). Estimated biomass for 2016 is slightly down from 2015 (Fig. 3). As such, there is no scientific evidence that the stock can support any increase in the TAC from 2015 (e.g. 1240t). Furthermore should fishing occur a more precautionary approach for 2016/17, limiting biomass to 20-25% of the estimated median biomass (e.g. 935-1170t), is advised in order to try and further stabilise biomass.

It is also advised that a Pan-Irish Sea management plan is still urgently needed to develop and implement measures to substantially reduce fishing mortality within the wider stock. Following concerns raised by industry a one month voluntary closure of the queen scallop fishery (Areas VIa and VIIa) was enacted for 2016 to protect the stock during the spawning period.

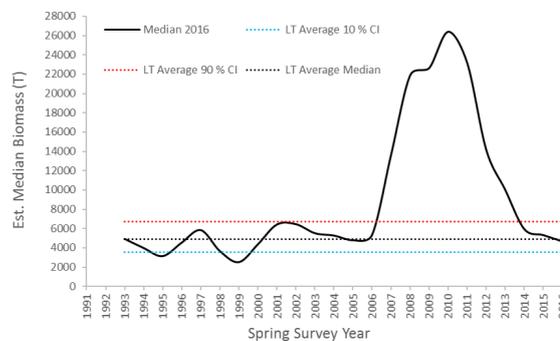


Fig. 3. Estimated biomass for territorial sea. Dotted lines show historic long term average calculated using all data except 2007-2013, highlighting the extraordinary peak in biomass that occurred during that period.