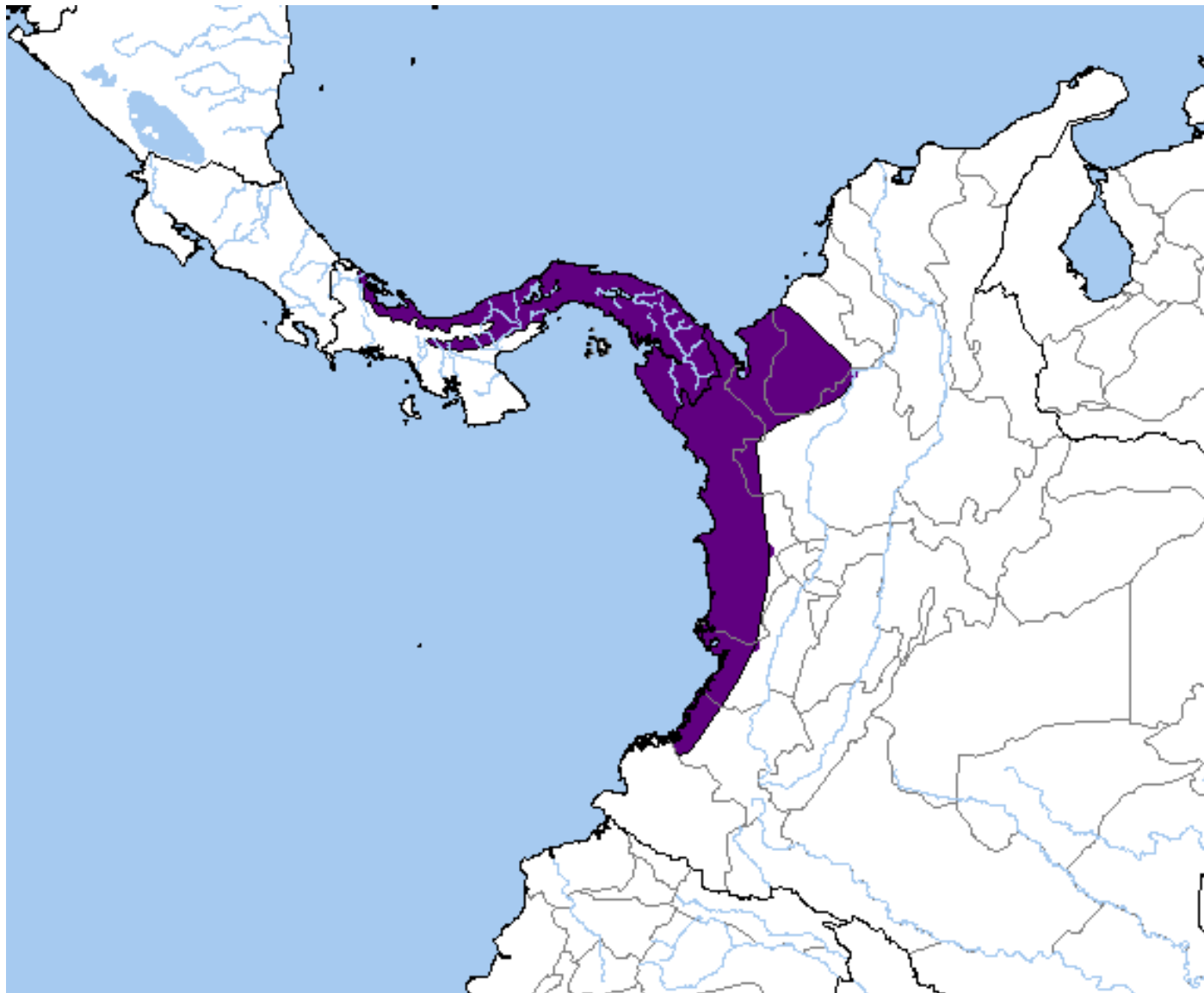


Le esibizioni di corteggiamento del manachino collodorato

Manachino collodorato (*Manacus vitellinus*)



Areale di distribuzione di *Manacus vitellinus*



Habitat: foresta pluviale secondaria



Dimorfismo sessuale in *M. vitellinus*



femmina / maschio
giovane

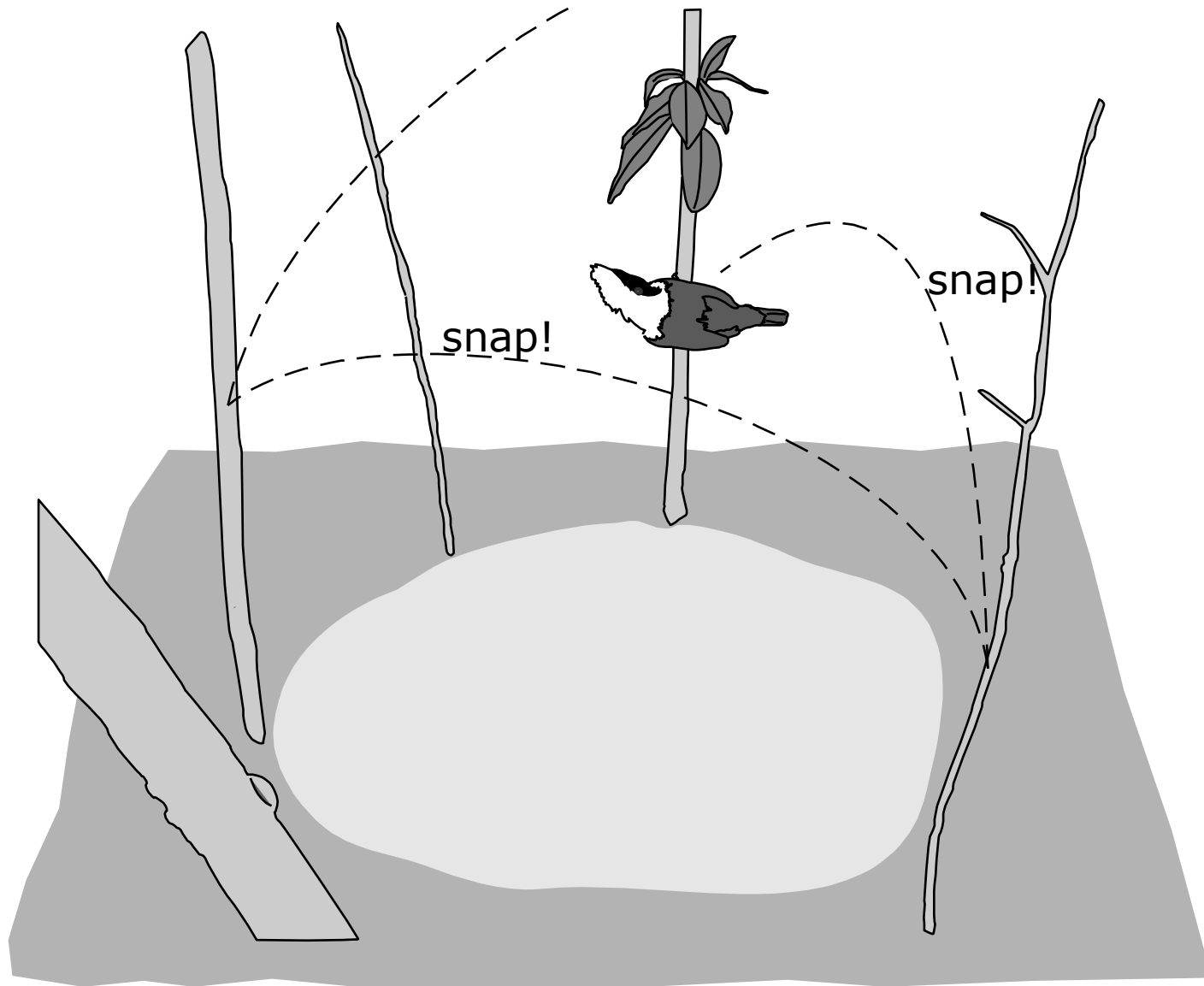


maschio
territoriale

Esempio di arena nuziale



Il jump-snap display



Specializzazioni di *M. vitellinus*: la muscolatura scheletrica



To show the hypertrophy of some of the superficial dorsal muscles of *Manacus vitellinus*, after stripping off the skin.

Specializzazioni di *M. vitellinus*: il midollo spinale

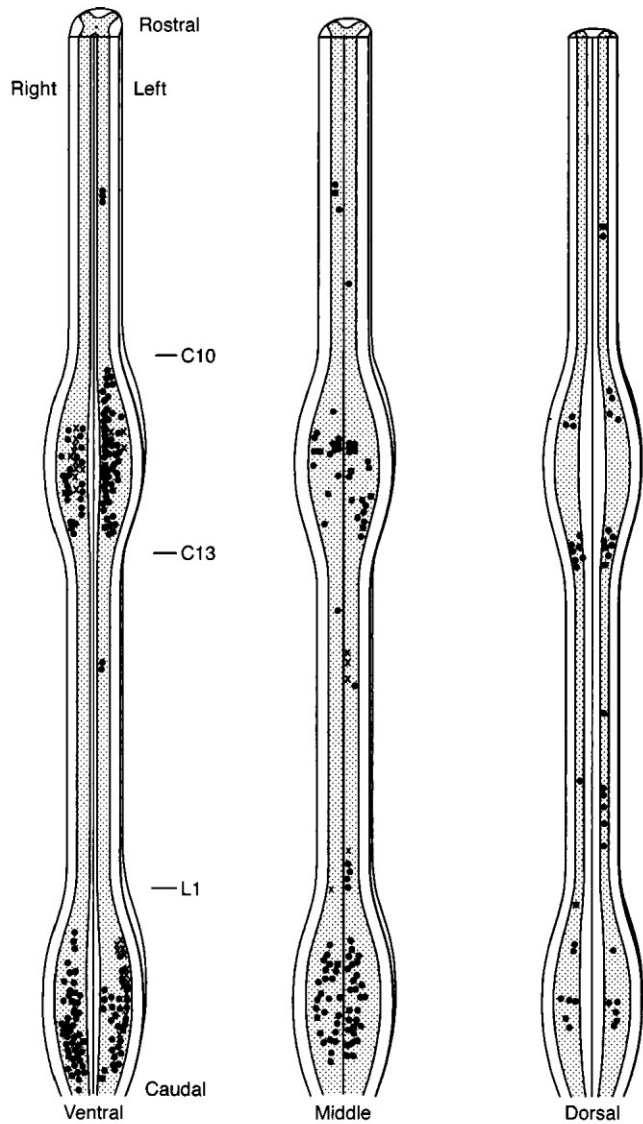
Proc. Natl. Acad. Sci. USA
Vol. 96, pp. 10428–10432, August 1999
Neurobiology

Widespread accumulation of [³H]testosterone in the spinal cord of a wild bird with an elaborate courtship display

J. DOUGLAS SCHULTZ AND BARNEY A. SCHLINGER*

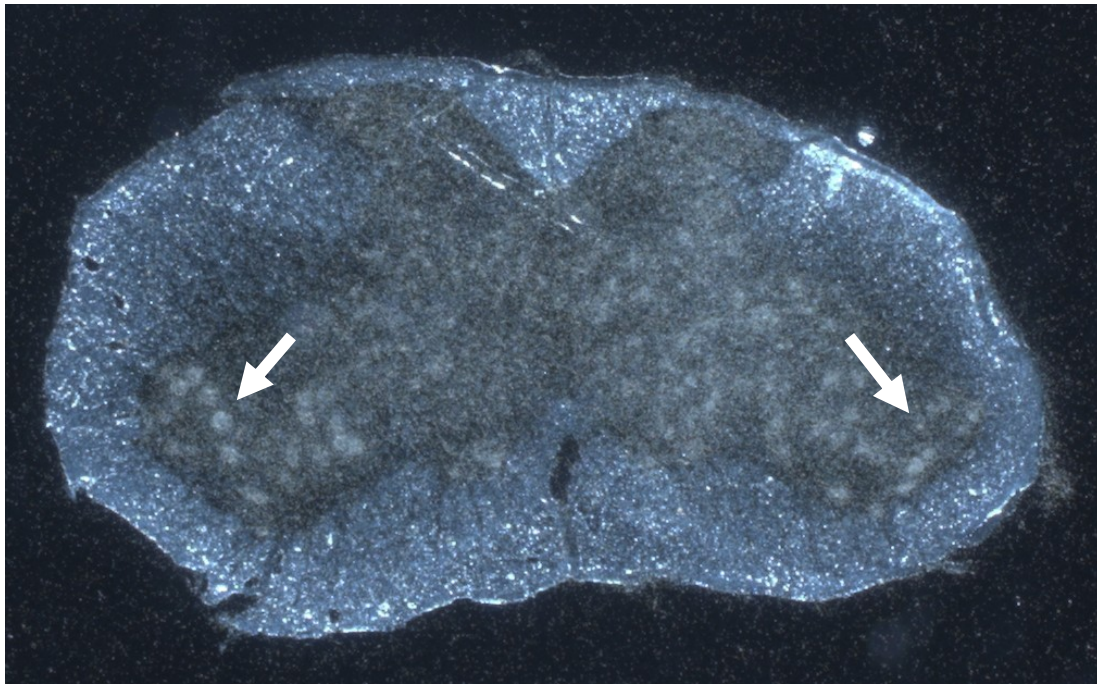
Department of Physiological Science and Laboratory of Neuroendocrinology, Brain Research Institute, University of California, Los Angeles, CA 90095-1527

Communicated by Peter Marler, University of California, Davis, CA, June 22, 1999 (received for review January 28, 1999)



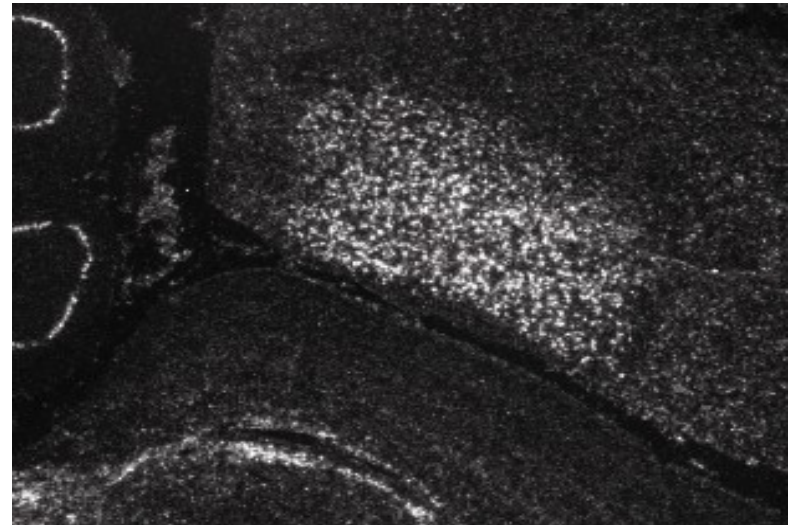
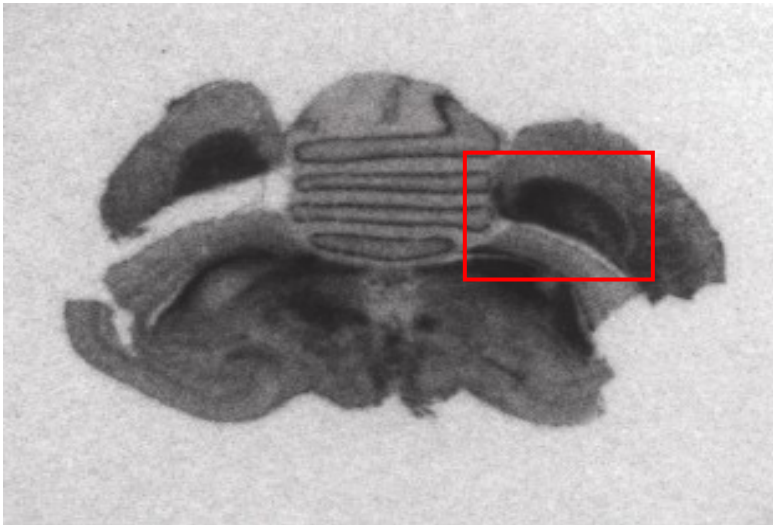
Pattern di accumulazione degli steroidi nel midollo spinale

Espressione dei recettori per gli androgeni nel midollo spinale



Fusani et al. in preparazione

Espressione dei recettori per gli estrogeni nell'arcopallio



Fusani et al. in preparazione

La "Ipotesi della sfida"

Vol. 136, No. 6

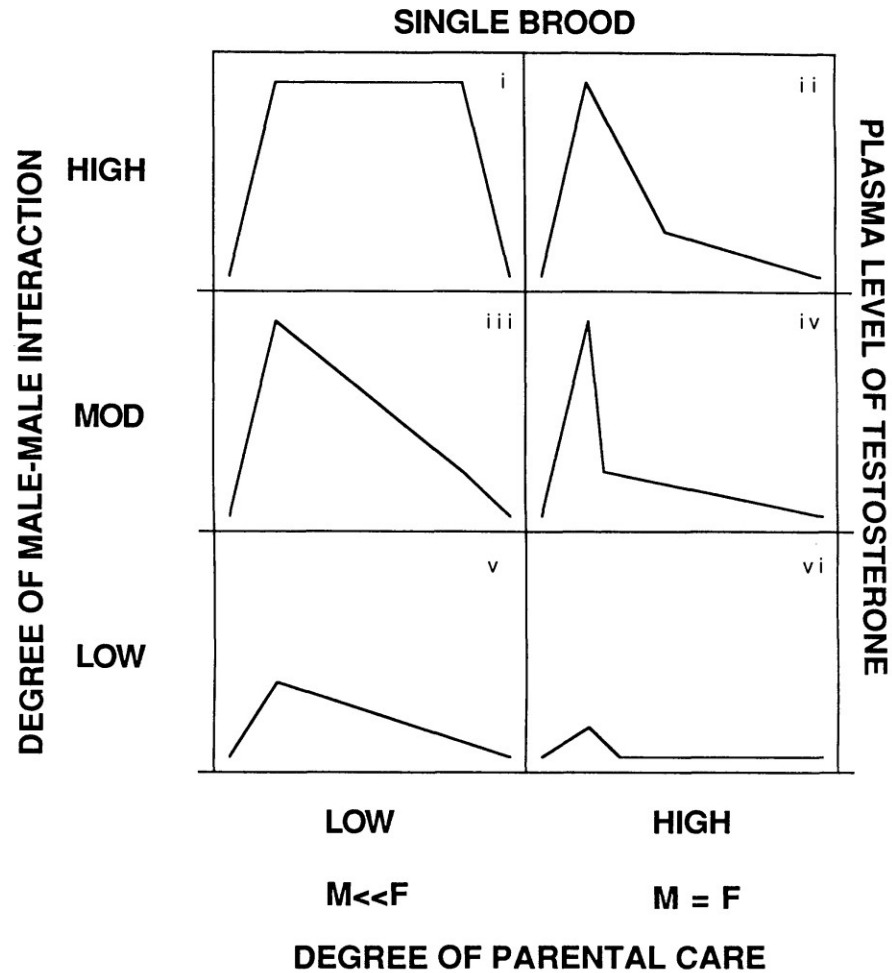
The American Naturalist

December 1990

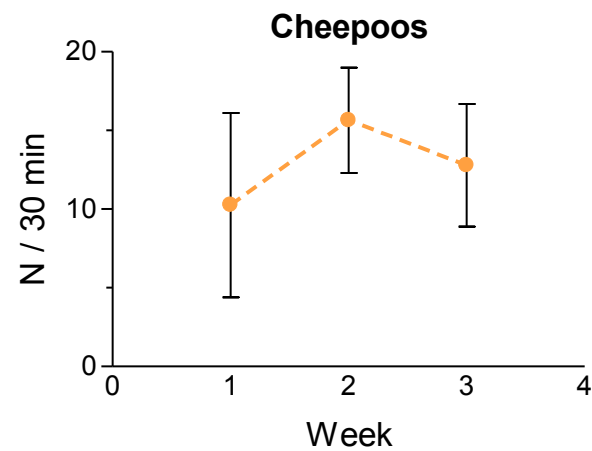
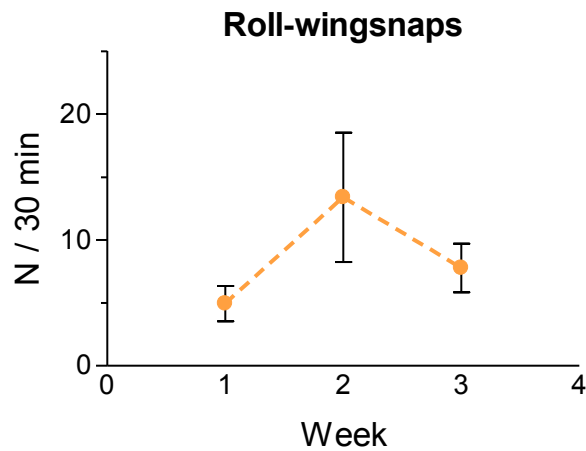
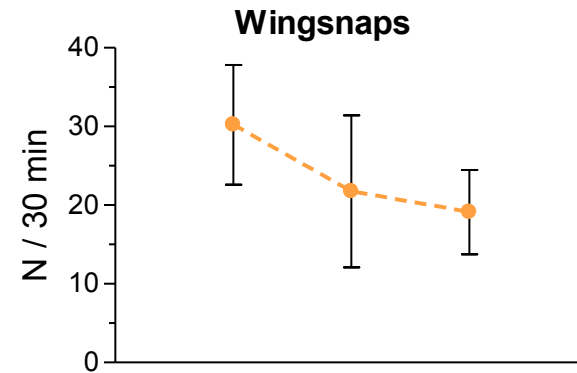
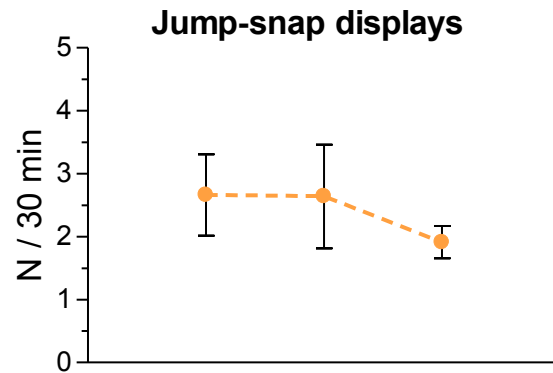
THE "CHALLENGE HYPOTHESIS": THEORETICAL IMPLICATIONS FOR PATTERNS OF TESTOSTERONE SECRETION, MATING SYSTEMS, AND BREEDING STRATEGIES

JOHN C. WINGFIELD, ROBERT E. HEGNER, ALFRED M. DUFTY, JR.,
AND GREGORY F. BALL

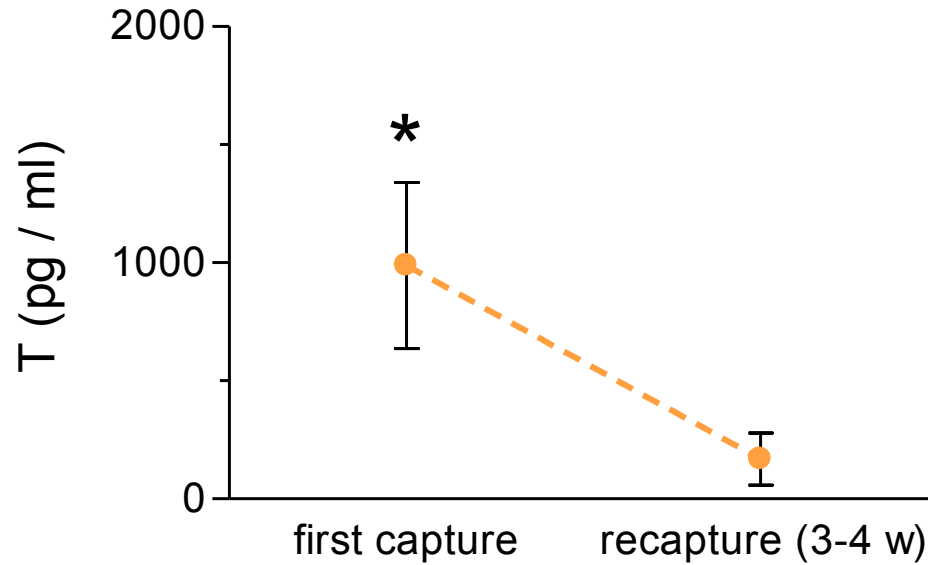
La "Ipotesi della sfida"



L'intensita' del corteggiamento non cambia durante la stagione

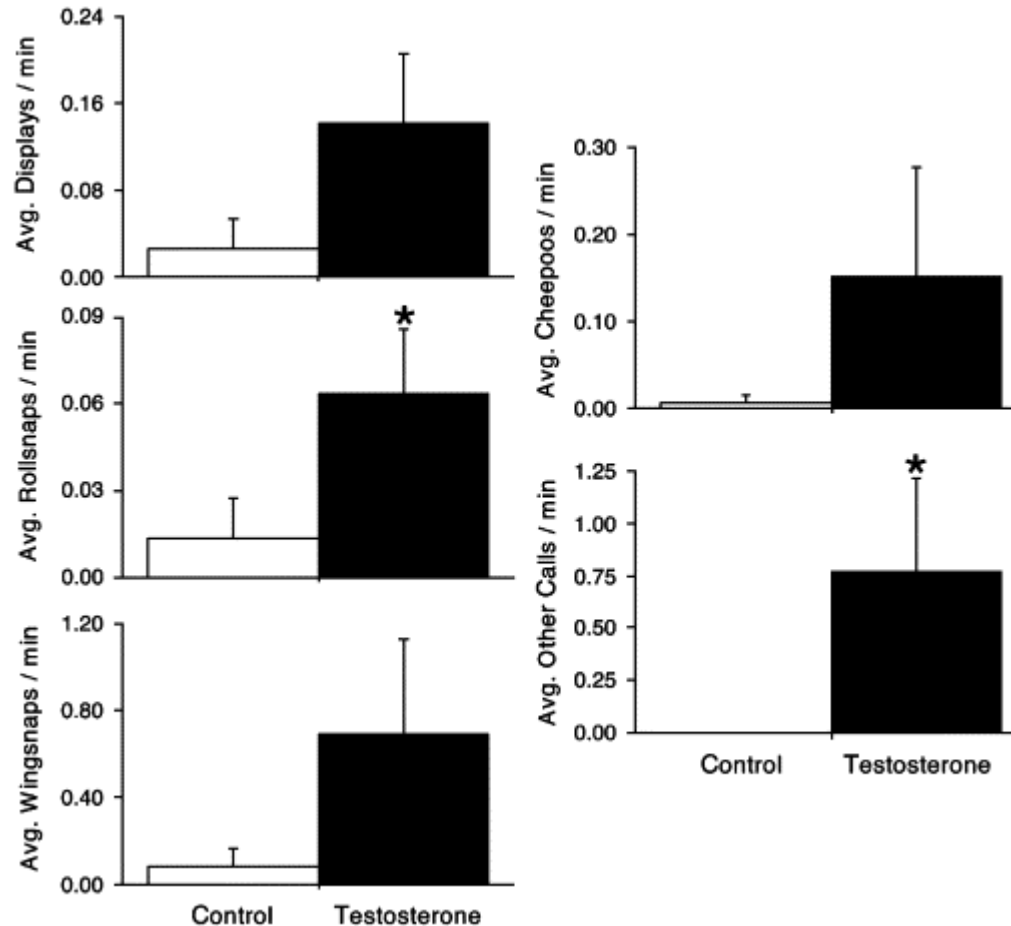


I livelli di testosterone cambiano durante la stagione riproduttiva



Fusani et al. 2007

Il testosterone induce un aumento dell'attività di corteggiamento al di fuori della stagione riproduttiva



Il testosterone non influisce sull'attività di corteggiamento durante la stagione riproduttiva

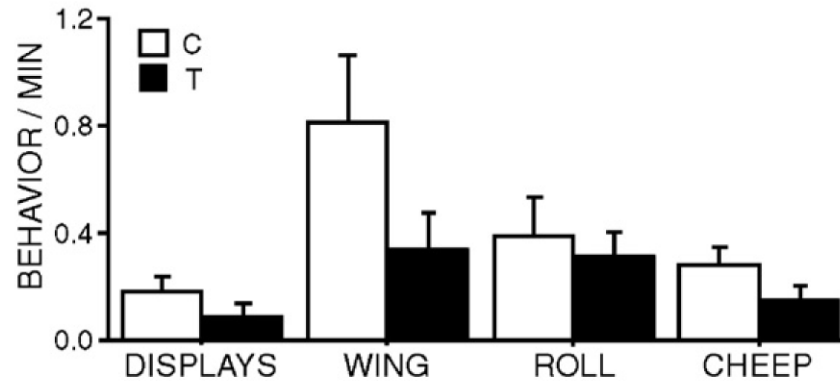
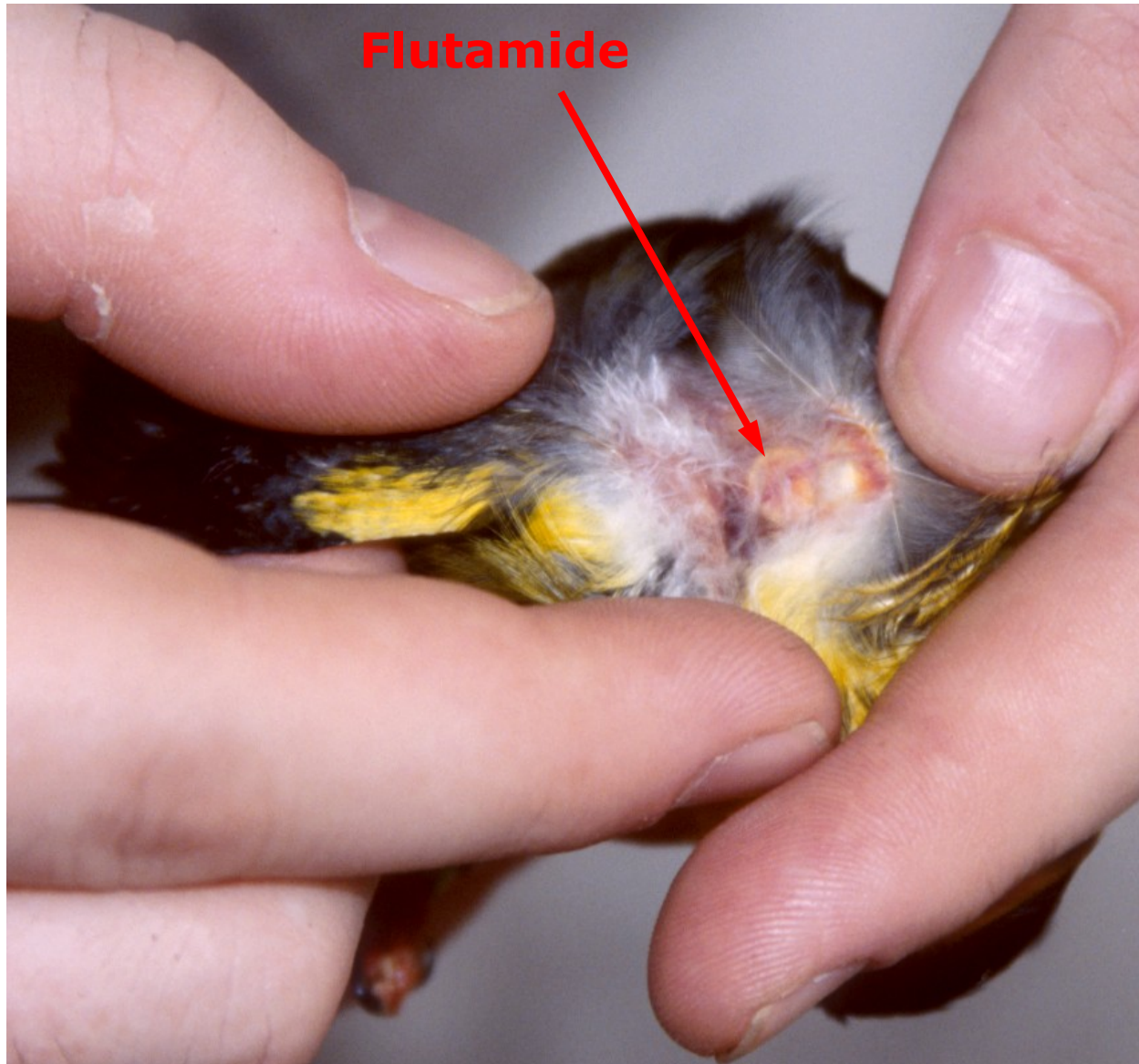


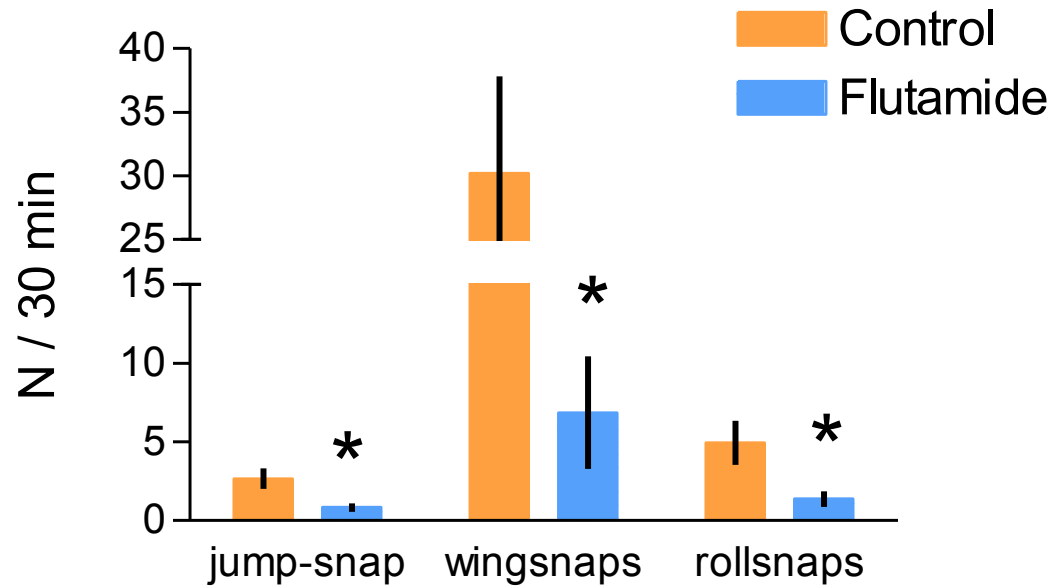
Fig. 2. Average display behaviors per min of field observation time for adult courting males given either a T pellet (T) or an inert pellet (C). Shown are jump-snap displays (displays), wingsnaps (wing), rolls (rolls), and cheepoo calls (cheep). No differences were significant.

Day et al. 2007

Trattamento con un antagonista degli androgeni



Il trattamento con Flutamide riduce l'intensità del corteggiamento



Fusani et al. 2007

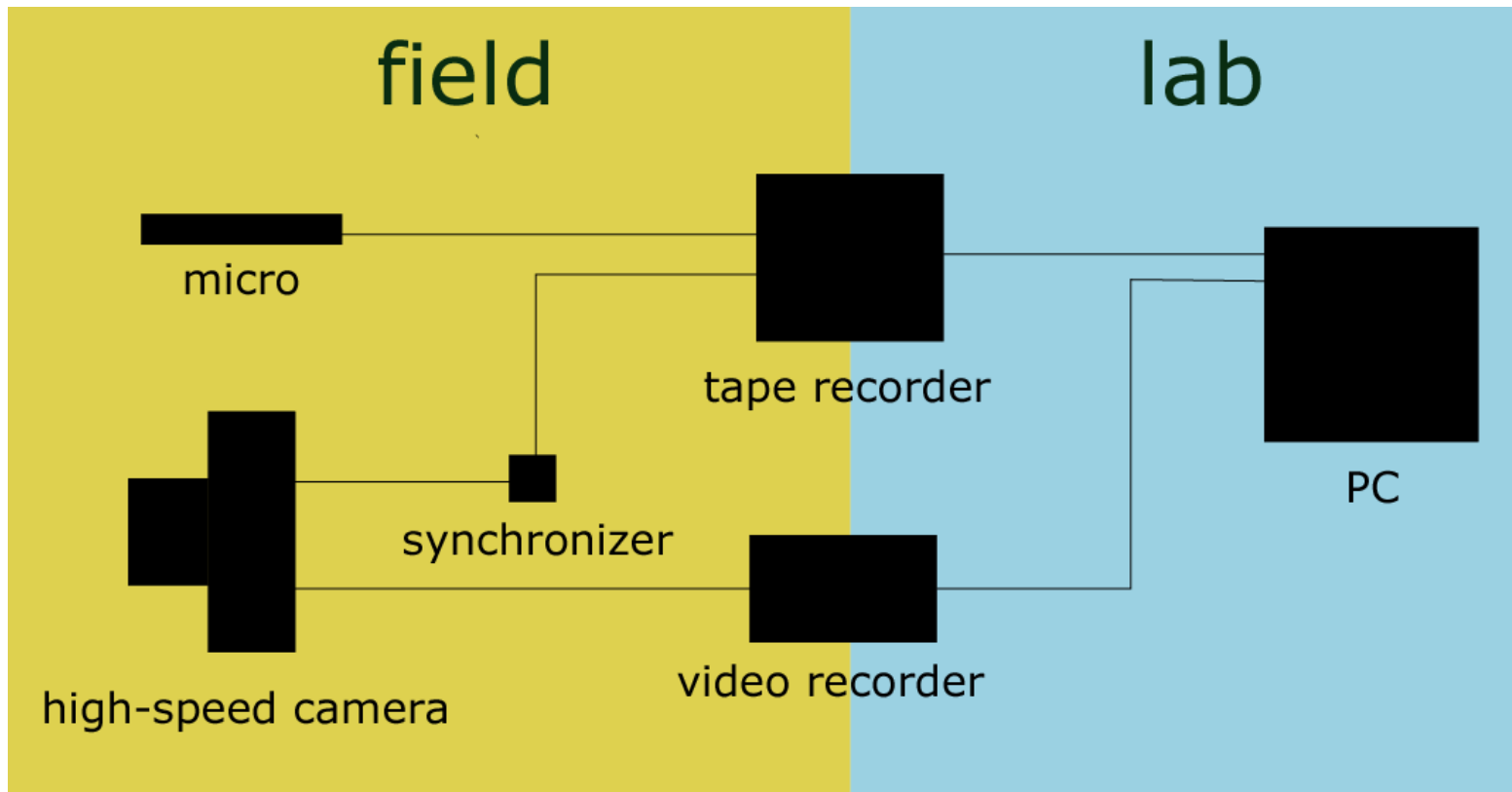
Aspetti del corteggiamento correlati con il successo riproduttivo

Brillantezza del piumaggio	+	Stein & Uy 2005
Centralita' dell'arena nel lek	+	Shorey 2000
Caratteristiche dell'arena	+	Stein & Uy 2005
Attività di corteggiamento	-	Shorey 2000
Struttura del corteggiamento	?	

Videocamera per riprese ad altissima velocita'



Apparato sperimentale per la registrazione audio-video ad alta velocita'



MODE

PLAY ▶

F/SEC P

25



FRAME

-001005

TIME

-008040 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-001004

TIME

-008032 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-001003

TIME

-008024 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-001002

TIME

-008016 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-001001

TIME

-008008 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-001000

TIME

-008000 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000999

TIME

-007992 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000998

TIME

-007984 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000997

TIME

-007976 MS

MODE

PLAY ▶

F/SEC P

25

snap!



FRAME

-000996

TIME

-007968 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000995

TIME

-007960 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000994

TIME

-007952 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000993

TIME

-007944 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000992

TIME

-007936 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000991

TIME

-007928 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000990

TIME

-007920 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000989

TIME

-007912 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000988

TIME

-007904 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000987

TIME

-007896 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000986

TIME

-007888 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000985

TIME

-007880 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000984

TIME

-007872 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000983

TIME

-007864 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000982 TIME -007856 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000981

TIME

-007848 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000980

TIME

-007840 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000979

TIME

-007832 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000978

TIME

-007824 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000977 TIME -007816 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000976 TIME -007808 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000975 TIME -007800 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000974

TIME

-007792 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000973

TIME

-007784 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000972 TIME -007776 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000971

TIME

-007768 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000970 TIME -007760 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000969

TIME

-007752 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000968 TIME -007744 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000967

TIME

-007736 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000966

TIME

-007728 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000965

TIME

-007720 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000964

TIME

-007712 MS

MODE PLAY ▶ F/SEC P 25



FRAME -000963 TIME -007704 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000962

TIME

-007696 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000961

TIME

-007688 MS

MODE

PLAY ▶

F/SEC P

25



FRAME

-000960

TIME

-007680 MS

MODE PLAY ▶ F/SEC P 25



beard up

FRAME -000959 TIME -007672 MS

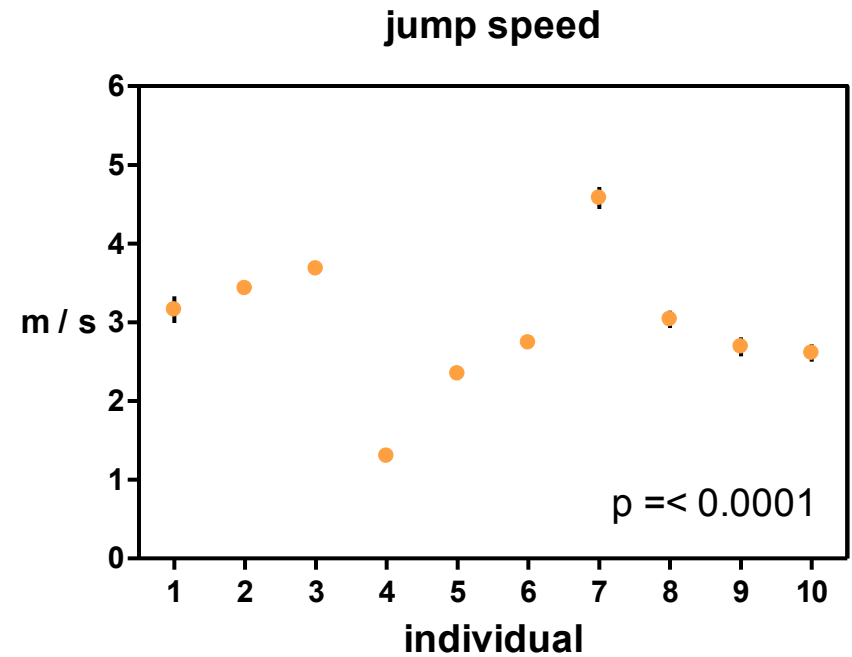
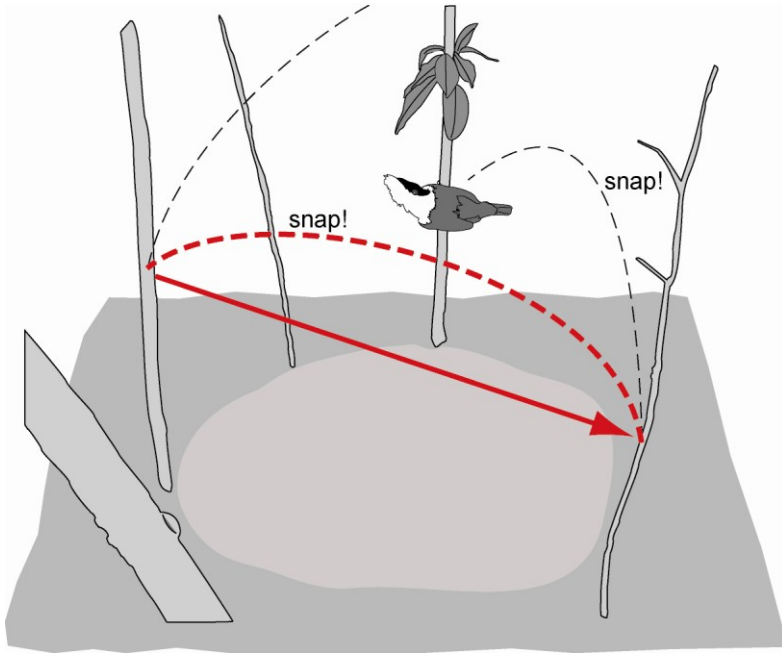
MODE PLAY ▶ F/SEC P 25



beard up

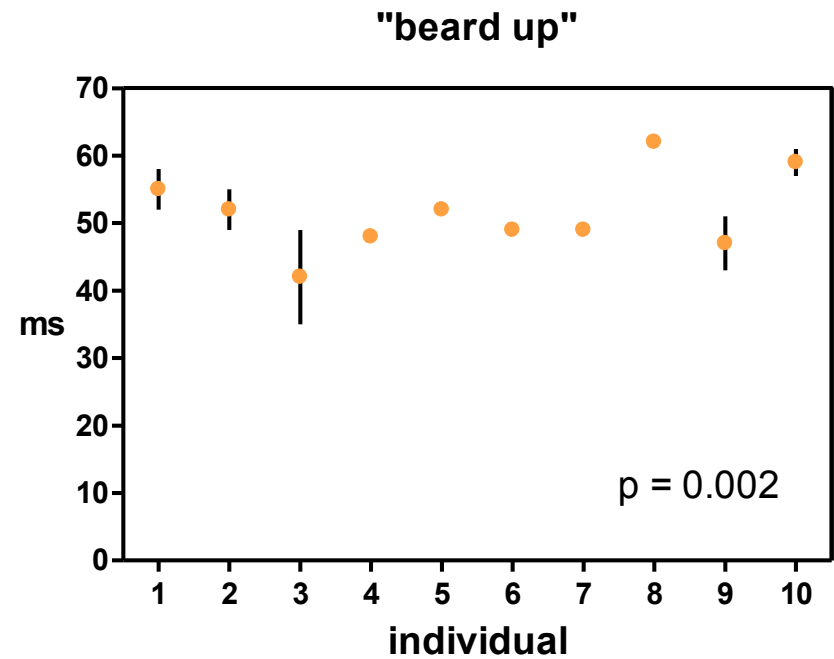
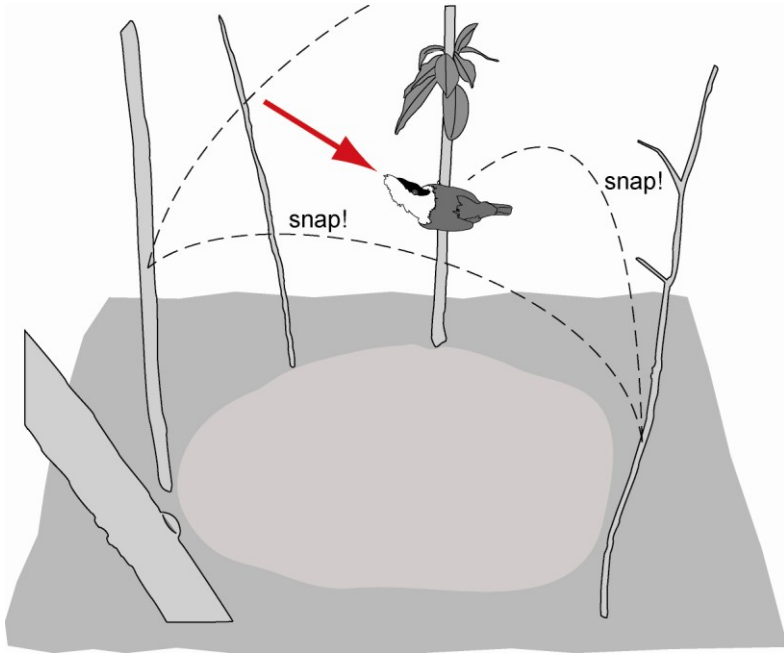
FRAME -000958 TIME -007664 MS

Differenze individuali nell'esecuzione del display



Fusani et al. 2007b

Differenze individuali nell'esecuzione del display (2)



Fusani et al. 2007b

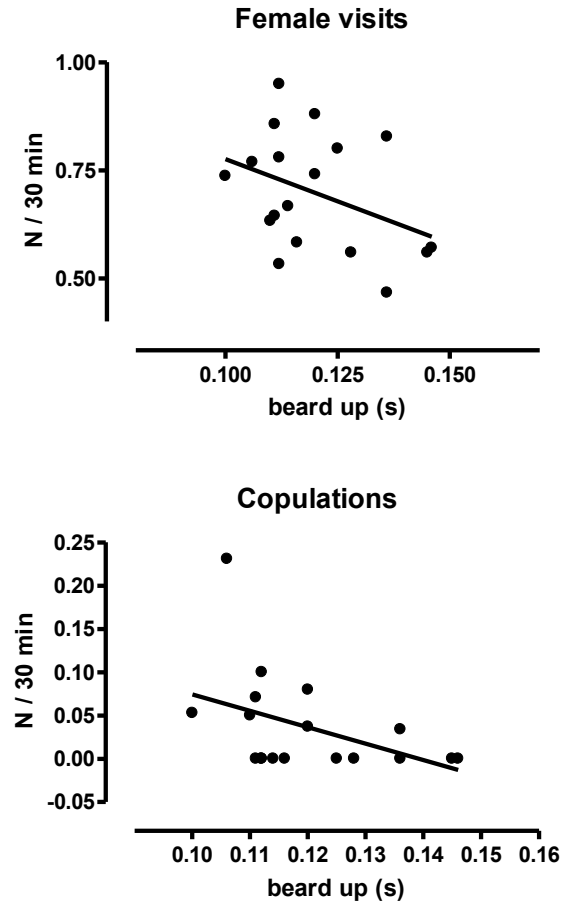
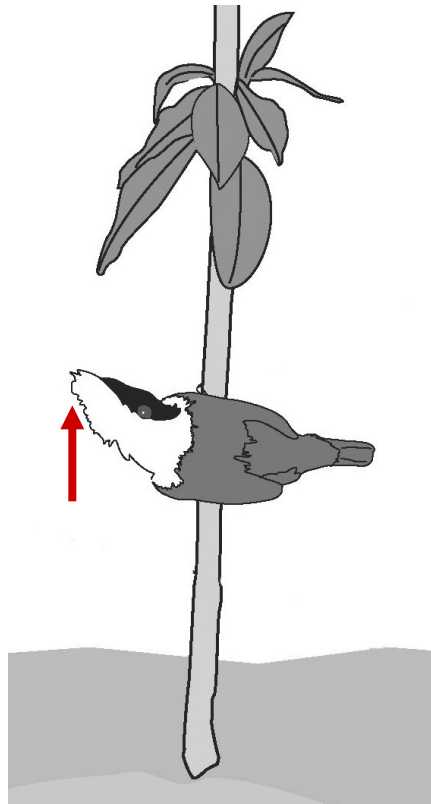
Il display segnala la qualità genetica del maschio?



I geni sono l'unica risorsa che la femmina ottiene dal maschio



La femmine di manachino preferiscono i maschi che si mettono in posa piu' rapidamente dopo ogni salto



Fusani et al. in preparazione

Manacus vitellinus

Wingsnap

MotionMeter
Slow Motion 20x

@ Leonida Fusani 2004

