

# Yaquina Bay Christmas Bird Count (CBC) Partial Results from 1973/1974 through 2010/2011

17 December 2011 by Range Bayer (\Sandpipe\CBC\yaquina-bay-cbc.doc)

**Summary.** During 38 Yaquina Bay CBC's from 1973/1974 through 2010/2011, an average of 117 species/Count Day were found. The first two years were the only years with fewer than 100 species. The peak count was 137 species in 2010/2011. There were 120 or more species in 18 of 38 years and 130 or more species in seven years.

Overall, 209 species were recorded on Count Day and an additional seven species were tallied during Count Week.

Only two Yaquina Bay CBC's were not during Dec. 29-January 5; the first two CBC's were on Dec. 20-21. 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.

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## **Results: Compilers and Number of Species, Participants, and Party Hours**

The Yaquina Bay CBC was first held in December 1973 (1974 American Birds 28:509-510) and was founded by Wayne Hoffman (Table 1). It has been an official count every year since then. Table 1 lists the compilers; there have been just six through 2010/2011.

Results are pooled from 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.

The National Audubon Society CBC web page (<http://birds.audubon.org/christmas-bird-count>) has information about the species recorded during CBC's. The process for accessing this for the Yaquina Bay CBC (Circle ID: ORYB) at their web page is and select "Data & Research" link in right column, then can select "Results: [number of most recent count] Count" or for the most recent Count or for "Results: Historical." Then in the data page put "ORYB" in the "Count Code" box which designates "Oregon: Yaquina Bay" and select it. There is an option to download data as a CSV file.

The online Audubon page does not include the number of species for the 1973/74 through 1997/1998 nor the Compiler for the 1973/74 through 2002/2003 and 2004/05 counts. I compiled the data for these years from American Birds and National Audubon Society Field Notes.

There were 120 or more species in 18 of 38 years and 130 or more in 7 years (Table 2). The maximum number of species was 137 (Table 2). The first 2 counts were the only ones with less than 100 species on Count Day (Table 3). The average was 117 species/Count Day for the 38 CBC's from 1975/76 through 2010/11 (Table 3 footnote).

Table 3 also gives the number of participants, and party hours; and compiler for each Yaquina Bay CBC since its founding in 1973.

Only 2 Yaquina Bay CBC's were not during Dec. 29-January 5; the first 2 CBC's were on Dec. 20-21 (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).

Participation is up in recent years with 23-35 observers starting with the 2001/2002 CBC (Table 3). However, there is not a strong direct link between observation effort and the number of species. The 2007/08 CBC had the most participants (35) and party hours (112.8), but only had the fourth-most species (132 in Table 3). The 1988/89 and 1989/90 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 (1997/98 CBC with 9 participants and 123 species).

## **Results: Maximum Number of Birds Recorded and Number of Years Recorded on Count Day**

Today, anyone with Internet access can find online records for CBC's. In the past, few people had access to all CBC records because they were only available as paper copies, and complete series were only available at libraries. In Lincoln County, the only publicly available copies are at Guin Library at the Oregon State University Hatfield Marine Science Center.

For the Yaquina Bay CBC, long-time compiler Paul Reed prepared a paper sheet of results from the 1973/1974 to the 1998 Counts with columns for each species recorded, including the number of birds recorded during the current count, the number of years that the species was recorded, the high count, and the year(s) with the high count. Paul would update this sheet each year.

Paul had this in a computer file but with changes in computers and software programs, the file could not be converted into a file that could be currently used. Dawn Grafe scanned Paul's 1998 paper copy and made it into a PDF file. It may be possible to convert this using an Optical Character Recognition (OCR) program into a computer file. However, there are concerns in doing so to make a usable file.

- 1) OCR conversion often has errors that need to be checked out and corrected by proofing the results versus the original.
- 2) The names of several species have changed since 1998, and these changes would have to be added.
- 3) The order of species has changed drastically since 1998, so the species would have to be re-organized.
- 4) The results for the 11 or 12 counts since 1998 would have to be compiled and added.

After considering the situation, I decided it might be easier to download the Yaquina Bay CBC online results available through the National Audubon web site and then use a spreadsheet program to analyze the results. I did this by going to their web site, and then at the bottom of the page, clicked "By Count Circle" button to get Count Data. In the new window, I entered "ORYB" in the "Count Code" box; clicking "Find Count" button; selected "Yaquina Bay," clicked "Add" button; selected "Count Year Start" to the first Yaquina Bay CBC (74th Count [1973-4]); selected "Count Year End" to the last CBC year done (110th Count [2009-10]); and, finally, at the bottom of page, clicked "Make Table" button.

The resulting on-screen table has an option to download data as a CSV (comma-delimited) file, which I did. I opened the downloaded file in a spreadsheet program and found that data are arranged differently than shown online. Online, the first column was for species, and then each successive column had the results for each Count Year, so each species has one row with separate columns for each Count Year. In the downloaded file, each species has a separate row for each Count Year in which it was recorded, so there are as many rows for each species as the number of Counts in which it was recorded. For the 1973/1974 through 2009/2010 Yaquina Bay CBC Counts, there were a total 4,582 rows of data. In this format, I did not see a way to put in a column or a row specifically for formulas to determine the number of counts that a species was recorded or the maximum number of a species that were recorded. The semi-automatic process that I used to compile Table 4 was to insert a formula into an unused column for the number of counts and maximum number and then manually insert the row numbers for a species. Accordingly, this is a somewhat tedious process that is vulnerable to error.

In both the online and downloaded file formats, there are also other 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 indicates 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 online reports, 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 decided to follow 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." The problem with having a column for the year of the High Count is the Count Year (number of Count) is not intuitive to understand (e.g., the 110th Count Year is for the 2009/2010 winter). It would be easier to understand to list the winter for the high count but this can be challenging when there are multiple winters with the same high count because there is not enough space in a column to put multiple years (e.g., 1994-5, 2001-2, 2008-9). Using a single year can be confusing because a Count is split between two calendar years. In one calendar year, there could be two CBC's, one in January of one winter and another in December of a different winter; this has occurred for the Yaquina Bay CBC. However, starting with the 2010/2011 Count, I added the year with the maximum count because this is interesting information; I will have to go through previous counts to determine previous high counts.

Table 5 is calculated from Table 4 and gives the total number of species recorded on Count Day (209) and during Count Week (7) for a total of 216 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).

## 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)
Bob Olson	1975/1976-1976/1977 (2)
Paul Reed	1977/1978-1997/1998 (21)
Darrel Faxon	1998/1999 (1)
Rebecca Cheek	1999/2000-2009/2010 (11)
Dawn Grafe	2010/2011 (1)

**TABLE 2.** Yaquina Bay Christmas Bird Count years (in parentheses, N=18 years) with 120 or more species during the 38 CBC's from 1973/1974 through 2010/2011. This is compiled from Table 3.

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

**TABLE 3.** 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.

Days of the week that are not Saturdays are boldfaced.

Yaquina Bay CBC Count Date	No. of Parti- cipants	No. of Party Hours	Species Reported	Compiler	Count Date	No. of Parti- cipants	No. of Party Hours	Species Reported	Compiler
<b>Thu</b> , Dec 20, 1973	4	18.0	79	Wayne Hoffman	<b>Sun</b> , Jan 03, 1993	19	41.0	111	Paul Reed
Sat, Dec 21, 1974	11	35.0	94	Wayne Hoffman	<b>Sun</b> , Jan 02, 1994	6	33.5	107	Paul Reed
Sat, Jan 03, 1976	16	41.0	107	Bob Olson	Sat, Dec 31, 1994	12	49.0	117	Paul Reed
<b>Sun</b> , Jan 02, 1977	25	56.0	118	Bob Olson	Sat, Dec 30, 1995	15	41.5	111	Paul Reed
<b>Mon</b> , Jan 02, 1978	16	43.5	104	Paul Reed	Sat, Jan 04, 1997	12	31.5	109	Paul Reed
<b>Sun</b> , Dec 31, 1978	9	28.5	101	Paul Reed	Sat, Jan 03, 1998	9	43.0	123	Paul Reed
Sat, Dec 29, 1979	19	35.0	114	Paul Reed	Sat, Jan 02, 1999	16	72.0	114	Darrel Faxon
<b>Sun</b> , Jan 04, 1981	20	42.5	110	Paul Reed	<b>Sun</b> , Jan 02, 2000	15	34.5	102	Rebecca Cheek
Sat, Jan 02, 1982	19	40.5	112	Paul Reed	Sat, Dec 30, 2000	16	54.5	126	Rebecca Cheek
<b>Sun</b> , Jan 02, 1983	23	44.0	109	Paul Reed	Sat, Jan 05, 2002	24	68.0	120	Rebecca Cheek
Sat, Dec 31, 1983	21	45.5	127	Paul Reed	Sat, Jan 04, 2003	29	80.8	128	Rebecca Cheek
Sat, Dec 29, 1984	17	39.5	106	Paul Reed	Sat, Jan 03, 2004	26	53.3	120	Rebecca Cheek
<b>Sun</b> , Jan 05, 1986	15	37.5	113	Paul Reed	<b>Sun</b> , Jan 02, 2005	28	62.0	136	Rebecca Cheek
Sat, Jan 03, 1987	20	41.0	129	Paul Reed	Sat, Dec 31, 2005	31	59.3	134	Rebecca Cheek
<b>Sun</b> , Jan 03, 1988	10	38.5	120	Paul Reed	Sat, Dec 30, 2006	24	55.8	128	Rebecca Cheek
Sat, Dec 31, 1988	18	44.5	131	Paul Reed	Sat, Jan 05, 2008	35	112.8	132	Rebecca Cheek
Sat, Dec 30, 1989	19	40.5	130	Paul Reed	Sat, Jan 03, 2009	23	51.3	136	Rebecca Cheek
<b>Sun</b> , Dec 30, 1990	12	39.5	120	Paul Reed	Sat, Jan 02, 2010	26	62.5	126	Rebecca Cheek
<b>Sun</b> , Dec 29, 1991	11	42.0	102	Paul Reed	Sun, Jan 02, 2011	34	58.5	137	Dawn Grafe

Excluding the first 2 CBC's, 36 CBC's (1975/76-2010/11): Average Species/Count Day=118.6, Range=101-137

All 38 CBC's (1973/74-2010/11): Average Species/Count Day=116.9, Range=79-137

**Table 4.** Species, subspecies, forms, and hybrids recorded on Count Day of Yaquina Bay Christmas Bird Counts during the 38 **Count Days** from 1973/1974 through and including 2010/2011. 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. Starting with the 2010/2011, the Count with the maximum number is given in parentheses; if there is a tie between 2 or more counts for the maximum, the years are given in the footnotes. I need to go back and look for the years with the previous high counts.

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	10	American Wigeon	6,626	38
Emperor Goose	1	2	Mallard	587	38
Brant *	777	38	Blue-winged/Cinnamon Teal	1	1
Cackling Goose *	19	9	Northern Shoveler	126	32
Canada Goose *	400	30	Northern Pintail	457	38
Trumpeter Swan	2	1	American Green-winged Teal *	415	38
Tundra Swan	29	6	Eurasian Green-winged Teal (sub.)	1	1
Wood Duck	66	8	Canvasback	1,523	38
Gadwall	63	33	Redhead	42	25
Eurasian Wigeon	8	32	Ring-necked Duck	205	37

<b>Species</b>	<b>Max. Birds/ Count</b>	<b>Count Days Found</b>	<b>Species</b>	<b>Max. Birds/ Count</b>	<b>Count Days Found</b>
Greater Scaup	679 (2010/11)	36	Gyrfalcon	1	2
Lesser Scaup	2,187	34	Peregrine Falcon	5	19
King Eider	1	1	Virginia Rail	17	29
Harlequin Duck	31	38	Sora	2	5
Surf Scoter	2,337	38	American Coot	497	38
White-winged Scoter	3,090	38	Black-bellied Plover	101	22
Black Scoter	722	37	Snowy Plover	4	4
Long-tailed Duck *	10 (2010/11)	19	Semipalmated Plover	3	3
Bufflehead	1,556 (2010/11)	38	Killdeer	266	37
Common Goldeneye	134	38	Black Oystercatcher	63	38
Barrow's Goldeneye	2	8	Spotted Sandpiper	15	36
Barrow's X Common Goldeneye	1	1	Wandering Tattler	1	6
Hooded Merganser	86	37	Greater Yellowlegs	44	30
Common Merganser	31	33	Lesser Yellowlegs	2	1
Red-breasted Merganser	142	38	Willet	33	15
Ruddy Duck	609	38	Whimbrel	14	16
Ruffed Grouse	5	18	Long-billed Curlew	2	1
Wild Turkey	4	2	Marbled Godwit	19	3
Mountain Quail	13	10	Ruddy Turnstone	1	2
California Quail	12	5	Black Turnstone	241	38
Red-throated Loon	1,262 (2010/11)	37	Surfbird	328	38
Pacific Loon	77	36	Red Knot	1	1
Common Loon	118	38	Sanderling	1,661	38
Pied-billed Grebe	22 (2010/11 *)	37	Western Sandpiper	383	35
Horned Grebe	121	38	Least Sandpiper	450	35
Red-necked Grebe	45	38	Rock Sandpiper	24	27
Eared Grebe *	22 (2010/11)	30	Dunlin	1,151	33
Western Grebe *	614	38	Short-billed Dowitcher *	4	3
Clark's Grebe	6	8	Long-billed Dowitcher *	355	13
Northern Fulmar	86	8	Wilson's Snipe *	269	38
Buller's Shearwater	1	1	Red-necked Phalarope *	8	2
Sooty Shearwater *	2	2	Red Phalarope *	123	12
Short-tailed Shearwater *	4	5	Bonaparte's Gull	7	18
Sooty/Short-tailed Shearwater *	1	2	Heermann's Gull	3	2
Fork-tailed Storm-Petrel	2	1	Mew Gull	1,425	38
Brown Pelican	87	8	Ring-billed Gull	206	30
Brandt's Cormorant	1,327 (2010/11)	38	California Gull	4,698	34
Double-crested Cormorant	255	38	Herring Gull	218	36
Pelagic Cormorant	400	38	Thayer's Gull	215	37
American Bittern	1	3	Western Gull	4,554	38
Great Blue Heron	113	38	Glaucous-winged Gull	1,610	38
Great Egret	43	29	Glaucous-winged X Herring Gull	1	2
Green Heron *	4	6	Glaucous-winged X Western Gull	1,082	28
Black-crowned Night-Heron	10	5	Glaucous Gull	3	18
Turkey Vulture	1	1	Black-legged Kittiwake	165	22
Osprey	1	3	Pomarine Jaeger	1	2
White-tailed Kite	2	7	Common Murre	15,066	34
Bald Eagle	22	32	Pigeon Guillemot	9	15
Northern Harrier	6	31	Marbled Murrelet	32 (2010/11)	13
Sharp-shinned Hawk	5	27	Ancient Murrelet	25 (2010/11)	11
Cooper's Hawk	5	19	Cassin's Auklet	4	4
Northern Goshawk	1	1	Rhinoceros Auklet	13	9
Red-shouldered Hawk	2	6	Tufted Puffin	1	1
Red-tailed Hawk	42	37	Rock Pigeon *	432	37
Rough-legged Hawk	2	3	Band-tailed Pigeon	2	2
American Kestrel	8	33	Eurasian Collared-Dove	2 (2010/11)	2
Merlin	2 (2010/11 *)	16	Mourning Dove	20	9

<b>Species</b>	<b>Max. Birds/ Count</b>	<b>Count Days Found</b>	<b>Species</b>	<b>Max. Birds/ Count</b>	<b>Count Days Found</b>
Barn Owl	2	2	Hermit Thrush	65	37
Western Screech-Owl	5	12	American Robin	495	38
Great Horned Owl	3	19	Varied Thrush	354	37
Snowy Owl	4	2	Wrentit	71	37
Northern Pygmy-Owl	3	5	Northern Mockingbird	CW (1 yr) only	
Burrowing Owl	1	2	European Starling	5,019	38
Short-eared Owl	2	1	American Pipit *	14	4
Northern Saw-whet Owl	1	9	Cedar Waxwing	15	7
Black-chinned Hummingbird	CW (1 yr) only		Orange-crowned Warbler	2	6
Anna's Hummingbird	52	23	Yellow-rumped Warbler *	405	36
Costa's Hummingbird	CW (1 yr) only		Yellow-r. (Audub.) Warbler *(sub.)	70	2
Belted Kingfisher	27	38	Yellow-r. (Myrtle) Warbler * (sub.)	66	5
Yellow-bellied Sapsucker	4	4	Black-throated Gray Warbler	1	2
Red-breasted Sapsucker	11	19	Townsend's Warbler	58	32
Downy Woodpecker	11	34	Palm Warbler	6	8
Hairy Woodpecker	14	32	Wilson's Warbler	CW (1 yr) only	
Northern Flicker *	78	38	Western Tanager	CW (1 yr) only	
No. (Yellow-shaft.) Flicker*(sub.)	1	4	Spotted Towhee *	89	38
No. (Red. X Yellow.) Flicker*	2	2	Clay-colored Sparrow	1	3
Pileated Woodpecker	3	12	Vesper Sparrow	1	1
Black Phoebe	1	3	Savannah Sparrow	8	21
Ash-throated Flycatcher	CW (1 yr) only		Fox Sparrow *	355	38
Northern Shrike	2	5	Song Sparrow	369	38
Hutton's Vireo	6	24	Lincoln's Sparrow	8	22
Gray Jay	6 (2010/11)	11	Swamp Sparrow	7	10
Steller's Jay	169	37	White-throated Sparrow	4	17
Western Scrub-Jay *	1	5	White-crowned Sparrow	233	38
American Crow	1,478	38	Golden-crowned Sparrow	176	37
Common Raven	65	34	Dark-eyed Junco *	796	38
Horned Lark	1	1	Dark-eyed (Gray-h.) Junco *(sub.)	Recorded but probable error, see footnotes	
Tree Swallow	3	2	Dark-eyed (Slate-c.) Junco *(sub.)	2	4
Barn Swallow	8	2	Lapland Longspur	13	2
Black-capped Chickadee	250	36	Snow Bunting	5	7
Mountain Chickadee	2	2	Red-winged Blackbird	281	34
Chestnut-backed Chickadee	250	38	Western Meadowlark	26	37
Bushtit	60	21	Brewer's Blackbird	470	34
Red-breasted Nuthatch	53	26	Brown-headed Cowbird	8	8
White-breasted Nuthatch	1	1	Bullock's Oriole	1	1
Brown Creeper	13	22	Purple Finch	14	23
Rock Wren	CW (1 yr) only		House Finch	161	35
Bewick's Wren	22	37	Red Crossbill	276	19
Pacific Wren *	69	38	Pine Siskin	403	28
Marsh Wren	23	35	Lesser Goldfinch	5	4
American Dipper	3	5	American Goldfinch	112	21
Golden-crowned Kinglet	1,057	37	Evening Grosbeak	23	12
Ruby-crowned Kinglet	412	38	House Sparrow	166	37
Western Bluebird	17	6			
Townsend's Solitaire	1	1			

\* 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.

Pied-billed Grebe maximum tied in 2010/2011 and at least one previous Count to be determined..

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.

Merlin maximum tied in 2010/2011 and at least one previous Count to be determined..

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 through 2010/2011 Yaquina Bay Christmas Bird Counts. These data are compiled from Table 4.

<b>Total Species on Count Days:</b>	<b>209 (A)</b>
<b>Total Species during Count Week but Not on Count Day:</b>	<b>7 (A)</b>
<b>Grand Total of Species Recorded during Yaquina Bay CBC:</b>	<b>216</b>

**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.