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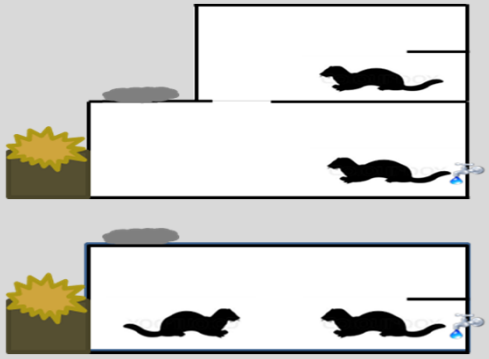
The more mink in the same cage, the more bite marks

Steffen.W. Hansen.
Department of Animal Science, Aarhus University
Blichers allé 20, Postboks 50, 8830 Tjele



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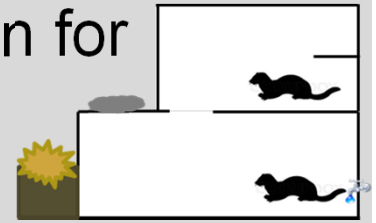
Background

1. Excess of females at weaning

2. Ban on keeping mink in standard cages and ban for keeping more than two young mink per cage.



3. Does the diameter of the occupational object “The tube” affect its function on fur chewing ?

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Experimental design

Groups	No. cages	N	Cage type	Enrichment
MFC	24	48 (24)	Climbing cage	Tubes: 12 vs 4 cm
MFS	24	48 (24)	Standard	Tubes: 12 vs 4 cm
F2	24	48	Standard	Tubes: 12 vs 4 cm
F3	24	72	Climbing	Tubes: 12 vs 4 cm
F4	24	96	Climbing	Tubes: 12 vs 4 cm
Total	120	312		

Only data from the females are used in this presentation

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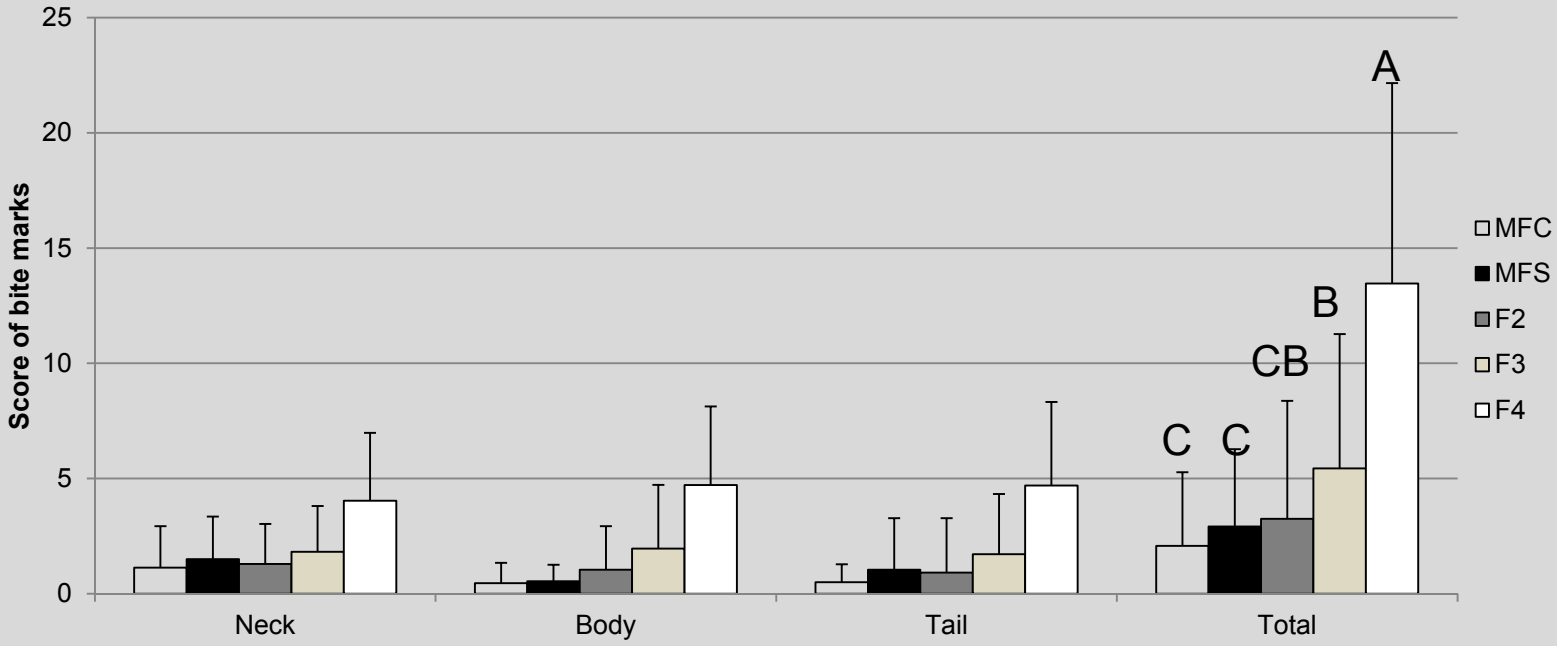
Number of bite marks increases with the number of females in the cage



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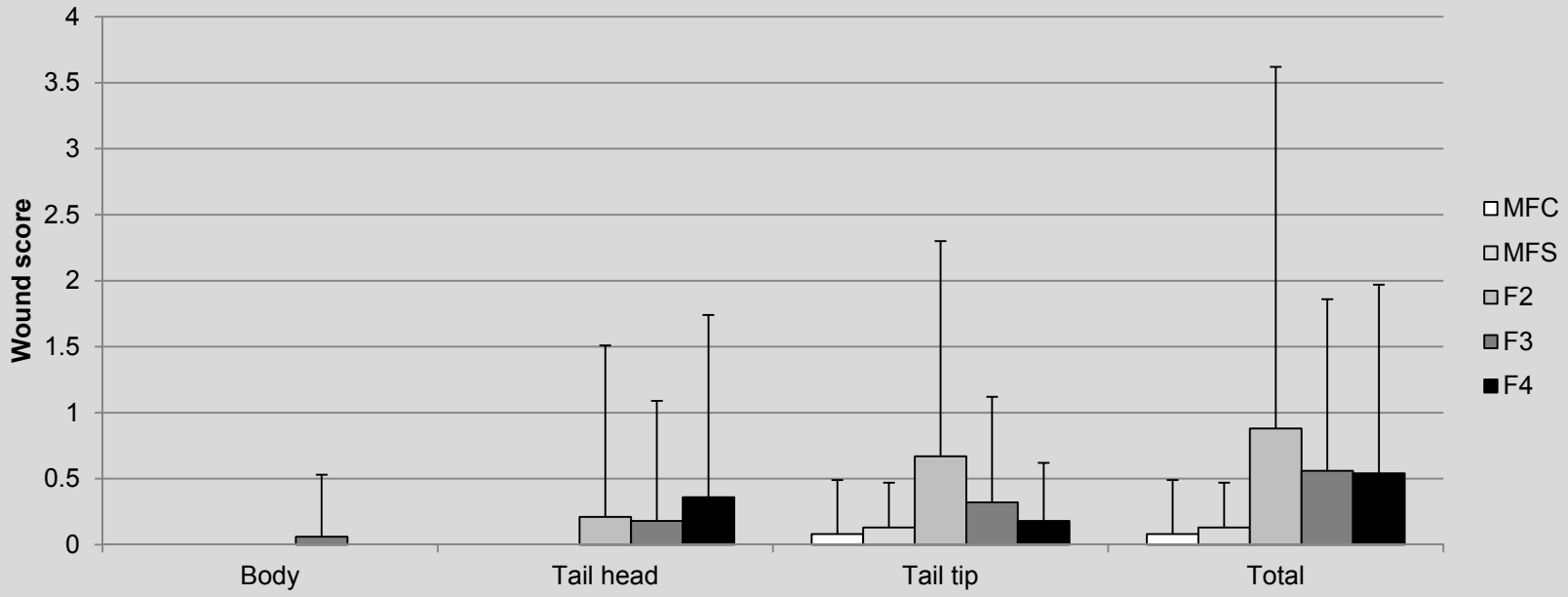
Wounds on body and tail head in F2, F3 and F4, but not in MF groups



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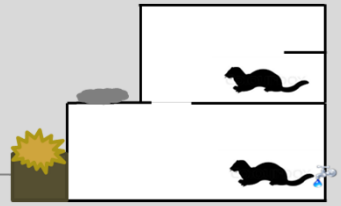
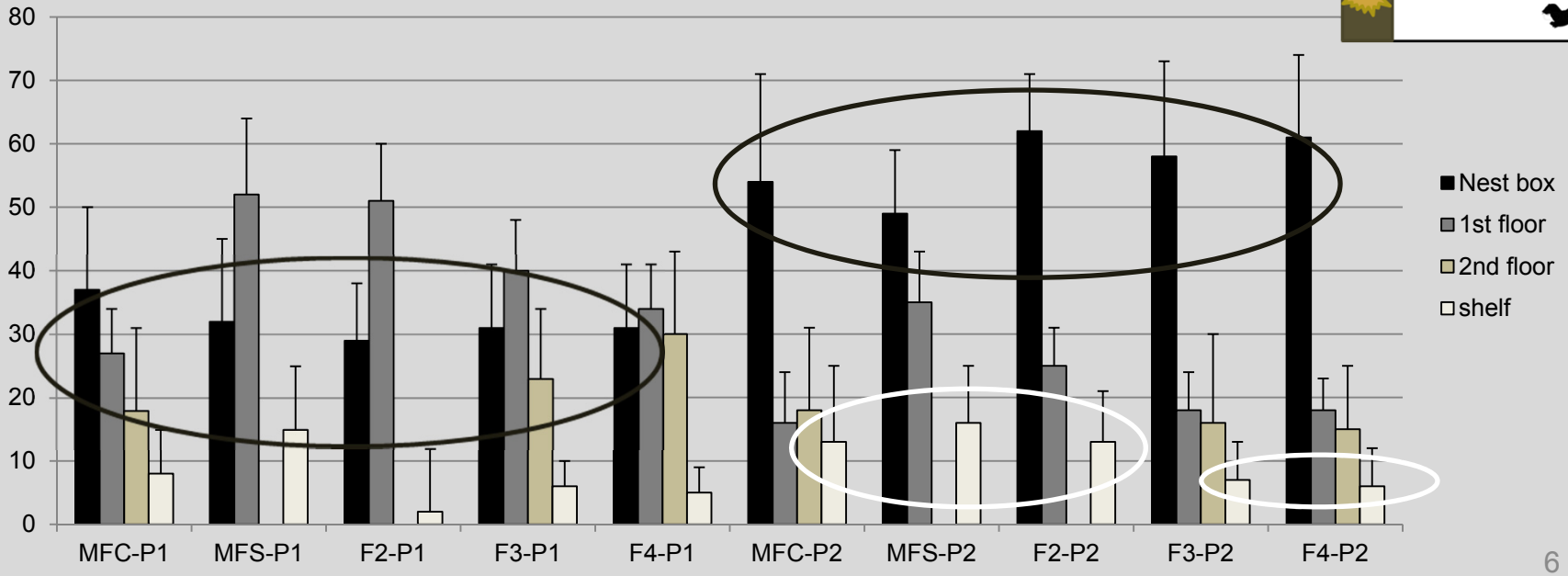
Use of nest box: No effets on no. of females

♂♀ pairs < female groups

Use of shelf: F3, F4 < F2, MFC MFS





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MFS more active
F3 & F4 more passive together

Variables	Effect of no. of females	Effect of cage type	P value
Unspecific active		MFS > MFC, F2, F3 ,F4	P < 0,0001
Passive alone	MFS, MFC > F2, F3, F4	NS	P < 0,0001
Passive together	F3, F4 > F2, MFC, MFS	NS	P <0.0001
Play	2.3 – 0,7 percent of the observations		No statistic
"Bite_wiere"	0.9 - 0.05 percent of the observations		No statistic
Stereotypy	F3: 0.04, F4: 0.02 percent of the observations		No statistic

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F2 & F3 had higher feed alowance, body weight and more fur chewing

Variables	Effect of no. of females	Effect of cage type	Effect of tube diameter	P value
Feed alowance	F2, F3 > F4	NS		P < 0,01
Body weight	F2, F3 > F4	NS		P <0,01
Fur chewing	F2, F3 > F4	NS	NS	P < 0,05
Fearfulness	NS	NS		
Cortisol (FCM)	NS			

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Conclusion regarding 2, 3 and 4 females in the same cage

More than 2 females in the cage:

- Increase the numbers of bite marks and increase the risk for serious wounds
- Reduce the use of the shelf
- No effect on use of nest box, activity

Two or 3 females in the cage:

- Improve body weight
- Increase fur chewing

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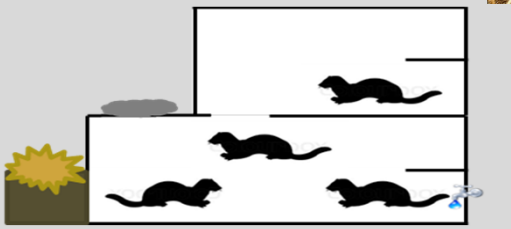
Conclusion regarding standard or climbing cages



Climbing cages:

- Decrease activity
- No effect on use of the nest box, the cage, resting alone or together, fur chewing, bite marks, wounds, body weight or temperament

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Conclusion regarding the diameter of the tube

4 or 12 cm diameter tube:

- No effect on fur chewing

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The take-home message

The number of females:

- ✓ Increase bite marks and risk of wounds
- ✓ No effect on use of nest box and activty

Climbing cage:

- ✓ Do not reduce the welfare but hard to document improvements

The diameter of the tube

- ✓ No different effect on furchewing

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