Common Whelk Fishery

Traditionally, whelks (*Buccinum undatum*), locally known as buckies, were primarily fished in the western region during the closure of the velvet crab fishery in the summer months. However, in recent years, the fishery has extended its target season from February through September, now subject to closure from September to January during the whelks' breeding season. The fishery employs pots for harvesting, with a local minimum landing size of 75mm, in contrast to the national MLS of 45mm.

From 2000 to 2006, landings and effort in the fishery exhibited variability, with landings around 200 tonnes. This period was followed by decreased fishing activity, resulting in low landings until 2015 (Figure 1), largely influenced by shifts in market access. Subsequently, landings have fluctuated between 200 and 300 tonnes from 2016 to 2021, with a notable peak observed in 2020 at 450 tonnes. Landings per unit effort (LPUE) have displayed an overall increasing trend since 2005, albeit with some interannual variability, and have stabilized in recent years. The mean LPUE data for 2017 recorded the highest value in the fishery's history, reaching nearly 2.5 kg/pot. Although there was a slight decline in 2018, LPUE rebounded to 2.5 kg/pot in 2020 before decreasing to 2.1 kg/pot in 2022 and remaining stable to 2023.

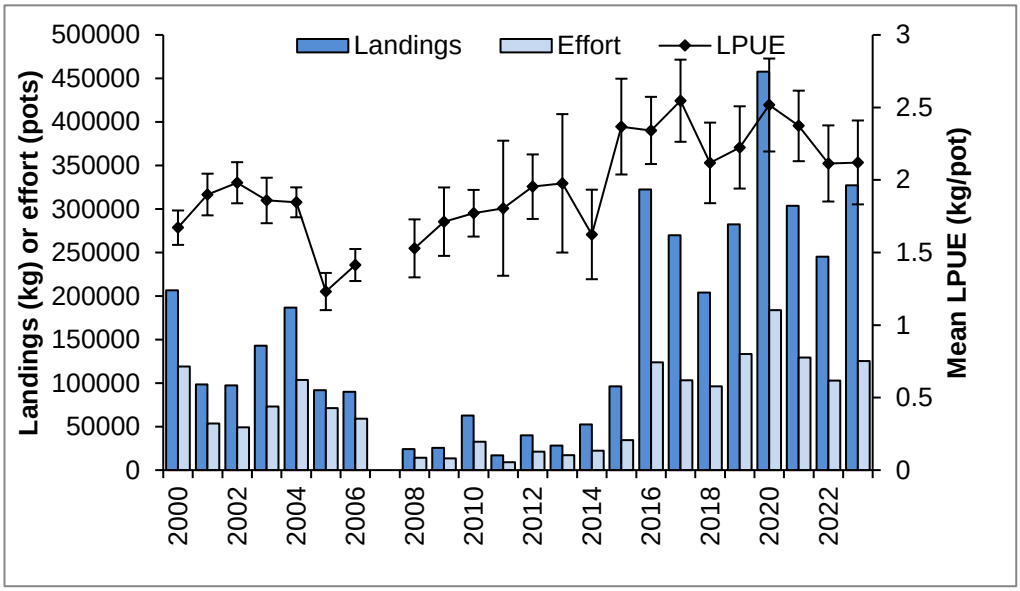

Figure 1 Total whelk landings (kg), total numbers of creels, and the average LPUE obtained from SSMO logbook data with 95% confidence intervals

The areas with the highest LPUE are consistently observed around Yell and Fetlar (Figures 2-4), mirroring the distribution of 2022 landings and effort. Whelks, being highly substrate-dependent, tend to aggregate in distinct patches, rendering them susceptible to localised overfishing.

While recent years have shown relative stability in LPUE, caution is warranted due to the slow growth and late maturity of whelks. Their life history traits necessitate a cautious approach to fishing practices to ensure sustainable management and long-term viability of the fishery.

Figure 2 Geographic distribution of whelk landings per SSMO stat square in 2023.

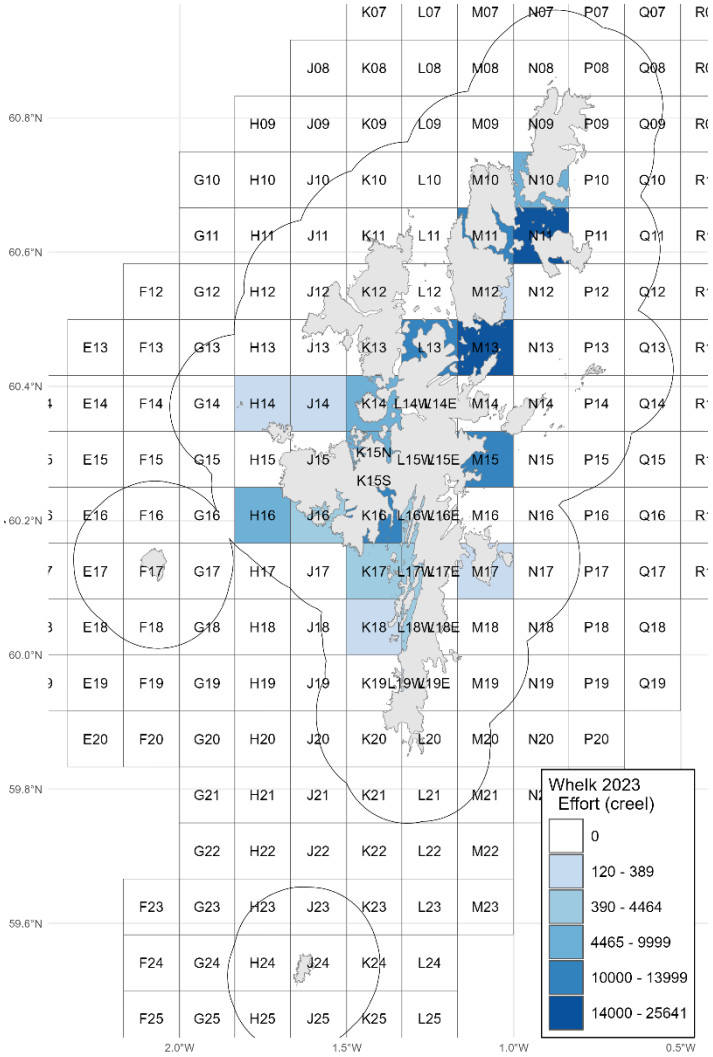

Figure 3 Geographic distribution of whelk effort per SSMO stat square in 2023.

Figure 4 Geographic distribution of whelk LPUE per SSMO stat square in 2023.