Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Post Development Bat Monitoring 2009 Highlights





MONITORING AREAS

Beal Riparian Restoration Area

Ahakhav Preserve

Palo Verde Ecological Reserve

Cibola Valley Conservation Area

Cibola National Wildlife Refuge Unit #1

Imperial Ponds Conservation Area

Pratt Restoration Area



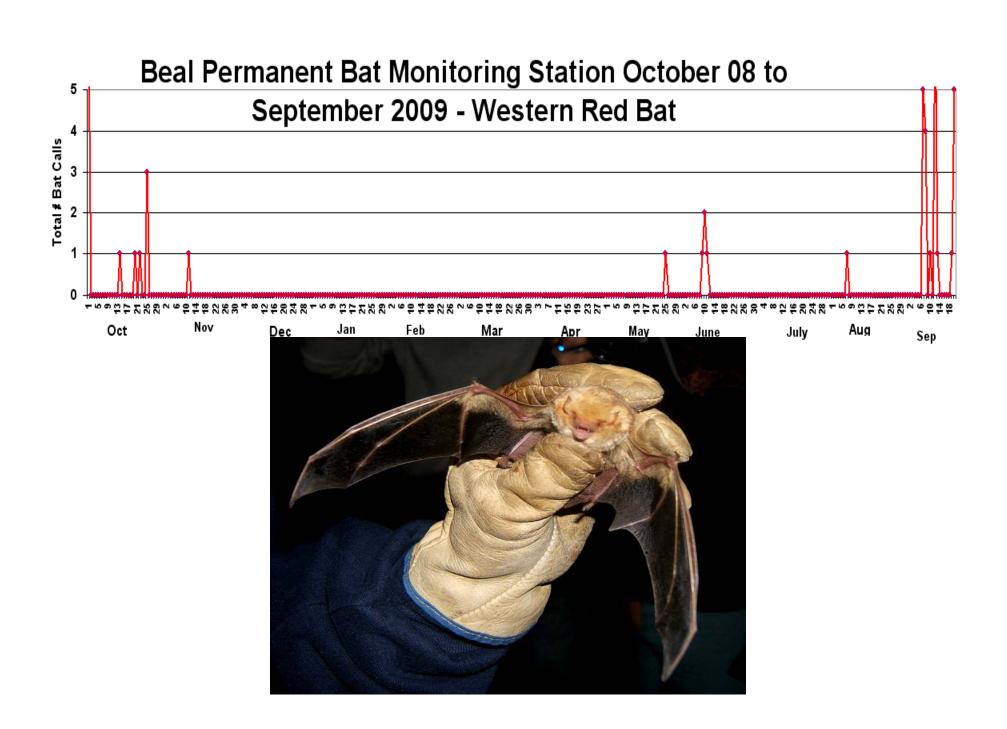
Study Design

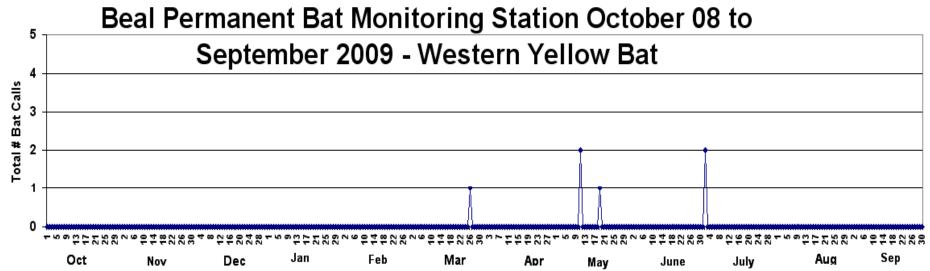
- CVCA/CNWR#1 and Imperial Ponds/Pratt combined to provide adequate sample
- At least 3 of 5 habitat types monitored/study area
- 3 bat detectors deployed in each habitat type so that at least 9 detectors deployed on any given night
- Surveys conducted for 2 days every quarter at each study area - all 4 seasons are sampled each year

Beal Riparian Restoration Area

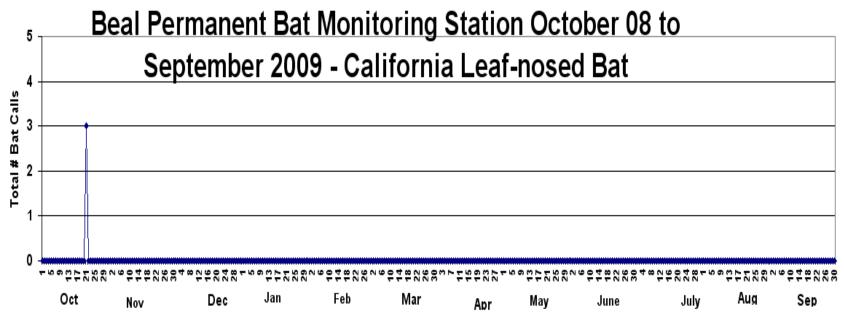
Species	FY07	FY08	FY09	All Years
Western Red Bat	3	0	2	5
Western Yellow Bat	9	1	0	10
California Leaf-Nosed Bat	7	3	3	13
Townsend's Big-Eared Bat	1	0	2	3
All other species	1607	2292	3594	7493
Total call minutes	1627	2296	3601	7524



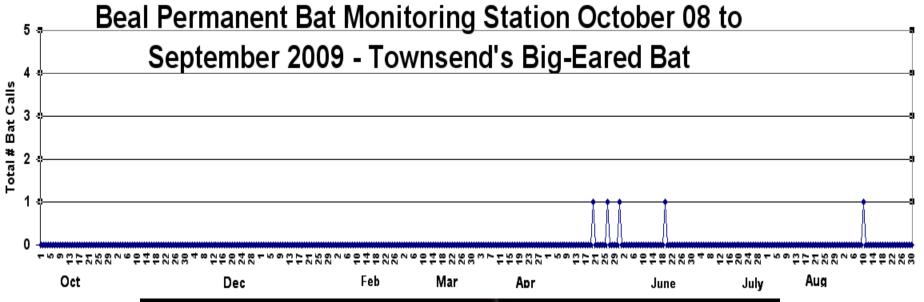














'Ahakhav Preserve

Species	FY08	FY09	Both Years
Western Red Bat	2	180	182
Western Yellow Bat	69	203	272
California Leaf-Nosed Bat	37	67	104
Townsend's Big-Eared Bat	1	1	2
All other species	7238	11372	18610
Total call minutes	7347	11823	19170

'Ahakhav Preserve

Species	FY08	FY09	Both Years
Western Red Bat	2	(180)	182
Western Yellow Bat	69	203	272
California Leaf-Nosed Bat	37	67	104
Townsend's Big-Eared Bat	1	1	2
All other species	7238	11372	18610
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Palo Verde Ecological Reserve

Species	FY07	FY08	FY09	All Years
Western Red Bat	6	1	11	18
Western Yellow Bat	0	0	1	1
California Leaf-Nosed Bat	22	3	23	48
Townsend's Big-Eared Bat	0	0	1	48
All other species	1380	1349	2229	4958
Total call minutes	1408	1353	2265	5026

Palo Verde Ecological Reserve

Species	FY07	FY08	FY09	All Years
Western Red Bat	6	1	11	18
Western Yellow Bat	0	0	1	1
California Leaf-Nosed Bat	22	3	23	48
Townsend's Big-Eared Bat	0	0	1	48
All other species	1380	1349	2229	4958
Total call minutes	1408	1353	2265	5026

Cibola Valley Conservation Area & Cibola NWR Unit #1 Conservation Area

Species	FY07	FY08	FY09	All Years
Western Red Bat	4	1	86	91
Western Yellow Bat	0	0	13	13
California Leaf- Nosed Bat	48	70	54	172
Townsend's Big- Eared Bat	1	0	6	7
All other species	1288	2677	7433	11398
Total call minutes	1341	2748	7592	11681

Cibola Valley Conservation Area & Cibola NWR Unit #1 Conservation Area

Species	FY07	FY08	FY09	ΑII
				Years
Western Red Bat	4	1	86	91
Western Yellow Bat	0	0	13	13
California Leaf-	48	70	54	172
Nosed Bat				
Townsend's Big-	1	0	6	7
Eared Bat				
All other species	1288	2677	7433	11398
Total call minutes	1341	2748	7592	11681

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California Leaf- Nosed Bat	48	70	54	172
Townsend's Big- Eared Bat	1	0	6	7
All other species	1288	2677	7433	11398
Total call minutes	1341	2748	7592	11681



Imperial Ponds Conservation Area& Pratt Restoration Area

Species	FY07	FY08	FY09	All Years
Western Red Bat	7	1	19	27
Western Yellow Bat	0	4	7	11
California Leaf-Nosed Bat	63	63	75	201
Townsend's Big-Eared Bat	4	0	1	5
All other species	3914	4424	6404	14742
Total call minutes	3988	4492	6506	14900

Imperial Ponds Conservation Area& Pratt Restoration Area

Species	FY07	FY08	FY09	All Years
Western Red Bat	7	1	(19)	27
Western Yellow Bat	0	4	7	11
California Leaf-Nosed Bat	63	63	75	201
Townsend's Big-Eared Bat	4	0	1	5
All other species	3914	4424	6404	14742
Total call minutes	3988	4492	6506	14900

Completion of Intensive Acoustic Sampling

Data Analysis

Transition to Permanent Bat Monitoring Stations