Overview of the Welsh skates and rays fishing fleet: 2016

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1. Executive Summary

- In this report, skates and rays comprise the following species: arctic skate, blonde ray, common skate, common stingray, cuckoo ray, long-nosed skate, sandy ray, shagreen ray, small-eyed ray, spotted ray, starry ray, thornback ray, undulate ray, and landings reported under the generic 'skates and rays' code.

- In this report, the 'Welsh skates and rays core fleet' is defined as Welsh-registered commercial fishing vessels that derived the largest proportion of their fishing income in the given year from skates and rays. In 2016 the Welsh skates and rays core fleet comprised of less than five vessels, which limits the amount of data that can be provided on this year and fleet due to confidentiality reasons. In 2015 the Welsh skates and rays core fleet consisted of five vessels, having decreased from 12 vessels in 2008. A number of these vessels were low activity vessels (landing less than £10,000 in the year).

- On average the Welsh skates and rays core fleet was 68% reliant on skates and rays for fishing income during the period 2008-2016.

- In this report, the 'Welsh skates and rays secondary fleet' is defined as Welsh-registered commercial fishing vessels that landed skates and rays, but these species did not represent their largest proportion of fishing income in the year. The Welsh skates and rays secondary fleet is bigger than the core fleet, with 44 vessels in 2016 (24 of which were low activity vessels).

- On average the Welsh skates and rays secondary fleet was 9% reliant on skates and rays for fishing income.

- The primary gear types used by the Welsh skates and rays core fleet were demersal trawls/seines and drift and/or fixed nets. The Welsh skates and rays secondary fleet used a wider variety of gears.

- The majority of landings of skates and rays by Welsh vessels were done by the secondary skates and rays fleet. Skates and rays landings by the core Welsh fleet were 26 tonnes in 2015. Skates and rays landings by the secondary Welsh fleet were 91 tonnes in 2015.

- Until 2011 a significant proportion of skates and rays landings were reported under the generic 'skates and rays' code. Due to changes in regulation, from 2012 landings were recorded by species, with thornback ray representing the largest share of landings by weight.

- The Welsh skates and rays fishery is highly seasonal. In the period 2008-2016 the core fleet landed the highest weight of skates and rays in June; the secondary fleet landed the highest weight of skates and rays in September and October.

- In 2015 the value of all skates and rays landings by Welsh vessels was £166,000 (adjusted to 2016 figures). In 2016, the value of all skates and rays landings by the secondary Welsh skates and rays fleet was £140,000 (adjusted to 2016 figures).

- The average operating profit per vessel of the Welsh skates and rays core fleet in 2015 was £2,900 (adjusted to 2016 figures). The average GVA per vessel of the Welsh skates and rays core fleet in 2015 was £6,900 (adjusted to 2016 figures).

2. Fleet size, structure and activity

Table 1. Number of vessels in the Welsh skates and rays core fleet and reliance on skates and rays for fishing income, 2008 to 2016. Due to the low number of vessels in this fleet, for confidentiality reasons the total number of vessels has not been split into 'active' and 'less active' vessels; but it should be noted that a proportion of these vessels were low activity vessels. (Active vessels are defined as vessels that earned over £10,000 revenues from value of landed fish in a given calendar year, whereas low activity vessels are vessels that earned less than £10,000 of revenues from fish landings in a given calendar year.)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of vessels	12	14	8	7	9	<5	<5	5	<5
Average reliance on skates and rays for fishing income per vessel (%)	69%	69%	75%	69%	53%	<5 vessel	<5 vessel	70%	<5 vessel

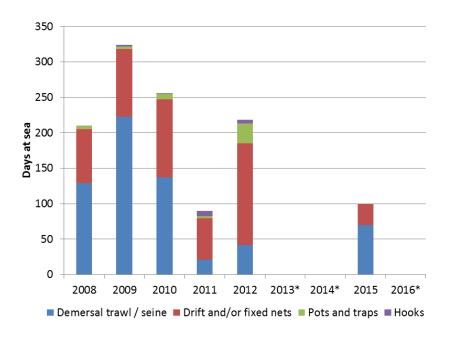**Table 2.** Average vessel length (m) and engine power (kW) of vessels in the Welsh skates and rays core fleet, 2008 to 2016.

	2008	2009	2010	2011	2012	2013*	2014*	2015	2016*
Vessel Length (m)	8.6	9.1	8.7	7.9	8.9	-	-	8.8	-
Power (kW)	74	91	88	82	91	-	-	77	-

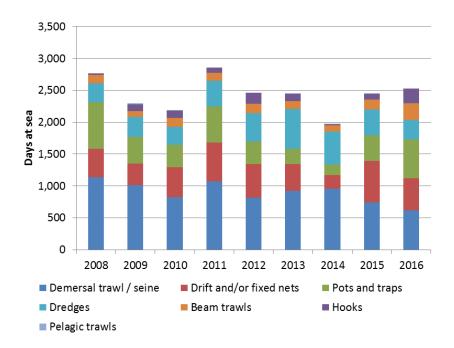* Data not provided for confidentiality reasons, due to the low (<5) number of vessels involved that year

Table 3. Number of vessels in the Welsh skates and rays secondary fleet, 2008 to 2016.

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Active	17	17	13	26	21	23	17	24	20
Low activity	19	19	26	31	35	22	10	24	24
Total number of vessels	36	36	39	57	56	45	27	48	44
Average reliance on skates and rays for fishing income per vessel (%)	6%	7%	8%	10%	7%	11%	13%	8%	10%

Figure 1. Fishing effort (days at sea) by the Welsh skates and rays core fleet by gear type, 2008 to 2016.
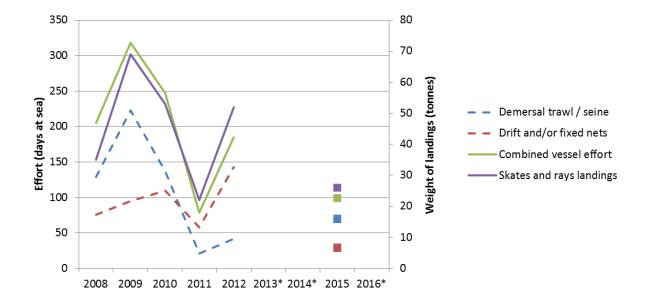* Data not provided for confidentiality reasons, due to the low (<5) number of vessels involved that year

Figure 2. Fishing effort (days at sea) by the Welsh skates and rays secondary fleet by gear type, 2008 to 2016.

3. Skates and rays landings

Table 4. Skates and rays landings (tonnes) by the Welsh skates and rays core fleet, the Welsh secondary skates and rays fleet, all Welsh vessels, and the percentage contribution of Welsh landings to total landings by UK vessels, 2008 to 2016 (Seafish and MMO, 2017).
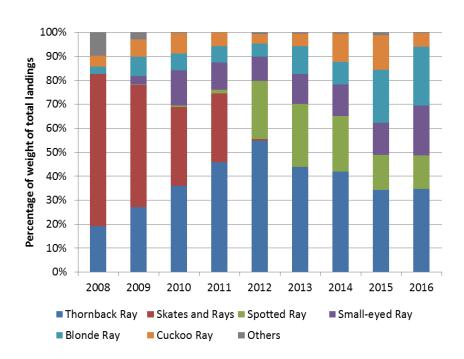
Year	Wales – skates and rays landings by the core Welsh skates and rays fleet (tonnes)	Wales - skates and rays landings by the Welsh secondary fleet (tonnes)	Wales – total skates and rays landings by all Welsh vessels (tonnes)	% of weight of skates and rays landings by UK vessels
2008	35	87	122	3.7%
2009	69	88	157	5.8%
2010	53	109	162	5.4%
2011	22	136	158	5.3%
2012	52	109	161	5.6%
2013*	<5 vessels	147	147	4.9%
2014*	<5 vessels	111	111	4.0%
2015	26	91	117	4.2%
2016*	<5 vessels	99	99	3.5%
Average	43	109	137	4.7%

* Data for the core fleet not provided for confidentiality reasons, due to the low (<5) number of vessels in the core fleet that year
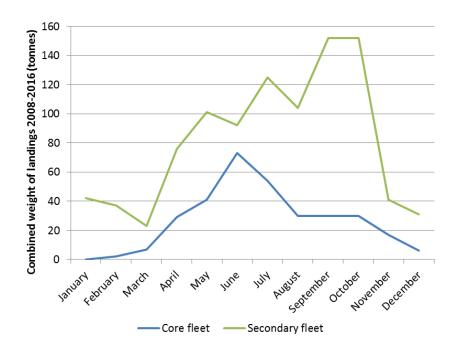

Figure 3. Relationship between effort (days at sea) and skates and rays landings (tonnes) 2008 to 2016 for the Welsh skates and rays core fleet. 'Combined vessel effort' represents demersal trawl/seines and drift and/or fixed net days at sea, as these are the main gear types used by the fleet.

* Data not provided for confidentiality reasons, due to the low (<5) number of vessels involved that year

Figure 4. Species composition by weight of skates and rays landings by Welsh vessels (core and secondary fleet), 2008 to 2016. Historically, skates and rays landings were recorded under a generic 'skates and rays' category, but from 2009 species-specific recording was made compulsory (Seafish, 2013).
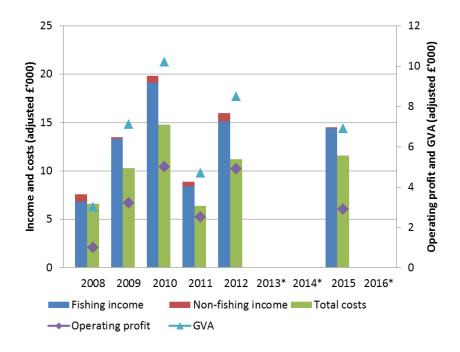

Figure 5. Seasonality of skates and rays landings in Wales, combined weight of landings 2008 to 2016.

Table 5. Value of skates and rays landings by all Welsh vessels, the core Welsh skates and rays fleet and the secondary skates and rays fleet, 2008 to 2016.

	Value of skates and rays landed (£'000)*		
	All Welsh vessels	**Welsh skates and rays core fleet**	**Welsh skates and rays secondary fleet**
2008	148	54	94
2009	229	118	111
2010	241	107	134
2011	211	36	175
2012	225	77	148
2013**	166	<5 vessels	166
2014**	112	<5 vessels	112
2015	166	48	118
2016**	140	<5 vessels	140

* Adjusted to 2016

* *Data for the core fleet not provided for confidentiality reasons, due to the low (<5) number of vessels involved in the core fleet that year

4. Fleet economic value and performance

Figure 6. Average per vessel total operational costs, total income, GVA and operating profit for the Welsh skates and rays core fleet, 2008 to 2016 (adjusted to 2016).

* Data not provided for confidentiality reasons, due to the low (<5) number of vessels involved that year

5. References

Marine Management Organisation (MMO) (2017). UK sea fisheries annual statistics report 2016, published 28 September 2017.

Seafish (2013). Responsible sourcing guide: skates and rays. Version 5 – September 2013. Available at:
http://www.seafish.org/media/publications/SeafishResponsibleSourcingGuide_SkatesRays_201309.pdf