From:	Britta Muiznieks
To:	Sandra Hamilton; Doug Wetmore
Cc:	<u>Mike Murray</u>
Subject:	Fw: Q - increase in # PIPL prs
Date:	11/03/2010 07:20 AM

I just thought I would forward you Anne Hecht's NC PIPL summary to compare with the numbers in the EIS. Hopefully they match up!

Britta Muiznieks Wildlife Biologist Cape Hatteras National Seashore

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----- Forwarded by Britta Muiznieks/CAHA/NPS on 11/03/2010 09:13 AM -----

"Schweitzer, Sara H"		
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11/02/2010 06:05 PM	СС	"Britta_Muiznieks@nps.gov" <britta_muiznieks@nps.gov>, "Doug_Mcgee@nps.gov" <doug_mcgee@nps.gov>, "wgolder@audubon.org" <wgolder@audubon.org>, "Allen, David H" <david.h.allen@ncwildlife.org></david.h.allen@ncwildlife.org></wgolder@audubon.org></doug_mcgee@nps.gov></britta_muiznieks@nps.gov>
	Subject	RE: Q - increase in # PIPL prs

Thanks, Anne! First, it appears that I get to claim ignorance for a lot longer and that will be helpful. Second, thanks for going through the data from years past. It looks like from 2007-2010, the number of pairs has gone up quite a bit and stayed at these numbers -- good news.

I can relate well to Jon's description of what was observed at Cape Lookout this year and likely in years past. Any big disturbance (storm, predation, other) likely results in birds moving to different sites and renesting or leaving for awhile then returning to renest. I also relate well to not having as much time as desired to get as much data as would be optimal.

Will more birds be banded after this year due to the project people from Va. Tech. are involved in? There is one bird from Onslow Beach that suffered from flying into a vehicle and is being cared for by a rehab center (OWLS). Apparently, it is doing well and may be released at a plover wintering site in NC. Who would be best to band it before releasing it?

Thanks,

Sara

252-639-8435 sara.schweitzer@ncwildlife.org

From: Anne_Hecht@fws.gov [Anne_Hecht@fws.gov]
Sent: Tuesday, November 02, 2010 5:41 PM
To: Jon_Altman@nps.gov
Cc: Britta_Muiznieks@nps.gov; Doug_Mcgee@nps.gov; Schweitzer, Sara H;
wgolder@audubon.org; Allen, David H
Subject: RE: Q - increase in # PIPL prs

First, to Sara -- if you know what you are talking about with plovers after a year, you'll be running circles around most of us who are still scratching our heads after 10+ years (and much more than that in my case ... but I've always been a particularly slow study).

Second, since there is very little I enjoy more than testing my theories against the data, I jotted down the NC window and total season counts that were most handy:

Year	Window	Total	Difference	% Difference
1998	45	46	1	2%
1999	30	31	1	3%
2000	17	24	7	29%
2001	21	23	2	9%
2002	21	23	2	9%
2003	20	24	4	17%
2004	16	20	4	20%
2005	32	37	5	14%
2006	41	46	5	11%
2007	59	61	2	3%
2008	60	64	4	6%
2009	53	54	1	2%
2010	51	61	10	16%
average	466	514	48	9%

So it turns out that (for 1998-2010) although the absolute difference between 2010 counts was the largest ever, the % difference was on the high side, but far from unprecedented. The average (9%) is pretty typical. See, for example, Table 5 in the 1996 recovery plan and Table 2 in the 2002-03 Update (attached). It is also not unusual to see a lot of the difference concentrated in one part of the range (e.g., Virginia in 2003). I recall off the top of my head several years when NJ reported a very large spread.

Jon's explanation (below) makes sense to me. What I most often hear is that something (a major storm, lots of predation) caused a major regional disruption in nesting in late May, with a lot of unsettled (difficult to count) pairs during the window. But I also recognize the extra challenges associated with monitoring and tracking pairs at CALO, and I'm very aware (based on questions I get almost every year from Jon and from Jeff before him) that the biologists there almost always wrestle with their data a bit more than average.

I'd also be interested in hearing from Doug/Britta and Walker if they have thoughts to

add. There is no substitute for the insight of you folks in the field.

Thanks, Anne

Anne Hecht, Endangered Species Biologist U.S. Fish and Wildlife Service 73 Weir Hill Road Sudbury, MA 01776 telephone: 978-443-4325 fax: 978-443-2898 email: anne_hecht@fws.gov

Jon_Altman@nps.gov

Jon_Altman@nps.gov 11/02/2010 02:10 PM

- To "Schweitzer, Sara H" <sara.schweitzer@ncwildlife.org>
- cc "Anne_Hecht@fws.gov" <Anne_Hecht@fws.gov>, "Britta_Muiznieks@nps.gov" <Britta_Muiznieks@nps.gov>, "Doug_Mcgee@nps.gov" <Doug_Mcgee@nps.gov>, "wgolder@audubon.org" <wgolder@audubon.org>

Subject RE: Q - increase in # PIPL prs

Sara and Anne,

In the last 3 years the habitat at Old Drum and New Drum has become better and has attracted more birds as it develops year to year and even within a season. At Old Drum we are up to 6 pairs in 2010 and it was 0 pairs nesting in 2007. At both Old and New drum pairs have showed up after June 9th. There are spoil islands nearby at both sites which may have held birds early on or maybe they were bouncing back and forth for a while and were missed before they settled on a nesting site. We have had marked migrates stay until May 28th while other birds are already 3 weeks into nesting or chicks are on the ground. It can be difficult to get a handle on pair numbers early on in the nesting season. We are stretched pretty thin here at CALO and I don't have time to really analyze pairs until mid to end of bird nesting season. I often need to put nest points into GIS and look at dates to get an accurate pair count. So I think I think the combination birds showing up to nest late and not being able to analyze the data until later is causing the number difference.

Another problem this year that I can think of is that we lost quite a few nests to mink predation in early May at one site. Some pairs disappeared

after this. Did we lose adults, did the pairs move a few miles to Old Drum Inlet, did they move up to Cape Hatteras, or did they move to New York? I don't know. A couple did renest in their original territory. Without them being marked I can't say anything about movement. I think one year recently we (Sue, Doug, and Me) decided that a pair lost its nest on Portsmouth Flats and moved to nearby Ocracoke and renested their. The timing was right, but we don't know for sure and I wasn't very confident that was what actually happened. Both sites are huge sand flats and our birds tend to be quite and sneak away from nests without a peep. It does make it difficult.

Jon Altman Biologist Cape Lookout National Seashore 131 Charles Street Harkers Island, NC (252) 728-2250

"Schweitzer, Sara		
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	RE: Q - increase in # PIPL pr	S

Anne,

Sorry for my applying the phenomenon to previous years incorrectly. Dave Allen and I discussed this situation last week and he seemed to think he has seen the difference previously. From our discussion, several questions (possibilities) came to mind. It will be interesting to see what others' thoughts are. I get to claim ignorance this year b/c it's my first in NC; hereafter, I'd better know what I'm talking about!

Sara

From: Anne_Hecht@fws.gov [mailto:Anne_Hecht@fws.gov] Sent: Monday, November 01, 2010 4:02 PM To: Schweitzer, Sara H Cc: Britta_Muiznieks@nps.gov; Doug_Mcgee@nps.gov; Jon_Altman@nps.gov; wgolder@audubon.org Subject: Re: Q - increase in # PIPL prs

Thanks so much for initiating this exchange, Sarah.

Just one clarification -- the relatively large disparity between window and total season estimates in NC was a 2010 phenomenon. The reason it caught my eye is that it has not been nearly as large in past years. I was wondering what might explain this year's gap.

Anne

Anne Hecht, Endangered Species Biologist U.S. Fish and Wildlife Service 73 Weir Hill Road Sudbury, MA 01776 telephone: 978-443-4325 fax: 978-443-2898 email: anne_hecht@fws.gov

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From the data on this year's nesting season for Piping Plovers, Anne Hecht noticed an increase in numbers of pairs from the survey window time period to the number of pairs during the entire season for each of the areas you survey. Do you have some thoughts on why the number of pairs increases after June 9th? Does it take longer for PIPL pairs in NC to establish nesting territories and nests? Do birds continue to migrate into nesting sites until June? The survey window, from 1-9 June, was set based on studies of other nesting sites where pairs were established by those dates. Do you think the dates are not inclusive enough for NC's Piping Plover pairs?

Just wondering about your thoughts and how this behavior affects the best counts of Piping Plover pairs in NC.

Thanks! Sara

Sara H. Schweitzer, Ph.D. Coastal Waterbird Biologist 102 Inge Court Wildlife Diversity Surveys & Research Program NC Wildlife Resources Commission New Bern, NC 28562 252-639-8435 sara.schweitzer@ncwildlife.org

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