

Fisheries and Marine Resources Annual Report 2009



Fisheries & Marine Resources
Planning and Environment Department
Environment Division
Howard Davis Farm
Trinity
Jersey

April 2010

Executive Summary

In 2009 the number of Jersey licensed fishing vessels levelled off at 164 after declining each year since licensing began in 1997. Although vessel numbers remained static the number of pots worked decreased to the lowest number recorded of 22 284 although this was offset in part by an increase in whelk pots.

The report summarises the information given to the Department by the Jersey commercial fleet in logbook landing returns. This indicates that although crustacean pot numbers fell the tonnage of lobster caught peaked at 176 tonnes, the highest tonnage recorded, while crab landings dipped to a substantially lower level than in 2008. Total shellfish landings were down by 19% by weight but within this we saw the re-orientation of effort towards the higher value species, and with increased unit value it resulted in an overall 2.3% increase in the value of the shellfish landed.

Overall wet fish landings decreased by 54%. This drop is in part due to larger wet fish vessels working outside of Jersey's Territorial Waters and landing elsewhere as indicated in the Annexes at the end of the report. The reported landings of bass were down across all vessel sizes of the fleet.

Aquaculture production continued its upward trend with an increase of just over 5% to top the 1000 tonnes mark. This increase was led by an increase in Pacific Oyster production. Parts of this sector are still struggling with export and local shore based infrastructure issues which seem difficult to resolve. Further to this the industry was beset with oyster mortality problems that have dogged production in France. These issues will make the continued progress for the aquaculture sector more challenging in 2010.

During 2009 an independent report on Aquaculture Strategy was commissioned to address the management of this sector. This report will be completed in 2010 and the matters raised taken up with the industry.

Research and monitoring of important stocks continued on whelk, lobster, ormer and ray species. Monitoring of stocks is an important fundamental feature of the section's work and provides very important data for the determination of conservation needs and how they may be achieved. The work on lobsters showed improved catch per unit effort (CPUE) levels in 2009 although the whelk study suggested that even fewer juveniles are coming through and thus still gives cause for concern for this stock.

Surveillance and enforcement of the conservation regulations found less activity than in previous years and few serious offences were detected. The recreational fishery, particularly on the offshore reefs, threw up a few issues in 2009 and these are being addressed with an increased advisory campaign on the low water fishing regulations. The patrol/research vessel Norman le Brocq successfully underwent a full refit in the early part of the year and should now provide good service for at least another 10 years. During its absence vessels from other agencies within the Channel Island area were used and the Department is grateful to these agencies for their assistance. The Section continues to cover the relatively large 800 square miles of Bailiwick waters ably assisted by Mike Harrison and Bryan Nicolle who help cover in offshore and inshore work respectively.

Brisk dialogue between Jersey and French fishermen and administrators occurred through the Granville Bay Treaty meetings which continue to be a very useful conduit for fisheries issues in the jointly fished waters. However, formal dialogue with the UK has, for the time being, slowed probably as a result of the work involved in the new UK Marine Bill and the move of the Marine Management Organisation from London to Newcastle. It is hoped normal dialogue and meetings will occur in 2010.

In the spring of 2009 the Section took on responsibilities for the implementation of the Integrated Coastal Zone Management (ICZM) that had been approved by the States in October 2008. Greg Morel was appointed as Marine and Coastal Officer responsible for ICZM and immediately began dealing with coastal bird populations off Plémont and les Ecréhou and then addressing the Ramsar Management Plans for the 4 Ramsar areas in Island waters. A report of the 2009 ICZM activity is part of this report. As this post was filled by a fisheries team member the vacant post of Fisheries Officer/Research and Development was filled by Jonathan Shrives and the Department welcome him to the Fisheries Section team.

Contents

- 1. International Work**
- 2. Legislation**
- 3. Industry – Capture Fisheries**
- 4. Industry – Aquaculture**
- 5. Industry – Economics**
- 6. Research and Development**
- 7. Food and Environmental Protection Act**
- 8. Enforcement**
- 9. Integrated Coastal Zone Management**
- 10. Annexes**

1. International Work

1.1 France

Granville Bay meetings continued in 2009; three Fishermen's meetings and two management meetings occurred during the course of the year. Meetings with prospective French windfarm developers were held and after assisting in the Chief Minister's meeting with the Préfet of Lower Normandy an Officer participated in a French meeting concerning French Marine Protected areas.

1.2 United Kingdom

The planned Jersey/UK Fisheries Management Agreement meeting was cancelled by the UK side and because of work on the Marine Bill could not be re-arranged in 2009. Attendance at the UK Crustacea Management Committee, the Shellfish Managers' Conference and at Chief Sea Fisheries Officers of the UK meetings occurred although representation at formal meetings of the Sea Fisheries Committees of England and Wales was terminated because of cost.

2. Legislation

The following legislation was agreed by the States in 2009:

Sea Fisheries (Miscellaneous Provisions) (Amendment No.5) (Jersey) Regulations 2009

3 Pages

Prohibition on selling, etc. of sea fish coming from unlicensed fishing boat.

Sea Fisheries (Satellite Monitoring) (Jersey) Regulations 2009

11 Pages

Provision and regulation of satellite monitoring of fishing boats over 15 meters in length operating in the Jersey territorial sea.

Sea Fisheries (Licensing of Fishing Boats) (Amendment No.4) (Jersey) Regulations 2009

3 Pages

Regulation of fishing in the Froquier Aubert protected area.

3. Industry – Capture Fisheries

3.1. Fishing Vessel Licensing

As of the 31st December 2009 the fleet comprised 164 licensed fishing vessels, 97 of which were shellfish qualified. This included 17 Class A (over 10 metre) licences and 147 Class B (10 metre and under) licences. This created 759 gross tonnes, 13196 kW and 9299 Vessel Capacity Units (VCU's). There has been little change in the structure of the fleet in terms of numbers of vessels and vessel capacity units over the last two years.

Table 1. Number and Vessel Capacity Units (VCUs) of licensed vessels.

	1998		1999		2000		2001	
Size	Nos.	VCU	Nos.	VCU	Nos.	VCU	Nos.	VCU
>10m	32	6708	30	6121	29	6105	25	5574
6-10m	96	6345	80	5703	66	4453	68	4608
<6m	160	3535	137	2955	128	2874	120	2809
Total	288	16588	247	14779	223	13432	213	12991

	2002		2003		2004		2005	
Size	Nos.	VCU	Nos.	VCU	Nos.	VCU	Nos.	VCU
>10m	24	5328	26	5535	21	4066	19	3218
6-10m	65	4371	65	4472	65	4251	60	4173
<6m	123	2826	119	2747	112	2579	105	2408
Total	212	12525	210	12754	198	10896	184	9799

	2006		2007		2008		2009	
Size	Nos.	VCU	Nos.	VCU	Nos.	VCU	Nos.	VCU
>10m	20	3390	21	3641	17	3069	17	2984
6-10m	58	3958	61	4176	58	4059	60	4231
<6m	100	2335	89	2037	88	2081	87	2084
Total	178	9683	171	9854	163	9209	164	9299

3.1.1. Licence Transactions

During the year 19 licences including 4 additional (Piggy Back) licences were issued and 16 new entitlements were issued. Twenty four entitlements have been also been used, 14 entitlements were placed onto Jersey vessels, 9 entitlements were transferred to the UK and used to licence UK registered fishing vessels, 1 entitlement was transferred to Guernsey.

No licence entitlements were transferred from Guernsey to Jersey and 1 licence entitlement was transferred from the UK to Jersey. As of the 31st December 2009 there were 12 valid Jersey licence entitlements, 2 of which were shellfish qualified.

Table 2. Fate of fishing vessel licences

	2003	2004	2005	2006	2007	2008	2009
Jersey Fishing Boat Licences Issued	32	20	17	17	13	21	15
Jersey Additional (Piggy Back) Licences Issued	0	1	2	7	4	0	4
Total Licences Issued	32	21	19	24	17	21	19
Entitlements Imported - Guernsey	1	1	1	1	0	0	0
Entitlements Imported - UK	5	3	1	1	0	0	1
Jersey Licence Entitlements Issued	33	35	30	30	24	26	16
Entitlements Used - Jersey	35	22	15	20	16	22	14
Entitlements Exported - Guernsey	7	7	4	3	1	2	1
Entitlements Exported - UK	4	8	2	6	7	8	9
Entitlements Lost	1	3	1	0	0	1	0
Entitlements Used – Total	46	38	22	29	24	33	24
Valid Jersey Entitlements 31 December	18	14	25	28	26	19	12

3.2. Gear Fished

It is recorded that the declared number of parlour pots set decreased by 5.8 % to a low of 15 860 pots. Other pots set (normally inkwells) also reduced by 17 % to 6 424 pots. These are the lowest parlour pot numbers declared since 2001 when 15 128 were declared and the lowest aggregate pot numbers of 22 284 since the records from statistical data began in 1996. Nevertheless catches of lobster were good at 176 tonnes. Brown Crab catches have declined on 2008, from 480 to 360 tonnes. It is also interesting to record that the spider crab fishery which had been poor for a number of years showed signs of recovery with a similar level of landings to 2008 (Table 4).

Table 3. Quantity of gear fished by the Jersey fleet

Gear Type	2002	2003	2004	2005	2006	2007	2008	2009
Parlour Pot	18 675	21 244	22 688	19 419	23 709	21 066	16 847	15 860
Other Pot	7 886	7 468	6 475	6 738	6 568	6 535	5 457	6 424
Whelk Pot	1 997	843	781	3 274	3 004	2 907	2 308	3 202
Prawn Pot	359	107	141	172	85	55	32	20
Tangle Net (m)	41 065	43 490	78 890	71 340	69 800	33 710	44 000	39 692
Trammel Net (m)	10 560	16 690	20 221	18 850	17 830	10 430	5 770	6 700
Mesh Net (m)	34 375	33 870	41 065	22 970	26 180	14 310	13 330	13 320
Dredges	89	57	32	35	35	35	48	36
Beam Trawl (m)	38	31	20	20	9.5	4	10	0
Otter Trawl (m)	143	116	115	94	69	69	74	97
Longline (No.s of hooks)	N/R	N/R	5 195	10 217	10 797	3 751	2 610	1 375

3.3. Catches

While the crustacea fishery appeared to remain stable, the whelk landings showed a further halving to just 103 tons. This may be accounted for in part by fishing effort being directed at whelks for only part of the year by some whelk fishermen who then directed their effort elsewhere. Nevertheless whelk stock assessment work (see research section) has shown that the whelk stocks are in a relatively poor state particularly to the east of the Island and some remedial management measures should be considered by those fishing communities that exploit the stock.

Table 4. Quantity of shellfish landed by the Jersey fleet

Species	2003	2004	2005	2006	2007	2008	2009
Brown crab	540 214	540 652	437 650	348 990	412 239	480 844	360 585
Crawfish	629	550	267	500	170	142	138
Lobster	166 612	167 004	138 843	131 296	154 704	162 560	176 893
Scallop¹	309 043	187 675	227 565	303 723	371 837	330 997	360 578
Spider crab	233 427	223 497	163 413	129 291	105 734	178 692	176 943
Whelk	133 601	146 678	442 355	621 011	545 395	297 742	103 590
Others²	9 447	6 623	4 710	5 132	2 047	2 400	2 249
Total	1 342 146	1 232 153	1 368 626	1 502 528	1 592 126	1 453 377	1 180 976

Notes

1. 2007 onwards includes dredged and commercial dived.
2. Others include prawn, velvet crab, cuttlefish, squid, praire, amande.

In the wetfish fishery, bass landings decreased by 37% to 11.6 tonnes. Landings of skate and ray have decreased from nearly 80 tonnes to 23 tonnes. This sees a change in the skate and ray fishery from being the most important wetfish by value. Skate and ray are now just 32.5% of the value of the wetfish sector, 5% less than bass, which now represents 37.5% of wetfish value (Figure 4.). Total landings for all wetfish have declined by over 50% on 2008's reported landings. However it is important to note that there have been some considerable changes in the fishing activity by some of the fleet for 2009. Of particular note is the change in activity of some of the larger, over 10m length vessels within the fleet. Some of these over 10m length boats, have been fishing and landing outside of Jersey waters, resulting in a considerable decrease in skate/ray and bass landings (Annex IX). For skate and ray, the reported landings by the over 10m fleet, decreased from 48.6 tonnes to 3.5 tonnes. For bass, landings decreased from 4.2 tonnes to 1.3 tonnes. In comparison, the 6-10 metre length fleet, landed similar amounts of skate/ray and bass in 2009, as in previous years (Annex X). This illustrates the importance of noting that the figures and data presented are reported landings by the fleet, which are dependent on fishing activity and market forces. It is thus not necessarily an indication of the state of natural populations.

Table 5. Quantity of wetfish landed by the Jersey fleet

Species	2003	2004	2005	2006	2007	2008	2009
Angler	1 354	663	492	757	262	240	192
Brill	3 817	2 697	4 009	1 877	2 435	2 997	2 135
Bass	24 883	19 120	22 193	30 952	18 085	18 564	11 649
Cod	507	852	56	235	46	198	135
Conger	24 765	11 519	14 384	21 024	17 314	7 179	3 170
Dogfish	15 697	23 592	16 181	20 544	8 211	10 133	4 596
Gurnard/Latchet	3 858	2 776	1 570	1 911	1 570	2 085	104
Horse mackerel	2 929	1 530	1 136	1 100	63	3	226
John Dory	338	195	153	182	14	9	11
Ling	717	328	134	214	176	159	0
Mackerel	9 985	6 354	9 189	8 270	5 516	7 004	6 511
Mullet -grey	6 370	4 856	7 030	6 205	561	1 470	1 194
Mullet -red	5 231	2 149	1 691	1 268	900	372	248
Plaice	4 597	2 159	1 763	2 284	930	2 722	2 651
Pollack	13 189	9 969	8 454	6 374	2 690	7 334	7 915
Sea Bream¹	134661	47 945	36 043	7 378	3 066	4 215	3 158
Skate/Ray	87 911	52 413	53 461	59 643	49 801	79 961	22 699
Sole	14 767	6 689	17 048	3 814	1 807	2 194	1 344
Tope	1 635	2 735	2 280	2 295	1 593	747	187
Turbot	2 067	1 208	3 245	896	436	400	646
Other Species²	-	-	1 038	1 865	2 124	2 586	3 352
Total	362 955	201 529	203 093	180 493	117 600	150 572	68 771

Notes

1. Figures for some years include catches from outside Jersey Waters
2. Other species included flounder, pouts, rockfish, sandeel, sand sole, shark, smooth hound, trigger fish, whiting and wrasse.

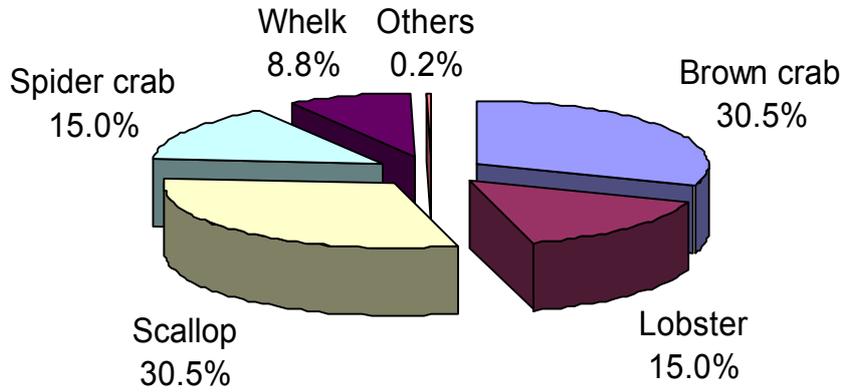


Figure 1. Shellfish landed by weight

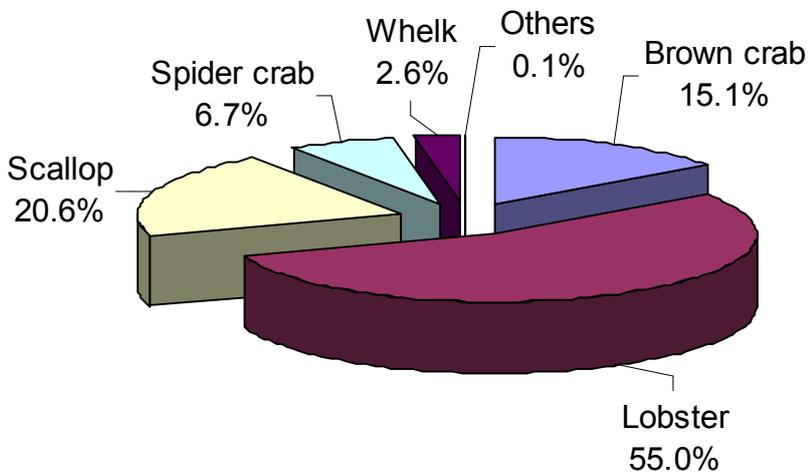


Figure 2. Shellfish landed by value

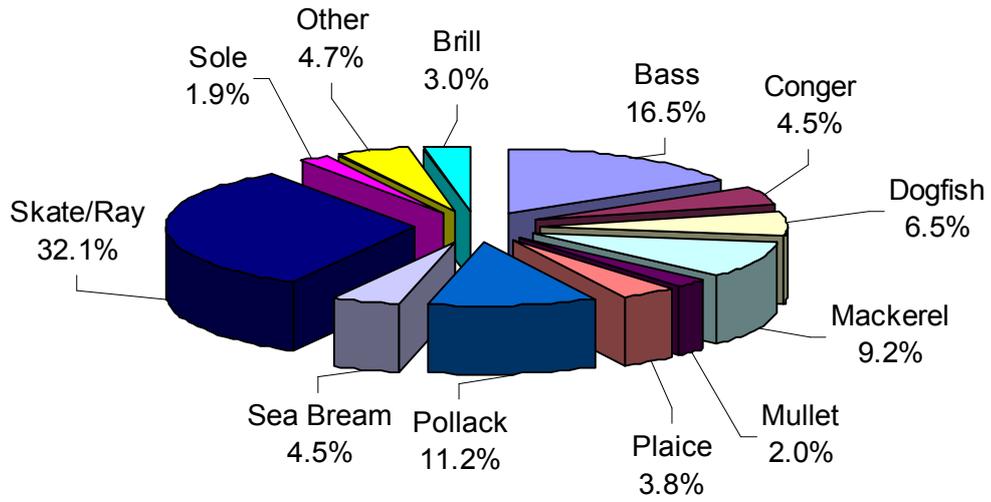


Figure 3. Wetfish landed by weight

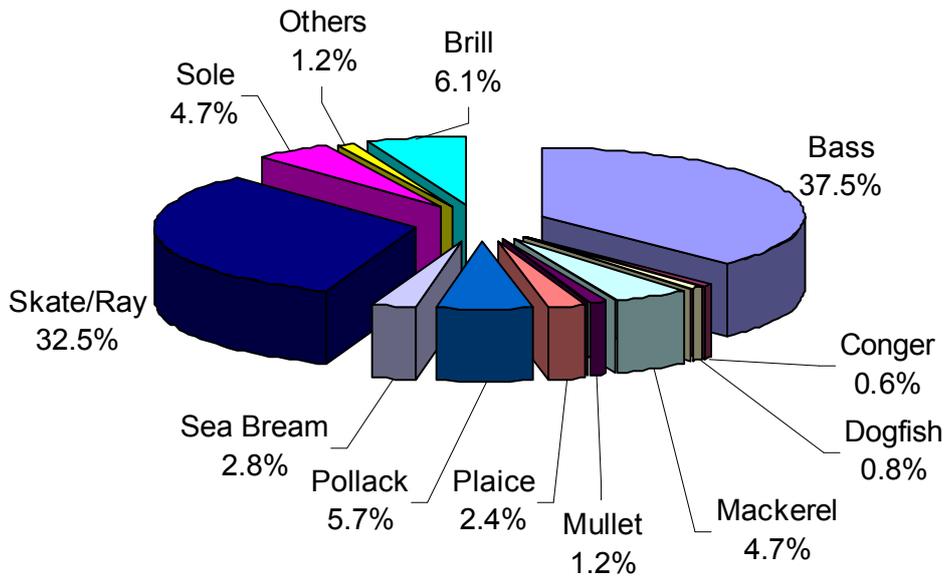


Figure 4. Wetfish landed by value

3.4. Landings per unit effort

Table 6. Landings per unit effort (LPUE) for selected shellfish species

Species	Quantity landed (kgs)	Nos. of pot lifts¹	LPUE (kgs per 100 pots)	% change from 2008
Brown crab	360 585	1 606 606	22.44	-23.79
Lobster	176 893	1 606 606	11.01	10.55
Spider crab	176 943	1 606 606	11.01	0.67

Notes

1. Pot lifts include parlour pots, inkwell, creels, D pots

4. Industry – Aquaculture

During the year there were several changes with respect to concessions on the foreshore. The Seymour Oyster Company applied for a 0.7 hectares change in their holding bed concession in the Royal Bay of Grouville to allow for the development of the business. Aqua Orchard Ltd were granted a new 0.058 hectare concession for Oysters near Seymour Tower. These changes resulted in an increase of only 0.76 hectares of the intertidal zones granted as concessions for the purposes of aquaculture.

Overall production increased to just over 1000 tonnes of shellfish farmed, an increase of 5.3% on the previous year. This increase is mainly due to pacific oyster production, with King Scallop and Mussel production dropping on 2008's figures (Table 7.).

Turbot remains the only finfish aquaculture, farmed by Jersey Turbot in the tunnels at St Catherine's. Production for 2009 doubled to 2.6 tonnes.

Table 7. Farmed shellfish production (area in hectares; production in kgs)

	2003	2004	2005	2006	2007	2008	2009
Intertidal area¹	54.5	54.5	62.65	62.88	62.88	68	68.76
Subtidal area	100	100	166	166	166	166	166
Pacific Oyster	560 200	720 768	579 915	651 148	737 395	829 952	903 000
King Scallop	1 351	3 571	8 484	2 540	4 100	8 841	2 571
Mussels	108 300	25 000	50 000	117 500	50 000	117 000	101 000
Total	669 851	749 339	638 399	771 188	791 495	955 793	1 006 571

Note

1. Area pre 2004 relates to actual area farmed. 2005 onwards relates to total concession area granted.

Land based infrastructure and the freight links to France, still remain an issue for the industry. Land based infrastructure is required for the grading, sorting and deparating of produce and the storage of vessels and equipment. They are vital for the survival of the business.

Freight links to the continent continue to be an issue for exports. There have also been some issues with French customs. Whilst deputations have had detailed discussions with service providers and authorities in Jersey and France a solution is yet to be found.

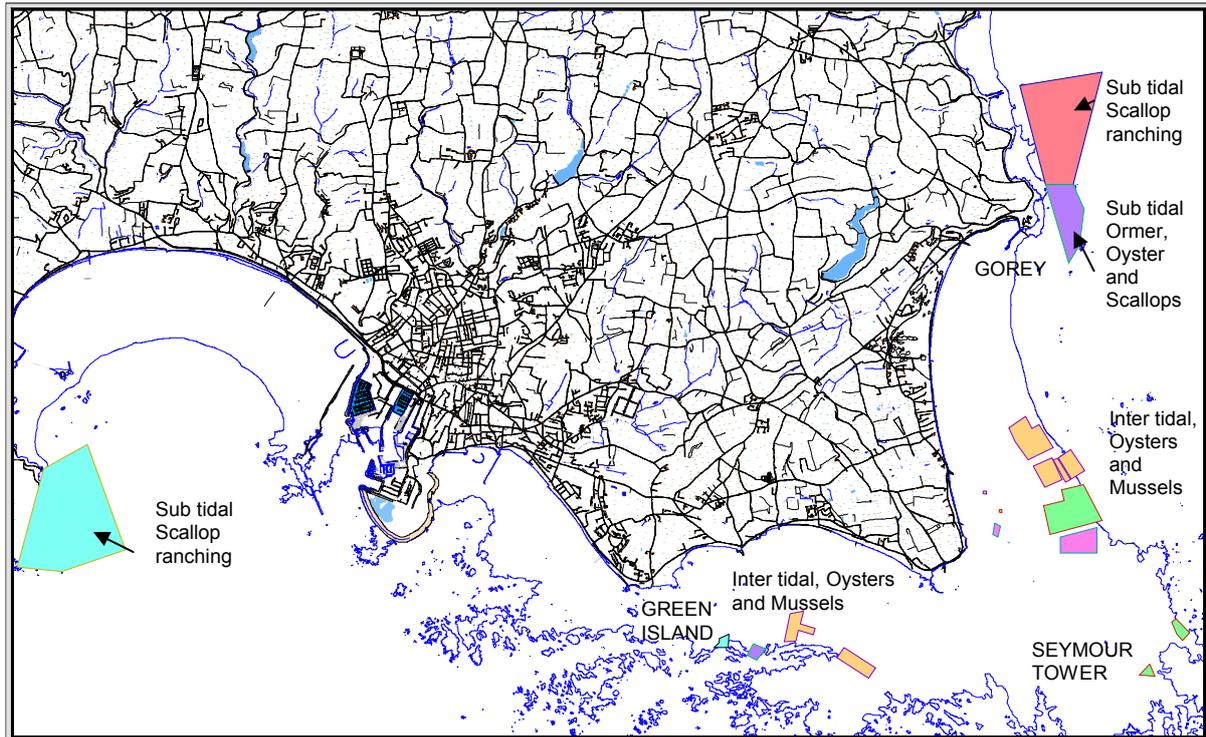


Figure 5. Aquaculture concessions as of December 2009.

2009 also saw considerable problems with Pacific Oyster mortality in both Jersey and France. An outbreak of OsHV1 virus is considered the primary cause of the abnormally high summer mortality, with some beds losing up to 50% of their stock. Considerable work on recording the mortality was undertaken by the States Of Jersey Veterinary Officer in conjunction with CEFAS, the States Of Jersey Environment Department and in liaison with IFREMER and the French authorities. New procedures and legislation are currently being brought into place to hopefully prevent or limit a recurring outbreak in 2010.

Independent consultants were also contracted to deliver a new Aquaculture strategy as part of the Integrated Coastal Zone Management Scheme, both of which were initiated in 2009.

5. Industry – Economics

Table 8. Value of shellfish landed by the Jersey fleet

Species	Quantity landed (kgs)	Average Price (£) per kg	Value (£)
Brown crab	360 585	1.70	612 995
Crawfish	138	28.00	3 864
Lobster	176 893	12.60	2 228 852
Scallop (Dived)	43 754	4.50	196 893
Scallop (Dredge)	318 774	2.00	637 548
Spider crab	176 943	1.53	270 723
Whelk	103 590	1.00	103 590
Other	2 249	2.00	4 498
Total	1 182 926		4 058 962

Table 9. Value of wetfish landed by the Jersey fleet

Species	Quantity landed (kgs)	Average Price (£) per kg	Value (£)
Angler fish	192	8.00	1 536
Brill	2 135	8.00	17 080
Bass	11 649	9.00	104 841
Cod	135	2.50	337.5
Conger	3 170	0.50	1 585
Dogfish	4 596	0.50	2 298
Gurnard/Latchet	104	0.50	52
Horse mackerel	226	0.50	113
John Dory	11	7.00	77
Ling	0	2.00	0
Mackerel	6 511	2.00	13 022
Mullet – grey	1 194	1.50	1 791
Mullet – red	248	6.00	1 488
Plaice	2 651	2.50	6 627
Pollack	7 915	2.00	15 830
Sea Bream	3 158	2.50	7 895
Skate/Ray	22 699	3.00	68 097
Sole	1 344	9.80	13 171
Tope	187	1.00	187
Turbot	646	9.00	5 814
Other species	3 352	1.00	3 352
Total	77 783		265 194

Table10. Total value of the fishing industry at first sale

Sector	2009 Value (£)	% Change (compared to 2008)
Shellfish	4 058 962	+2.3 %
Wetfish	279 344	-35 %
Aquaculture	1 735 578	+32%
UK Landings	598 067	-42 %
Total	6 671 951	-1.07 %

The value of the total landing catch (including aquaculture) has decreased by -1.07% from 2008. The total value of the industry is now £6 671 951m. Of note is the continued steady increase in value of the aquaculture sector, representing 26 % of the total value of the industry. Although wetfish and UK landings have decreased since 2008, these values had increased in 2008 from 2007, by +31% and +111% respectively. In 2008 the shellfish sector had decreased by -1% on 2007's value, but have increased in value by 2.3% between 2008 and 2009 (Source: Fisheries and Marine Resources Annual Report 2008).

6. Research and Development

Whelk

The annual study of whelk (*Buccinum undatum*) catch per unit effort (CPUE) was conducted in February 2009. The same study sites and methodology were used as in preceding years.

Overall, the CPUE in 2009 was 1.98 kgs per pot (Fig. 6). This was an increase on the CPUE recorded in 2008 (1.55kgs) and the highest overall CPUE recorded since 2004. The same trend was observed with respect to the large fraction of the catch with a CPUE of 1.69 kgs in 2009 compared with a CPUE of 1.25kgs in 2008.

A different trend was observed in the small fraction of the catch. A CPUE of 0.29 kgs in 2009 compared with the CPUE of 0.305 kgs in 2008. This result was the lowest CPUE seen for the small fraction of the catch in any survey (Fig. 7).

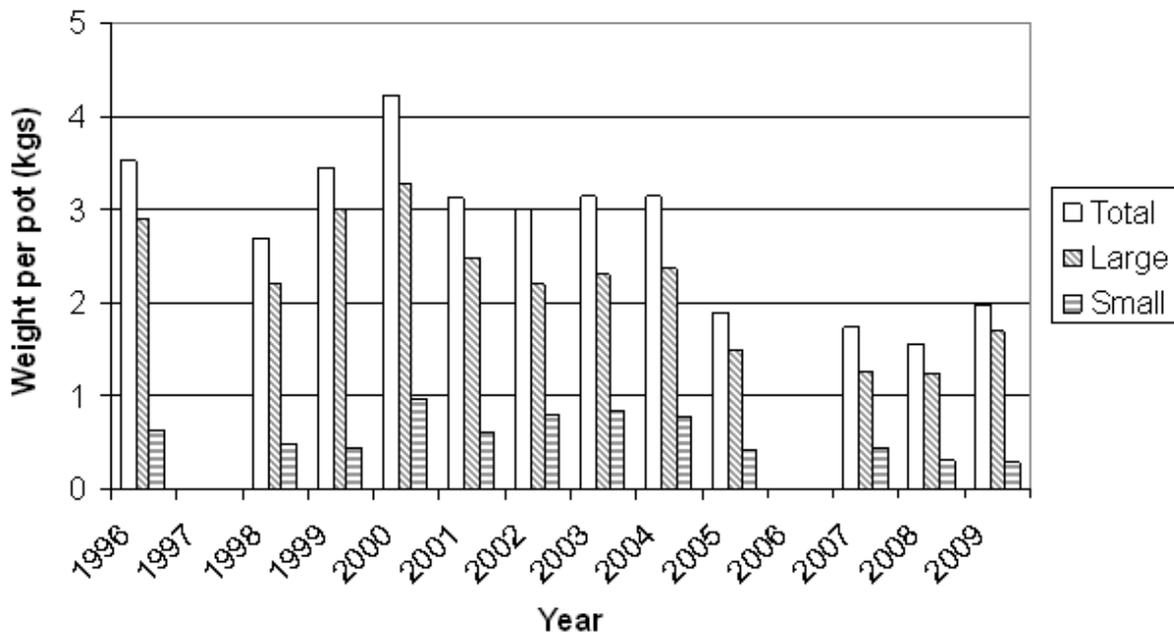


Figure 6. Average CPUE of Whelks (Total, large fraction, small fraction)

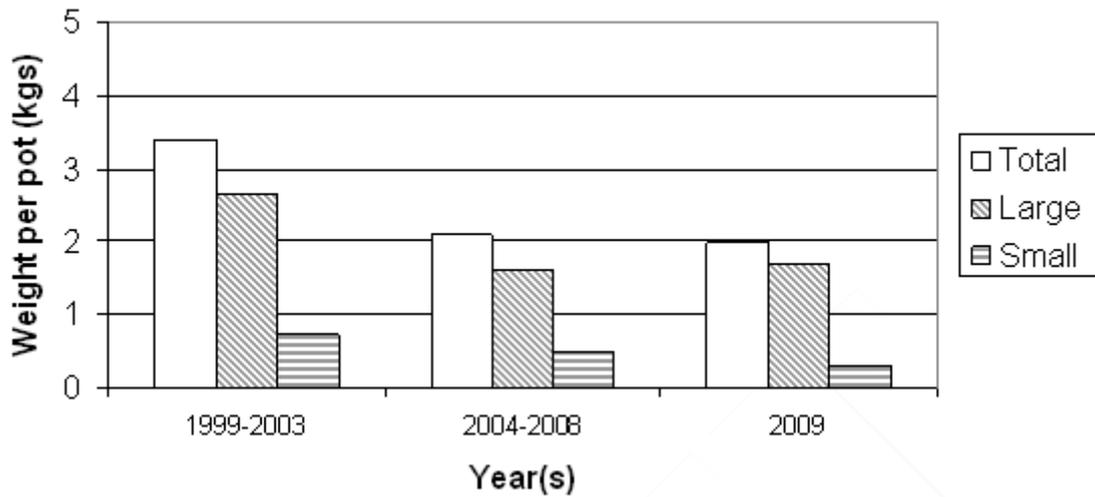


Figure 7. Comparison of 2009 survey with 5 year averages for 1999-2003 and 2004-2008 surveys.

With the smallest ever CPUE for the small fraction of catch, the 2009 study gives a possible indication of recruitment over fishing. Officers presented these results and data to the Fisheries and Marine Resources Panel, and the Joint Advisory Committee (JAC) of the Granville Bay Treaty. Again, strong recommendations were made that management measures needed to be implemented as soon as possible.

Recommendations have been made for several years, that implementation of additional management measures for the whelk fishery are required, given the high exploitation rates and certain biological characteristics of this species.

Lobster

Although 2009's research was curtailed due to the absence of the FPV Norman Le Brocq, there was still a total of 191 lobster caught, an increase of 6.11% on 2008 values. Although there was a 67.6% decrease in pot hauls, the increase in total lobster caught resulted in a 225.74% increase in total lobsters per pot on 2008 values (3.29 lobsters per pot versus 2008's 1.01 per pot).

CPUE values are considerably increased on all years from 2004 to 2008. However this is mainly driven by the limited number of pot hauls due to logistical constraints. It is possible that a survey in May might have moderated average values down from 31 Kgs per pot (for sized lobsters) to the annual trend of between 6.3-12.3 Kgs per pot (for sized lobsters). However data from Logbook Landing returns (Table 4) showed that 2009 also saw an increase in CPUE for commercial Fishermen.

In 2009, lobsters also had all injuries and deformities recorded and pooled into three categories; 'Select Lobsters' (perfect condition), 'Damaged / deformed' and 'Missing Claw'. The majority of lobsters were found to be select (73-83%). The western sample station had the highest proportion of crippled lobsters with 23% Damaged / deformed and 4% missing a claw, but also the lowest select percentage of 73%. This may well be a useful tool in the future for monitoring changes in the economic value of the stock.

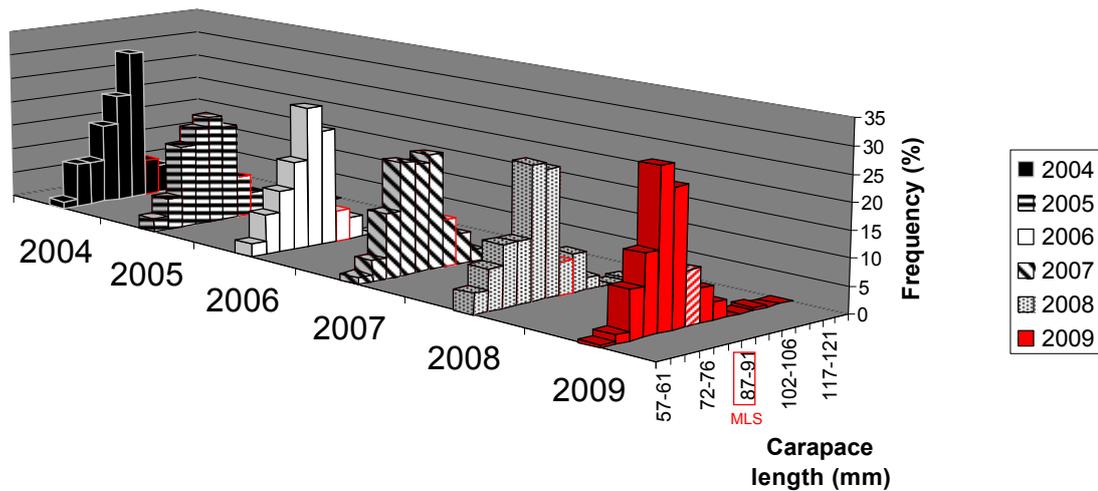
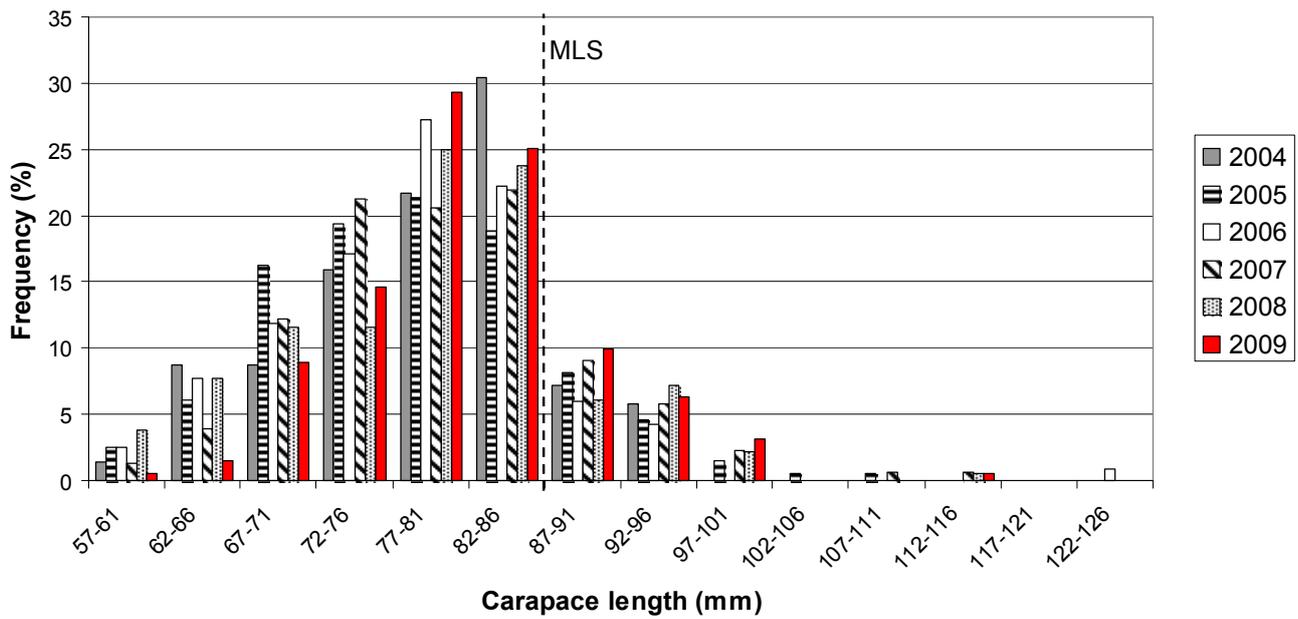


Figure 8. Length frequency distribution of Lobster

As noted in previous reports the frequency distribution of the catch shows a distinct change at 87mm, the minimum size. It is estimated that the fishing mortality for exploited lobster stocks around the UK is 50% or more and that the spawning stock biomass, is 20% of the virgin stock. The fishery is fully exploited and relies heavily on recruiting lobsters close to the minimum size. The data indicates a similar situation in Jersey. At this moment there is no indication of recruitment failure but the frequency distribution data does show this heavy dependence on new recruits.

Also in 2009 the sex ratio of the Lobsters caught were also compared. At the SW and W stations there were marginally more Females than Males (55% and 53% Female, respectively). However at the NW sample station there were marginally more Males (only 47% Female). The monitoring of sex ratios and numbers of berried hens could also be useful tools in further understanding and monitoring recruitment, fecundity and stock population dynamics.

The lobster fishery shows heavy dependence on new recruits to the fishery and this remains the fundamental weak link in the success or failure of the lobster fishery.

Further work is needed to assess the relationship between CPUE of pre-recruits and the CPUE of sized lobster.

Lobster Plankton Studies

Catch per unit effort trials using Parlour pots without escape gaps, have successfully provided data on the lobster population above and below the minimum landing carapace size of 87mm. However the smallest juvenile lobsters caught in these surveys is still 56 mm length in carapace. To further understand the life history, recruitment and fecundity of the lobster population, baseline data on the planktonic stage of lobsters would be an asset to stock management.

IMR light traps have been successfully used by the Swedish Board of Fisheries (Orseland, V. 2007), for sampling both *Homarus gammarus* and *Nephrops norvegicus* pelagic stage plankton from subsurface to 24m depth. This methodology was replicated for these trials, using two different strings of two traps each.

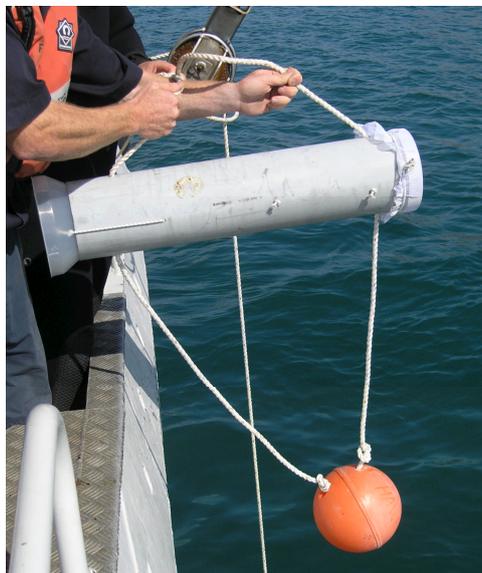


Figure 9. Example of IMR Light trap used in this study.

Each string was placed on a 24 hour lay, starting in the afternoon. One string was placed in Portelet bay, the other in St Brelade's Bay. The first round of sampling was on the 18 June, with a replicate on the 2 July, to coincide with reports of female lobsters shedding their eggs. A third and fourth lay were conducted on 12 and 18 August, with one trap in St Brelade's Bay and one in St Aubin's Bay

No planktonic lobster larvae were detected in any of the traps or lays. However the traps did successfully record several other species of decapods, polychaetes, copepods and isopods of similar size. The caught plankton were passed on to Dr Paul Chambers, who kindly provided a table of taxonomic identification for each sample. Amphipods and copepods made up the majority of the samples, particularly the bottom placed traps. The top, shallower traps tend to catch fewer plankton overall, but particularly at St Aubin's, tended to have more Megalopa Larvae. Overall St Aubin's Bay, top samples had the most Megalopa Larvae, which occurred in greater abundance in August samples than June or July samples

Although there were no lobster larvae found in the traps, the presence of Megalopa Larvae and other plankton suggest that the trap design works and should have picked up any pelagic lobster plankton present. Location was found to have an effect, as did sampling time, and for 2010 we will have to re-consider the best locations and best months for sampling. It is possible that currently the study is missing the 'window' for the pelagic stage, pre-settlement lobster larvae. Ideally this study could be expanded to different locations and more sampling replicates. However the logistical constraints of an increase or change in sampling effort have to be considered. It may also be possible to supplement this study with planktonic tows either from boat or as described by Le Sueur (1955) from piers and breakwaters.

Ormer

Numbers of Ormers found in this survey were very similar to those found in the 2008 surveys at both island sites. At St Catherine's Breakwater fine silt covered all the substrate, which is normal at this site. There was no evidence of any mortality. Ormers of all sizes were observed by the dive team and all appeared healthy. A wide range of other species was seen and the overall impression of the area status was good. There is still an amount of discarded or lost fishing tackle on the boulder rock foundation of the breakwater and, although unlikely to impact on the Ormer stock, could have a detrimental effect on other species

The numbers of Ormers found at the St Brelade's Bay site were comparable with the 2008 survey yet fewer than those seen in 2005/2006. The survey site would appear to be very good Ormer ground with appropriate sized boulders and good tidal flow. The site was difficult to search in 2008 due to the amount of silt on the ground following the storm event earlier in the year. This was not the case this year as the majority of the silt had dispersed in the intervening period. It is possible that the high levels of turbidity in the water column in 2008 has had an impact of some kind, although the effect is not likely to be widespread given the tidal conditions. No small Ormers were seen and all Ormers found were of a large size, possibly one year class only. There was no evidence of any mortality. It was felt that given the site characteristics it may have yielded more Ormers. Fisheries and Marine Resources had received a report of diving activity in the vicinity of the survey site. Unfortunately it was received a considerable time after the event and therefore officers were unable

to verify or investigate in detail. No evidence of stones being turned over was observed by team divers.

The survey found no significant change in the number of Ormers found at Les Minquiers since 2006. The difficulties cited in previous reports still exist at this location. Several alternative locations at the offshore reef were tried, however no Ormers were found.

In conclusion, similar numbers of Ormers were found this survey as last year. No mortality was seen at either site and the stock found would appear to be healthy. To the best of our knowledge no mortalities of Ormers have been reported in France this year to date. Whilst stocks are slightly down on some previous surveys, numbers found were still significant. This would seem to be endorsed by the information received from low water fishermen.

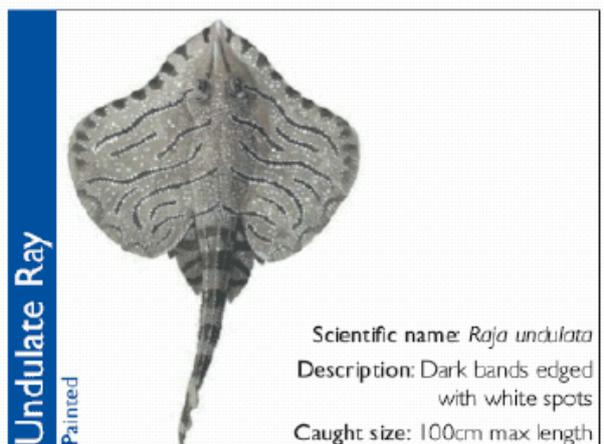
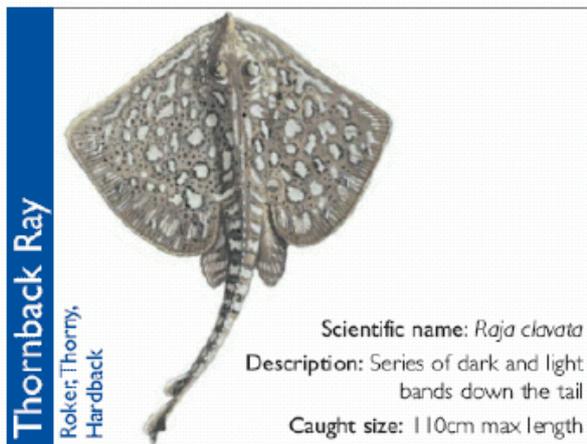
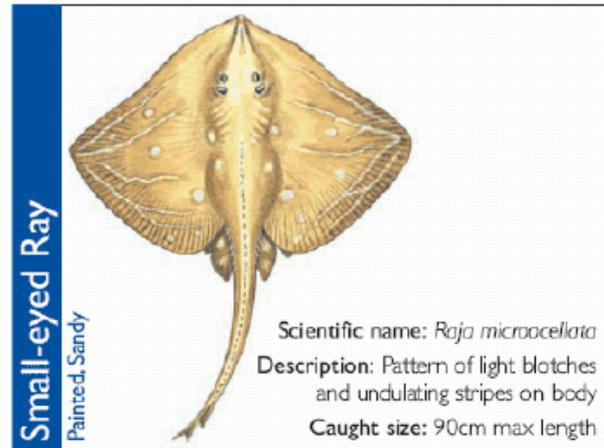
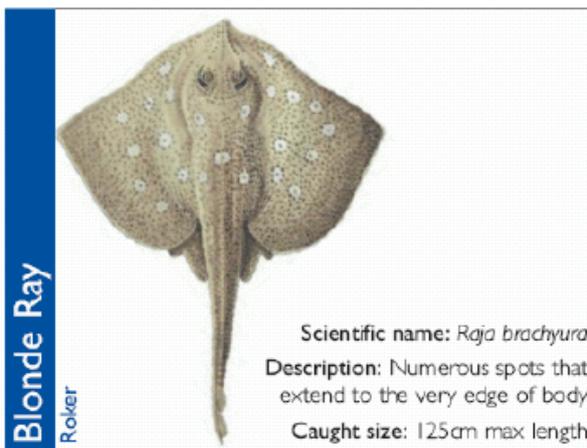
It must be remembered that this survey represents a snapshot indication of the state of the stock and not an absolute assessment.

Reported catches have been better this year and the introduction of a bag limit at this moment in time would seem a significant and logical conservation measure



Ray

The tagging of ray continued throughout 2009 by project partners. Some incidental tagging was done by the Fisheries and Marine Resources section. By the end of 2009, 977 fish had been tagged (205 Blonde, 658 Small-eyed, 9 Thornback and 105 Undulate). In total 166 recaptures have been reported (45 Blonde, 109 Small-eyed, 1 Thornback, 11 Undulate) for the duration of the study. A paper entitled “Preliminary observations on the movements of skates (Rajidae) around the Island of Jersey, western English Channel.” has been drafted and is currently undergoing peer review, with a view to being published in 2010. Fishermen continue to be encouraged to record catches of ray by species and not the generic term “skate/ray”. Species specific recording is currently only 6% of total skate/ray landings. Efforts to improve this will continue in 2010.



Routine

Routine sampling and monitoring continues to be a significant time and manpower commitment. The following table shows the programmes undertaken by the section.

Table 11. Routine sampling programmes.

Species sampled	Frequency	Analysis undertaken
1. Oyster (<i>Crassostrea gigas</i>)	Monthly	<i>E.coli</i>
2. Mussel (<i>Mytilus edulis</i>)	Monthly	<i>E.coli</i>
3. Mussel (<i>Mytilus edulis</i>)	Monthly (every 2 weeks during summer)	Shellfish poisoning (ASP, DSP, PSP)
4. Seawater	Monthly (every 2 weeks during summer)	Shellfish poisoning (ASP, DSP, PSP)
5. Slipper limpet (<i>Crepidula fornicata</i>)	Bi-annually	Heavy Metals (As, Cd, Cr, Cu, Pb, Zn)
6. Common limpet (<i>Patella vulgata</i>)	Bi-annually	Heavy Metals
7. Seaweed (<i>Fucus serratus</i>)	Bi-annually	Heavy Metals
8. Slipper limpet (<i>Crepidula fornicata</i>)	Bi-annually	AFFF (Airport fire fighting foam)
9. Harbour Monitoring Programme	Annually	Physical, biological and chemical parameters
10. Submarine Cable Patrol	Monthly	Assessment of activity

Eco-logs

2009 saw the continuation of a recording system that was termed the “Eco-logs”. These were two pro-forma logs that aided officers in recording observations at sea of various events. The first was the marine species log. This enabled the recording of pertinent information of all sightings of any species including marine mammals, rare fish species and birds. The second was the offshore reef log. Inspection of the offshore reefs has been undertaken for many years but has tended to focus on commercial and recreational fishing activity. The log allowed for the recording of other information including number of vessels at anchor and people ashore as well as species and number of birds sighted. It is hoped that these logs will become a valuable resource over time in helping to assess activity, both human and wildlife.

Cetaceans

Dolphins were sighted on 24 separate occasions in 2009. This was a slight decrease on 2008’s figures, but still higher than most previous years (Fig. 10). All sightings were identified as bottlenose dolphins. Most sightings occurred to the east of the Island ranging from Les Ecréhou in the north to Les Minquiers in the south. There was a slight increase in the total number of dolphins seen in 2008. Juveniles

represented 10% of sightings in 2009, compared to just 3% in 2008. Pattern and frequency of patrols remained relatively unchanged in 2009, however days at sea were slightly fewer, due to time spent under refit. Grey seals were only sighted on 2 separate occasions, once at Les Ecréhou and once at Les Minquiers.

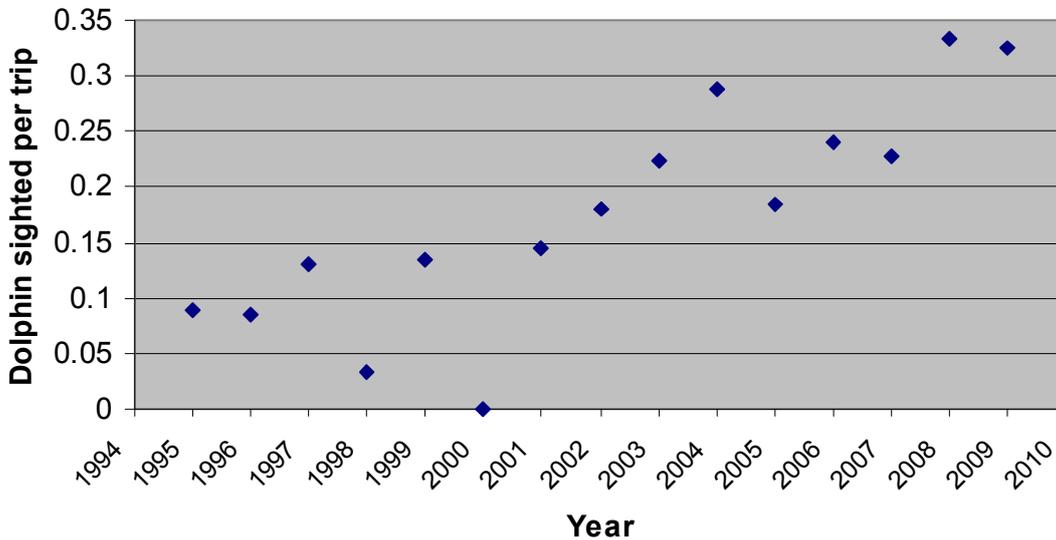


Figure 10. Dolphin sightings from Fisheries Protection Vessels

Note Vessel and patrol pattern changed 1997/1998.

Statistics

As stated in previous reports the collection and analysis remain vital for the management of exploited stocks and the overall wellbeing of the marine ecosystem. Since 2007 it has been a requirement for all commercial vessels to supply daily logsheets. These data are collated on a quarterly basis and provide up to date information for the Department, Fisheries and Marine Resources Panel and Minister to ensure appropriate management is in place. Fishermen were encouraged to record as much information as possible in the logbook particularly species of fish and not just generic groups.

Customer Focus

Customer focus is a core value of the States of Jersey and the section continues to strive for excellence in this. As well as the Fisheries Office at La Collette providing an accessible location for the industry to drop in and a meeting room should they require it, the section also produces a number of publications for the industry and general public alike. Unfortunately, due to staff changes, only one Fisheries and Marine Resources Newsletter was published by the Department in 2009. The newsletter format has been used for many years as a way to inform the industry of important information including legislation and licensing issues. The Newsletter is also distributed to other interested parties including Fisheries and Marine Resources Panel members, boat associations and tackle shops. It is also published on the website

Information leaflets are also published giving information on general recreational fishing, angling and low water fishing. A minimum size card is available with the size in English, French, Portuguese and Polish.

2009 also saw the introduction of low water fishing and leisure fishing leaflets translated into French and containing information on minimum sizes. These have been distributed to tackle shops and yacht clubs in several French towns, as well as distributed to French boats and visitors encountered on patrol and at Les Ecréhou and Les Minquiers. Jersey Tourism have also kindly hosted these leaflets on the French version of their website:

The screenshot shows a Microsoft Internet Explorer browser window displaying the Jersey website in French. The address bar shows the URL: <http://www.jersey.com/francais/sightsandactivities/activities/sea/fish/pages/default.aspx>. The website header includes the Jersey logo, language options (UK, FR, DE), text size controls, and a search bar. The main navigation menu includes 'À propos de Jersey', 'Découvrez Jersey', 'Attractions et activités', 'Transports', 'Hébergement', 'Restaurants', and 'Réservez votre séjour'. The 'Attractions et activités' section is active, with sub-links for 'Activités', 'Attractions', 'Divertissements', 'Événements', 'Excursions', 'Jersey en vélo', 'Plages et panoramas', and 'Randonnées'. The page content is titled 'Attractions et activités' and 'La Mer'. A sidebar on the left lists various activities under 'Fitness et loisirs', with 'La Mer' selected. The main content area features a large photo of people fishing and text about fishing legislation: 'La pêche à pied de loisir - Un guide de la législation pour la pêche à pied à Jersey' and 'Pêche de loisir - Le guide à la législation sur la pêche de loisir à Jersey'. There is also a 'Listings for: Fishing' section. On the right, there are sections for 'Pages récemment visitées', 'Brochure', 'Événements', 'S'inscrire', and 'Agenda de Vacances'.

A section of the States of Jersey website is dedicated to fisheries and marine resources. Here information can be found on all aspects of the section's responsibilities as well as links to all the relevant legislation.

The section has also produced and distributed minimum size rulers in conjunction with Eco-Active Marine. These rulers are flexible and waterproof, with a peel off adhesive backing for those who wish to stick the ruler onto an ice box or even directly onto their boat! The rulers have a centimetre scale up to 45 cm, and indicate the minimum sizes for all fin fish in English, French, Portuguese and Polish. The rulers were launched at the Jersey Boat Show in May 2009 at the section's stand. The stand at the Jersey boat show and July Fishermen's Festival was also a success, with many visitors attracted in to see our displays and the live lobster and crab aquarium.

7. Food and Environmental Protection Act

In 2009 only two burials at sea were licensed under the provisions of the Food and Environmental Protection Act (FEPA).

There was no other significant activity in 2009 regarding enforcement of FEPA.

8. Enforcement

Summary

Fishing activity, both commercial and recreational, was at an unusually low level throughout the year. In consequence a relatively low number of inspections were conducted, with the majority of offences being of a minor nature. The most serious offences detected related to the providing of false information relating to the application for a fishing licence and unlicensed fishing by a local fisherman. The majority of offences committed by commercial fishermen (both French and local) related to minor breaches of the minimum size regulations or administrative issues, but the activities of recreational low water fishermen again gave cause for concern, particularly at Les Minquiers.

During the year Fishery Officers seized a number of abandoned nets and incorrectly set trot lines, several of which were the subject of complaints made by members of the public.



Abandoned net seized by Fishery Officers

Enforcement of Minimum Size Regulations

A total of 18 offences against the Minimum Size Regulations were detected during the year, a significant increase on the previous year especially in view of the reduced number of inspections. The majority of the incidents were however of a minor nature, but many of them related to the activities of foreign low water fishermen at Les Minquiers. The more serious such incidents normally result in the offender having to attend a Parish Hall Inquiry in Jersey, however for a number of reasons including weather and poor transport links it has not always been possible to do so in 2009.

Professional fishermen from both Jersey and France generally continue to respect the Minimum Size Regulations and no serious offences were detected.

Enforcement of Exclusive Limits and Granville Bay Agreement Access Arrangements

During 2009 a number of surveillance systems became available to Fishery Officers and these were used to complement the regular sea patrols and help enforce the exclusive limits and other arrangements. Land based radar, satellite monitoring and other electronic vessel detection systems all played a part in this surveillance which was particularly important in enforcing new Regulations which were brought in during the year to restrict pair trawling activity to the south east of the island.

Foreign fishermen were made aware of the monitoring equipment and some French trawler skippers were shown the radar coverage of the area subject to the new restrictions relating to pair trawling. These actions, backed by routine patrol work, helped to ensure that only one minor breach of access Regulations was detected and that Jersey fishermen's equipment to the south east of the Island was not damaged by trawlers.

On three occasions French fishermen were found to have failed to carry their Access permits onboard and in consequence received advisory letters from both the Jersey and French authorities.

Logbooks

Reminding fishermen of both over and under 10 metre vessels to submit logbooks and quarterly fishing activity records has again been necessary throughout the year. Seven individuals have been sent advisory letters and one fisherman will be attending a Parish Hall Inquiry early in 2010.

Other Offences

Patrols at Les Minquiers and Les Ecréhou were targeted at the activities of low water fishermen during the ormer closed season. A total of seven French fishermen were found to be taking small quantities of ormers, 3 were sent advisory letters and 4 are subject to ongoing inquiries.

In general fishermen were found to be marking their gear in the approved manner and only one incident of commercial pots without pot tags came to light.

An in-depth investigation into a licence application made by a local fisherman revealed that false information had been supplied in respect of engine power and that the fishermen had been selling catch from an unlicensed fishing vessel. The fisherman was successfully prosecuted at the Magistrate’s Court and it is hoped that this will send out a strong message to anyone contemplating a similar course of action in the future.

Complaints

A total of 46 complaints were received during the year, significantly more than in the previous year. Whilst 16 of the complaints were found to relate to legal activities, a full investigation into one complaint resulted in an individual being prosecuted and several fishermen were sent advisory letters relating to minor breaches of the fisheries legislation. 4 complaints were passed on to other authorities to investigate, as they did not relate to fisheries legislation.

Whilst 13 of the complaints related to the activity of fishermen on the Island’s beaches, the majority of these were in respect of hooks and only 3 related to nets. The reduction in the number of complaints relating to nets from previous years is possibly due to the new Regulations introduced in 2008 which restricted the amount of time that a net can be set before it has to be moved.

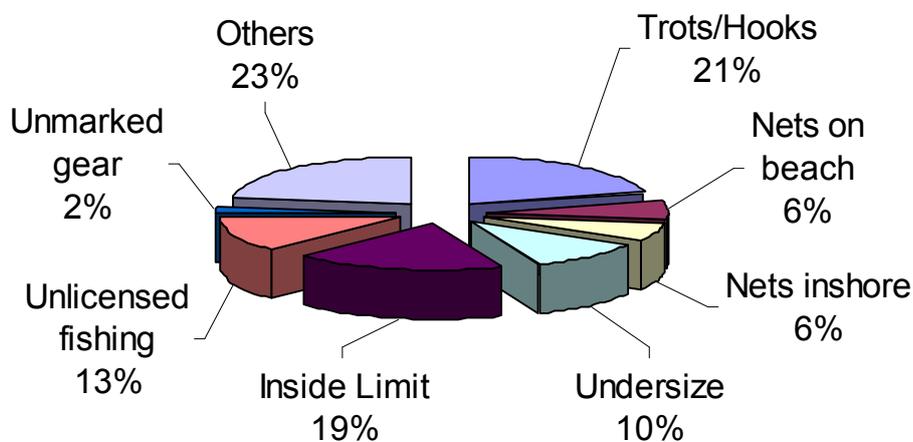


Figure 11. Complaints received by the section in 2009

Departmental and Other Resources

The Norman Le Brocq patrol/research vessel underwent a mid-life refit during the period February to July. Work included repainting, replacement engines and enhanced safety/environmental features and will allow the vessel to stay in operation for at least a further 10 years. During the absence of the Norman Le Brocq, enforcement work was undertaken using a variety of vessels including Jersey Coastguard's pilot boat and the fisheries semi-rigid boat. The refit was programmed around the major research projects, but a commercial fishing vessel was chartered for the lobster catch per unit effort trials.

On its return to the Island, the vessel quickly re-entered service and resumed fisheries and environmental work. A degree of training was required to familiarise existing and new staff with the new/modified systems.

The vessel assisted Jersey Coastguard on three occasions relating to search and rescue missions.

The Voluntary Fishery Officer has continued his work throughout the year, helping to increase an enforcement presence out of hours and to educate recreational fishermen in the conservation Regulations.

In addition to working with both States and Honorary Police, Fishery Officers have shared resources and training with other Planning and Environment enforcement officers. Close cooperation has also been maintained with Jersey Coastguard throughout the year.

Development

Throughout the early part of the year, significant resources were used in the development of the proposed Bag Limits legislation. A number of educational projects were held in abeyance until the outcome of the proposed Bag Limits was determined; however the fish size advisory stickers developed in 2008 were printed in the Spring and proved very popular with recreational fishermen. A further run of Ormer measuring gauges was also produced and distributed. Stands were manned at both the Jersey Boat Show and the Jersey Fishermen's Association summer event when members of the public were able to obtain regulatory and environmental advice.

Legislation being prepared during the year includes the following drafts, all of which have yet to be approved:-

- 1) Limits on the number and size of dredges.
- 2) New method of measuring the mesh size of trawl and static nets.
- 3) An increase in the minimum size for whelks.
- 4) Amendments to the Sea Fisheries Law to increase the options available to the Minister to manage the fishery.

Two new members of staff joined the enforcement team during the year and both underwent a range of enforcement and marine operations training.

9. Integrated Coastal Zone Management

The Integrated Coastal Zone Management Strategy was approved by the States Of Jersey in October 2008 and the Department was able to re-allocate resources to create a post to oversee the implementation of the strategy. The appointment of a Marine and Coastal Officer was made in March 2009 and whilst the role has responsibilities outside of the strategy, implementation of the strategy is central. Policies within the strategy are divided below under four sub-headings. Policies cover economic, social and environmental aspects of the coastal zone. The Strategy introduces measures that will:

- A. Protect and conserve** the wildlife, habitats, geodiversity and cultural heritage of Jersey's coast and sea, their supporting ecological processes and overall resilience.
- B. Increase understanding** of marine and coastal environments, their natural processes, the impact that human activities have upon them, how to minimise those that have an adverse effect and improve the quality of decision-making.
- C. Promote and encourage sensitive use** of natural resources to ensure long-term environmental, social and economic benefits.
- D. Work with stakeholders** to promote awareness, understanding and appreciation of the value of marine and coastal environments and seek wider involvement in adapting to change and in developing new policies.

A wide range of projects have been started during the year covering all four of the main sub-headings and the table below sets out the strategy aims and reports on the progress.

A. Protect and Conserve	
ICZM Aim	Progress in 2009
Develop a Marine Biodiversity Action Plan with targets for marine and coastal habitats and species.	As set out in the Biodiversity Action Plan for puffins the Jersey Seabird Working Group was established and set up the seabird protection zones at Plemont and Les Ecrehous. A draft habitat action plan was also done.
Reduce inputs of nutrients and hazardous chemicals and materials from land-based sources	Work on a Memorandum of Understanding between Planning and Environment and Jersey Harbours was undertaken with a view to the Ministers signing the document in 2010. Several beach cleaning initiatives were started in 2009 and the issue was showcased at the boatshow in May
Reduce inputs of nutrients and hazardous chemicals and materials from boat-based sources	At the end of 2008 two eurobins were provided by the Department for use by the fishermen at the Harbour. Despite some issues with unsuitable items being deposited and irregular emptying, the initiative has been supported and the bins have been well used by the commercial fleet.

Develop a fully representative network of marine and coastal protected areas	A Departmental Group was established to establish a road map for this work which particularly addressed the legal framework and a timeframe. The road map was approved by the Fisheries and Marine Resources Panel. However, it was decided that, due to priorities and work load of Officers and NGOs, this project would be continued after the start of the Ramsar management plan.
Identify and designate a network of coastal and maritime geological sites	The remaining previously identified geological sites were designated SSIs.
B. Increase understanding	
Draw together a Marine and Coastal Database	Some work has been done on this but there remains a considerable amount to do.
Develop marine habitat classification	Adoption of the JNCC classification system for marine habitats would be the most appropriate classification and therefore will be used for marine habitat work.
Develop a Marine and Coastal Atlas	The lack of marine base map for the Granville Bay area has slowed the development of this work, despite extensive discussions with a commercial partner of the Admiralty Hydrographic Office. The current GIS system, Cadcorp, also presents some difficulties. However, given the importance of this work, it is hoped progress will be made in 2010 to resolve some of these issues
C: Promote and Encourage Sensitive Use	
Ensure policies within the Island Plan Review reflect the principles of the ICZM strategy	Discussions were held with officers responsible for the Island Plan Review in the Panel and at officer level to raise any issues within the Plan that were unclear or appeared to conflict with the strategy. Whilst the final Island Plan will not be finalised for some, it is felt that the Plan will complement the strategy
Develop Management Plans for all Ramsar sites	Preparatory work was undertaken during the year to be in a position to set up the Ramsar Management Authority in the beginning of 2010 with a view to completing the plans by the end of that year. It is likely that this work will be a significant component of 2010.
Adoption of an internationally recognised certification programme	The JAC agreed to put forward the Bay of Granville lobster fishery for formal assessment by the Marine Stewardship Council. Data collation and analysis was completed for consideration by the assessment team early in 2010.
D: Work with Stakeholders	
Through ECO-ACTIVE, promote greater community involvement in and understanding of marine and coastal issues	At the Jersey Harbours boatshow in May, ECO-ACTIVE Marine was launched. This was a branch of the ECO-ACTIVE family dedicated to marine and coastal issues. During the year focus has been on raising awareness, involvement in local schools Environment Week and production of minimum size stickers for fishermen.
Revise the Marine Mammal Sightings	After discussion with the Societe Jersiaise marine

Database	biology section, it was agreed that the running of this database would be undertaken by section members, with regular updates and reports being provided by the section.
Develop closer links with other Channel Islands	An invitation to speak at the Channel Island Environment Conference in Alderney was accepted and proved a very useful format for developing links with the other Islands. Collaboration on several subjects including Ramsar sites, renewable energy and wildlife watching has developed since then, This will continue in 2010
Participate in the British Irish Council(BIC) Environment Sub Group	Meetings of the BIC Environment sub-group on ICZM have been attended and useful contacts at DEFRA, MOJ and the Devolved Administrations have been made.

Whilst it is acknowledged that a great deal remains to be done in the realm of Integrated Coastal Zone Management, much has been achieved in a short period of time and provides a springboard for continuation of the work in 2010 and beyond.

10. Annexes

Annex I. Officers at the Department 2009

Andy Scate	Chief Executive Officer Environment and Planning
Chris Newton	Director of Environment
Dr Simon Bossy	Head of Fisheries and Marine Resources
Mike Smith	Senior Fisheries Inspector
Greg Morel	Marine and Coastal Officer
Dave Yettram	Fisheries Officer (Administration and Enforcement)
Jon Shrives	Fisheries Officer (Research and Development)
Matt Lewis	Fisheries Officer (Operations)
Felicity Smith	Administrative Assistant - Fisheries
Mike Harrison	Relief Helmsman
Bryan Nicolle	Voluntary Fisheries Officer

Annex II. Fisheries and Marine Resources Advisory Panel 2009.

Mike Taylor	Chairman
Constable Mike Jackson	States of Jersey
Don Thompson	Jersey Fishermen's Association
Chris Le Masurier	Jersey Aquaculture Association
Natalie Porritt	Merchants' Representative
Ian Syvret	Jersey Inshore Fishermen's Association
Nicolas Jouault	Société Jersiaise Marine Section
Peter Gosselin	Angling Representative
Chris Le Boutillier	Boat Owners' Association (north coast)
Paul Le Neveu	Jersey Harbours
Chris Newton	Director of Environment
Dr Simon Bossy	Head of Fisheries and Marine Resources
Mike Smith	Senior Fisheries Inspector
Greg Morel	Marine and Coastal Officer
Jon Shrives	Fisheries Officer (Research and Development)
Felicity Smith	Administrative Assistant - Fisheries

Annex III. Shellfish landed by over 10 metre fleet.

Species	2003	2004	2005	2006	2007	2008	2009
Brown crab	180 691	179 459	142 237	78 890	110 050	148 230	106 299
Crawfish	398	120	55	87	0	51	89
Lobster	40 586	38 551	23 777	14 716	20 798	27 243	26 577
Scallop	217 815	98 539	129 546	168 282	231 586	212 182	244 270
Spider crab	87 020	80 016	34 333	11 935	24 871	87 369	67 506
Whelk	3 452	45	215 349	341 293	417 163	246 007	757
Others	6 195	3 233	1 796	1 726	1 487	483	244
Total	536 157	399 963	547 093	616 929	805 955	721 565	445 742

Annex IV. Shellfish landed by 6 – 10 metre fleet.

Species	2003	2004	2005	2006	2007	2008	2009
Brown crab	344 838	349 330	282 189	259 472	297 345	327 878	249 376
Crawfish	216	421	198	409	167	88	49
Lobster	104 562	110 716	97 511	103 254	122 274	123 004	135 988
Scallop	40 185	48 370	51 842	97 956	134 732	111 171	113 351
Spider crab	137 720	136 513	123 519	112 916	78 140	87 281	105 201
Whelk	128 810	145 415	226 153	279 243	127 187	51 268	102 210
Others	2 126	2 710	2 232	2 748	159	1 917	1 496
Total	758 457	793 475	783 644	855 998	760 004	702 607	707 671

Annex V. Shellfish landed by under 6 metre fleet.

Species	2003	2004	2005	2006	2007	2008	2009
Brown crab	14 685	11 863	13 224	10 628	4 844	4 736	4 910
Crawfish	14	9	14	4	3	3	0
Lobster	21 464	17 737	17 555	13 326	11 632	12 313	14 328
Scallop	216	240	0	70	5 519	7 644	4 907
Spider crab	8 687	6 968	5 561	4 440	2 723	4 042	4 236
Whelk	1 339	1 218	853	475	1 045	467	623
Others	1 126	680	682	658	401	0	367
Total	40 575	47 531	38 715	37 889	29 601	26 167	29 371

Annex VI. CPUE for the over 10 metre fleet

Species	Quantity landed (kgs)	Nos of Pot Lifts	CPUE (kg per 100 pots)
Brown crab	106 299	350 195	30.4
Lobster	26 577	350 195	7.6
Spider Crab	67 506	350 195	19.3

Annex VII. CPUE for the 6 – 10 metre fleet

Species	Quantity landed (kgs)	Nos of Pot Lifts	CPUE (kg per 100 pots)
Brown crab	249 376	1 148 758	21.7
Lobster	135 988	1 148 758	11.8
Spider Crab	105 201	1 148 758	9.2

Annex VIII. CPUE for the under 6 metre fleet

Species	Quantity landed (kgs)	Nos of Pot Lifts	CPUE (kg per 100 pots)
Brown crab	4 910	107 653	4.6
Lobster	14 328	107 653	13.3
Spider Crab	4 236	107 653	3.9

Annex IX. Wetfish landed by the over 10 metre fleet.

Species	2003	2004	2005	2006	2007	2008	2009
Angler	446	79	128	499	216	140	55
Brill	1 900	838	2 754	786	908	955	77
Bass	9 326	5 774	3 281	8 159	7 536	4 228	1 370
Cod	267	40	0	39	2	8	110
Conger	6 376	1 188	5 527	2 360	1 645	1 087	857
Dogfish	9191	11 789	8 106	11 692	5 446	7 410	2 050
Gurnard/ Latchet	3 104	1 948	1 040	1 351	1 561	2 085	90
Horse mackerel	753	0	0	0	60	0	0
John Dory	128	13	15	22	5	3	8
Ling	180	45	3	22	0	0	0
Mackerel	3 114	923	1 595	676	226	220	900
Mullet -grey	37	0	3	7	0	0	0
Mullet -red	4 718	1 241	313	251	455	112	7
Plaice	2 642	424	567	1 301	656	254	55
Pollack	4 743	2 610	3 069	1 122	245	873	683
Sea Bream	130445	44 867	31 285	2 998	387	1 210	849
Skate/Ray	61 961	30 709	33 384	39 229	37 123	48 639	3 505
Sole	7 422	508	12 831	1 203	972	324	184
Tope	646	308	40	75	50	20	44
Turbot	1 337	647	2 321	157	104	42	226
Other Species			1 038	1 815	1 308	977	220
Total	252098	104055	107304	73 809	58 905	68 587	11 290

Annex X. Wetfish landed by the 6 - 10 metre.

Species	2003	2004	2005	2006	2007	2008	2009
Angler	908	584	364	258	46	100	171
Brill	1 753	1 743	988	841	1 332	1 846	1 987
Bass	4 316	3 825	6 887	8 686	4 960	7 108	5 567
Cod	227	736	38	69	17	136	25
Conger	15 171	8 745	7 555	9 519	15 574	5 904	2 147
Dogfish	4351	8 208	6 542	6 138	2 420	2 648	2 140
Gurnard/Latchet	719	810	530	480	9	0	0
Horse mackerel	557	608	524	448	0	0	165
John Dory	168	128	89	122	0	6	1
Ling	394	283	121	172	176	96	0
Mackerel	2 291	1 718	2 612	2 813	1 119	1 976	1 345
Mullet -grey	1 838	1 905	2 533	2 213	268	895	775
Mullet -red	313	574	788	725	251	180	180
Plaice	1 365	1 095	518	730	100	2 338	2 493
Pollack	4 680	4 523	3 075	3 386	1 826	5 112	5 637
Sea Bream	2 870	1 935	2 687	2 500	1 561	2 209	1 608
Skate/Ray	23 579	19 248	17 040	16 792	11 708	29 247	17 595
Sole	4 920	3 414	2 383	1 729	515	1 082	725
Tope	860	2 226	2 058	1 980	1 341	497	143
Turbot	536	415	582	474	133	202	215
Other Species			0	50	589	1 602	1 605
Total	72 777	63 537	58 577	60 557	43 945	63 184	44 524

Annex XI. Wetfish landed by the under 6 metre.

Species	2003	2004	2005	2006	2007	2008	2009
Angler	0	0	0	0	0	0	7
Brill	164	116	267	250	195	196	71
Bass	11 241	9 521	12 025	14 107	5 589	7 228	4 712
Cod	13	76	18	127	27	54	0
Conger	2 918	1 586	1 302	9 145	95	188	166
Dogfish	2155	3 595	1 533	2 714	345	75	406
Gurnard/Latchet	35	18	0	80	0	0	0
Horse mackerel	1 619	922	612	652	3	3	61
John Dory	42	54	49	38	9	0	2
Ling	143	0	10	20	0	63	0
Mackerel	4 580	3 713	4 982	4 781	4 171	4 808	4 266
Mullet -grey	4 495	2 951	4 494	3 985	293	575	419
Mullet -red	200	334	590	292	194	80	61
Plaice	590	640	678	253	174	130	103
Pollack	3 766	2 836	2 310	1 866	609	1 349	1 595
Sea Bream	1 346	1 143	2 071	1 880	1 118	796	701
Skate/Ray	2 371	2 456	3 037	3 622	970	2 075	1 599
Sole	2 425	2 767	1 834	882	320	788	435
Tope	129	201	182	240	202	230	0
Turbot	193	146	342	265	199	156	205
Other species			0	0	237	7	1 527
Total	39 279	33 937	37 212	46 127	14 750	18 801	16 336

Fisheries and Marine Resources
Planning and Environment Department
Environment Division
Howard Davis Farm
Trinity
Jersey JE3 5JP

Tel: 00 44 1534 441600
Fax: 00 44 1534 441601
Email: fisheries@gov.je
www: www.gov.je

