

0019307

From: [Sandra Hamilton](#)
To: lgutman@louisberger.com; dotta@louisberger.com; [Sarah Bransom](#); [Michael B. Edwards](#)
Subject: Fw: sex ratios
Date: 10/12/2005 07:11 AM

Sandy Hamilton
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----- Forwarded by Sandra Hamilton/DENVER/NPS on 10/12/2005 07:11 AM -----

Steve Harrison

To: Sandra Hamilton/DENVER/NPS@NPS
cc: Mary Doll/CAHA/NPS@NPS
Subject: Fw: sex ratios

10/12/2005 08:09 AM EDT

Sandy,
Here is some turtle information that might help with current planning, especially with regard to assessing the impact of relocating sea turtle nests because of recreational activity (I assume that will be an alternative.)

Steve

----- Forwarded by Steve Harrison/CAHA/NPS on 10/12/2005 08:07 AM -----

Marcia Lyons

To: Karen Sayles/CAHA/NPS@NPS, Doug McGee/CAHA/NPS@NPS, Jon Altman/CAHA/NPS@NPS, Steve Harrison/CAHA/NPS@NPS

10/12/2005 07:51 AM EDT

cc:
Subject: Fw: sex ratios

of interest

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----- Forwarded by Marcia Lyons/CAHA/NPS on 10/12/2005 07:43 AM -----

Matthew Godfrey <godfrey@coastalnet.com>

To: Marcia_Lyons@nps.gov

cc:

Subject: Re: sex ratios

10/11/2005 10:19 PM AST

Hi Marcia,

I agree with you - NC beaches provide rare thermal habitat for nesting loggerheads. The males produced in NC are likely important for maintaining

the larger SE USA population. The studies supporting this are:

Mrosovsky, N. 1994. Sex ratios of sea turtles. - Journal of Experimental Zoology 270: 16-27.

Mrosovsky, N., Hopkins-Murphy, S. R. and Richardson, J. I. 1984. Sex ratio

of sea turtles: seasonal changes. - Science 225: 739-741.

Webster, W.D. and Gouveia, J.F. 1988. Predicting hatchling sex ratios in Loggerhead sea turtles (*Caretta caretta*) by incubation duration. In: B.A. Schroeder compiler, Proceedings of the Eighth Annual Workshop on Sea Turtle

Conservation and Biology. NOAA Technical Memorandum NMFS-SEFC-214, p. 127-128.

The work by Jeanette Wyneken and Larry Crowder haven't been published yet.

They found <50% female for the NC nests that they sampled, although the sample sizes were small.

Lucy Hawkes, a grad student in the UK, has a manuscript in review that shows that Bald Head Island turtle nests produce about 55% female sex ratio

over the past 10 years or so. It is a pretty strong case for NC as a male producer for the larger SE USA loggerhead population.

Florida definitely produces many more females (>90%):

Hanson, J., Wibbels, T. and Martin, E. M. 1998. Predicted female bias in

sex ratios of hatchling loggerhead sea turtles from a Florida nesting beach. - Canadian Journal of Zoology 76: 1850-1861.

Mrosovsky, N. and Provancha, J. 1992. Sex ratio of hatchling loggerhead sea turtles: data and estimates from a 5-year study. - Canadian Journal of Zoology 70: 530-538.

hope this helps.
best,
Matthew

At 03:05 PM 10/11/2005, you wrote:

- >Mathew - did Larry Kraus, Jennette Weynegan (spelling??) ever finish
- >investigating sex ratios of turtle hatchlings from NC to FL? I remember
- >reading prelim reports saying it was scewed towards females everywhere. So
- >is the statement I want to make - -hatchlings from northern beaches produce
- >most of the males that service the females along the SE coast -- too much
- >of a stretch, totally unfounded?
- >
- >Marcia Lyons
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