

## Sussex IFCA Shellfish Permit Catch Returns Data Summary 2020

The Sussex Inshore Fisheries and Conservation Authority's purpose is to develop sustainable inshore fisheries whilst providing appropriate protection for the marine environment and the fisheries resources it supports.

In 2016, the Authority introduced a comprehensive suite of management measures for pot and trap shellfish fisheries under the Shellfish Permit Byelaw. The inshore controls built upon existing measures, such as minimum sizes, and introduced effort limitation, better selectivity for juvenile stock and protection of berried lobsters. The Byelaw effort and gear restrictions enable effective controls on the impacts of fishing activity on the District's shellfish populations and help achieve more productive and sustainable fisheries through improved stock management.

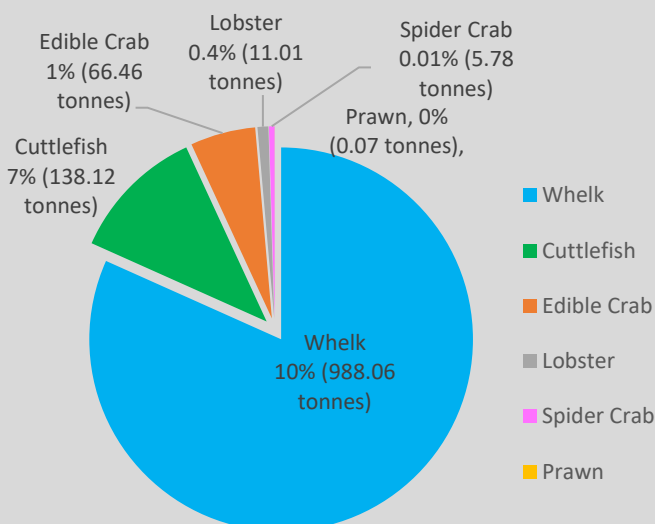
The Sussex IFCA Shellfish Permit Byelaw requires all permit holders to provide shellfish catch and fishing effort information to support inshore shellfish fisheries. This catch returns data is a vital part of shellfisheries' management and helps the IFCA to gather the evidence needed to make future management decisions. The Authority understands that permit data may also be of interest to permit holders, providing a better understanding of the fishery in the context of their own detailed knowledge. Trends such as seasonality of different fisheries and catch rates might be of particular interest for future planning.

Catch data submitted will enable Sussex IFCA and others to better understand the seasonality of the shellfish fisheries and changes over longer time periods. The data will also help to understand the changes in catches and the status of stocks in response to the levels of fishing effort within the fisheries.

### Overview

- Since October 2016, (the introduction of the Shellfish Permit Byelaw) to the end of December 2020, 58% of the total 250 permits were assigned to commercial fishermen, with 42% to recreational.
- 13% of these permits expired in 2019 and were not renewed during 2020 (10% recreational and 3% commercial).
- There were 55 active recreational permits and 94 active commercial permits during 2020.
- A total of 1209 tonnes of shellfish was reported being landed on catch returns in 2020. 99% of landings were from pots and 1% were from nets and trawls.
- The four main species landed were whelks (82%), cuttlefish (11%), edible crab (6%) and lobster (1%).
- Very few spider crabs or prawns and no velvet swimming crabs were reported as being landed.

Percentage and weight (tonnes) of shellfish species landed from pots, nets and trawls



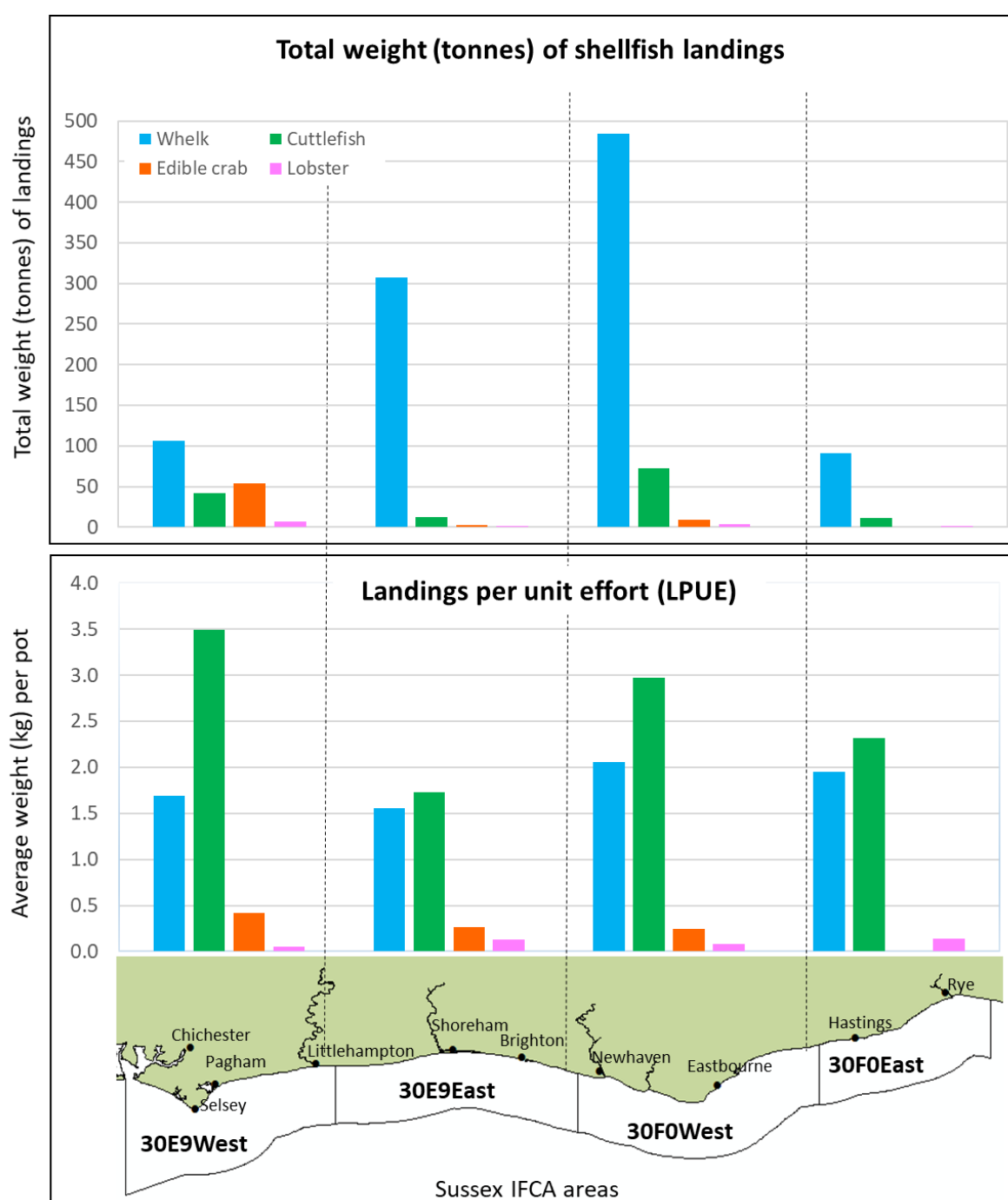
## Spatial variation

### Total landings

- Lobster and edible crab landings were greatest in 30E9West and whelk and cuttlefish landings were greatest in 30F0West.
- Landings were lowest for all shellfish species in 30F0East. Almost no (<0.01 tonnes) lobster or edible crab were landed in 30F0East.

### Landings per unit effort

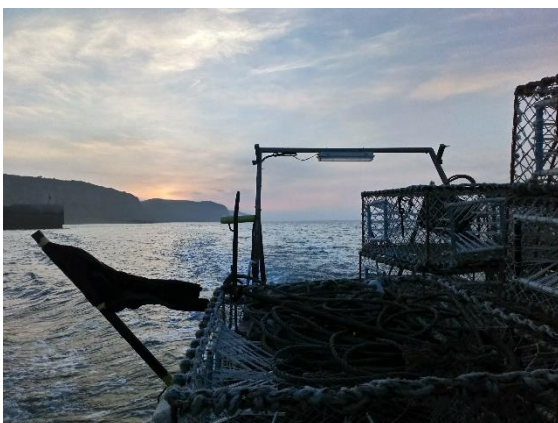
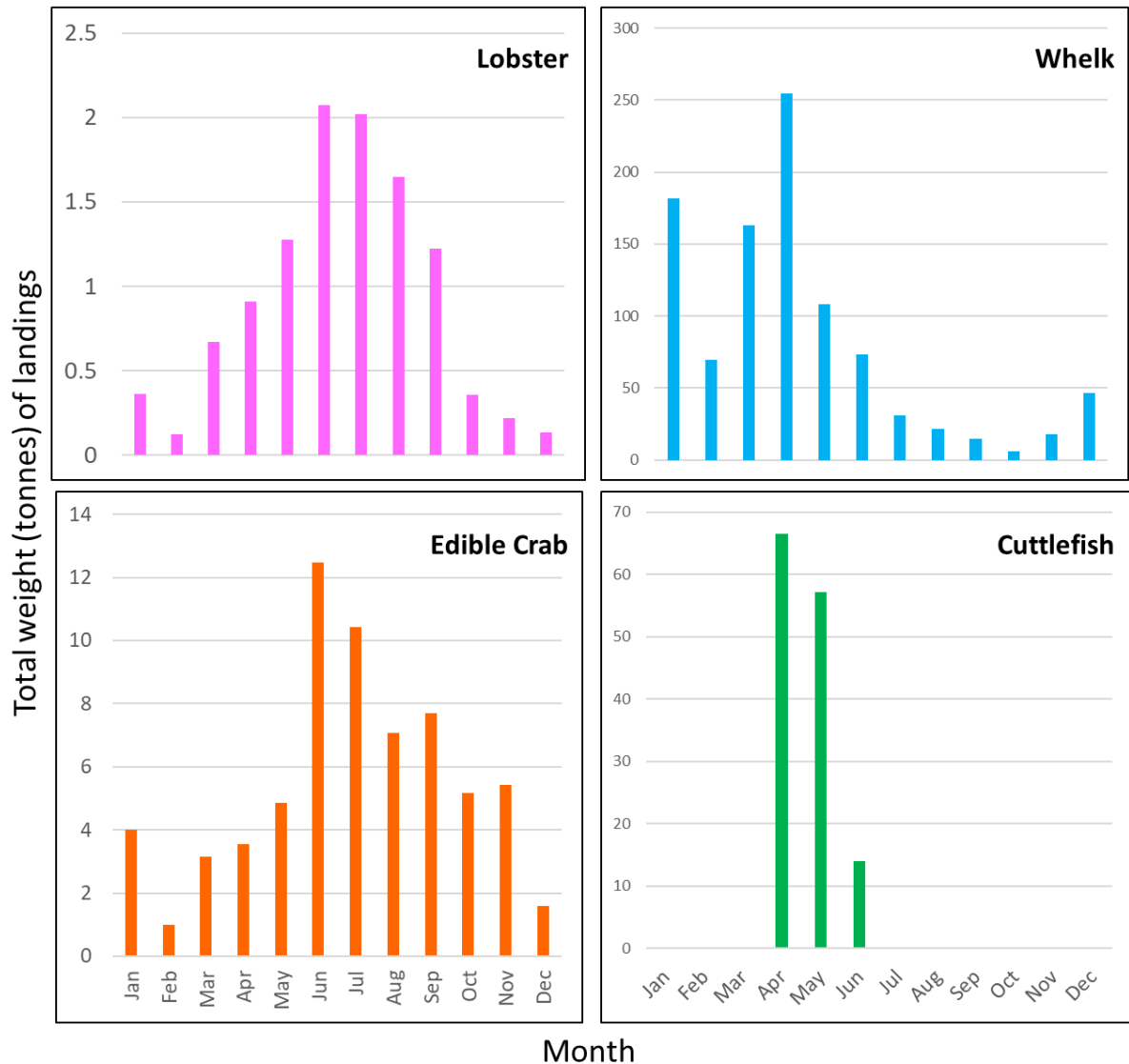
- The weight of each targeted species per pot, or landings per unit effort (LPUE), was calculated by dividing the total weight of each species by the number of pots hauled used to target that species.
- Lobster LPUE was greatest in 30F0East. Whelk LPUE was greatest in 30F0West. Edible crab and cuttlefish LPUE was greatest in 30E9West.
- Lobster LPUE was lowest in 30E9West and edible crab in 30F0West (excluding 30F0East). Whelk and cuttlefish LPUE was lowest in 30E9East.



## Seasonality

- Lobster landings were highest in the summer and lowest in the winter months.
- Edible crab landings were highest in June and July and lowest over winter.
- Whelk landings were highest during January, March and April, with 26% landed in April. Whelk landings were decreasing throughout the summer and were lowest in September and October. The rise in sea temperatures causes the whelks to move to deeper, cooler waters.
- The cuttlefish season is primarily between April and June, coinciding with seasonal migrations into the shallower coastal waters to breed. 48% of cuttlefish landings were in April.

### Annual variation in landings for lobster, edible crab, whelk and cuttlefish



## Comparisons with previous years

### Total landings

- Lobster landings have gone down from 41 tonnes in 2017, 32 tonnes in 2018, 19 tonnes in 2019 to 11 tonnes in 2020.
- Edible crab landings have gone down from 178 tonnes in 2017, 179 tonnes in 2018, 158 tonnes in 2019 to 66 tonnes in 2020.
- Whelk landings were highest in 2019 (1259 tonnes) than in the previous two years and 2020.
- Cuttlefish landings were higher in 2020 (138 tonnes) than in the previous three years.

### Landings per unit effort

- Lobster LPUE has gone down from 0.08 kg/pot in 2017 to 0.06 kg/pot in 2020.
- Edible crab LPUE in 2020 (0.37 kg/pot) was lower than the previous three years; 2019 0.44kg/pot, 2018 0.45 kg/pot and 2017 0.38 kg/pot.
- Whelk LPUE was higher in 2020 (1.82 kg/pot) than the three previous years.
- Cuttlefish LPUE was much higher in 2020 (2.86kg/pot) than the three previous years, and there were 25% fewer vessels landing cuttlefish than in 2019.

