

Seafish Economic Analysis: UK king scallop dredging sector 2008-2017, FINAL 2017 data

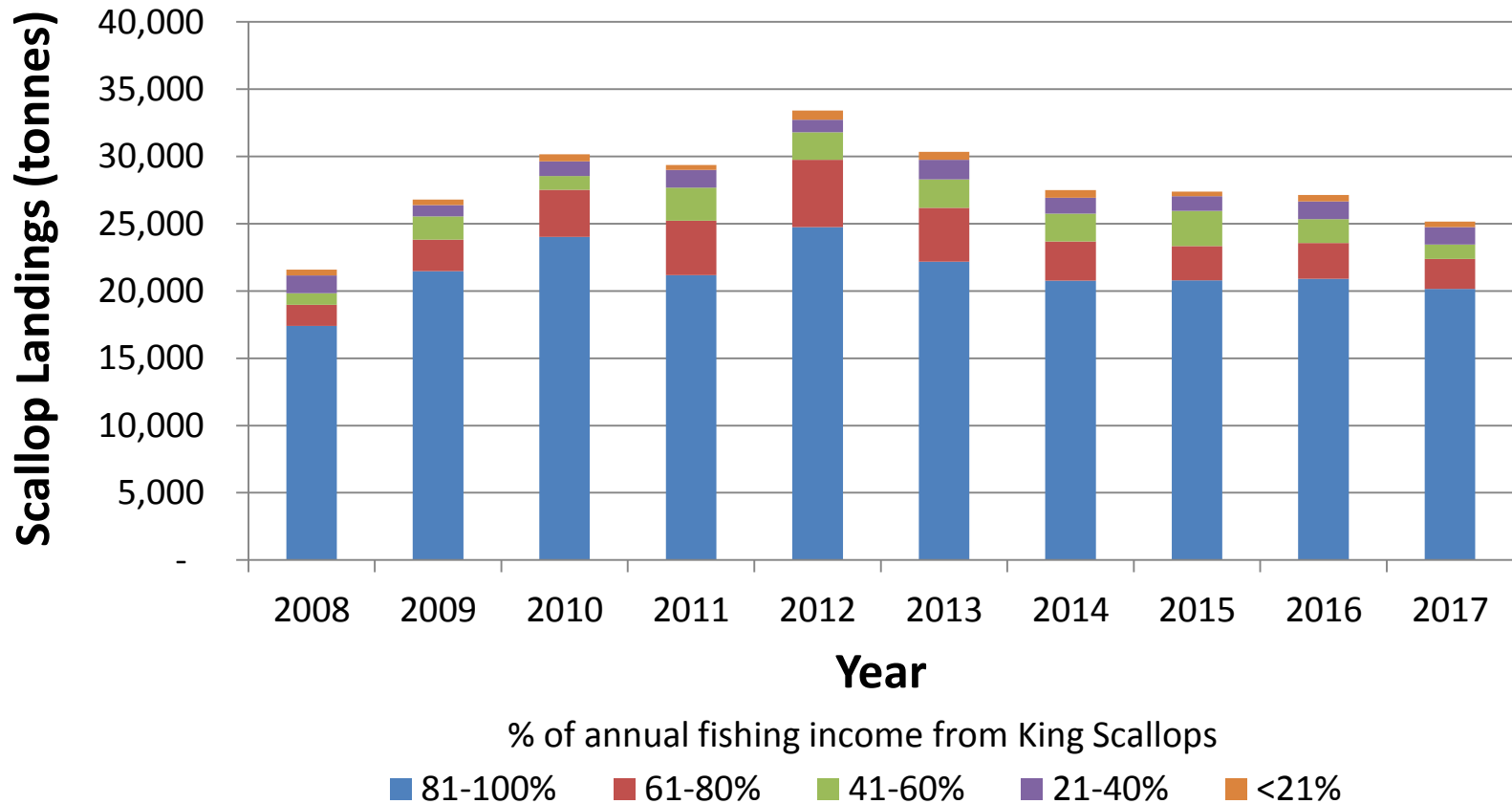
MARCH 2019



Scallop revenue dependent vessel overview



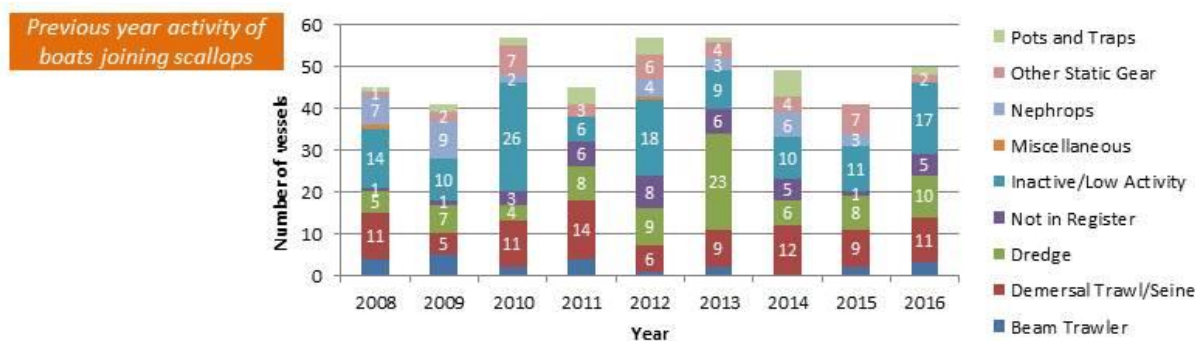
Total annual landings (tonnes) of king scallops by UK vessels according to the proportion of vessels' annual fishing income from king scallops.



Most UK king scallops are landed by revenue-dependent vessels.
(vessels earning over 60% of annual fishing income from king scallop landings)

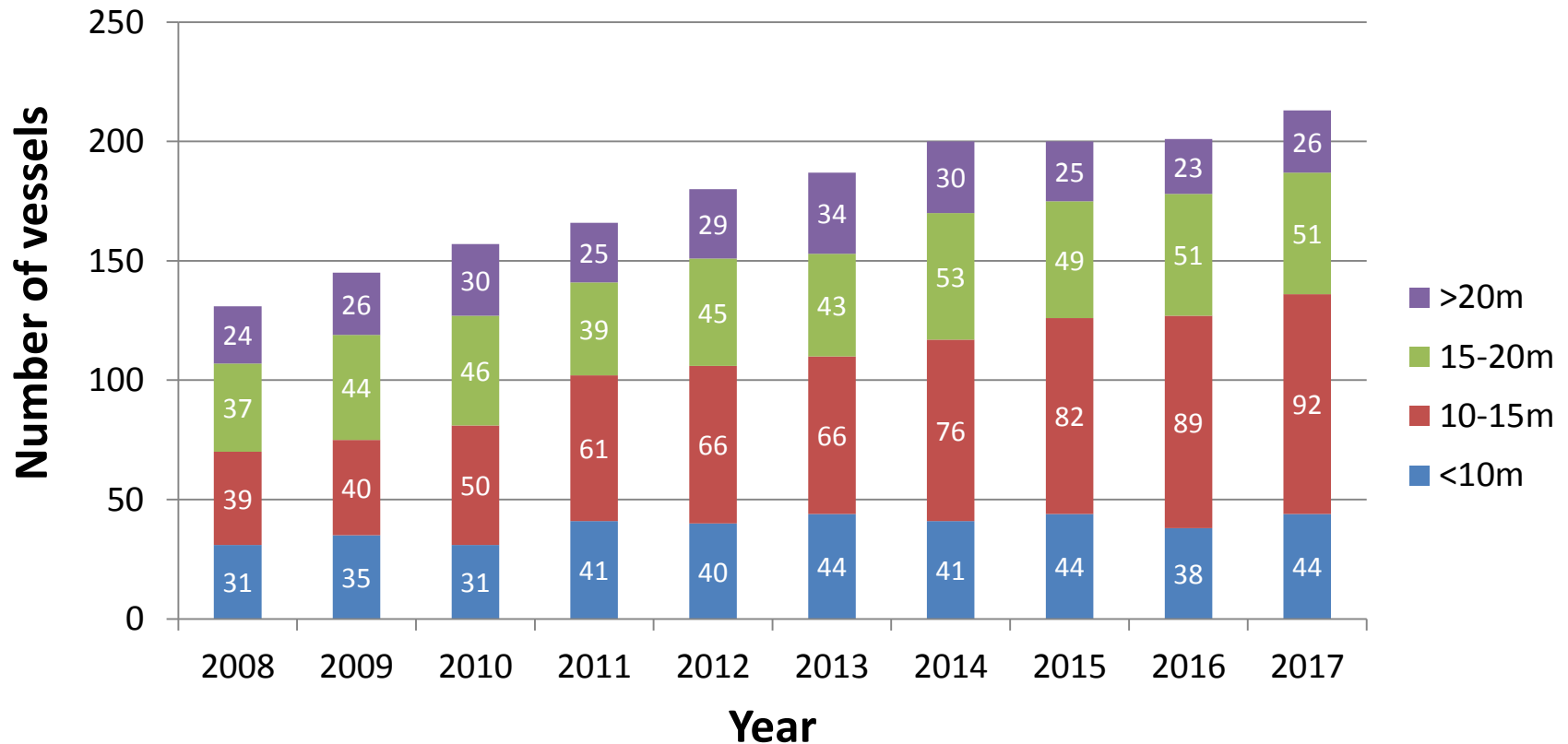


Leavers and joiners: previous year and subsequent year activity of vessels joining and leaving the scallop revenue-dependent group, including low activity vessels, 2008-2017.



The group of vessels classed as “scallop revenue dependent” changes each year depending on vessel operators’ choices of what and how to fish.

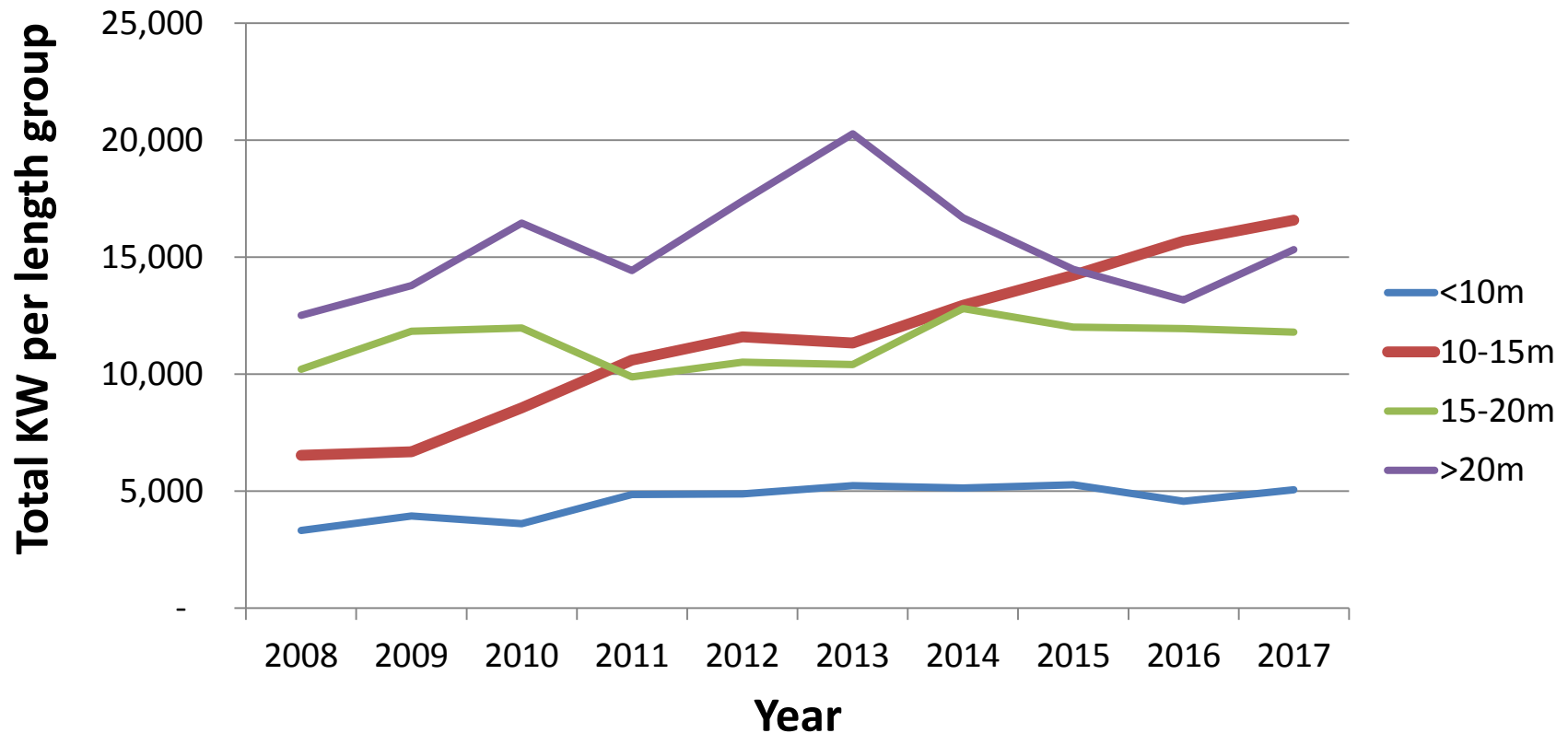
Number of UK scallop revenue-dependent vessels **by length category**, not including low activity vessels (annual fishing income all species <£10K).



The number of 10-15m scallop revenue dependent vessels more than doubled between 2008 and 2017.



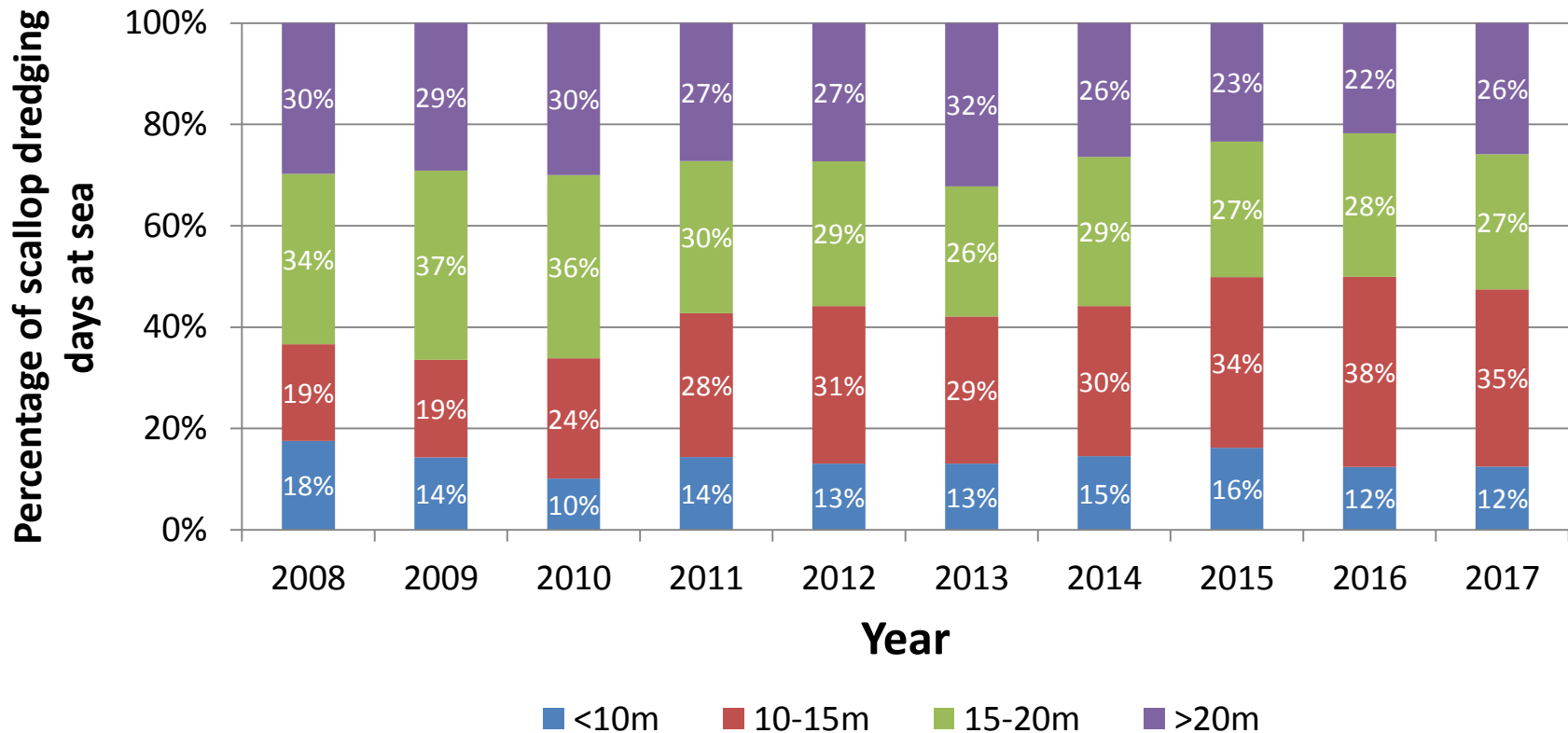
UK scallop revenue-dependent vessels **total KW per length group**, not including low activity vessels (annual fishing income all species <£10K).



The total KW power in the 10-15m scallop revenue dependent vessel group increased considerably between 2008 and 2017.



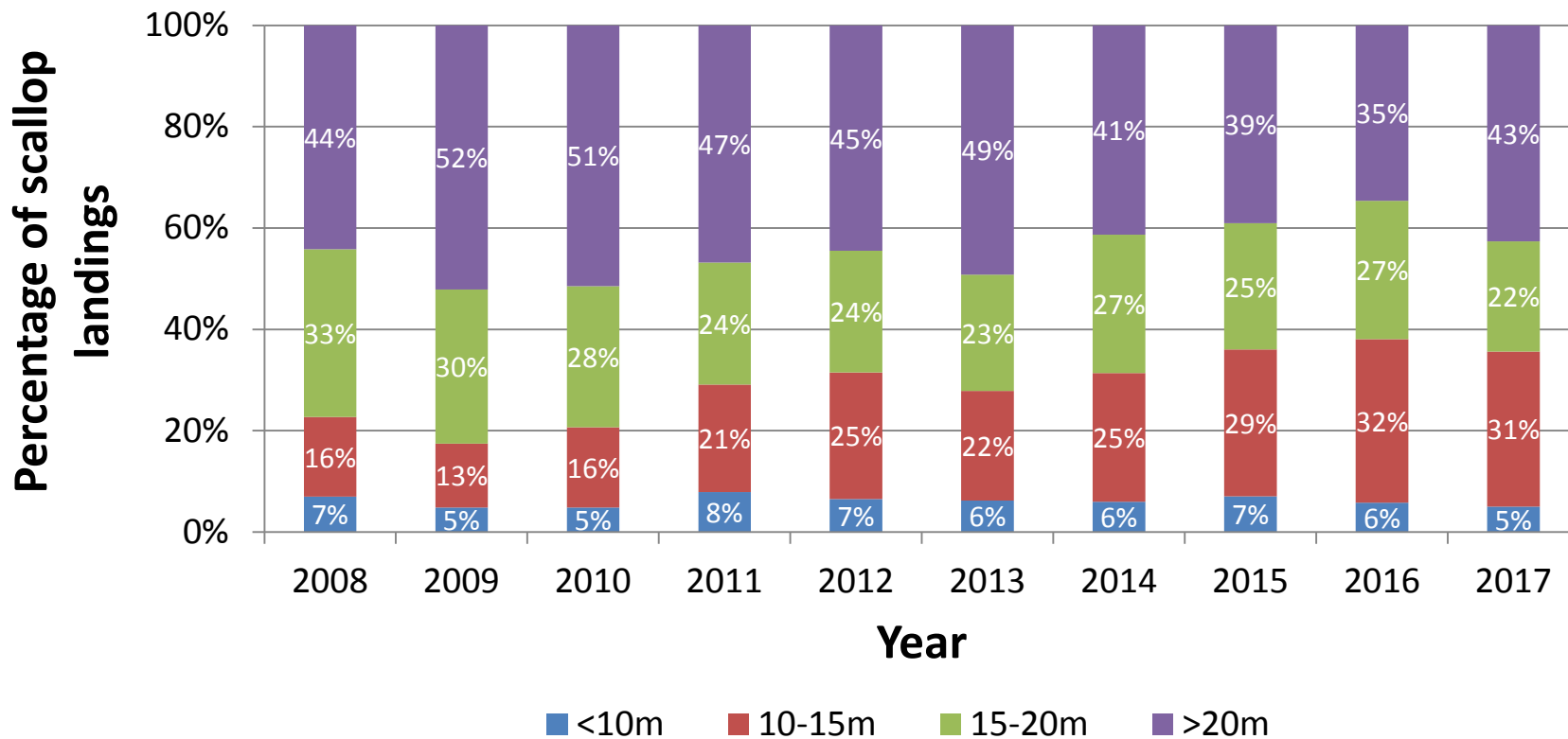
Proportion of **total dredging days at sea** by revenue-dependent vessels of different length groups.



The share of fishing effort for scallops by 10-15m vessels surpassed that of 15-20m and over 20m vessels in 2014.



Proportion of **total king scallop landings** by revenue-dependent vessels of different length groups.

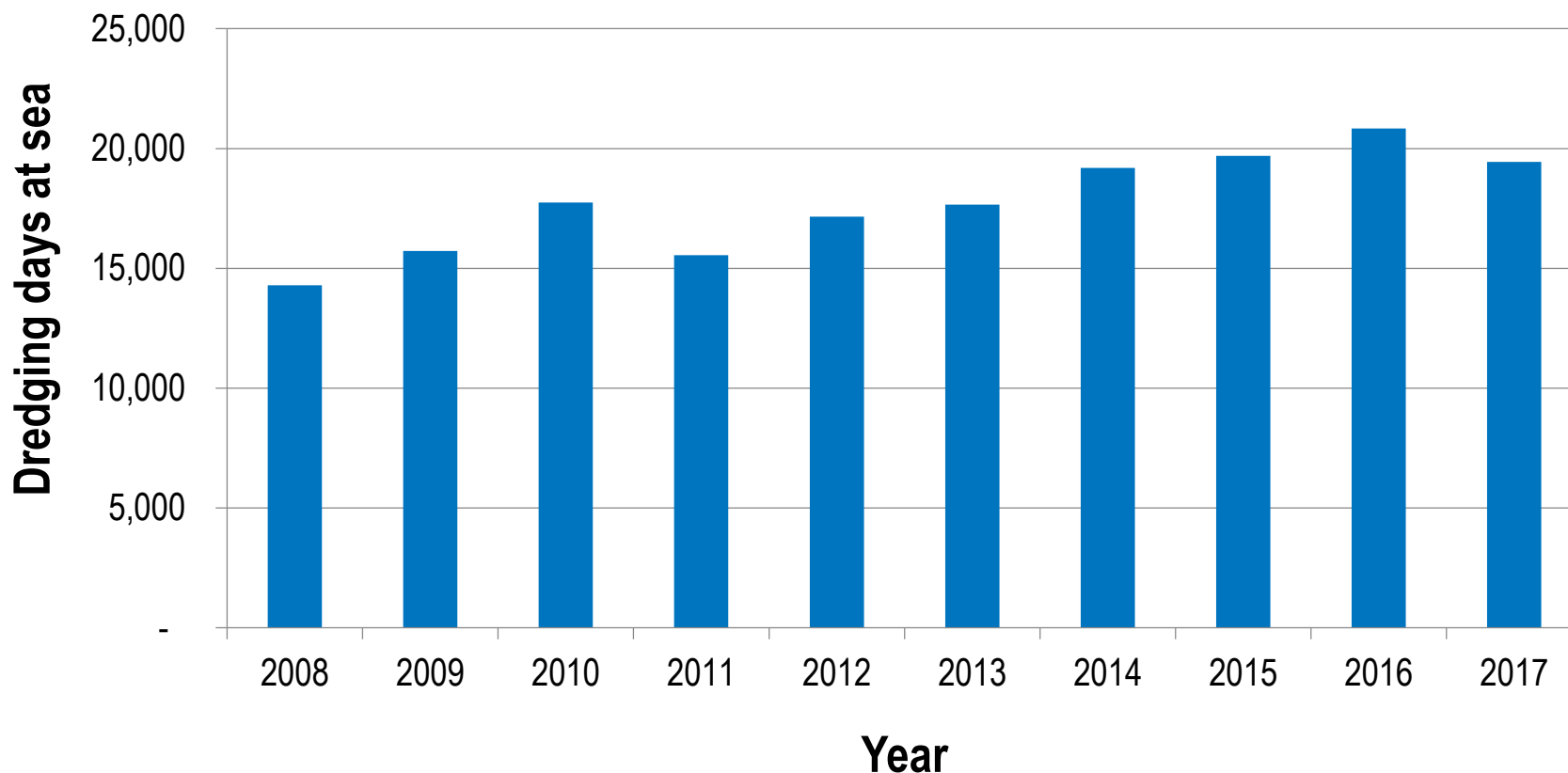


The share of scallop landings caught by 10-15m vessels surpassed that of 15-20m vessels in 2015, but over 20m vessels continued to catch the largest share.



Fishing Effort 

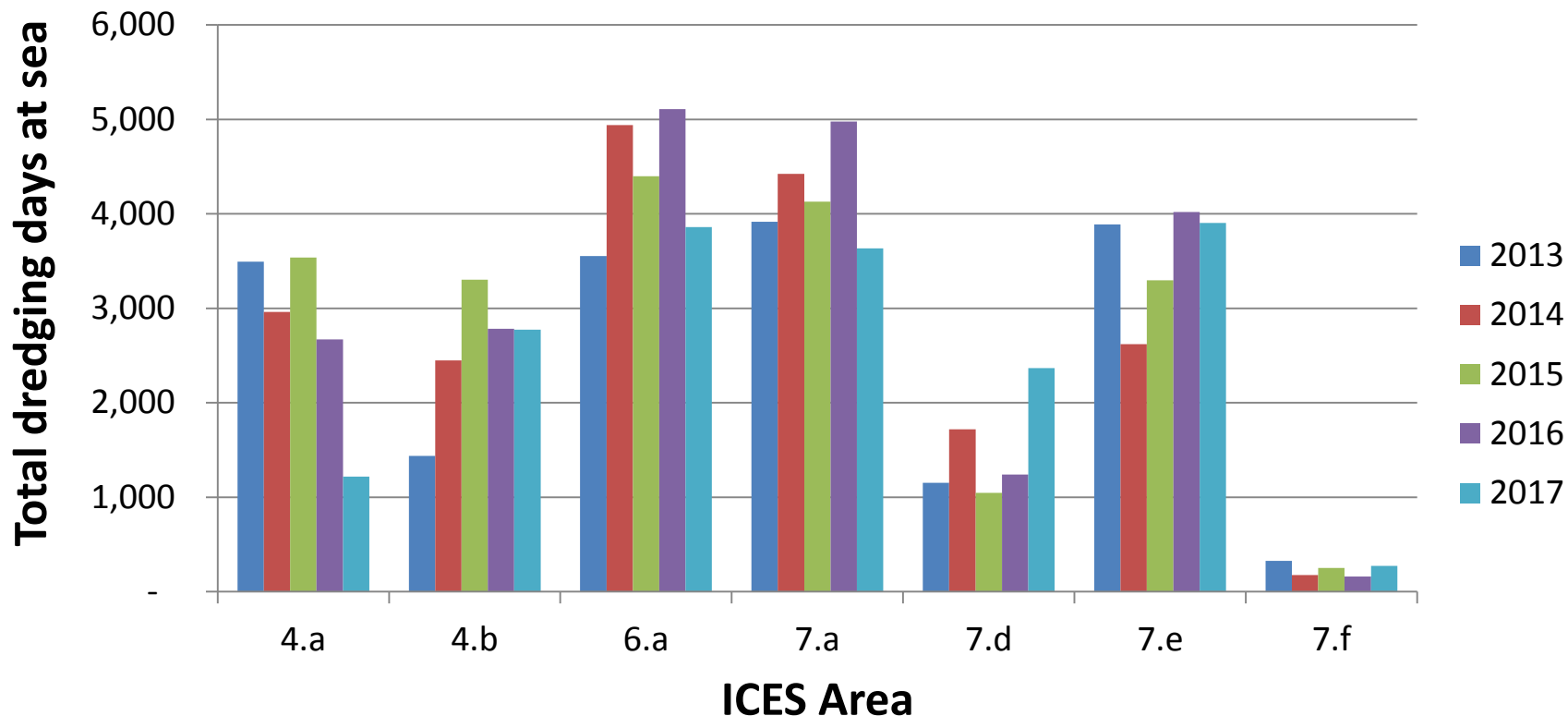
Total annual dredging **days at sea** by scallop revenue-dependent vessels, not including low activity vessels (annual fishing income <£10K).



Total scallop fishing effort by revenue dependent vessels decreased in 2017 after increasing steadily from 2011 to 2016.



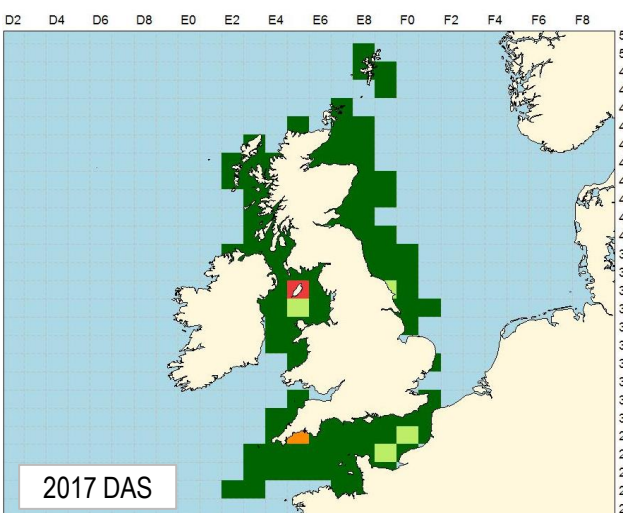
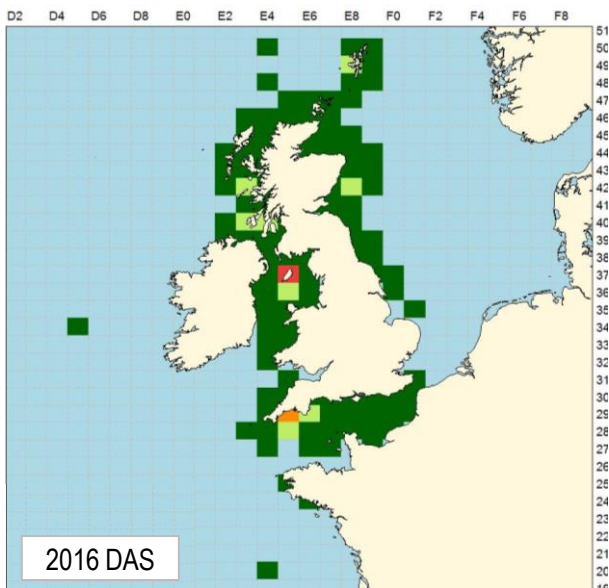
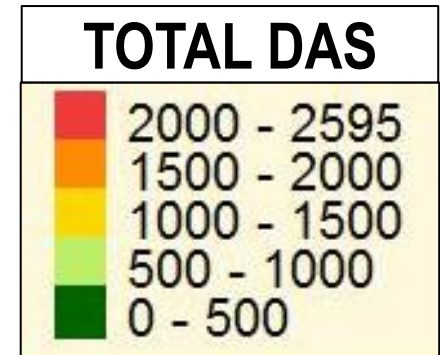
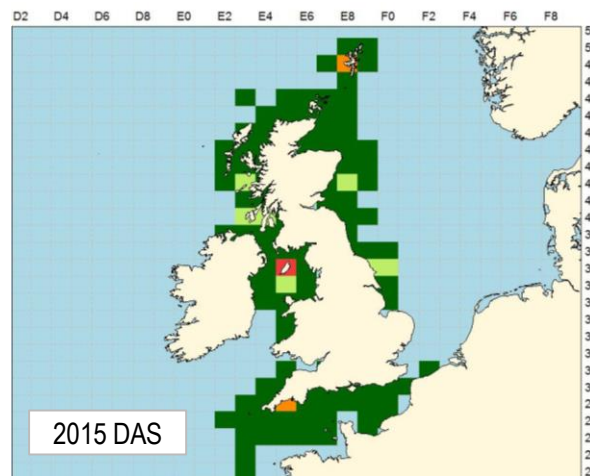
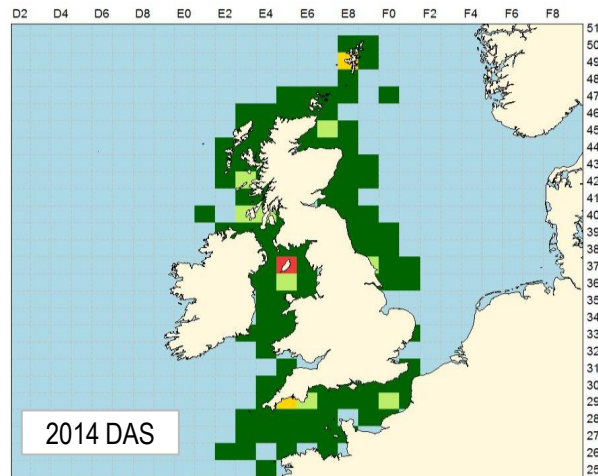
Total dredging days at sea by UK scallop revenue-dependent vessels, by ICES area 2013-2017. Areas not included in this figure due to negligible effort recorded were 4c, 5b, 7b, -c, -g, -h, -j, -k, and 8a, -d.



Between 2016 and 2017 fishing effort shifted away from the North Sea, west of Scotland and Irish Sea to the English Channel and Celtic Sea.



Pressure maps showing areas of concentration of dredging days at sea by UK scallop revenue-dependent vessels, 2014-2017.

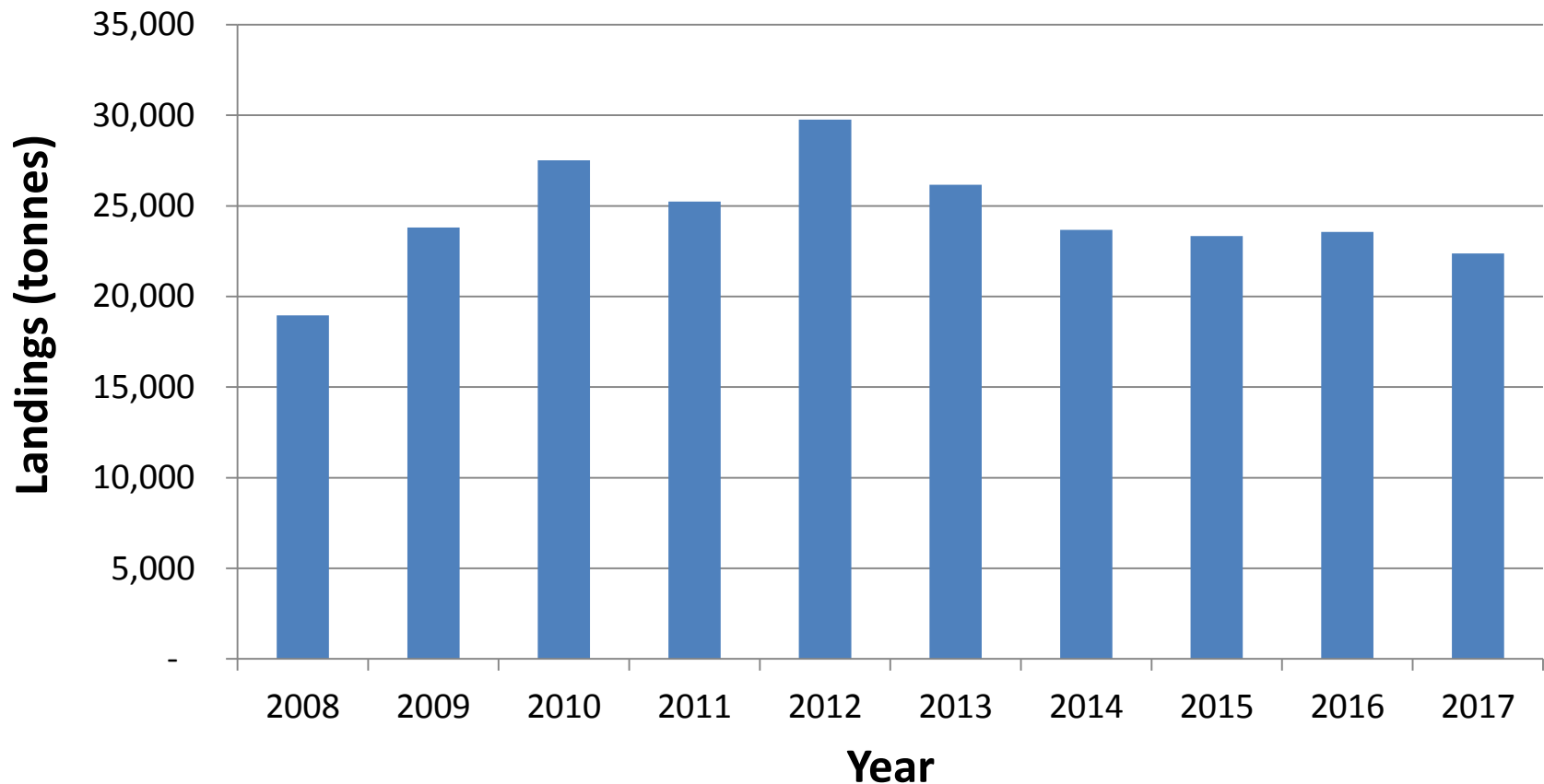


Fishing effort has remained highest around the Isle of Man and off the south coast of Cornwall in recent years.

King Scallop Landings



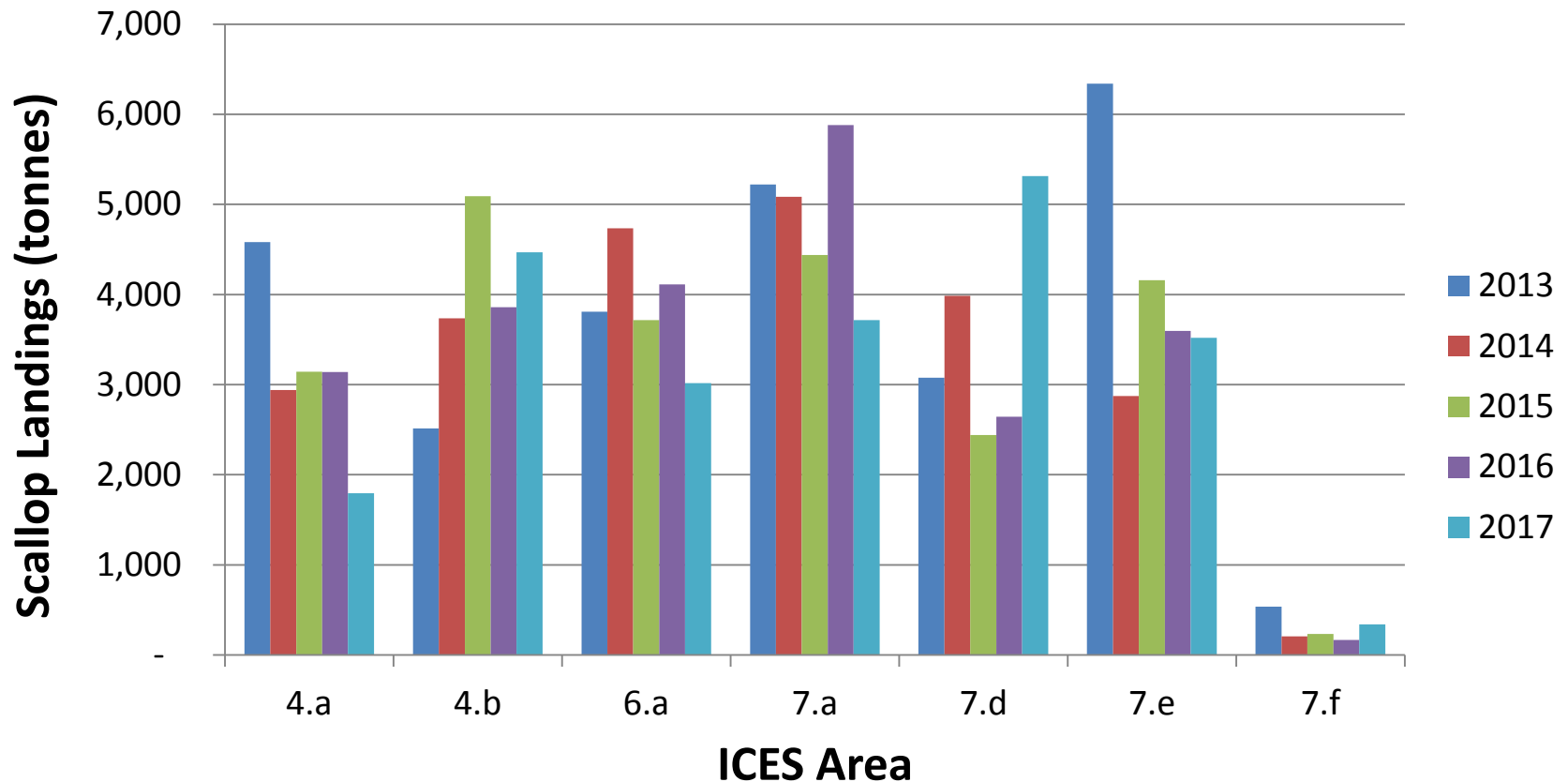
Total annual landings of scallops by UK scallop revenue-dependent vessels (not including low activity vessels), 2008 to 2017.



Total scallop landings decreased slightly in 2017 after remaining fairly steady between 2014 and 2016.



Landings of king scallops by UK scallop revenue-dependent vessels, by ICES area 2013-2017.

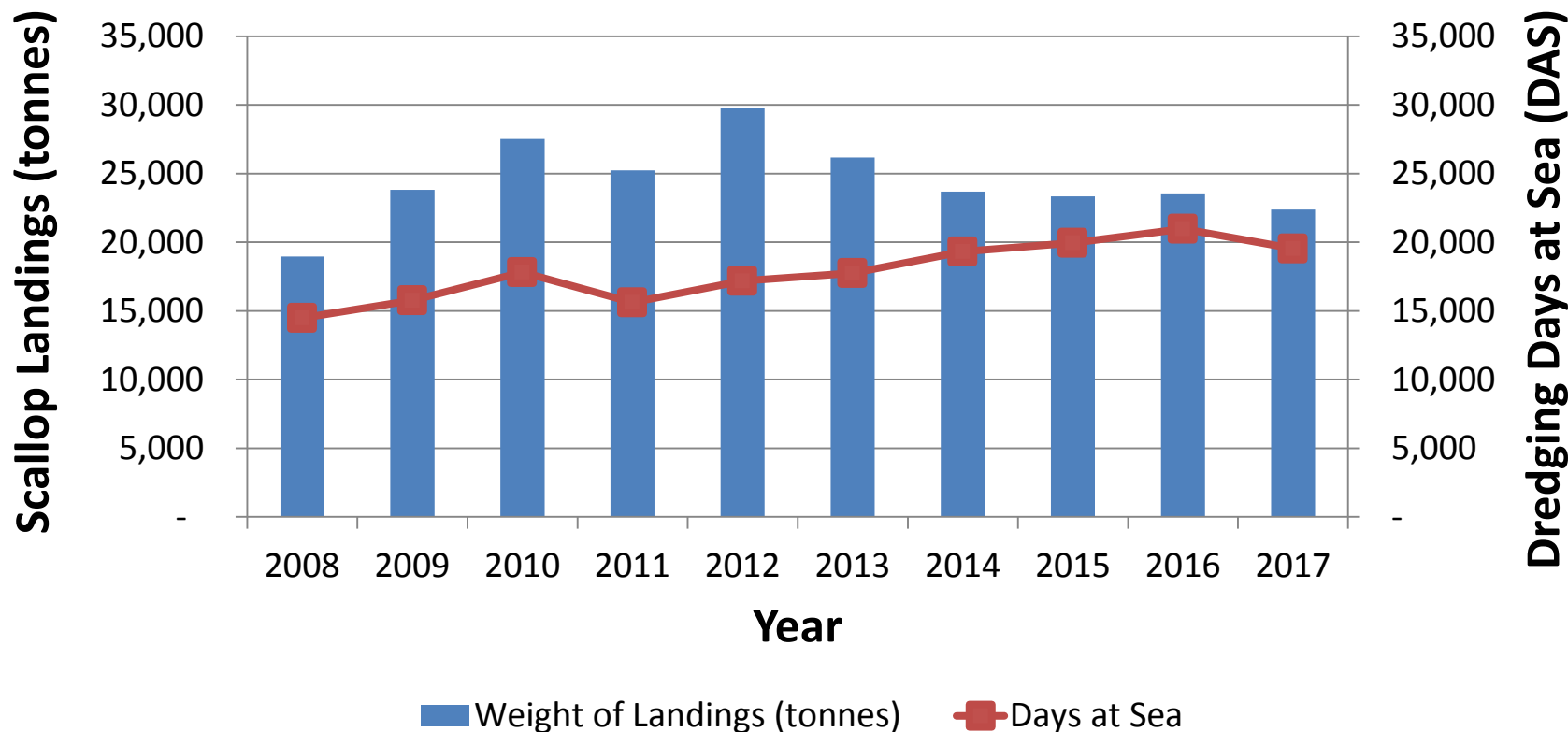


Scallop landings increased in the central North Sea, English Channel and Celtic Sea between 2016 and 2017, more than doubling in the English Channel.



Productivity (fishing efficiency) **seafish**

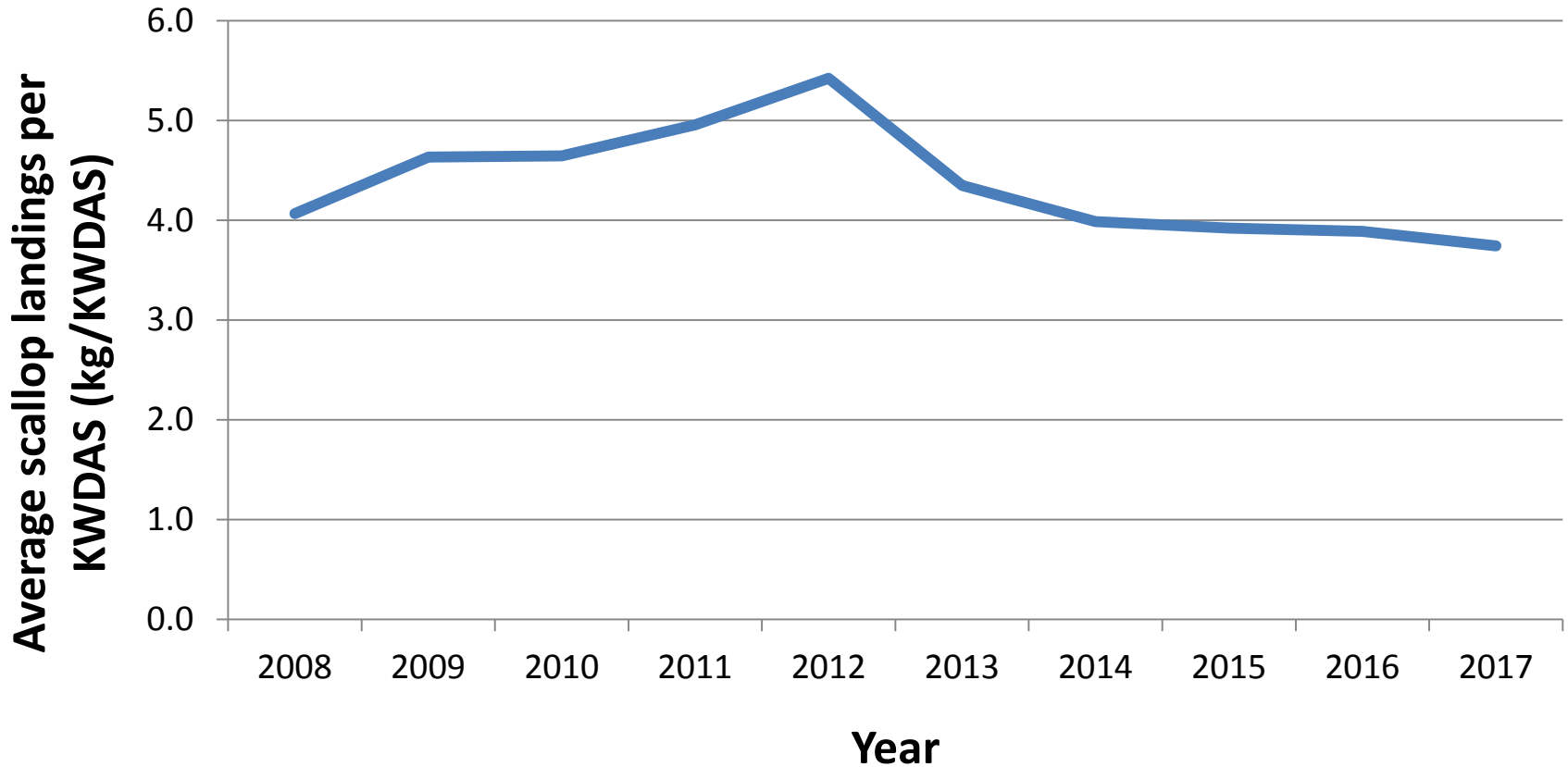
Total annual landings of scallops and dredging days at sea by UK scallop revenue-dependent vessels.



Both scallop landings and dredging days at sea decreased between 2016 and 2017.



Average landings per KWDAS by UK scallop revenue-dependent vessels.



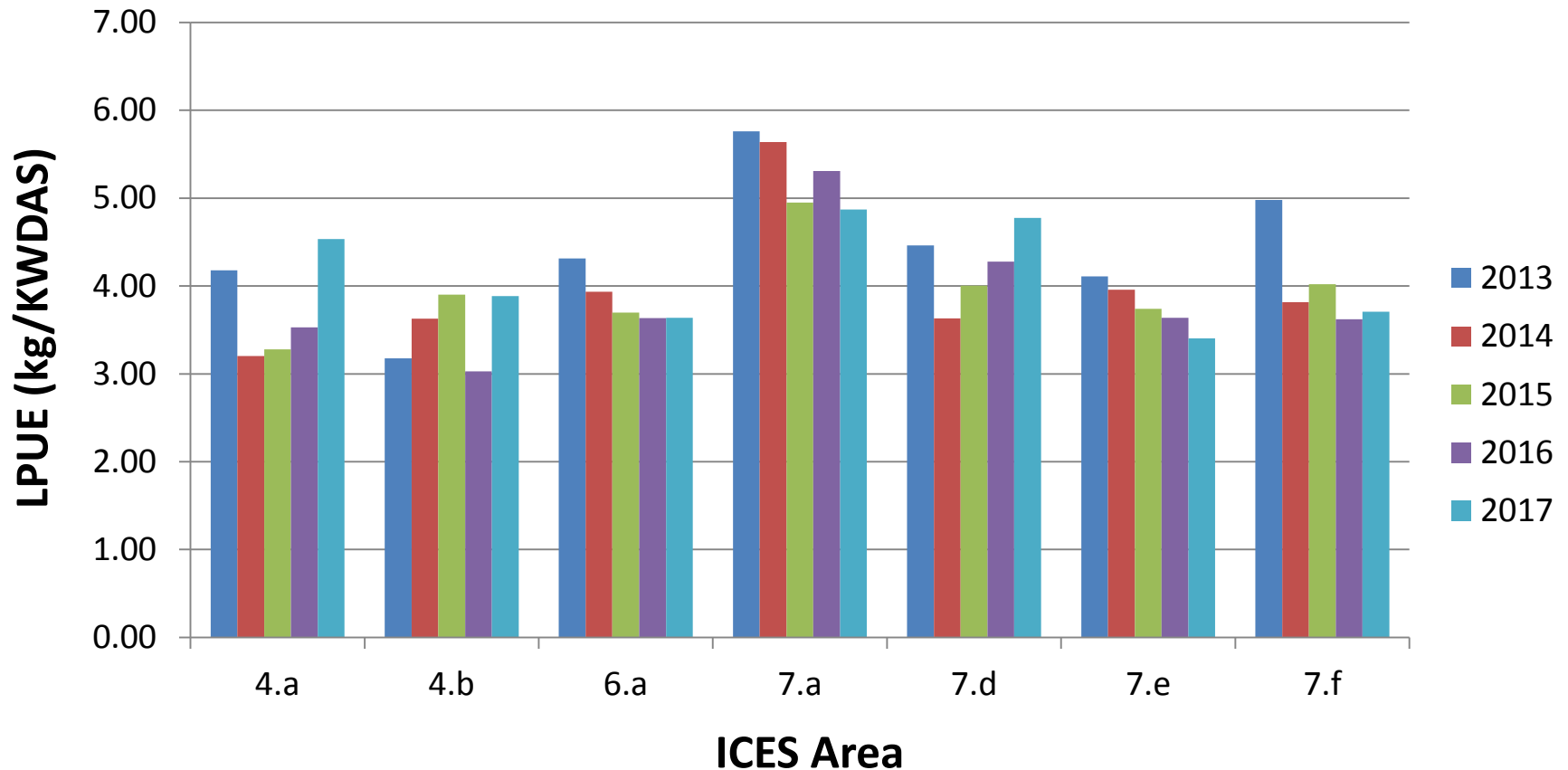
Productivity, measured by catch rates, has declined since 2012.



Productivity (fishing efficiency) by ICES area



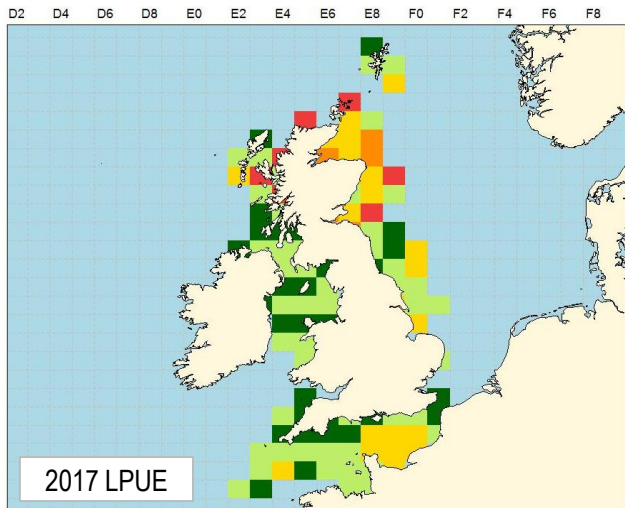
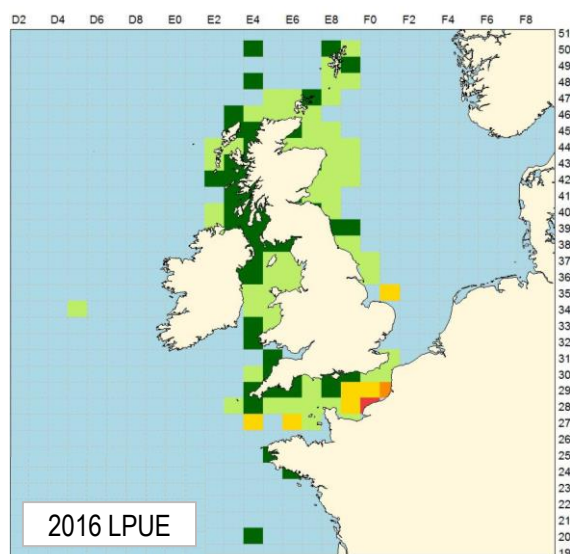
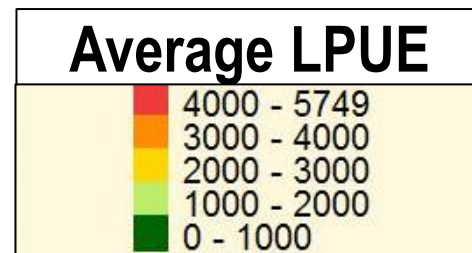
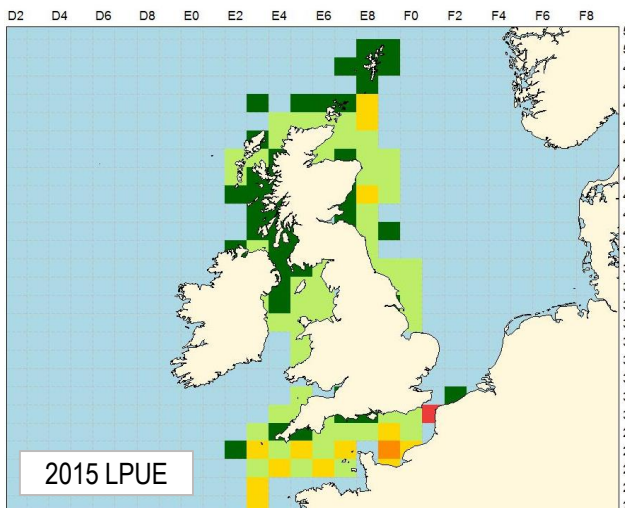
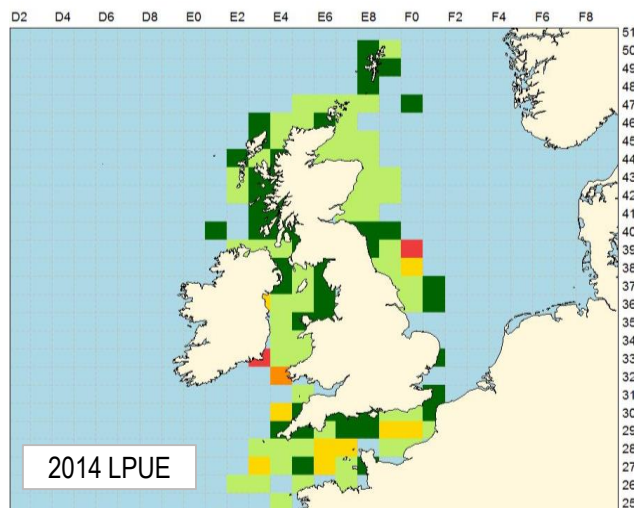
Productivity (landings per kWIDAS) per ICES area 2013-2017 by UK scallop revenue-dependent vessels.



In 2017 landings per unit effort (LPUE) increased most notably in the North Sea and the English Channel (7d).



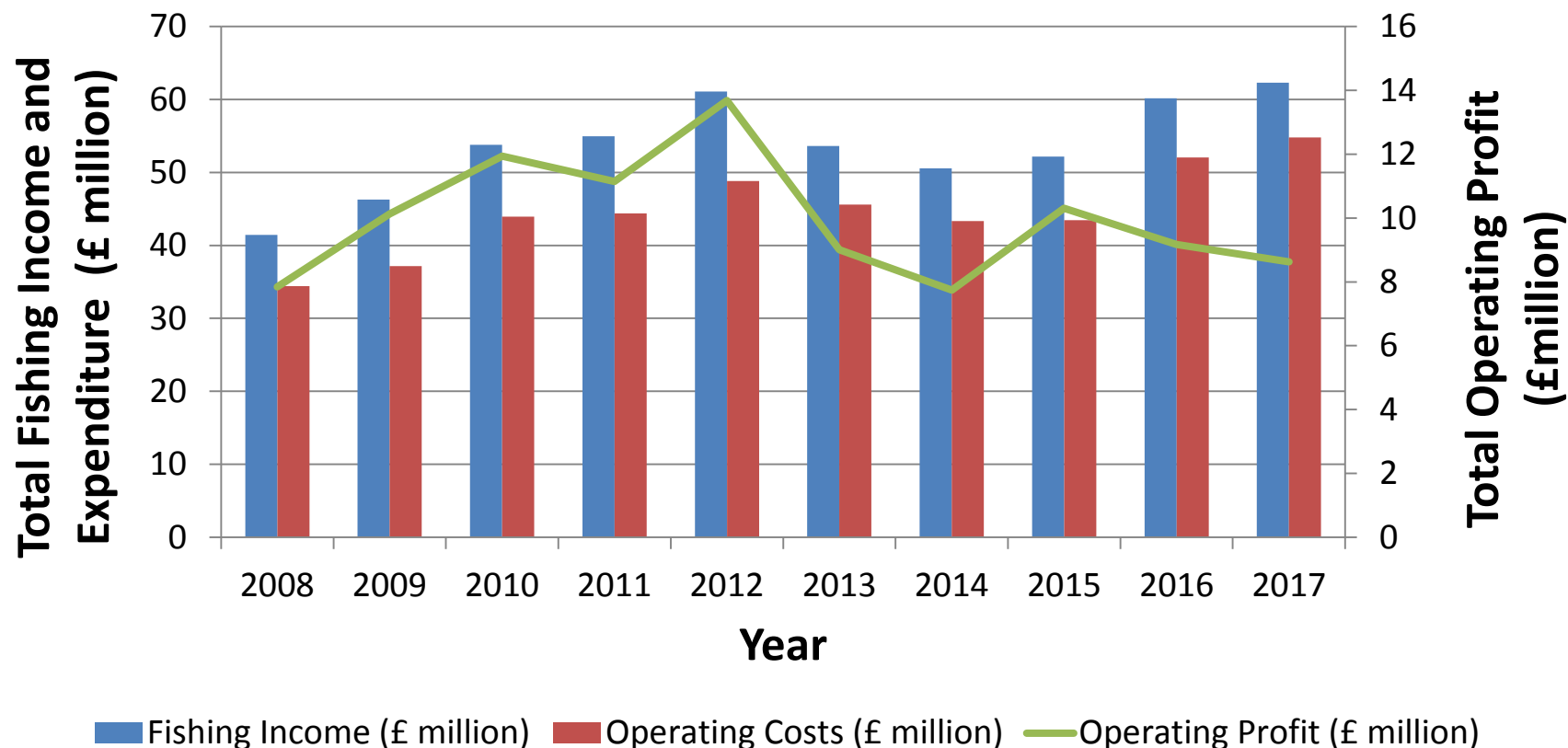
Maps showing average landings of scallops per dredging day at sea, by ICES sub-rectangle, for UK scallop revenue-dependent vessels (all lengths), 2014-2017.



Between 2016 and 2017, fishing productivity shifted away from the English Channel to the northern North Sea and west of Scotland.

Economic Performance 

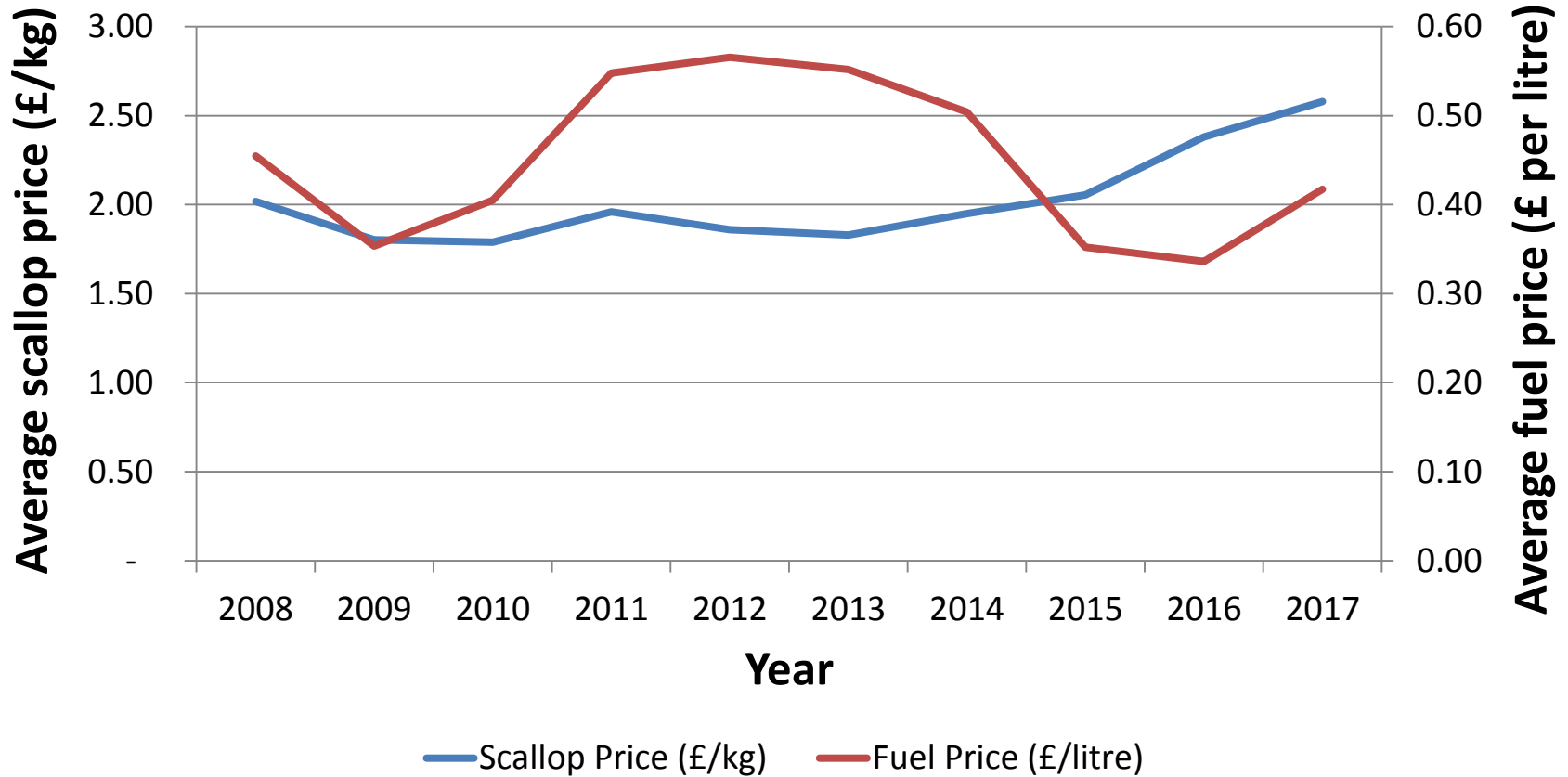
Total annual fishing income (all species), operating costs and operating profit of scallop revenue-dependent vessels (values adjusted to 2017).



The increase in total operating costs for scallop revenue dependent vessels in 2017 outweighed the increase in total fishing income for these vessels, resulting in a decrease in total operating profit in 2017.



Average annual king scallop price and average annual UK fuel price for fishing vessels (values adjusted to 2017).



The increase in fuel price between 2016 and 2017 may explain some of the increase in total operating costs for scallop revenue dependent vessels in 2017.



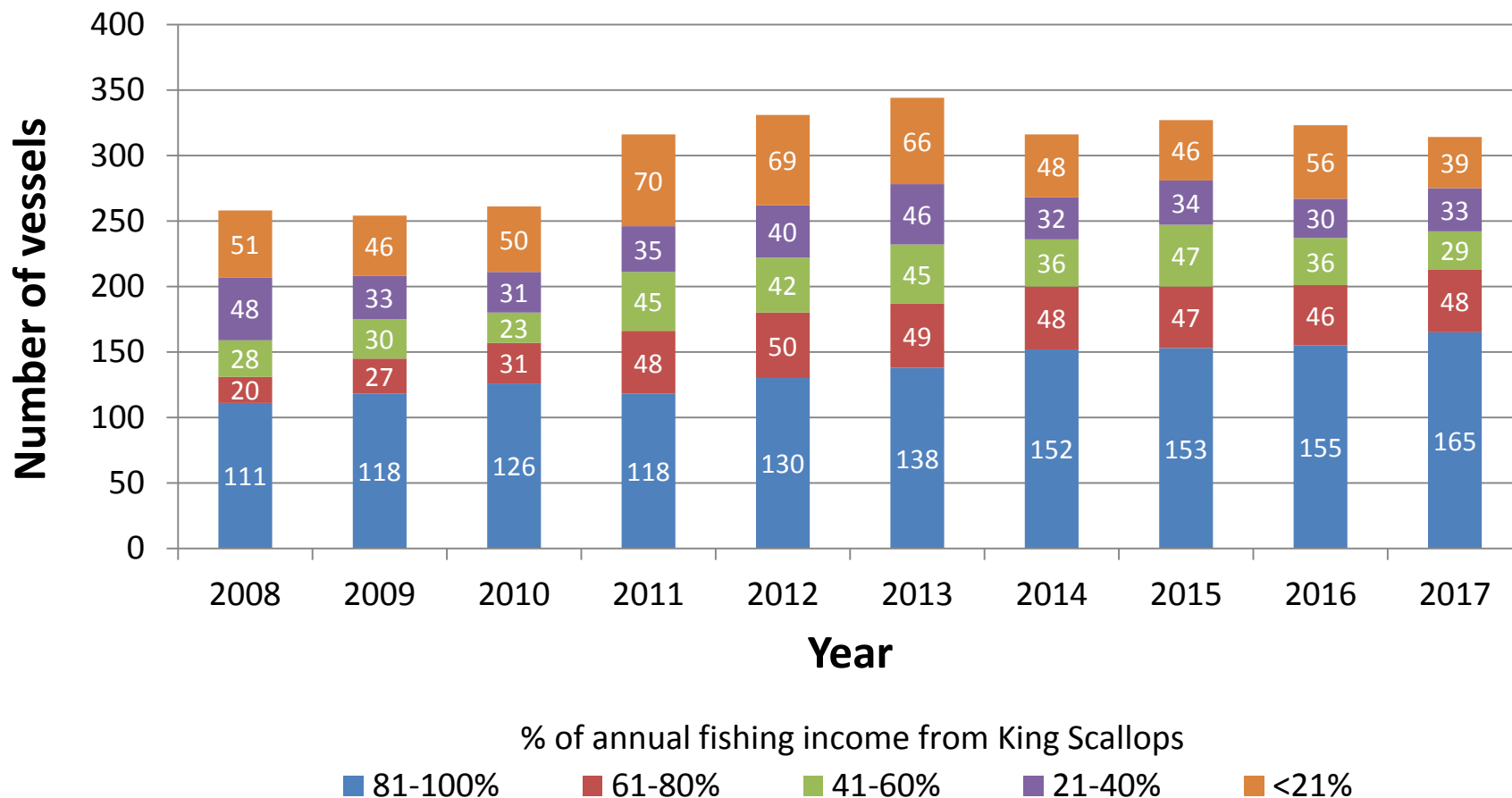
Appendix: Supplementary Figures



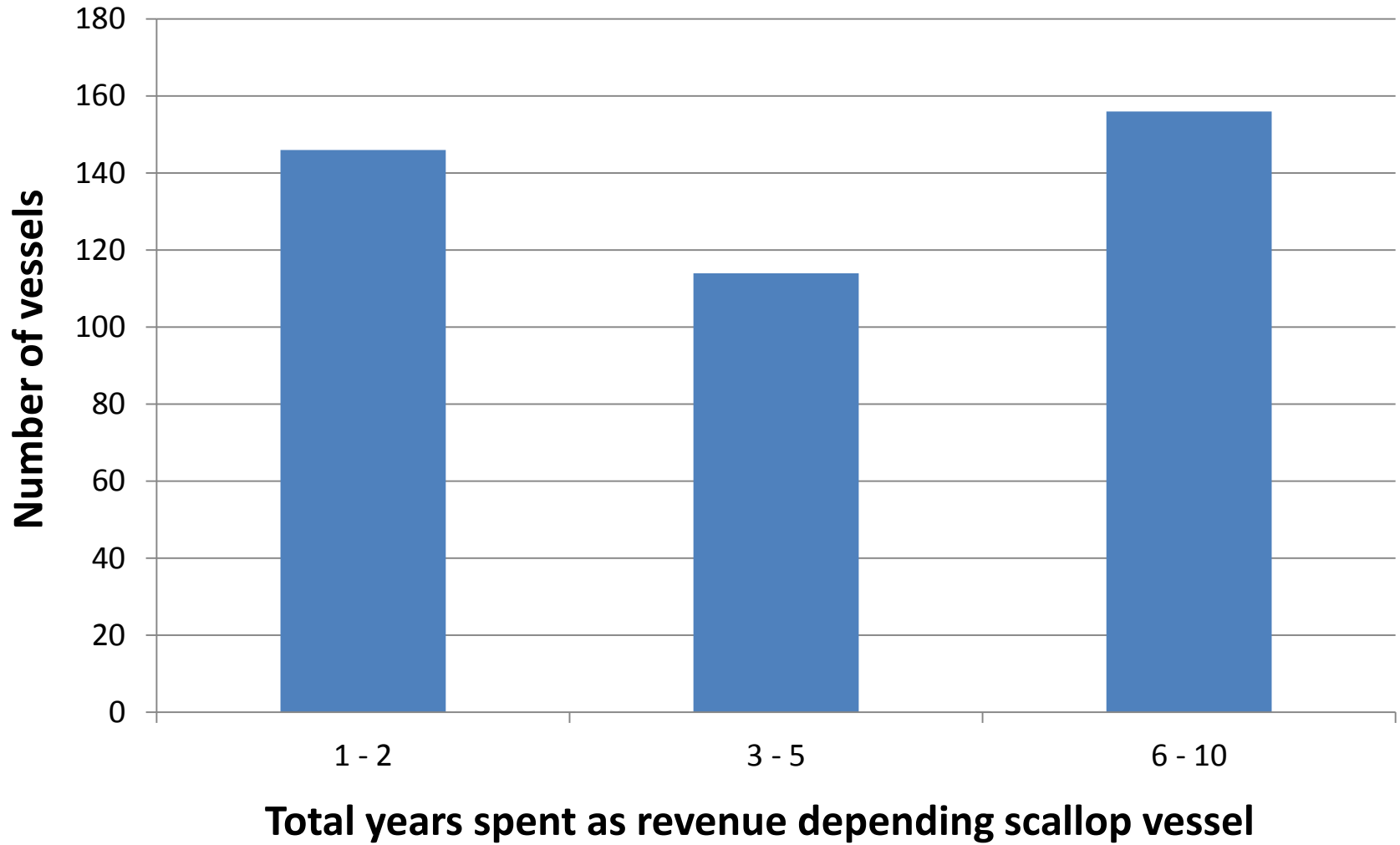
Scallop revenue dependent vessel overview



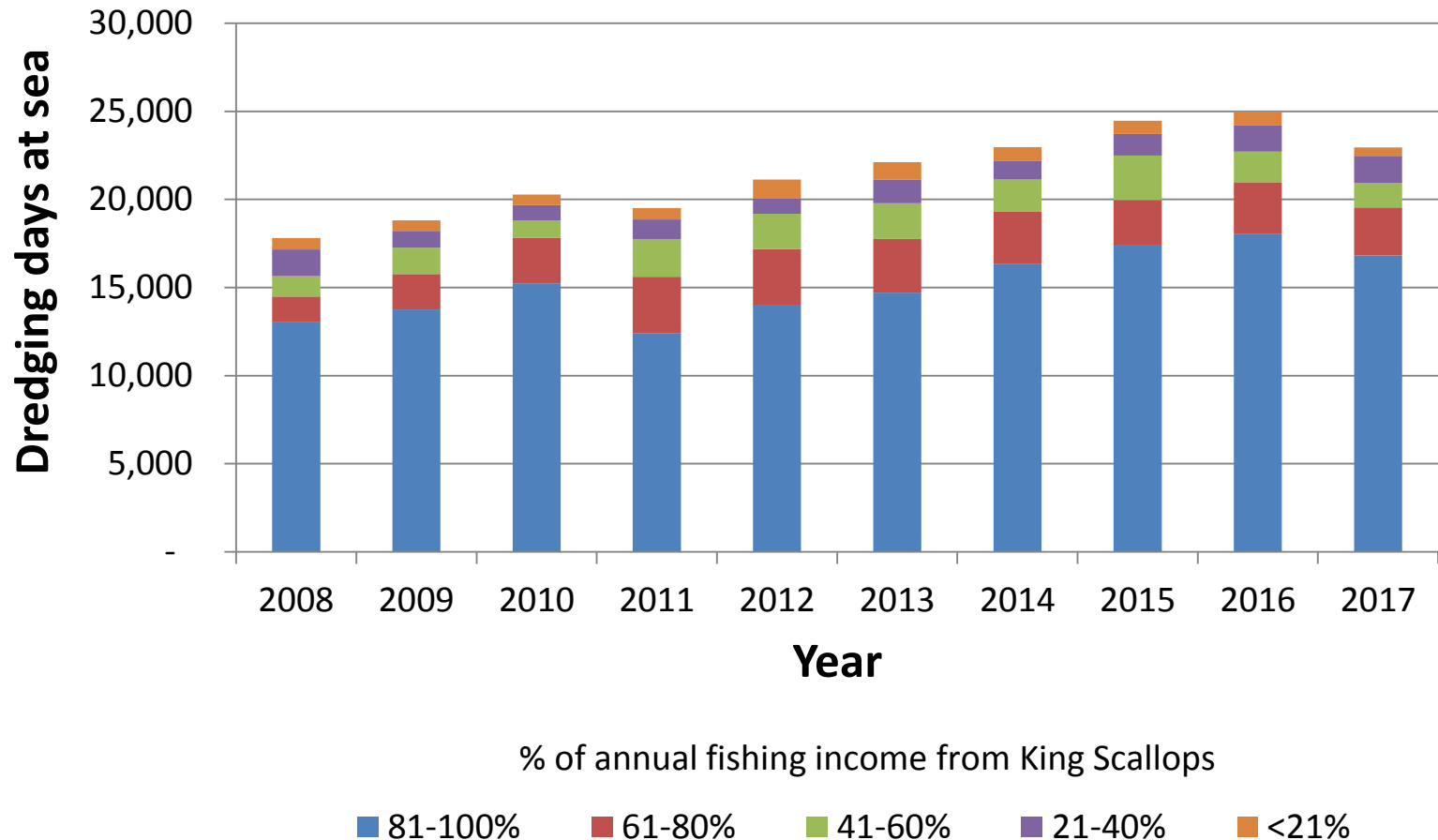
Number of vessels in each category of revenue-dependence, not including low activity vessels (annual fishing income <£10K).



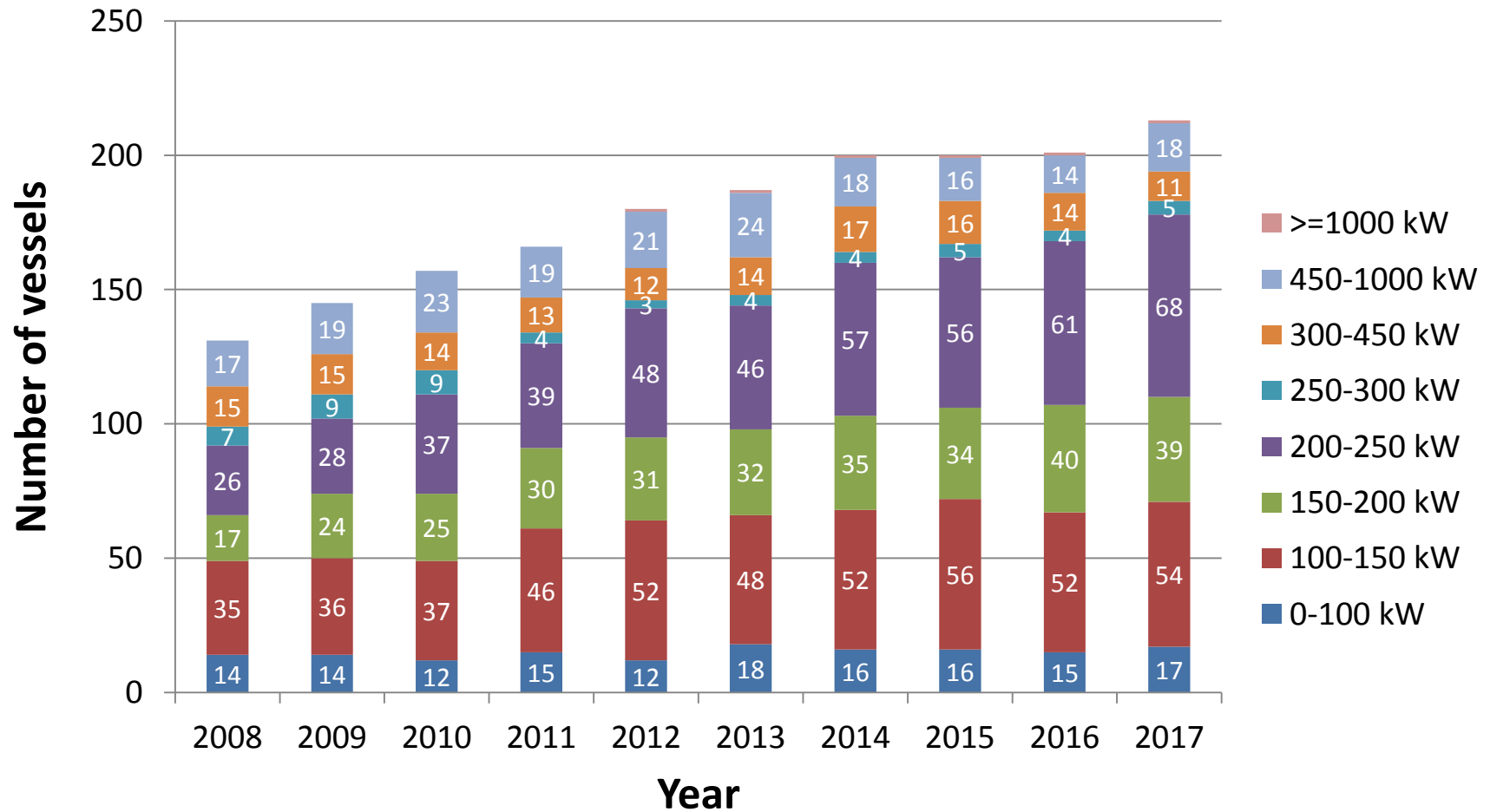
Number of vessels (excluding low activity vessels) that spent different numbers of years (not necessarily consecutive) as scallop revenue-dependent vessels from 2008 to 2017.



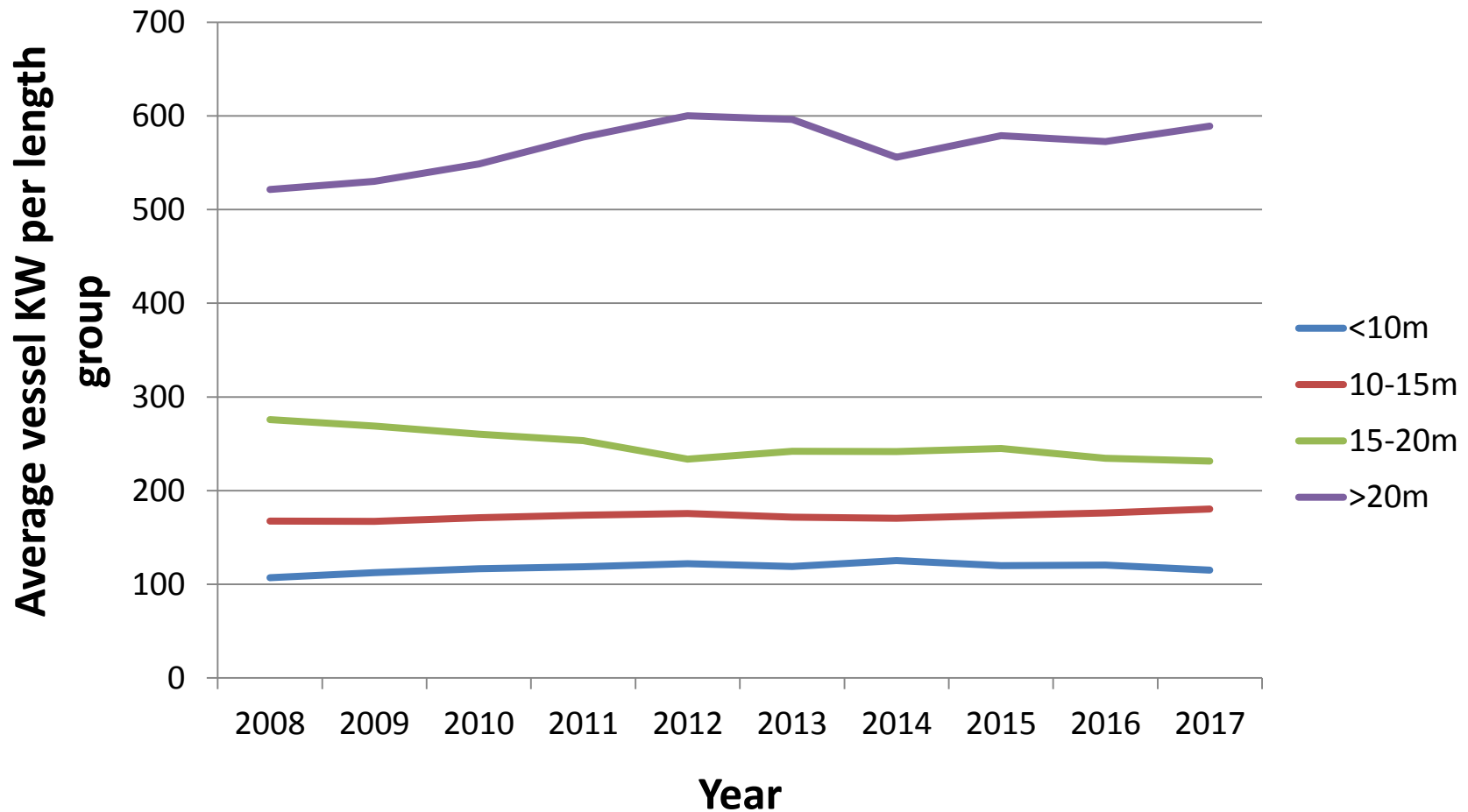
Total dredging days at sea by UK vessels according to the proportion of vessels' annual fishing income from king scallops.



Number of UK scallop revenue-dependent vessels **by vessel power group** (KW), not including low activity vessels (annual fishing income all species <£10K).

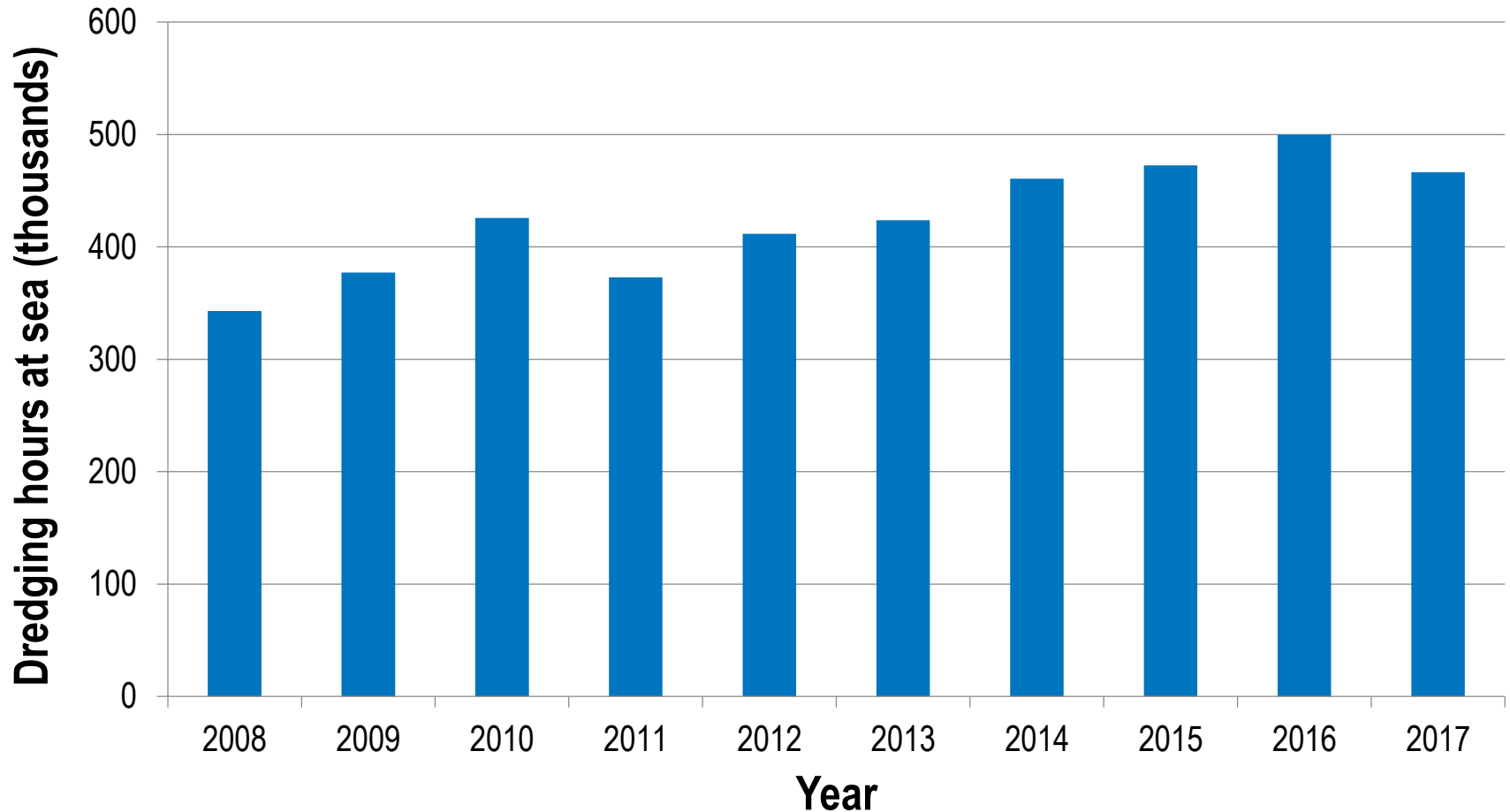


UK scallop revenue-dependent vessels **average vessel KW per length group**, not including low activity vessels (annual fishing income all species <£10K).

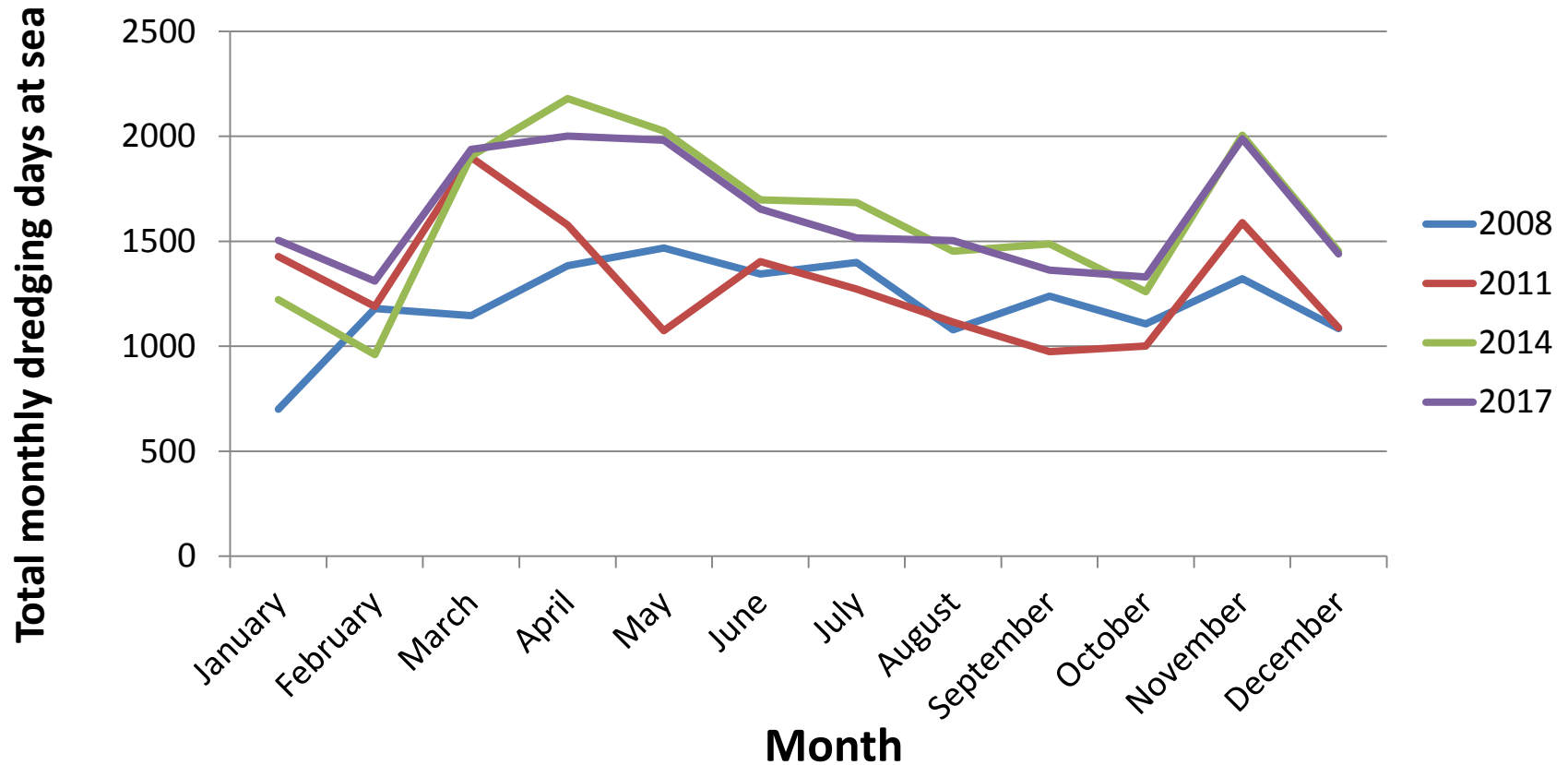


Fishing Effort 

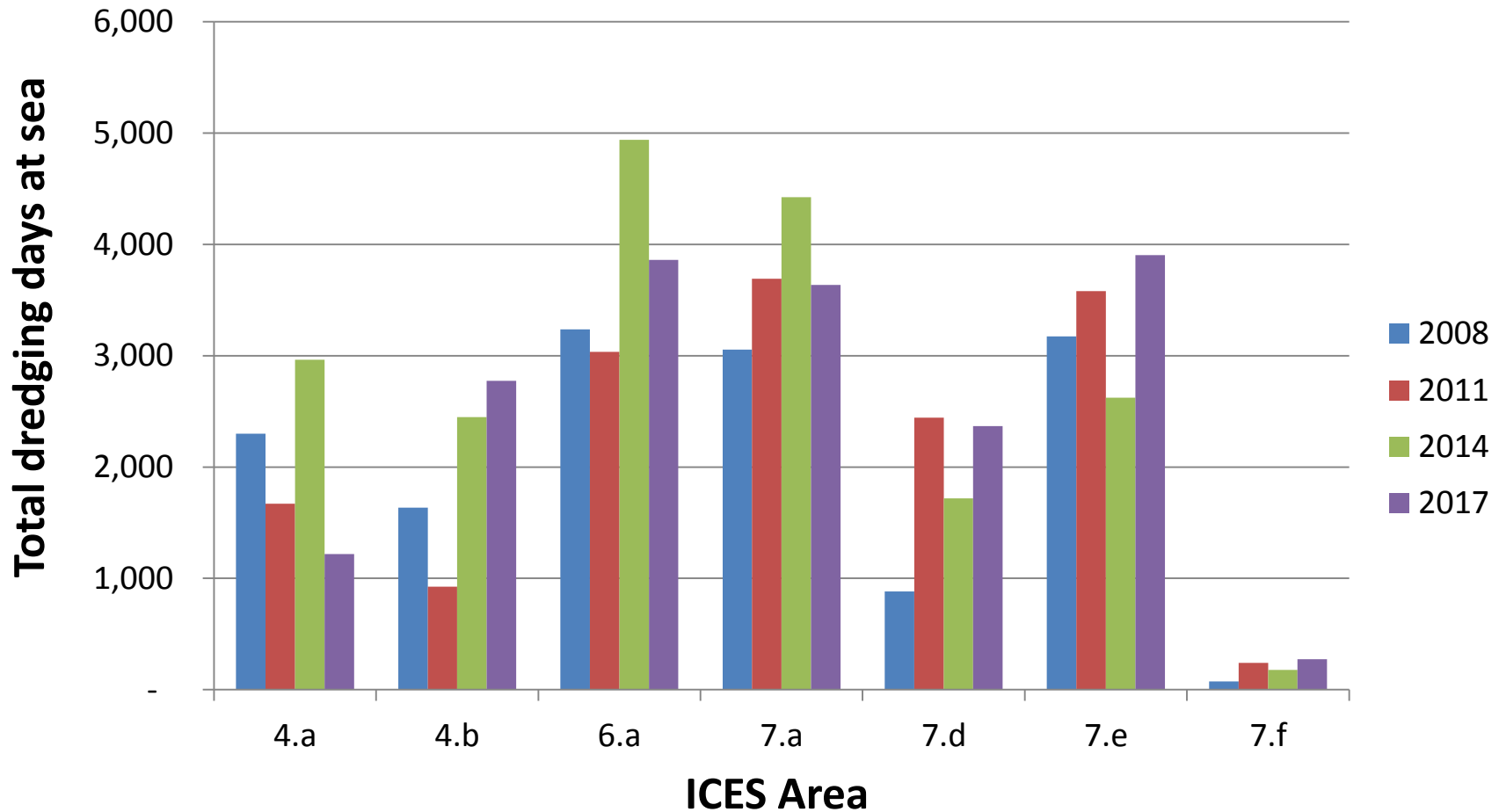
Total annual **hours at sea** by scallop revenue-dependent vessels, not including low activity vessels (annual fishing income <£10K).



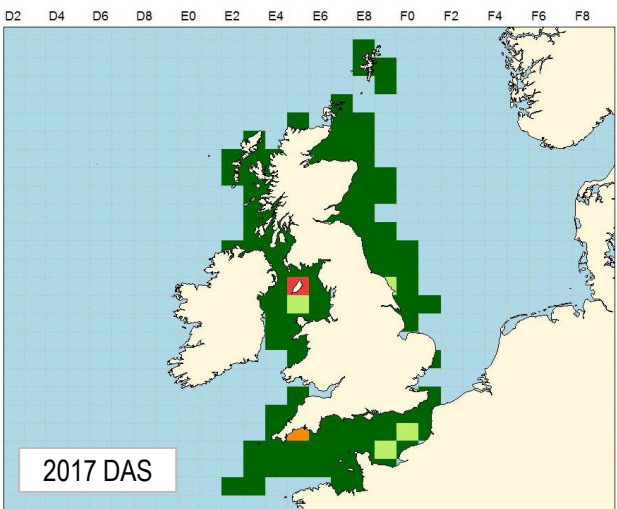
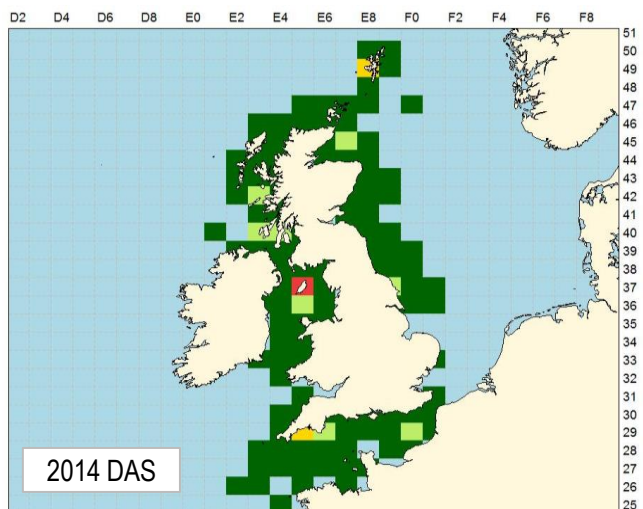
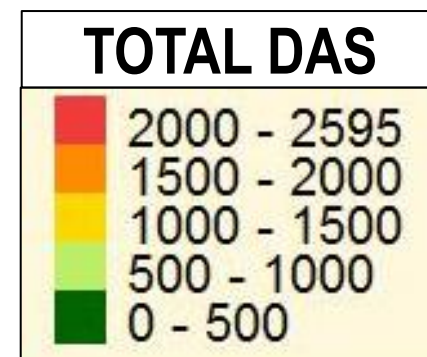
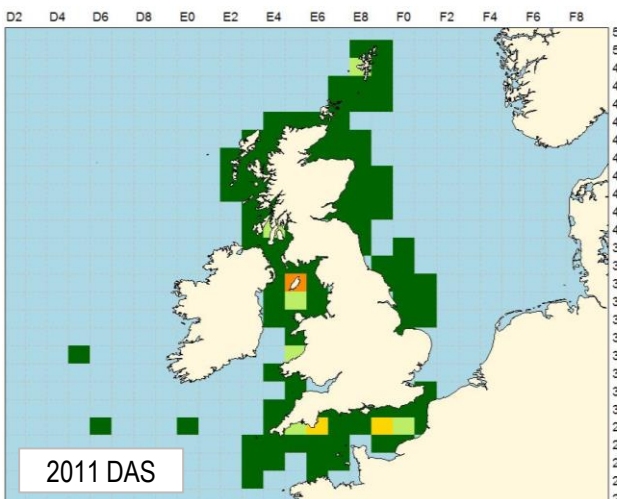
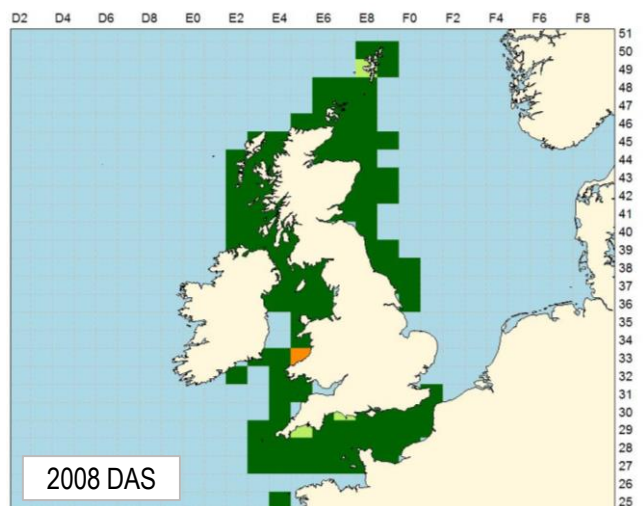
Seasonal variation in dredging days at sea, in 2008, 2011, 2014 and 2017.



Total dredging days at sea by UK scallop revenue-dependent vessels, by ICES area in **2008, 2011, 2014 and 2017**. Areas not included in this figure due to negligible effort recorded were 4c, 5b, 7b, -c, -g, -h, -j, -k, and 8a, -d.



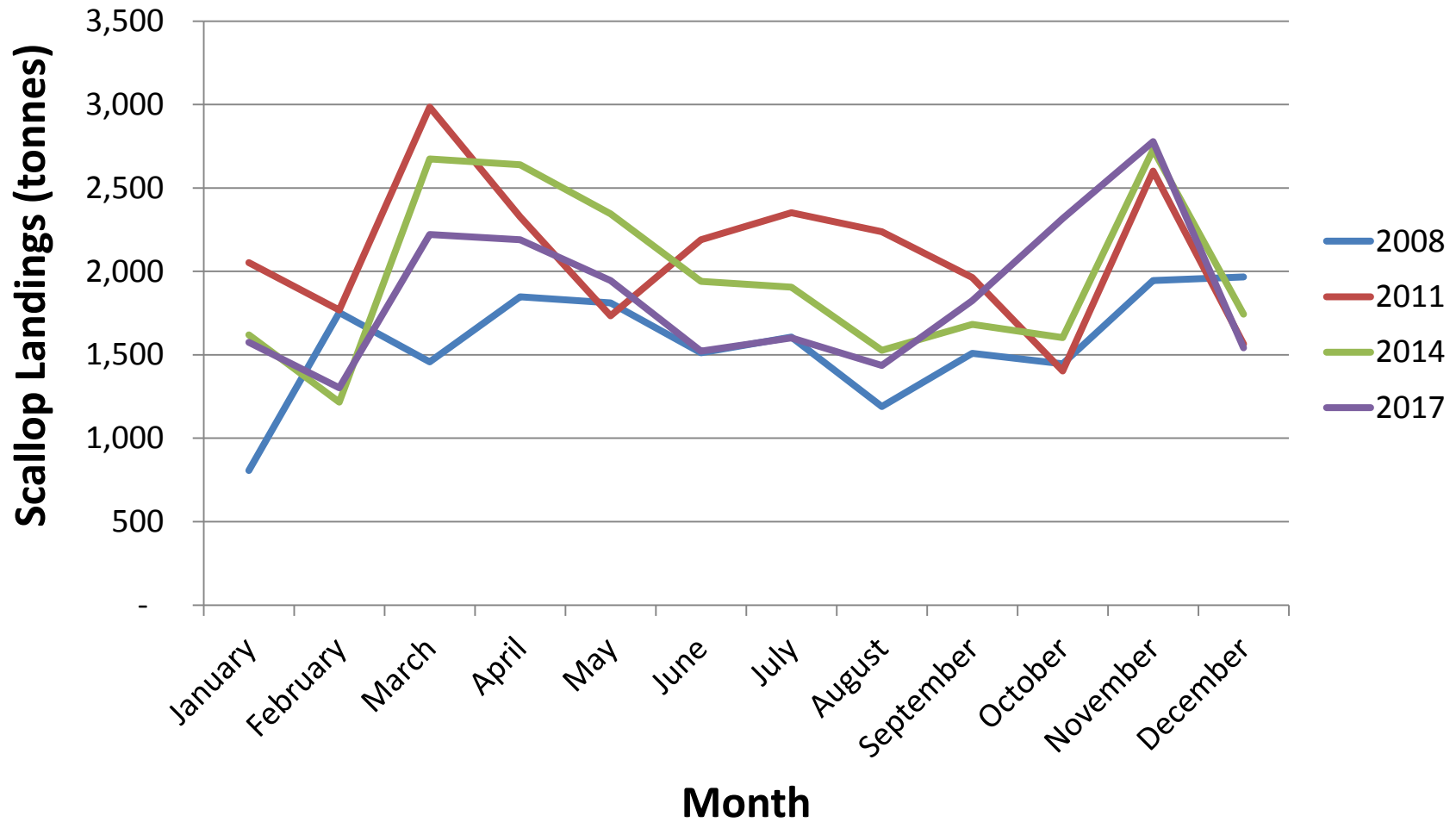
Pressure maps showing areas of concentration of dredging days at sea by UK scallop revenue-dependent vessels, 2008, 2011, 2014, and 2017.



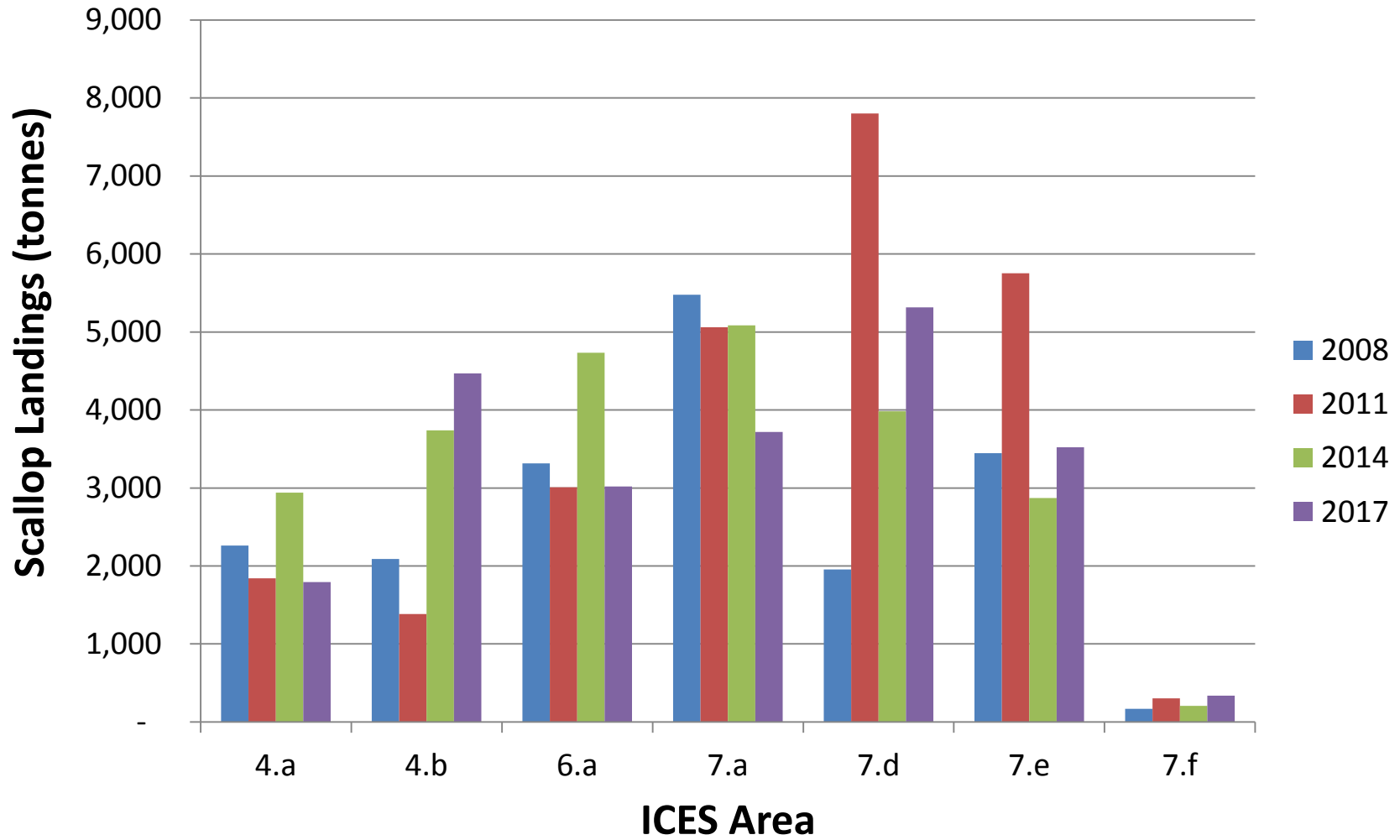
King Scallop Landings



Landings of king scallops by month in **2008, 2011, 2014 and 2017**, by UK scallop revenue-dependent vessels.

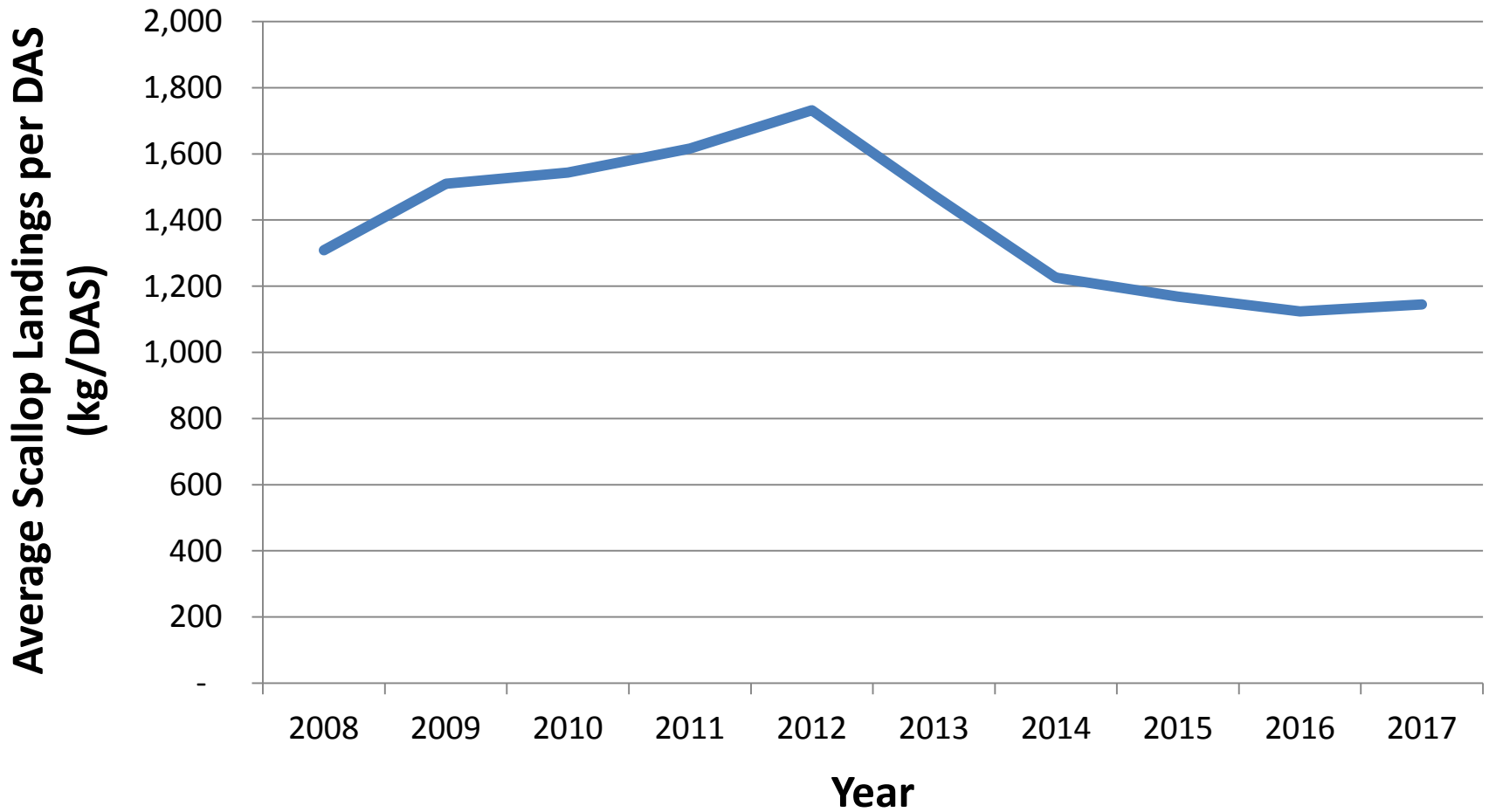


Landings of king scallops by UK scallop revenue-dependent vessels, in 2008, 2011, 2014 and 2017, by ICES area.

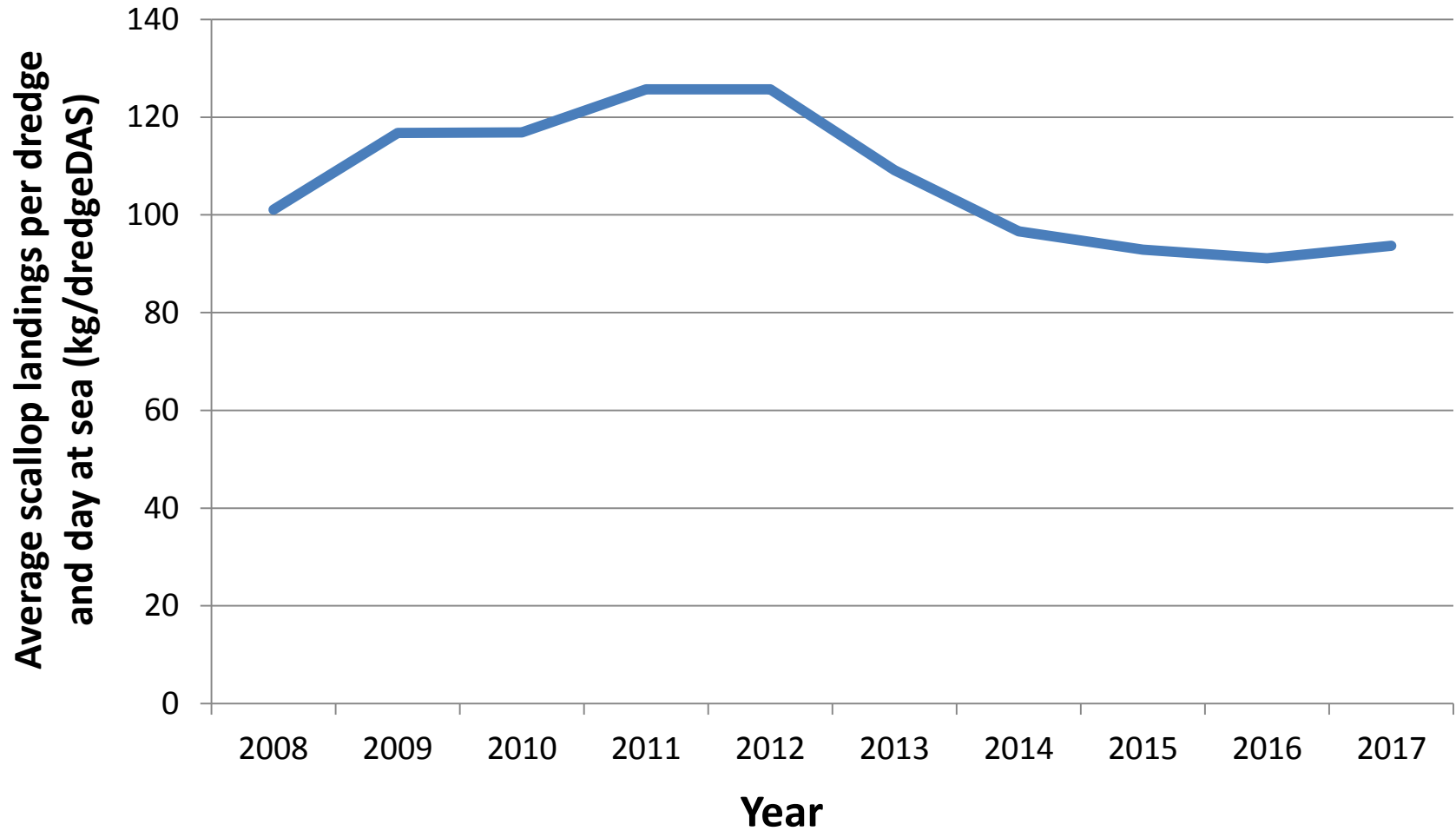


Productivity (fishing efficiency) **seafish**

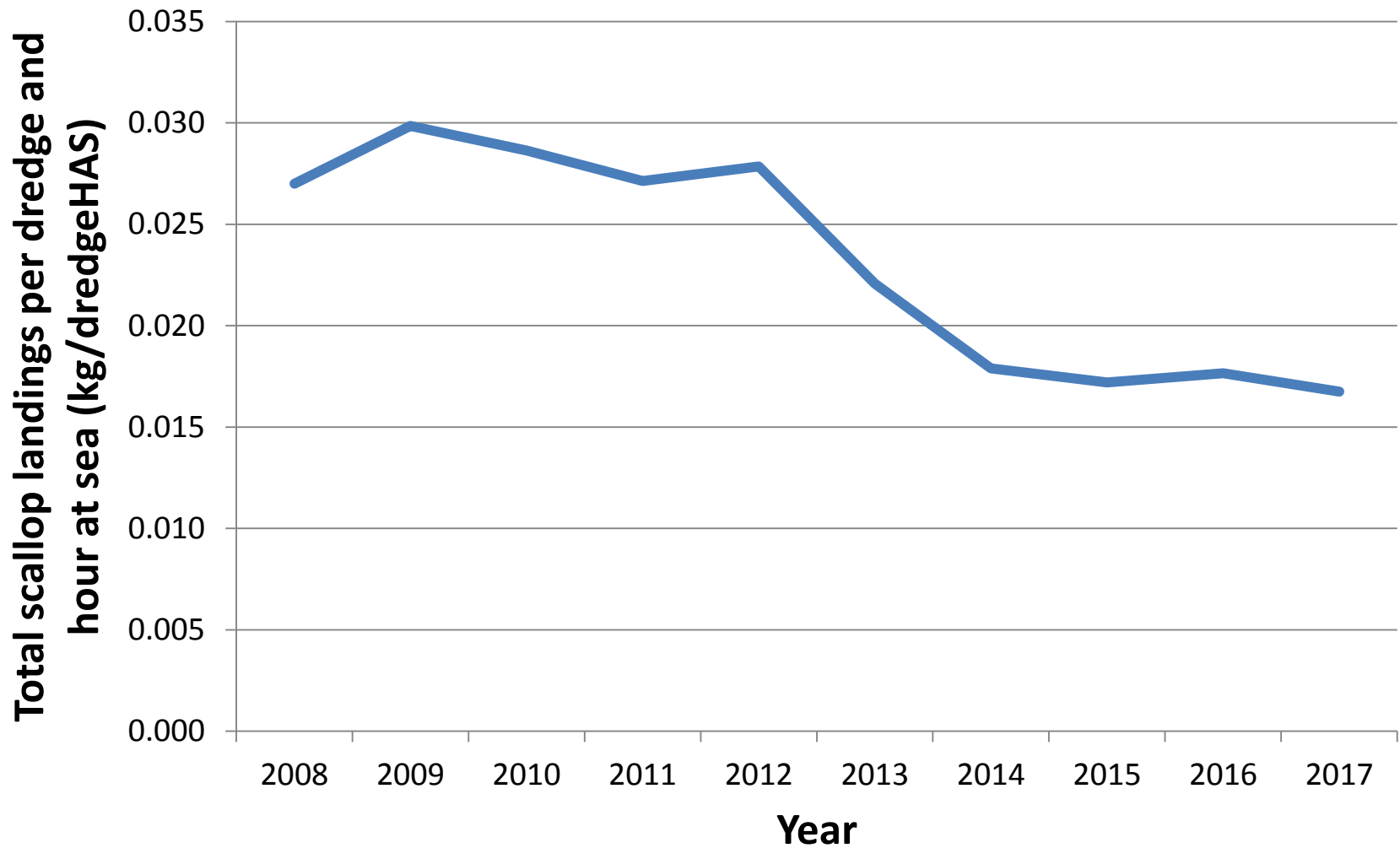
Average scallop landings per dredging day at sea by UK scallop revenue-dependent vessels.



Average estimated landings per dredge per **day at sea** by UK scallop revenue-dependent vessels.



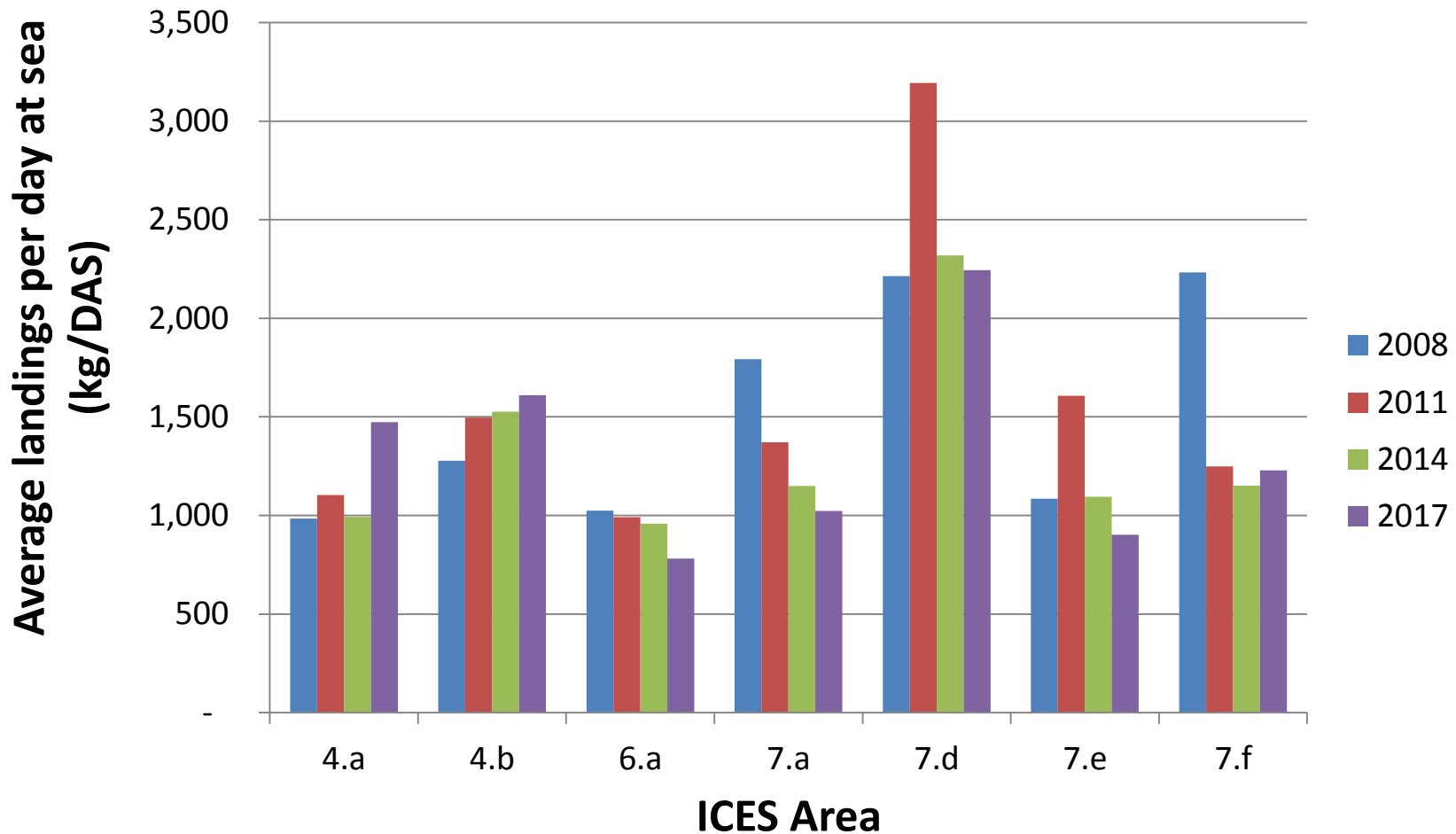
Total landings per dredge per hour at sea, UK scallop revenue-dependent vessels.



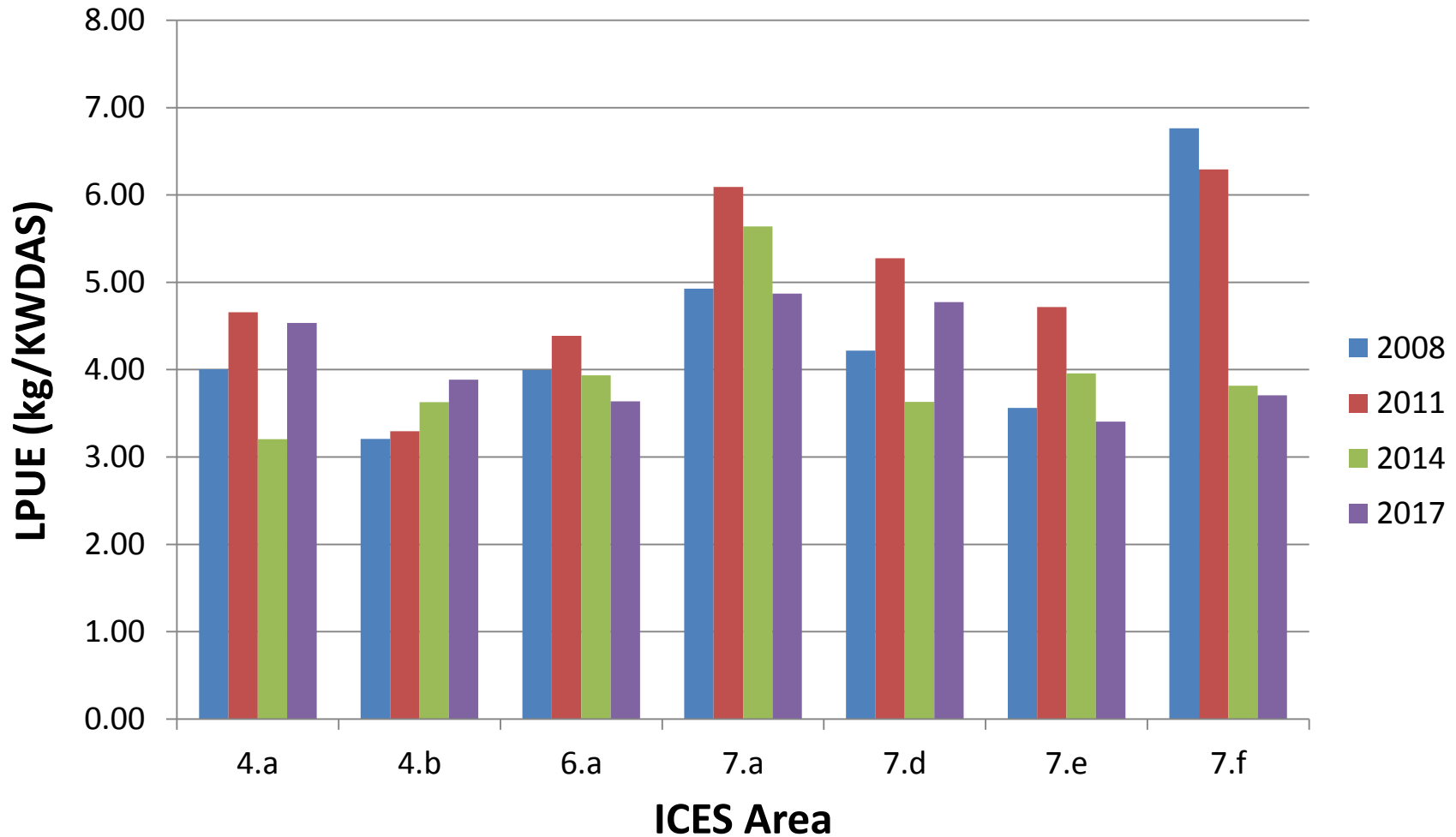
Productivity (fishing efficiency) by ICES area



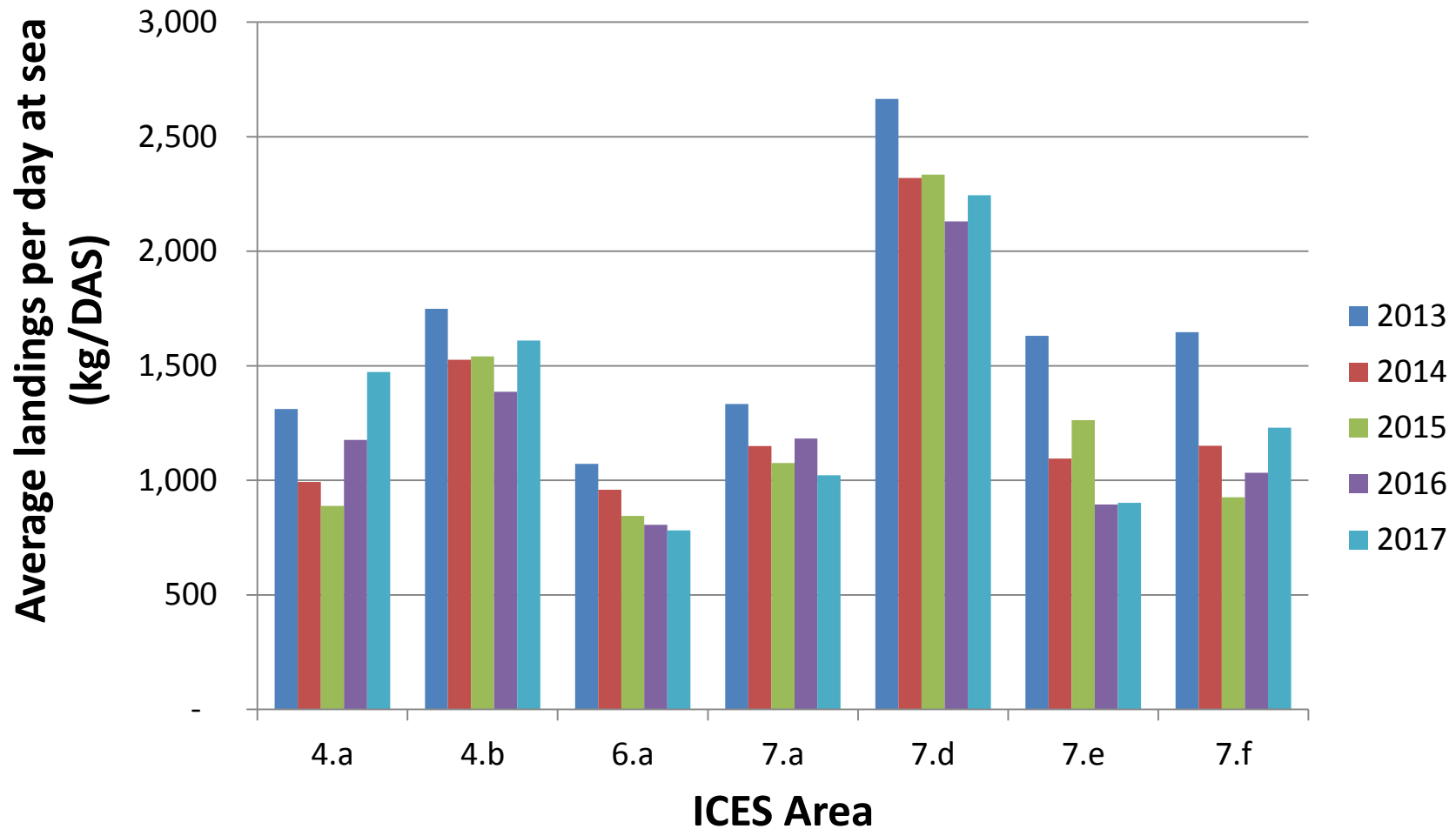
Productivity (landings per dredging day at sea) per ICES area in **2008**, **2011**, **2014** and **2017** by UK scallop revenue-dependent vessels.



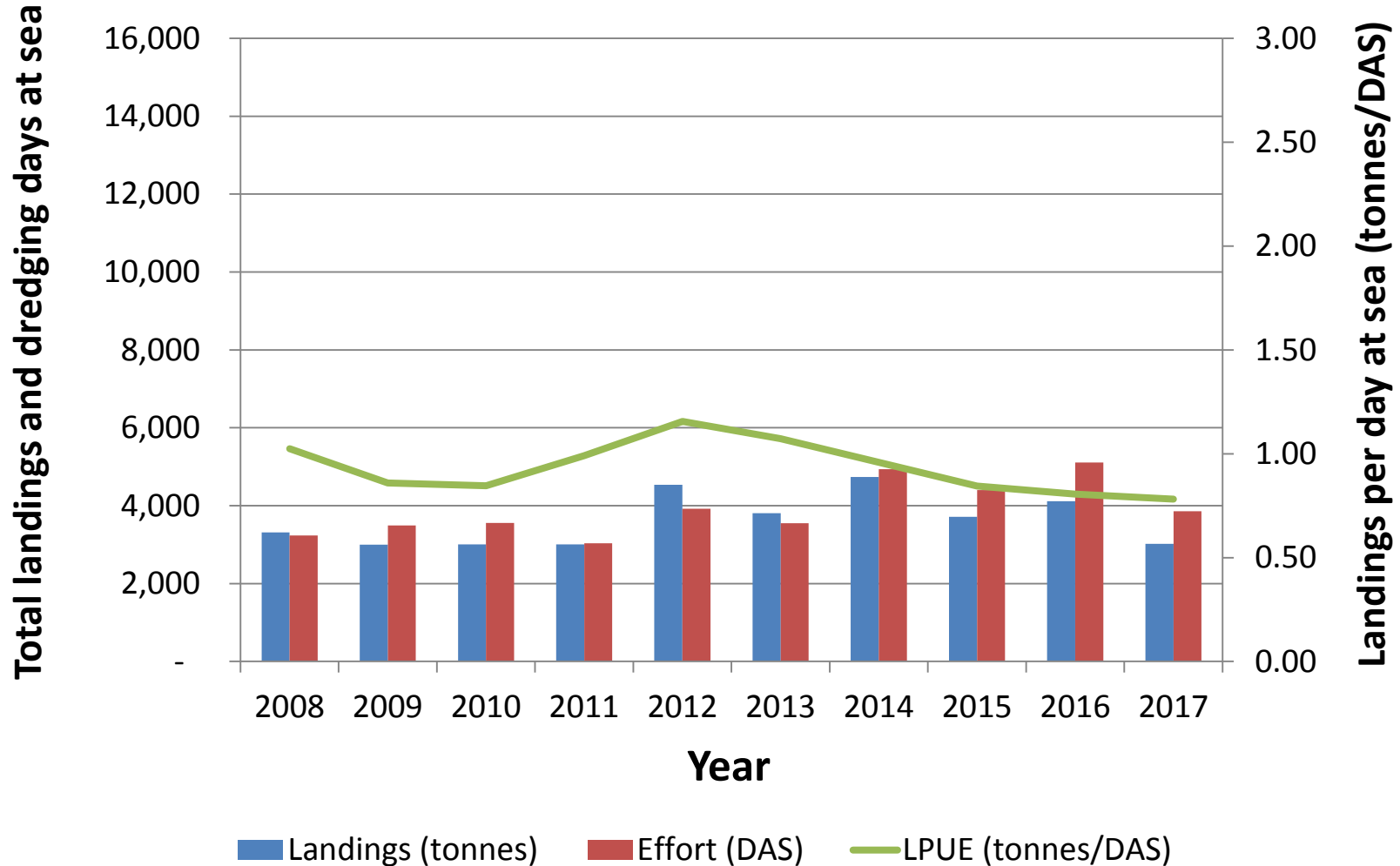
Productivity (landings per kWDas) per ICES area in **2008, 2011, 2014** and **2017** by UK scallop revenue-dependent vessels.



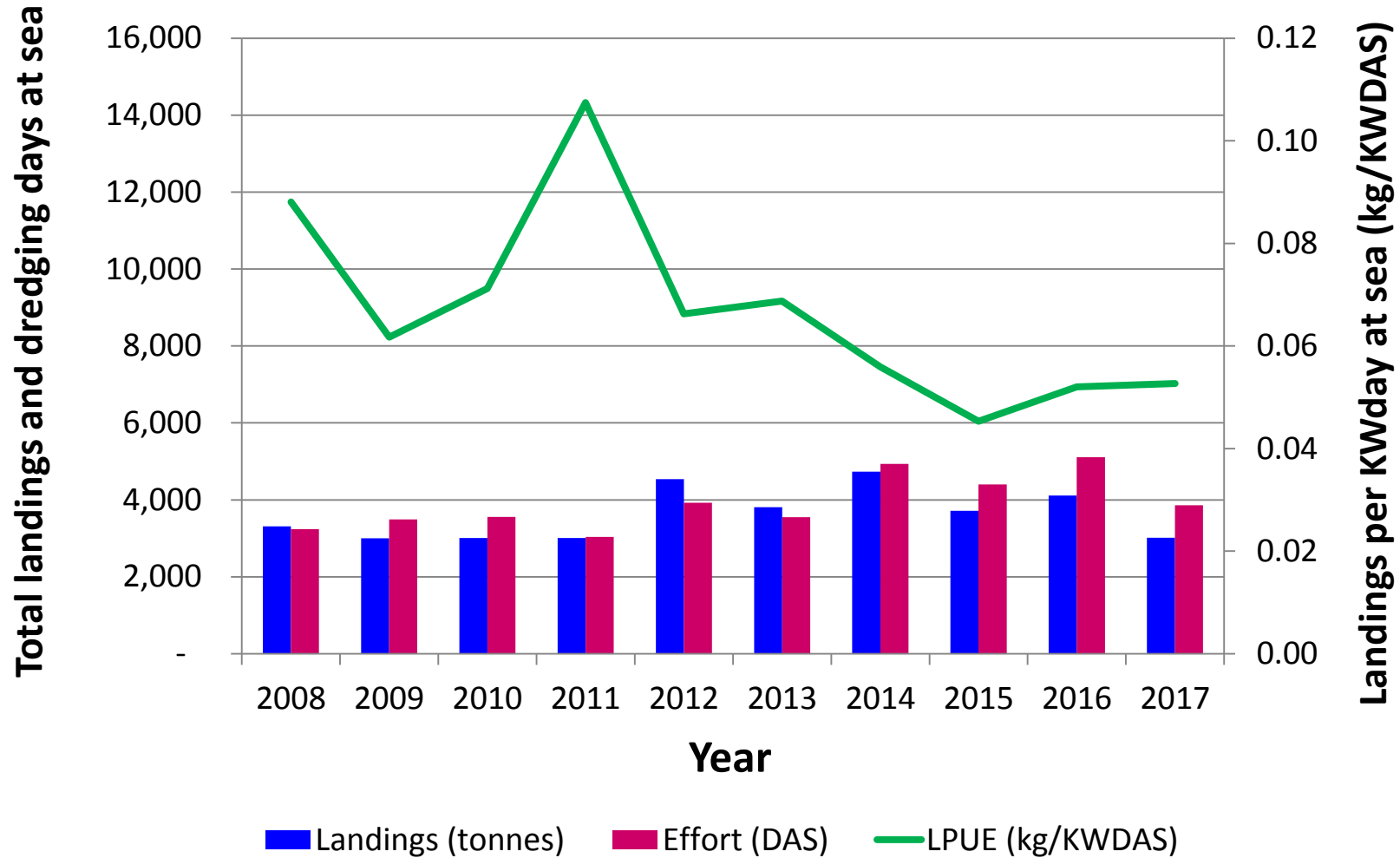
Productivity (landings per dredging day at sea) per ICES area 2013-2017
by UK scallop revenue-dependent vessels.



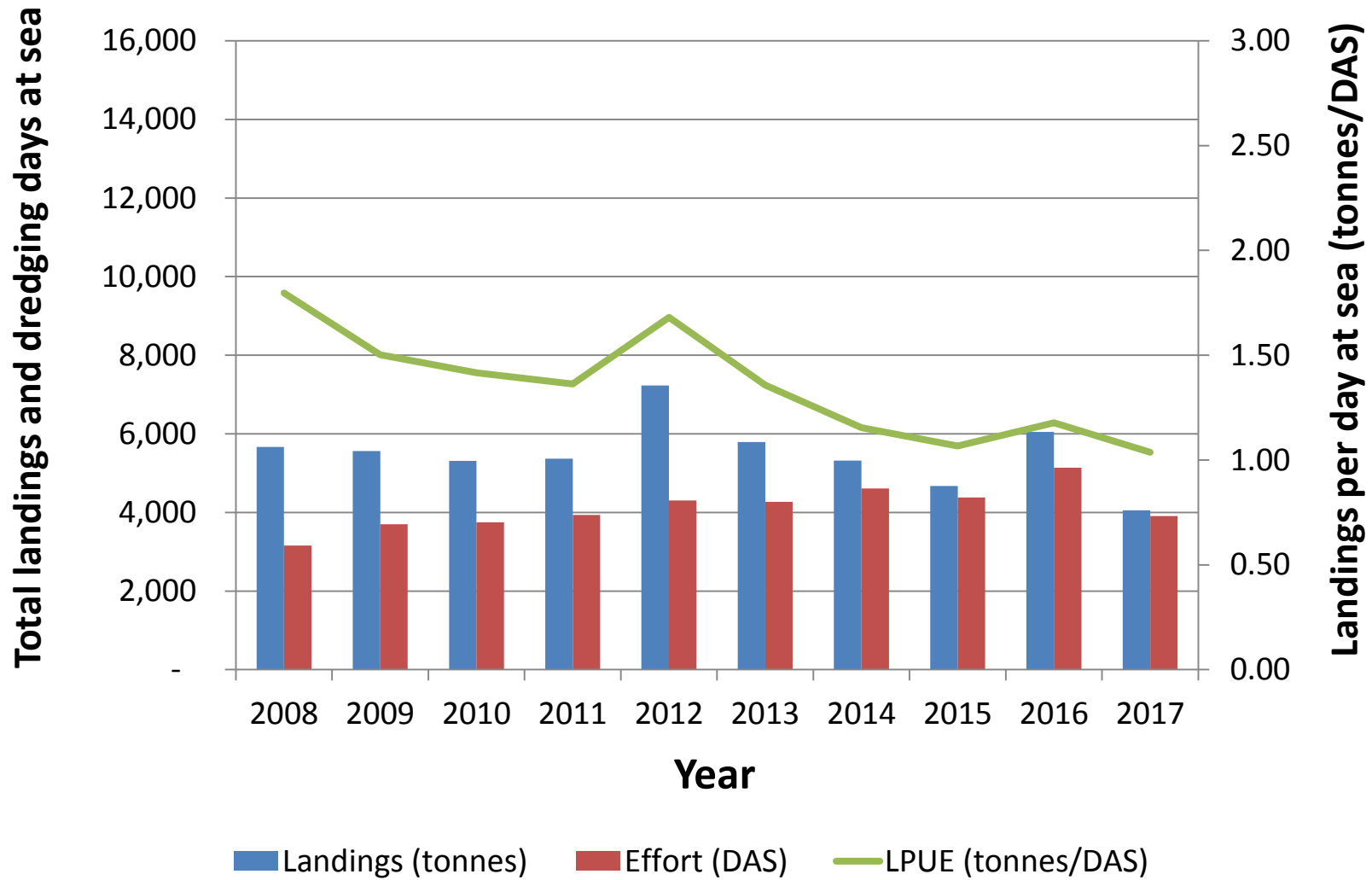
Landings of king scallops, dredging days at sea and landings per day at sea in Area 6a, West of Scotland.



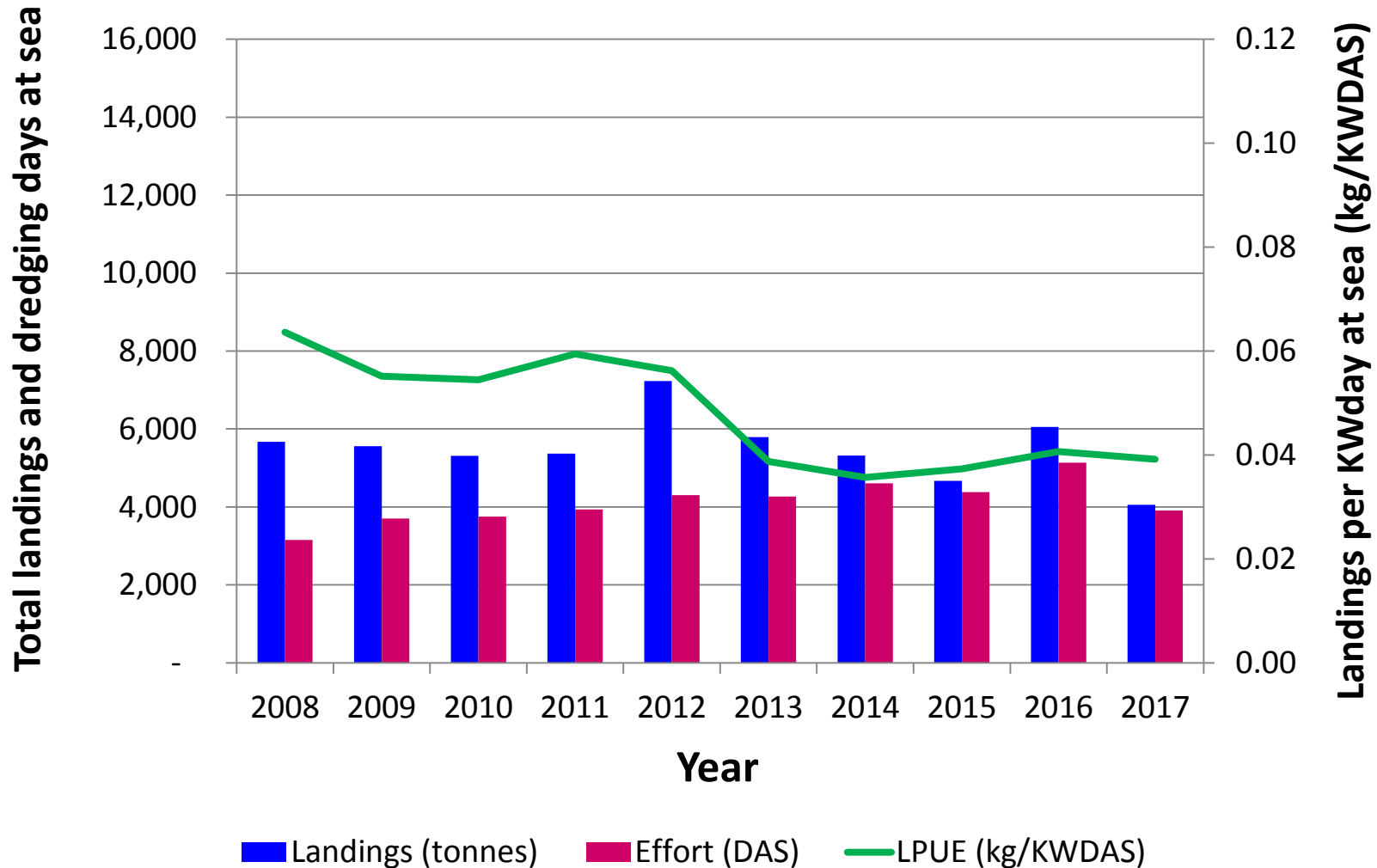
Landings of king scallops, dredging days at sea and landings per KWday at sea in Area 6a, West of Scotland.



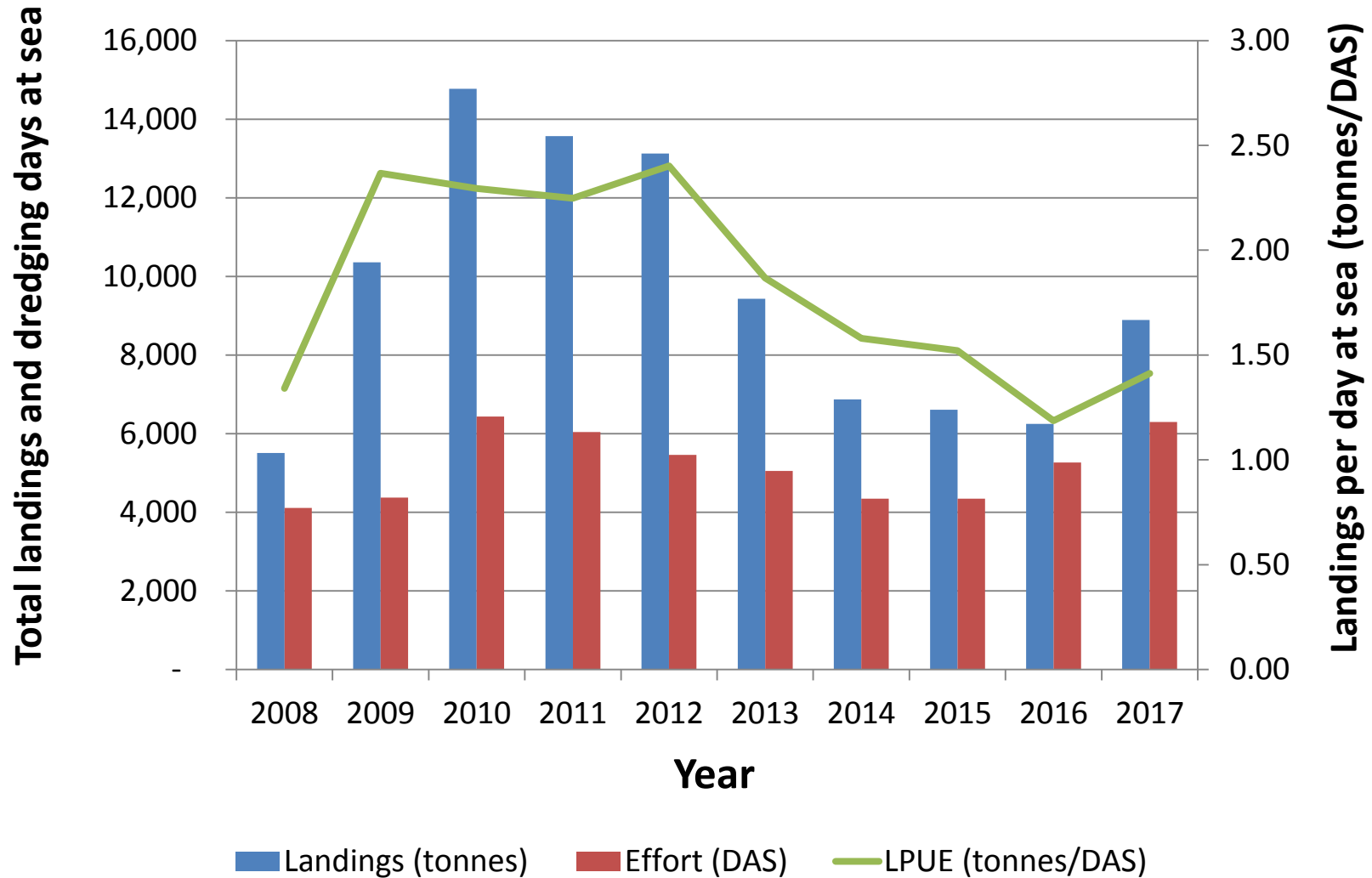
Landings of king scallops, dredging days at sea and **landings per day at sea** in Area 7a, f & g, Irish and Celtic Sea.



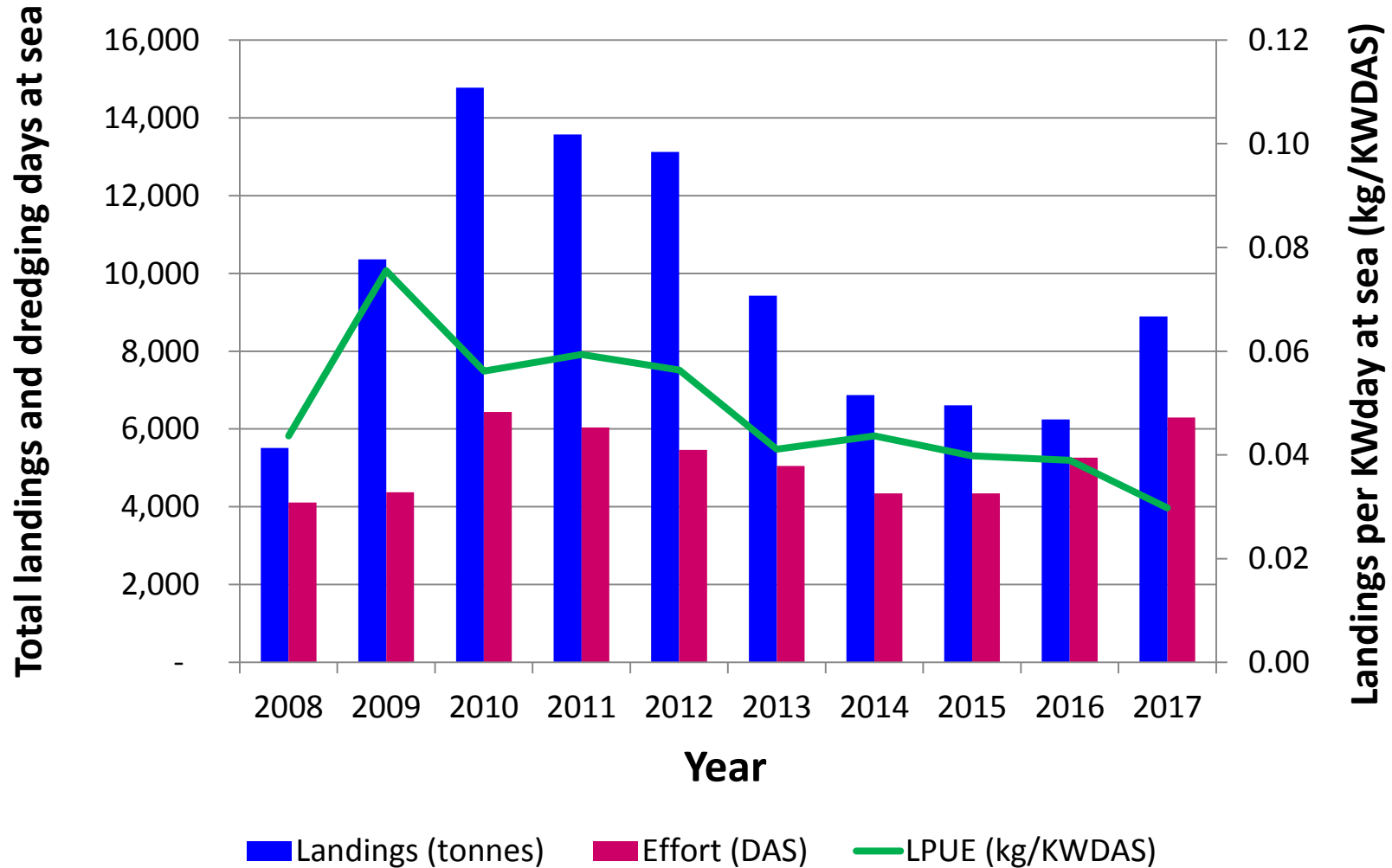
Landings of king scallops, dredging days at sea and landings per KWday at sea in Area 7a, f & g, Irish and Celtic Sea.



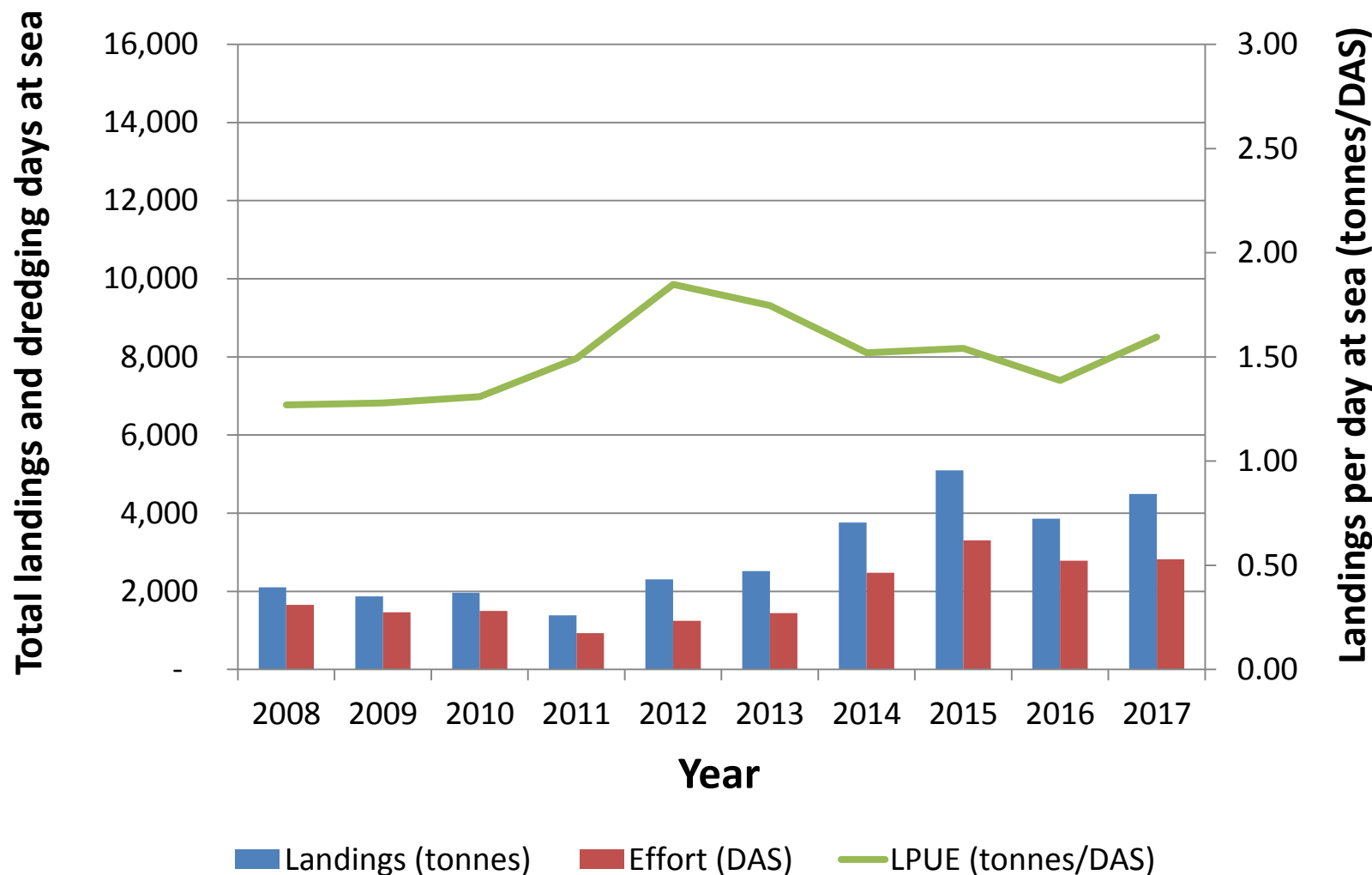
Landings of king scallops, dredging days at sea and **landings per day at sea** in Area 7.d.e & h, English Channel.



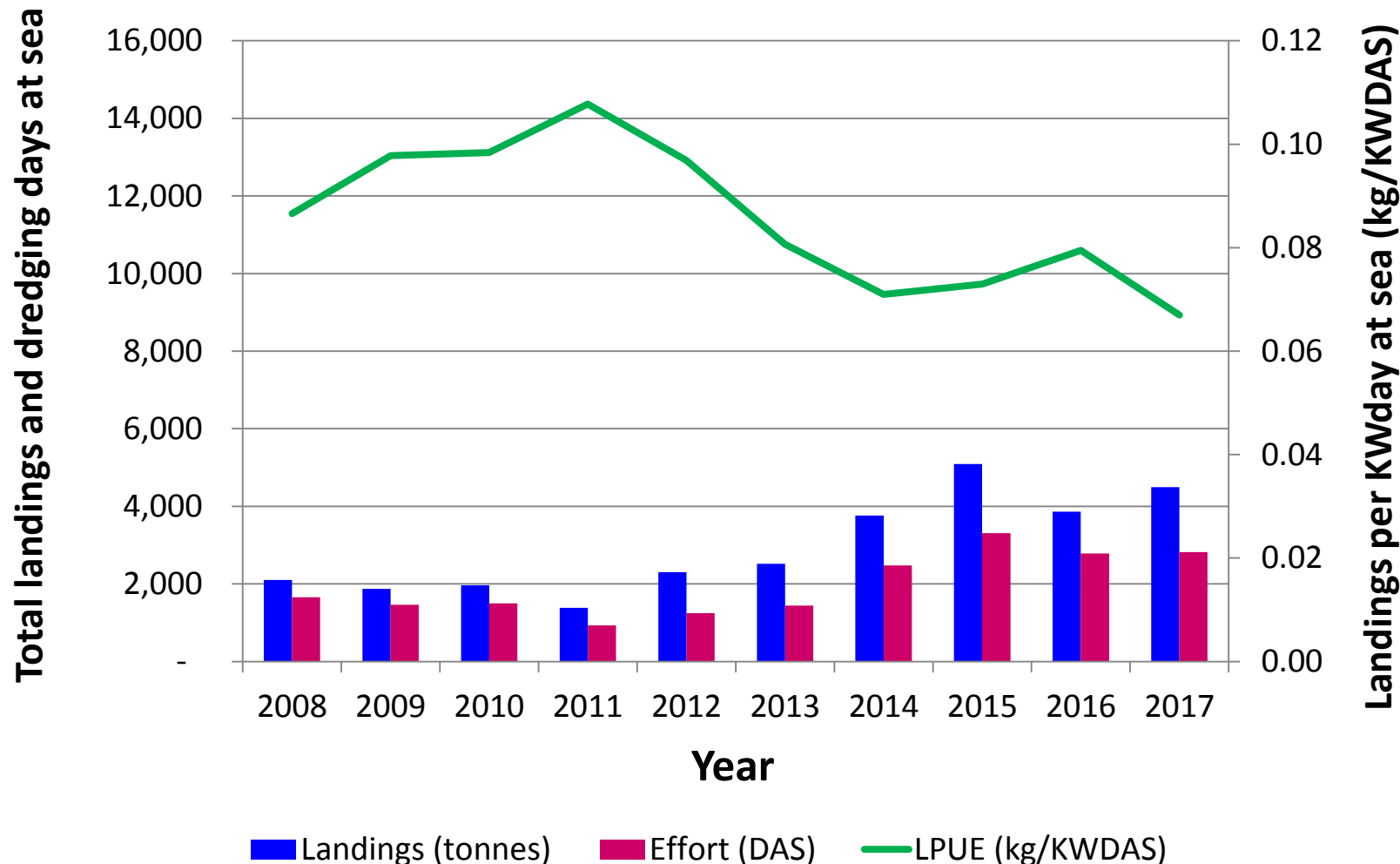
Landings of king scallops, dredging days at sea and landings per day at sea in Area 7.d.e & h, English Channel.



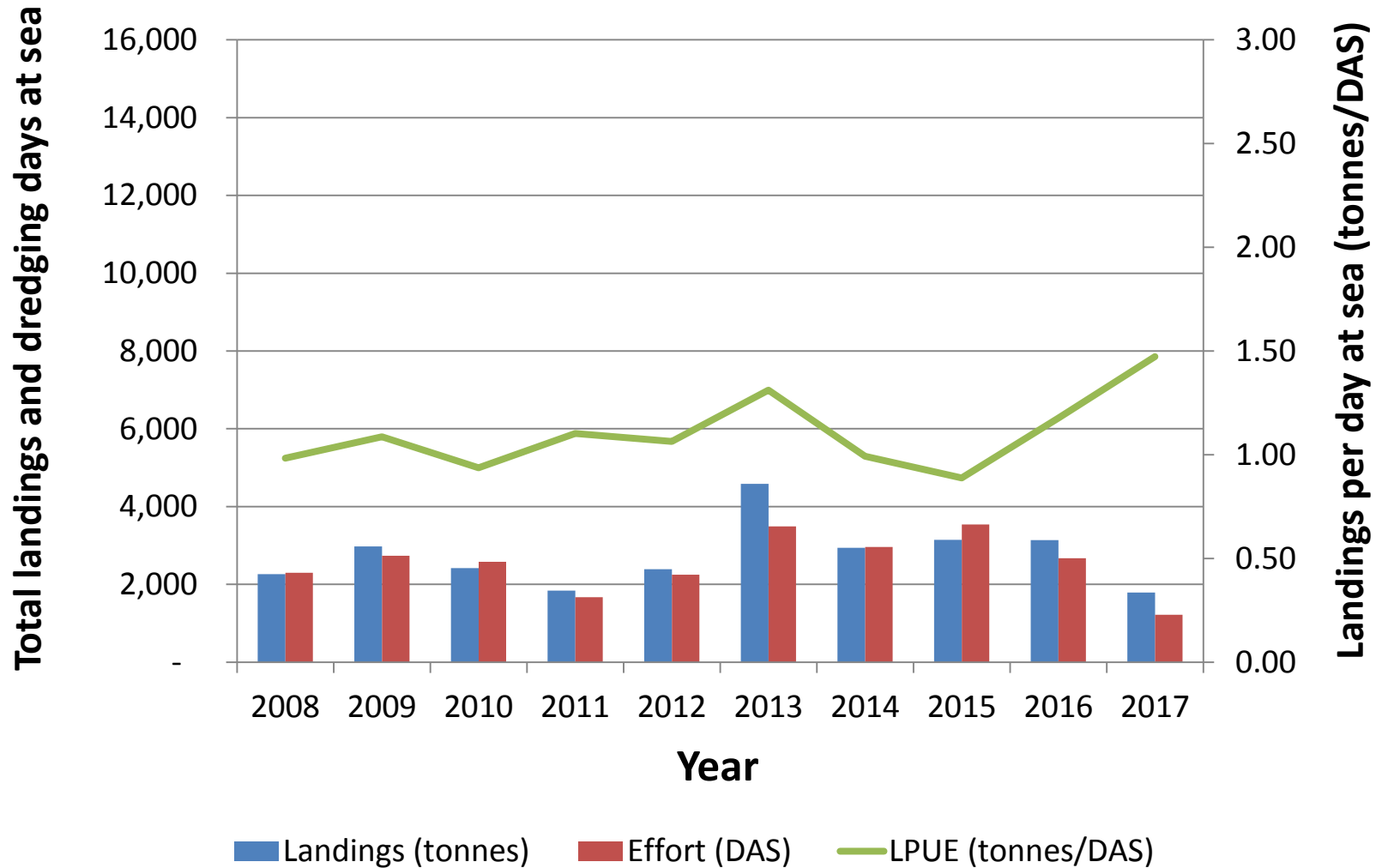
Landings of king scallops, dredging days at sea and landings per day at sea in Area 4b,c, North Sea.



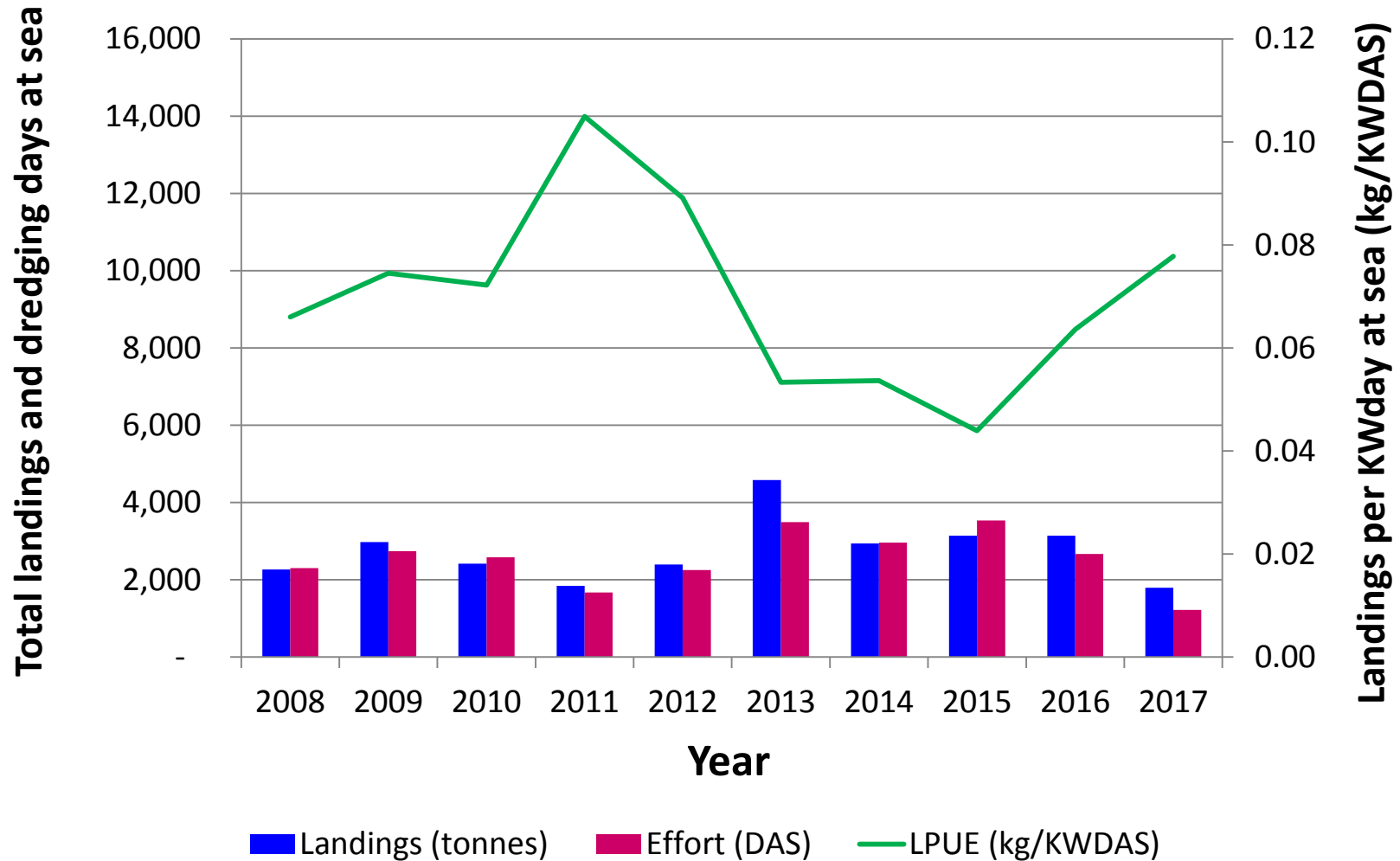
Landings of king scallops, dredging days at sea and landings per KWday at sea in Area 4b,c, North Sea.



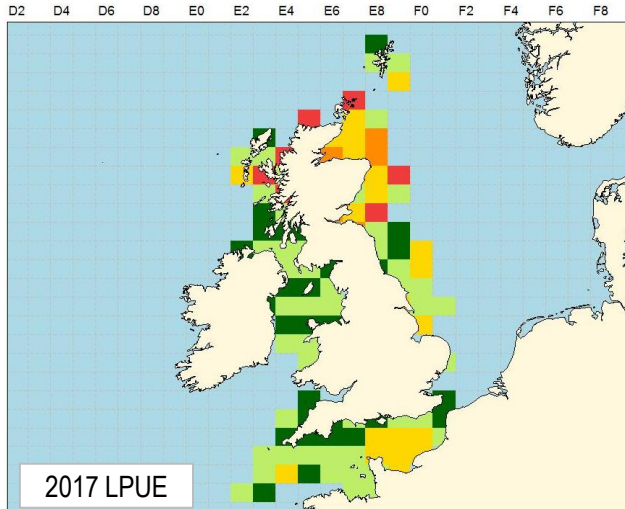
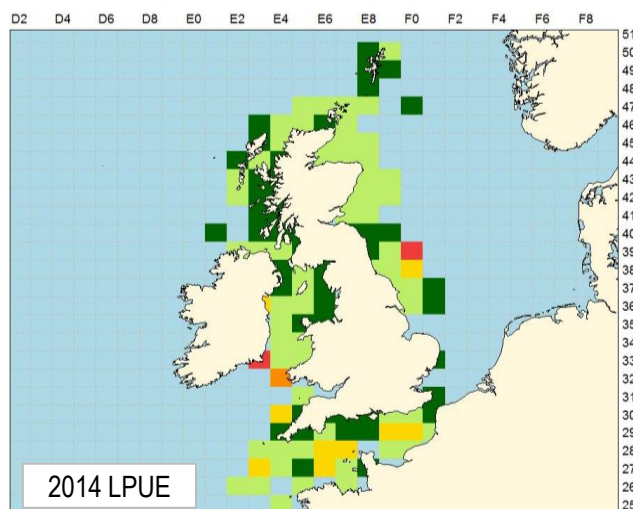
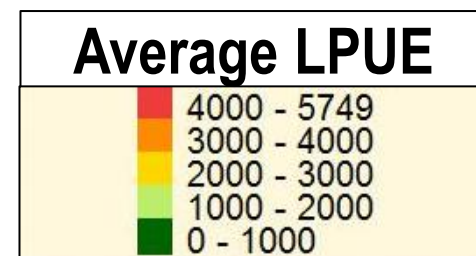
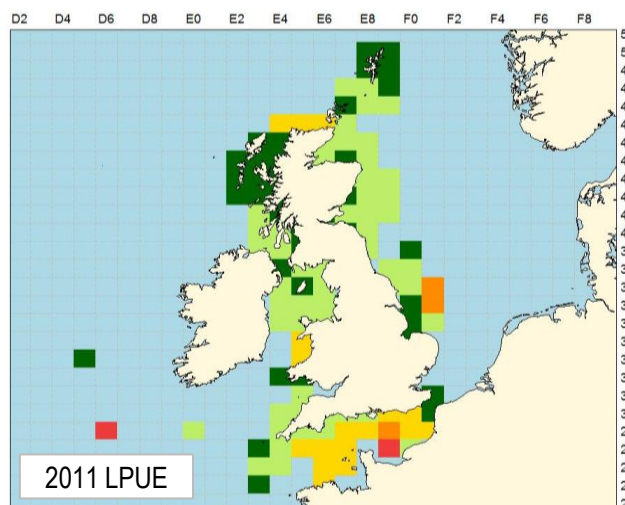
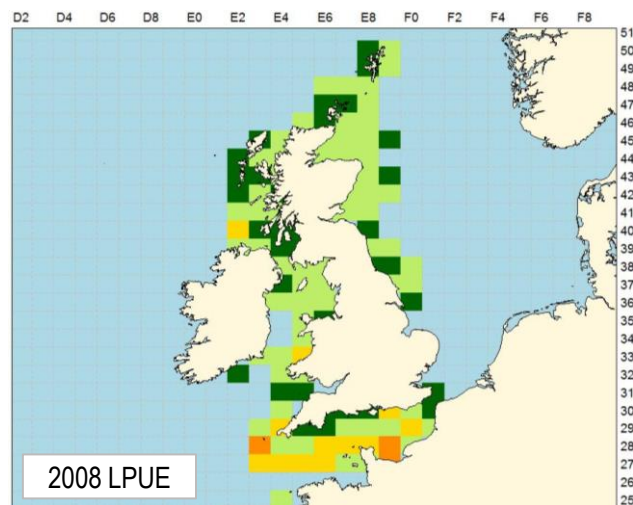
Landings of king scallops, dredging days at sea and landings per KWday at sea in Area 4a, northern North Sea.



Landings of king scallops, dredging days at sea and landings per KWday at sea in Area 4a, northern North Sea.



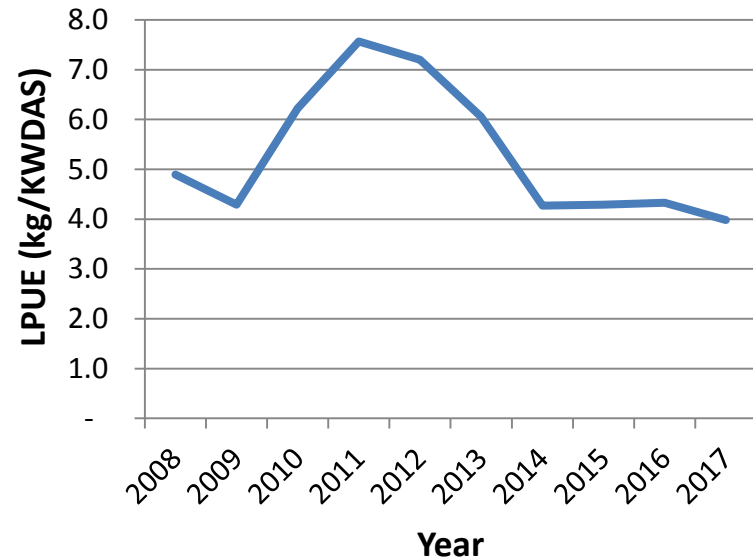
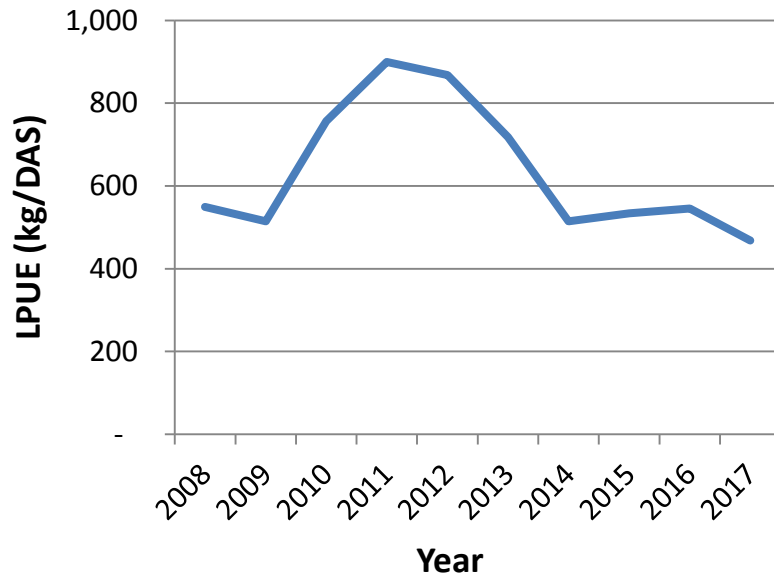
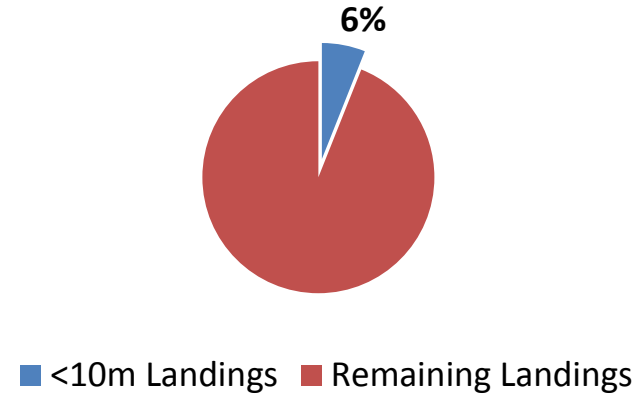
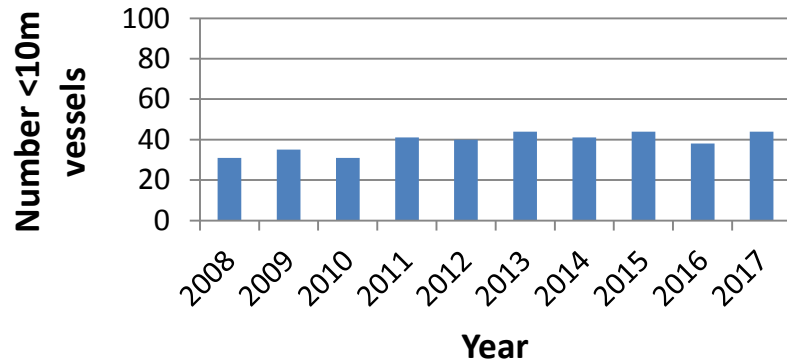
Maps showing average landings of scallops per dredging day at sea, by ICES sub-rectangle, for UK scallop revenue-dependent vessels (all lengths), 2008, 2011, 2014, 2017.



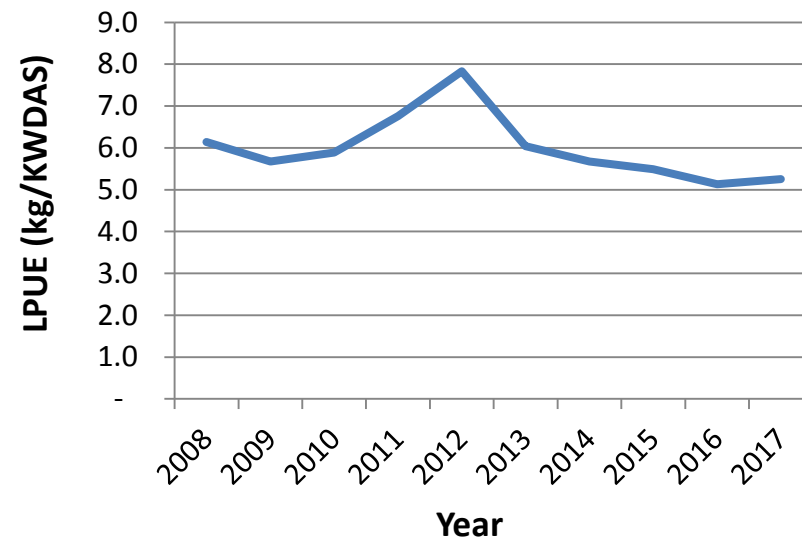
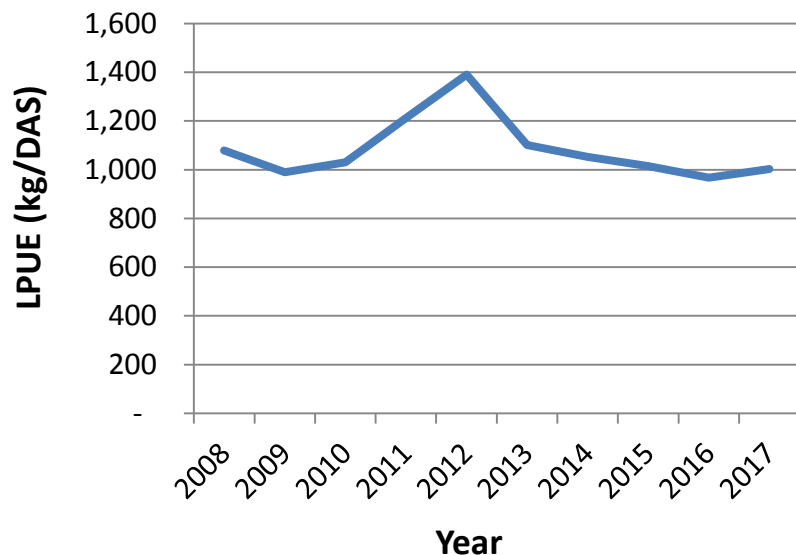
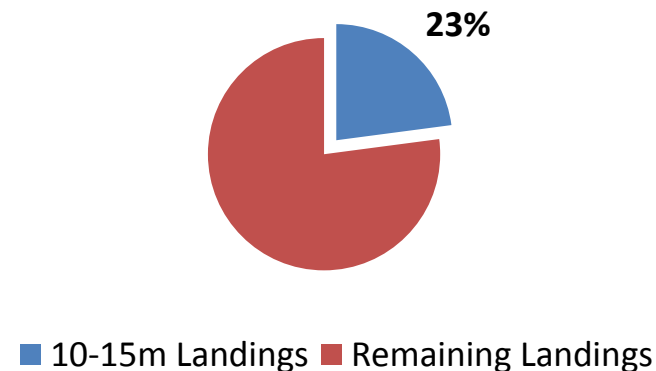
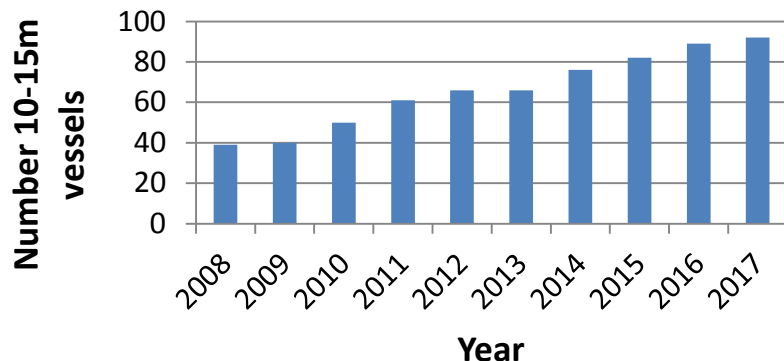
Vessel length group characteristics



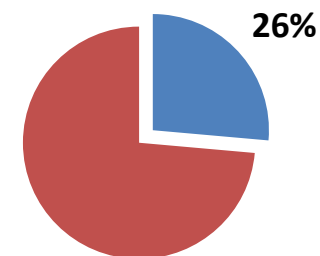
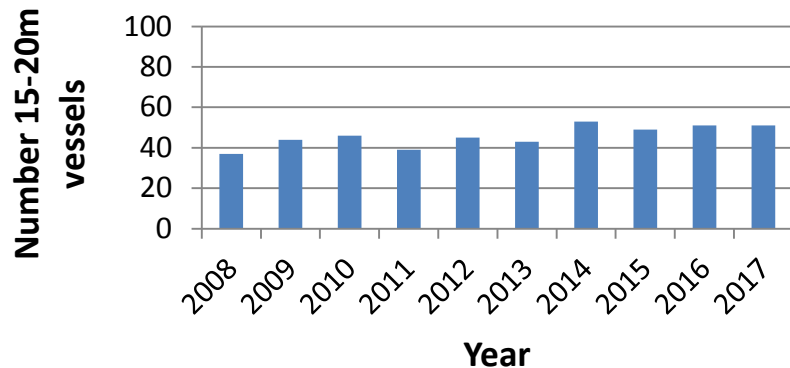
Under 10m scallop revenue-dependent vessels: number of vessels, average landings share (2008-2017), landings per dredging day at sea, and landings per KW day at sea (excluding low activity vessels).



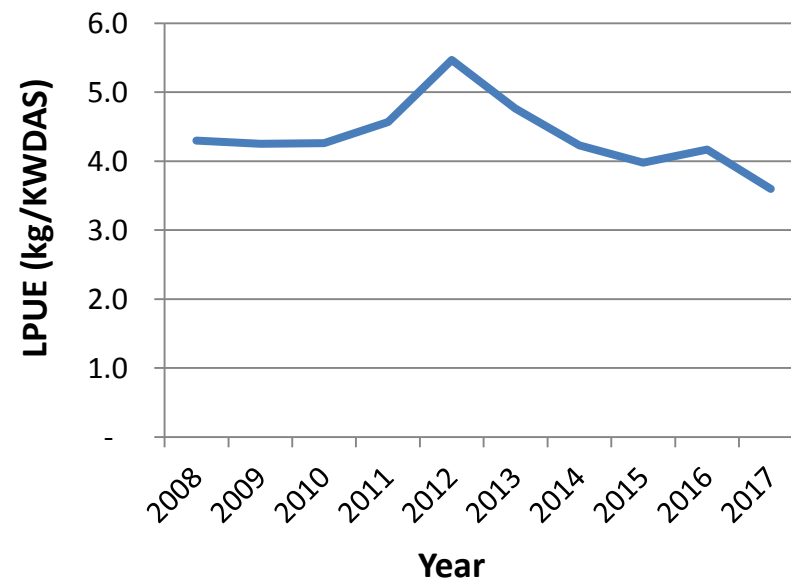
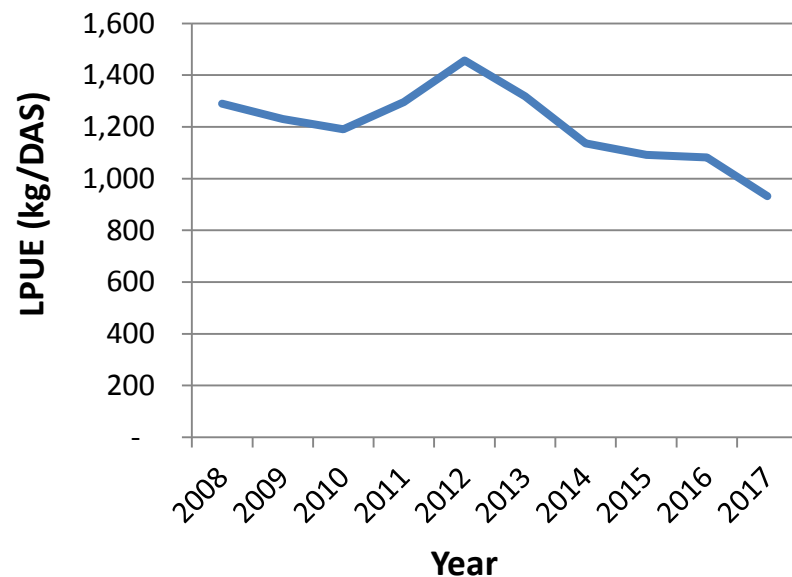
10-15m scallop revenue-dependent vessels: number of vessels, average landings share (2008-2017), landings per dredging day at sea, and landings per KW day at sea (excluding low activity vessels).



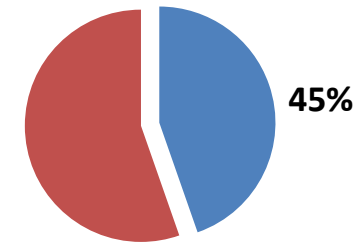
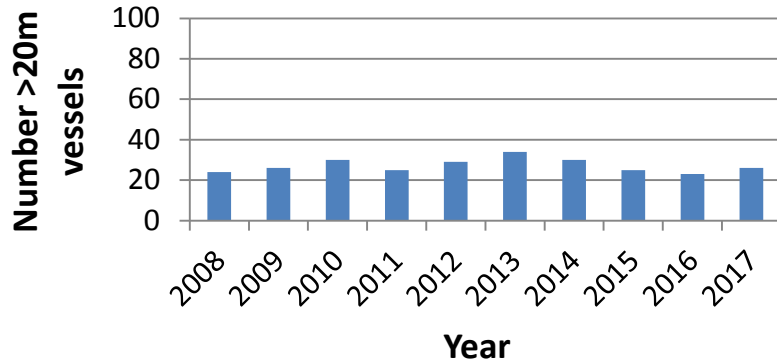
15-20m scallop revenue-dependent vessels: number of vessels, average landings share (2008-2017), landings per dredging day at sea, and landings per KW day at sea (excluding low activity vessels).



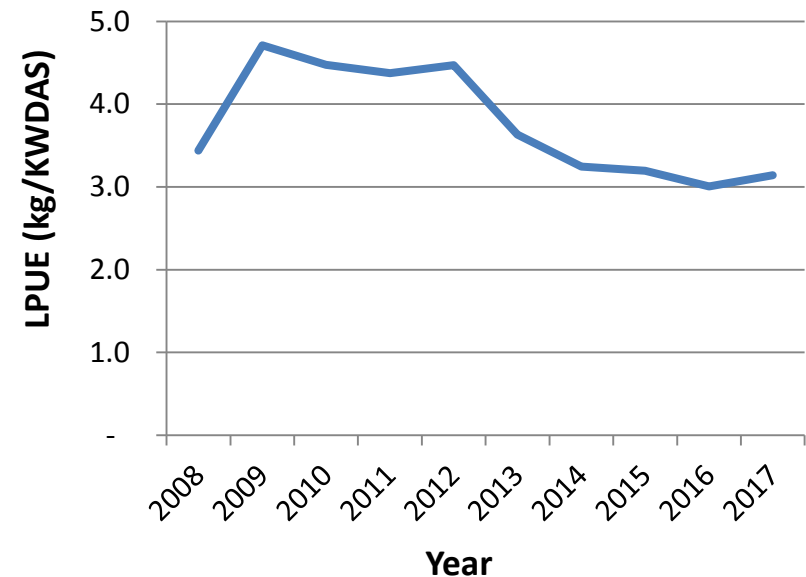
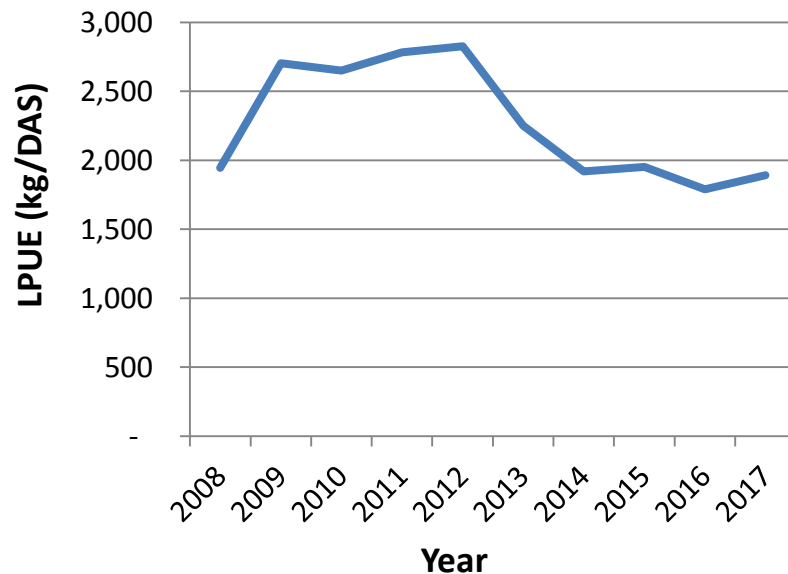
■ 15-20m Landings ■ Remaining Landings



Over 20m scallop revenue-dependent vessels: number of vessels, average landings share (2008-2017), landings per dredging day at sea, and landings per KW day at sea (excluding low activity vessels).

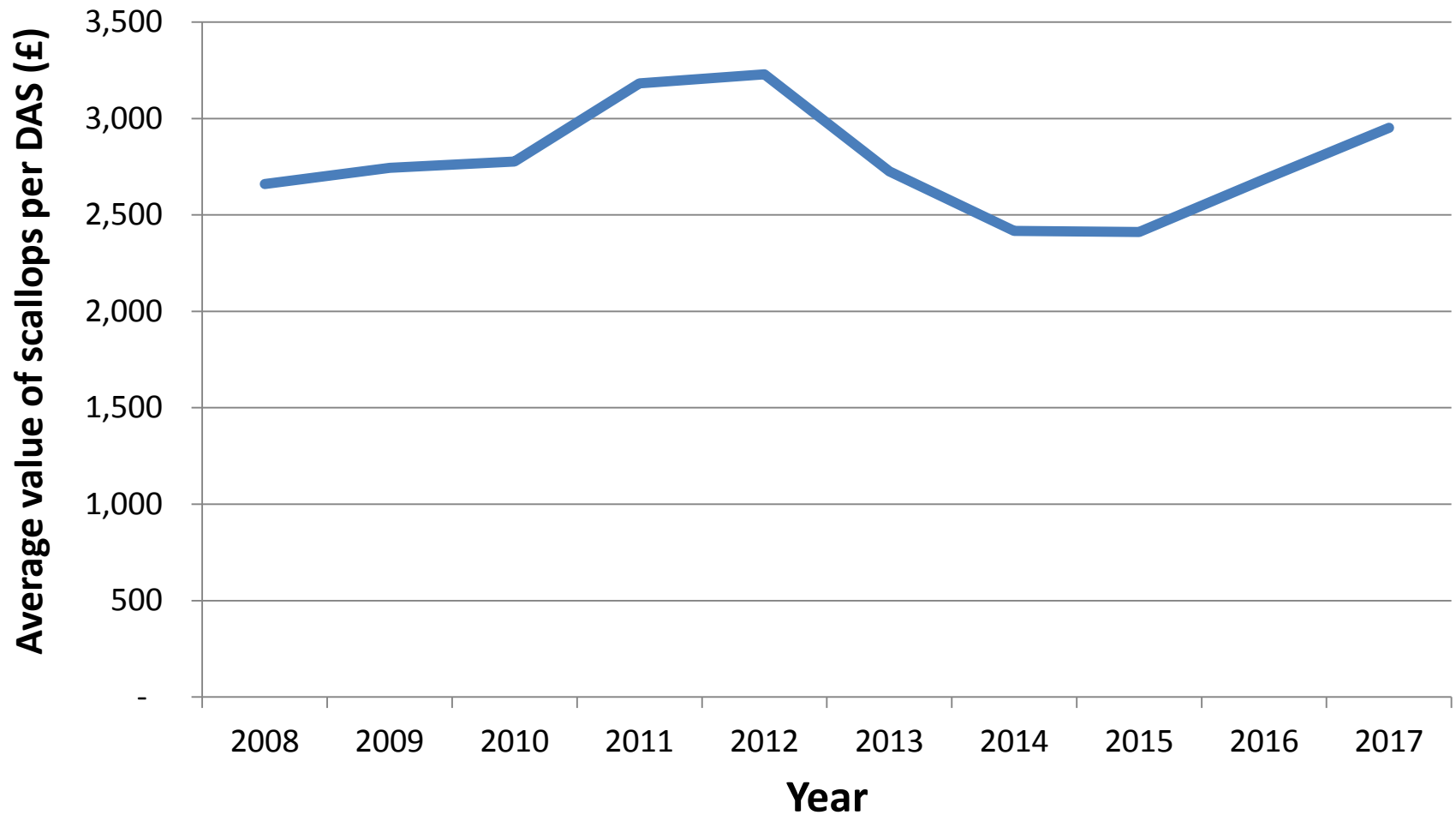


■ >20m Landings ■ Remaining Landings

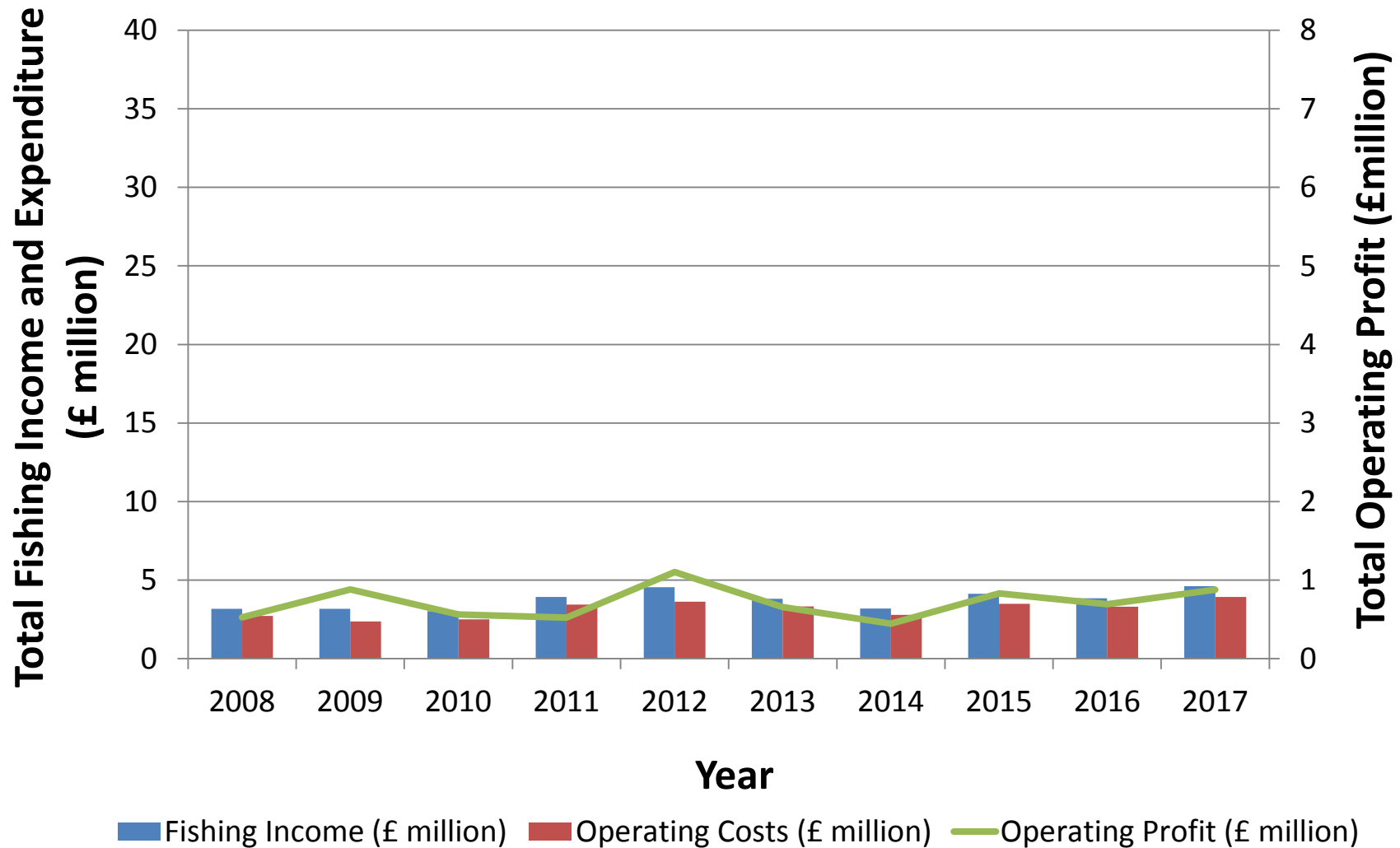


Economic Performance 

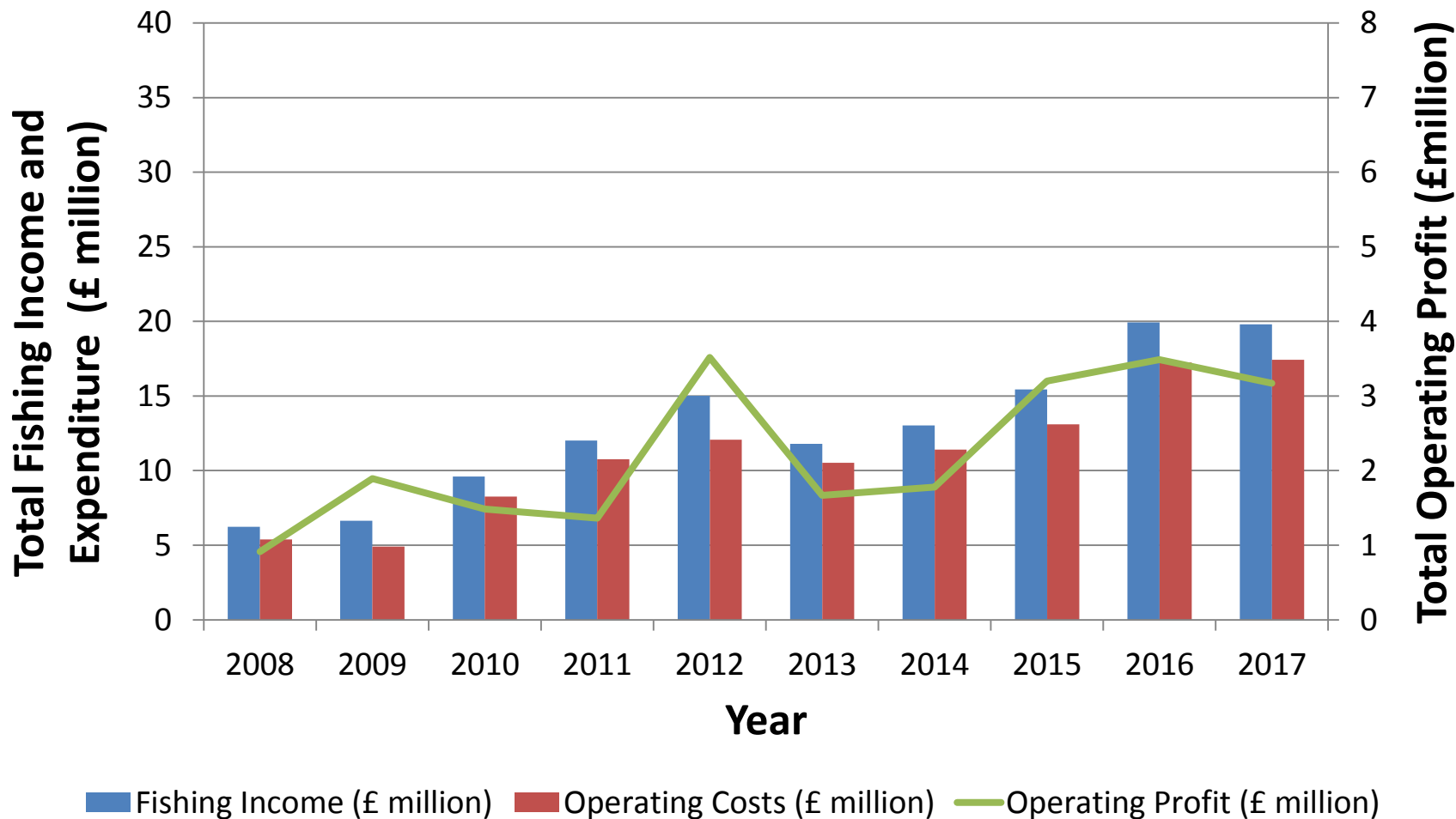
Average value (income) per day at sea from king scallops by revenue-dependent vessels (values adjusted to 2017).



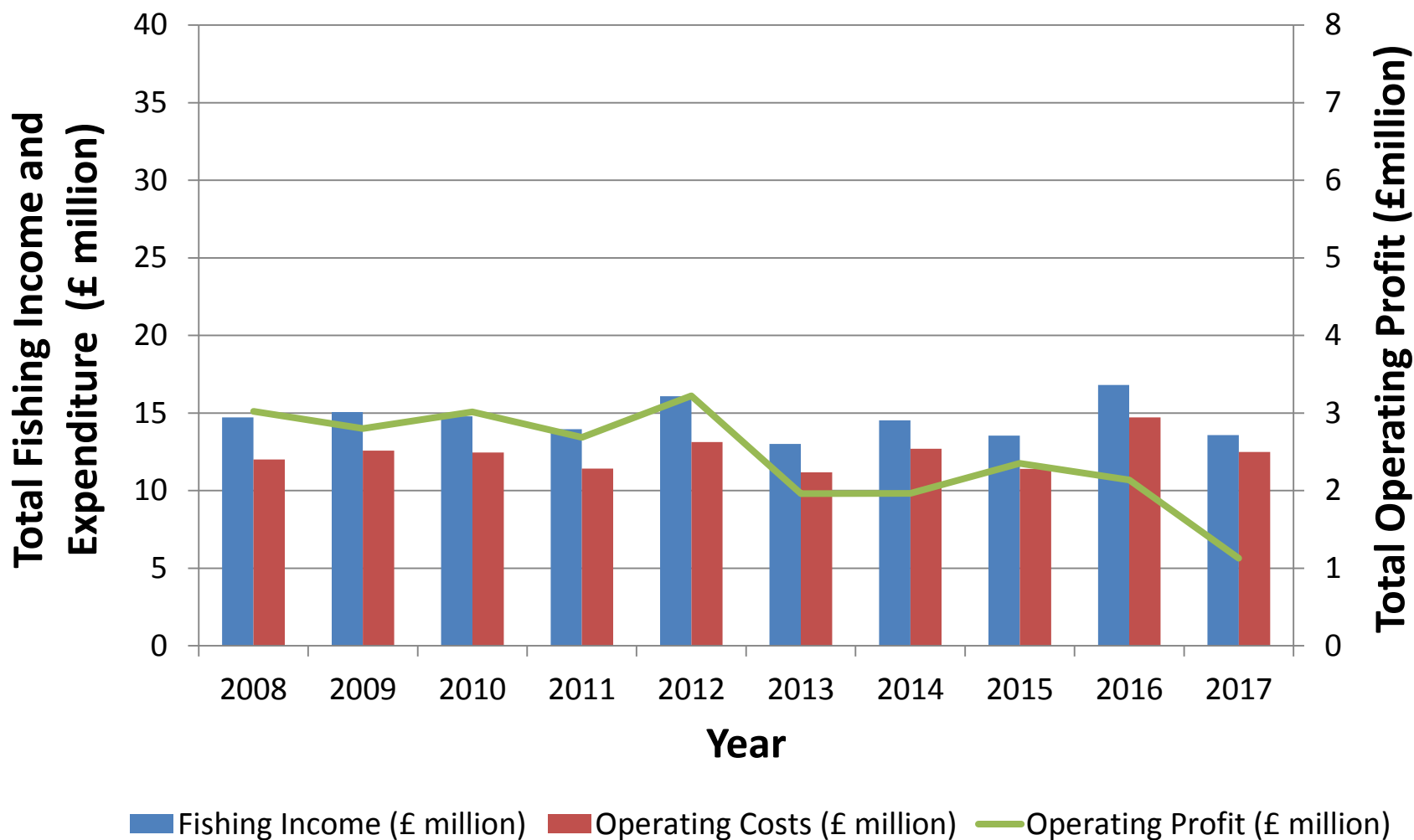
Total annual fishing income, operating costs and operating profit of
under 10m scallop revenue-dependent vessels (values adjusted to 2017).



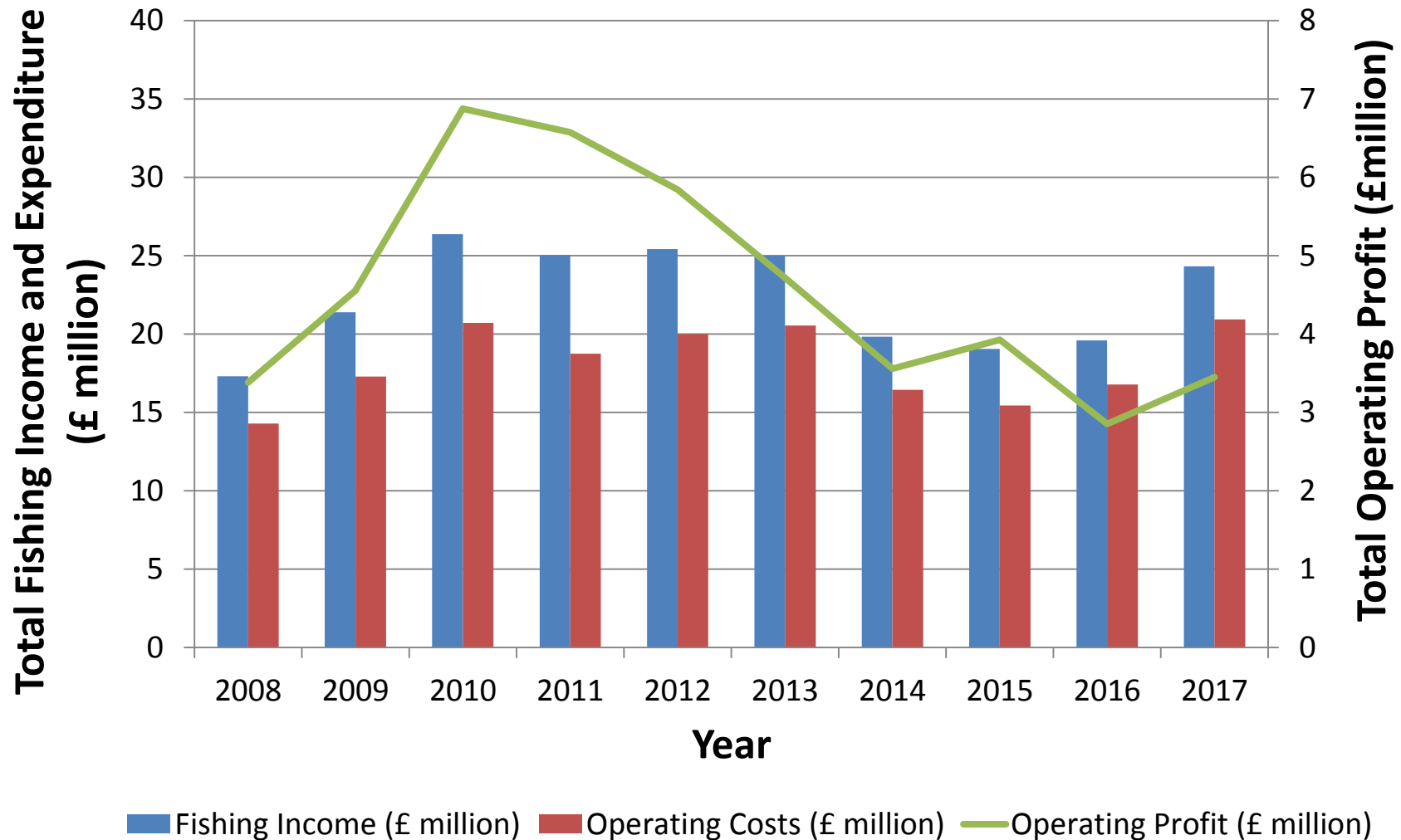
Total annual fishing income, operating costs and operating profit of
10-15m scallop revenue-dependent vessels (values adjusted to 2017).



Total annual fishing income, operating costs and operating profit of
15-20m scallop revenue-dependent vessels (values adjusted to 2017).



Total annual fishing income, operating costs and operating profit of
over 20m scallop revenue-dependent vessels (values adjusted to 2017).



For more information on this analysis, including methodology, please see the second edition of the 2016 UK king scallop dredging sector report:

https://www.seafish.org/media/Publications/2nd_Edition_Scallop_report_FINAL_Dec2017.pdf