Appendix C: Historically Unsuccessfully Introduced and Extinct Species in British Columbia: By: Rick Toochin, Jamie Fenneman, and Don Cecile. Submitted: April 15, 2018.

Introduction:

This list of birds is for species that were introduced to British Columbia and were able to successfully flourish for a time before becoming extirpated or extinct. This list of birds is for species that had either a small population of birds that has since been extirpated, or there are historical sightings or have had remains found or specimens that have been secured in the past in British Columbia. Introduced species for which there is still a self-sustaining population in the province can be found in the species accounts section of E-Fauna BC.

Species List:

Mountain Quail*(Oreortyx pictus):

According to Campbell *et al.* (1990b), the Mountain Quail may have been an indigenous species in British Columbia, but most of this species' history is obscure. The Mountain Quail is believed to have been first introduced in the province in the early 1860's and later in the 1870's and 1880s (Wylde 1923, Carl and Guiget 1972). This species was also introduced into the Fraser Valley at that time, but the exact details are not known (Campbell *et al.* 1990b). The Mountain Quail's stronghold in the province was in the Victoria area and was reported in the past as far north as Duncan (Carl and Guiget 1972); however, details of these records are lacking (Campbell *et al.* 1990b). Although there were reported sightings of Mountain Quail in the Victoria- Sooke region from 1890's to the 1980's, the largest numbers that were recorded in the Victoria area were in the early 1970's (Tatum 1971), but by the 1980's their numbers began to dwindle and by the end of the decade they were almost certainly extirpated as they have not been recorded since that time (Stirling 1986, Campbell *et al.* 1990b).

The Mountain Quail is a resident species in Washington State and southwestern Idaho, southward, to northern Baja California, and western Nevada (Gutiérrez and Delehant 1999).

Northern Bobwhite*(Colinus virginianus):

This species has been introduced many times into British Columbia from the early 1990s until the present day (Campbell *et al.* 1990b). These birds are normally released as hunting stock, but they are also released for other reasons (Campbell *et al.* 1990b). Introductions have occurred on Vancouver Island in the early 1900's and in the 1920's (Guiget 1955b). This species was

found on Pender Island in 1882, but subsequently disappeared around 1900 (Campbell et al. 1990b). There were birds released by local residents on Hornby Island in 1979, but this was not successful (Campbell et al. 1990b). There were 50+ immature birds released on Mt. Tuam, on Saltspring Island, but their present status is unknown (Campbell et al. 1990b). Several were released in the Lower Mainland from the 1900's to the 1970's with birds found from Huntington area to Ladner (Campbell et al. 1990b). None of these releases were successful (Campbell et al. 1990b). In the Ashcroft area 130 birds were released in 1900 (Carl and Guiget 1972), but none survived. In the Okanagan Valley, this species was released in the Vernon area near Coldstream Ranch in 1907, over time became established (Phillips 1928), but died out by 1912 (Munro and Cowan 1947). There were 6 or 8 birds shot in Osoyoos in 1924, but likely came from released birds in Washington State (Campbell et al. 1990b). Birds escaped while conducting dog-trials in the Vernon area around 1974 and as a result were seen from 1974-1984, with a successful breeding record near Vernon of a full-fledged brood of 18 young on September 10, 1984 (Cannings et al. 1987). There is a record form Creston in June 1980, of a female with chicks (Butler et al. 1986). It is possible that this record involves birds that may have wandered north from northern Idaho where released populations exist. Even to this day there are the odd reports of Northern Bobwhite from around the province, but all are likely released birds from captivity.

The Northern Bobwhite is a resident species from eastern Wyoming, southern Minnesota, central Michigan, southern Ontario, New York, and Massachusetts south through eastern New Mexico and western Texas to Guatemala, the southeastern United States, and Cuba (Brennan *et al.* 2014). This species has been Introduced and established in western North America including Washington, Oregon, Idaho, and Montana (Brennan *et al.* 2014).

Greater Sage Grouse (Centrocercus urophasianus):

It is unclear what the exact historical status of the Greater Sage Grouse was in British Columbia as its history is not well documented prior to 1900 (Campbell *et al.* 1990b). Fannin (1898) suggested that this species was probably accidental in the vicinity of Osoyoos Lake with numbers small and apparently restricted to open, big sagebrush habitats in the extreme southern Okanagan. There were 3 specimens taken at Osoyoos Lake in October 1864 with likely one of these specimens still found at the Royal BC Museum number 5075 (Fannin 1898, Campbell *et al.* 1990b). Brooks and Swarth (1925) published a report that 2 birds were killed at Osoyoos in 1883. There was also a report of 2 birds found at Osoyoos by C. de. B. Green on May 21, 1896 (Fannin 1898). There were no reports until Yocom (1956) published an account mentioning that the last Greater Sage Grouse was seen near Oliver and was shot by a prospector in 1918. This was apparently the last reference to the existence of native populations in British Columbia (Campbell *et al.* 1990b).

The BC Fish and Wildlife tried to re-establish this species in the province by releasing 63 birds trapped at Malheur National Wildlife Refuge by the Oregon State Game Commission and transported to British Columbia on August 21 of that year (Campbell *et al.* 1990b). Of the 63 birds, 4 died in transit and 2 died during their release, with the total birds released was 57 (Campbell *et al.* 1990b). Of these birds most were immature with very few adults (Campbell *et al.* 1990b). The birds were released 3 km north of Richter Lake (Campbell *et al.* 1990b). The release was a failure and no birds were reported since 1960 (Carl and Guiget 1972).

There were 4 reports in the 1960's with 4 birds reported near Osoyoos Lake in 1962, a pair was reported at Osoyoos in early August 1963, and birds were reported by a couple of observers in August 1963 about 1 km north of Osoyoos (Cannings *et al.* 1987). The last record for British Columbia was a dead bird picked up on the Osoyoos side of Anarchist Mountain on August 14, 1966 (Campbell *et al.* 1990b).

The distribution of Sage Grouse in North America is closely tied to that of the big sagebrush from central Washington, southern Alberta and Saskatchewan south through western North Dakota, South Dakota, Wyoming to southwestern Colorado, Utah, Nevada and eastern California (Schroeder *et al.* 1999). Where once it was widespread, it is today a local resident throughout its range (Schroeder *et al.* 1999).

Passenger Pigeon (Ectopistes migratorius)

Incredibly there are historical references to Passenger Pigeon, occurring in British Columbia by Lord (1866). He had collected and observed birds in the province, but details he provided included the precise locations these birds were said to have been found were doubted by (Munro and Cowan 1947). In Pearse (1936) attention was brought to a previously overlooked source reference from The Northwest Passage by Land - Being a narrative of an Expedition from the Atlantic to the Pacific—Undertaken with the view of exploring a route across the continent to British Columbia through British Territory by one of the Northern passes in the Rocky Mountains. In this report it is stated that Passenger Pigeons were found" as far west as the source of the North Thompson [River] in the summer of 1863. In Rhoads (1891) it is reported that "flocks of wild pigeons during travels from California to Vancouver's Island" and "being most common in Pierce County, Washington. There are no specific locations mentioned and it is highly likely that these birds were Band-tailed Pigeons (*Patagioenas fasciata*) that are common throughout the region (Campbell *et al.* 1990b).

There is one complete specimen record for British Columbia of an adult female, taken by C. B. R. Kennerly (specimen: No. 15,993 USNM) from Chiloweyuck [Chilliwack] Depot, on June 29,

1859 (Duval 1946). This record was accepted by the AOU and was added to the American Ornithologist's Union (1983) list, stating that Passenger Pigeon was "accidental in British Columbia".

There were skeletal remains of six bones from 2 birds found at an archaeological site in northeastern British Columbia at Fort D'Epinette (Williams 1978). This location is the most northerly known area where Passenger Pigeons were known to occur in the province (Campbell *et al.* 1990b). It is likely that the Passenger Pigeon was far more numerous in the west than was previously believed (Williams 1978).

The last Passenger Pigeon on Earth, died at the Cincinnati Zoological Gardens on September 14, 1914 (Dunn and Alderfer 2011). It is believed that this was the most abundant species in North America until destruction of old-growth deciduous forest, over-hunting, especially at breeding colonies, led to this species extinction (Dunn and Alderfer 2011). This species bred from central Montana, North Dakota, southern Manitoba, and southeastern Canada south to eastern Kansas, Mississippi, and Georgia; wintering in the southeastern United States (Godfrey 1986)

California Condor (Gymnogyps californianus):

There is new anthropological and archeological evidence that shows the California Condor was likely a regular species in the Province (Sharpe 2012). There are 9 records listed in Sharp (2012) with 5 coastal records and 4 from the interior. These include: Bella Bella at latitude 52' N in 1827 (Tolmie 1963); the mouth of the Fraser River in the 1860's, 1880's, and late 1880's (Lord 1866, Fannin 1891, Rhoads 1893); it was stated by Lord (1866) without elaborating or giving any extra information that Condors occurred in the interior. Birds that were recorded in the interior included: a report by Ross (1956), who shot "a bird of the vulture tribe" on September 17, 1817 northwest of the Canoe River in central eastern British Columbia at latitude 52' 40' N; in De Smet (1978) a Catholic missionary, who on September 4, 1845 observed "Vultures", wolves, and Grizzly Bears at the source of the Columbia River at latitude 52'N; A Sto:lo Salish native American saw a Condor-sized bird in 1935 on the Fraser River at Spuzzum (Sharpe 2012).

It should be noted that Brooks and Swarth (1925) stated that British Columbia records of Condor lacked "conclusive evidence". Campbell *et al.* (1990b) list California Condor as "hypothetical"; however, Bringhurst (2001) pointed out that these authors "did not make an attempt to avail themselves of indigenous sources of information". It is important to note that a tarsometatarsus was excavated at the site of a native village on Pender Island in 2006 and provided physical evidence of the presence of the California Condor in British Columbia (Sharp 2012).

Historically, the California Condor was largely confined to southern California by mid-20th century (Finkelstein *et al.* 2015). This species also occurred in northern Baja California, northern California, Oregon, and southern British Columbia in early 20th century, with smattering of late 19th-century reports from Washington, Arizona, Nevada, Utah, Wyoming, Colorado, Idaho, Montana, and southern Alberta (Harris 1941, Koford 1953, Wilbur 1978b, Kiff 2000, Snyder and Snyder 2000, Sharpe 2012).

Pleistocene fossils indicate additional occurrences in northeastern Mexico in Nuevo León and across Southwestern states from California to Texas (Finkelstein *et al.* 2015). Pleistocene fossils were also found in several Florida locations and in a single location in upstate New York (Finkelstein *et al.* 2015). These records suggest that the species may once have occurred throughout the United States, as well as across southern Canada and northern Mexico (Finkelstein *et al.* 2015). Pleistocene fossils and more recent bone specimens are recorded from Oregon and southern British Columbia (Finkelstein *et al.* 2015).

The population in southern California in the mid-20th century was non-migratory, and this also appears likely for historical populations in northern Baja California and Oregon to Washington (Finkelstein *et al.* 2015). Although Koford (1953) considered individuals in the Pacific Northwest to be wanderers from California, Phillips (1968c) and Wilbur (1973a) argued that they were more likely residents. While no former cliff escarpment nesting sites have been confirmed in the region, compilations of fossil evidence, traditional ecological knowledge, data associated with museum specimens, and historical sightings reported by Moen (2008) and Sharpe (2012) indicate that condors were present year-round in the Pacific Northwest. Additional analysis of movement patterns in the reintroduced condor populations and the evolution of migration in vulture species led D'Elia and Haig (2013) to conclude that Oregon condors were likely non-migratory.

Although the historic wild population was extirpated by mid-1987, in part because of capture of the last few individuals for captive breeding, releases of captives since 1992 have returned birds to the wild in southern California, in central California, in the Grand Canyon region of Arizona and southern Utah, and most recently in Mexico's Baja California (Finkelstein *et al.* 2015). These populations are not yet self-sustaining (Meretsky *et al.* 2000, Finkelstein 2012).

This species is critically endangered and through captive breeding and reintroduction, it is hoped the species will survive (Finkelstein *et al.* 2015).

Crested Myna* (Acridotheres cristatellus):

The Crested Myna was a charismatic species that was found in the Vancouver area (Campbell *et al.* 1997). Before 1897, it is thought that 1 or 2 pairs of Crested Myna that originated from Hong Kong or Macao escaped or were intentionally released in Vancouver (Kermode 1921). The first

specimen was collected in downtown Vancouver in 1904 (Campbell et al. 1997). By 1921, the species had established a communal winter roost in downtown Vancouver in some elaborately corniced buildings on the corner of Carrall and Cordova Streets (Kermode 1921). It was estimated that there were as many as 1,200 Crested Mynas that used this roost site in midwinter (Kermode 1921). The winter concentration was in a heavily industrialized area featuring streets lined with 4- to 6-storey buildings, railroad yards, and waterfront industries of a busy seaport handling a large tonnage of grain, agricultural produce, and general cargo, in an era when most of these products were shipped in bulk (Campbell et al. 1997). It is likely that Horses were the main source of attraction for this species (Campbell et al. 1997). Food for the Crested Mynas, including waste grains and produce, was close at hand and abundant even in this densely built-up urban centre (Campbell et al. 1997). The Crested Myna is believed to have also sought the warmth generated by the heated but un-insulated buildings (J. Toochin Pers. Comm.). The species continued to increase in numbers and by 1925, there were an estimated 6,000 to 7,000 birds (Cumming 1925), and in 1927, Kelly (1927) suggested that the population in downtown Vancouver may have reached 20,000 birds occupying roosts in about 4 square city blocks. Kelly (1927) also refers to smaller bands roosting at sites in the west end and east end of Vancouver and in New Westminster. Both Cumming's and Kelly's figures were informal estimates, but they were quoted by Scheffer and Cottam (1935) as if they were accurate estimates and have since been repeated by others. However, at least a few thousand birds were certainly present (Campbell et al. 1997). Also in the mid-1920s, Crested Mynas were being reported from southern Vancouver Island and southward as far as Blaine, Bellingham, and Seattle in Washington state, and Portland in Oregon (Campbell *et al.* 1997).

No attempts were made to estimate populations by a direct count or to determine the distribution of Crested Myna in the Lower Mainland until Mackay and Hughes (1963) completed their study. The study they conducted showed that there was a population of 2,000 to 3,000 birds in the entire Greater Vancouver area. The population behaviour between the late 1920s and 1960 is unknown (Campbell *et al.* 1997). There are records of slow expansion of range, but this species was apparently not an aggressive colonizer (Campbell *et al.* 1997). Scheffer and Cottam (1935) suggest that the Crested Myna had already spread as far as North Vancouver in the north and Ladner in the south, but there is no existing data to support this idea (Campbell *et al.* 1997). The earliest available records of regional expansion are from Chilliwack (Munro 1930b), Ladner (1941), Crescent Beach (1942), Pitt Meadows (1959), Port Moody (1960), Squamish (1961 and 1962), west Mission (1964), Cultus Lake (1964), and West Vancouver (1968) (Campbell *et al.* 1997). Except for Ladner, however, there is no evidence that the Crested Myna was able to establish itself as a breeding species in these outlying regions (Campbell *et al.* 1997).

Scheffer and Cottam (1935) refer to 12 Crested Mynas at the head of Lake Washington, Washington, in 1929. A small group numbering at least 7 birds somehow reached Vancouver Island in 1937, and were reported from Union Bay, Merville, Courtenay, and Comox in 1937 and 1938 (Pearse 1938). Another Crested Myna was found in Comox in 1940; with a pair attempting to nest in Victoria in 1946 (Clay 1946), but was collected in an attempt to prevent the spread of the species to southern Vancouver Island. It was again recorded in Victoria in 1950 and 1961 (Campbell *et al.* 1997). The Crested Myna arrived in Nanaimo in 1952, and established a breeding colony that survived for some 16 years (Merilees 1985, Johnson and Campbell 1995).

A survey of the Crested Myna in Greater Vancouver in late February 1980 found 650 birds and revealed that the species was absent from downtown Vancouver, where the large roosts were found in 1960 (J. Toochin Pers. Comm.). From the 1980 survey, the population was estimated to be 2,537 birds, which is similar to the 1960 estimate by Mackay and Hughes (1963), but by this time the Crested Myna had changed its distribution and winter roost habits.

(Johnson and Campbell 1995) correctly predicted that since the population in the 1990's was probably fewer than 100 birds, and that there are no other populations in British Columbia, that the rate of decline made it very likely that the species would disappear from North America within a few decades. Sadly the last recorded birds were a pair found dead, apparently hit by a motor vehicle, in February 2003 (Self 2003). The species is now extirpated from British Columbia and North America (Banks *et al.* 2005).

The Crested Myna is common throughout central and southern China, including Taiwan, Hainan, and Hong Kong to Macao, and in northern Indochina, including Vietnam, centraleastern Laos, and eastern Burma (American Ornithologists' Union 1983, Meyer De Schaunensee 1984). Small numbers also presumably breed in Borneo (Smythies 1981, Johnson and Campbell 1995). This species was introduced and established for locust control in the Philippines (Kermode 1921), but now is only found on the island of Luzon (King and Dickinson 1975). The Crested Myna was also introduced in Malaysia in the Penang area only (Johnson and Campbell 1995). This species is accidental in southwestern Japan on Yaeyama Island and on Kyushu, but also is introduced as a popular cage-bird, and is now found in Tokyo (Massey *et al.* 1982, Brazil 2009).

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