

2006 Wister Marsh Bird Survey Summary

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August 31, 2006

The 2006 marsh bird surveys of the Imperial Wildlife Area (IWA) were conducted by California Department of Fish and Game (DFG) Associate Wildlife Biologist Steve Gibson (myself). I attended the March 2006 Marsh Bird Training Workshop in Yuma Arizona. This is the first time the Standardized North American Marsh Bird Protocol (SNAMBP) has been used at the IWA. This new protocol will replace the Yuma Clapper Rail Survey Protocol from January, 2000, that has been conducted annually at IWA in the past.

Multiple observers were not available for this survey. The same points sampled in previous years at the Wister Unit were used to conduct this survey. The points are set at 200 M intervals as per the Yuma Clapper Rail Survey Protocol (January, 2000). The SNAMBP suggests new stations be placed at 400 M intervals and no change to previously established sites. There were very few new stations added, and these were placed at an interval of 400 M.

There were two survey areas consisting of the IWA Wister Unit and the Dos Palmas Preserve (DPP). This is the first time a Yuma Clapper Rail or SNAMBP has been conducted at DPP. Two complete surveys of each survey area were completed within the survey period. These survey periods were determined by availability of the surveyor and included many days without surveys. This was not the optimal survey strategy but was unavoidable. Surveys were conducted by completing contiguous sections of managed marsh in a day. If the survey in a section of managed marsh was not completed before the heat, wind, or end time of the survey protocol became a noticeable influence, the section was revisited and surveyed entirely the following day. Eighteen total sections were surveyed at IWA and 1 section included the entire DPP survey area. The first survey began on April 10 and was completed on May 9. The second survey began May 10 and ended May 24. Neither of these surveys were completed within the length of time suggested in the protocol (10 days) and a third survey was not completed. Also a seven day separation between surveys was not possible with the personnel and time restraints. It should be noted that the survey area is very large and the separation between the beginning call station and the final call station is greater than eight miles. The time between the first visit to a site and the second was never less than two weeks.

The call stations were located using Global Positioning System (GPS) points with the Garmin GPS 12XL (Datum NAD 83 UTM). This is the same unit that has been used for several years. The points were ground proofed with a map with

points hand drawn from the original survey layout and pin flags were placed at call stations prior to beginning the survey.

The broadcast system used for the survey was the factory stereo in a 2001 Ford F150. A high quality cassette recording of the CD provided at the training was made and broadcast through the cassette player. The volume was kept at the same level for each station. The layout of the managed marsh and the uniform construction of the berms made it easy to broadcast from the same height and distance from the edge of the marsh for all stations. By opening the door nearest the section of marsh being surveyed, a high quality broadcast was performed. Time traveling from station to station was minimized with the use of the vehicle and set up time for broadcast was completed while in route to the next site.

The IWA Wister Unit consists of 5,883 total acres of land at the southeast end of the Salton Sea in northwestern Imperial County. At the time of the survey (April 7-May 31) an estimated 1, 275 acres were being managed for Yuma clapper rail habitat. The target range of area of habitat managed for Yuma clapper rails at IWA is between 744 and 1469 acres. Approximately 85% of the total available habitat at IWA was suitable for Yuma clapper rails throughout their 2006 breeding season. Figure 2 shows the area surveyed at IWA (highlighted in yellow) during the 2006 survey. Management of these units entails a 3-5 year cycle of maintenance rather than the one year cycle that is used for waterfowl habitat. Careful maintenance with regard to timing (avoiding breeding season), location and technique, such as limited tilling to retain crayfish resource, and emphasis on quick recovery of habitats following maintenance procedures is included in this maintenance cycle. The result is mature cattail stands with some open water.

Call station numbers (A10 A11 A12 A13 A14 A15 A16 A17 A18 A23 A28 A29 A30 A30A A31 A32 A33 A34 A35 A36 A37 A38 A39 A43 A44 A45 A47 A48 A49A A53 A54 A55 A6 A7 A8 A8A A9 B1 B10 B10A B10C B16 B17 B17C B17D B19 B19A B19B B19C B1B B2 B20A B23 B23A B24 B25 B26 B27 B28 B29 B29A B29B B29C B29D B3 B30 B31A B32 B33A B35 B36 B37 B38 B3A B4 B47 B49A B5 B54 B5A B6 B6A B7 B8 B9 C2 C4) were not surveyed due to the lack of suitable rail habitat. Some of the call stations are in long term non-habitat areas while others are being rotated in and out as necessary due to current habitat suitability. Due to the changing conditions of water flow and habitat types related to the management practices at the IWA, no call stations were deleted. Call stations not surveyed this year may become call sites in the future and will remain part of the IWA database. New call stations were added where rail habitat had become available due to water flow changes and emerging habitat or needed better coverage due to gaps in the survey areas. Two new call stations were added at the IWA and a new survey area was added at the DPP. These call stations will cover existing habitat as well as areas designated for rails in future years.

The peak number (highest number of detections per complete survey) of Yuma clapper rails detected at IWA (310) occurred during the first of two surveys. This is an 8% decline from last year. The difference in peak number of detections this year may be a result of the new protocol, a different surveyor, the habitat available, or many other environmental factors. The Yuma clapper rail had the highest mean number of detections per station during both the passive and broadcast portion of the survey. There was very little benefit apparent from the call broadcasting since there was less than 5% difference in the mean number of detections for call and broadcast portions of the survey for Yuma clapper rail (figure 4).

Three call stations were added to the survey in 2006 in the area of the DPP at a distance of 200 M apart. This provided adequate coverage of the suitable habitat in this area. The habitat consists of freshwater ponds with emergent vegetation on the berms and adjacent area of the ponds. See maps (figures 5 and 6).

GPS Data For Dos Palmas Preserve

Station Name	Datum	UTM Northing	Easting	ElevFeet	Date	Local-Time
201	NAD83	11S,608631mE	3707543N	NA	10/06/2006	10:49:20
205	NAD83	11S,608892mE	3708278N	NA	10/06/2006	10:49:21
209	NAD83	11S,608530mE	3707951N	NA	10/06/2006	10:49:21

No Yuma clapper rails were detected at the DPP during two complete surveys.

The Survey data has been entered in the excel spreadsheets provided by the USFWS and mailed to:

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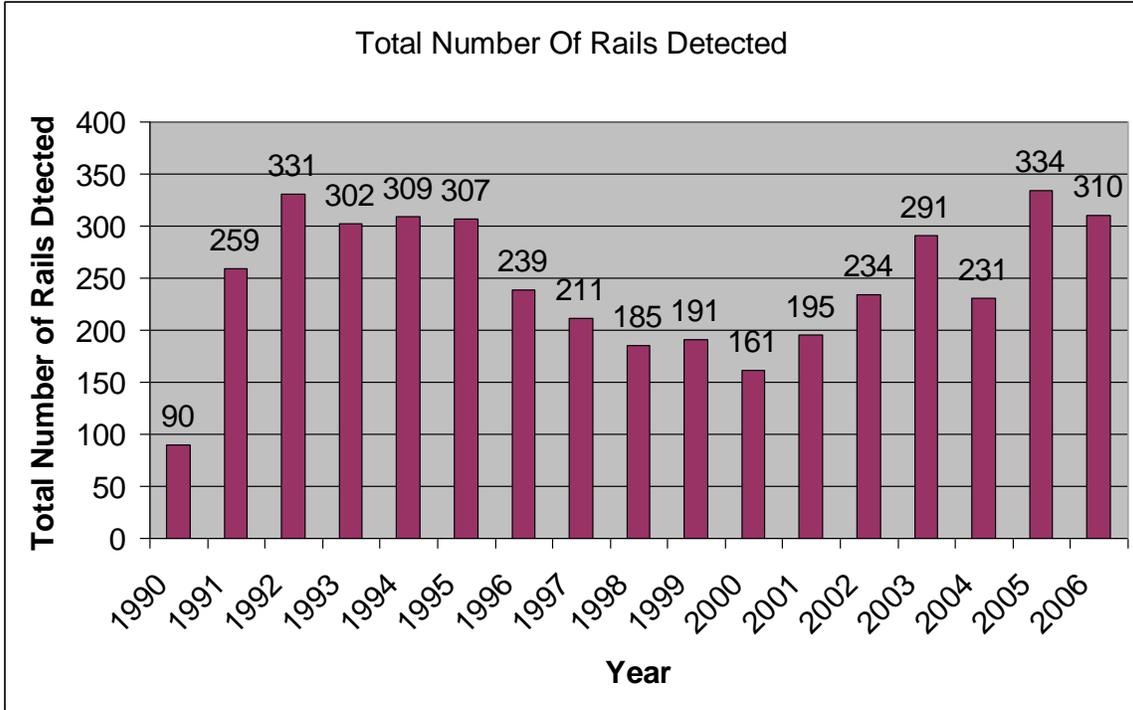


Figure 1. Annual Yuma clapper rail peak number of detections at the Imperial Wildlife Area.

Survey Date	Number of Yuma Clapper Rails Detected
04/10/06	47
04/11/06	43
04/12/06	34
04/13/06	47
05/01/06	54
05/02/06	24
05/03/06	45
05/09/06	21
05/10/06	88
05/11/06	35
05/12/06	67
05/18/06	24
05/19/06	27
05/23/06	15
05/24/06	15
Total	586

Figure 3. Total take of Yuma clapper rails reported to USFWS for 2006.

species		passive	broadcast	Mean # birds/station Passive	Mean # birds/station Active
AMBI	survey 1	8	3	0.1	0.04
	survey 2	11	5	0.14	0.08
CLRA	survey 1	247	262	3.13	3.32
	survey 2	194	194	2.46	2.46
COMO	survey 1	39	33	0.49	0.42
	survey 2	32	30	0.41	0.38
LEBI	survey 1	27	25	0.34	0.32
	survey 2	16	28	0.2	0.36
PBGR	survey 1	12	14	0.15	0.18
	survey 2	10	13	0.13	0.16
SORA	survey 1	23	32	0.29	0.41
	survey 2	1	2	0.01	0.03
VIRA	survey 1	2	5	0.03	0.06
	survey 2	1	2	0.01	0.03

Figure 4. Mean number of detection per station for each species during passive and broadcast portions of survey.

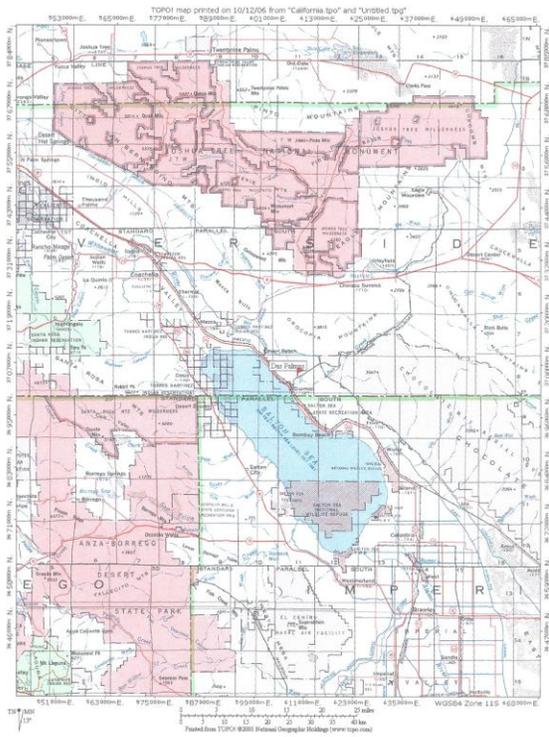


Figure 5. Dos Palmas Preserve area location map.

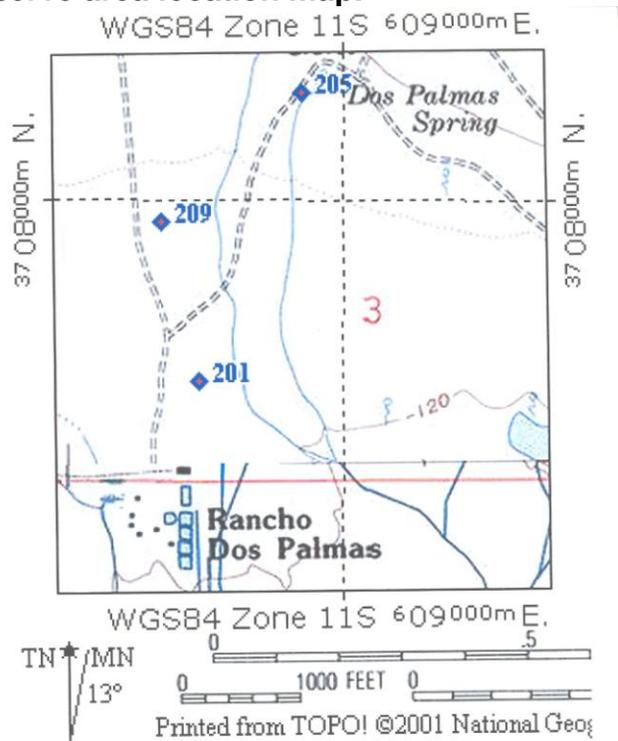


Figure 6. Dos Palmas Preserve call stations.