

SUPPLEMENTARY MATERIALS FOR: **ECOLOGIC DRIVERS AND POPULATION IMPACTS OF AVIAN TRICHOMONOSIS MORTALITY EVENTS IN BAND-TAILED PIGEONS (*PATAGIOENAS FASCIATA*) IN CALIFORNIA, USA**

By authors: **Krysta H. Rogers, Yvette A. Girard, Walter D. Koenig, and Christine K. Johnson**

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SUPPLEMENTAL MATERIAL TABLE S1. The 30 locations for which the select weather variables were compared between outbreak years and nonoutbreak years for avian trichomonosis mortality events for Band-tailed Pigeons (*Patagioenas fasciata monilis*) in California. Date reported as m/d/y.

Outbreak year <sup>a</sup>	Nonoutbreak year <sup>b</sup>	County	Nearest city	X <sup>c</sup>	Y <sup>c</sup>	Report date <sup>d</sup>	Start date <sup>e</sup>	End date <sup>f</sup>
1992	1991	San Diego	Santa Ysabel	-116.7613	33.2361	2/5/1992	2/4/1992	ND
2004	2003	Monterey	Carmel Valley	-121.5683	36.3122	2/13/2004	2/13/2004	3/25/2004
2004	2003	Tehama	Fall River Mills	-121.7081	40.1858	2/13/2004	3/4/2004	3/9/2004
2006	2005	Shasta	Whiskeytown	-122.5360	40.5971	ND	4/1/2006	4/28/2006
2007	2008	Amador	Fiddletown	-120.7708	38.5087	1/22/2007	1/15/2007	ND
2007	2008	Calaveras	Mountain Ranch	-120.5417	38.2314	1/17/2007	ND	ND
2007	2008	El Dorado	El Dorado	-120.8619	38.6698	1/18/2007	1/4/2007	1/13/2007
2007	2008	Madera	Coarsegold	-119.7063	37.2824	2/1/2007	1/22/2007	1/26/2007
2007	2008	Monterey	Carmel Valley	-121.5981	36.3916	1/20/2007	1/15/2007	3/15/2007
2007	2008	Placer	Forest Hill	-120.7997	39.0316	1/17/2007	ND	ND
2007	2008	San Benito	Hernandez Reservoir	-120.8282	36.3996	1/20/2007	12/15/2006	ND
2009	2008	El Dorado	Garden Valley	-120.7856	38.8468	2/26/2009	2/5/2009	3/15/2009
2009	2008	Mariposa	Mariposa	-119.8676	37.4800	3/3/2009	2/23/2009	3/29/2009
2009	2008	Napa	Calistoga	-122.6657	38.5845	2/18/2009	1/29/2009	ND
2009	2008	Santa Cruz	Watsonville	-121.7534	36.9739	2/25/2009	ND	ND
2010	2011	Alameda	Sunol	-121.8280	37.5103	3/4/2010	ND	3/15/2010
2010	2011	Calaveras	Avery	-120.3675	38.1876	3/11/2010	ND	ND
2010	2011	Monterey	Carmel Valley	-121.7357	36.4753	3/10/2010	ND	ND
2010	2011	San Luis Obispo	Paso Robles	-120.8352	35.6432	3/8/2010	ND	ND
2010	2011	Santa Clara	Morgan Hill	-121.7979	37.1327	3/9/2010	2/24/2010	ND
2010	2011	Ventura	Ojai	-119.3060	34.4314	3/3/2010	2/15/2010	3/15/2010
2012	2013	Amador	Amador City	-120.8114	38.4229	2/1/2012	2/1/2012	2/20/2012
2012	2013	Butte	Feather Falls	-121.2216	39.6111	2/27/2012	2/20/2012	2/27/2012

2012	2013	Madera	Coarsegold	-119.7063	37.2824	1/19/2012	1/10/2012	3/9/2012
2012	2013	Monterey	Carmel Valley	-121.5981	36.3916	2/14/2012	1/11/2012	3/18/2012
2012	2013	Nevada	Grass Valley	-121.0700	39.0594	2/6/2012	2/4/2012	2/10/2012
2012	2013	San Luis Obispo	Santa Margarita	-120.5348	35.3611	3/20/2012	12/10/2011	1/31/2012
2012	2013	Santa Barbara	Lake Cachuma	-119.9583	34.5788	2/23/2012	1/23/2012	2/23/2012
2012	2013	Santa Cruz	Corralitos	-121.8041	37.0467	2/22/2012	2/10/2012	2/22/2012
2014	2013	San Diego	Santa Ysabel	-116.8801	33.3446	1/24/2014	1/9/2014	2/12/2014

<sup>a</sup>One or more trichomonosis mortality events reported in Band-tailed Pigeons between Nov and Apr of year x.

<sup>b</sup>No trichomonosis mortality events reported in band-tailed pigeons between Nov and Apr of year x.

<sup>c</sup>X (longitude) and Y (latitude) coordinates in decimal degrees, WGS 84

<sup>d</sup>Date mortality event was reported to the agency.

<sup>e</sup>Estimated start date for mortality event.

<sup>f</sup> Estimated end date for mortality event. ND: data not available

SUPPLEMENTAL MATERIAL TABLE S2. All confirmed and suspected avian trichomonosis mortality events involving Band-tailed Pigeons (*Patagioenas fasciata monilis*) in California between 1945 and 2014 compiled from federal and state agency reports and the literature. Date reported as m/d/y.

Year	County	Nearest city	X <sup>a</sup>	Y <sup>a</sup>	Coordinate accuracy <sup>b</sup>	Trichomonosis <sup>c</sup>	Report date	Start date	End date	Number dead <sup>d</sup>	Source <sup>e</sup>
1945	Inyo	ND	-118.0733	36.3660	County	Suspected	ND	ND	ND	ND	Stabler & Herman 1951
1945	Monterey	ND	-121.7330	36.4812	County	Suspected	ND	ND	ND	ND	Stabler & Herman 1951
1953	San Benito	Gonzales	-121.2998	36.5129	City	Suspected	3/1/1953	ND	ND	ND	CDFW
1967	Shasta	Redding	-122.5350	40.5966	County	Confirmed	3/31/1967	ND	ND	2 [k]	CDFW
1973	Monterey	ND	-121.7342	36.4788	County	Suspected	3/29/1973	ND	ND	1 [k]	CDFW
1973	Sacramento	Folsom	-121.1033	38.6793	County	Suspected	4/9/1973	ND	ND	4 [k]	CDFW
1973	Shasta	ND	-122.5350	40.5966	County	Suspected	3/22/1973	ND	ND	7 [k]	CDFW
1975	Monterey	Pebble Beach	-121.9432	36.5802	City	Confirmed	1/27/1975	ND	ND	4 [k]	CDFW, Stabler 1979
1975	San Luis Obispo	Cambria	-121.0921	35.5669	County	Confirmed	ND	ND	ND	ND	Stabler 1979
1975	San Mateo	Half Moon Bay	-122.4303	37.4640	County	Confirmed	ND	ND	ND	ND	Stabler 1979
1975	Santa Cruz	Ben Lomond	-122.0836	37.1066	City	Confirmed	3/14/1975	ND	ND	28 [k]	CDFW
1982	Monterey	Fort Hunter Liggett	-121.1267	35.8647	City	Confirmed	2/11/1982	2/8/1982	ND	65 [k]	CDFW
1985	El Dorado	Camino	-120.6998	38.7366	City	Confirmed	2/15/1985	ND	ND	1 [k]	CDFW
1985	Humboldt	ND	-124.2188	40.6643	County	Suspected	1/14/1985	ND	ND	20 [e]	CDFW
1985	Sonoma	Geyserville	-122.9017	38.7749	City	Confirmed	2/15/1985	2/1/1985	ND	218 [e]	CDFW
1985	Trinity	ND	-122.7812	40.7137	County	Suspected	4/3/1985	ND	ND	50 [e]	CDFW
1988	Lake	ND	-123.0199	39.3258	County	Confirmed	2/23/1988	2/21/1988	3/7/1988	1500 [e]	Cole 1999, NWHC
1988	Mendocino	Boonville	-123.4058	39.0417	City	Confirmed	2/23/1988	ND	ND	ND	NWHC
1988	Monterey	Bryson	-121.0850	35.8091	City	Confirmed	2/23/1988	ND	ND	ND	NWHC
1988	Nevada	Grass Valley	-121.0065	39.2576	City	Confirmed	2/24/1988	ND	ND	50 [e]	CDFW
1988	San Luis Obispo	ND	-120.6310	35.3851	County	Confirmed	2/2/1999	ND	ND	200 [e]	CDFW, NWHC
1988	Sonoma	ND	-122.8864	38.6931	County	Confirmed	2/23/1988	ND	ND	5 [k]	CDFW, NWHC
1992	San Diego	Santa Ysabel	-116.7613	33.2361	Exact	Confirmed	2/5/1992	2/4/1992	ND	4 [k]	CDFW
1995	El Dorado	Pilot Hill	-121.0043	38.8350	City	Confirmed	2/27/1995	ND	ND	12 [e]	CDFW
1995	Mendocino	Dos Rios	-123.3528	39.7167	City	Confirmed	3/2/1995	ND	ND	100 [e]	CDFW
1995	Monterey	Carmel Valley	-121.5838	36.3030	City	Suspected	1/3/1995	ND	ND	300 [e]	CDFW
1995	San Luis Obispo	Paso Robles	-120.8903	35.6245	City	Confirmed	1/26/1995	12/25/1994	3/2/1995	200 [e]/24 [k]	CDFW, NWHC
1998	Monterey	Carmel Valley	-121.7357	36.4753	City	Suspected	3/9/1998	ND	ND	50 [e]/36 [k]	CDFW
2002	Nevada	Grass Valley	-121.0558	39.0693	City	Confirmed	2/28/2002	ND	ND	ND	CDFW
2004	Butte	Chico	-121.7557	39.7742	County	Suspected	4/21/2004	ND	ND	ND	CDFW
2004	Monterey	Carmel Valley	-121.5441	36.3509	City	Confirmed	2/13/2004	2/13/2004	3/25/2004	2000 [e]/515 [k]	CDFW, NWHC
2004	Tehama	Paynes Creek	-121.7052	40.1861	City	Confirmed	3/9/2004	3/4/2004	3/9/2004	500 [e]/38 [k]	CDFW, NWHC
2006	Shasta	Whiskeytown	-122.5360	40.5971	City	Confirmed	ND	4/1/2006	4/28/2006	300 [e]	NWHC
2007	Amador	Plymouth	-120.7708	38.5087	City	Suspected	1/22/2007	1/15/2007	ND	300 [e]	CDFW
2007	Calaveras	ND	-120.6194	38.2425	County	Confirmed	1/17/2007	ND	ND	2 [k]	CDFW
2007	El Dorado	El Dorado	-120.8619	38.6698	Exact	Suspected	1/18/2007	1/4/2007	1/13/2007	1 [k]	CDFW
2007	Madera	Coarsegold	-119.6533	37.2921	Exact	Suspected	2/1/2007	1/22/2007	1/26/2007	50 [e]	CDFW
2007	Monterey	Carmel Valley	-121.5597	36.3818	City	Confirmed	1/20/2007	1/15/2007	3/15/2007	10000 [e]	CDWW, Stromberg et al. 2008
2007	Placer	Forest Hill	-120.8031	39.0938	City	Suspected	1/17/2007	ND	ND	ND	CDFW
2007	San Benito	Hernandez Reservoir	-120.8282	36.3996	City	Suspected	1/20/2007	12/15/2006	ND	30 [e]	CDFW
2009	El Dorado	Placerville	-120.6911	38.6947	Exact	Suspected	2/26/2009	2/5/2009	ND	6 [k]	CDPH

2009	Mariposa	Mariposa	-119.8676	37.4800	Exact	Confirmed	3/3/2009	2/23/2009	3/29/2009	300 [e]/8 [k]	CDFW, CDPH
2009	Napa	Calistoga	-122.6657	38.5845	Exact	Suspected	2/18/2009	1/29/2009	ND	10 [k]	CDPH
2009	Santa Cruz	Watsonville	-121.7534	36.9739	Exact	Suspected	2/25/2009	ND	ND	5 [k]	CDPH
2010	Alameda	Sunol	-121.8280	37.5103	City	Confirmed	3/4/2010	2/10/2010	3/15/2010	12 [k]	CDFW
2010	Calaveras	Murphys	-120.3675	38.1876	City	Suspected	3/11/2010	ND	ND	2 [k]	CDFW
2010	Monterey	Carmel Valley	-121.7357	36.4753	City	Suspected	3/10/2010	ND	ND	ND	CDFW
2010	San Luis Obispo	Paso Robles	-120.8352	35.6432	Exact	Confirmed	3/8/2010	ND	ND	300 [e]	CDFW
2010	Santa Clara	Morgan Hill	-121.7979	37.1327	City	Suspected	3/9/2010	2/24/2010	ND	5 [k]	CDFW
2010	Ventura	Ojai	-119.3060	34.4314	Exact	Confirmed	3/3/2010	2/15/2010	3/15/2010	1000 [e]	CDFW
2012	Amador	Amador City	-120.8114	38.4229	Exact	Confirmed	2/1/2012	2/1/2012	2/20/2012	10 [e]	CDFW
2012	Butte	Feather Falls	-121.2636	39.5937	City	Confirmed	2/27/2012	2/20/2012	2/27/2012	20 [e]	CDFW
2012	Madera	Coarsegold	-119.7063	37.2824	Exact	Confirmed	1/19/2012	1/10/2012	3/9/2012	400 [e]	CDFW
2012	Monterey	Carmel Valley	-121.5981	36.3916	Exact	Confirmed	2/14/2012	1/11/2012	3/18/2012	600 [e]	CDFW
2012	Nevada	Grass Valley	-121.0700	39.0594	Exact	Confirmed	2/6/2012	2/4/2012	2/10/2012	30 [e]	CDFW
2012	San Luis Obispo	Santa Margarita	-120.5348	35.3611	City	Suspected	3/20/2012	12/10/2011	1/31/2012	400 [e]	CDFW
2012	Santa Barbara	Lake Cachuma	-119.9583	34.5788	Exact	Confirmed	2/23/2012	1/23/2012	2/23/2012	30 [e]	CDFW
2012	Santa Cruz	Corralitos	-121.8041	37.0467	Exact	Confirmed	2/22/2012	2/10/2012	2/22/2012	20 [e]	CDFW
2014	San Diego	Santa Ysabel	-116.8801	33.3446	Exact	Confirmed	1/24/2014	1/9/2014	2/12/2014	200 [e]	CDFW

<sup>a</sup>X (longitude) and Y (latitude) coordinates in decimal degrees, WGS 84

<sup>b</sup>Ranked accuracy of the coordinate location based upon the level of detail provided in the report. Exact location was determined based upon street address or geographic coordinates; City-based location was determined from identifiable landmark, street name, or city name; County-based location was placed randomly within a county in Band-tailed Pigeon habitat.

<sup>c</sup>Trichomonosis confirmed through diagnostic test including culture, wet mount, PCR, or IHC; suspected based on clinical signs and characteristics of the event.

<sup>d</sup>Number of Band-tailed Pigeons estimated [e] or known [k] to have died during the event.

<sup>e</sup>Reference or agency reporting the mortality event. CDFW: California Department of Fish and Wildlife; CDPH: California Department of Public Health; NWHC: National Wildlife Health Center.

ND: data not available