

Memo on pelican production and mortality – 2005, Medicine Lake NWR

Nest count

- 3203 nests (1770 on Big Island, 1433 on Bridgerman Pt)
- Down from the 10-yr average (1996-2005) of 4008 nests.

Banding

- On 30 June 2005 we banded 960 young of the year in these 2 sub-colonies.
- That was approximately 80-85% of the total young.

Die-offs

- commenced in early July,
- WNV not confirmed in mosquitoes until August 1, in pelicans
- Other disease test results are pending at Natl Health Lab

Mortality Estimates:

- 321 of 960 banded young died during 1 July – 12 Sept
- translates to 34% mortality in the young of the year for 2005 *~ 400 dead estimated*
- past mortality rates: 2004 = 38%, 2003 = 44%, 2002 = 4%
- in 2003 we estimated about 800-1000 young died
- 2002 was first yr WNV suspected; 2003 was worst year for it in NE Montana

Other 2005 Pelican and/or WNV Monitoring at Medicine Lake NWR:

- 24-hr surveillance cameras in breeding colonies
- 5 satellite transmitters on adult pelicans
- behavioral observations of adult/young pelicans in colony
- mosquito trapping and blood testing for WNV
- sentinel chicken WNV monitoring
- blood-fed mosquito sampling--will determine species of host animals

$$\frac{960}{x} = \frac{85}{100}$$

$$x = 1129$$

$$\frac{34}{100} = \frac{x}{1129}$$

$$x = 383 \text{ estimated dead}$$

$$\approx 400 \text{ dead in } 2005$$

from Ross

2005 Pelican band returns

960 banded birds on 6/30/05

Bridgerman Point

7/1/2005	8 bands
7/2/2005	5 bands
7/3/2005	13 bands
7/6/2005	14 bands
7/11/2005	13 bands
7/18/2005	6 bands
7/25/2005	11 bands
7/27/2005	0 bands
7/28/2005	1 band
8/1/2005	29 bands

Big Island

7/1/2005	9 bands
7/7/2005	28 bands
7/11/2005	17 bands
7/19/2005	14 bands
7/28/2005	13 bands
8/2/2005	24 bands

205 total

21.3% mortality on banded young in 2005

Pelican Band Recovery 2005

960 Total Bands

<u>Date</u>	<u># bands</u>	<u>Location</u>	<u>Comments</u>
7-11-05	13	Bridgeman	#
7-11-05	16 (16 from this year, 2005 1 from 2004)	Big Island	#13699 used in 2004, recovered
7-7-05	28	Big Island	
7-6-05	14	Bridgeman	
7-3-05	13	Bridgeman	
7-2-05	5	Bridgeman	
7-1-05	9	Big Island	
7-1-05	7 (7 from 2005 1 from 2004)	Bridgeman	#30196, 2004 Band
<div>105 2005 recovered bands</div>			
7-18-05	6	Bridgeman	
7-28-05	1	Bridgeman (30957)	
7-28-05	13 #649-2230 recovered. Need to check out.	Big Island	(need to mark off still being checked)
7-25-05	11	Bridgeman	
7-19-05	14	Big Island	
8-1-05	29	Bridgeman	
8-2-05	24	Big Island	
8-4-05	1	Giffney Lake	0669 30580
8-5-05	2	Bridgeman	
8-8-05	7	Bridgeman	
8-9-05	40	Big Island	
<div>253 Total</div>			

8-13-05	24	Big Island
8-16-05	5	Bridgeport
8-17-05	3	Big Island
8-22-05	3	Bridgeport
8-29-05	10	Big Island
9-1-05	5	Big Island
9-2-05	3	Big Island
9-8-05	7	Big Island
9-20-05	7	Big Island (3) + Bridgeport (4)
9-12-05	4	Big Island

324 Total birds recovered in 2005

3 of the 319 birds were not in the 2005 years
band sequence (#13699, 30196, 12868)

$$\frac{\cancel{316} 324}{960} = 33\% \text{ mortality}$$

$$\frac{324}{960} = 34\%$$

or?

$$\frac{321}{960} =$$

Refuge
File

To: Bird Banding Lab

From: Marco Restani, St Cloud State University, **Permit #22513**, and Elizabeth Madden, Biologist, Medicine Lake NWR, Montana

Re: Banding Schedules

12 October 2005

Enclosed is a disk of banding schedules for 960 bands placed on American white pelicans this summer. Unfortunately we ran into a bad situation where we ended up using bands left from 10 strings intermittently and so we have gaps in the band numbers used. You will also notice that there are 324 of the 960 bands used recorded as "Band Destroyed." These pelicans were hit with West Nile Virus right after banding, and we picked these 324 bands off dead birds during July and August at the banding site.

So, these gaps in bands used and the high numbers of "bands destroyed" created some problems with printing schedules in your Band Manager program. Although the bands used were all entered and accounted for in the program, the schedules print out only one or a few bands on each page, and thus re-printing each 50 band span many times (and they do not print in order). Beth Madden, who entered the data, communicated with Esther Mills on this, and she said it would be okay if we didn't print a hard copy, since the actual data is all there and it seems to just be a problem with the printing of the schedules.

If there are any problems with the data on your end at the BBL, please contact Beth Madden 406-789-2305 ext 109, elizabeth_madden@fws.gov. Thanks.