

University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

North American Crane Workshop Proceedings

North American Crane Working Group

1997

SEMEN COLLECTION AND FERTILITY IN NATURALLY FERTILE SANDHILL CRANES

Guojun Chen

Patuxent Wildlife Research Center

George F. Gee

Patuxent Wildlife Research Center

Jane M. Nicolich

Patuxent Wildlife Research Center

Joanna A. Taylor

Patuxent Wildlife Research Center

Follow this and additional works at: <http://digitalcommons.unl.edu/nacwgproc>

 Part of the [Behavior and Ethology Commons](#), [Biodiversity Commons](#), [Ornithology Commons](#), [Population Biology Commons](#), and the [Terrestrial and Aquatic Ecology Commons](#)

Chen, Guojun; Gee, George F.; Nicolich, Jane M.; and Taylor, Joanna A., "SEMEN COLLECTION AND FERTILITY IN NATURALLY FERTILE SANDHILL CRANES" (1997). *North American Crane Workshop Proceedings*. 242.
<http://digitalcommons.unl.edu/nacwgproc/242>

This Article is brought to you for free and open access by the North American Crane Working Group at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in North American Crane Workshop Proceedings by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

SEMEN COLLECTION AND FERTILITY IN NATURALLY FERTILE SANDHILL CRANES

GUOJUN CHEN,¹ Patuxent Wildlife Research Center, 11510 American Holly Drive, Laurel, MD 20708, USA
GEORGE F. GEE, Patuxent Wildlife Research Center, 11510 American Holly Drive, Laurel, MD 20708, USA
JANE M. NICOLICH, Patuxent Wildlife Research Center, 11510 American Holly Drive, Laurel, MD 20708, USA
JOANNA A. TAYLOR,² Patuxent Wildlife Research Center, 11510 American Holly Drive, Laurel, MD 20708, USA

Abstract: Aviculturists often ask if semen collection will interfere with fertility in naturally fertile pairs of cranes. We used 12 naturally fertile Florida sandhill crane (*Grus canadensis pratensis*) pairs for this study, 6 control and 6 experimental. All pairs had produced fertile eggs in previous years and were in out-of-doors pens scattered throughout different pen complexes, within auditory range but physically isolated. Semen was collected on Tuesday mornings and Friday afternoons from 26 February 1993 to 4 June 1993. We used standard artificial insemination methods to collect and to evaluate the semen and spermatozoa. Semen collection did not affect semen quality or quantity. Semen volume, sperm density, sperm motility, sperm morphology, sperm live, sperm number per collection, and male response to semen collection exhibited significant daily variation ($P < 0.05$). Although semen collection began 13 days before the first egg in the experimental group, we observed no differences in the date of first egg laid or in fertility between experimental and control groups. Also, we observed no differences in the interval between clutches or in the percentage of broken eggs between experimental and control groups. Sires consistently producing better semen samples produced fewer fertile eggs than sires producing poorer semen samples ($r = 0.60$).

PROC. NORTH AM. CRANE WORKSHOP 7:258

Key words: Florida sandhill crane, *Grus canadensis pratensis*, semen collection, semen, spermatozoa quality and quantity, egg production, fertility.

¹Present address: Heilongjiang Research Institute of Wildlife, Haping Road, Harbin, 150040, P. R. China.

²Present address: Okefenokee National Wildlife Refuge, Route 2, Box 3330, Folkston, GA 31537, USA.