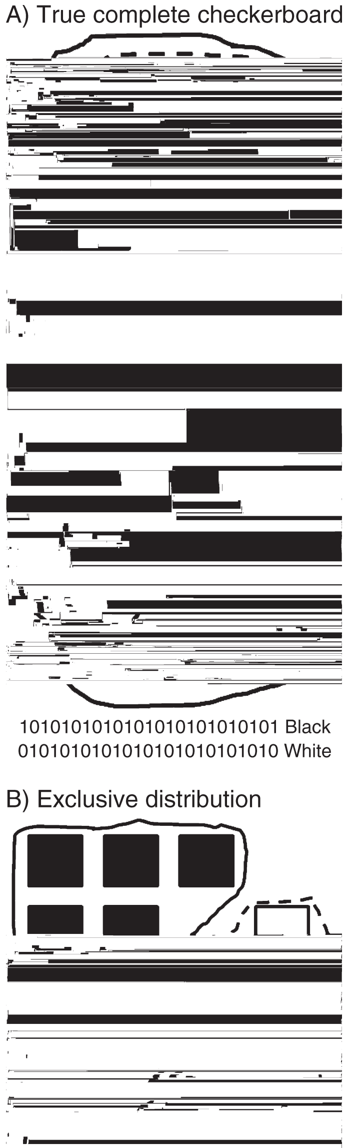
Ecology, 94(11), 2013, . 2403 2414

The checkered history of checkerboard distributions

A . ,[1,4] A . ,[2] A A B [3]

[1]Department of Biology, San Francisco State University, 1600 Holloway Avenue, San Francisco, California 94132 USA
[2]Department of Biology, Rhodes College, Memphis, Tennessee 38112 USA
[3]Department of Ecology and Evolutionary Biology,2f Ecnnessee98.0314Tmxvi325Tap:n833.e37996and



. 1. (A) A ( ) . (B) A ( ). ( ) A ( ) . A

(1982, 1982, 1984, 1996, 2000, 2003, . 2006, . 2009, 2010, . 2011).

(1979) (2004)

U(R, S) (R) (S)

(1982) (1984)

(1975)

(. .) (. .,) ( ) 1’

: A , B

(1975). . 1A,

1’

(1975),

. . 1B,

,

” (. 2011).
, (1975)

”
(2011, . 2012,
2013).
,

,
. (1996)

,
(2011), . (2012),

Analytical procedures

$n = 1000$

$\alpha = 0.2$

α . $\alpha = 0.2$

1000

n

$n - 1$

α .

$n - 1$

n

α ,

A B.

(1979)

0, 1, 2, 3, . . .

( ),

(1975),

fewer

(. 1).

( )

Comparing congeneric and within-guild pairs to pairs of unrelated species.

A A.

A A

(. .,),

(. .,)

F

. B

F A A

F 1000

F

F

F

2 A AB

A A.

Calculating power of our tests. A

$\alpha = 0.2$ B A .

B

α, 0.2

S ,

n

U(R, S),

S .

($n = 1000$),

S 0.31

S

δ,

S

AB 1. B , B A , , - ,

,	.	,		,
	12	0	0	0
	1 528	61	55	0
,	1 540	61	55	0
,	7	0	0	0
B A ,				
	102	27	17	11
	11 073	1484	984	553
,	11 175	1511	1001	564
,	110	25	12	1
, ,				
	97	23	19	19
	9 773	1939	1678	1476
,	9 870	1962	1697	1495
,	53	9	2	1

Notes: , - , - , . (1976) , . (2009) 56 28 , , 150 41 , B A , , 141 142

α, 0.2 . 2 4 . A S , $\alpha = 0.257$. A A ( ) , δ . (. .,) (, $F_{2,1536} = 0.5716$, $P = 0.979$; B , $F_{2,\ 10\,607} = 2.2828$, P . 0.999; , $F_{2,8371} = 2.926$, $P = 0.971$).

A , - , - - , , $\delta = 1, 2,$ 3 α , 0.2 B 0.54 6 0.029 ( ), 1. A), 0.69 6 0.039, 0.75 6 0.046, , . ; 1% - ; , (. ., 10 1000) (, 2010). (A).

Vanuatu

A - (; 1 (-) 2). - ( ), - (, 2; A). α, 0.2 (, 2, . 2; A).

(2; α , 0.2,
A). - -
, (P . 0.99; A
).
, α , 0.2 (2; A).
(α , -
0.2),
(A).
’ (1975:388) .
, .”
- (2; A
). ,
α , 0.2, (. - (-
4; A).) , -
- , - -
, .
A
,
(P . 0.99; A). Myzomela
(P = 0.023; A). ,

α , 0.2 ( )

( )

( )

α = 0.20,

α , 0.2 B

1 2

9 168( )-35.

B

4 10

A, (1982)
(1984)