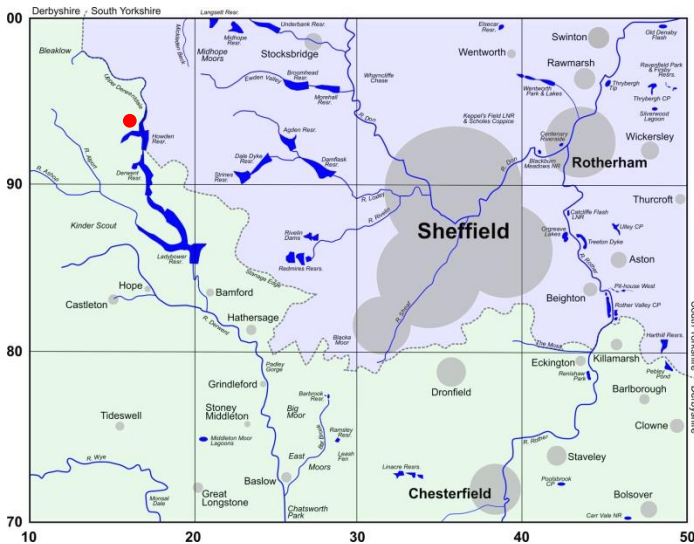
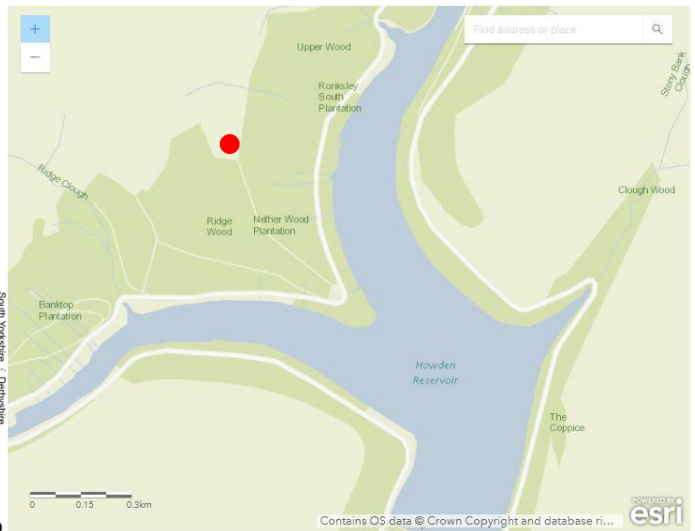


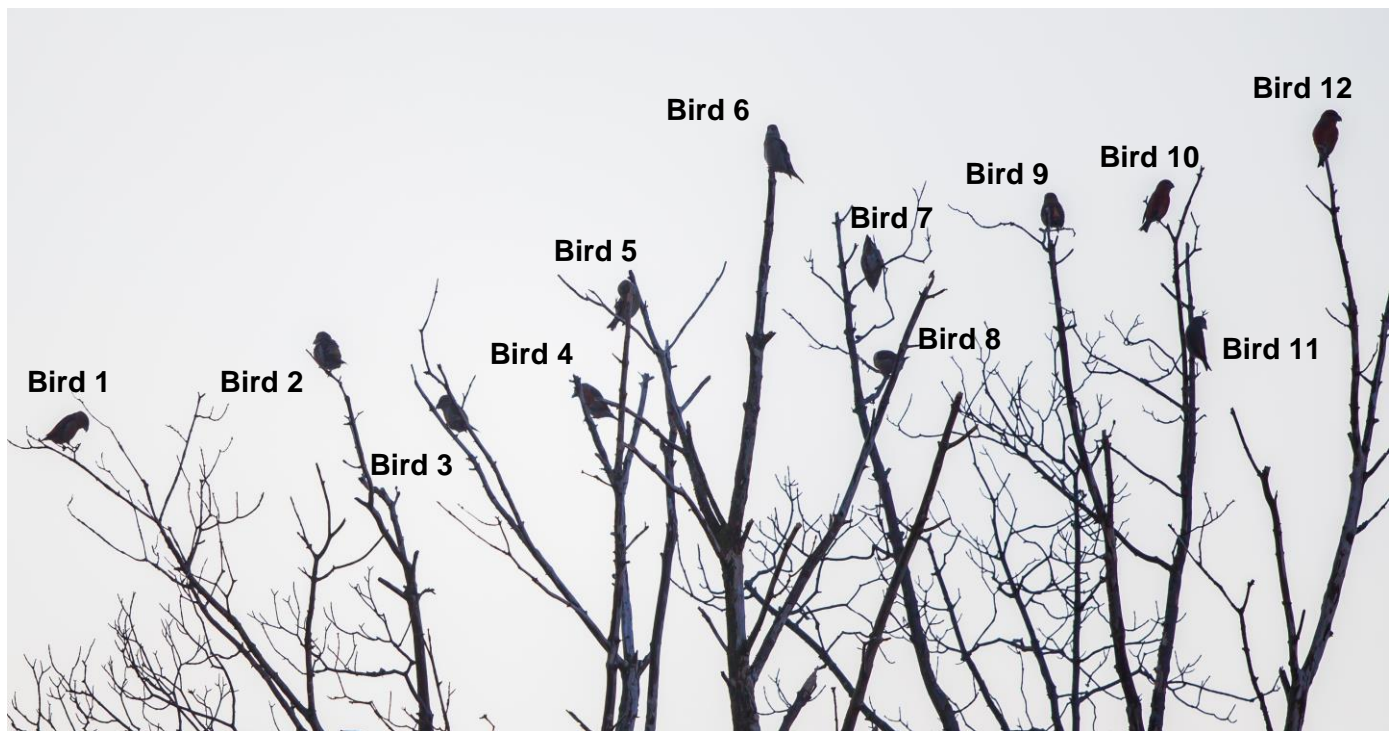
The Parrot Crossbills recorded at Howden Reservoir on 18-12-2017



Map 1 – SBSG recording area showing location



Map 2 – detailed location



Group images and subsequent cropping

The above image shows the complete flock of 12 likely Parrot Crossbills observed above Howden Reservoir on the morning of 18-12-2017 with each bird being individually numbered from left to right.

After studying a series of images it is possible to track some slight movement of individuals and pages 3 & 4 show larger crops of the 12 birds individually. The quality of the backlit images is to some extent compromised however it is possible to positively identify the majority of the birds with, in my view, only birds 4 & 7 which cannot be confirmed.

Bird 1 - Male Parrot	Bird 7 - Male Parrot (Probable)
Bird 2 - Female Parrot	Bird 8 - Female Parrot
Bird 3 - Female Parrot	Bird 9 - Immature Male Parrot
Bird 4 - Male Parrot (Probable)	Bird 10 - Male Parrot
Bird 5 - Female Parrot	Bird 11 - Female Parrot
Bird 6 - Female Parrot	Bird 12 - Male Parrot

Totals represent:

- 1 x immature male
- 5 x adult males
- 6 x females

Detailed images

I repositioned and obtained much better images of the flock with the results shown on page 5 onwards and summarised as follows:

- A single immature male identified in images 01 & 02, which corresponds with the group image.
- Image 03 confirms at least 3 adult male Parrot Crossbills were present.
- I obtained pictures of adult males in 11 different positions and primarily studied their face left / right head and bill profiles to identify unique individuals. Bill patterns were very different and strongly marked therefore it was relatively easy to observe the following:
 - Images 04, 09, 10, 11 & 14 are the same individual
 - Images 06 & 08 are the same individual (L to R cross over** also pictured as the bird on the extreme left of the group of three males – image 03)
 - Images 07 & 12 are probably the same individual
 - Images 13, 15 & 16 are the same individual
 - Image 05 is probably the same bird as 06 & 08 but I cannot be certain (L to R cross over**)
 - In summary 4 individual adult males, possibly 5 were pictured confirming a minimum of 4 were present. This corresponds with the group image proposal of 5 adult males
- I also obtained photographs of female birds and these are shown in images 17-22 in six different poses
 - Images 17, 19 & 20 are clearly 3 unique females which is easily distinguished through bill patterns and plumage
 - Image 21 female's bill does partially resemble image 18 female's bill but the plumage around its flanks is more yellow and the final differential is the absence of the pale patch which is present in the upper rear area of the left eye of the bird in image 18
 - Image 22 is distinguished from image 19 through bill markings and plumage differences
 - In summary all 6 females pictured are unique, which again supports the 12 bird theory and the total number of females in the group

In conclusion

- The images taken indicate that at least 11 and probably 12 birds in the flock are Parrot Crossbills
- One immature male is likely (100/0 left to right/right to left upper mandible cross over**)
- Confirmed that at least 4 and possibly 5 different adult males are present (20/80 L to R / R to L)
- Overall at least 5 and probably 6 males present (33/67 L to R / R to L)
- Six females are present (67/33 L to R / R to L)

****Cross over measured from relevant side of the bird's head, not as viewed from the front of the bird**

Bird 1 - Male Parrot Crossbill



Bird 2 - Female Parrot Crossbill



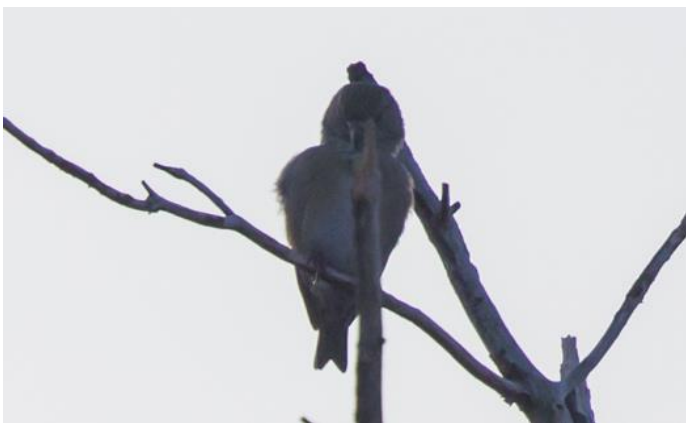
Bird 3 - Female Parrot Crossbill



Bird 4 - Male Parrot Crossbill (Probable)



Bird 5 - Female Parrot Crossbill



Bird 6 - Female Parrot Crossbill



Bird 7 - Male Parrot Crossbill (Probable)



Bird 8 - Female Parrot Crossbill



Bird 9 - Immature Male Parrot Crossbill



Bird 10 - Male Parrot Crossbill



Bird 11 - Female Parrot Crossbill



Bird 12 - Male Parrot Crossbill



Image 01 - Immature Male Parrot Crossbill -1



Image 02 – Immature Male Parrot Crossbill - 1



Image 03 - Three adult male Parrot Crossbills



Image 04 - Male position 1



Image 05 - Male Position 2



Image 06 - Male Position 3



Image 07 - Male Position 4

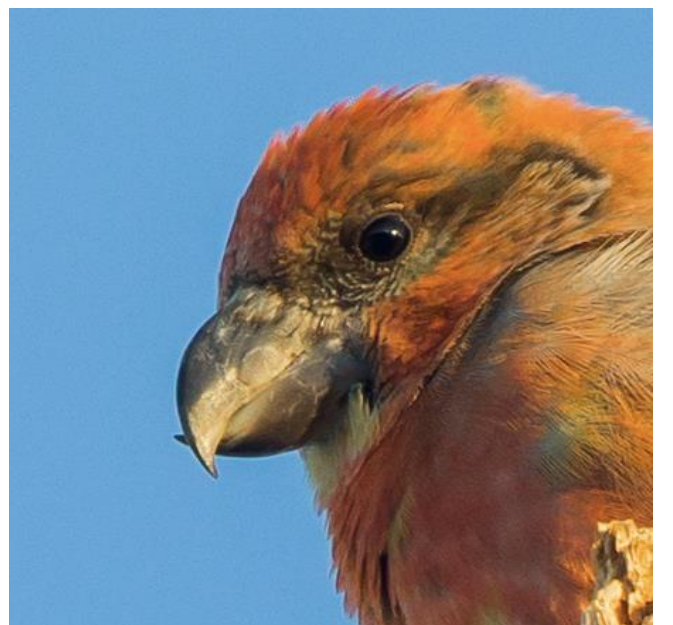


Image 08 - Male Position 5



Image 09 - Male Position 6



Image 10 - Male Position 6 (2)



Image 11 - Male Position 7

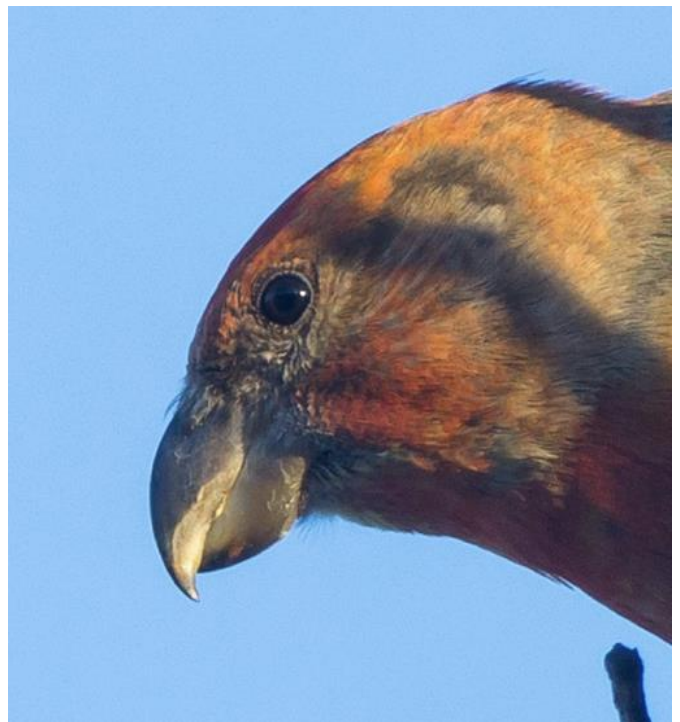


Image 12 - Male Position 8



Image 13 - Male Position 9



Image 14 - Male Position 10

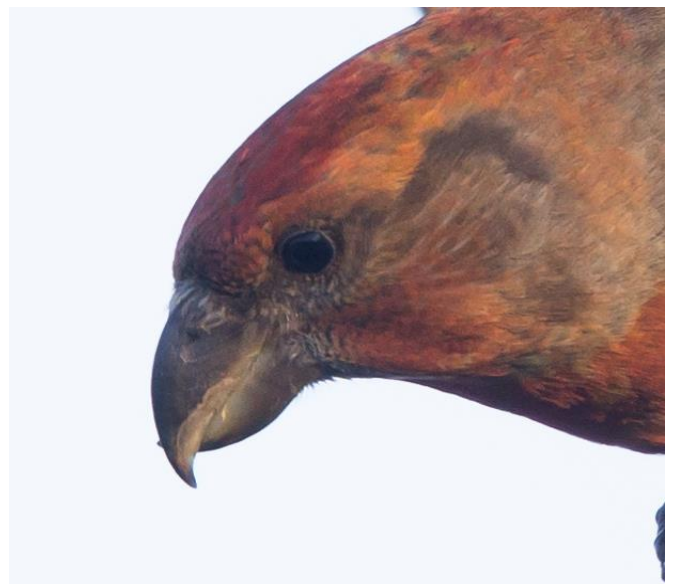


Image 15 - Male Position 11



Image 16 - Male Position 11 (2)



Image 17 – Female Position 1

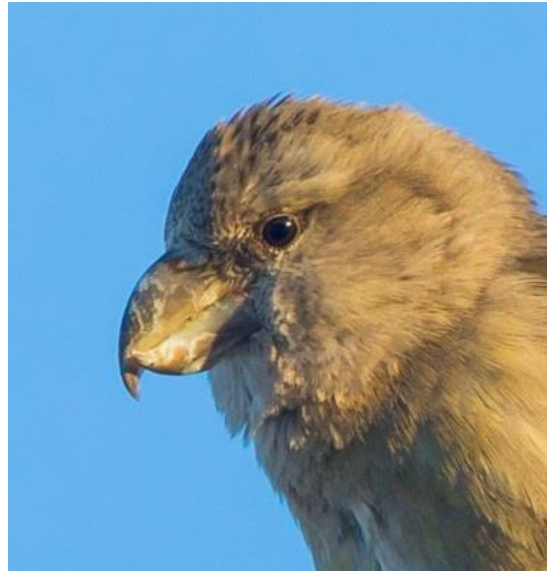


Image 18 – Female Position 2



Image 19 – Female Position 3



Image 20 – Female Position 4



Image 21 – Female Position 5

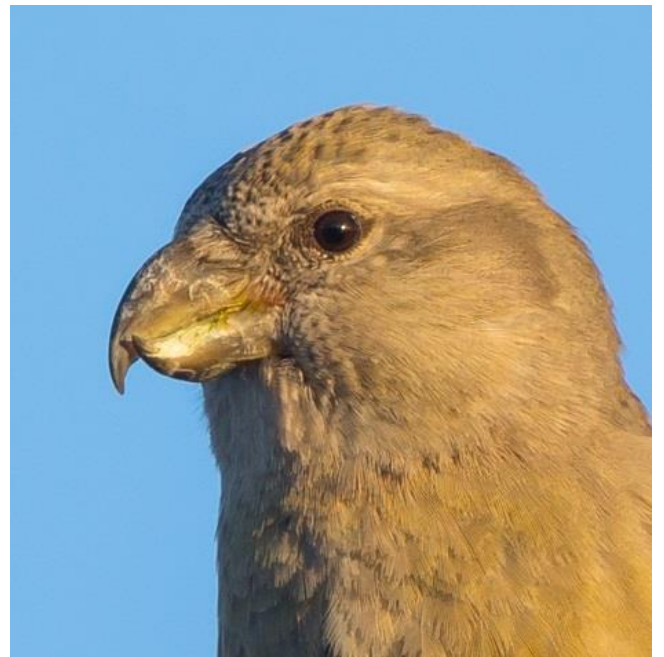


Image 22 – Female Position 6



Peter Garrity 04/01/2018

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