

# **Exe Observers Group**

## **Notes from Meeting - 13<sup>th</sup> March 2016**

Good to see everyone on Sunday 13<sup>th</sup> at the Exe Observers Group Meeting, and many thanks to Kevin and Gavin for organising for us to use the RSPB's plush new offices in Broadwalk House at the top end of Southernhay. I'm sure you'd all agree it's an ideal venue.

For both those of you who came along and those who couldn't make it, the following is a bit of a summary of the meeting.

### **Exe Webs - General**

Penny welcomed everyone, and as there were a couple of folk who were new to the group we went round and briefly introduced ourselves, - (with some of the longer serving observers vying with each other as to how many decades they had been counting on the Exe!). As usual the main focus of the meeting was reviewing recent counts, but a topic was raised by Alex Banks to do with low tide counts on the estuary, and this is discussed further below.

As there was no other particularly pressing overall WeBS business, the attached table of counts for the last 18 months was circulated, and I was free to ramble on about the numbers and trends for the various species involved.

### **Exe WeBS Counts : Recent Results in Context**

As there had been some time since the previous meeting, comparisons between this season and the immediately previous one were perhaps less relevant. In view of this, and also to widen the perspective of the review, it seemed more appropriate to look at the WeBS counts in a wider context and compare the Exe with the national and in some cases the international status and trends of certain species.

As WeBS counts are essentially concerned with gathering information on numbers and trends,, presenting results inevitably requires graphs and charts to illustrate things. To try and avoid overloading the audience with wall to wall charts and tables, various photos were included (most of the good ones being Elisabeth's) along with some distribution maps. (Additionally I included a few attempts at humorous digressions - but, you'll be relieved to hear, that I'll spare you these in this summary!)

### **June 2014-Dec 2015**

The recent summary of counts covered the complete season from Jul 2014 to June 2015, followed by the next 6 months up to December 2015 - details in attached Excel Spreadsheet. (The last three months, Jan-Mar 2016, were not included - and this should be borne in mind with subsequent graphs showing trends which include data for this winter).

The overall pattern of numbers was as expected with lowest numbers in May-June, and then a continued influx of birds arriving for the winter or on passage from July onwards - Fig 1. (It is slightly inconvenient that observers couldn't find another couple of hundred birds in September 2015 to keep last autumn's trend going consistently upwards!). Numbers for the 2014/15 winter didn't peak until Jan and Feb 2015, which is out of line with the usual pattern when December is almost always the peak month (see Fig 2 for comparison).

So far this winter, maximum numbers were in Dec 2015, and with a total of 18,196 birds exceeding the previous winter's maximum 17,000, and also representing the highest monthly count since 21,614 in Dec 2001, this may well turn out to be this winter's peak and redress the balance.

Fig 1: Annual Monthly Pattern for Waders & Waterfowl on the Exe - Jul 2014 - Dec 2015

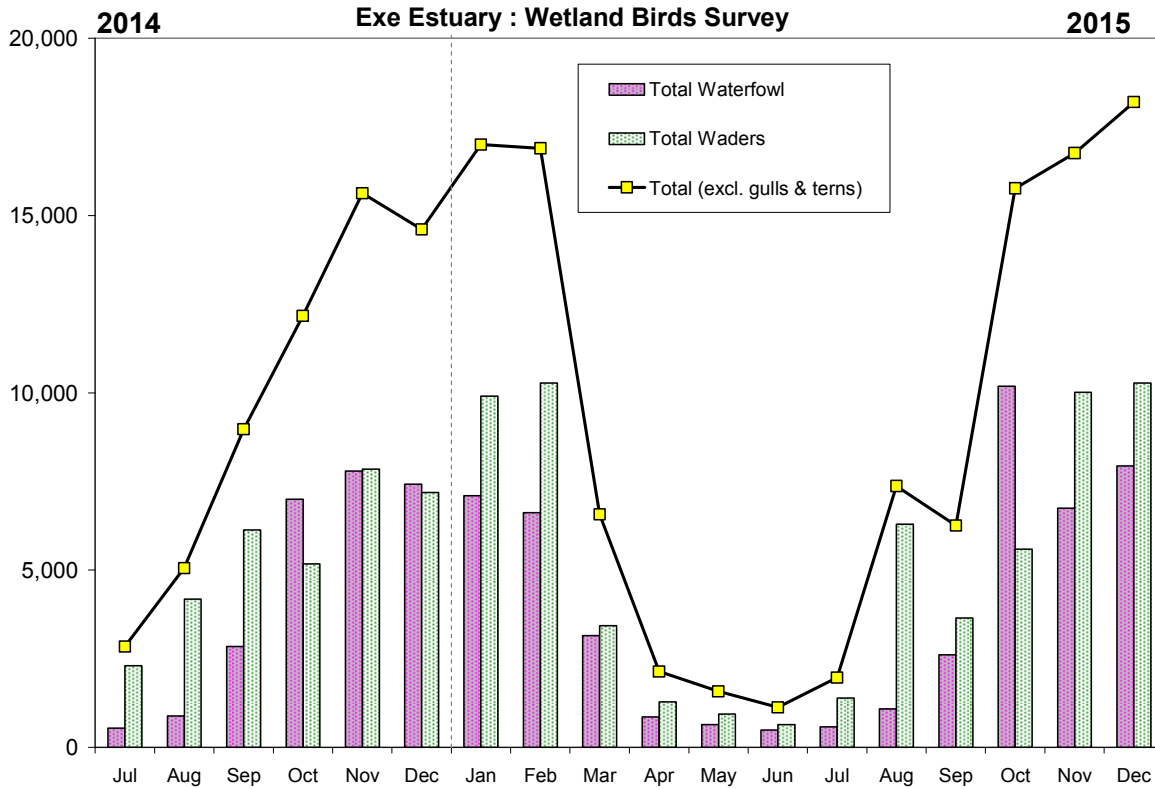
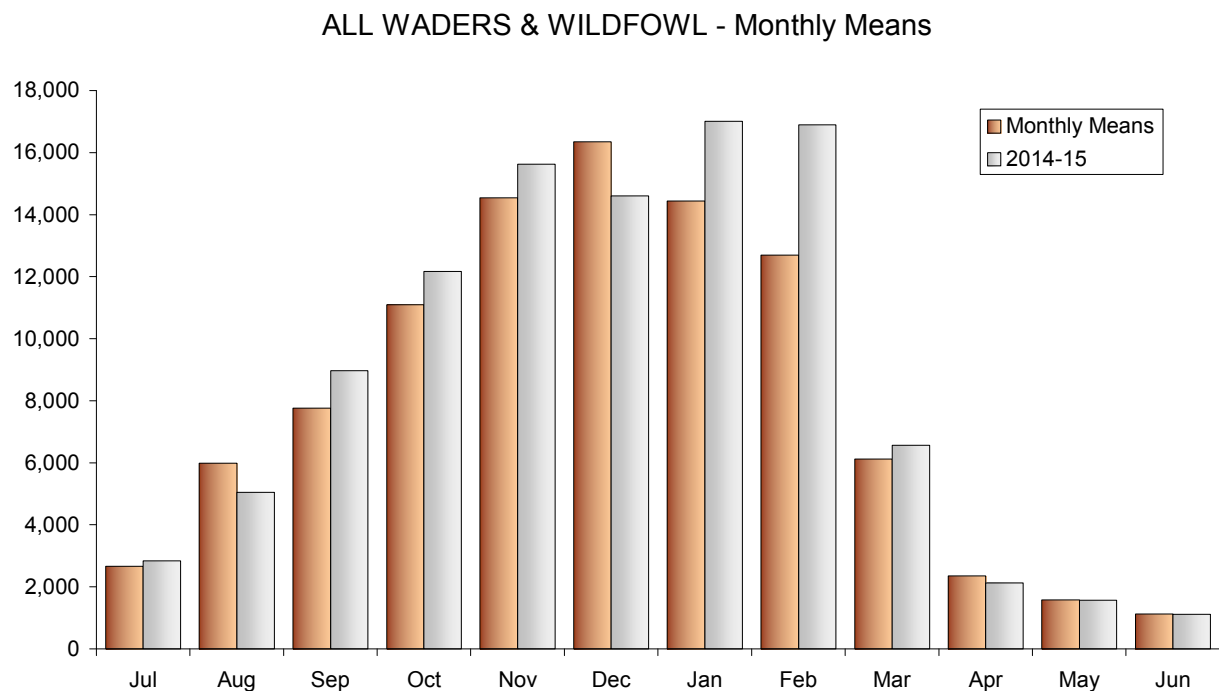


Fig 2: Comparison of Average Annual Monthly Pattern since 1970 with Jul14-Jun15



## Selected Species Highlights:

Species were considered in sequence of the summary table. Including national aspects, as well as us having some interesting general discussion meant we covered the waterfowl during the meeting, but didn't have time to look at the waders. The intention is that these will be deferred to the next meeting.

**Divers & Grebes:** Nothing particularly noteworthy was evident in the recent counts, though the presence of the resident Slavonian Grebe was noted, and it was joined by at least another during the winter months.

**Cormorants:** are the first of the relatively numerous species. With numbers averaging around 100 during most of the winter months they've shown little change over the years, and the national picture is also one of relative stability. The main Exe concentration is at the roost on the pylons at Countess Wear. Steve Elcoate noted that numbers are invariably highest early morning or late evening as birds use the site for over-night roosting. (Amazing that they find perching on an exposed swaying cable or an angular metal girder a comfortable way to spend the night!). In the estuary Cormorants are less likely to be in groups, though occasionally (as with the 415 in Oct 2003) flocks of several hundred may be present. Shag are less common, but unusually for this species can on occasions also form small flocks within the estuary - presumably following fish into the estuary, so care needs to be exercised when identifying a distant group of such birds.



The Cormorant Roost at Countess Wear - (particularly suitable for acrobatic, tight-rope walking birds!)

**Mute Swan:** On the Exe there has been no real change in recent decades though there were more around in the late 1970s. This is somewhat out of line with the national trend which is one of increasing numbers, particularly from the 1980s - attributed to the banning of lead fishing weights, and in recent years to lower mortality during mild winters. The Exe is probably not a typical site for the species, which generally prefers freshwater habitat, so it is not surprising that it has not shown the same increase in numbers and is perhaps unable to support any more birds, most of which are recorded from the marshes. (See Figs3 & 4)

Fig 3: National WeBS Trend for Mute Swan

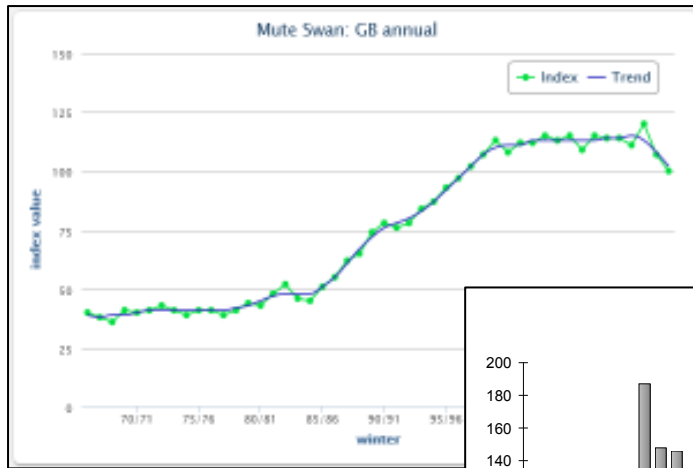
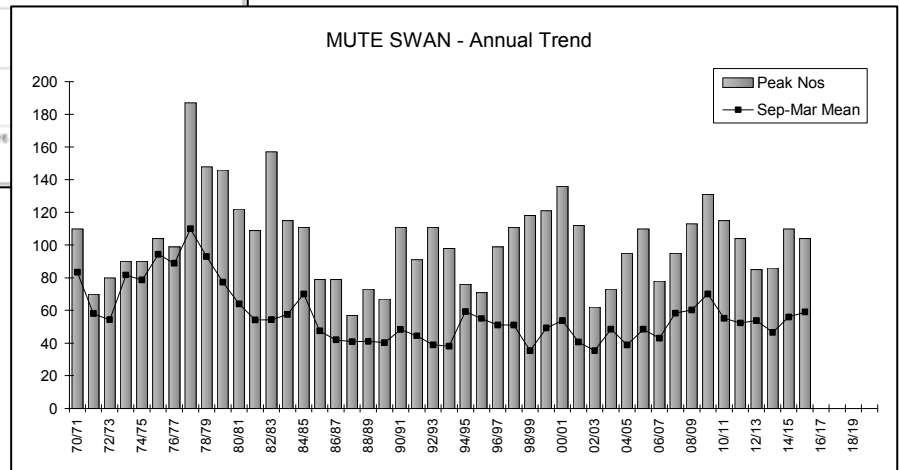


Fig 4: WeBS Trend for Mute Swan on the Exe



Looking at the trend for the Exe, what about the peak in the late 1970s, when perhaps the marshes were less attractive in terms of fresh water than they are now? Intrigued by this I looked back at the section counts for that period and found that a surprisingly large proportion of the Mute Swans at that time were recorded from the Exmouth-Lympstone area:

Exmouth to Lympstone	
1978-81	- Regular Peak counts up to 140 - Mainly Oct-Dec - On average 54% of estuary's Mute Swans here (Winter of 1980/81 = 72%)
2012-15	- Usually none or single figure counts - Only exceeded 10 on 3 occasions - Only recording 8% of estuary's Mute Swans now

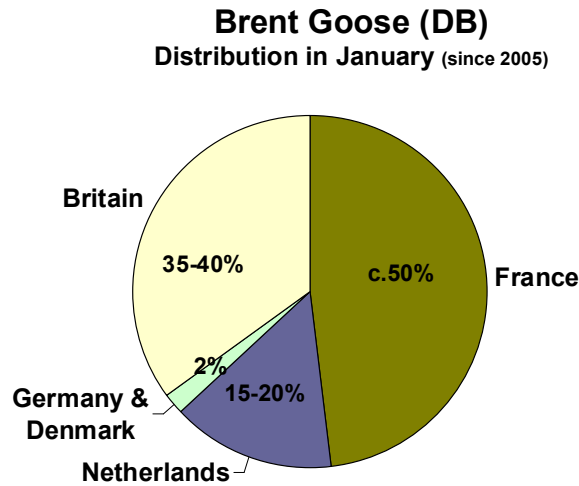
This concentration of birds must have been related to food supply, perhaps more zosteria or other water plants and algae. My only thought is that I vaguely recall that outflows into the estuary (from Lympstone in particular) were cleaned up in the early 1980s so that it may be that a source of nutrient rich material which encouraged plant growth was no longer available. (A case of "Good News - Bad News"? - the latter particularly relevant if you were a swan!)

**Canada Goose** numbers on the estuary and nationally just keep on rising, and the trend graph for the Exe hit an all time peak of 1,303 in Dec 2015. Whilst those in their natural environment which migrate vast distances to the Canadian Tundra are certainly impressive birds, these relatively sedentary introduced birds, which must be out-competing other waterfowl for food are generally less welcome.

Our genuinely wild and migratory **Brent Geese**, have been reasonably stable in numbers on the Exe for the last couple of decades, and even suggest a slight upturn in recent years. This compares with a slight

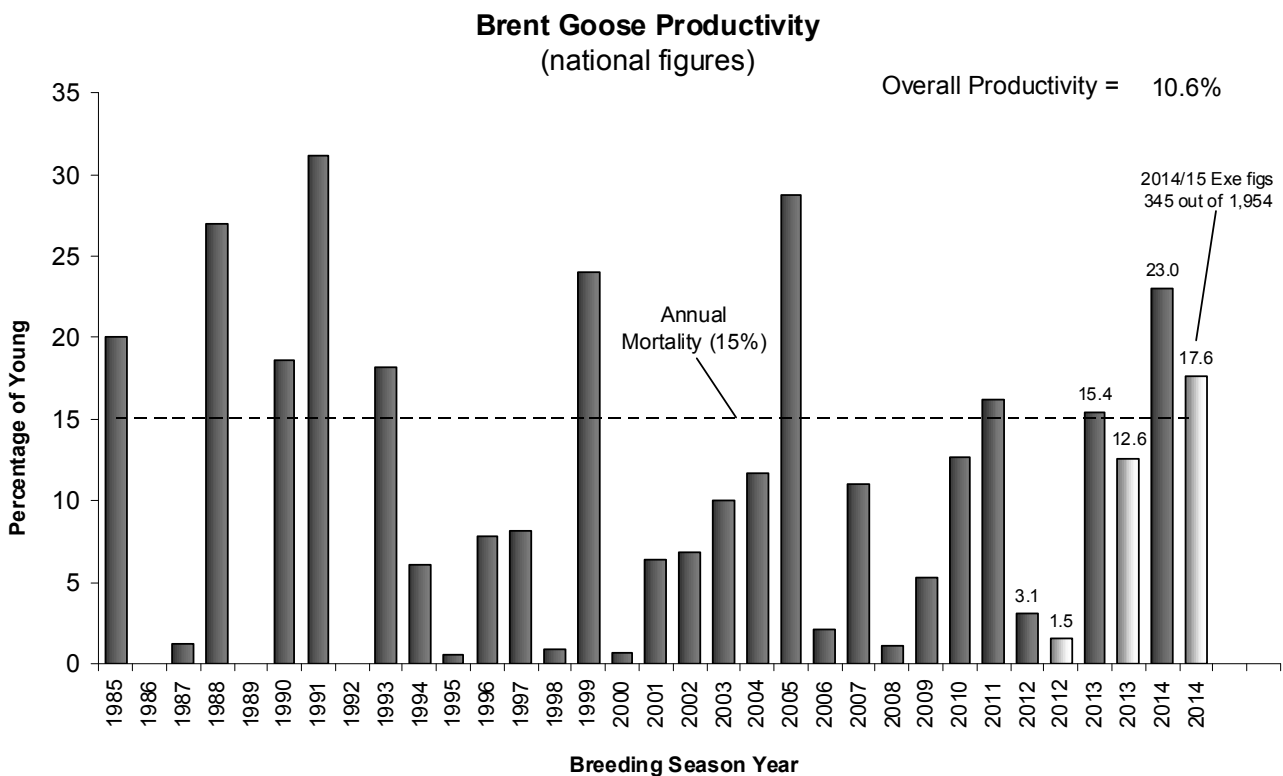
decrease nationally over the last decade. Whilst we may have been spared this decline, looking back at the 2012-13 WeBS report there is a suggestion that nationally more of our birds are now wintering in France. Apparently since 2005 almost half the wintering Dark-bellied Brent Geese in January are in France, perhaps due to better availability of food plants along the coastal areas - (See Fig 6)

Fig 6: General Distribution of Wintering Dark-bellied Brent Geese in January since 2005



The recent improvement in Exe numbers, may also be due to two good breeding seasons (in 2013 and 2014), with improved productivity redressing the run of poor years prior to this - (Fig 7). Note that for some reason our proportion of juvenile birds have been consistently lower than sites elsewhere in recent years, suggesting fewer pairs with young choose to winter here.

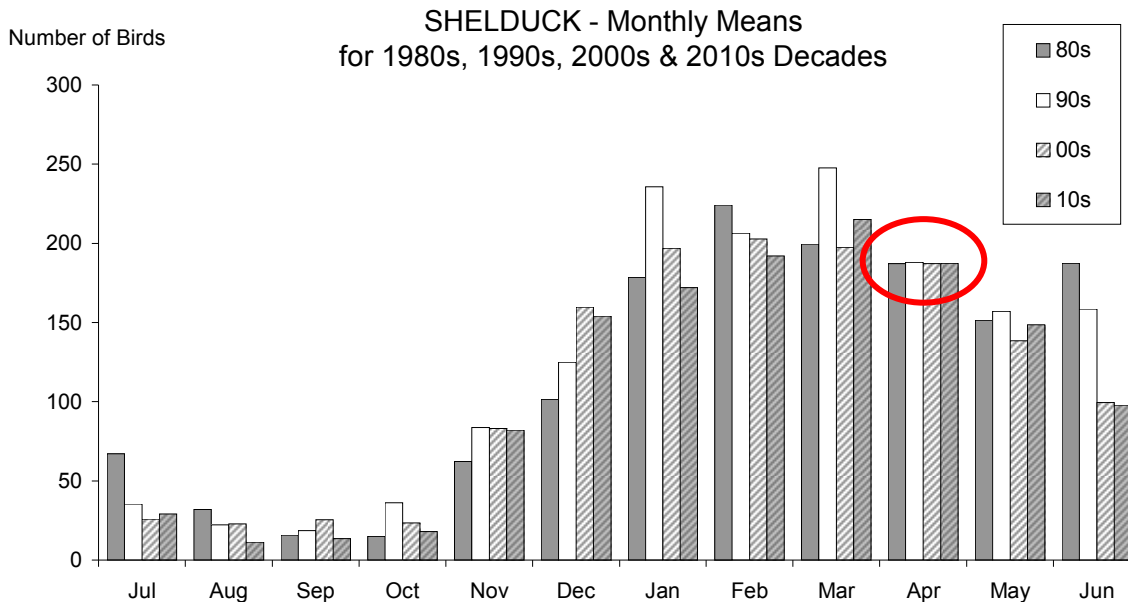
Fig 7: Dark-bellied Brent Goose productivity - with figures for the Exe shown for 2012-2014



PS: Since the meeting Penny has analysed this winter's percentage count of juveniles and 2015 must have been a very poor breeding season. Hardly any young were recorded on the Exe - just 8 out of 892 checked - amounting to less than 1%.

Despite some variability, **Shelduck** on the Exe have also maintained average numbers since the 1980s, against a general decline nationally - (I can find no explanation for this). Wintering numbers on the Exe are not particularly representative of population trends as, of course, most of the birds go elsewhere to moult and only gradually return to the estuary during the winter. Perhaps the most representative month on the Exe for population trends is April and (if you can cope with the rather complex detail in Fig 8) you can see that numbers (circled in red) have been remarkably consistent over all of the last four decades in this month.

Fig 8: Monthly Means by Decade for Shelduck: 1980s to 2010s (Note: only 6 years of data in the latter)



So what about the "true" ducks. Well most have undergone changes in numbers and distribution over the WeBS decades. These changes may or may not follow the national pattern, but it's important to bear in mind that over this period the Exe marsh areas, which are extensively used by most ducks, have improved considerably in their attractiveness to wildfowl with the creation of more wetland at Bowling Green and Powderham Marshes, and the increased extent of open water on Exminster Marshes during the winters now. Increases in numbers for some species may be solely attributable to this.

**Wigeon** on the Exe have increased steadily over the last three decades, and last autumn reached a peak of almost 6,000 in October that hasn't been matched since the 1970s - See Fig 9. At this time nearly all the birds are on the lower estuary feeding on the zostera, particularly off Mud Bank Lane, Exmouth. Here they typically occur in mixed flocks with Pintail, Mallard, and Brent Geese making counting something of a challenge. Later in the winter they move to the marshes tending to feed more in single species flocks.



Mixed flock of water fowl at Mud Bank

Nationally, as on the Exe, there has been an increase in Wigeon, though with a bit of a dip in the last three seasons which has not been seen on the Exe - See Fig 10

Fig 9: Wigeon annual trend on the Exe - 1970 - 2015

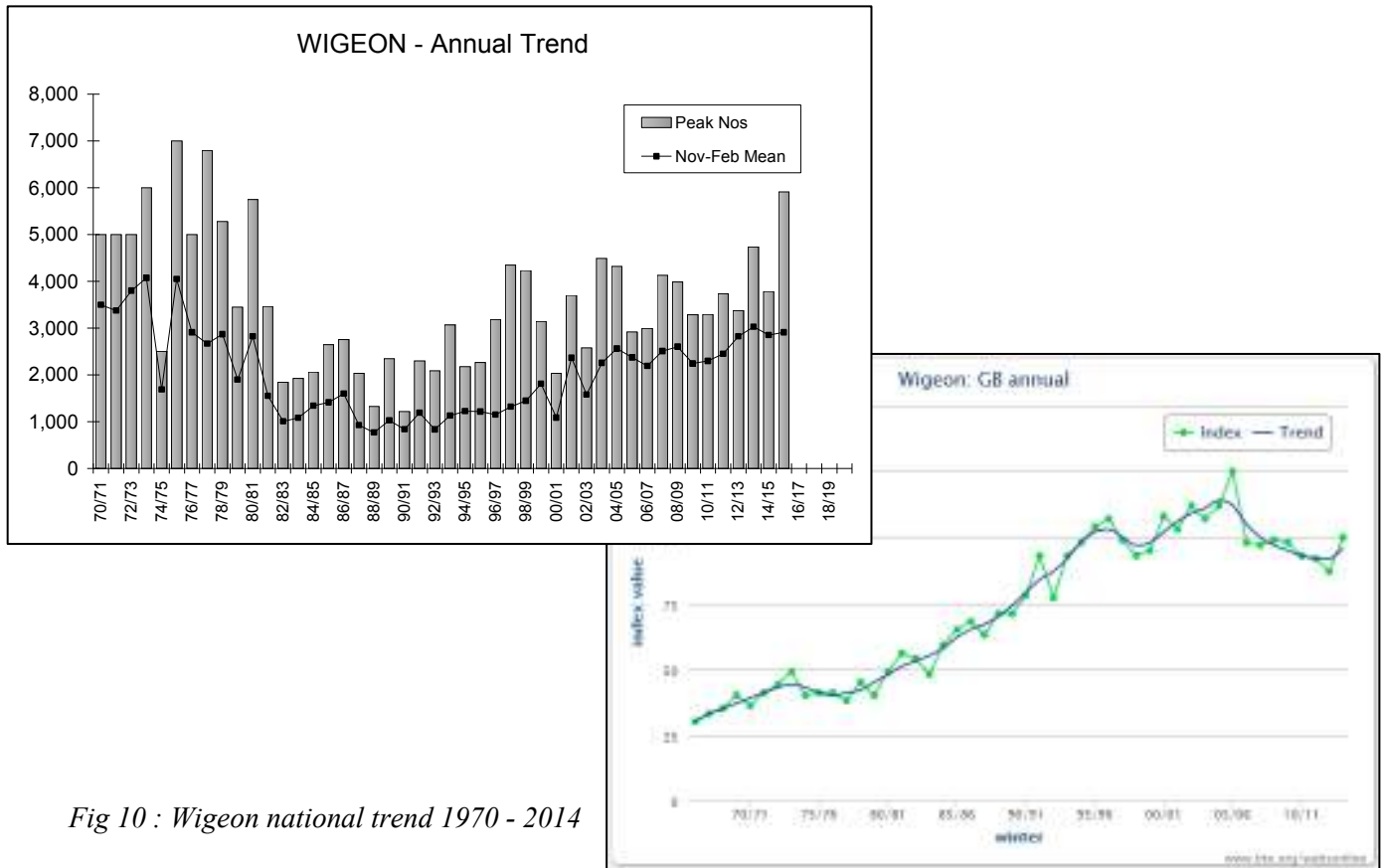
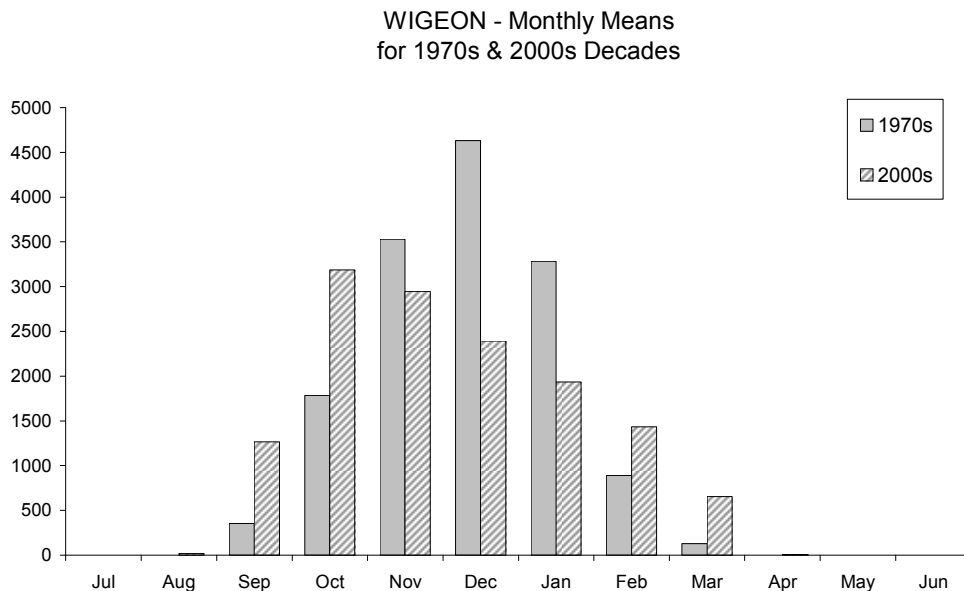


Fig 10 : Wigeon national trend 1970 - 2014

In recent winters October has in fact become the peak month, with birds then declining through the following months - a different pattern from the 1970s when the species was essentially a wintering bird. : (See Fig 11):

Fig 11: Comparison of monthly Wigeon occurrence on the Exe in the 1970 and 2000 decades



**Gadwall** are not at all common on the Exe, generally preferring large expanses of freshwater. There were over 100 on Slapton Ley last winter, and compared with this (and counts up to 2,000 on Rutland Water) the Exe peaks of just over 20 in recent winters are pretty tame. However, despite the small numbers there have been more birds recently during the winters since the significant peak of 96 when the freezing cold winter of 2010/11 brought them in. I just wonder if a few of the birds that were forced to come here then remembered what a nice place the Exe was and have decided to comeback in subsequent years!

**Teal** like Wigeon have shown a steady increase on the Exe. There is a strong possibility that much of this may be due to the improved habitat now available on the marshes, with more fresh water, and plenty of wet ditches. However, the national population trend is generally upwards and this may well have helped as well, though I could find no explanation as to the reasons for this improvement in the fortunes of the species. (See Figs 12 & 13)



Fig 12: Trend for Teal numbers on the Exe: 1970 - 2015

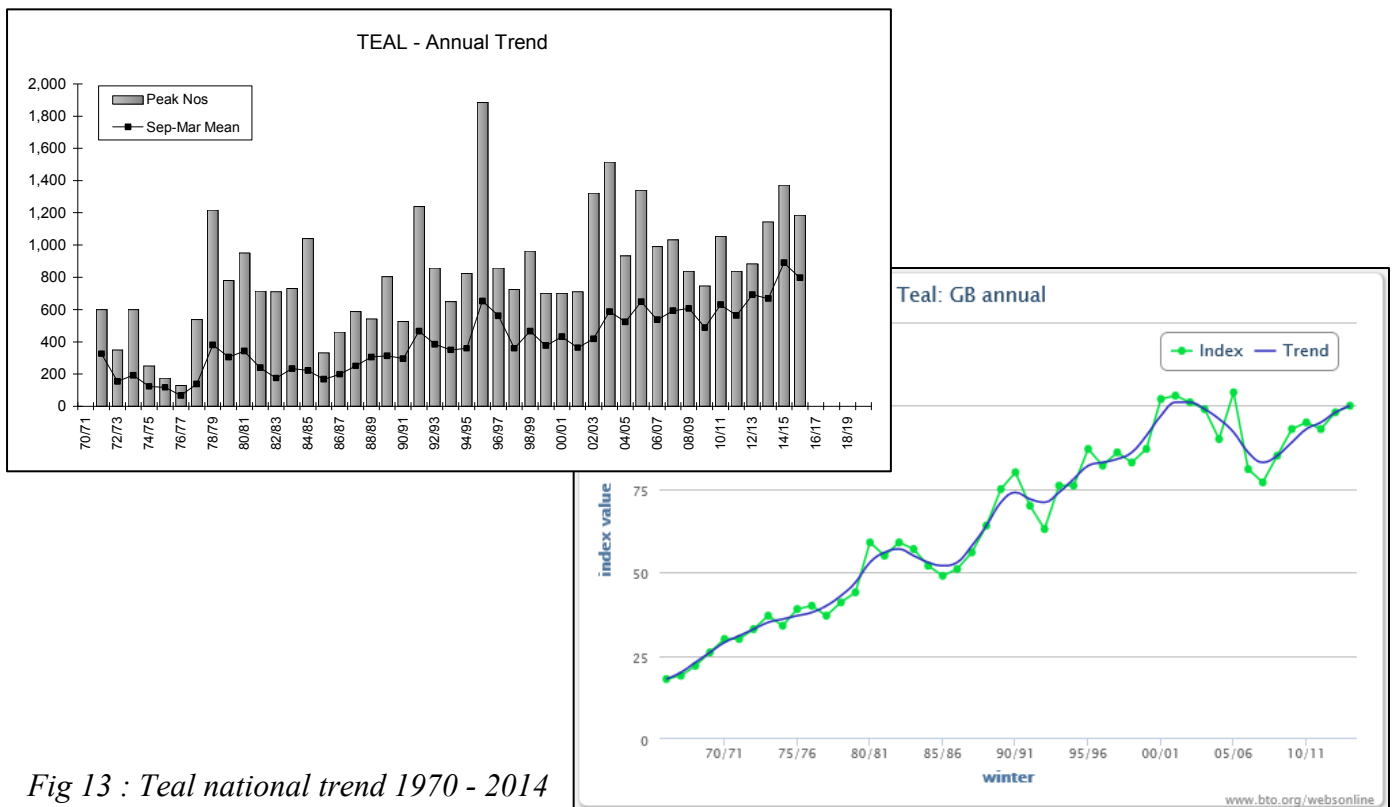
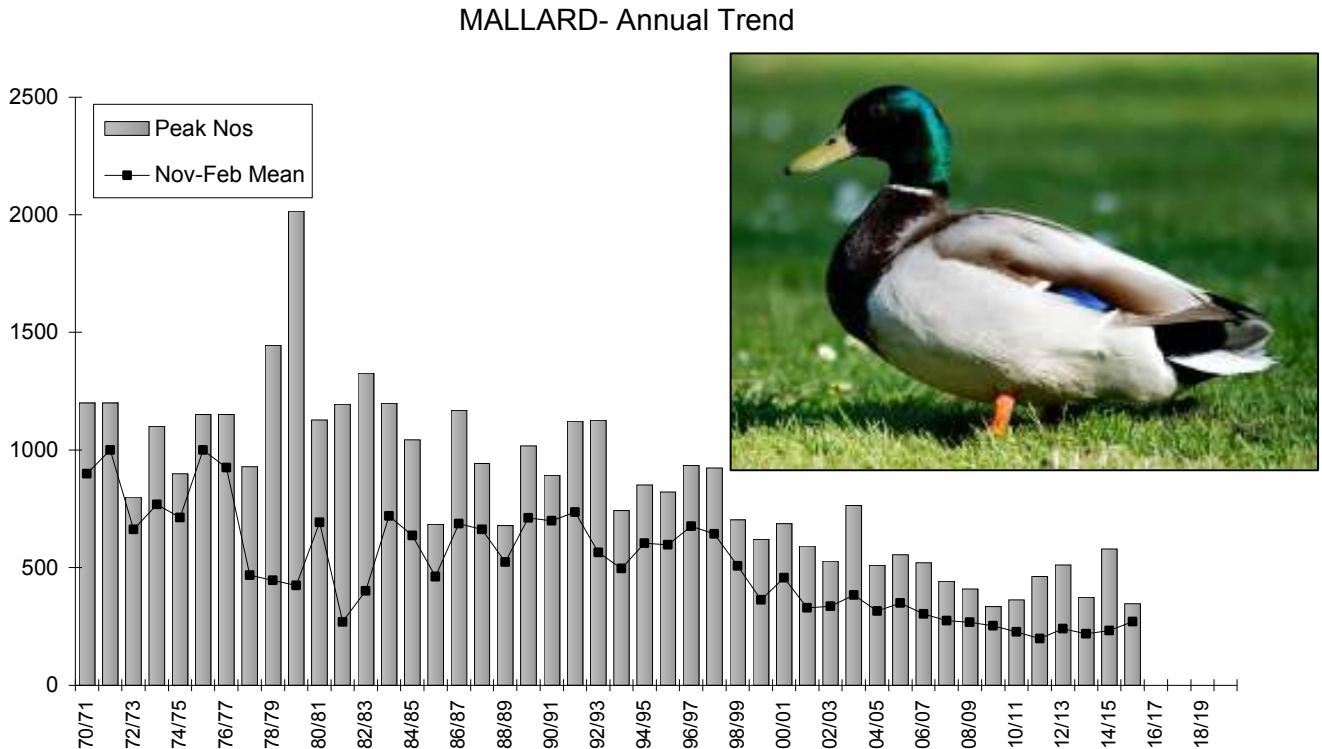


Fig 13 : Teal national trend 1970 - 2014



Mallard may not generally be given a second look by most birders, but despite being perceived as pretty ordinary their changing fortunes are quite interesting. Each year on previous reviews I've reported the most recent figures as the being "the lowest ever on the Exe". However over the past couple of seasons there has been the slightest hint of an upturn - (exciting or what!) See Fig 14.

Fig 14: Trend for Mallard numbers on the Exe: 1970 - 2015



Looking at the national picture there has also been a steady decline since the mid 1980s, and in an effort to find reasons for this I delved into recent WeBS Annual Reports. In the 2012-13 report I found the situation reported as

*" . . . a continuation of the long-term decline of Mallard saw the species reach its lowest ever level"*

and in 2013-14 it stated

*"The WeBS trend for Mallard reveals a consistent decline in the UK since the mid 1980s, although this contrasts with an increase in the breeding population as shown by the Breeding Bird Survey"*.

Searching further on in the article for some explanation I thought I was on to something when I found a sentence which started:

*"Understanding these differences and other aspects of Mallard population dynamics . . ."*

but it then went on to say:

*" . . . represent important opportunities for future research" !!*                      *ie nobody really knows!!*

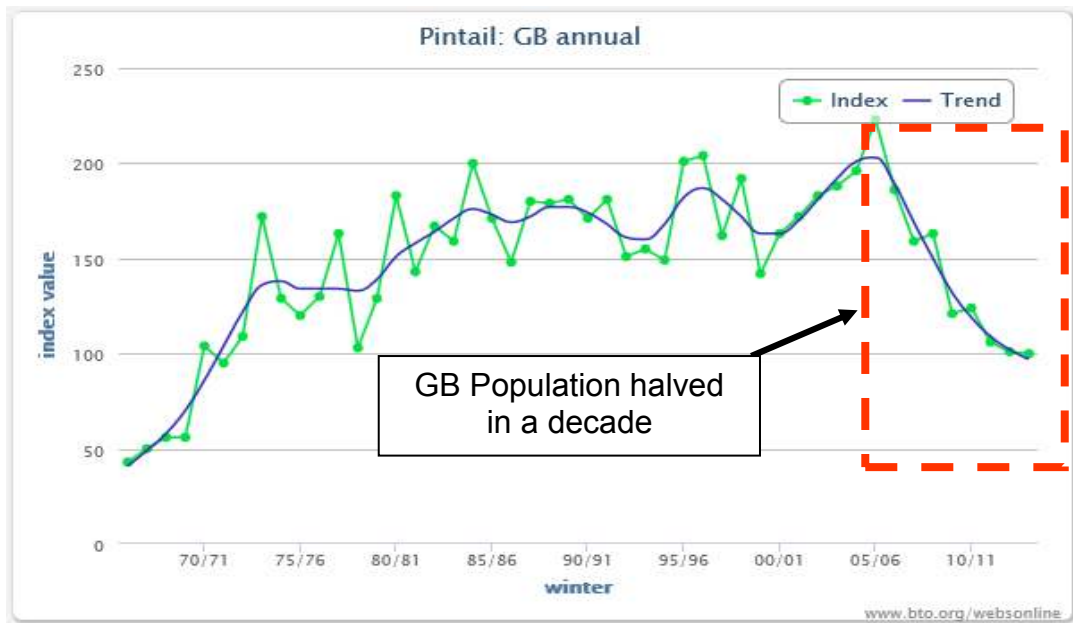
At the meeting there was a more detailed presentation of the status of the species in Devon generally which showed a fairly stable trend over the past couple of decades. Contrary to downward trends on most large Devon estuaries there appeared to have been a compensating increase in numbers on many of the freshwater inland lakes and pools - perhaps to some extent as a result of release of birds for shooting.

[This was followed by a somewhat "off the wall" suggestion that the Mallard was also interesting in being the only duck to be named after a steam train - and in particular the LNER steam engine that holds the world's speed record!! . . . which was further compounded by a digression into life-time ticks and train spotting whilst carrying out WeBS counts!

. . . . .I'm afraid you had to have been at the meeting to have any idea what all this nonsense was about.]

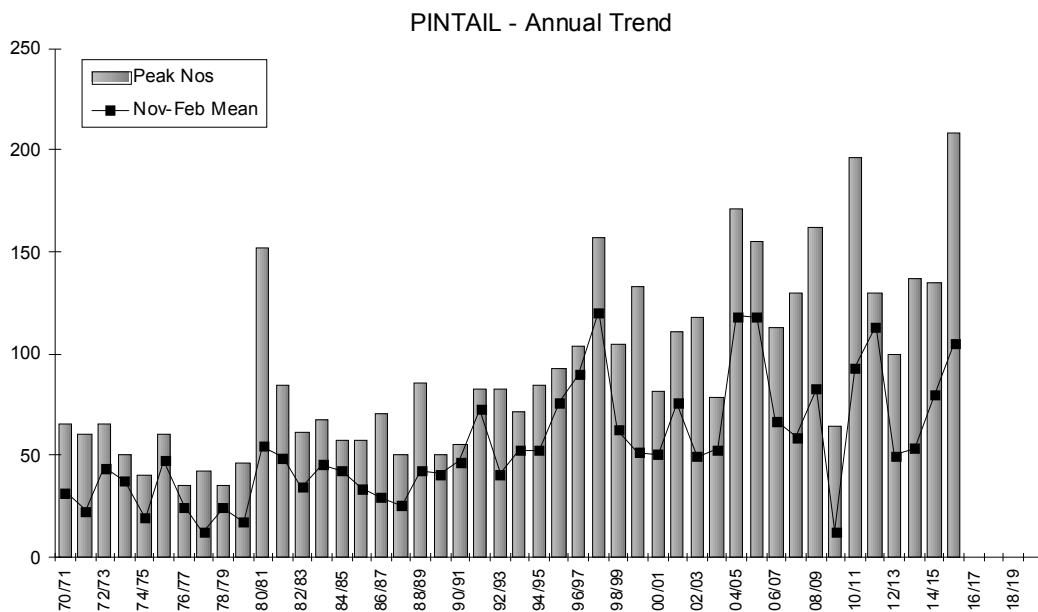
A more serious appraisal of Pintail trends and patterns of distribution demonstrated some interesting features. Looking first at the national trend, a notable aspect shown in Fig 15 was that there had been a marked decline over the last decade during which wintering numbers in Great Britain have halved.

Fig 15: National trend for Pintail: 1970 - 2014



This is in complete contrast to the Exe, which has shown a steady increase (Fig 16), and actually reached an all time peak of 208 in November 2015. Further to this, though most UK sites have declined, the small population in Northern Ireland has been stable and, as on the Exe, some sites there actually showed increases:

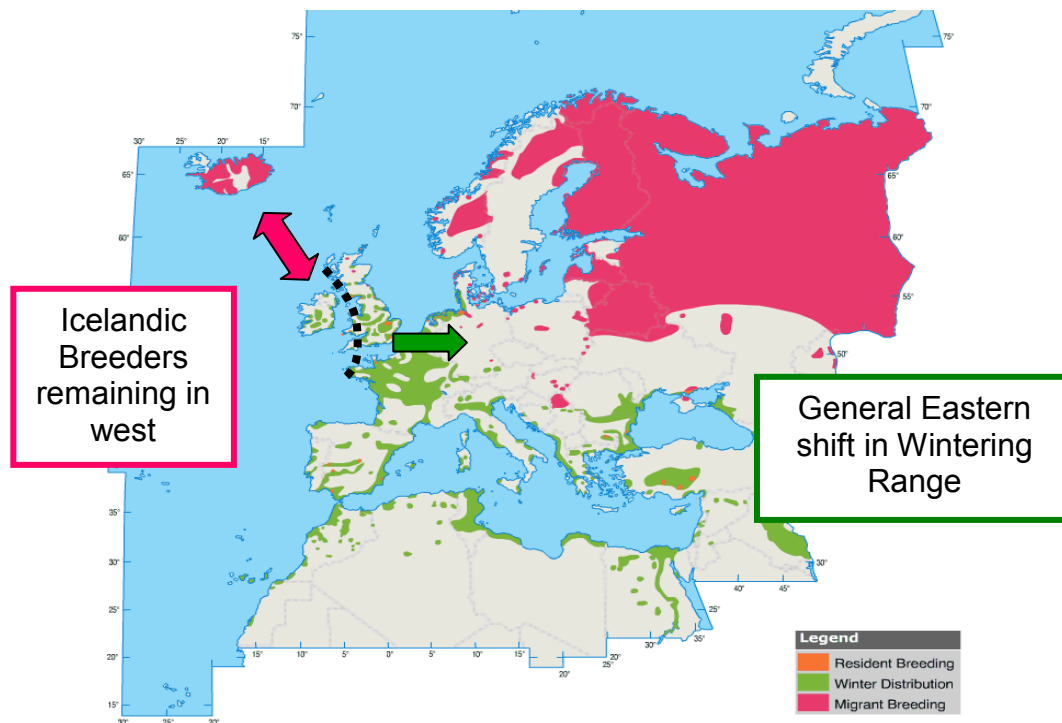
Fig 16: Trend for Pintail on the Exe: 1970 - 2015



What might the reason for this spatial difference in trends? Well, an article "What is happening to the UK's Pintail" in the WeBS annual report for 2012-13 provides some insight into this situation. Pintail are a rather mobile species, reacting to weather conditions and food supply, and over the last decade with milder winters there has apparently been a general move of the wintering population eastwards out of the UK to the Low Countries, presumably to be closer to their breeding areas.

So why have western areas not been similarly affected? The suggestion is that many of the birds wintering in the west are of Icelandic origin and are therefore preferring to remain at these sites to be close to their breeding areas to the north west. (See Fig 17)

Fig 17: Pintail breeding and wintering distribution



Nationally **Shoveler** have increased steadily throughout the period of WeBS records. The situation on the Exe has been similar, though numbers did not start to take off until the 90s, probably stimulated by improvements in wetland areas on the marshes. In the last two seasons we have had peak numbers - 182 last winter (Jan15) and 161 this winter (Dec15). In both these peak months birds were only recorded from Exminster, Powderham and Bowling Green Marshes emphasising their preferences for freshwater habitat.

In contrast **Pochard** on the Exe have never been numerous, and though the numbers are very small, the counts from the Exe have followed the national trend downwards in recent years. Nationally there has been a 40% decline in the last 20 years, and on the Exe we had only single figure counts in the previous two winters, and so far this winter have had none at all. **Tufted Duck** are similarly poorly represented on The Exe, and though nationally there has been a general increase this has not been apparent on the Exe. (I have, however, noticed a significant increase on my WeBS counts at Hennock Reservoirs for this species, which reached the heady heights of over 40 birds this winter, from just ones and twos in the early 1990s)

There were only sparse records of more unusual ducks, in the form of the occasional **Long-tailed Duck** in 2014-15 winter, and just one or two records of **Goldeneye**.

Red-Breasted Mergansers are quite a difficult to record within WeBS on the Exe. Sometimes they are not readily picked up from the shore way out in mid-stream and so may be under-recorded, but also they do drift around on the estuary during a typical hour's count and therefore on some occasions may be in danger of being double counted. However, despite this potential for variability, it is apparent that there are certainly fewer on the estuary than there used to be a decade ago (Fig 18).

This pattern is similar to the national picture (Fig 19) where a steady increase up to the mid-1990s, has been followed by an unremitting decline over the past two decades.

Fig 18: Red-breasted Merganser trends on the Exe: 1970-2015.

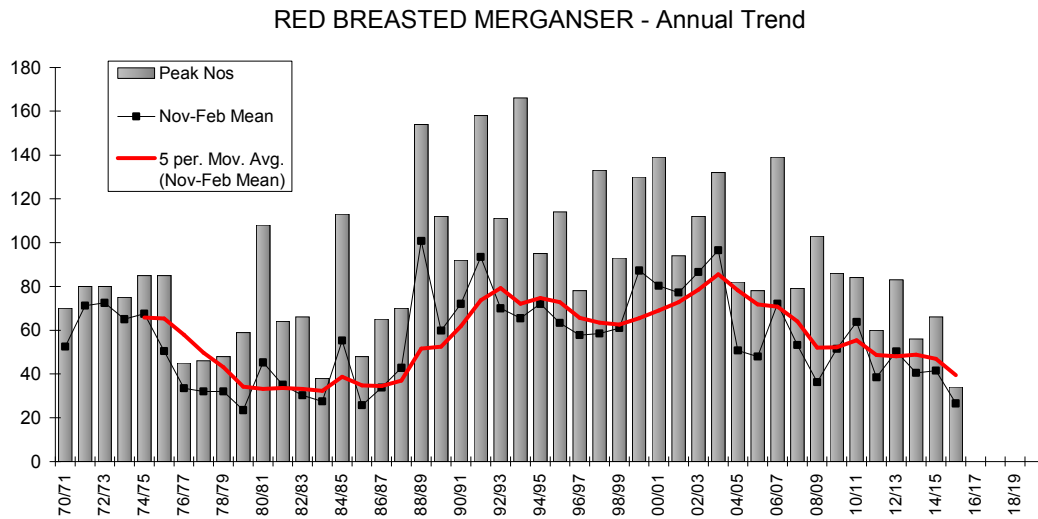
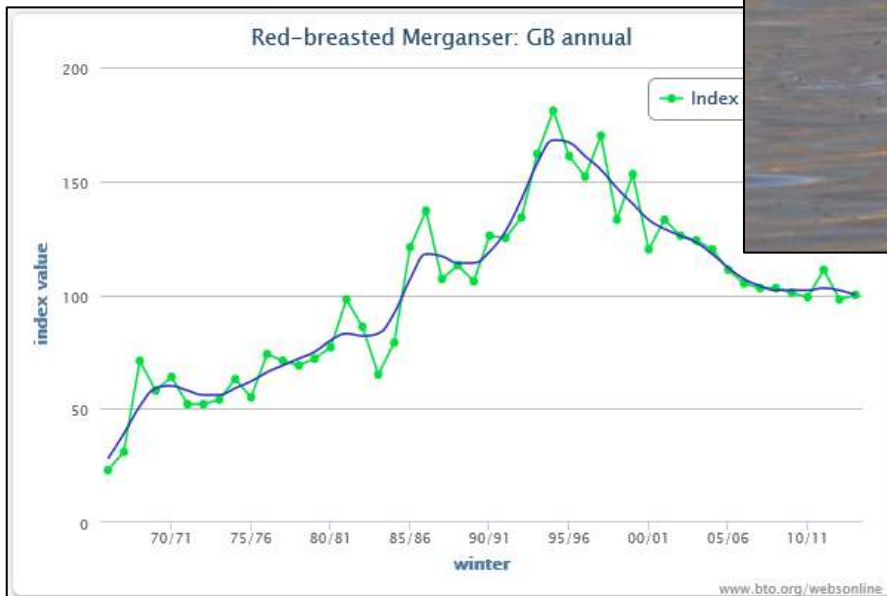
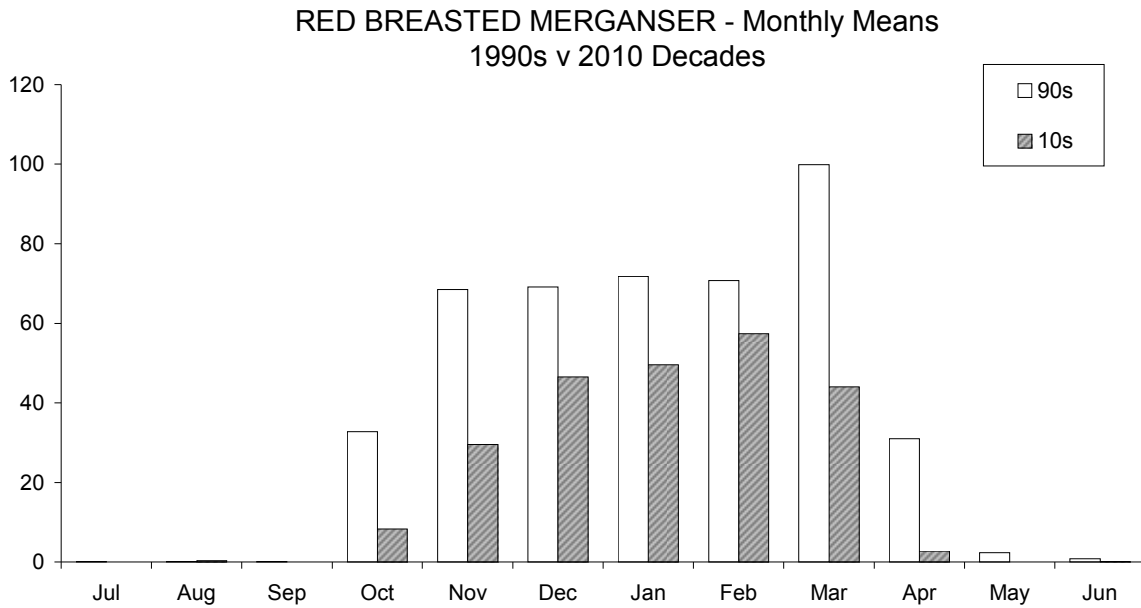


Fig 19: Red-breasted Merganser national trend: 1970-2014



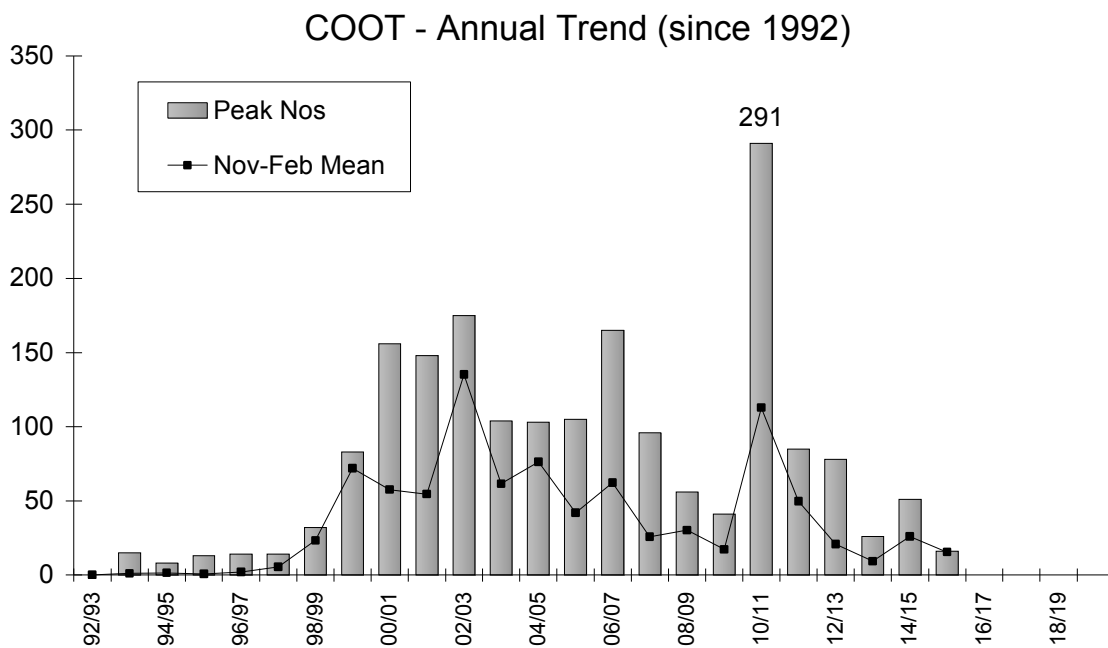
I've been unable to discover the reasons for this recent decline, but comparisons on the Exe between the 1990s and the current decade (Fig 20) illustrate well the disparity in numbers in all winter months between the two periods.

Fig 20: Comparison of monthly occurrence on the Exe 1990s v 2010s for Red-breasted Merganser



**Coot** have not been particularly numerous over the last two winters, hardly reaching double figures so far this winter. The trend since 1992 shows that they very much move to the Exe in cold weather as with the 291 recorded in the winter of 2010/11. (Fig 21). However, when compared to the counts at favoured sites elsewhere in the UK, like water parks or gravel pits, which have typical wintering numbers of over 1,000, the species' representation on the Exe is rather paltry.

Fig 21: Coot numbers on the Exe: 1992-2015



## OTHER TOPICS

We decided at this stage not to go through the waders as well (as not everyone was enthusiastic about going on until midnight!), but propose to look at these in more detail at the next meeting.

**WeBS On-line Data:** Much of the data relating to the national situation was derived from the WeBS web site for numbers and trends as part of the annual reports.

<http://www.bto.org/volunteer-surveys/webs/publications/webs-annual-report/numbers-trends>

Gavin was good enough to link up one of the RSPB computers and briefly demonstrate some of the information available, which includes overall trends as well as detailed counts for each site going back to the 1970s. Additionally the recent annual reports themselves are available on line, providing an overall summary of each season, along with various articles on some of the more interesting aspects of the counts. It's certainly worth browsing through all this as there is a wealth of information available.

**Low-tide Counts:** Alex Banks in his capacity as "the messenger" from the BTO (who we weren't allowed to shoot!) had a request regarding Low-tide Counts. As many of you will recall we carried out such counts in the mid 1990s and also in 2006-07. So it is coming up a decade since the last set of data, and the question is, - would we like to think about having another survey?

Rather than just covering the low-tide period our surveys covered the whole tide cycle as we've always felt that the "inter-tidal" ebb and flow periods can be as important as low tide for certain parts of the estuary, and our surveys have therefore covered all periods of the tide cycle

There was not perhaps overwhelming enthusiasm for this suggestion, as it does involve a fair bit of effort. If only the low tide period (ie 2 hours either side of low tide) were to be tackled it would obviously involve less time, but it does still need organising and more "volunteers" than just willing WeBS counters would probably be required. So I guess we took the request on board to think about.

Dave Smallshire, who regularly does commentaries on the Exe boat cruises, did come up with an alternative suggestion for obtaining some sort of survey across low-tide which would involve counting birds from the water. If it were possible to hire a boat for a cruise, put a load of surveyors on board and go up and down the estuary at low-tide, it might be feasible to get a reasonable count of what areas were being used by the different species, - if nothing else the boat would be nearer to many of the mid stream low tide feeding areas. Some funding for the boat would be needed, but there may be ways to accommodate this. Alex, Gavin and Dave agreed to think further about this possibility. (It might be that most Exe Observers would be up for this if free coffee and hot pasties were thrown in as part of the package!)

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The meeting was rounded off by thanks all round from Penny, in particular to all the observers, to the "catering department", and to Gavin and Kevin for facilitating usage of the RSPB offices.

I hope the above provides those that couldn't make it with some interesting feedback, and offers all of us some encouragement that the counting effort every month is very worthwhile in contributing to the overall data which effectively documents the fortunes of our waders and waterfowl throughout Britain. Let's hope for some favourable weather and some interesting records from the counts through the rest of 2016.

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