

Yaquina Bay Christmas Bird Count (CBC) Partial Results from 1973/1974 through 2015/2016

31 December 2016 by Range Bayer (Files: \Sandpipe\CBC\yaquina CBC results\yaquina-bay-cbc.docx & yaquina-bay-cbc-help.doc)

Summary. During 43 Yaquina Bay CBC's from 1973/1974 (Count 74) through 2015/2016 (Count 116), an average of 120 species/Count Day were found, and the average for the past 10 years was 136 species/Count Day. The first two CBC's were the only years with fewer than 100 species. The peak count was 152 species in 2014/2015. There were 120 or more species in 23 CBC's, 130 or more in 12 CBC's, and 140 or more in the CBC counts in three CBC's.

For the 43 CBC's, 221 species were recorded on Count Day, and an additional eight species were tallied only during Count Week.

Graphs of relative abundance for 20 species from 1973/1974 (Count 74) through 2014/2015 (Count 115) indicate that numbers were variable but relatively stable for some, decreasing for others, and increasing for yet others. Graphs were not updated for 2015/2016 (Count 116).

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Brant, American Wigeon, Canvasback, Western Grebe, Horned Grebe, Brown Pelican, American Coot, Great Blue Heron, Great Egret, Bald Eagle & Peregrine Falcon, Black-bellied Plover, Eurasian Collared-Dove & Rock Pigeon, Anna's Hummingbird, Hermit Thrush, American Robin, Varied Thrush, Western Meadowlark, and Evening Grosbeak.

1. Results: Compilers and Number of Species, Participants, and Party Hours

The Yaquina Bay CBC is in Lincoln County, Oregon and is within a 15 mile diameter circle that extends from Yaquina Head southward to Seal Rocks and eastward to eastern Toledo. About half of the Count Circle is offshore. Former CBC Compiler Paul Reed indicates that local commercial fisherman Jeff Feldner took his boat out for at least one and maybe two CBC's, but otherwise all participants have been on land.

The first official CBC was in December 1973 (1974 American Birds 28:509-510) and was started by Wayne Hoffman (Table 1). It has been an official count every year since then. There have been just six compilers for the Yaquina Bay CBC through 2015/2016 (Table 1).

The National Audubon Society CBC web page (<http://netapp.audubon.org/cbcobservation/>) has information about the species recorded during CBC's. The process for accessing this for the Yaquina Bay CBC (Circle ID: ORYB) is to start on their web page and:

- * select the link to "Historical" at the top of their web page and in the drop-down menu click "Results by Count."
- * select the Count Years of interest in the drop-down box (Yaquina Bay started with Count 74 [1973/1974 winter]. For reference, Count Years: 75 (1974/1975), 80 (1979/1980), 90 (1989/1990), 100 (1999/2000), 110 (2009/2010).
- * type "ORYB" in the "Count Code" box [to select a different Oregon CBC if the Count Codes is not known, select Country, State, and choose one of the 44 CBCs listed; if interested in graphing species results for this CBC, record the Count Code because it is essential when select "Results by Species"]
- * wait until the Yaquina Bay CBC choice automatically appears in the Table below the "Count Code" box and click the radio button for the Yaquina Bay CBC
- * in the dialog box that appears, choose to "View" onscreen or to "Export" (download) data in Taxonomic, Common, or Scientific Name format and as an Excel, PDF, Word, or CSV file.

The online Audubon page does not include the number of species for the 1973/1974 through 1997/1998 nor the Compiler for the 1973/1974 through 2002/2003 and 2004/2005 counts. I compiled the data for those years from the print versions of the CBC results in American Birds and National Audubon Society Field Notes.

Overall, 221 species were recorded on Count Day, and an additional eight species were tallied only during Count Week (Table 5). Additionally, four hybrids and some subspecies or forms are tabulated (Table 5).

The maximum number of species on Count Day was 152 in 2014/2015; 142 were recorded in 2012/2013 and 2015/2016 (Table 2). There were 120 or more species in 23 of 43 CBC's, 130 or more in 12 CBC's, and 140 or more in three CBC's (Table 2). The first two counts were the only ones with less than 100 species on Count Day (Table 3). The average for the past 10 years was 136 species/Count Day (range 126-152 (Table 3 footnote), and the overall average was 120 species/Count Day for the 43 CBC's through 2014/2015 (Table 3 footnote).

Participation is up in recent years with 23-41 observers starting with the January 2002 CBC (Table 3). However, there is an inconsistent direct link between observation effort and the number of species. The 2014/2015 CBC had the most species (152), was tied with the second-most number of participants (35) and was tied with the 13th most party-hours (79). The 2007/2008 CBC was tied with the second-most participants (35) and had the most party hours (112.8), but only had the eighth-most species (132) (Table 3). The 1988/1989 and 1989/1990 CBC's had 18-19 participants and 41-45 party-hours and still found 130-131 species (Table 3). On the other hand, only one CBC with less than 10 people had 120 or more species (1997/1998 CBC with 9 participants and 123 species).

Only two Yaquina Bay CBC's were not during Dec. 29-January 5; the first two CBC's were on Dec. 20 and 21, respectively (Table 3). Almost all counts were on Saturday or Sunday; exceptionally, the first count was on a Thursday and the 1977/1978 count was on a Monday (Table 3).

2. Results: Maximum Number of Birds Recorded and Number of Years Recorded on Count Day

In December 2010, I downloaded the Yaquina Bay CBC online results from the National Audubon web site for the 1973/1974 (Count 74) through 2009/2010 (Count 110) CBC's and then used a spreadsheet program to analyze the results to create Table 4 with number of Counts and maximum number of individuals for each species. Starting with the 2010/2011 CBC (Count 111), I looked up the online results of a CBC and added them to those I had previously compiled in Table 4.

In the online and downloaded file formats, there are some issues:

- 1) Some species are may be listed under multiple names because of changes in names (e.g., Spotted Towhee data are listed under both Spotted Towhee and Rufous-sided Towhee). This complicated the analyses as there were many such species--see the footnotes at the end of the Table 4.
- 2) There could be errors in the online data. Perhaps in the process of inputting data from the paper copies, typos or other errors resulted. For example, National Audubon (<http://web4.audubon.org/bird/cbc/hr/index.html>) writes:

"Currently our CBC historical database is undergoing another round of proofing of the data. A large dataset such as this requires continual proofing, and we welcome any reports of apparent irregularities."

As reported in the November 2009 Sandpiper (the newsletter of Yaquina Birders and Naturalists), Janet Lamberson used the online database and asked me about the online record of 497 American Kestrels for the January 3, 1976 Yaquina Bay CBC. There were no flags on the data, yet a total of 497 kestrels for a Yaquina Bay CBC is unreasonably high because the few present in winter are usually hard to find. I looked at the paper copy of this CBC (1976 American Birds 30:578) and read that no kestrels were reported during that CBC and that there were 497 American Coots. But the online CBC version then indicated no coots were recorded during that CBC. So, the number of kestrels and coots appears to have been switched during inputting the data for that Yaquina Bay CBC. I reported that error to the CBC contact in an email, and it has been corrected.

In compiling the species information in Table 4, I found that in the 94th Count (1993/1994), there were 305 Dark-eyed (Gray-headed) Juncos and no Dark-eyed (Oregon) Juncos or other juncos reported. To my knowledge, no Gray-headed Juncos have been confirmed in Lincoln County, and they are not shown as occurring in Oregon on p. 502 of Sibley's Guide to Birds. Further, Oregon Juncos are usually numerous and present every year, so the chance that 305 Gray-headed and no Oregon Juncos were present is remote. I have not yet looked at my paper copy or at the paper copy at Guin Library at the Oregon State University Hatfield Marine Science Center to see if the print version has 305 Gray-headed Juncos; nor have I emailed the online CBC contact about this probable error.

The bottom line--the online CBC database is wonderful! But one needs to be cautious in interpreting the data, especially those that appear unusual by checking the paper copy of the CBC to see if there may have been an error in inputting data into the online database.

In compiling Table 4, I followed the format for historical records for each species given for the Corvallis CBC in the January 2008 Chat (newsletter of the Audubon Society of Corvallis). In their format, they gave columns for the "Historic High" and "#Counts seen." Starting with the 2010/2011 CBC (Count 111), if Count 111 had or was tied with the maximum number of individuals for a species, I added this; in November 2012, I added the other Count(s) with the maximum number for all Counts. Because of space limitations, it is not practical to give the year of the Count (e.g., 2009/2010) with a maximum because there were often 2-3 or more Counts that were tied for the maximum.

Table 5 is calculated from Table 4 and gives the total number of species recorded on Count Day (211) and during Count Week (7) for a total of 218 species recorded during Yaquina Bay CBC's and Count Weeks. Table 5 also includes the number of additional subspecies and forms (6) and hybrids (4).

3. Tables

TABLE 1. Compilers of the Yaquina Bay CBC in chronological order, with the number of years in parentheses. This is compiled from Table 3.

Wayne Hoffman	1973/1974-1974/1975 (2)	Darrel Faxon	1998/1999 (1)
Bob Olson	1975/1976-1976/1977 (2)	Rebecca Cheek	1999/2000-2009/2010 (11)
Paul Reed	1977/1978-1997/1998 (21)	Dawn Grafe/Harris	2010/2011-2015/2016 (6)

TABLE 2. Yaquina Bay Christmas Bird Count years (in parentheses, N=22 years) with 120 or more species during the 43 CBC's from 1973/1974 through 2015/2016. This is compiled from Table 3 that includes the Count numbers.

152 (2014/2015)	130 (1989/1990)
142 (2012/2013, 2015/2016)	129 (1986/1987)
137 (2010/2011)	128 (2002/2003, 2006/2007)
136 (2004/2005, 2008/2009)	127 (1983/1984)
135 (2013/2014)	126 (2000/2001, 2009/2010)
134 (2005/2006)	123 (1997/1998)
132 (2007/2008)	120 (1987/1988, 1990/1991, 2001/2002, 2003/2004)
131 (1988/1989, 2011/2012)	

TABLE 3. Count number, number of participants, party hours, and species on Count Day; and compiler for each Yaquina Bay CBC (Audubon Code: ORYB) since its founding in 1973. Data are from the National Audubon Society (<http://birds.audubon.org/christmas-bird-count>) and the journal American Birds.

Count	Count Date	No. of Parti- cipants	No. of Party Hours	Species Reported	Compiler
74	Thu, Dec 20, 1973	4	18.0	79	Wayne Hoffman
75	Sat, Dec 21, 1974	11	35.0	94	Wayne Hoffman
76	Sat, Jan 03, 1976	16	41.0	107	Bob Olson
77	Sun, Jan 02, 1977	25	56.0	118	Bob Olson
78	Mon, Jan 02, 1978	16	43.5	104	Paul Reed
79	Sun, Dec 31, 1978	9	28.5	101	Paul Reed
80	Sat, Dec 29, 1979	19	35.0	114	Paul Reed
81	Sun, Jan 04, 1981	20	42.5	110	Paul Reed
82	Sat, Jan 02, 1982	19	40.5	112	Paul Reed
83	Sun, Jan 02, 1983	23	44.0	109	Paul Reed
84	Sat, Dec 31, 1983	21	45.5	127	Paul Reed
85	Sat, Dec 29, 1984	17	39.5	106	Paul Reed
86	Sun, Jan 05, 1986	15	37.5	113	Paul Reed
87	Sat, Jan 03, 1987	20	41.0	129	Paul Reed
88	Sun, Jan 03, 1988	10	38.5	120	Paul Reed
89	Sat, Dec 31, 1988	18	44.5	131	Paul Reed
90	Sat, Dec 30, 1989	19	40.5	130	Paul Reed
91	Sun, Dec 30, 1990	12	39.5	120	Paul Reed
92	Sun, Dec 29, 1991	11	42.0	102	Paul Reed
93	Sun, Jan 03, 1993	19	41.0	111	Paul Reed
94	Sun, Jan 02, 1994	6	33.5	107	Paul Reed
95	Sat, Dec 31, 1994	12	49.0	117	Paul Reed
96	Sat, Dec 30, 1995	15	41.5	111	Paul Reed
97	Sat, Jan 04, 1997	12	31.5	109	Paul Reed
98	Sat, Jan 03, 1998	9	43.0	123	Paul Reed
99	Sat, Jan 02, 1999	16	72.0	114	Darrel Faxon
100	Sun, Jan 02, 2000	15	34.5	102	Rebecca Cheek
101	Sat, Dec 30, 2000	16	54.5	126	Rebecca Cheek
102	Sat, Jan 05, 2002	24	68.0	120	Rebecca Cheek
103	Sat, Jan 04, 2003	29	80.8	128	Rebecca Cheek

(continued on next page)

Count	Count Date	No. of Parti- cipants	No. of Party Hours	Species Reported	Compiler
104	Sat, Jan 03, 2004	26	53.3	120	Rebecca Cheek
105	Sun, Jan 02, 2005	28	62.0	136	Rebecca Cheek
106	Sat, Dec 31, 2005	31	59.3	134	Rebecca Cheek
107	Sat, Dec 30, 2006	24	55.8	128	Rebecca Cheek
108	Sat, Jan 05, 2008	35	112.8	132	Rebecca Cheek
109	Sat, Jan 03, 2009	23	51.3	136	Rebecca Cheek
110	Sat, Jan 02, 2010	26	62.5	126	Rebecca Cheek
111	Sun, Jan 02, 2011	34	58.5	137	Dawn Grafe
112	Sun, Jan 01, 2012	30	48.0	131	Dawn Grafe
113	Sat, Dec 29, 2012	41	79.0	142	Dawn Grafe
114	Sun. Jan. 5, 2014	35	72.5	135	Dawn Harris (Grafe)
115	Sat. Jan. 3, 2015	35	54.5	152	Dawn Harris
116	Sat. Jan. 2, 2016	28	67.0	142	Dawn Harris

All 43 CBC's (1973/74-2015/16): Average Species/Count Day=119.6, Range=79-152 Species/Count Day. [This average is calculated by adding the number of species/Count Day for the latest CBC to the average calculated for previous Counts by the following formula: [(number of previous CBC's) X (previous average)] + [number of species/Count Day in latest Count] and then dividing this total by the new total number of CBC's. Note that Audubon's "Num. Species Reported" is only for Count Day, and does not include Count Week or bird taxa not recorded to species (e.g., gull sp.).

For the past 10 CBC's: Average Species/Count Day=136.1, Range=126-152 Species/Count Day.

Table 4. Maximum number and number of Count Days that each species, subspecies, forms, and hybrids were recorded on Yaquina Bay Christmas Bird Counts during the 43 Count Days from 1973/1974 (Count 74) through and including 2015/2016 (Count 116). See Table 3 for dates and years of these Counts. Exceptionally, if a species was not recorded during any Count Day but was recorded during a Count Week, I also list the species with the notation that it was only recorded during Count Week. For taxa marked with an asterisk (*), see footnotes for more than one designation in the online data.

I do not include any taxa listed as "sp." because I did not think including these taxa would be useful.

Max. Birds/Count=maximum number of birds recorded during one Count Day. The number of the Count(s) with the maximum number is given in parentheses if there are 3 or fewer Counts; if there are 4 or more with the maximum number, then the number of Counts with the maximum number is given.

Count Days Found=number of Count Days in which the taxon was recorded; this does not include records of when a taxon was recorded during Count Week but not on Count Day.

sub.=subspecies.

Species	Max. Birds/ Count	Count Days Found	Species	Max. Birds/ Count	Count Days Found
Greater White-fronted Goose	27 (110)	34	Canvasback	1,523 (78)	43
Emperor Goose	1 (78, 93)	2	Redhead	42 (95)	26
Snow Goose	1 (114,116)	1	Ring-necked Duck	205 (110)	42
Ross's Goose	CW (1 Count [115]) only		Greater Scaup	690 (112)	41
Brant/Black Brant*	777 (91)	43	Lesser Scaup	2,187 (75)	39
Cackling Goose *	39 (115)	13	King Eider	1 (97, 114)	2
Canada Goose *	510 (115)	35	Harlequin Duck	31 (106)	43
Trumpeter Swan	8 (112)	2	Surf Scoter	2,695 (115)	43
Tundra Swan	29 (105)	9	White-winged Scoter	3,090 (107)	43
Wood Duck	66 (95)	11	Black Scoter	722 (99)	42
Mandarin Duck	1 (116)	1	Long-tailed Duck *	10 (111)	22
Gadwall	63 (108)	38	Bufflehead	1,556 (111)	43
Eurasian Wigeon	8 (106)	37	Common Goldeneye	201 (115)	43
American Wigeon	6,626 (86)	43	Barrow's Goldeneye	3 (115)	13
Mallard	1,250 (116)	43	Barrow's X Common Goldeneye	1 (110,116)	2
Blue-winged/Cinnamon Teal	1 (77)	1	Hooded Merganser	86 (103, 112)	42
Northern Shoveler	126 (109)	37	Common Merganser	31 (84)	37
Northern Pintail	1,161 (116)	43	Red-breasted Merganser	142 (91)	43
Green-winged Teal *	675 (113)	43	Ruddy Duck	779 (115)	43
Eurasian Green-winged Teal (sub.)	1 (85)	1	Wild Turkey	4 (107)	2

Species	Max. Birds/ Count	Count Days Found	Species	Max. Birds/ Count	Count Days Found
Mountain Quail	13 (88)	12	Surfbird	328 (92)	43
California Quail	12 (90)	5	Sanderling	1,661 (86)	43
Ruffed Grouse	5 (103)	19	Dunlin	1,151 (86)	38
Red-throated Loon	1,262 (111)	42	Rock Sandpiper	24 (76)	30
Pacific Loon	123 (112)	41	Least Sandpiper	450 (86)	40
Common Loon	146 (115)	43	Western Sandpiper	383 (91)	39
Pied-billed Grebe	22 (105,111,114)	42	Short-billed Dowitcher *	4 (79)	3
Horned Grebe	276 (115)	43	Long-billed Dowitcher *	355 (95)	15
Red-necked Grebe	111 (115)	43	Wilson's Snipe *	269 (77)	43
Eared Grebe *	22 (111)	35	Red-necked Phalarope *	8 (82)	2
Western Grebe *	615 (115)	43	Red Phalarope *	123 (106)	16
Clark's Grebe	6 (90)	10	Common Murre	15,066 (102)	39
Northern Fulmar	86 (101)	10	Thick-billed Murre	1 (115)	1
Buller's Shearwater	1 (90)	1	Pigeon Guillemot	9 (91)	20
Sooty Shearwater *	2 (87)	4	Marbled Murrelet	32 (109, 111)	018
Short-tailed Shearwater *	4 (101)	6	Ancient Murrelet	73 (115)	15
Sooty/Short-tailed Shearwater *	1 (100, 109)	2	Cassin's Auklet	4 (105, 114)	8
Fork-tailed Storm-Petrel	2 (86)	1	Rhinoceros Auklet	35 (112)	13
Brandt's Cormorant	1,327 (111)	43	Tufted Puffin	1 (84)	1
Double-crested Cormorant	255 (80)	43	Black-legged Kittiwake	165 (87)	26
Pelagic Cormorant	420 (114)	43	Bonaparte's Gull	7 (74, 98)	20
American White Pelican	1 (116)	1	Heermann's Gull	3 (110)	2
Brown Pelican	212 (116)	12	Mew Gull	1,425 (86)	43
American Bittern	1 (77, 85, 93)	3	Ring-billed Gull	206 (76)	32
Great Blue Heron	113 (103)	43	Western Gull	4,554 (83)	43
Great Egret	43 (79)	34	California Gull	4,698 (110)	39
Green Heron *	4 (77)	6	Herring Gull	218 (82)	41
Black-crowned Night-Heron	10 (77)	5	Thayer's Gull	215 (104)	42
Turkey Vulture	1 (99)	1	Glaucous-winged Gull	1,610 (84)	43
Osprey	1 (5 counts)	5	Glaucous-winged X Herring Gull	1 (91, 104)	2
White-tailed Kite	2 (102, 103, 106)	7	Glaucous-winged X Western Gull	1,082 (87)	33
Northern Harrier	13 (115)	35	Glaucous Gull	3 (84)	18
Sharp-shinned Hawk	5 (103)	32	Pomarine Jaeger	1 (87, 110)	2
Cooper's Hawk	6 (113)	24	Rock Pigeon *	432 (101)	42
Northern Goshawk	1 (106)	1	Band-tailed Pigeon	2 (95)	3
Bald Eagle	25 (114)	37	Eurasian Collared-Dove	143 (116)	7
Red-shouldered Hawk	8 (113)	11	White-winged Dove	1 (115)	1
Red-tailed Hawk	42 (103)	42	Mourning Dove	102 (113)	14
Rough-legged Hawk	2 (90)	3	Barn Owl	2 (109)	3
Virginia Rail	20 (114)	34	Western Screech-Owl	5 (90)	13
Sora	2 (99, 107)	9	Great Horned Owl	3 (91, 105)	22
American Coot	737 (114)	43	Snowy Owl	4 (4)	2
Black Oystercatcher	63 (87)	43	Northern Pygmy-Owl	8 (115)	8
Black-bellied Plover	101 (80)	22	Burrowing Owl	1 (4 counts)	4
Snowy Plover	11 (116)	5	Short-eared Owl	2 (98)	1
Semipalmated Plover	3 (88)	3	Barred Owl	1 (113, 115)	2
Killdeer	266 (79)	42	Northern Saw-whet Owl	2 (116)	10
Mountain Plover	1 (116)	1	Black-chinned Hummingbird	CW (1 Count [85]) only	
Spotted Sandpiper	15 (76)	41	Anna's Hummingbird	78 (116)	28
Wandering Tattler	1 (6 Counts)	6	Rufous Hummingbird	2 (116)	4
Greater Yellowlegs	44 (99)	35	Costa's Hummingbird	CW (1 Count [85]) only	
Willet	13 (77)	15	Belted Kingfisher	28 (115)	43
Lesser Yellowlegs	2 (79)	1	Yellow-bellied Sapsucker	4 (4)	4
Whimbrel	14 (80)	18	Red-breasted Sapsucker	11 (91)	23
Long-billed Curlew	2 (80)	1	Downy Woodpecker	11 (108)	39
Marbled Godwit	19 (79)	3	Hairy Woodpecker	15 (113)	37
Ruddy Turnstone	1 (75, 80)	2	Northern Flicker *	78 (103)	43
Black Turnstone	241 (76)	43	No. (Yellow-shaft.) Flicker*(sub.)	1 (5 Counts)	5
Red Knot	1 (80)	1	No. (Red. X Yellow.) Flicker*	2 (101)	2

Species	Max. Birds/ Count	Count Days Found	Species	Max. Birds/ Count	Count Days Found
Pileated Woodpecker	3 (101)	13	Cedar Waxwing	15 (102)	8
American Kestrel	8 (80)	38	Orange-crowned Warbler	2 (4 counts)	11
Merlin	4 (42)	21	Nashville Warbler	1 (113)	1
Gyr Falcon	1 (90, 96)	2	Palm Warbler	6 (96)	9
Peregrine Falcon	11 (115)	23	Yellow-rumped Warbler *	405 (77)	41
Black Phoebe	5 (116)	6	Yellow-r. (Audub.) Warbler *(sub.)	70 (92)	2
Ash-throated Flycatcher	CW (1 Count [75]) only		Yellow-r. (Myrtle) Warbler * (sub.)	66 (83)	5
Tropical Kingbird	1 (112)	1	Black-throated Gray Warbler	1 (77, 83)	2
Northern Shrike	2 (90)	5	Townsend's Warbler	58 (81)	37
Hutton's Vireo	6 (91)	28	Wilson's Warbler	CW (1 Count [76]) only	
Gray Jay	14 (115)	14	Western Tanager	CW (1 Count [103]) only	
Steller's Jay	252 (115)	42	Clay-colored Sparrow	1 (101, 106, 108)	3
Western Scrub-Jay *	2 (114, 116)	8	Vesper Sparrow	1 (82)	1
American Crow	1,478 (108)	43	Fox Sparrow *	355 (103)	43
Common Raven	65 (89)	39	Dark-eyed Junco (Oregon)*	796 (103)	43
Horned Lark	1 (96)	1	Dark-eyed (Gray-h.) Junco *(sub.)	305 (94)	1
Tree Swallow	3 (108)	2	Recorded (but probable error, see footnotes)		
Violet-green Swallow	1 (114)	1	Dark-eyed (Slate-c.) Junco *(sub.)	2 (109)	5
Barn Swallow	8 (102)	3	White-crowned Sparrow	233 (102)	43
Black-capped Chickadee	250 (107)	41	Golden-crowned Sparrow	176 (90)	43
Mountain Chickadee	2 (101)	2	White-throated Sparrow	4 (90, 109, 114)	22
Chestnut-backed Chickadee	435 (113)	43	Savannah Sparrow	8 (77)	24
Bushtit	60 (87)	26	Song Sparrow	369 (90)	43
Red-breasted Nuthatch	53 (105)	31	Lincoln's Sparrow	10 (113)	25
White-breasted Nuthatch	1 (83)	1	Swamp Sparrow	7 (94)	11
Brown Creeper	13 (105)	27	Spotted Towhee *	89 (108)	43
Rock Wren	CW (1 Count [101]) only		Lapland Longspur	13 (86)	2
Pacific Wren *	93 (114)	43	Snow Bunting	5 (83, 93)	7
Marsh Wren	35 (113)	40	Rose-breasted Grosbeak	1 (113)	1
Bewick's Wren	22 (90)	42	Red-winged Blackbird	281 (96)	39
American Dipper	3 (105, 114, 116)	10	Western Meadowlark	26 (87)	41
Golden-crowned Kinglet	1,057 (90)	42	Brewer's Blackbird	470 (88)	39
Ruby-crowned Kinglet	412 (90)	43	Brown-headed Cowbird	8 (75)	8
Wrentit	71 (89)	42	Bullock's Oriole	1 (106, 116)	2
Western Bluebird	17 (109)	8	House Finch	161 (101)	40
Townsend's Solitaire	1 (106)	1	Purple Finch	14 (74)	25
Hermit Thrush	94 (116)	42	Red Crossbill	606 (113)	23
American Robin	495 (103)	43	Pine Siskin	795 (113)	32
Varied Thrush	453 (115)	42	Lesser Goldfinch	5 (104, 110)	5
Northern Mockingbird	CW (1 Count [93]) only		American Goldfinch	112 (110)	25
European Starling	5,019 (109)	43	Evening Grosbeak	23 (91)	14
American Pipit *	14 (84)	5	House Sparrow	166 (104)	41

* Brant includes Brant, Brant (nigricans), and Black Brant.

Cackling Goose includes Cackling Goose and Canada Goose (small races).

Canada Goose includes Canada Goose and (large forms) Canada Goose.

Green-winged Teal includes Green-winged Teal and American Green-winged Teal.

Long-tailed Duck includes Oldsquaw and Long-tailed Duck.

Eared Grebe includes Eared Grebe and American Eared Grebe.

Western Grebe includes Western Grebe and Western (Western) Grebe; Western (Western) Grebe was at the end of the file.

Sooty/Short-tailed Shearwater was recorded in different years than Sooty or Short-tailed Shearwaters. Shearwater sp. and Procellariid sp. are not included.

Green Heron includes Green Heron and Green-backed Heron.

Short-billed and Long-billed Dowitchers does not include dowitcher sp. that were recorded in an additional 8 CBC's through the 2009/2010 CBC, most of which were probably Long-billed Dowitchers.

Wilson's Snipe includes Wilson's Snipe and Common Snipe.

Red-necked and Red Phalaropes does not include Red/Red-necked Phalarope or Phalarope sp., probably all of which were Red Phalaropes.

Western and Glaucous-winged Gulls do not include Western X Glaucous-winged Gulls.

Rock Pigeon includes Rock Dove and Rock Pigeon.

Northern Flicker includes Northern Flicker and Northern (Red-shafted) Flicker, and both of these designations were included in the 74th Count.

Western Scrub-Jay includes Western Scrub-Jay and scrub-jay sp.

Pacific Wren was formerly identified as Winter Wrens prior to the 2010/2011 Count.

American Pipit includes Water Pipit and American Pipit.

Yellow-rumped Warbler includes all those listed just as Yellow-rumped Warbler plus those listed in the 76th and 81st counts as Yellow-rumped (Myrtle) Warblers when there were none listed just as Yellow-rumped Warblers. In other years with Audubon's or Myrtles, there was also a record of just Yellow-rumped Warbler. Audubon's and Myrtles have lumped together or split, and that may happen again.

Spotted Towhee includes Spotted Towhee and Rufous-sided Towhee.

Fox Sparrow includes Fox Sparrow and (Sooty) Fox Sparrow.

Dark-eyed Junco includes records just for Dark-eyed Junco, Dark-eyed (Oregon) Junco, and for Dark-eyed (Gray-headed) Junco; the Gray-headed form was the only form recorded in the 94th count with 305 birds. The Gray-headed form has not been documented here, and it is extremely unlikely that it would be the only form and there would be 305 of them, so I believe this is an error. All years with Slate-colored records were also years with records of just Dark-eyed Juncos or Dark-eyed (Oregon) Juncos.

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Table 5. Number of species, subspecies, forms, and hybrids recorded during 1973/1974 (Count 74) through 2014/2015 (Count 115) Yaquina Bay Christmas Bird Counts. See Table 3 for dates and years of these Counts. These data are compiled from Table 4.

Total Species on Count Days: 221 (A)

Total Species during Count Week but Not on Count Day: 8 (A)

Grand Total of Species Recorded during Yaquina Bay CBC: 229

Additional Taxa in Table 4 Not Identified to Species: 2 (B)

Additional Subspecies or Forms: 6 (C)

Hybrids: 4 (D)

A. Does not include subspecies, forms, or hybrids.

B. There were many species not identified to species (e.g., gull sp.) that are not included in Table 4 because doing so did not seem meaningful. Exceptionally, two taxa were included in Table 4 because it seemed useful to do so: Blue-winged/Cinnamon Teal (neither species was recorded separately) and Sooty/Short-tailed Shearwater (both species were recorded separately but were recorded in different years than Sooty/Short-tailed Shearwater).

C. Eurasian Green-winged Teal, Northern Yellow-shafted Flicker, Yellow-rumped Audubon's Warbler, Yellow-rumped Myrtle Warbler, Dark-eyed Gray-headed Junco (probably erroneous), Dark-eyed Slate-colored Junco.

D. Barrow's X Common Goldeneye, Glaucous-winged X Herring Gull, Glaucous-winged X Western Gull, Northern Red-shafted X Yellow-shafted Flicker.

***4. Graphs of Party-hours versus Count Years to determine variation among abundance of 20 bird species from 1973/1974 (Count 74) through 2014/2015 (Count 115) and comments about apparent changes in status. This has not been updated with Count 116 results.**

Brant (decline then stable),
American Wigeon (variable),
Canvasback (decline),
Western Grebe (decline, last yr increase),
Horned Grebe (stable, last yr increase),
Brown Pelican (presence since Count 95 (1994/1995 winter); large increase last year),
American Coot (variable; decline; up),
Great Blue Heron (relatively stable with some decline),
Great Egret (one anomalously high winter),
Bald Eagle (start generally upward with Count 97 [1996/1997] & **Peregrine Falcon** (generally stable, increase last yr),
Black-bellied Plover (some variability, decline),
Eurasian Collared-Dove (first in Count 110 [2009/2010] and increasing) & **Rock Pigeon** (variable, decline with Count 106 [2005/2006] and increase with Count 113 [2013/2014]),
Anna's Hummingbird (upward trend starting with Count 102 [2001/2002]),
Hermit Thrush (variable, low years during Counts 92-103),
American Robin (variable),
Varied Thrush (variable, peaks in Counts 78, 91, 104, 115),
Western Meadowlark (variable, apparently downward trend since Count 107 [2006/2007]),
and **Evening Grosbeak** (very variable, decrease since Count 102 [2001/2002]).

See Table 3 for dates and years of these Counts. More birds can be expected to be seen with more observation effort; Birds per Party-Hour is a way of trying to standardize and make comparisons among counts more valid.

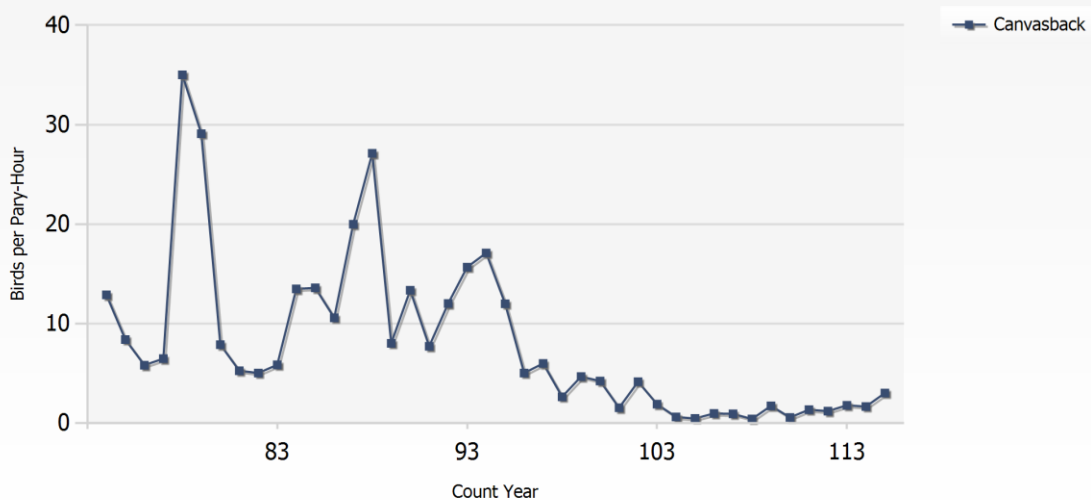
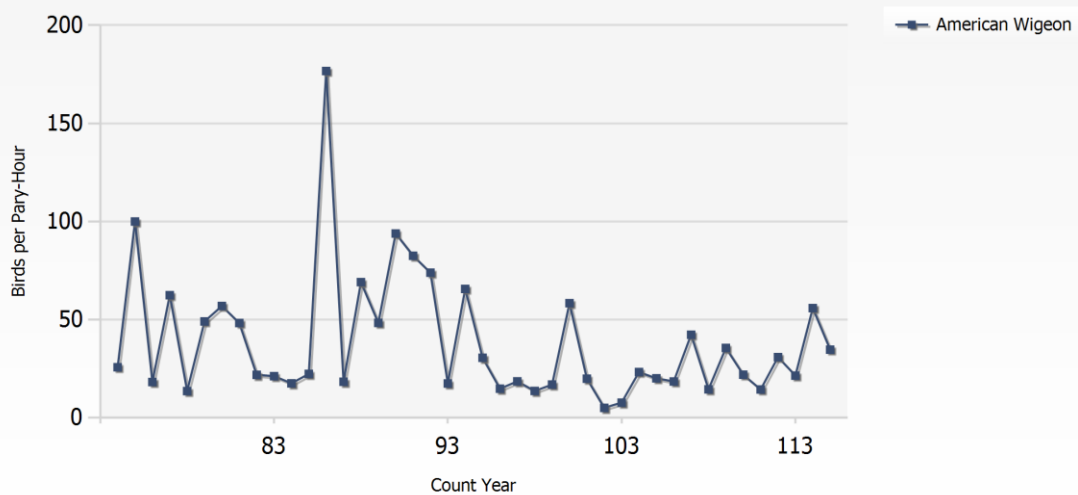
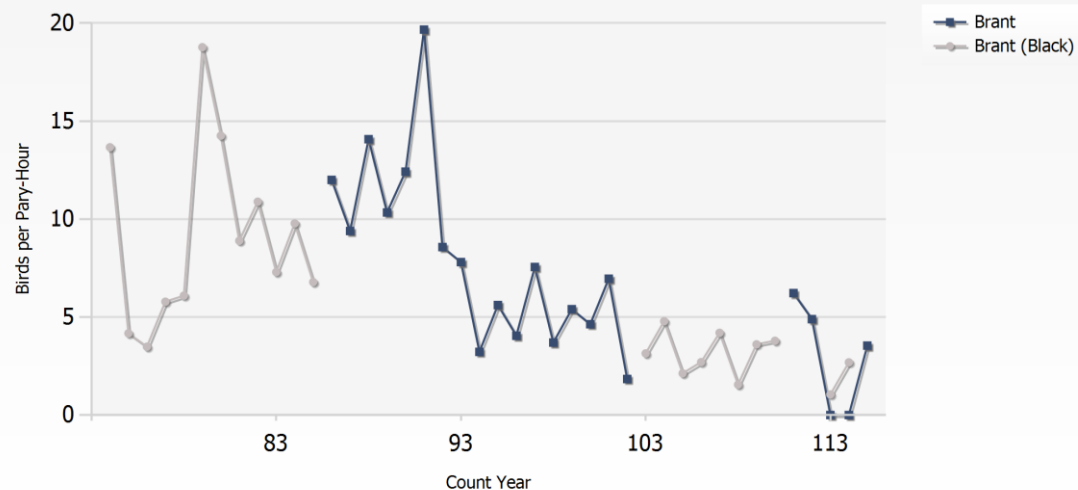
The National Audubon Society's CBC web page (<http://netapp.audubon.org/cbcobservation/>) has information about the species recorded during CBC's. The process for accessing this for the Yaquina Bay CBC (Circle ID: ORYB) is to start on their web page and:

- * consider the Help question-mark icon in the upper right of the box for assistance
- * select the link to "Historical" at the top of their web page and in the drop-down menu click "Results by Species."
- * for "1. Species" tab, type in 1 or more species names [if put in more than one species, they will all be on same graph, which can be confusing to tell them apart) and check the box for the species;
- * select "2. Year Range" tab and select the Count Years of interest in the drop-down box. For reference, Count Years: 75 (1974/1975), 80 (1979/1980), 90 (1989/1990), 100 (1999/2000), 110 (2009/2010).
- * select "3. Country/Region" and "ORYB" in the "Count Code" box which designates "Oregon: Yaquina Bay, " wait for the screen to change so the button for the Yaquina Bay CBC is selected (if wish a different CBC, must know 4-letter Count Code because entering Country and State here does not have choice of selecting one CBC Circle; to find Count Code, go through steps for "Results by Species" that gives all CBC's for a state),
- * select "4. View/Export" and choose "View" onscreen or "Export" (download) data in Taxonomic, Common, or Scientific Name format and as an Excel, PDF, Word, or CSV file.
- * To choose another species, select "1. Species" and then "4. View/Export" (no need to do "2" and "3" again).

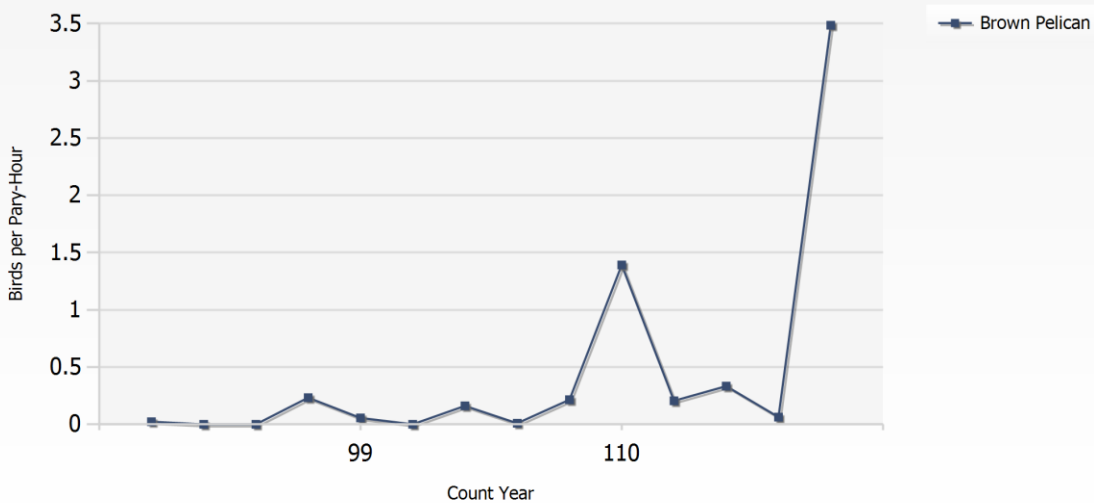
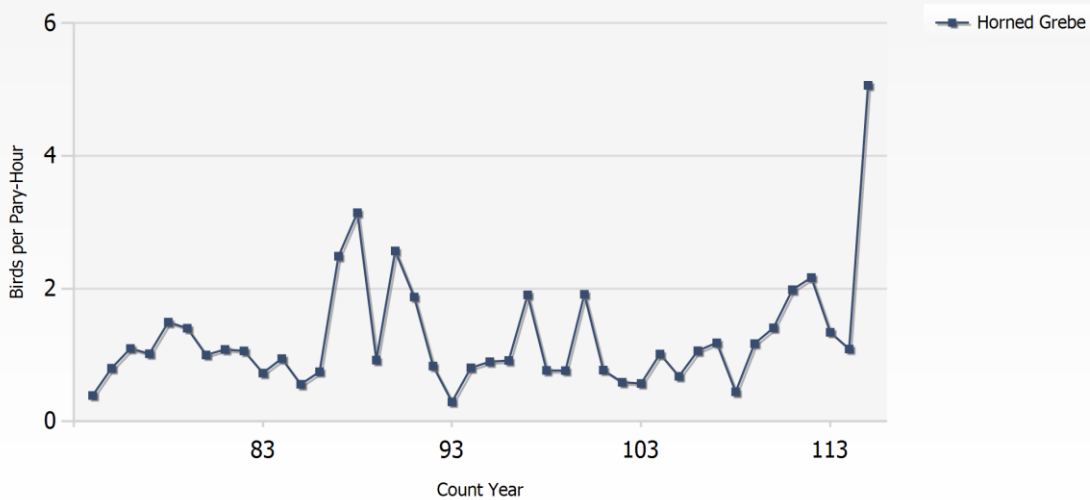
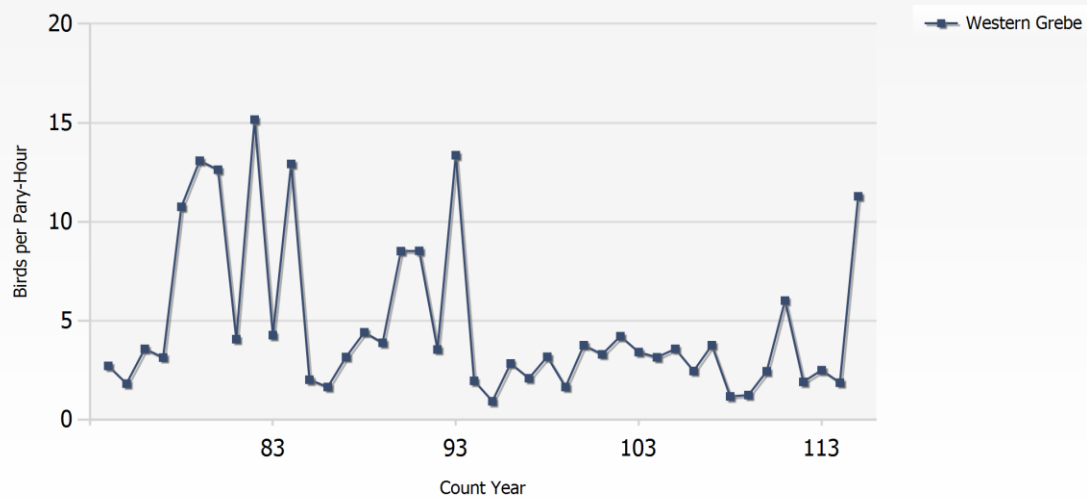
Unfortunately, the graphs can be confusing because:

- 1) A graph does not include early or late years when a species is present (e.g., see Brown Pelican and Eurasian Collared-Dove below), but the data could be used in Excel format by adding years with no records to make an Excel graph for the entire period.
- 2) A graph sometimes separates subspecies from the main species (Sooty Fox Sparrow graph is separate from Fox Sparrow). For example, see the Brant and "Black Brant" graph below. This results because they have been recorded differently in different years in the Yaquina Bay Count.
- 3) The Birds per Party-Hour is graphed to a different scale for different species.
- 4) In a graph, a species has been split or lumped (e.g., Cackling Goose was included in Canada Goose for many years), so its apparent absence in a graph for some Count Years may not mean that birds of that taxon were absent.

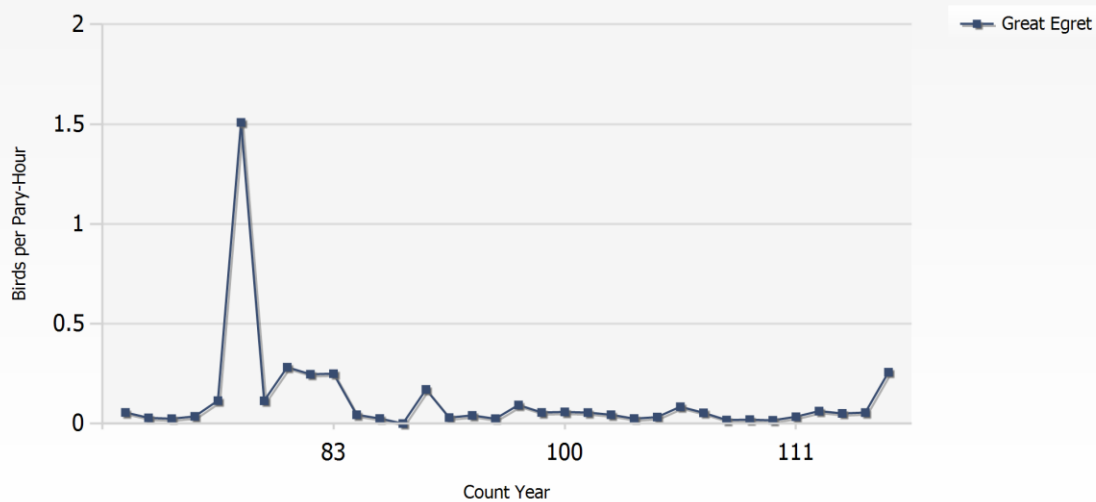
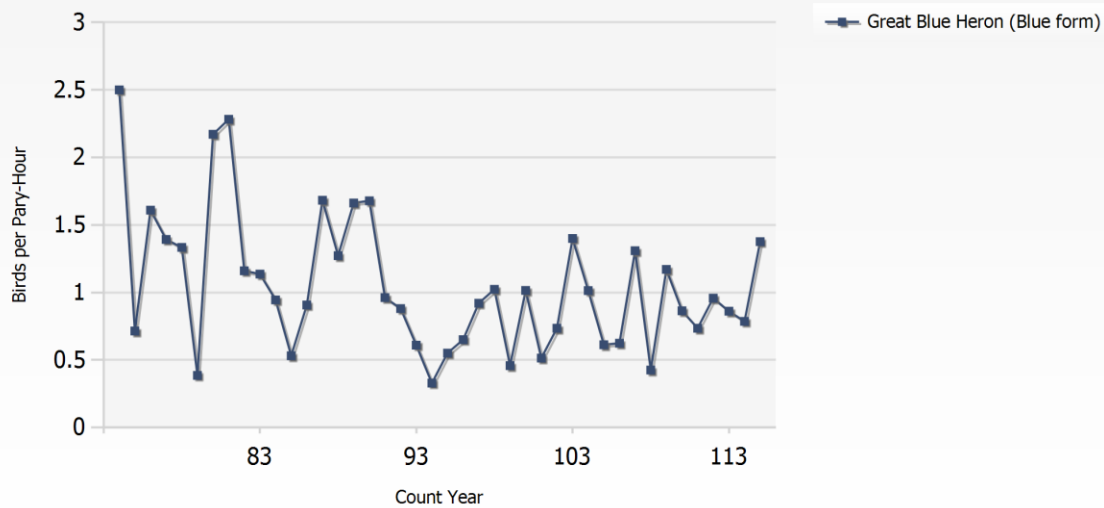
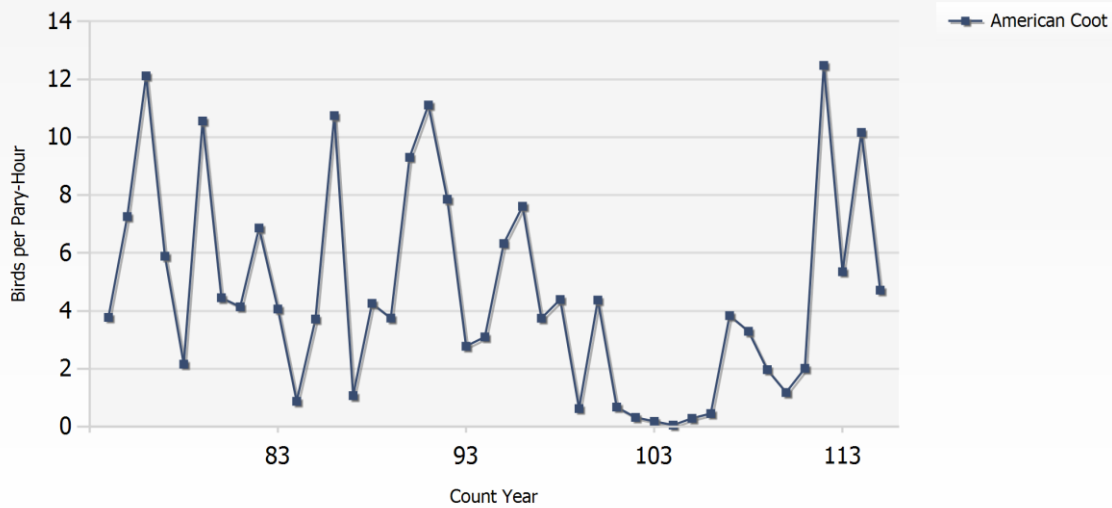
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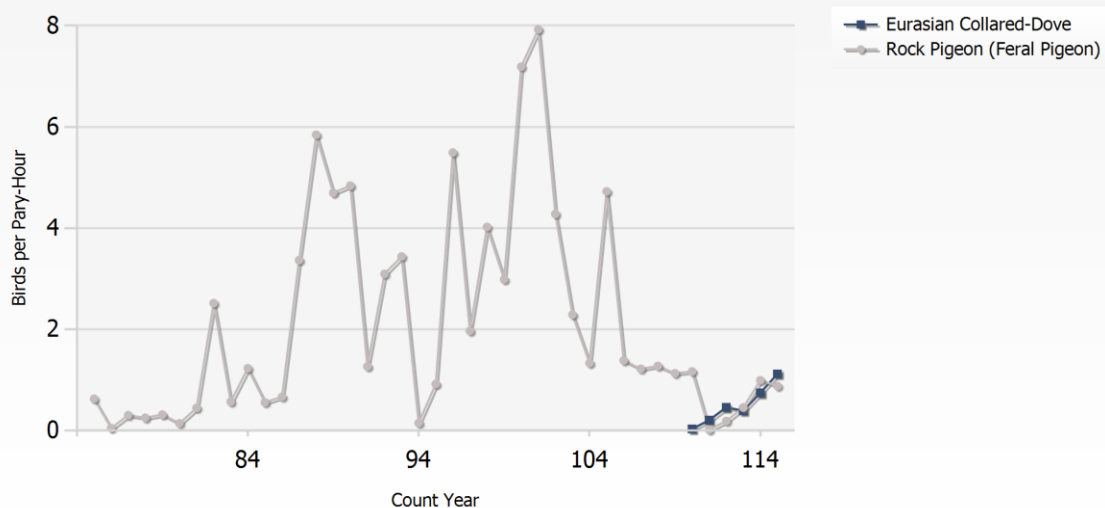
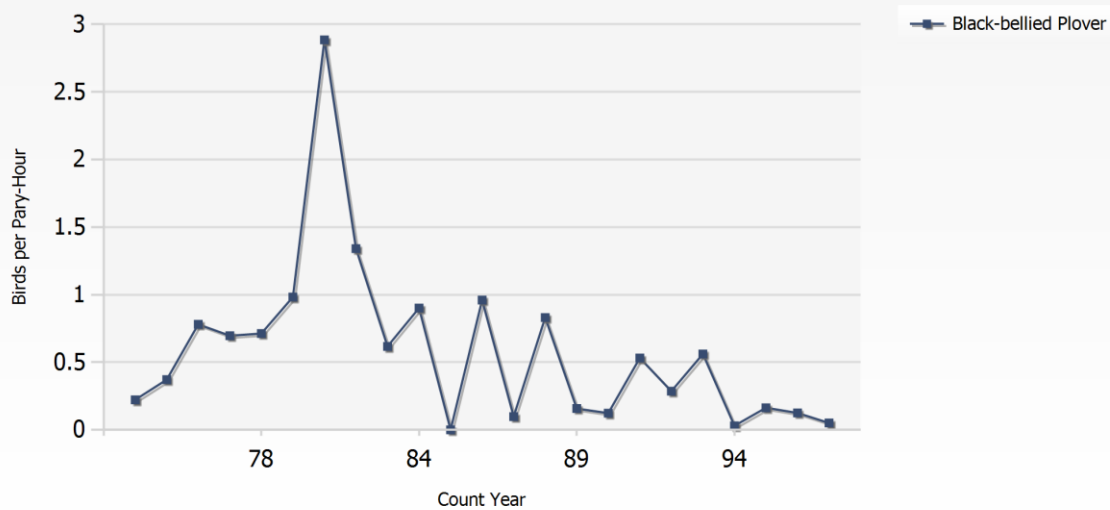
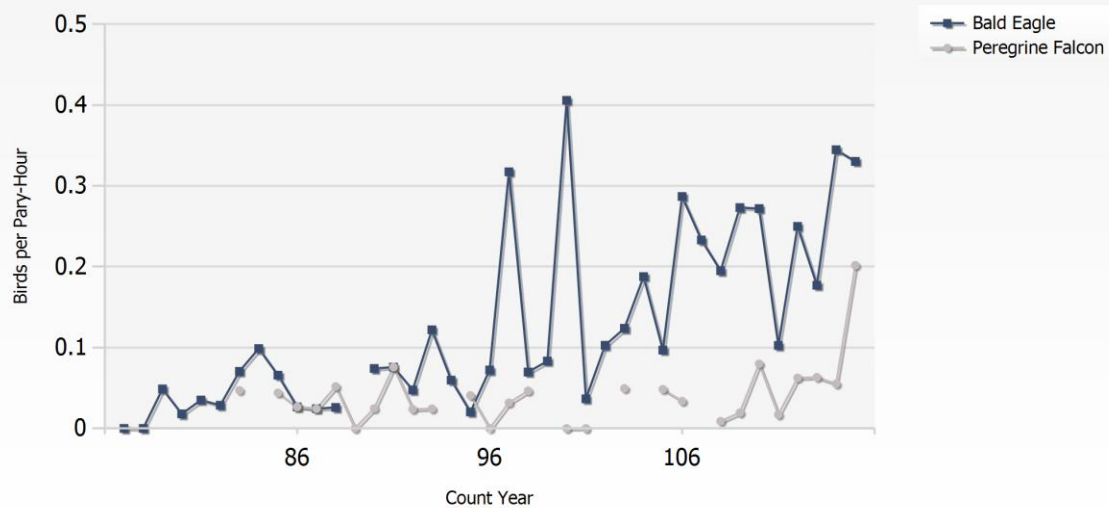
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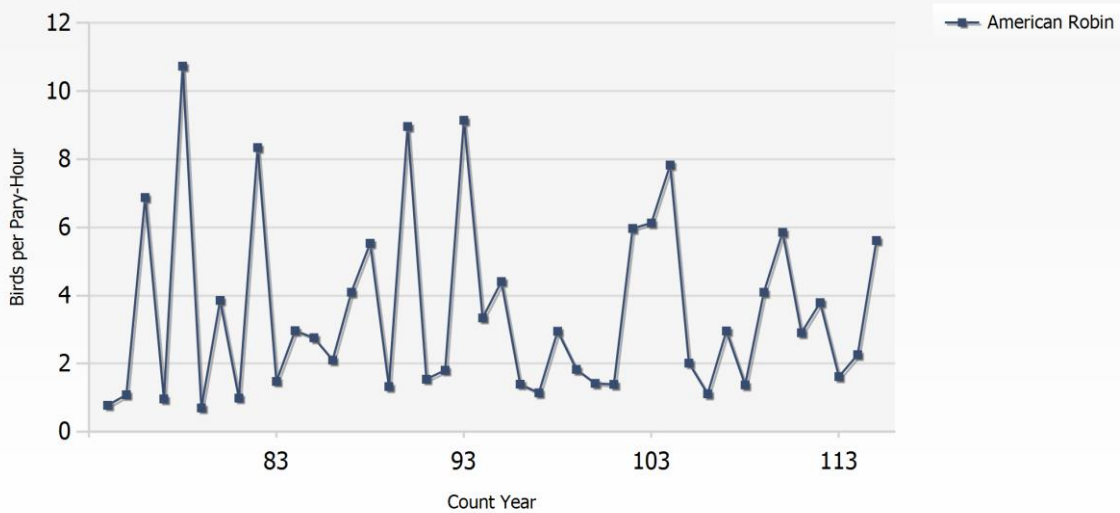
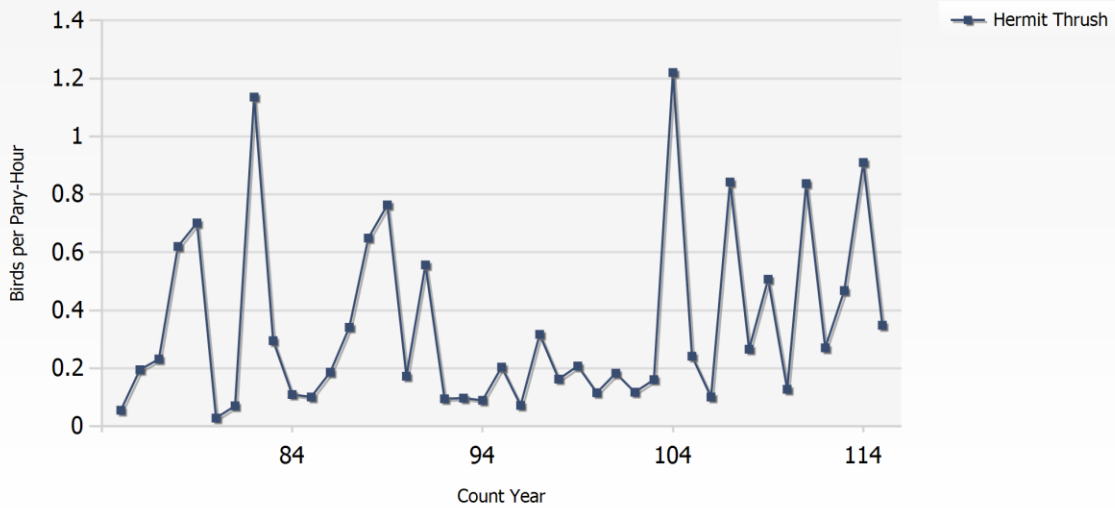
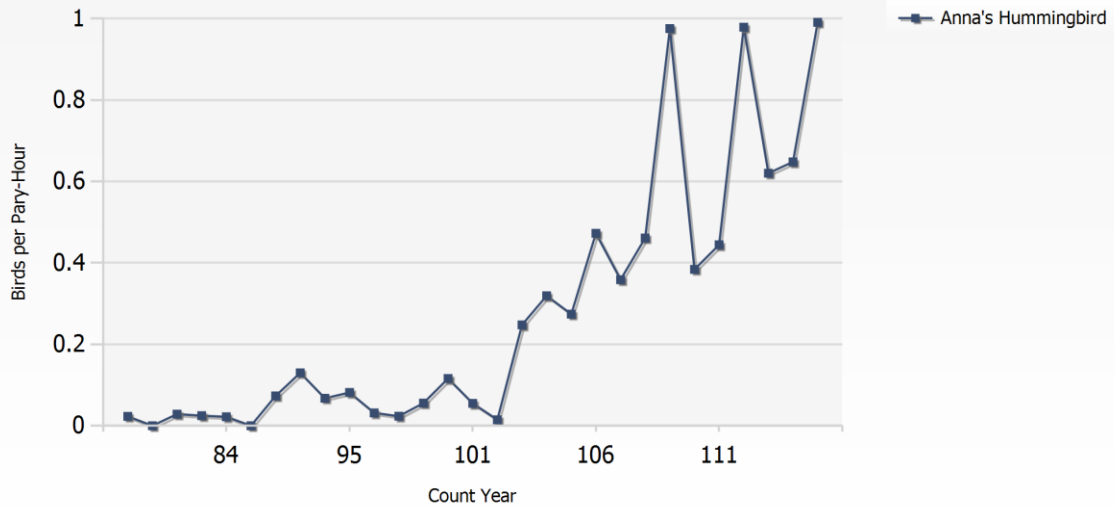
Count Years: 75 (1974/1975), 80 (1979/1980), 90 (1989/1990), 100 (1999/2000), 110 (2009/2010).



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