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***Drosophila* collection in Los Angeles, California.**

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Drosophila collections are important for understanding the distribution of species (Patterson, 1943). Unfortunately, few scientists can properly identify all the species in their collections; therefore, investigators retain only key species and discard the rest usually without a published record. Here, we document our collections from October to December, 2010, in the Los Angeles metropolitan area. We used seven day-old fermented bananas for baits (Carson and Heed, 1983), and we introduced 300 grams of fermented banana mixture into a 1-liter, green plastic bottle with a wide mouth (a method modified from Markow and O'Grady, 2006). We set > 100 baits in parks or close to trash collectors in market plazas. Fifty-six of our baits were lost or distressed; thus, we recovered flies from 54 stations (Table 1).

Table 1. Species composition percentage for the Drosophilidae individuals collected in 54 areas in Los Angeles Metro Area, California, October to December, 2010.

Species	Percentage
<i>D. simulans</i>	69.71%
<i>D. immigrans</i>	14.56%
<i>D. melanogaster</i>	8.08%
<i>S. lebanonensis</i>	1.90%
<i>D. busckii</i>	1.24%
<i>D. repleta</i>	1.19%
<i>D. hydei</i>	1.02%
<i>D. suzukii</i>	0.68%
<i>D. pseudoobscura</i>	0.47%
<i>D. mainlandi</i>	0.36%
<i>D. mercatorum</i>	0.30%
<i>D. wheeleri</i>	0.23%
<i>Z. indianus</i>	0.09%
<i>D. virilis</i>	0.07%
<i>D. macrospina</i>	0.05%
<i>D. funebris</i>	0.02%
<i>D. malerkotliana</i>	0.01%

We collected flies from baits on site after a 5-8 day period, and we immediately sorted the flies to sex and transported them back to our UCLA laboratory. There we identified individuals to species. We set up isofemale lines for all *Drosophila melanogaster*, which was our target species, and for all melanogaster group females that we could not distinguish from *D. simulans* (Watada, personal communication).

We collected 9,524 Drosophilidae flies distributed across 17 species. Table 1 shows the percentage of species collected. Two species, *D. wheeleri* Patterson and Alexander 1952 and *D. mainlandi* Patterson 1943, are endemic to California. The other 15 Drosophilidae species are cosmopolitan or semi-cosmopolitan. Two species, *Zaprionus indianus* Gupta 1970 and *D. suzukii* (Matsumura, 1931), are introduced pest-species. During the collection period, we spoke with USDA agents in the field. They were using the organic insecticide Spinosad to control the true mediterranean fruit fly *Ceratitidis capitata*. However, this chemical apparently had a negative impact on our collections, too. Table 2 shows the bait location, species, and numbers collected by bait.

Thirty-seven percent of the collected flies were females. Seventy-nine percent were in the subgenus *Sophophora* Sturtevant 1939, 17.8% in the subgenus *Drosophila* Duda 1923, 1.2% in the genus

Table 2. Species, location and numbers collected at 54 collection sites in Los Angeles Metro Area, California, October to December, 2010.

Place	Latitude	Longitude	<i>D. simulans</i>	<i>D. immigrans</i>	<i>D. melanogaster</i>	<i>S. lebanonensis</i>	<i>D. busckii</i>	<i>D. repleta</i>	<i>D. hydei</i>	<i>D. suzukii</i>	<i>D. pseudoobscura</i>	<i>D. mainlandi</i>	<i>D. mercatorum</i>	<i>D. wheeleri</i>	<i>Z. indianus</i>	<i>D. virilis</i>	<i>D. macrospina</i>	<i>D. funebris</i>	<i>D. malerkotliana</i>
Echo Park ¹	33.669385	-117.81403	116	24	3									3					
Wildwood Park ¹	33.683398	-117.787444	9	4	24														
Bridsong Park ¹	33.684046	-117.801826	82	1					12			3							
Garfield Palza ²	33.68685	-117.96948	7	3	2														
Pavillions Place ³	33.724188	-117.986984	223	21	5						5			1					
Wheeler Park ⁴	33.732228	-118.032453	32	5	8														
Veterans Park ⁵	33.789705	-118.314514	242	33	2														
Madrona Marsh Nat Preserve ⁶	33.825279	-118.341358	265	44	1			9		2	2			5			5		
FE Hopkins Wilderness Park ⁷	33.828252	-118.373823	86	47	5			50		4				9					
Virginia Country Club ⁸	33.833341	-118.199759	436	48		4	14	4	14					2					1
Crenshaw & Del Amo Blvd ⁶	33.849568	-118.328601	37	5	5														
Peralta Canyon Park ⁹	33.852375	-117.802448	18	15															
Roosevelt Memorial Park ¹⁰	33.865681	-118.298748	239	36						1	1	1							
Canyon RV Park ¹¹	33.869705	-117.711819	21	29		23													
N. Valley Dr & 9th Pl ¹²	33.884218	-118.406407	314	28	2			26			1			2					
Butterfield Stage trail Park ¹³	33.890127	-117.627676	22	11	1			8											
Plaza el Segundo ¹⁴	33.902319	-118.396482	401		1				2										
S Sepulveda & Lincon Blvd ¹⁵	33.952972	-118.39645	242	16		2	37		6										
Westchester Rec Center ¹⁵	33.957315	-118.413649	101	80	20					7		2			1				
500 E Manchester Blvd ¹⁶	33.959962	-118.348417	36	22														1	
Ralph ¹⁶	33.968547	33.968547	243	58	1		7		4	7									
William Penn Park ¹⁷	33.974373	-118.023838	24	10	4		41												
W Centinela & S La Tijera Blvd ¹⁵	33.976891	-118.375749	118	16	4		2		11				7						
Yvonne B. Burke Park ¹⁸	33.983447	-118.443861	338	32	1			1	26	3			1		8				
60th St & Avalon Blvd ¹⁵	33.984524	-118.260902	39																
Oakwood Ave & Crestmoore Pl ¹⁵	33.990569	-118.455244			18								14						
Kenneth Hall State Rec Area ¹⁵	34.008558	-118.36966	129	19	9		14												
Rodeo Blvd & Falls Grove St ¹⁵	34.021088	-118.36957	66	4	4		4			1									
Motor Ave & Venice Blvd ¹⁹	34.022218	-118.40462	167	1	51														
Media Park ¹⁹	34.026384	-118.393175	27		6														
Palms Ave & Vinton St ¹⁹	34.027214	-118.407591	584	331	234		9	3		2		2							
Sid Kronenthal Park ¹⁹	34.027259	-118.378512	112	26	10					1									
Midvale Ave & National Blvd ¹⁵	34.029794	-118.421094	4	21	5														
Castle Heights & National Blvd ¹⁵	34.029807	-118.400635	429	65	96		4		2	2	2					1			
Motor Ave & Old Motor Ave ¹⁵	34.031892	-118.410988	5	1	5							1							
Exposition & Westwood Blvd ¹⁵	34.036462	-118.427382	7		1														
W Riggan & Gerhart Ave ²⁰	34.036806	-118.144304	253	18				2	26				7						
Cheviot Hills Park ¹⁵	34.043988	-118.405527	82	8	10					3									
W 17th & S Rimpau Blvd ¹⁵	34.044791	-118.341401	44	2	5														
Mt. Olivet Reservoir ²¹	34.046419	-118.477721	16		3				1										
Venice Blvd & S Rimpau Blvd ¹⁵	34.046828	-118.340735	78	8	1					3									1
Ruxbury Memorial Park ²²	34.057993	-118.407898	145	23					3	4	1								
La Cienega Park ²²	34.060837	-118.375711	21	22	8														
Hancock Park ¹⁵	34.064765	-118.357365	46	6	11					3									
Montana Ave & Beloit Ave ¹⁵	34.066041	-118.463688	35	7	1	8					2								
UCLA ¹⁵	34.066863	-118.441629	328	44	71					8								1	
Getty Center ¹⁵	34.081557	-118.475844	92	27	6	43					10							3	
Mandeville Canyon Blvd ¹⁵	34.087995	-118.503942	83	66		63					5							2	
Bell Air Crest & N Sepulveda Blvd ¹⁵	34.108798	-118.481412	178	38	3	37					16								
Michillinda Park ²³	34.130759	-118.070991			17														
Arroyo Seco Park ²⁴	34.161241	-118.171724	7	45	106														
Hahamongna park ²⁵	34.205121	-118.165791	10	17		1					5	20							

Cities codes: 1=Irvine; 2=Santa Ana; 3=Fountain Valley; 4=Westminster; 5=Lomita; 6=Torrance; 7=Redondo Beach; 8=Long Beach; 9=Anaheim; 10=Gardena; 11=Yorba Linda; 12=Manhattan Beach; 13=Chino; 14=El Segundo; 15=Los Angeles; 16=Inglewood; 17=Whittier; 18=Marina del Rey; 19=Culver City; 20=Monterey Park; 21=Santa Monica; 22=Beverly Hills; 23=San Gabriel; 24=Pasadena; 25=Altadena.

Dorsilopha Sturtevant 1942, 1.9% in the genus *Scaptodrosophila* Duda 1923, and 0.1% in the genus *Zaprionus* Coquillett 1901.

Our specific target was endosymbiont-free *D. melanogaster* isofemale lines. At this writing, we have tested 180 isofemale lines of which only four *D. melanogaster* lines were free of both *Wolbachia* and *Spiroplasma*.

References: Carson, H.L., and W.B. Heed 1983, *The Genetics and Biology of Drosophila*, Vol 3d: 2-31 (Ashburner, M., H.L. Carson, and J.N. Thompson, jr., eds), Academic Press, New York; Markow, T.A., and P.M. O'Grady 2006, *Drosophila, A Guide to Species Identification and Use*. Academic Press; Patterson, J.T., 1943, Univ. Texas Publ. 4313: 7-327.



A new geographical record for *Drosophila bifurca*.

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The decades of the 1940s and 1950s marked an important era for the description and collection of species in the genus *Drosophila*. The University of Texas hosted the first multispecies *Drosophila* center where Sturtevant, Patterson, Carson, Wasserman, Throckmorton, Wheeler and Heed, among other great Drosophilists, deposited their extensive *Drosophila* collections through the years. Unfortunately in the last decade, exhaustive *Drosophila* collections had not been realized at a scale and dedication like before (Heed, personal communication).

Many of the original *Drosophila* stocks deposited in multispecies *Drosophila* Center, currently located at the University of California, San Diego, are only one of its kind. Several of these stocks have years, even decades, in laboratory culture. Now, with the exception of cosmopolitan or semi-cosmopolitan species, the addition of new species or collections to the *Drosophila* Species Stock Center is limited. Unfortunately these days, virtually none of scientific collections are contributed to the Center. In most cases, today's collectors only focus on their type species and deliberately they ignore those species that they cannot identify quickly.

Drosophila bifurca (repleta group, hydei subgroup) is an interesting case in the *Drosophila* Species Stock Center. This species has a great interest in the scientific community although it doesn't belong to the group of the genome project species. Males of *D. bifurca* produce the largest sperm in the animal kingdom (58 mm uncoiled) (Pitnick *et al.*, 1995). Therefore, there are numerous studies on sexual competition and spermatogenesis, among others, for this species (Bjork *et al.*, 2007; Luck *et al.*, 2007).

Little is known, however, about the *D. bifurca* ecology. In 1943, Patterson specified *D. bifurca* collections in Texas, Arizona, and Mexican states of Tamaulipas, Michoacán, San Luis Potosi, and Hidalgo. In the 1980's, Heed collected *D. bifurca* abundantly in on the sky island in Madeira Canyon, Arizona, at an elevation of 4,600-5,000 ft, where evergreen oaks, Alligator Juniper, and Mexican Piñon Pine were abundant (personal communication). Despite the wide distribution of this species, only two *D. bifurca* stocks are alive in the *Drosophila* Center. Both stocks were collected by Heed in 1993 and 2000 (on Hidalgo and San Luis Potosi, respectively).

In this brief communication note, I want to record a new *D. bifurca* distribution. In September and October 2010, over 20 one-liter baits were placed in the surrounding area of Topanga Canyon, California. All baits were made with rotten banana mixed with different tree saps. *Drosophila* collections were made in the morning between 8:30 and 10:30 am. During the collection