

The Status and Occurrence of Garganey (*Anas querquedula*) in British Columbia.

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Introduction and Distribution

The Garganey (*Anas querquedula*) breeds widely across the temperate and boreal regions of Eurasia, from the United Kingdom, continental Europe, and Scandinavia, east through Russia and other regions of northern and central Asia to the Kamchatka Peninsula, Sakhalin Island, and northern Japan (Brazil 2009, Mullarney and Zetterstrom 2009). It is highly migratory, wintering in northern and central Africa, and from Pakistan and India east through Southeast Asia to southern and eastern China, the Philippines, Indonesia, and Papua New Guinea (Brazil 2009, Mullarney and Zetterstrom 2009). Despite being an abundant and widespread dabbling duck throughout the Old World, recent evidence suggests that the Garganey is declining in a number of regions (IUCN 2014). The primary factors linked to this decline include excessive hunting pressure and habitat degradation, although in some areas (e.g., parts of Europe) predation of adults and nests by introduced American Minks (*Neovison vison*) is also a concern (IUCN 2014). This population decline has even been detected in vagrancy patterns, and observations of the species in North America have been fewer in recent years (Hamilton *et al.* 2007, OFO 2012, WRBC 2012, Toochin *et al.* 2013a). In British Columbia the Garganey is an accidental vagrant and its frequency of occurrence in the province is expected to diminish as populations continue to decline (Toochin *et al.* 2013a, see Table 1). It is also occasionally seen as a vagrant in central and eastern North America (Dunn and Alderfer 2011). The Garganey is a very rare spring and fall migrant in the western and central Aleutians of Alaska and casual on the southern Bering Sea islands (e.g., Pribilofs) (West 2008). It is also casual along the Pacific coast of North America south of British Columbia. It has been recorded twice in Washington (WBRC 2012), four times in Oregon (OFO 2011), 23 times in California (Hamilton *et al.* 2007) as well as a record for the Hawaiian Islands (Spear *et al.* 1988). Vagrants have also occurred inland in the Pacific Northwest, including two records from Idaho (Grothe 1991, IBRC 2014), three records from Montana (J. Marks pers. comm.), at least three records from Alberta (Spear *et al.* 1988, Hudon *et al.* 2008), and one record from northern Yukon (Spear *et al.* 1988, Sinclair *et al.* 2003). Inland records have consistently been in the April-June period, as have many coastal occurrences. Fall vagrants have been more frequent in California than elsewhere along the west coast (Hamilton *et al.* 2007). A wintering individual in southeast Washington from December 15-22, 1994, in Richland is noteworthy both for its season of occurrence as well as its inland location (WBRC 2012). This record, as well as additional winter records from California (Hamilton *et al.* 2007), suggests that the species could potentially occur in winter in southern British Columbia, particularly along the coast.

Identification and Similar Species

The identification of the Garganey is covered in all standard North American field guides. The adult males are spectacular, and should not pose any identification issues for observers. The adult females and immature birds are trickier to identify, and require care and attention to detail. The size of the Garganey is 37-41 cm in length and has a wingspan that spans 59-67 cm in length (Jonsson 1992). In the context of common ducks found in British Columbia, the Garganey is about the same size as a Blue-winged Teal (Dunn and Alderfer 2011).

The adult male Garganey is an obvious and beautiful looking duck. It has a bold white eyebrow that goes from the dark eye down the back of the neck (Dunn and Alderfer 2011). The crown is dark, and the face is a purple-brown (Mullarney and Zetterstrom 2009). The neck and chest are a molted-brown colour (Sibley 2000). The bill is large and dark (Mullarney and Zetterstrom 2009). The mantle is also brown with long silvery scapulars (Dunn and Alderfer 2011). The sides, flanks and lower belly are whitish-gray with the ventral area mottled-brown (Mullarney and Zetterstrom 2009). In flight the upper wing of the adult male has a gray-blue forewing, and a green speculum bordered fore and aft in white (Sibley 2000, Mullarney and Zetterstrom 2009). The underside of the wing is white with a dark leading edge to the wing (Dunn and Alderfer 2011). Males in the fall resemble females in appearance, but retain the same wing pattern as seen in breeding-plumaged adult males (Jonsson 1992, Brazil 2009).

The adult female is light sandy brown in overall colour (Brazil 2009). The top of the crown is dark, and extends down the back of the neck with a light eye stripe from the base of the bill, through the eye, that extends towards the nape (Mullarney and Zetterstrom 2009). The bill is large and dark with a round white spot at the bill base (Dunn and Alderfer 2011). There is, below the eye stripe, a dark line that runs from the base of the bill through the eye and back towards the nape (Jonsson 1992). Below this stripe is another pale line that runs from the white spot under the dark eye stripe towards the nape (Dunn and Alderfer 2011). Then, below this, there is a final thicker dark line that runs from the bottom base of the bill across the cheek towards the neck (Dunn and Alderfer 2011). The female Garganey has a white throat with a dark brown-streaked breast (Brazil 2009). The back and wings have light brown-edged feathers with large dark centers that are also found on the sides giving the bird a scalloped look (Mullarney and Zetterstrom 2009). There is white line on the lower edge of the folded wing (Mullarney and Zetterstrom 2009). The lower flank is brown with small dark spots (Dunn and Alderfer 2011). The undertail coverts are dark, as are the legs (Jonsson 1992). The tail is rather long in length and is also brown (Mullarney and Zetterstrom 2009). In flight the adult female has a gray-brown forewing with pale inner webs to the primaries with a broad white secondary edge, but has a weak white mid wing bar with a speculum that lacks green tones (Brazil 2009, Mullarney and Zetterstrom 2009). Immature birds in the fall resemble female birds, but have a

grayish bill (Dunn and Alderfer 2011). The belly is less pale, and the trailing edge on the secondaries of the upper wing are weaker when seen in flight (Mullarney and Zetterstrom 2009, Dunn and Alderfer 2011).

The most similar looking species to the Garganey are the female Blue-winged Teal, Cinnamon Teal and Green-winged Teal. The adult males of each of these species are completely different and are, therefore, not covered here (Dunn and Alderfer 2011).

The female Blue-winged Teal can show a pale spot where the base of the bill meets the face, but lacks the multiple facial stripes found on the female Garganey (Sibley 2000, Dunn and Alderfer 2011). The female Blue-winged Teal is brown overall, but lacks the scalloped look of the female Garganey (Mullarney and Zetterstrom 2009). The bill is smaller in size to that of a Garganey's bill (Mullarney and Zetterstrom 2009, Dunn and Alderfer 2011). In flight the primaries are dark with the forewing pale blue with a mid- thin white wing bar and a dark secondary edge (Sibley 2000). The wing pattern on any flying bird should help eliminate any strongly facially marked individuals (Dunn and Alderfer 2011).

The female Cinnamon Teal is a large duck that is overall larger in size than that of a Garganey (Sibley 2000). The female's colour is a plain warmer brown overall and has a plain brownish face that lacks any white facial spot (Dunn and Alderfer 2011). The bill is very large and long in shape (Mullarney and Zetterstrom 2009). The wing pattern is similar to the Blue-winged Teal, and shouldn't ever cause any confusion with a Garganey (Dunn and Alderfer 2011).

The female Green-winged Teal can show a striped face similar to that of female Garganey, but has a small bill and is overall a much smaller duck (Dunn and Alderfer 2011). In flight the female Green-winged Teal has a black and green speculum that is bordered with a buffy-white line aft and a thick secondary edge of white (Sibley 2000, Dunn and Alderfer 2011). The mottled plumage is never scalloped looking as it is in Garganey (Dunn and Aldefer 2011).

Occurrence and Documentation

The Garganey is a very rare vagrant to British Columbia, with records from both coastal areas as well as from the interior (Toochin *et al.* 2013a, see Table 1). Although occurrences of vagrant waterfowl are commonly considered questionable due to the abundance of private waterfowl collections in many areas, records of Garganey from North America, especially along the west coast, are typically considered to represent natural occurrences (Roberson 1980). Sugden (1963) investigated the status of Garganey in private collections in North America and found no captive Garganey at zoos or aviaries in western Canada during the 1960s. MacDonald (1978) also investigated local zoos and aviaries in the Vancouver area to determine if any captive

Garganey were present, but none were located. Similarly, a 2011 search of the International Species Information System (ISIS), which tracks populations of captive animals throughout the world, indicated that there were only three individual Garganey in captivity in North American zoos and aviaries, and none were in western North America (ISIS 2012). As a result, and following the example of Spear *et al.* (1988), all records of Garganey in British Columbia are considered to represent natural vagrants unless specific details are available to suggest otherwise. The first Garganey recorded in British Columbia was an adult male that occurred at Iona Island, Richmond on May 14-31, 1977 (MacDonald 1978). This individual was observed by many birders over the course of its stay, and was photographed on the day of its discovery (MacDonald 1978, Campbell *et al.* 1990). Since this initial observation, the species has been detected in the province on a further twelve occasions (Toochin *et al.* 2013a, see Table 1). An additional record from the Lower Mainland on October 18, 1982, at Tsawwassen was rejected by the Vancouver Natural History Society's Bird Records Committee due to concerns over the identification (Weber 1985). That decision is upheld here as no additional information is available for review (Weber 1985); Thus, a total of thirteen accepted records and one rejected record of Garganey are currently on file for the province (Toochin *et al.* 2013a, see Table 1). The Garganey has been documented as a vagrant to both coastal and interior areas of the province. Ten of the thirteen accepted records for the province have been from the south coast, including both Vancouver Island and the Lower Mainland. The species has been observed on Vancouver Island at Campbell River, Port Alberni, Long Beach (Wickaninnish sewage ponds), and Port Renfrew, while all six Vancouver-area records are from the sewage ponds at Iona Island (Toochin *et al.* 2013b, see Table 1). Curiously, and in contrast to many Asian vagrants in British Columbia, there are currently no reports of the species (either accepted or rejected) from Queen Charlotte Islands (P. Hamel pers. comm.). Its absence from this area, however, is considered only temporary, and it is expected to eventually occur on the islands (P. Hamel pers. comm.). In the interior, single Garganey has been detected in the Princeton area, the Okanagan Valley at Penticton, and along the Peace River in northeastern British Columbia (Toochin *et al.* 2013a, see Table 1). Based on this pattern, the species can be expected as a vagrant anywhere in the province. The Garganey has been recorded in British Columbia between mid-April and mid-October, although most records are from the spring and early summer (mid-April to mid-July) (Toochin *et al.* 2013a, see Table 1). Peak occurrence in the province has been in mid to late May, which corresponds to northward-bound migrants from unknown wintering areas to the south (Toochin *et al.* 2013a, see Table 1). Most fall migrants have been detected in the province during the early portion of fall migration (late July to mid-August), with only single records each for September and October (Toochin *et al.* 2013a, see Table 1). Most observations (eight out of thirteen) have been single-day or two-day occurrences, with the longest staying individuals including a bird that spent 24 days at Campbell River on Vancouver Island, and another that spent 18 days at Iona Island, Richmond (Toochin *et al.* 2013a, see Table 1). Most birds detected

in British Columbia have been adult plumage males, some of which have molted into eclipse plumage during their stay (see Figures 1 & 2). Two observations have been of adult females, and two observations have been of immature-plumaged birds (one male, one female) (Toochin *et al.* 2013a, see Table 1). The difficulty of detecting and identifying females and immatures, especially in the fall, likely limits observations of these plumages so that they may occur more frequently than these few records suggest (MacDonald 1978). Vagrant Garganey in British Columbia usually occur in shallow freshwater and brackish environments such as estuaries, sewage ponds, marshy ponds, and river backwaters; and there is a single record on August 8, 2009, from Port Renfrew, of an individual migrating along the marine coastline with a mixed-species flock of migratory ducks (Toochin 2012b). It commonly associates closely with other species of dabbling ducks when it occurs in British Columbia, particularly other teal (MacDonald 1978). For example, the first bird observed in the province was closely associated with Cinnamon Teal (MacDonald 1978), and subsequent records from the same site have consistently been of birds associating with the large congregations of dabbling ducks that occur there (Toochin 2012a). The first record of Garganey in Idaho was also of a bird that was associating with Cinnamon Teal (Grothe 1991), suggesting that the species may be most likely to occur with migratory flocks of either Cinnamon or Blue-winged Teal in the spring. As observer knowledge and coverage increases in British Columbia, it is highly probable that more Garganey could be detected in the fall migration period in the future.



Figure 1: Record #11: Garganey adult male (far left bird) at Iona Island Sewage Ponds, Richmond on June 23, 2000. Photo © Evelyn Whiteside.



Figure 2: Record #22: Garganey adult male (second from the left) at Iona Island Sewage Ponds, Richmond on June 23, 2000. Photo © Evelyn Whiteside.

Table 1: Records of Garganey for British Columbia:

- 1.(1) adult male May 14-31, 1977: Bruce A. MacDonald, mobs(RBCM Photo 464) Iona Island Sewage Ponds, Richmond (MacDonald 1978, Campbell *et al.* 1990)
- 2.(1) adult male June 8-12, 1979: HC, DKr, JT, mobs (RBCM Photo 713) Iona Island Sewage Ponds, Richmond (Harrington-Tweit *et al.* 1979, Campbell *et al.* 1990)
- 3.(1) juvenile female October 12, 1980: (shot by hunter) Port Alberni (Spear *et al.* 1988, Campbell *et al.* 1990)
- 4.(1) adult male May 23-24, 1984: Richard Cannings , mobs (RBCM Photo 916) Penticton (Campbell 1984, Campbell *et al.* 1990)
- 5.(1) adult female July 4, 1989: Danny Tyson, Rick Tyson, Rick Toochin: Peace Island Park, near Taylor (Campbell 1989, Campbell *et al.* 1990)
- 6.(1) adult female May 8, 1990: Mark Wynja, MTo, ST, D. Mike Price, mobs: Iona Island Sewage Ponds, Richmond (Dorsey 1996a, Toochin 2012a)
- 7.(1) adult male July 13, 1991: Aurora Patterson: Wickaninnish Sewage Ponds, Pacific Rim National Park (Toochin *et al.* 2013b)
- 8.(1) immature male September 13-14, 1992: Dick Veit, Richard Klauke, mobs: Iona Island Sewage Ponds, Richmond (Siddle 1993, Davidson 1993, Dorsey 1996b, Toochin 2012a)
- 9.(1) adult male April 11- May 4, 1993: S. & E. Watts, and other observers: (photo) Campbell River (Siddle and Bowling 1993, Toochin *et al.* 2013b)
- 10.(1) adult male May 9, 1997: Jude Grass, mobs: On the Lake, Princeton (Bain and Holder 1997, Toochin *et al.* 2013a)
- 11.(1) adult male in eclipse June 22-July 1, 2000: Dale A. Jensen, mobs (photo) Iona Island Sewage Ponds, Richmond (Toochin 2012a)

- 12.(1) adult male in fall plumage July 30-August 11, 2006: Mike Tabak, mobs: Iona Island Sewage Ponds, Richmond (Toochin 2012a)
- 13.(1) adult male August 8, 2009: Rick Toochin, Louis Haviland: off Botanical Beach, Port Renfrew (Toochin 2012b)

Hypothetical Records:

- 1.(1) immature October 18, 1982: Brian M. Kautesk: Beach Grove Lagoon, Tsawwassen (Weber 1985, Toochin 2012a)

Table 2: Seasonal distribution of Garganey records in British Columbia:

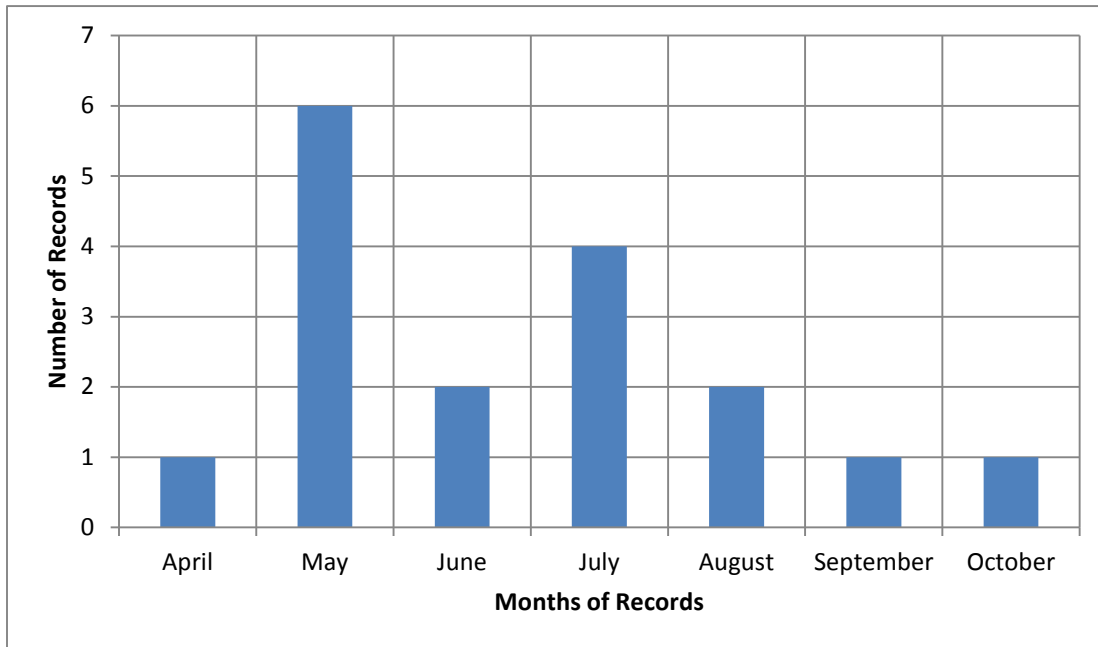


Table 2: Note the sharply defined occurrence in the spring and summer of this species with May and July having the highest number of records.

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