

Assynt Angling Research

Angling Pressure in Assynt

Analysis of Trout Angling Permit Sales 2009 and 2010

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1. Introduction

This report provides information and analysis of permit sales for trout fishing in Assynt in 2009 and 2010.

The report forms part of the Assynt Angling Research project (www.assyntanglinginfo.org.uk) which is run by Substance, a social research cooperative and forms part of a national research programme called the Social and Community Benefits of Angling (see www.resources.anglingresearch.org.uk).

We conducted an analysis of angling permit sales for a number of reasons:

- The lack of data beyond anecdotal accounts about how many anglers fish in Assynt and at what times of the year
- To set a baseline for future research and monitoring of visiting angler numbers
- To address the divergent perceptions of some visiting anglers and local angling organisations about the danger of 'over-fishing'

With regard to the last of these points, it has become apparent from angler surveys and in-depth interviews that some (but by no means all) visiting anglers fear the prospect of there being 'too many anglers' visiting Assynt. This fear can be linked to the promotion of the area as a destination for wild brown trout fishing. Increased angler numbers, it is argued, may undermine or destroy both the fish population in the area and the experience of Assynt as a place you can fish in remote areas without seeing other anglers. The opportunity to feel a sense of 'remoteness' and 'wilderness' is highly valued by visiting anglers and is a key motivation of all visitors to the area.

Alternatively, those running local angling organisations have told us that they believe that Assynt is 'under-fished', that there is significant under-utilised capacity, and that the local area could benefit from increasing angler numbers. It is also argued that some lochs are very rarely, or never, fished and that whilst care needs to be taken, some lochs could benefit from increased fishing.

Our research has suggested that the economic contribution of visiting anglers to the area is in the region of £0.8m-£1.1m per year and indirectly helps to support between 25 and 31 Full Time Equivalent jobs in the area. The implication of this finding is that increasing angler numbers by a small degree could have a significant impact on income to and jobs in the area. This is significant in a small rural area with around 900 inhabitants and where many businesses operate on a very seasonal and often marginal basis¹.

Such a divergence of views between locals and (some often long-standing) visitors is common in relation to rural tourism development and outdoor recreation based tourism. However, we do not wish to over-emphasise this issue. Some anglers have suggested that there is scope for more people to fish in the area, that they would like to see an increase in income to the area to help local communities and that they have been surprised at how few anglers they encounter. These issues will be explored further in other reports.

¹ For further details on employment, see Assynt Anglers Survey 2010: <http://resources.anglingresearch.org.uk/sites/resources.anglingresearch.org.uk/files/The%20Assynt%20Anglers%20Survey%202010.pdf>

What is certain is that better knowledge of how many 'rod days' there are at different times in the year – the 'angling pressure' in Assynt – can inform developments and act as a baseline against which future research can be measured. Also, it is important to remember that the number of rod days must be referenced against the number of trout angling locations in Assynt – somewhere in the region of 300 lochs, with some extremely large water bodies that can accommodate larger numbers of anglers at one time (Lochs Assynt, Cam Veyatie, Poll etc.).

2. Methodology

To chart the 'angling pressure' in Assynt we acquired the permit book stubs from:

- The Assynt Angling Association for 2009 and 2010
- The Assynt Crofters Trust for 2010

We recorded the date of sale, nature of ticket (day, week etc.) and number of rods on each permit book stub into a spreadsheet. This data was analysed to produce the information in this report, including:

- An overview of all permits sold for 2010, including 'day-by-day' analysis to show how angler numbers change over the year
- Analysis of the types of tickets sold
- Comparisons of AAA data from 2009 and 2010

There are a number of issues or caveats relating to the data that need to be raised:

- i. We were unable to acquire the permit books from ACT for 2009 as these were missing. As such comparison of all angler numbers between 2009 and 2010 was not possible
- ii. We have extrapolated weekly permits across the following week, i.e. recording one rod day for each of the seven days in that week. This means that we are showing the maximum possible numbers of rods fishing per day. It is inevitable that this is an over-estimation (most people won't fish every day of week permit and on ACT lochs and some AAA lochs Sunday fishing is not allowed).
- iii. Sometimes people will buy a permit and then not fish (for instance due to weather conditions) but as we cannot know who these are, we have again taken the maximum possible number of rod days
- iv. The data does not include local anglers who are members of the Assynt Angling Club, nor those that have not bought permits.
- v. Sometimes more than one angler are recorded on one permit stub and there are inevitably some inaccuracies or mistakes – in these cases we have taken a 'best guess' about how many rod days these equate to
- vi. The data is trout anglers only and does not include sea or salmon and sea trout anglers.

3. Improving Data Collection

Whilst analysis of permit stubs allows an assessment of the numbers of rod days, it does not tell us about the numbers of individual anglers visiting Assynt. This is not possible because anglers are at present not required to leave details when they buy their permit.

During our research we employed a number of methods to collect individual names and contact details (online, by postcards, on forms and by providing a stamping a form on permit book stubs for anglers to fill in). However, a request or requirement by those who sell permit books for anglers to leave their names and contact details would significantly improve the accuracy of much data (economic impact as well as angling pressure) as well as future research. A minor adjustment to permit books, as well as possibly a small financial incentive to those selling permits, could enable this to happen. Feedback to our research is that the vast majority of anglers would not object to such a requirement and that most are used to providing similar information as part of their experience at other angling locations.

4. Permit Sale Overview

The key purpose of this report was to present data about the 'angling pressure' from trout anglers in Assynt through an analysis of permit stubs. As such, one of the key findings is the *total* amount of rod days fishing in Assynt over one year and to understand the concentrations of these in particular periods of the year as well as those periods with low numbers, on a day-by-day basis.

4.1 Overview (i) - ACT and AAA 2010

4.1.1 Total Numbers

The total number of rod days for trout fishing in Assynt in 2010 was **2,764**.

Of these 1,629 were for the Assynt Angling Association waters and 1,135 were for the Assynt Crofters' Trust area. The difference in numbers between the two organisations is to some extent expected, as the AAA area is larger and has most of the larger lochs in the area.

Organisation	Number of Rod Days 2010
AAA	1,629
ACT	1,135
Grand Total	2,764

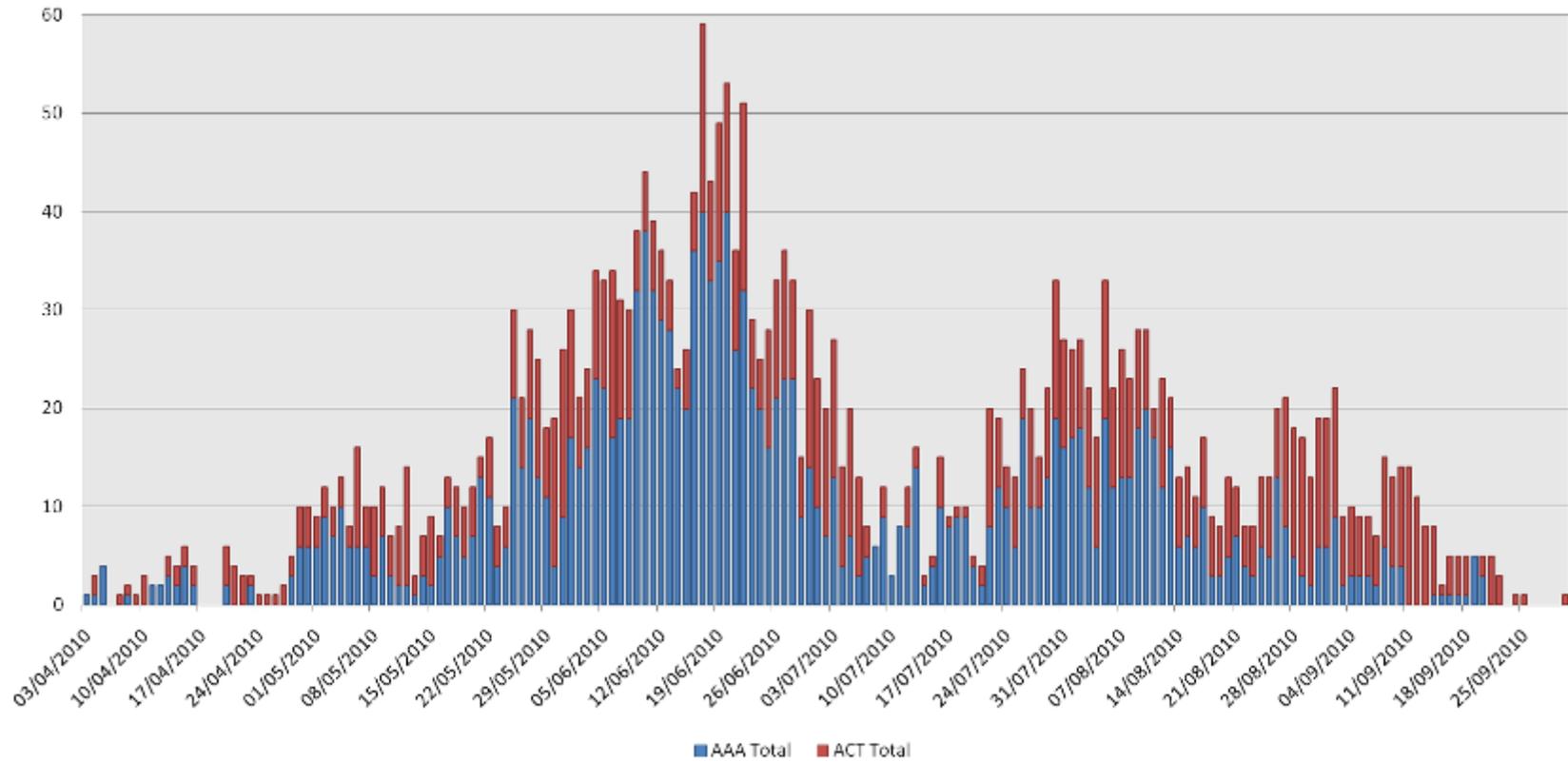
4.1.2 Distribution of Rod Days

Trout angling in Assynt varies across the season, which extends from March 15th to October 6th. The 'best' trout angling period is understood to be around June, although other times of the year can be productive and variations are inevitable.

We analysed permit data to understand the distribution of rod days on a day-by-day basis. The chart on the following page shows the combined distribution of rod days for the AAA and ACT areas, clearly illustrating the peak in June but also periods with low numbers. Detailed breakdowns follow this section providing charts showing the distribution of the AAA and ACT individually for 2010 and the AAA for 2009.

It should be noted that in 2010 there was an increase in the numbers of anglers from 2009, with record takings (in terms of permit sales) reported by the AAA.

Total Rods per Day 2010 - Assynt Angling Association and Assynt Crofters Trust



4.1.3 Angling Pressure

By analysing the day by day distribution it is also possible to show the amount of 'angling pressure' there is on the lochs in Assynt.

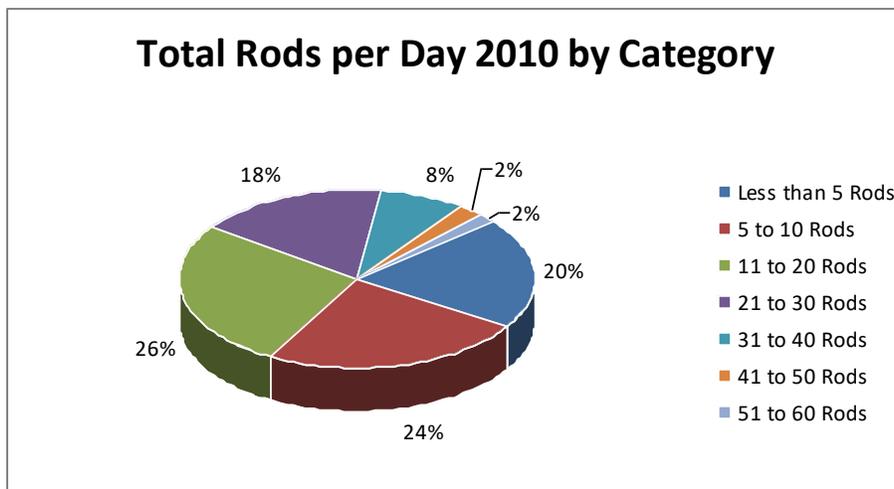
The average rods per day for 2010 is 13.6 across Assynt, comprising an average of

- 8 per day for the AAA area
- 6 per day for the ACT area

However, it should be noted that such averages are of limited value given the wide variations in rod days across the year. It is important to understand in more detail how angling pressure varies across the year.

The pie chart and table below illustrate the numerical distribution of high rod-days relative to low-rod days. They show that, for all of Assynt:

- On 12% (21) of the days in the season there were more than 30 rods fishing.
- On only 4% (7) days there were more than 40 rods. These were all concentrated in one week in June
- On exactly half the days (92 days) there were between 5 and 20 rods
- For 20% of the time (36 days) there are less than 5 rods fishing in Assynt



	Days by Category
Less than 5 Rods	36
5 to 10 Rods	44
11 to 20 Rods	48
21 to 30 Rods	32
31 to 40 Rods	14
41 to 50 Rods	4
51 to 60 Rods	3
Grand Total	181

4.2 Overview (ii) - Assynt Angling Association AA 2009

We were also able to record and analyse the numbers and distribution of rod days for the Assynt Angling Association for 2009.

4.2.1 Total Numbers of Rod Days (AAA 2009)

The total number of rod days for the Assynt Angling Association in 2009 was 1,322. Of these 832 were for day permits tickets and 490 for weekly tickets.

Total Rod Days	
Day	832
Week	490
Sub Total	1322

This shows that for the AAA, there was an increase of 307 rod days from 2009 to 2010, an increase of 23% year on year. It should be noted that this is not necessarily an increase in the number of anglers, but in the number of rod days – i.e. the increase could be the result of anglers spending more time fishing.

4.2.2 Distribution of Rod Days

The graphs on the following page illustrate the distribution of rod days across the year for 2009 - also showing ticket type (East, West and South zones and Roving weekly tickets) – as well as a comparison from 2010 to 2009.

This shows a similar peak time in mid-late June, along with some minor differences at other times of the year – slightly more rod days in early July in 2009 than 2010 for instance.

4.2.3 Angling Pressure AAA 2009

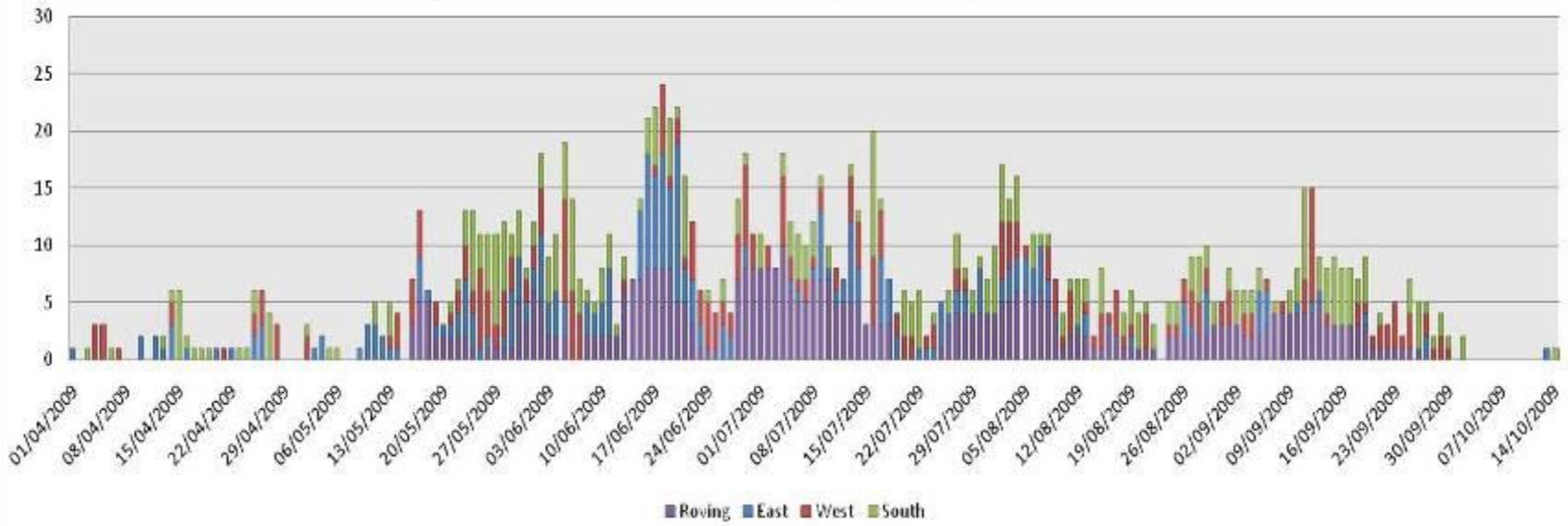
In terms of angling pressure by day, there is an average of 6.5 rods per day.

It is notable that²:

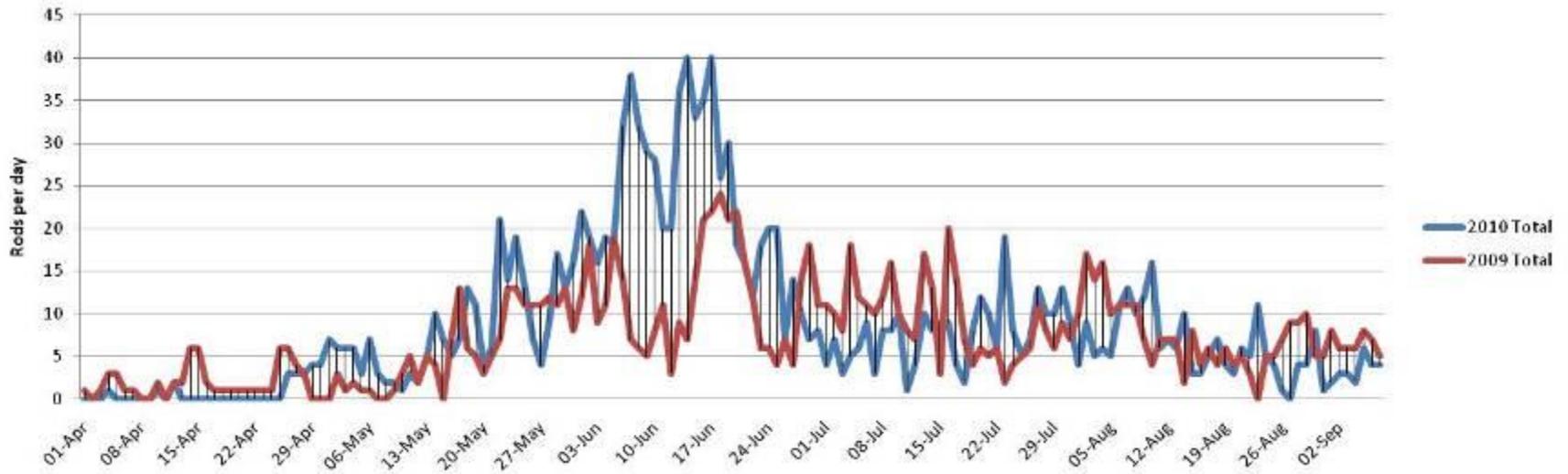
- There were more than 20 rods per day for just one 5-day period in June (16th to 20th of June). The 16th of July recorded 20 rods.
- On 17 days there were 15 or more rods
- On 51 days there were 10 or more rods
- On 92 days there were 5 or less rods
- The highest number of rods recorded on any one day for each permit type was East (14), South (11), West (10) and Roving (10)

² NB: Data from 12 ticket stubs were unable to be charted as no dates were recorded on the stub. The data included 10 single rod days in the East zone, 1 double rod day in the East zone and 1 single rod day as a Roving permit.

Assynt Angling Association - Rods per Day April-October 2009



AAA Rods per day - 2009 and 2010 seasons



5. Conclusions

This is the first time that the numbers of rod days and the distribution of these across the season has been analysed in this way. As such at the very least it provides a baseline against which future developments can be assessed and angling development can be monitored.

The analysis shows:

- i. There were 2,769 rod days for trout angling in Assynt in 2010.
- ii. That as an annual average of rods per day in 2010, 'angling pressure' in Assynt was very low, at 13 rods for the whole area.
- iii. However, such averages mask peak periods in which trout angling is concentrated and there is a significant peak in June, where the number of rods per day reached a high point of 58 on June 17th
- iv. There are also however, more common periods of very low numbers of rods in Assynt. On 80 days there were 10 rods or less in all of Assynt.
- v. Whilst some of these are to be expected – March, April and late September are poorer for trout angling – at other times the picture is perhaps more surprising with under 5 rods per day in most of July and under 10 rods for all but the very end of May.

Based on AAA returns, the 2010 statistics show a significant increase in numbers in 2010, boosted in part by an increase in weekly ticket sales, yet still very low pressure at some times of the year.

The numbers of rods per day has also to be understood within the context of Assynt, an area of 475km² (187 square miles) and around 300 lochs and lochans.

Whilst some of these are small, remote, providing poor breeding and therefore sensitive to angling pressure, other lochs are very large and/or have large populations of wild brown trout.

Furthermore, whereas in the past many anglers killed large numbers of trout caught, it is clear from our survey work, interviews with anglers and limited number of catch returns, that the practice of catch and release is much more prevalent, with an estimated 5-10% of fish caught being kept.

One of the aspects of angling that is highly valued by visiting anglers is its remote nature and the ability to fish without seeing other anglers. Whilst at the busiest periods anglers may well see other anglers, particularly at larger and roadside lochs (Assynt, Cam, Veyatie, Awe etc.), the topography of Assynt means that for much of the area anglers are 'hidden' from each other even if fishing in the same zone or area. However, the concerns expressed to us as part of this research about 'over development' of angling in Assynt need to be understood and addressed.

Hopefully this analysis of 'angling pressure' and the distribution of rod days across the year will help to alleviate some of those fears.

The project has been focused on how rural areas such as Assynt can increase local benefit from angling and recommendations in the final report will be framed within that context. The research we have conducted since 2009 has been designed to help inform

those decisions. Our research into the economic value of visiting anglers to Assynt demonstrates that a small increase in the numbers of anglers and/or length of stay could have significant local benefit (a 10% increase for instance could generate up to £100,000 of additional economic contribution and help support 3 FTE jobs in the area). However, increasing numbers does not come without other impacts, or risks.

Nobody wants to see the 'special nature' of angling in Assynt 'spoiled' and any development or increase in numbers of rod days needs to be carefully and thoughtfully undertaken. Undermining those aspects of the experience of visiting anglers value most – landscape, solitude, wildlife and nature of the fishing – would be counterproductive, potentially threatening long term benefits, 'killing the goose that lays the golden egg'.

However, the analysis of permit data we have undertaken suggests that there is some scope for increasing angler numbers without affecting angler experience or jeopardising wild brown trout fishing in the area. Whilst mid-late June is clearly a peak period, at other times of the year – mid-May, July, September - local organisations could promote angling to increase total angler numbers or increase the amount of angling undertaken per angler.

In our Final Report we will be making recommendations about how additional local benefit from angling can be achieved.

6. Appendix - Detailed Breakdowns

6.1 AAA 2009

6.1.1 Total Numbers By Zone and Permit Type (AAA 2009)

The Assynt Angling Association splits its day permits so that a visiting angler buys a permit for one of 3 zones (East, West, or South). However, from permit records it appears that on occasion anglers have been sold a day roving permit (or this has been mis-recorded at the point of sale). As such there are 34 day roving permits included in the figures. Weekly permits can be bought either for a single zone, or as a 'roving' permit across all 3 zones.

The table below shows the numbers of permits sold in each zone and roving permits.

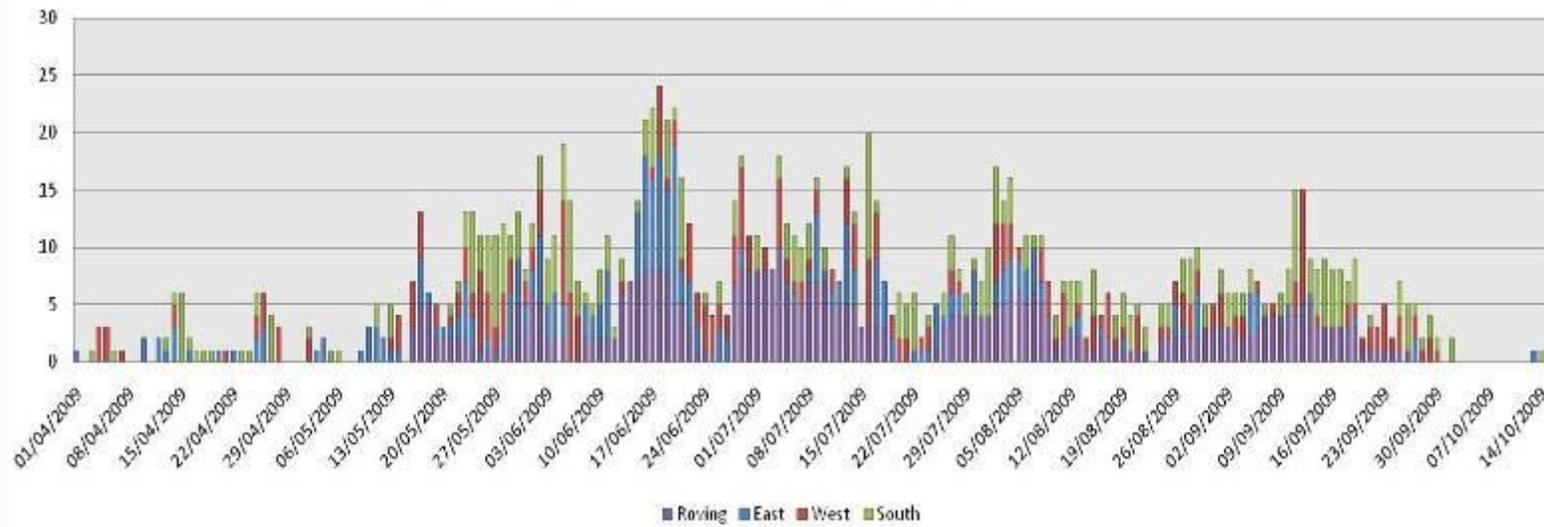
Zone & Permit Type	Number of Rods					Grand Total (%)
	1	2	3	4	5	
Roving	87	2				89 (12%)
Day	34					34
Week	53	2				55
East	190	16	6	1		213 (29%)
Day	187	15	6	1		209
Week	3	1				4
West	150	43	6	2	1	202 (28%)
Day	148	43	6	2	1	200
Week	2					2
South	171	42	11	3		227 (31%)
Day	165	42	11	3		221
Week	6					6
Grand Total	598	103	23	6	1	731 (100%)

Overall sales were fairly evenly split with the South area most heavily fished (31%), followed by East (29%) and West (28%).

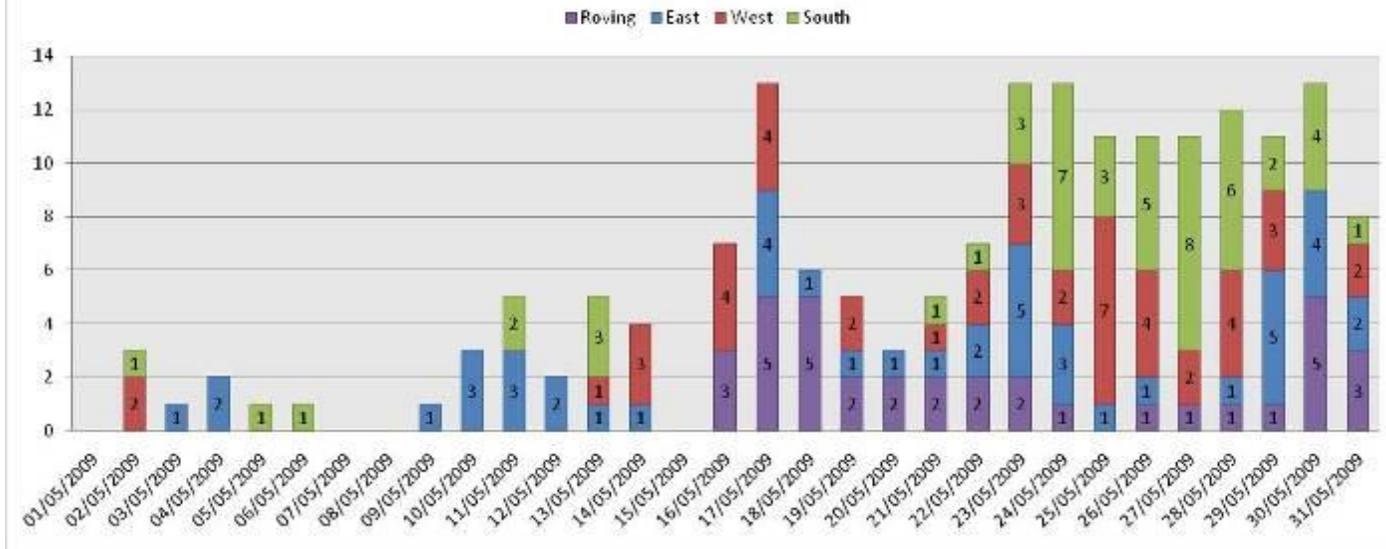
6.1.2 Distribution and Key Months (AAA 2009)

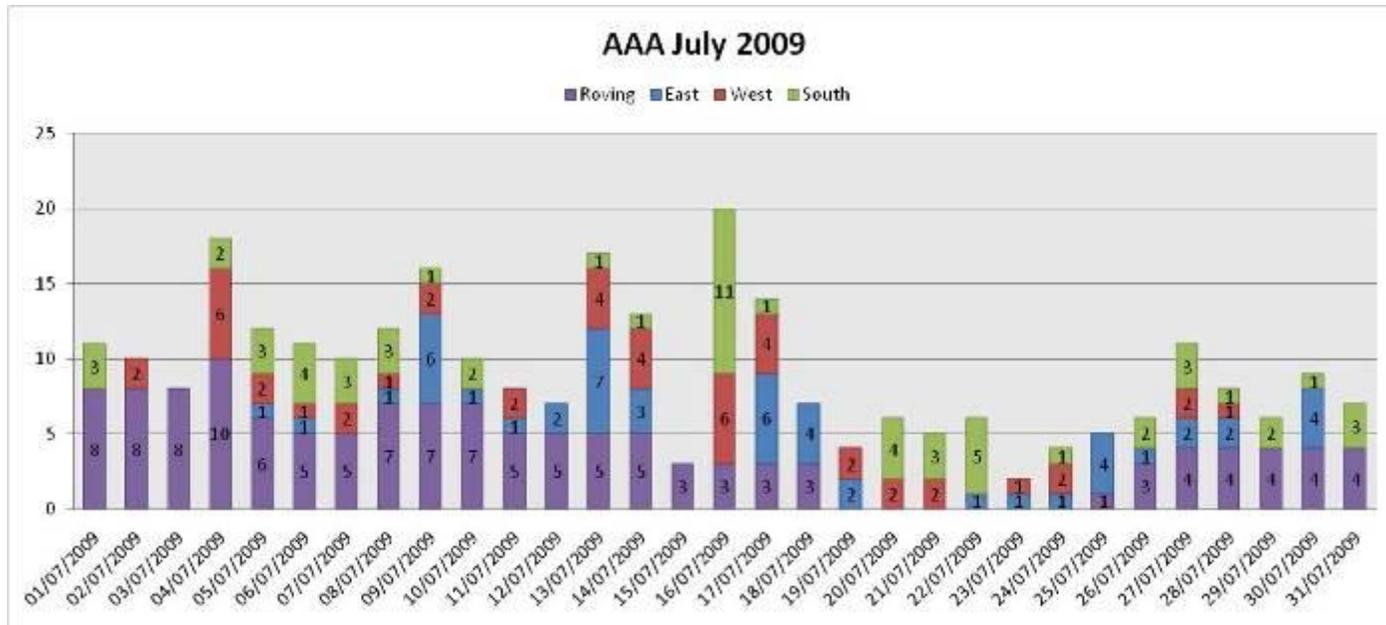
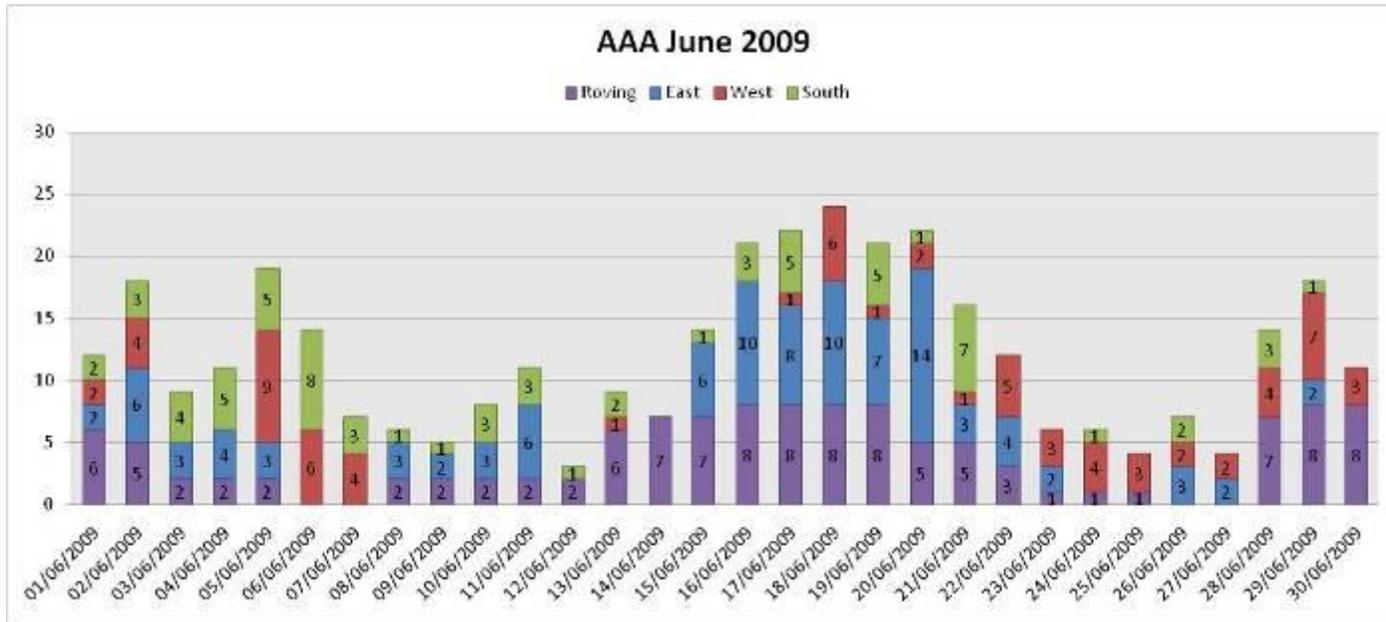
The following graphs display the overall distribution of rod days across 2009 for the AAA as well as rods per day by zone during the three heaviest months of angling pressure, namely May, June and July. Note that the scale on the vertical axis of each chart varies in order to reflect the higher or lower volumes of permit sales.

Assynt Angling Association - Rods per Day April-October 2009



AAA May 2009





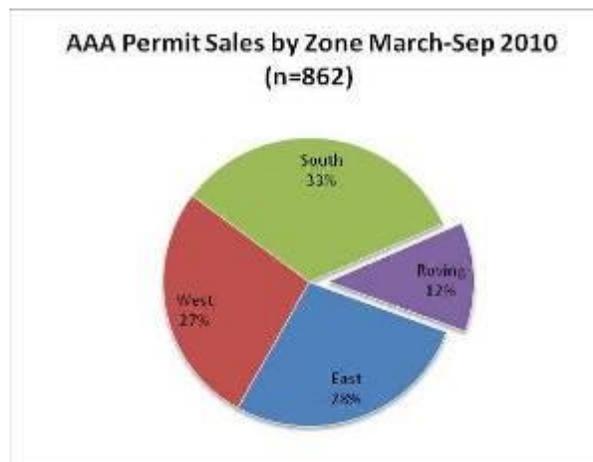
6.2 Assynt Angling Association 2010

6.2.1 Total Numbers By Zone and Permit Type (AAA 2010)

The figures below show the distribution of permit sales and rod numbers by AAA zone and permit type³.

Zone and Permit Type	Number of Rods				Grand Total
	1	2	3	4	
Roving	88	9			97
Day	9	9			18
Week	79				79
East	137	38	4	3	182
Day	137	38	4	3	182
South	202	39	3	1	245
Day	197	39	3	1	240
Week	5				5
West	178	22	4		204
Day	177	22	4		203
Week	1				1
Grand Total	605	108	11	4	728

The pie chart below shows the numbers of tickets sold in each zone and the total number of roving tickets. As with 2010 sales were fairly evenly split with the South area most heavily fished (33%), followed by East (28%) and West (27%). The proportion of roving tickets sold remained static (12%) from 2009, although this masks a significant increase in the number of weekly roving tickets sold.

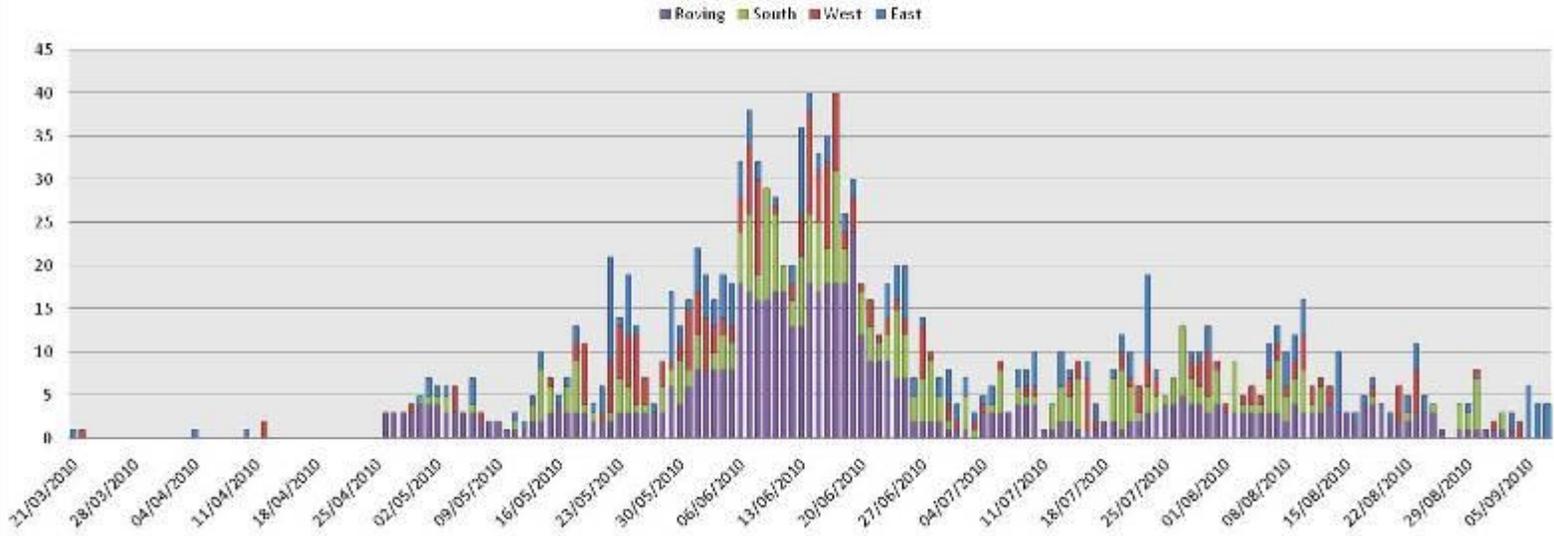


6.2.2 Distribution and Key Months (AAA 2010)

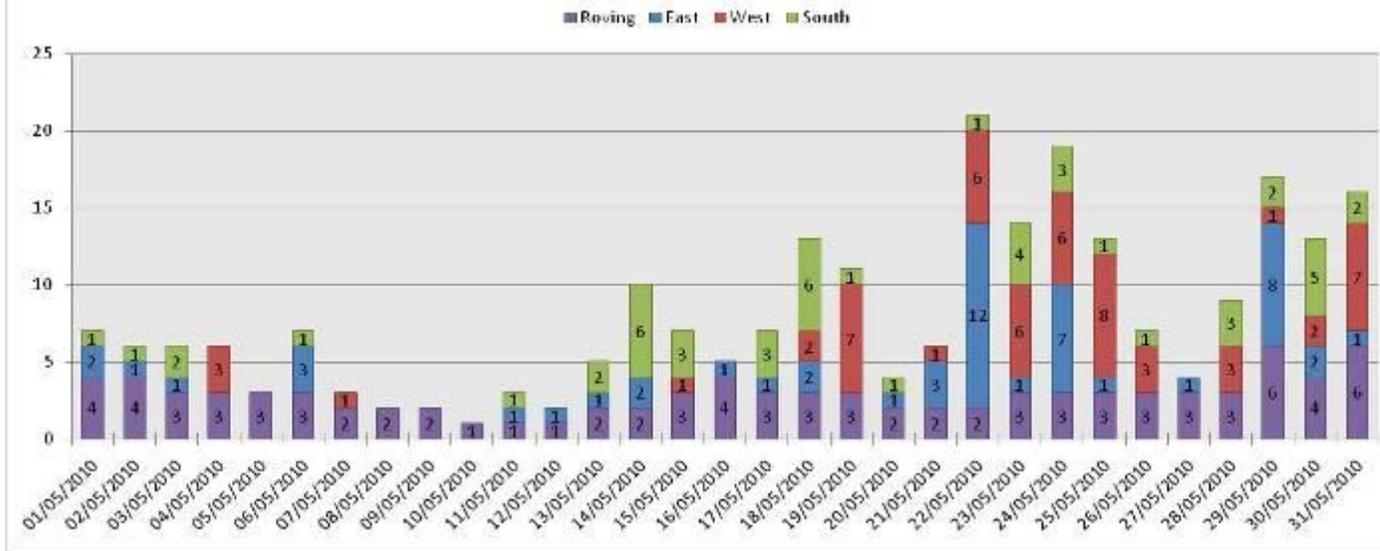
The charts below show the overall annual distribution as well as distributions on a month by month basis for May, June, July and August 2010.

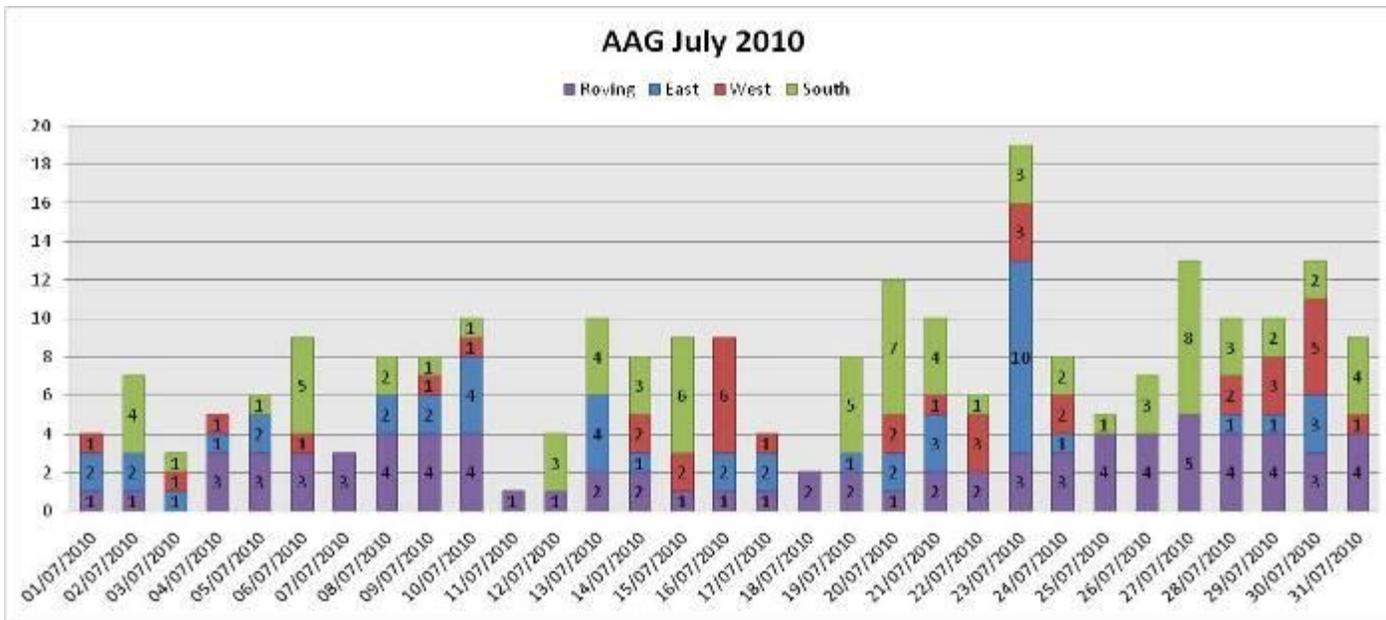
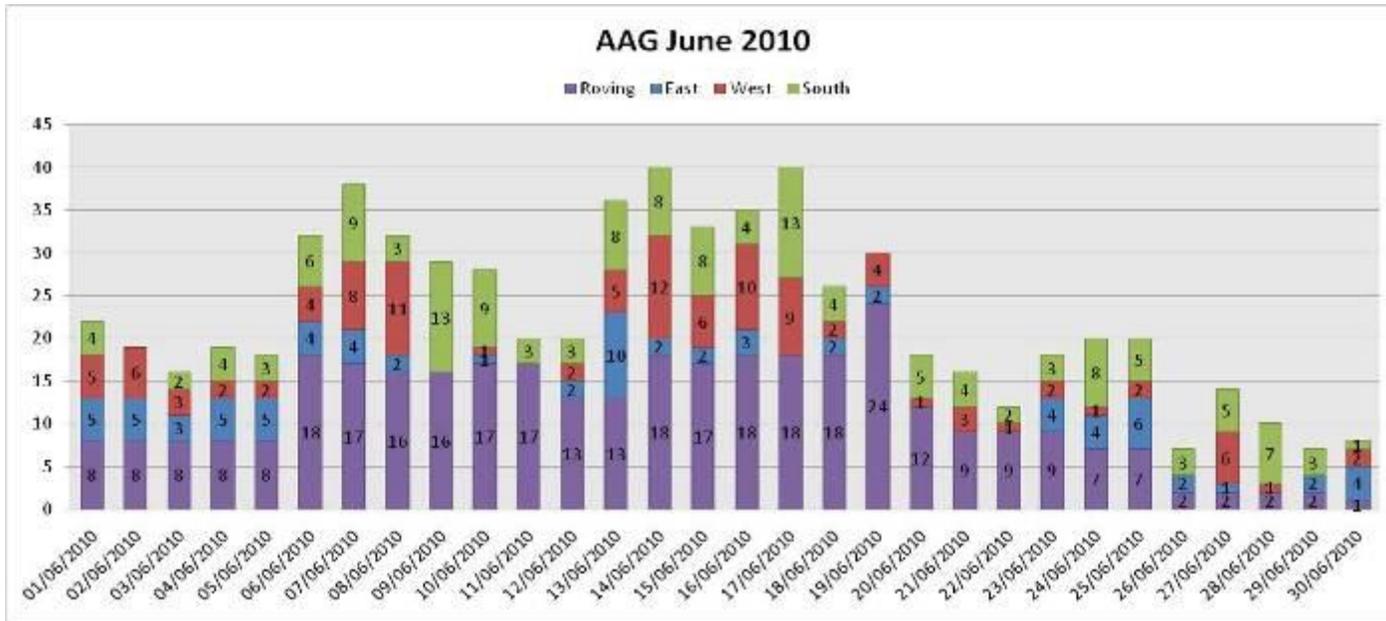
³ Note that there were an additional 11 weekly tickets (10 single rod, 1 double rod) sold with allocated days in all three zones. An additional weekly ticket (single rod) was sold with allocated days in just the South and West zones.

Assynt Angling Group - Rods per Day March-Sep 2010



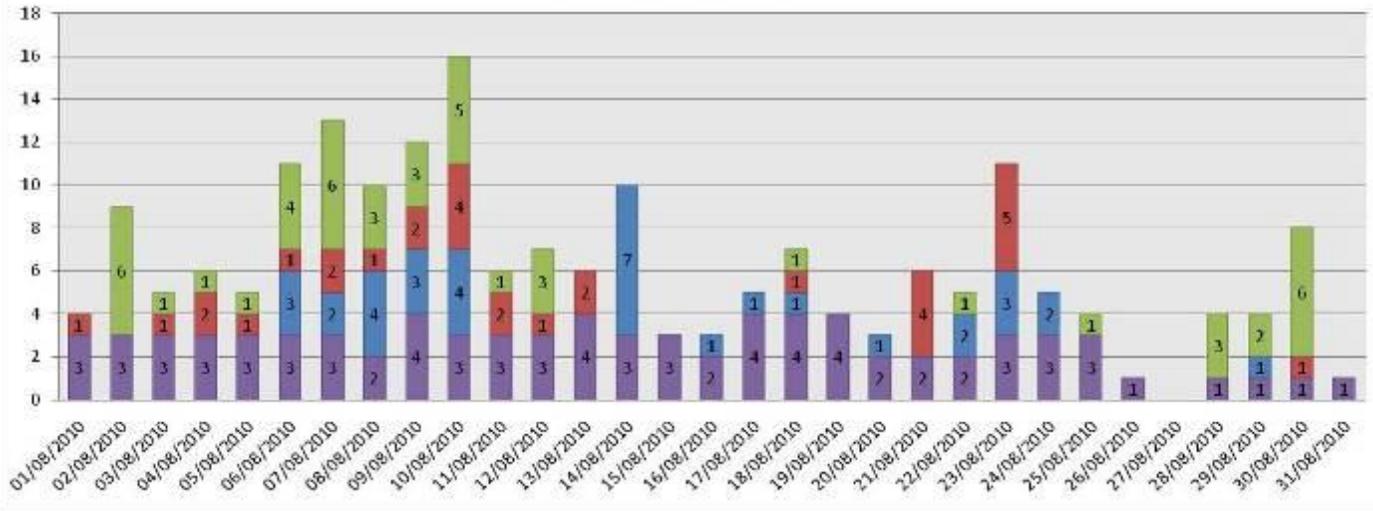
AAA May 2010





AAG August 2010

■ Rowing ■ East ■ West ■ South



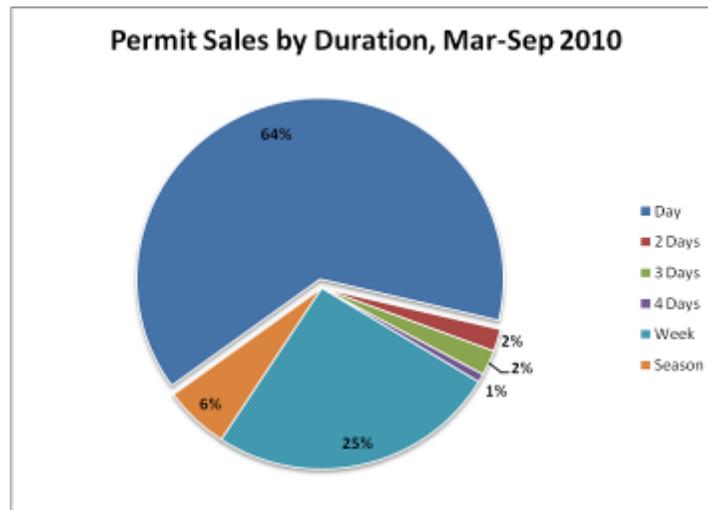
6.3 Assynt Crofters' Trust 2010

6.3.1 Total Numbers By Permit Type (ACT 2010)

The table below shows the total number of permit sales by number of day, weekly and season tickets.

	Number of Permits	Total Fishing Volume (Rod Days)
Day	254	310
2 Days	8	18
3 Days	9	60
4 Days	3	12
Week	102	742
Season	23	25
(Blank)	33	
Total	432	1135

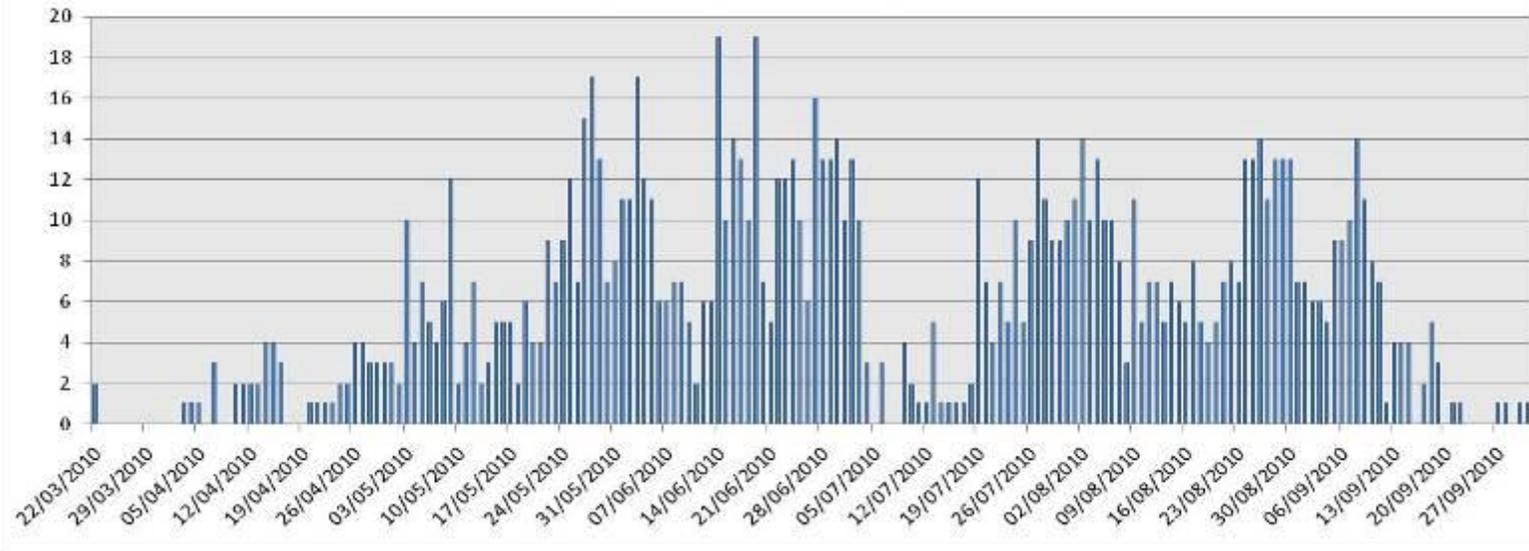
This includes where anglers have bought 2, 3 or 4 days on one permit. Assynt Crofters' Trust do not split their permits by zone and permits cover the whole of the ACT lochs. The pie chart below illustrates the breakdown of the duration of permits bought.



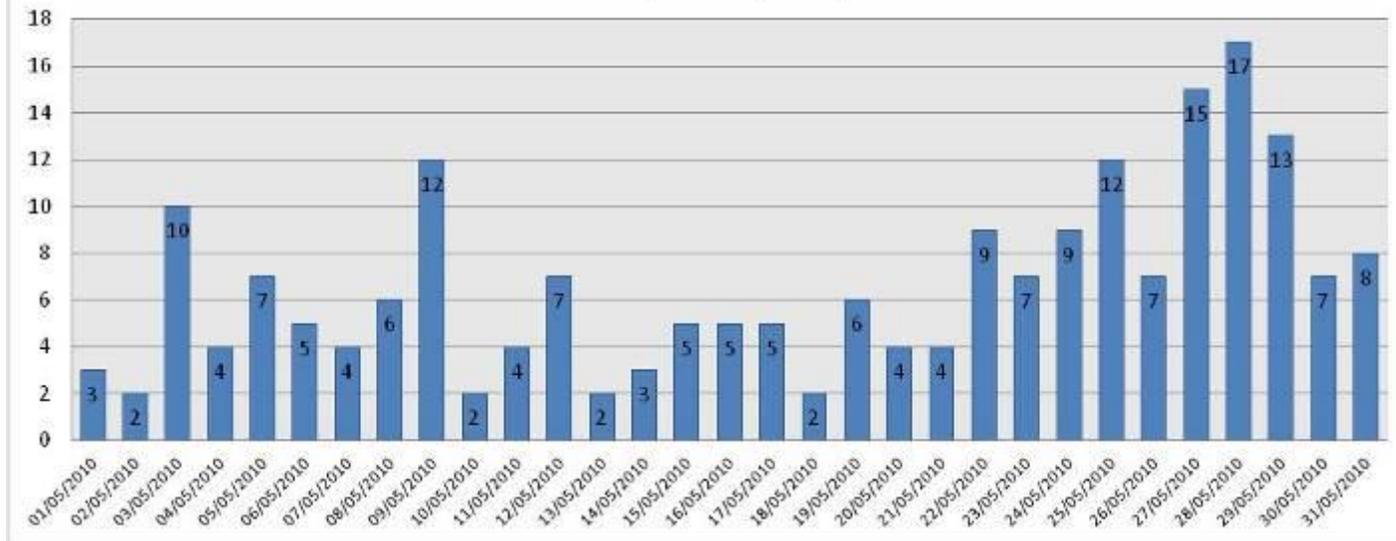
6.3.2 Distribution and Key Months (ACT 2010)

The first graph on the following page shows the distribution of sales across the 2010 season for ACT permits, while the graphs following thereafter display permit sale breakdowns for key months.

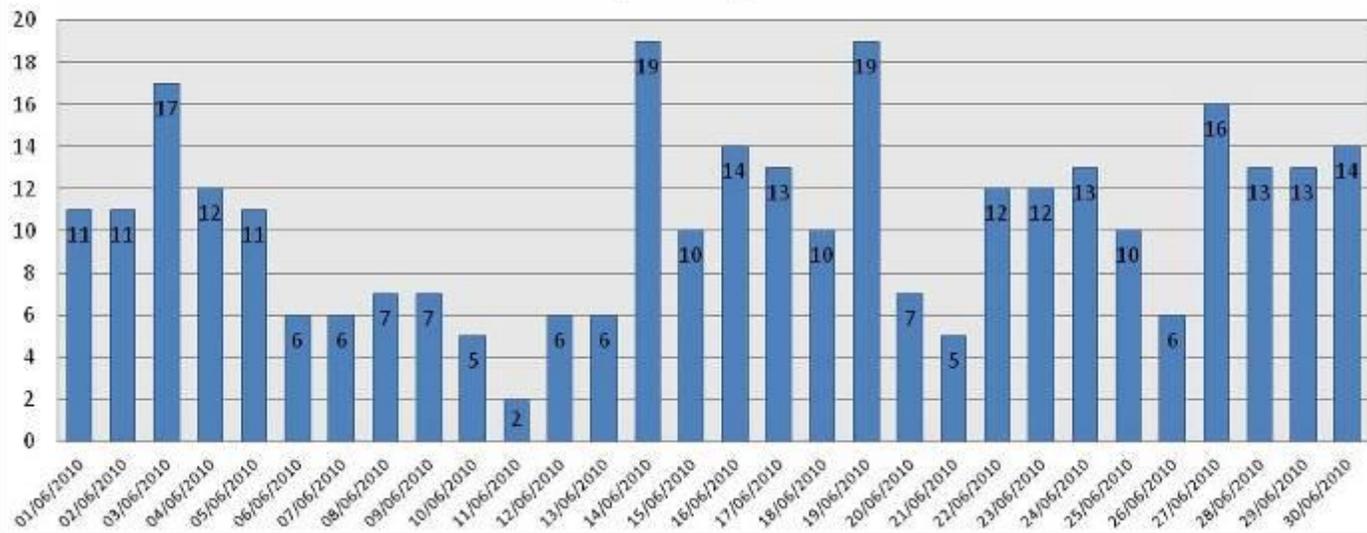
ACT Rods per Day March-September 2010



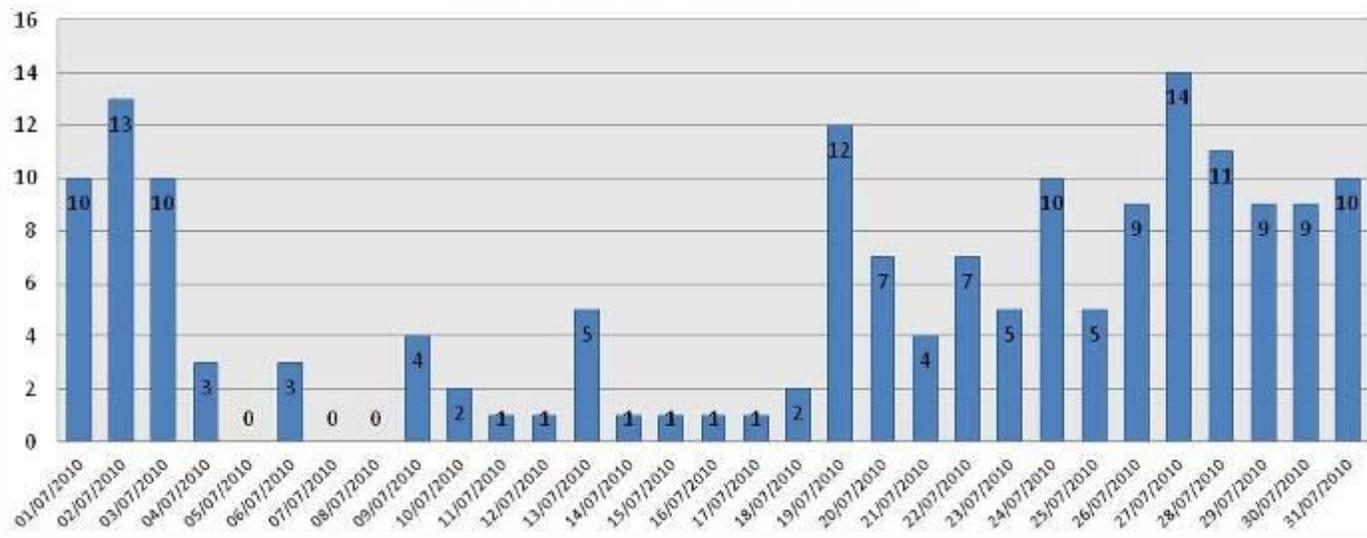
ACT Rods per Day May 2010



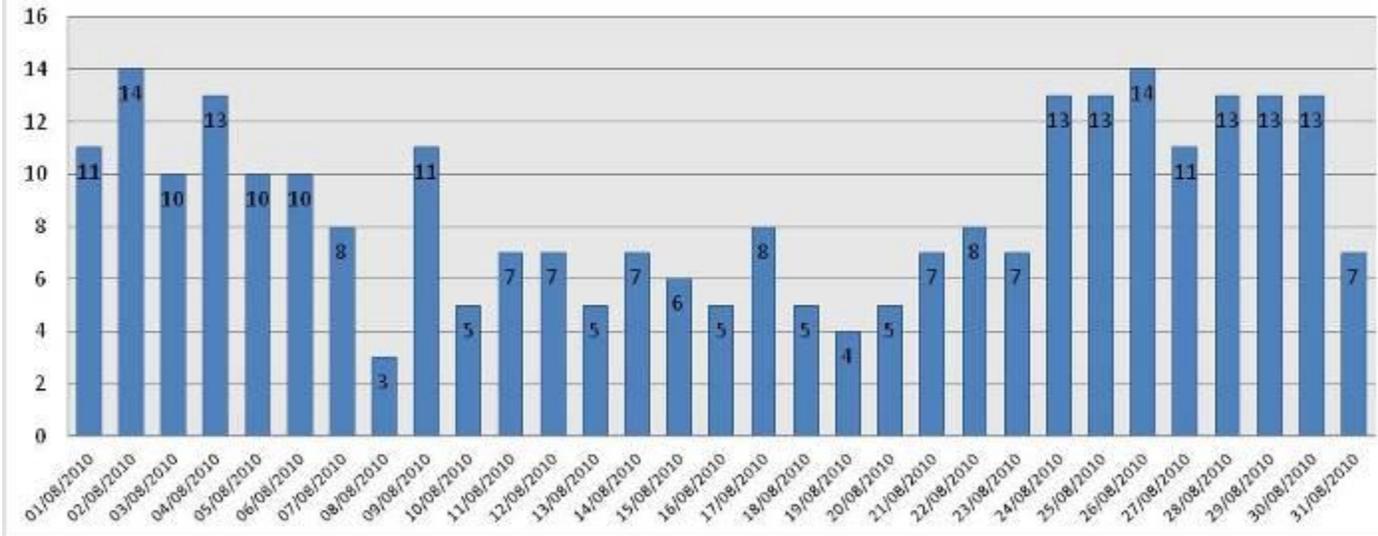
ACT Rods per Day June 2010



ACT Rods per Day July 2011



ACT Rods per Day August 2010



ACT Rods per Day September 2010

