

## Status and Occurrence of Magnificent Frigatebird (*Fregata magnificens*) in British Columbia.

By Rick Toochin.

### Introduction and Distribution

The Magnificent Frigatebird (*Fregata magnificens*) is an elegant seabird that is the largest species of Frigatebird in the world (Diamond and Schreiber 2002). It occurs over tropical and subtropical waters in the eastern Pacific from Isla Santa Margarita off southwestern Baja California in Mexico where there are 20,000 pairs (Moreno and Carmona 1988); on Isla San Benedicto and possibly Isla Socorro in the Revillagigedos Islands, in mangroves along the coast of Sinaloa in Mexico, at Bahia del Pabellon where there are 10,000–20,000 pairs, and Bahia Santa Maria where there are 18,000 pairs (Everett and Anderson 1991). There are small numbers of breeding attempts at San Luis Island, Cholluda Island and Alcatraz Island in the northern part of the Gulf of Mexico (Everett and Anderson 1991). The Magnificent Frigatebird also breeds on Tres Marias Island off Nayarit, Pearl Island off western Panama, south to the Gulf of Guayaquil, the coast of mainland Ecuador (Murphy 1936), and west to the Galápagos Islands (AOU 1998).

In the Atlantic, the Magnificent Frigatebird breeds in the extreme of southern Florida on the Dry Tortugas which is the only current U.S. breeding site (Stevenson and Anderson 1994). It also breeds on islands off the coasts of the Yucatán Peninsula at Cayos Arcas at Alacran Reef and possibly other locations (Diamond and Schreiber 2002). The Magnificent Frigatebird also breeds in Belize, Honduras, and Panama; also in the Bahamas, Cuba, Jamaica, the Cayman Islands, and on Little Cayman Island where there are 300–500 pairs (Diamond and Schreiber 2002). This species is also found on Navassa Island east of Haiti, Hispaniola, islands off the coast of Puerto Rico, the Virgin Islands, Barbuda, Guadeloupe, and the Grenadines; Bonaire, Little Tobago, Curaçao, and other islands off the coasts of Venezuela, Colombia, and French Guiana (Diamond and Schreiber 2002).

There is a gap in the breeding distribution along the north coast of Brazil, east to Sela Gineda Island in the Fernando de Noronha archipelago where there are 300 pairs (Oren 1984). There are no known colonies between there and southern Bahia State where 300 pairs breed on Redonda Island in the Abrolhos archipelago (Coelho 1981) and Santa Barbara Island which has 60 pairs (Antas 1991). In Redonda State there are colonies off Macaé, on Cabo Frio Island (Sick 1993), and on the Cagarras and Redonda Islands which have 2,000 nests (Antas 1991). The Magnificent Frigatebird is also found off São Paulo State where there is a colony at Alcatraz Island off Santos (Sick 1993). Between these and the southernmost colony, Moleques do Sul Island there are 150 nests (Bege and Pauli 1988) seven hundred pairs that breed on Currais Island in Parana State (Scherer Neto 1986).

In the non-breeding season, the Magnificent Frigatebird has coastal roosts in Florida from Cedar Key and Cape Kennedy south (Diamond and Schreiber 2002). During severe storms, small flocks may be driven inland (Fellers 1988). This species is seen more commonly along the Gulf Coast from April through August (Harrington *et al.* 1972). The Magnificent Frigatebird is often seen outside of its normal range during large storms and in El Niño events (Diamond and Schreiber 2002). This species is believed to ride on the front of storms which result in their being taken off course (del Hoyo *et al.* 1992). The Magnificent Frigatebird will occasionally follow large rivers inland (Diamond and Schreiber 2002). The pattern of occurrences in western North America was analyzed by Mlodinow (1998) as follows: individuals from the Gulf of Mexico occur regularly on the Texas coast from April–October and as vagrants as far west as New Mexico mainly from mid-August to late October; individuals from the eastern Pacific and the Gulf of California, Mexico stray regularly to coastal-central California and occasionally into Arizona from June to September but especially July to early August.

On the east coast of North America, the Magnificent Frigatebird is an accidental vagrant in many states such as Colorado, Minnesota, Wisconsin; and in Canadian provinces such as Ontario, Quebec, Newfoundland and Labrador (AOU 1998). This species is found throughout the Gulf of Mexico and the Caribbean to Bermuda (rarely), and along the Atlantic Coast from North Carolina, south to northern Argentina; it is found also in the eastern Atlantic around Cape Verde Island (AOU 1998).

Along the west coast of North America, the Magnificent Frigatebird is an accidental to casual vagrant north of California where this species is seen regularly to central California, south to northern Peru; through the Gulf of California inland to the Salton Sea, California, and southern Arizona (Diamond and Schreiber 2002). In Oregon, there are seven accepted records by the Oregon Bird Records Committee (OFO 2012). In Washington State, there are two accepted records of the Magnificent Frigatebird, and three accepted records listed as “Frigatebird species” (Wahl *et al.* 2005, WBRC 2014). In British Columbia, the Magnificent Frigatebird is an accidental species with eleven provincial records (Toochin *et al.* 2014, see Table 1). The Magnificent Frigatebird is an accidental vagrant in Alaska with one confirmed record; however, there are a few records of “Frigatebirds not identified to species” as well (Mlodinow 1998, West 2008).

The Magnificent Frigatebird is an accidental to casual vagrant in the eastern Atlantic as far east as Cape Verde Island which is located at 16°N, 24° W (Hazevoet 1994); and possibly also to Bissagos Island (Mayr and Cottrell 1979). This species is a casual vagrant along the West African coast and the west coast of Europe with records from Great Britain, Netherlands and Denmark (Mayr and Cottrell 1979, Lewington *et al.* 1992).

### **Identification and Similar Species**

The identification of the Magnificent Frigatebird is covered in all standard North American Field Guides. This species is a large, unmistakable black to dark-brownish seabird characterized by extremely long, pointed wings; a long, deeply forked tail; and a long, hooked bill (Diamond and Schreiber 2002). The Magnificent Frigatebird measures 89–114 cm in length with a wing span of 217–244 cm (Harrison 1983), and weighs 1,000–1,900 g (Diamond and Schreiber 2002). This species is typically observed soaring or perched; it soars easily, flapping only occasionally with deep, slow wing-beats (Diamond and Schreiber 2002). Rarely, if ever, it is observed sitting on the water (Diamond and Schreiber 2002). The legs are so short they preclude walking; the feet are also very small, with all 4 toes connected by webbing (toti-palmate), but the webbing is shallow, not reaching the tips of the toes (Diamond and Schreiber 2002). The Magnificent Frigatebird is the most likely species of Frigatebird to be found in British Columbia; however, there is the possibility of the very similar Great Frigatebird (*Fregata minor*) which breeds in the tropical Pacific and Indian Oceans, and could turn up from breeding grounds as close as Baja California Sur at the Islas Revillagigedo where, coincidentally, Magnificent Frigatebirds breed (Mlodinow 1998, Hamilton *et al.* 2007). There are two accepted records of Great Frigatebird for California by the California Bird Records Committee (Hamilton *et al.* 2007). It is highly recommended that keen observers read Howell (1994) for a more in depth analysis of how to separate these two similar species of Frigatebird from each other. The Following plumage descriptions are taken from Howell (1994) and Diamond and Schreiber (2002).

In adult plumages, the sexes differ in size and plumage colouration. The males are smaller than females and are entirely black, except for brownish inner secondaries on the upper wing and a patch of bare skin, also called a gular sac, on the lower neck. The gular sac becomes bright red and is inflated like a large balloon during courtship displays and during the early incubation period, but becomes pale orange and shrinks to become barely visible at other times of the year. At close range, the male is also glossed purple on the head and green on the neck, scapulars, and the upper wing. The legs and feet of the male are black or gray to brownish-black.

The female is entirely blackish-brown except for a prominent white patch across the breast and uppermost belly that variably extends to the sides of neck and with a narrow wedge of dark colour extending from the throat onto the center of upper breast. There are white tips across the axillaries forming three to four lines on the underwing, and a pale tan to dirty white 'alar' bar on the upper wing which extends diagonally inward from the crook on the leading edge of wing. The head and upperparts are less glossy coloured than on the male with this colour mostly restricted to the back of the head and neck. The gular sac on the adult female birds is completely absent. The legs and feet of the females are flesh-coloured to pink.

It is important to note that there is no distinct seasonal change in the appearance of adult birds except for changes in the appearance of the male gular sac during the breeding period. There is no distinct geographic variation in plumage colouration recognized, but some geographic variation in size occurs.

The juvenile plumage is similar to the adult female except that the head of the juvenile is entirely white, and has a V-shaped wedge of black that extends from each side inwardly onto the lower breast. The legs, feet, and bill are a light-bluish gray. Birds are believed to hold their juvenile plumage between eighteen to twenty-four months (Howell 1994), but this awaits confirmation through observations of marked individuals. Birds in juvenile plumage gradually change to adult colouration. The sexes become differentiated during this period, probably around their third year. For more in depth and detailed descriptions of adult and sub adult plumages, keen observers should read Howell (1994).

### **Occurrence and Documentation**

The Magnificent Frigatebird is an accidental vagrant in British Columbia with eleven provincial records (Toochin *et al.* 2014, see Table 1). There are many unconfirmed sight records of “Frigatebirds” seen by fisherman along the west coast of British Columbia, mostly from Bamfield, Ucluelet and Tofino, but sadly they often lack any detailed information to be used as an official record (R. Toochin Pers. Comm.). These records do however provide a clue that the status of the Magnificent Frigatebird might be more regular along the coast than we currently understand. Only an increase in future records will unlock the mystery. The first record for British Columbia was of an immature bird found and photographed on the mast of a sailing boat by George Deagle at Egeria Bay south of Coho Point on the Queen Charlotte Islands from August 22-25, 1981 (Campbell *et al.* 1990a, Toochin *et al.* 2014, see Table 1). The second record for the province was an immature seen by Tom and Inez Weston along Saanich Inlet near Saanich outside Victoria on January 7, 1989 (Toochin *et al.* 2014, see Table 1). The third record was an adult male seen by Lee Haggart in West Vancouver on July 28, 1993 (Bain and Holder 1993d, Toochin *et al.* 2014, see Table 1). This person was familiar with the species and had seen them before in Florida (T. Plath Pers. Comm.). The fourth record for British Columbia was of an immature found by Rick Toochin flying along the beach at Cow Bay on Flores Island, 20 km northwest of Tofino on August 31, 1996 (Toochin *et al.* 2014, see Table 1). This bird was seen by multiple observers flying over Tofino over the next week and was seen by Rory Patterson on September 7, 1996 (Toochin *et al.* 2014, see Table 1). The fifth record for British Columbia was an adult male found by Rick Toochin, Mike and Sharon Toochin near Pacific Sands Resort near Tofino on July 18, 1997 (Toochin *et al.* 2014, see Table 1). The bird was observed from the highway gliding over the treetops heading south, and was observed by at least one person with optics before it disappeared behind the trees (R. Toochin Pers. Obs.). The sixth record for the

province was of an immature/sub-adult bird found by Mike Woods on Flores Island, 20 km northwest of Tofino on May 9, 2001 (Cecile 2001b, Toochin *et al.* 2014, see Table 1). The seventh record for British Columbia was of an immature bird that landed on the BC Ferry “Queen of Prince Rupert” during severe weather between Bonilla Island and Sandspit in the Queen Charlotte Islands at coordinates 53°43.5’N, 131°10.8’W on January 14, 2004 (Hamel 2004, Toochin *et al.* 2014, see Table 1). The bird was captured by the BC Ferry staff and taken to a rehabilitation center where it was photographed and brought back to health before being flown to San Pedro California and released (Hamel 2004). The eighth provincial record of Magnificent Frigatebird was of an immature/female found by Bill Morrison that was flying over the ferry terminal in Departure Bay, Nanaimo on May 21, 2005 (Toochin *et al.* 2014, see Table 1). Likely the same bird was reported to the Victoria Bird Alert hotline being seen between Mill Bay and Cowichan Bay on July 12, 2005 (Toochin *et al.* 2014, see Table 1). The ninth provincial record was of an adult male found by Rick Toochin flying with a flock of Turkey Vultures (*Cathartes aura*) over the town of Sooke on June 27, 2006 (Toochin *et al.* 2014, see Table 1). This bird was observed through both binoculars and a telescope before it drifted south and east (R. Toochin Pers. Obs.). The tenth record for British Columbia was of an adult male found by Linda and Dudley Freeman flying over Nanoose and Parksville on May 25, 2013 (Toochin *et al.* 2014). The eleventh record for the province was of an adult bird found by Harold Yeltatzie as it flew low over Highway 16 at Halibat Bite, near Tlell on October 18, 2013 (P. Hamel Pers. Comm.). The bird was described in great detail to Peter Hamel shortly after the observation and there was little doubt as to the identification (P. Hamel Pers. Comm.). The pattern of vagrancy that is developing from British Columbia records fit perfectly with when Magnificent Frigatebirds wander northward out of their normal range (Hamilton *et al.* 2007). As Mlodinow (1998) states, “individuals from eastern Pacific and Gulf of California, Mexico, stray regularly to coastal-central California and occasionally into Arizona from June to September, but especially July to early August”. The months with the most records are July and May with three records each. The other records from June, August, and September fit this pattern as well. The single October record is also likely part of this vagrancy pattern of dispersal northward after breeding and represents a late bird that may have ventured further north and was discovered on its journey back south. The two January records are interesting and likely immature birds displaced by large weather fronts, like the Pineapple Express (M. Meredith Pers. Comm.). This weather pattern is fast moving, originates in the warm waters off Hawaii and brings to the west coast of North America heavy winds and large rain bands up the coast from California and even northern Mexico (M. Meredith Pers. Comm.). It is entirely possible that birds could be thrust north in these large weather events. The Magnificent Frigatebird is a species that will turn up in British Columbia again in the future. Observers should pay particular attention to coastal areas for Magnificent Frigatebirds in El Nino years as the warm water that pushes north will likely push a variety of species to our shores.



Figure 1: Magnificent Frigatebird immature found on the Dry Tortugas, Florida on May 15, 2012. Photo © Michael Ashbee <http://www.mikeashbeephotography.com/>.

**Table 1: Records of Magnificent Frigatebird for British Columbia:**

- 1.(1) immature August 22-25, 1981: George Deagle (RBCM Photo 656) Egeria Bay south of Coho Point, Queen Charlotte Islands (Campbell *et al.* 1990a)
- 2.(1) immature January 7, 1989: Tom and Inez Weston: Saanich Inlet near Saanich outside Victoria (Toochin *et al.* 2014)
- 3.(1) adult male July 28, 1993: Lee Haggart : West Vancouver (Bain and Holder 1993d, Toochin *et al.* 2014)
- 4.(1) immature August 31- September 7, 1996: Rick Toochin, and other observers: Flores Island, 20 km northwest of Tofino (Toochin *et al.* 2014)
- 5.(1) adult male July 18, 1997: Mike, Sharon and Rick Toochin: near Pacific Sands Resort near Tofino (Toochin *et al.* 2014)
- 6.(1) immature/sub-adult May 9, 2001: Mike Woods Flores Island, 20 km northwest of Tofino (Cecile 2001b, Toochin *et al.* 2014)
- 7.(1) immature female January 14, 2004: *fide Peter Hamel* (photo) between Bonilla Island and Sandspit (53°43.5'N, 131°10.8'W) (Hamel 2004, Toochin *et al.* 2014)

- 8.(1) immature/female May 21, 2005: Bill Morrison: Departure Bay Ferry Terminal, Nanaimo (Toochin *et al.* 2014)  
 (1) immature/female July 12, 2005: *fide Victoria RBA*: between Mill Bay and Cowichan Bay (Toochin *et al.* 2014)
- 9.(1) adult male June 27, 2006: Rick Toochin: Sooke (Cecile 2006d, Toochin *et al.* 2014)
- 10.(1) adult male May 25, 2013: Linda and Dudley Freeman: over Nanoose and Parksville (Toochin *et al.* 2014)
- 11.(1) adult October 18, 2013: Harold Yeltatzie: Highway 16 at Halibat Bite, near Tlell, Queen Charlotte Islands (P. Hamel Pers. Comm.)

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### **References**

- American Ornithologists' Union. 1998. Check-list of North American birds. 7th ed. Am. Ornithol. Union, Washington, D.C.
- Antas, P. de T. Z. 1991. Status and conservation of seabirds in Brazilian waters. Pages 141-158 in Seabird status and conservation: a supplement. (Croxall, J. P., Ed.) ICBP Tech. Publ. no. 11, Cambridge, U.K.
- Bain, M. and P. Holder. 1993d. Cross Canada Round-up: June and July 1993 - British Columbia. *Birders Journal* 2: 175-177.
- Bege, L. A. do R. and B. T. Pauli. 1988. As aves nas Ilhas Moleques do Sul, Santa Catarina: aspectos do ecologia, etologia e anilhamento de aves marinhas. Florianópolis, Fatma.
- Campbell, R.W., N. K. Dawe, I. McTaggart-Cowan, J. M. Cooper, G. W. Kaiser, and M. C. E. McNall. 1990a. The Birds of British Columbia – Volume 1 (Nonpasserines [Introduction, Loons through Waterfowl]). Victoria: Royal British Columbia Museum.

- Cecile, D. 2001b. Spring season— British Columbia-Yukon. *North American Birds* 55: 342-346.
- Coelho, A. G. M. 1981. Observações sobre a avifauna do Arquipélago dos Abrolhos, Bahia. Pernambuco, Universidade Federal de Pernambuco, Centro de Ciências Biológicas. Publicações Avulsas no. 1.
- Del Hoyo, J., A. Elliot, and J. Sargatal. 1992. Hand-book of the birds of the world, Vol. I: ostrich to ducks. Lynx Edicions, Barcelona.
- Diamond, Antony W. and Elizabeth A. Schreiber. 2002. Magnificent Frigatebird (*Fregata magnificens*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology [Online Resource] Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/601> [Accessed: February 16, 2016].
- Everett, W. T. and D. W. Anderson. 1991. Status and conservation of the breeding seabirds on offshore pelagic islands of Baja and the Gulf of California. Pages 115-140 in *Seabird status and conservation: a supplement*. (Croxall, J. P., Ed.) ICBP Tech. Publ. no. 11, Cambridge, U.K.
- Fellers, P. J. 1988. Recent occurrences of "storm waifs" in Polk County, Florida. *Fla. Field Nat.* 16(1):7.
- Hamel, P. 2004. Magnificent Frigatebird hitches a ride to Prince Rupert. *Birders Journal* 75: 29-31.
- Harrington, B. A., R. W. Schreiber, and G. E. Woolfenden. 1972. The distribution of male and female Magnificent Frigatebirds, *Fregata magnificens*, along the coast of Florida. *Am. Birds* 26:927-931
- Hazevoet, C. J. 1994. Status and conservation of seabirds in the Cape Verde Is. Pages 279-293 in *Seabirds on islands: threats, case studies and action plans*. (Nettleship, D. N., J. Burger, and M. Gochfeld, Eds.) BirdLife Conserv. Ser. no. 1, BirdLife Int. Cambridge, U.K.
- Howell, S. N. G. 1994. Magnificent and Great Frigatebirds in the eastern Pacific. *Birding* 26: 400-415.
- Lewington, I., P. Alstrom, and P. Colston. 1992. *A Field Guide to the Rare Birds of Britain and Europe*. Jersey: Domino Books Ltd., Jersey, UK. 448pp.



- Mayr, E. M. and G. W. Cottrell. 1979. Peters' check-list of birds of the world. Mus. Comp. Zool. Cambridge, MA.
- Mlodinow, S. G. 1998. The Magnificent Frigatebird in western North America. Field Notes 52:413-419.
- Moreno, L. A. and R. Carmona. 1988. Ecología reproductiva de Fregata magnificens en Isla Santa Margarita, B.C.S. Tesis Licenciatura (B.Sc. thesis),. Univ. Autónoma de Baja California Sur, La Paz, B.C.S., Mexico.
- Murphy, R. C. 1936. Oceanic birds of South America. Am. Mus. Nat. Hist. New York.
- OFO. 2012. Oregon Field Ornithologists - Records Committee. [Online resource] <http://www.oregonbirds.org/index.html>. [Accessed: February 16, 2016].
- Oren, D. C. 1984. Resultados de uma nova expedição zoológica a Fernando de Noronha. Bol. Mus. Paraense Emílio Goeldi 1:19-44.
- Scherer Neto, P. 1986. Aves marinhas no litoral do Estado do Paraná. Unpubl. report. Centro de Estudos de Migrações de Aves.
- Sick, H. 1993. Birds in Brazil: a natural history. Princeton Univ. Press, Princeton, NJ.
- Stevenson, H. M. and B. H. Anderson. 1994. The birdlife of Florida. Univ. Press of Florida, Gainesville.
- Toochin, R., J. Fenneman and P. Levesque. 2014. British Columbia Rare Bird List: Casual and Accidental Records: January 1, 2014: 3rd Edition. [Online resource] Retrieved from <http://ibis.geog.ubc.ca/biodiversity/efauna/documents/BCRareBirdListVersionXZABC.pdf> [Accessed: February 16, 2016].
- Wahl, T. R., B. Tweit, and S. Mlodinow. 2005. Birds of Washington: Status and Distribution. Oregon State University Press, Corvallis, Oregon. 436pp.
- WBRC. 2014. Washington Bird Records Committee – Summary of Decisions. Washington Ornithological Society, Seattle, WA. [Online resource] <http://www.wos.org/wbrccaccepteddec2014.pdf> [Accessed: February 16, 2016].

West, G. C. 2008. A Birder's Guide to Alaska. American Birding Association, Colorado Springs, CO. 586 pp.