



## Traps to monitor WCR

- a summary

TÓTH, MIKLÓS

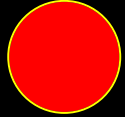
Plant Protection Institute,  
HAS, Budapest, Hungary



# Attractive stimulus

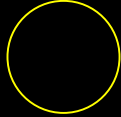
visual

(yellow)

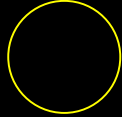


chemical

pheromone

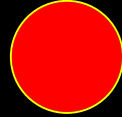


floral

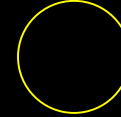


# Trap design

sticky

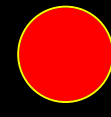


non-sticky

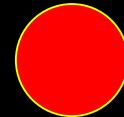


# Sex caught

males



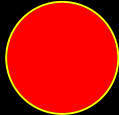
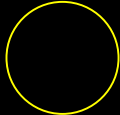
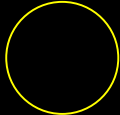
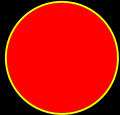
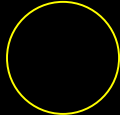

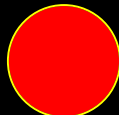
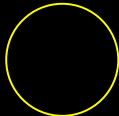
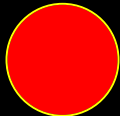
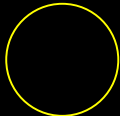
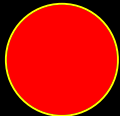
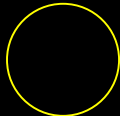

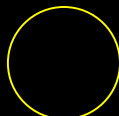
females



# Attractive stimulus

# Trap design

# Sex caught

visual (yellow)		chemical					
	pheromone	floral	sticky	non-sticky	males	females	
							
							

# Attractive stimulus

# Trap design

# Sex caught

visual  
(yellow)

chemical

pheromone

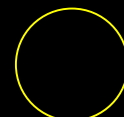
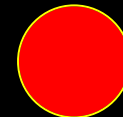
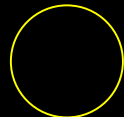
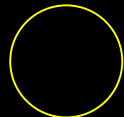
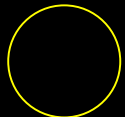
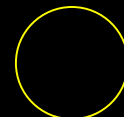
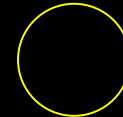
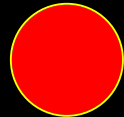
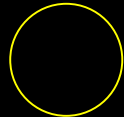
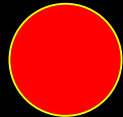
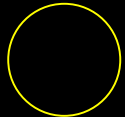
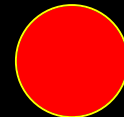
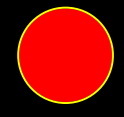
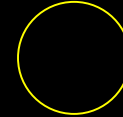
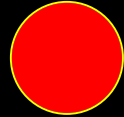
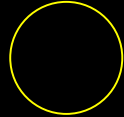
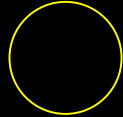
floral

sticky

non-sticky

males




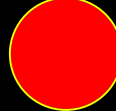





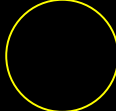
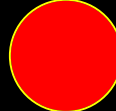

















females



# Attractive stimulus

# Trap design

# Sex caught

visual (yellow)	chemical pheromone	chemical floral	sticky	non-sticky	males	females
						
						
						
						

# Attractive stimulus

# Trap design

# Sex caught

visual  
(yellow)

chemical

pheromone

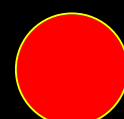
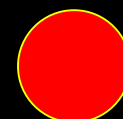
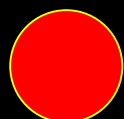
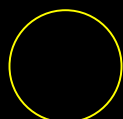
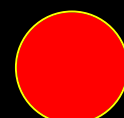
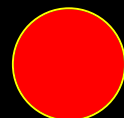
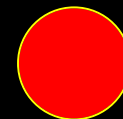
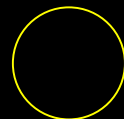
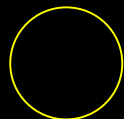
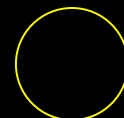
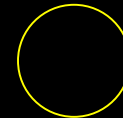
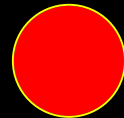
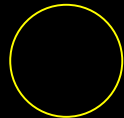
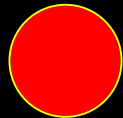
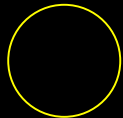
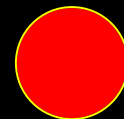
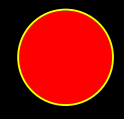
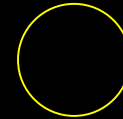
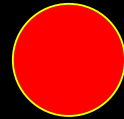
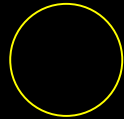
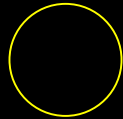
floral

sticky

non-sticky

males

females



# Attractive stimulus

# Trap design

# Sex caught

visual  
(yellow)

chemical

pheromone

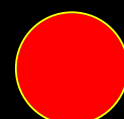
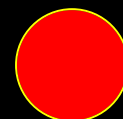
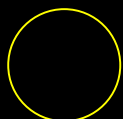
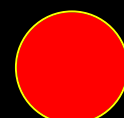
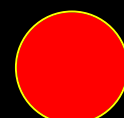
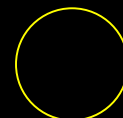
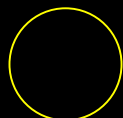
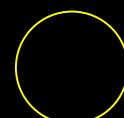
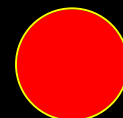
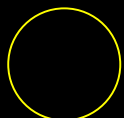
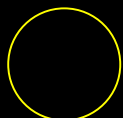
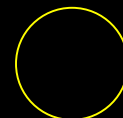
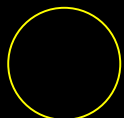
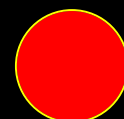
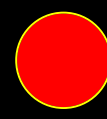
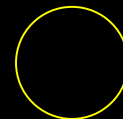
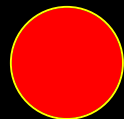
floral

sticky

non-sticky

males

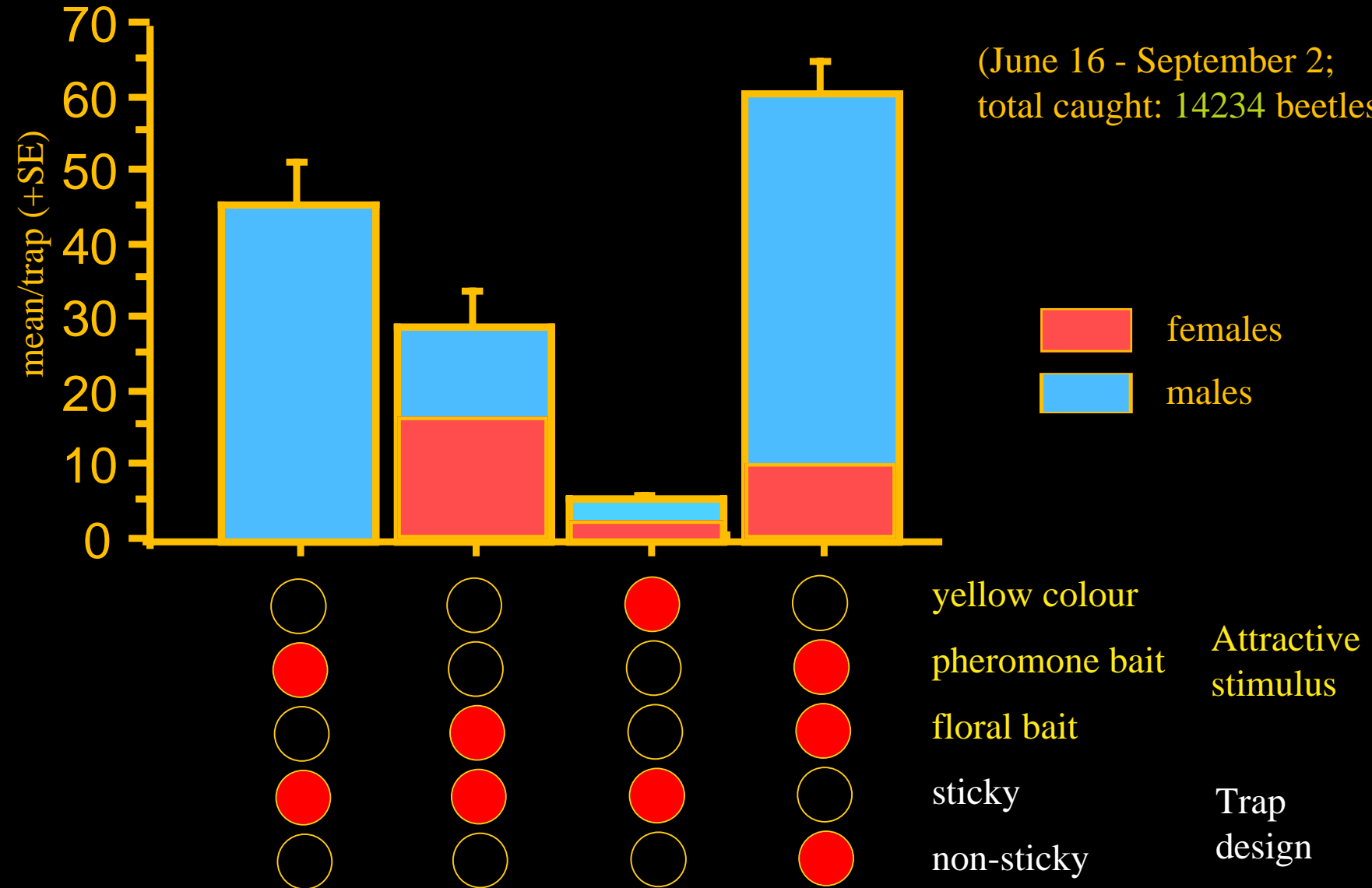
females



# Sexes caught in the different trap types

Bácsbokod, 2001

(June 16 - September 2;  
total caught: 14234 beetles)

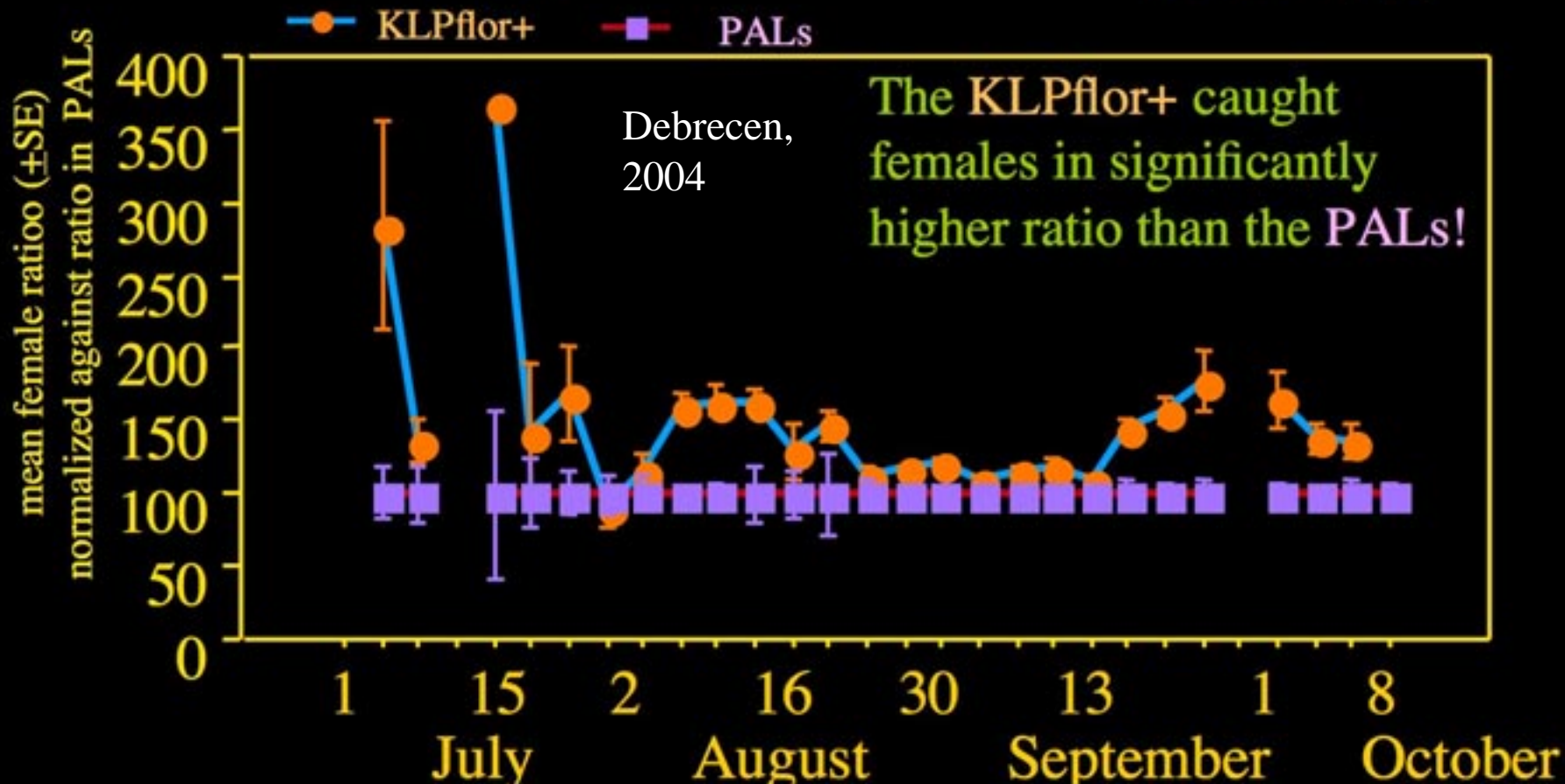
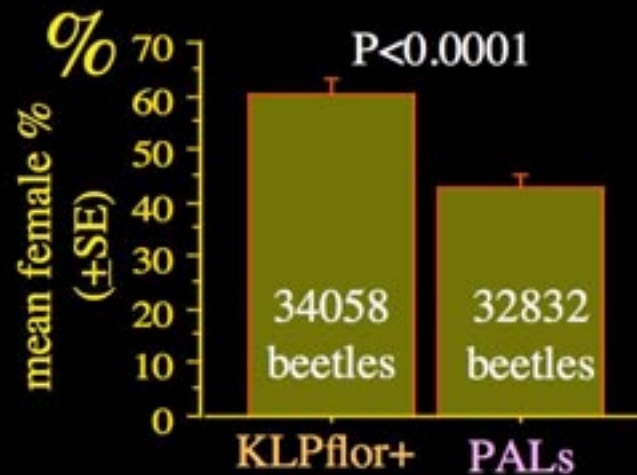




# % of FEMALES in catch

**KLPflor+**      **PALs (trap codename)**

- ● yellow colour
- ● floral bait
- ● sticky
- ○ non-sticky

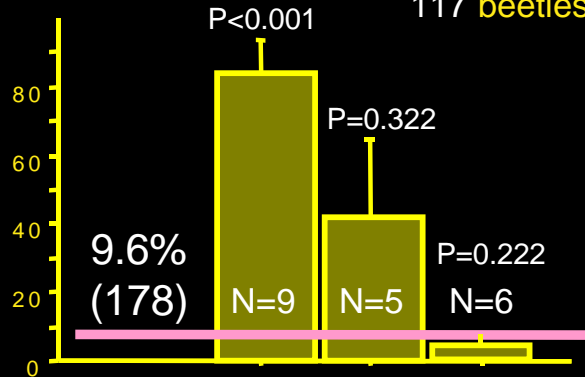


# Female % in catches of different traps at different periods

Kiszombor, 2002

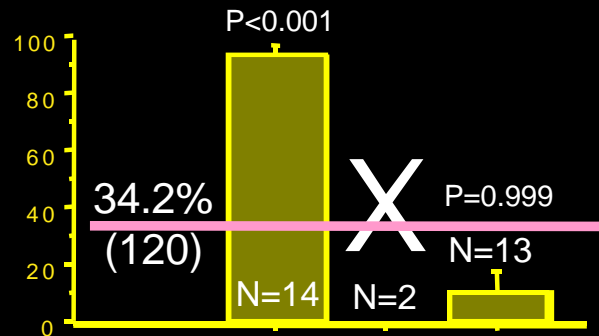
JUL 19 - 30

(Total caught:  
117 beetles)



AUG 8 - 23

(Total caught:  
105 beetles)

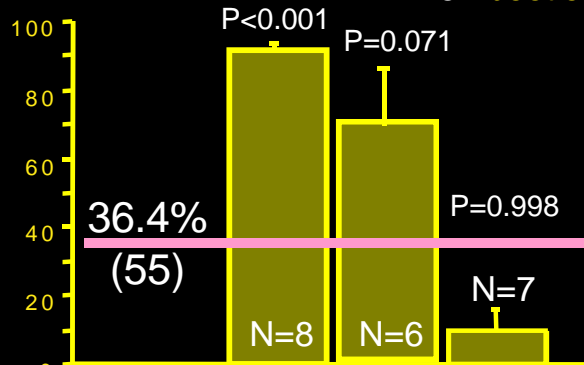


P values show comparison to female % in insect material collected by hand from randomly selected maize stems

← % in hand-collected

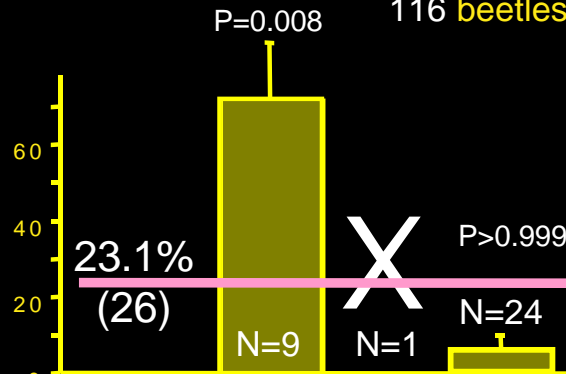
AUG 2 - 6

(Total caught:  
431 beetles)

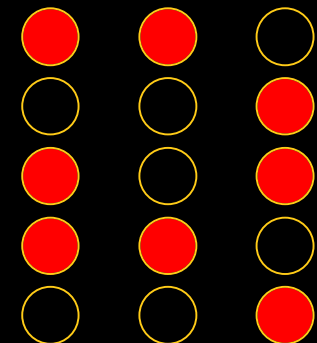
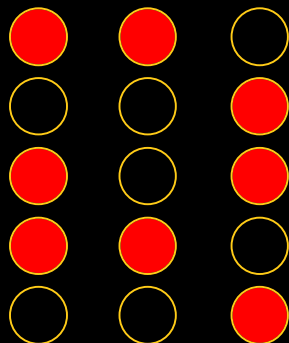


AUG 27 - SEP 20

(Total caught:  
116 beetles)



← % in hand-collected



yellow colour

pheromone bait

floral bait

sticky

non-sticky

Attractive stimulus

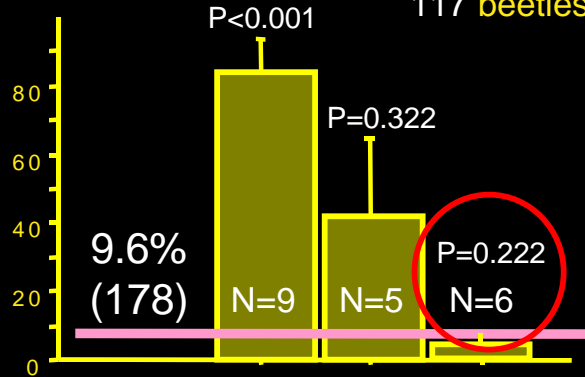
Trap design

# Female % in catches of different traps at different periods

Kiszombor, 2002

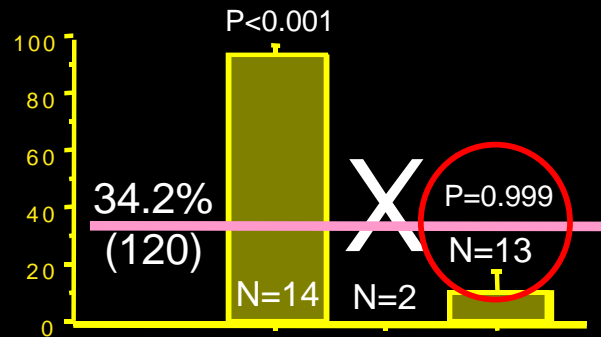
JUL 19 - 30

(Total caught:  
117 beetles)



AUG 8 - 23

(Total caught:  
105 beetles)

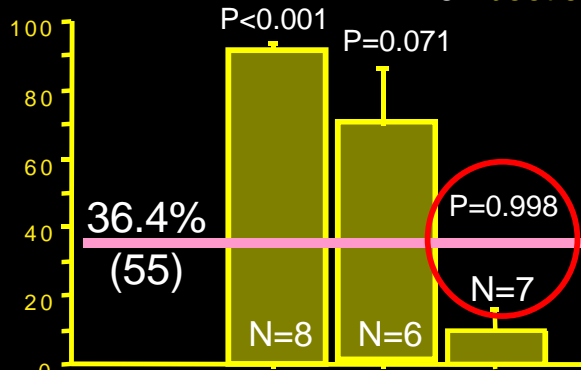


P values show comparison to female % in insect material collected by hand from randomly selected maize stems

← % in hand-collected

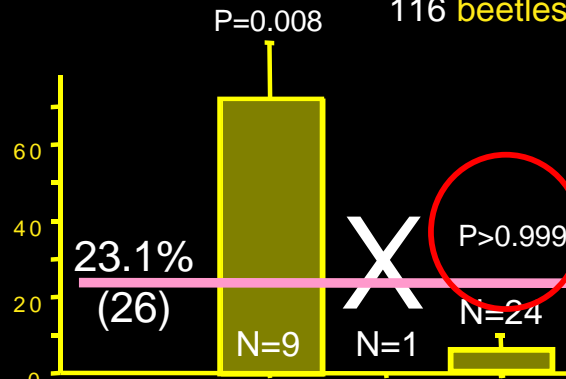
AUG 2 - 6

(Total caught:  
431 beetles)

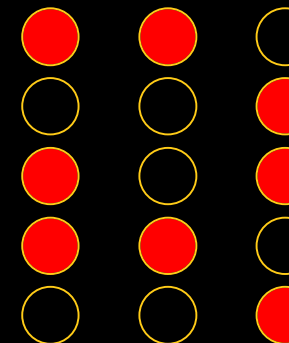
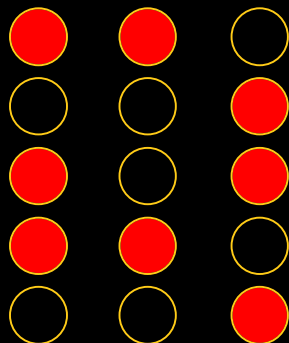


AUG 27- SEP 20

(Total caught:  
116 beetles)



← % in hand-collected



yellow colour

pheromone bait

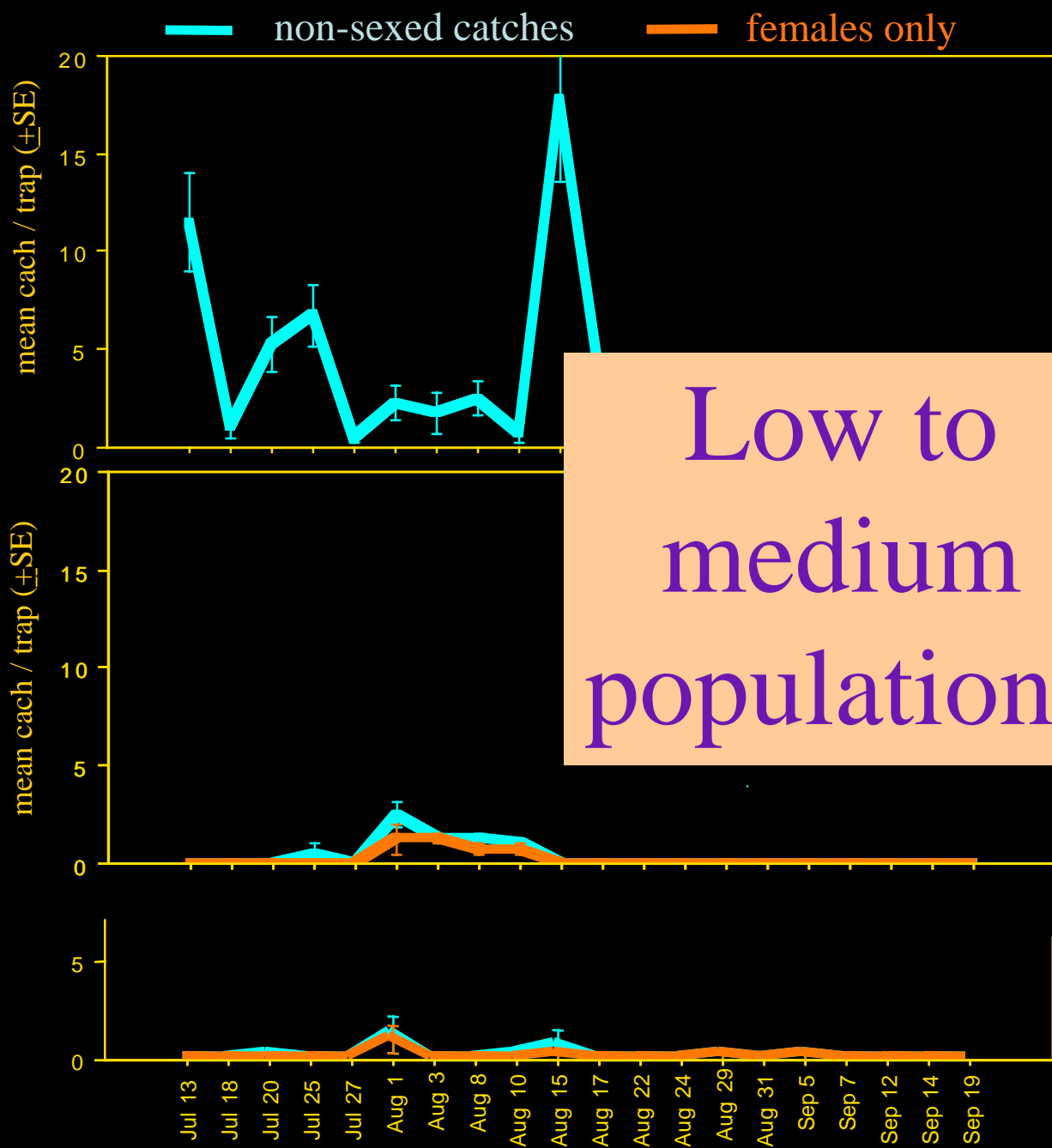
floral bait

sticky

non-sticky

Attractive stimulus

Trap design



Pheromone baited,  
sticky traps.

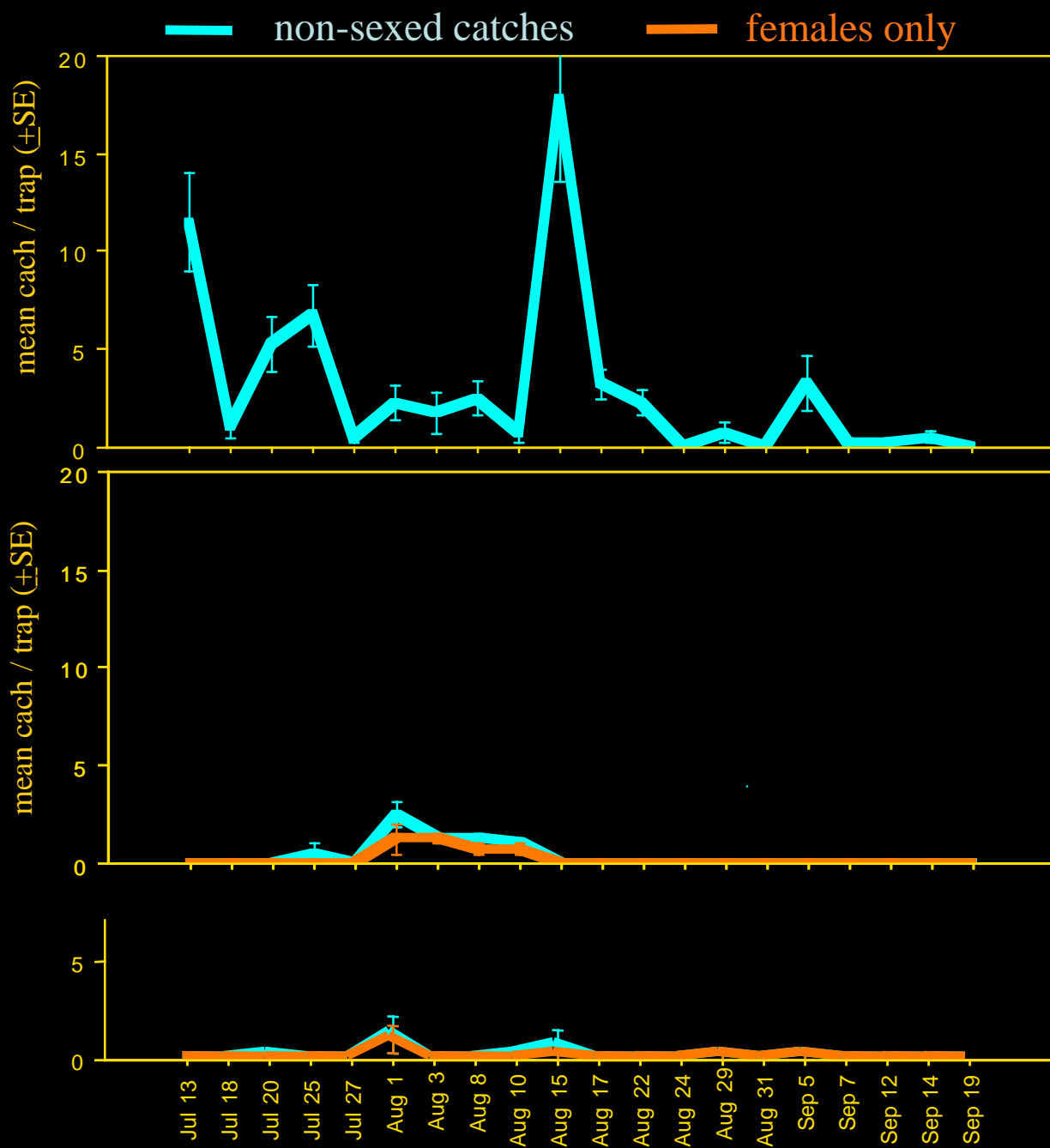
Total caught: 242 WCR

Floral baited,  
sticky traps.

Total caught: 26 WCR  
(61% females)

Yellow sticky traps,  
no bait.

Total caught: 12 WCR  
(58% females)



Pheromone baited,  
sticky traps.

Total caught: 242 WCR

Floral baited,  
sticky traps.

Total caught: 26 WCR  
(61% females)

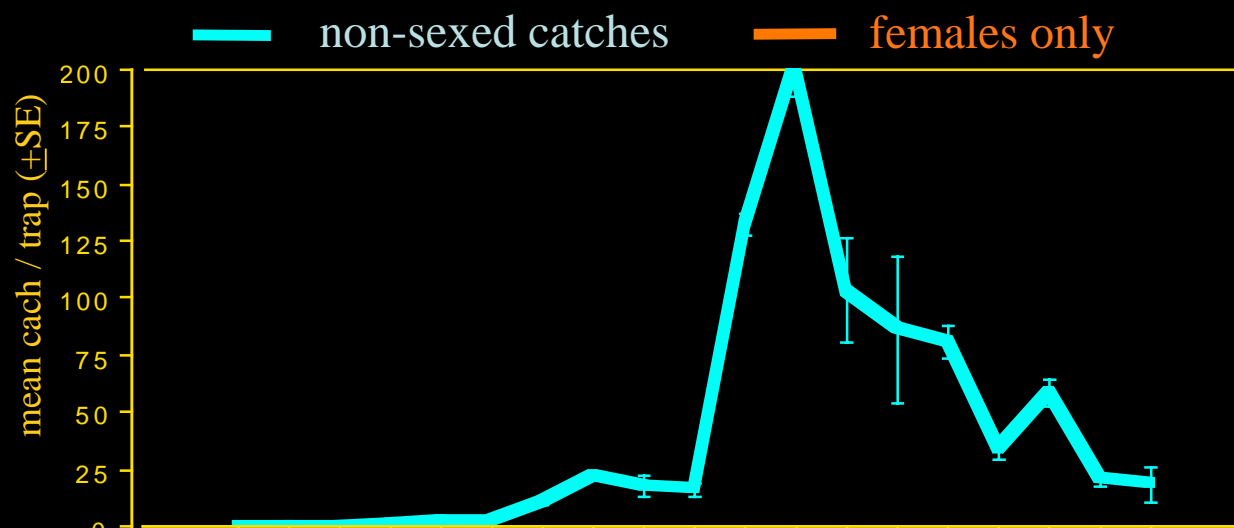
Yellow sticky traps,  
no bait.

Total caught: 12 WCR  
(58% females)

# Kiszombor, 2001

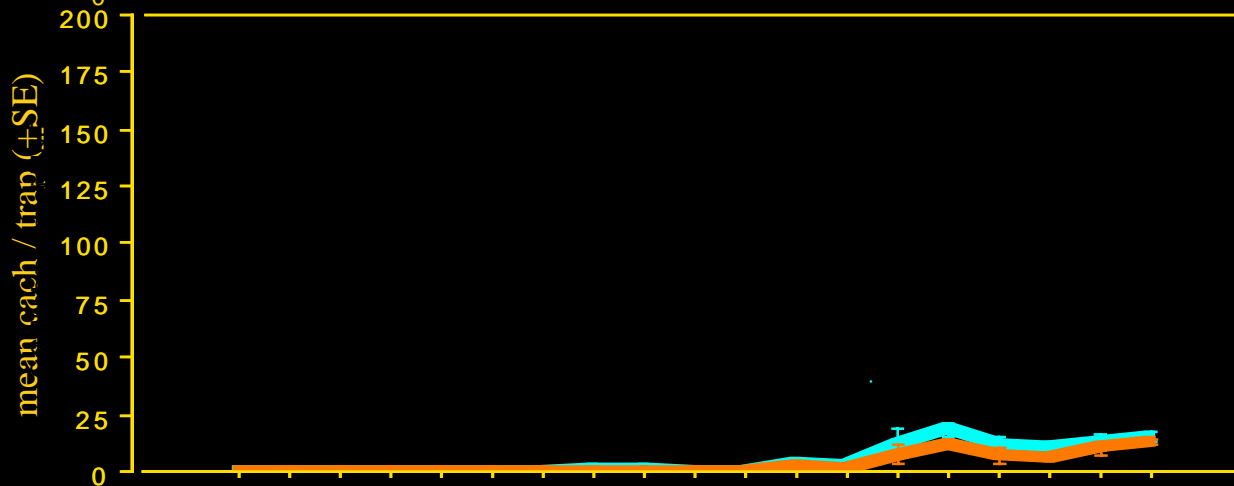
Pheromone baited,  
sticky traps.

Total caught: **3235** WCR



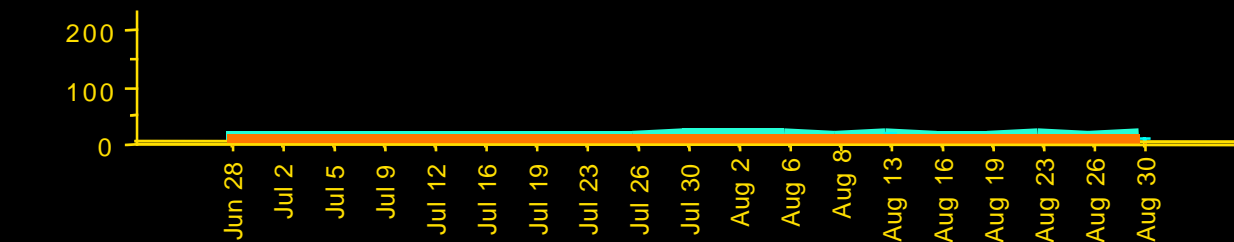
Floral baited,  
sticky traps.

Total caught: **356** WCR  
(73% females)



Yellow sticky traps,  
no bait.

Total caught: **32** WCR  
(25% females)



# Szekszárd, 2001

Pheromone baited,  
sticky traps.

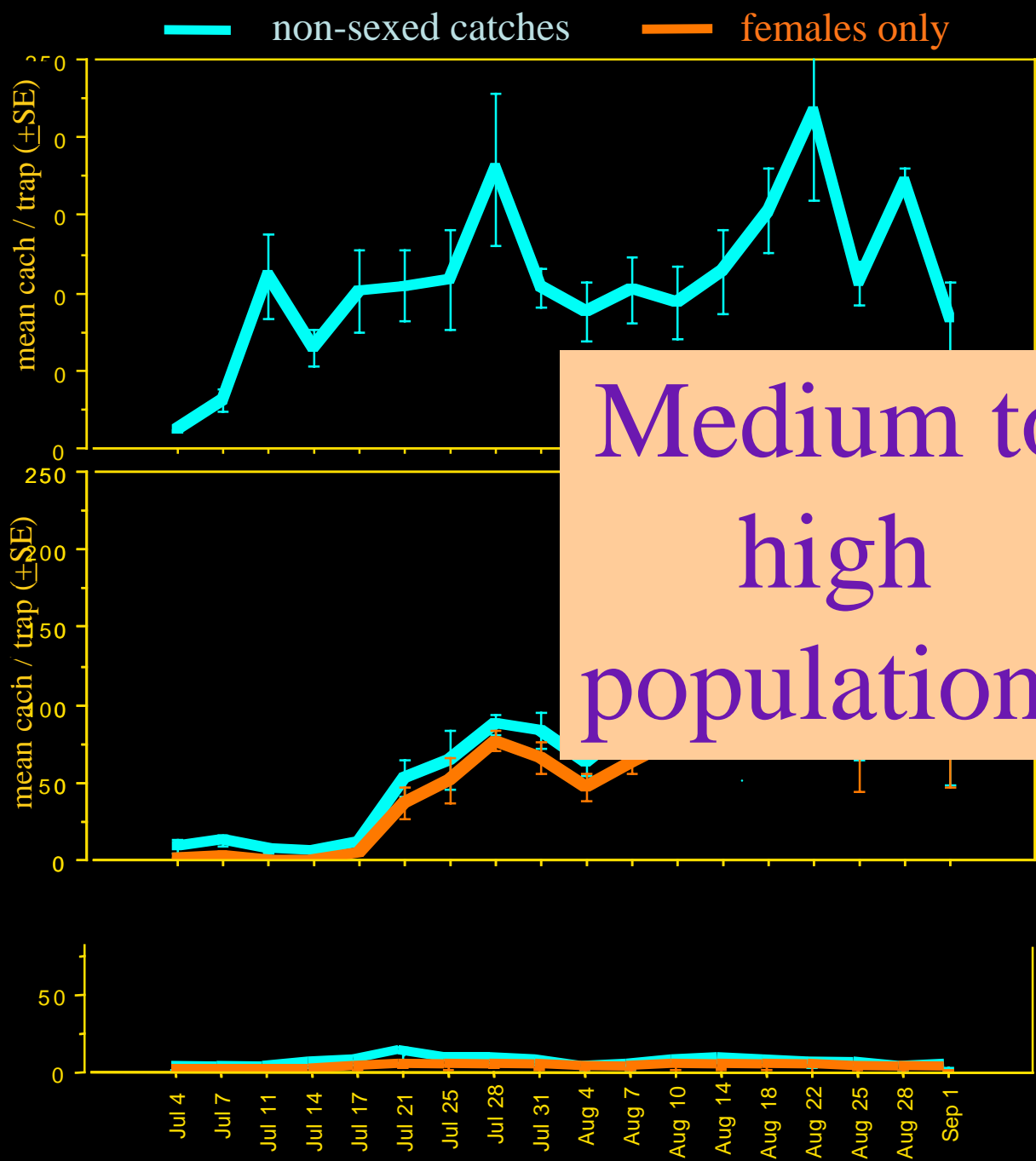
Total caught: 7753 WCR

Floral baited,  
sticky traps.

Total caught: 5304 WCR  
(75% females)

Yellow sticky traps,  
no bait.

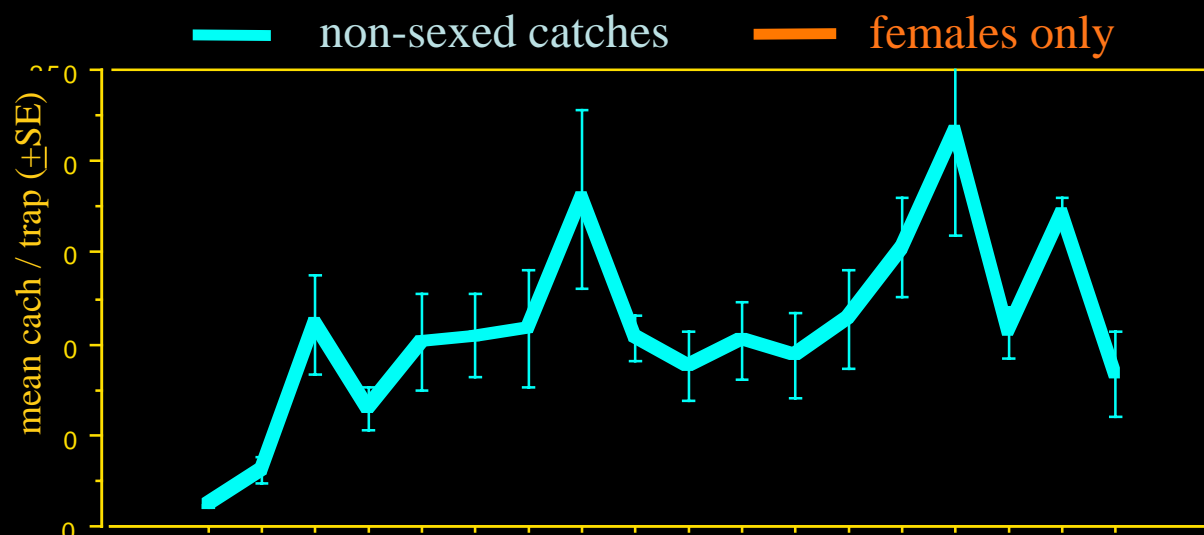
Total caught: 327 WCR  
(39% females)



# Szekszárd, 2001

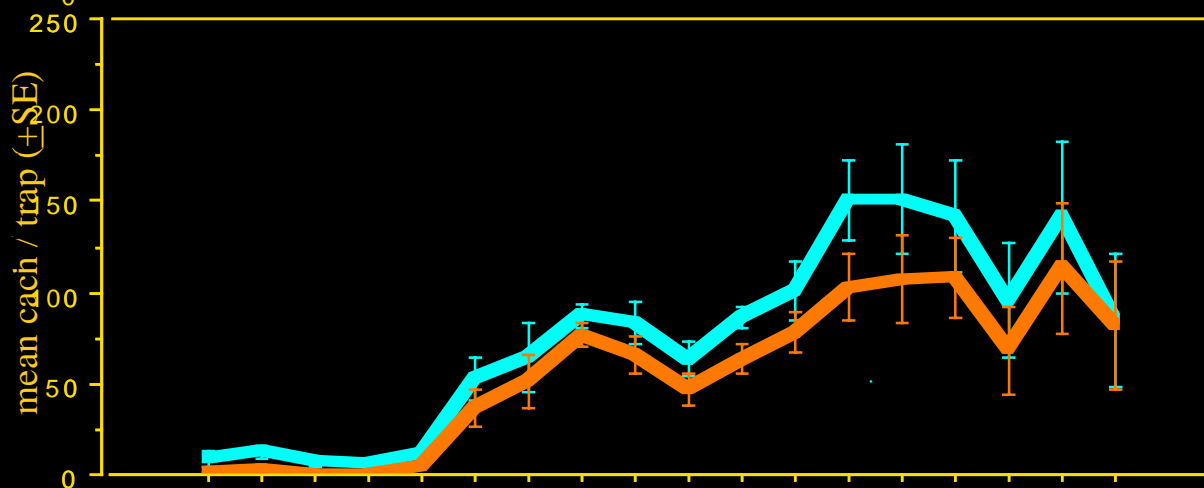
Pheromone baited,  
sticky traps.

Total caught: 7753 WCR



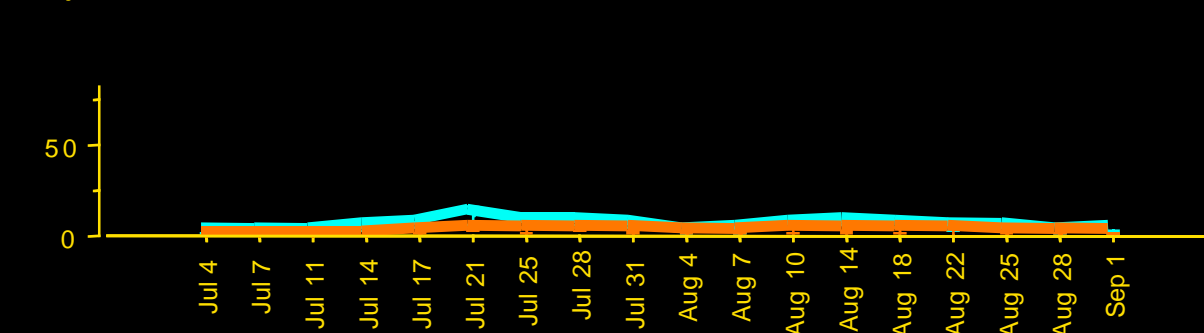
Floral baited,  
sticky traps.

Total caught: 5304 WCR  
(75% females)



Yellow sticky traps,  
no bait.

Total caught: 327 WCR  
(39% females)

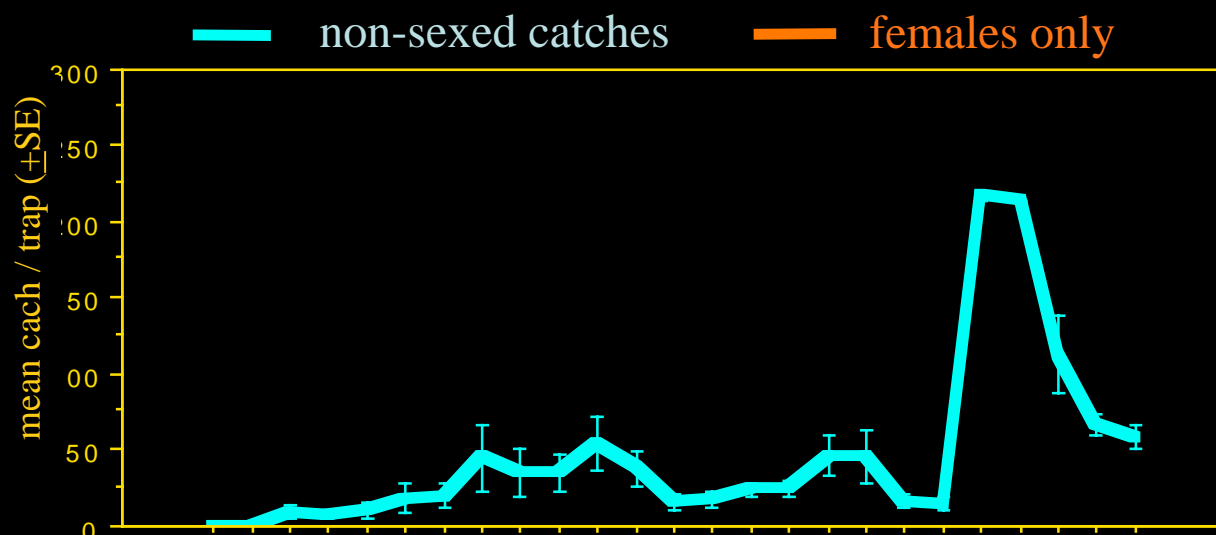




# Bácsbokod, 2001

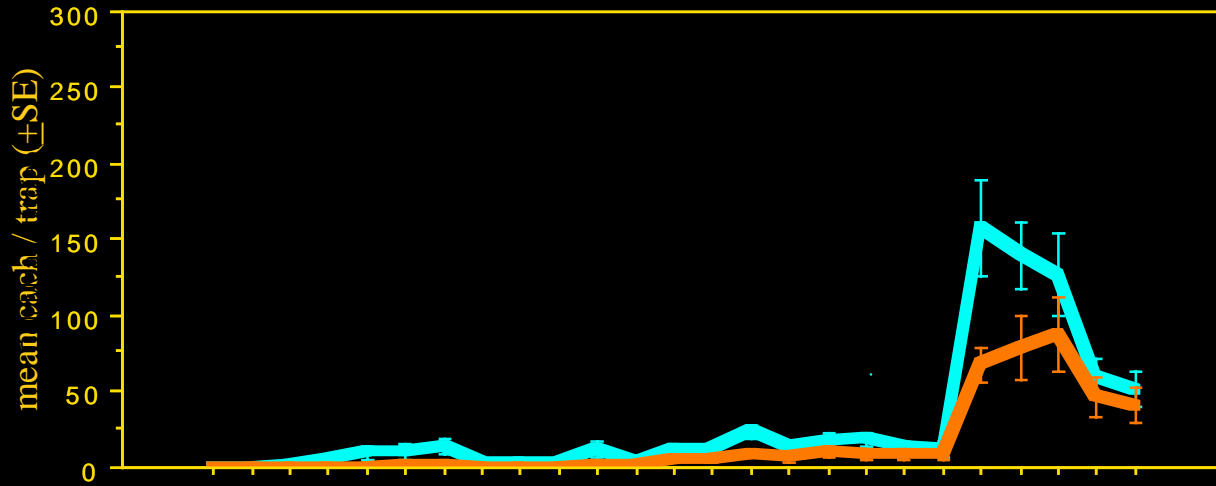
Pheromone baited,  
sticky traps.

Total caught: **4583** WCR



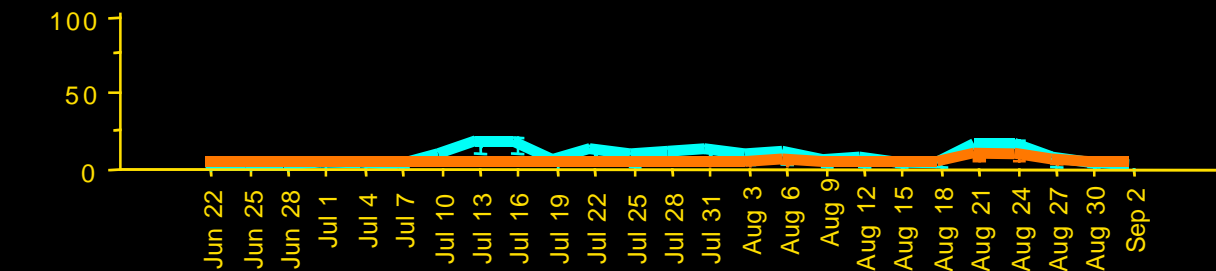
Floral baited,  
sticky traps.

Total caught: **2925** WCR  
(54% females)



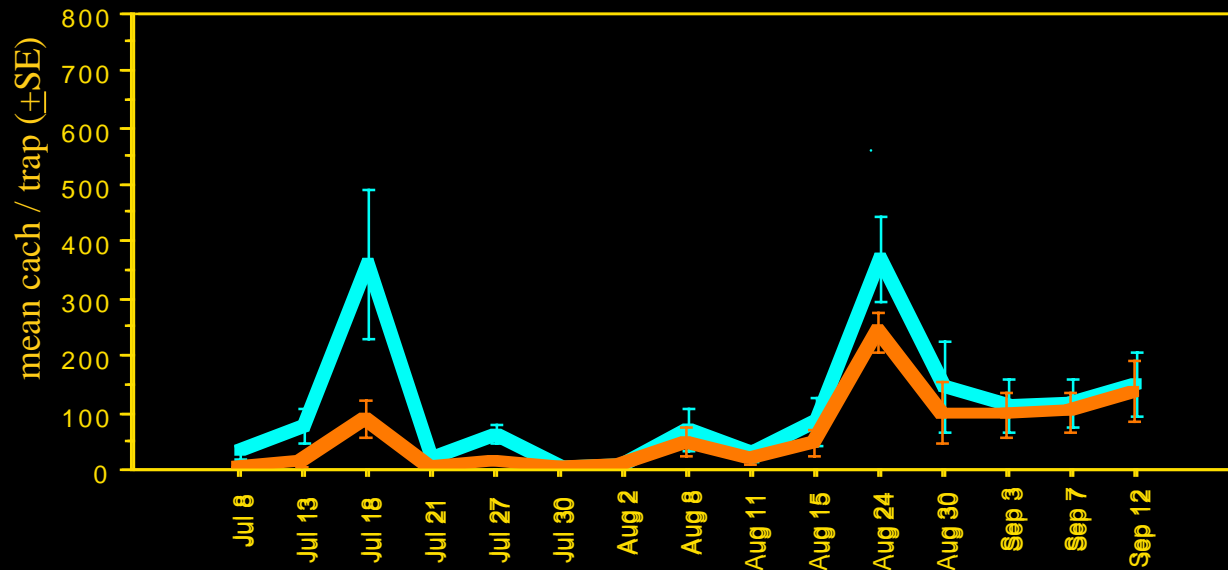
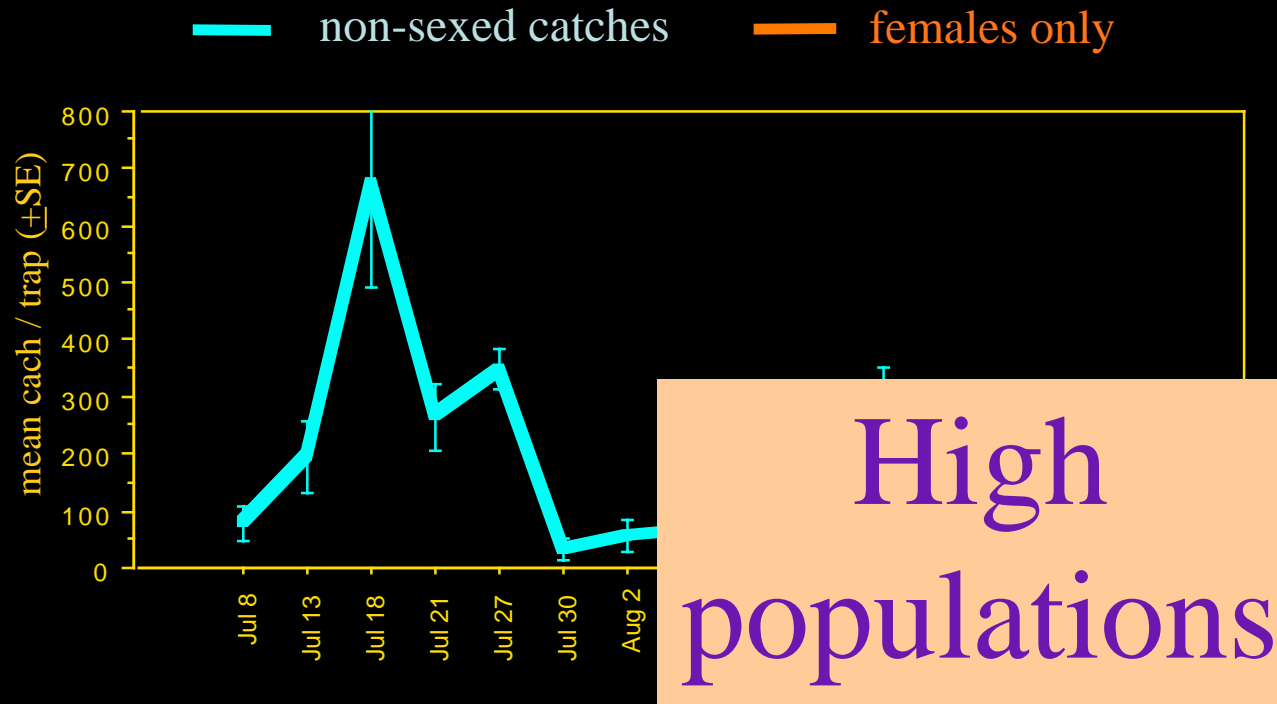
Yellow sticky traps,  
no bait.

Total caught: **577** WCR  
(12% females)



# Püspökladány, 2005

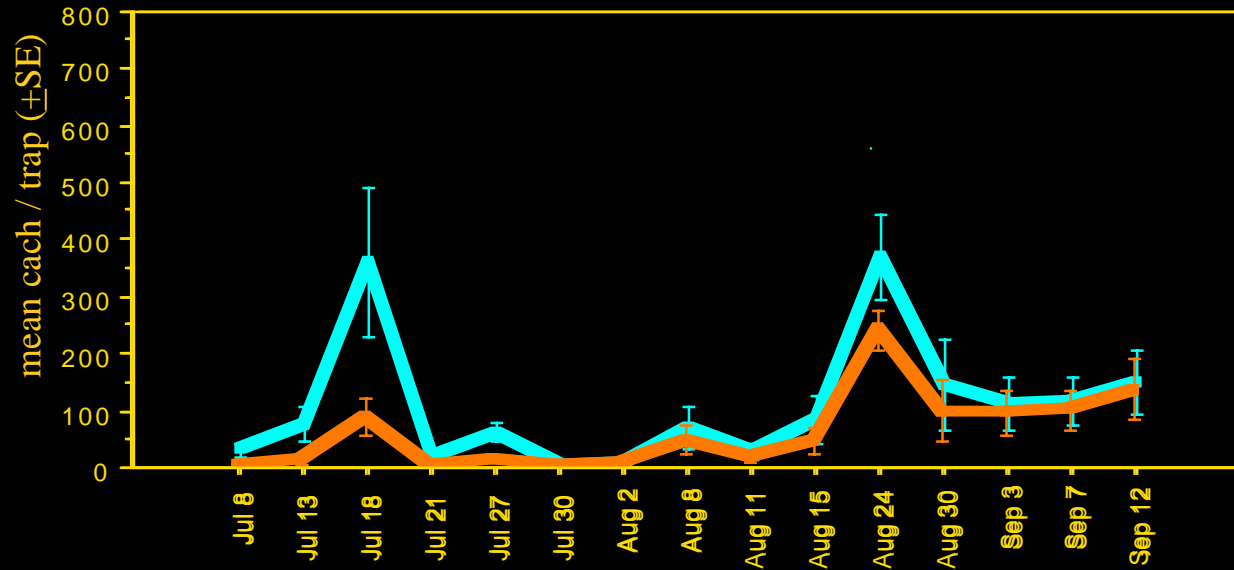
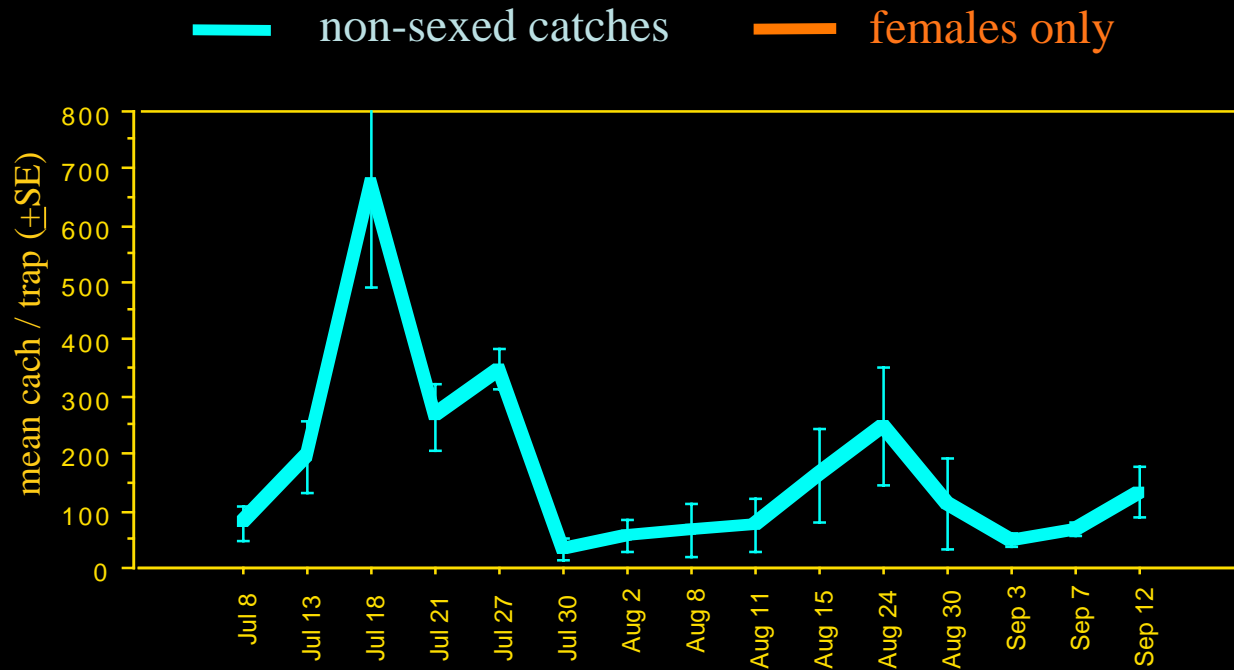
Pheromone baited,  
nonsticky traps.  
Total caught: 10242 WCR



Floral baited,  
nonsticky traps.  
Total caught: 6571 WCR  
(56% females)

# Püspökladány, 2005

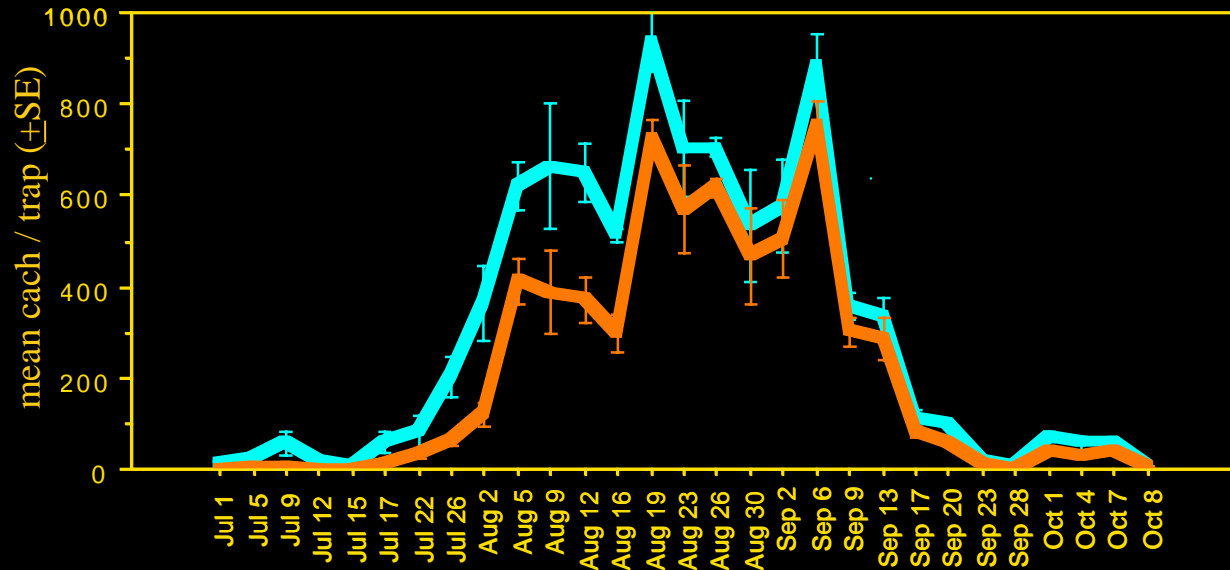
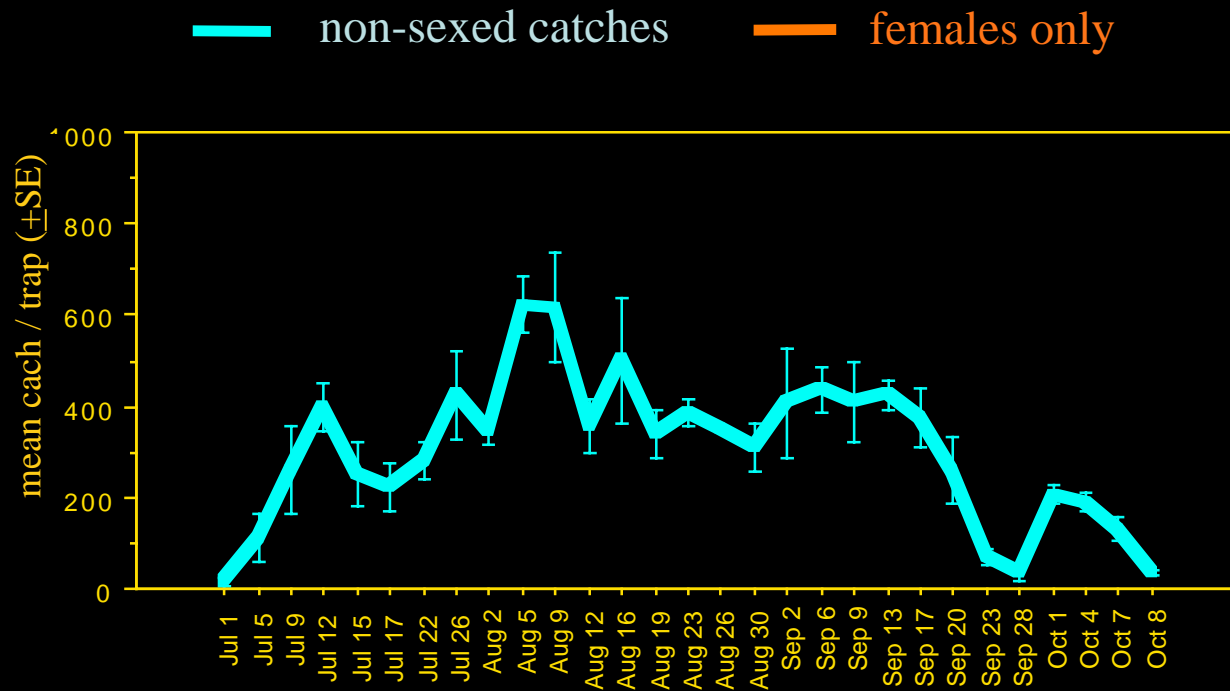
Pheromone baited,  
nonsticky traps.  
Total caught: 10242 WCR



Floral baited,  
nonsticky traps.  
Total caught: 6571 WCR  
(56% females)

# Debrecen, 2004

Pheromone baited,  
nonsticky traps.  
Total caught: 34471 WCR



Floral baited,  
nonsticky traps.  
Total caught: 34058 WCR  
(71% females)

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Thanks for  
your  
attention!

