

Patterns of predation on ground nesting meadow birds

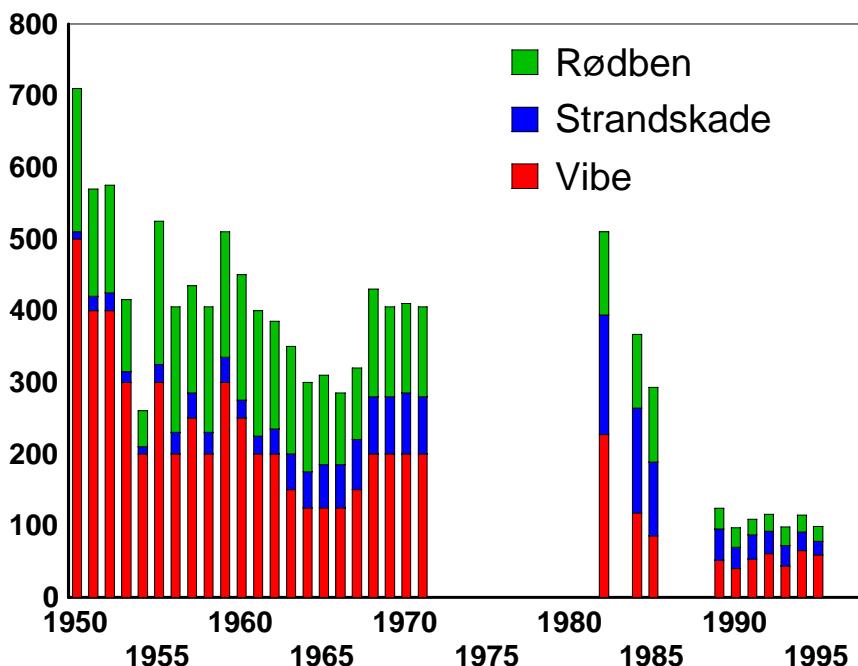
“Mønstre i prædation på reder af jordrugende engfugle”



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Meadowbirds at Vestamager

- Breeding numbers
1950-1995



50 years of natural
succession

⇒ a new landscape

=>=> fewer breeding
meadowbirds

1991

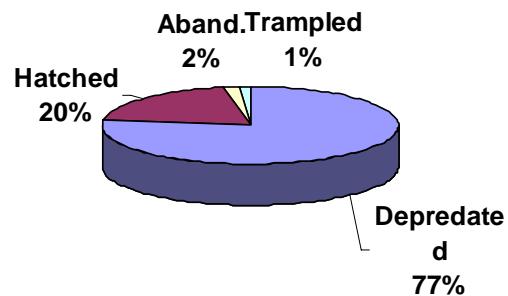




Breeding success at grazed areas

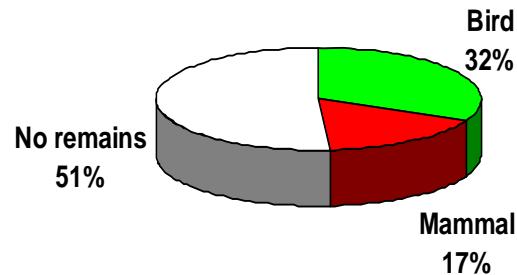
Lapwing nests

(n=145)



Shell remains

(n=203 rede)



Shell remains



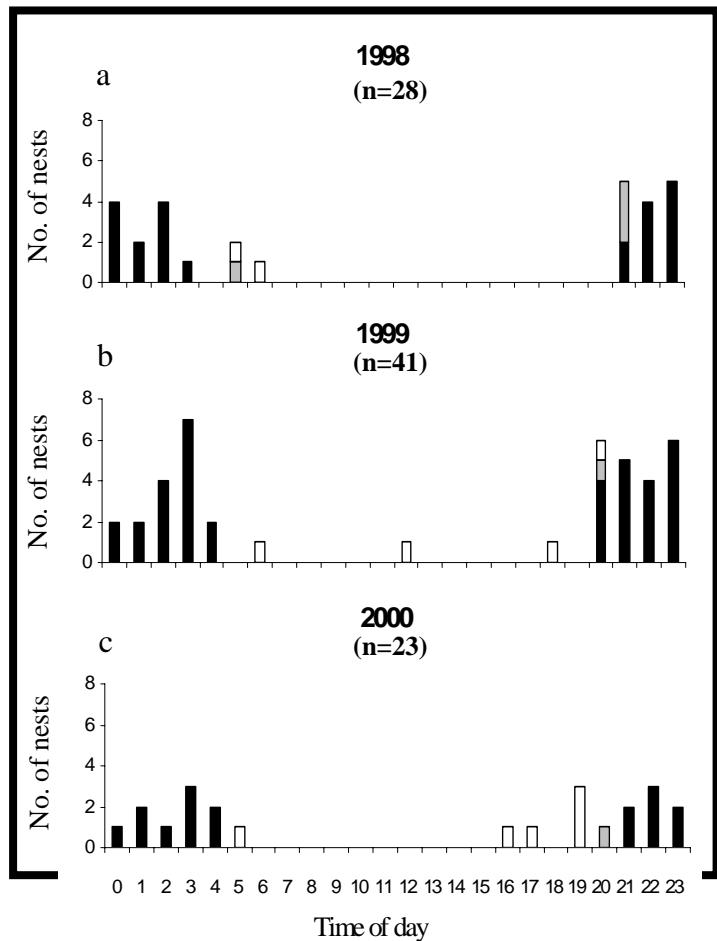
- Avian?

- Mammalian

Temperature logging in lapwing nests



Time of predation



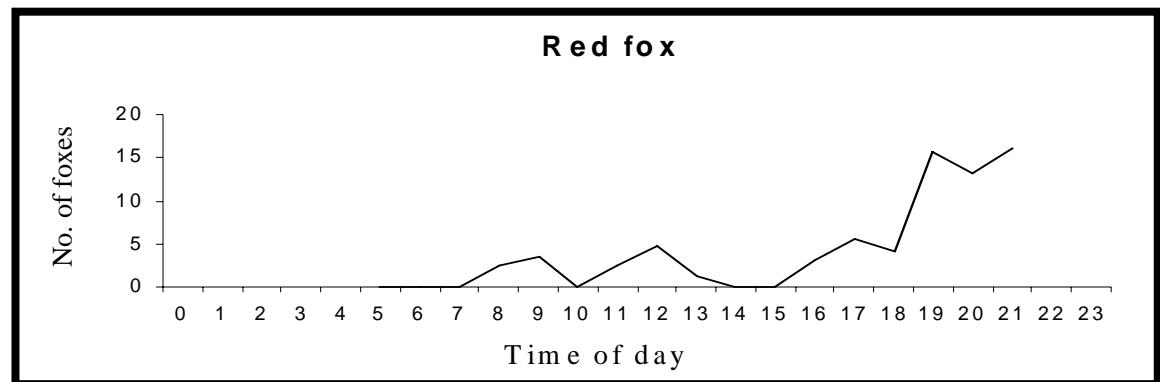
- N= 92 nests
- 80% of all nest were lost during night
- 6% in twilight
- 14% in daylight

Time of predation:

- 80 % of all nest are lost during night
 - app. 50% of nest predated during daytime and twilight had signs from a mammalian predator
- ⇒ => 90% of all nests were taken by an mammalian predator
- Fox' is the most common predator at Vestamager

Possible mammalian predators

- Fox
- Mink
- Cat
- Dog
- Polecat
- Stoat
- Rat
- Hedgehog

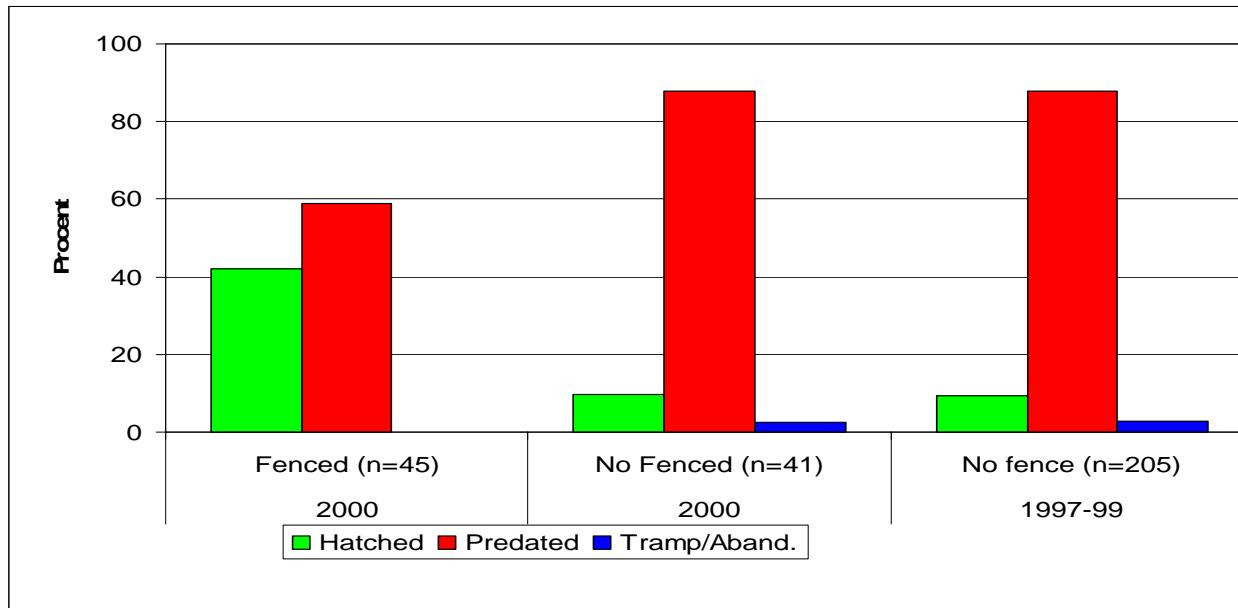


Electric fence exclosures 2000

- 3 x 9 ha. fenced with 6-7 wires
- 3 x 9 ha.
Control areas

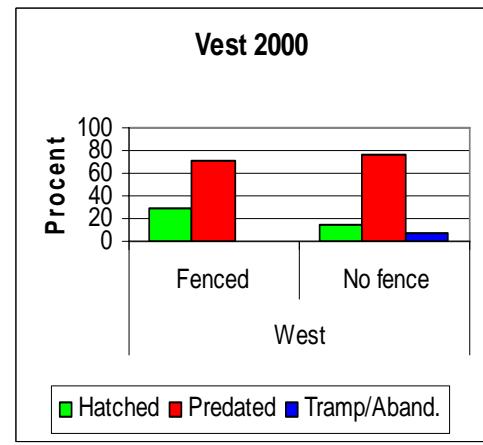
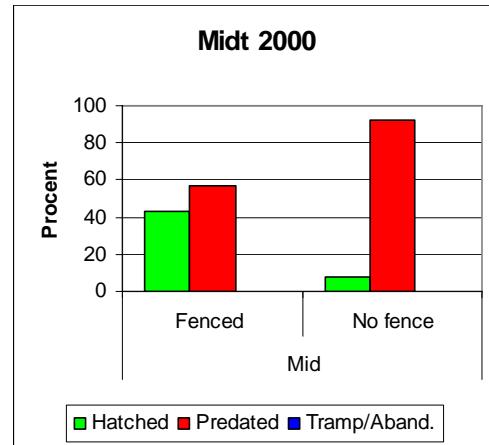
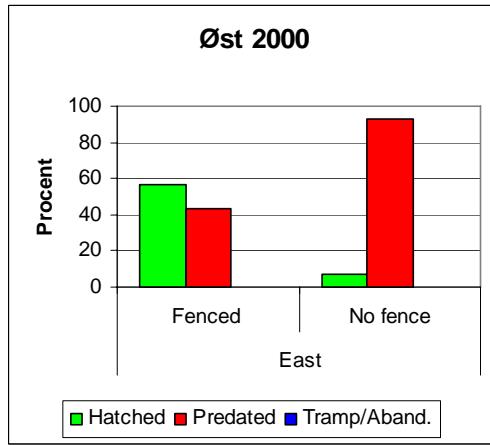


Impact of electric fence exclosures on lapwing breeding success 2000



- Improved hatching success
- Still a high predation and
- Still nocturnal predation !! => poor fence design

Impact of electric fence exclosures on lapwing breeding success - details 2000'



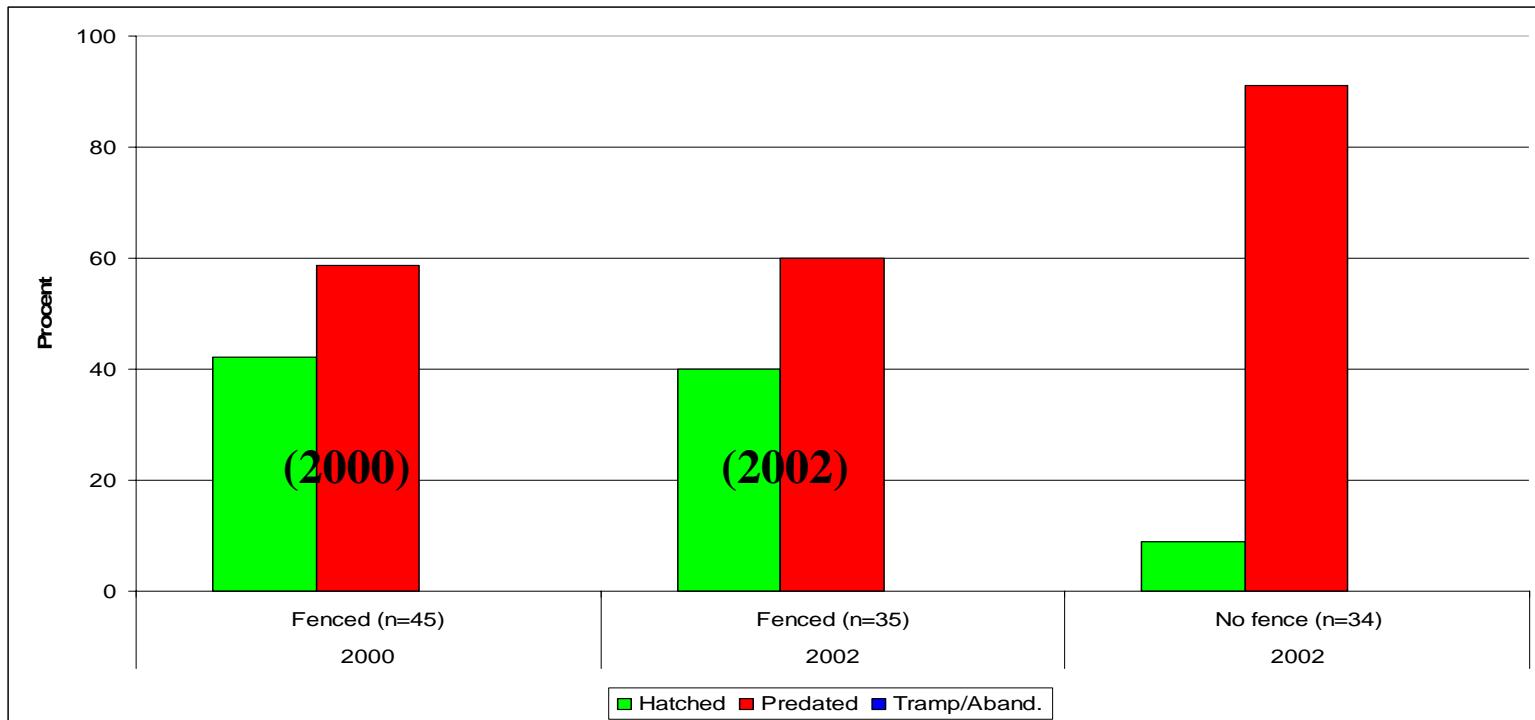
- East => Improved hatching success
- Medio => Improved hatching success
- West => Little or no change

Electric fence exclosures 2002

- Same 3 areas inc.
Controls
- Improved fence
design
 - 2x 'Tiger Tape'
 - Grounded wire

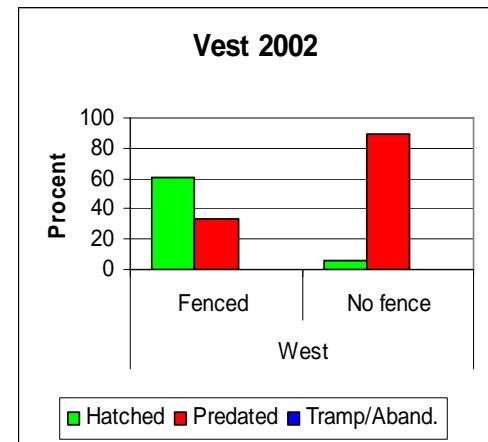
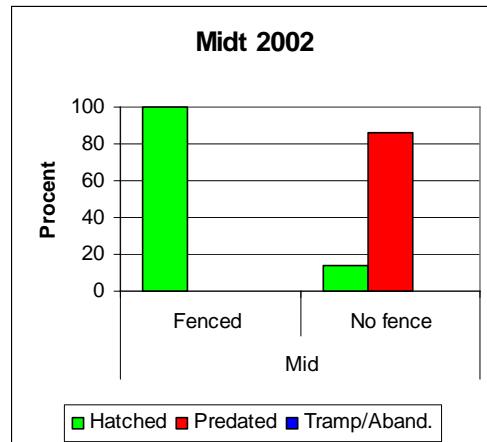
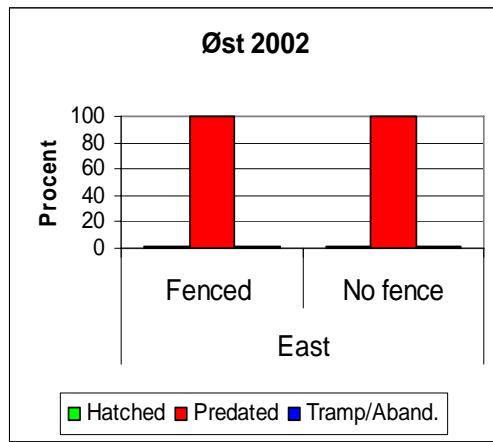


Impact of electric fence exclosures on lapwing breeding success 2002



- Improved hatching success – as in 2000
- Still about 60 % lost to predators
- Variation between fences
- NONE nocturnal predation !!

Impact of electric fence exclosures on lapwing breeding success - 'details 2002'



- East => all predicated => none nocturnal
- Medio => 100% hatched
- West => Improved hatching => none nocturnal

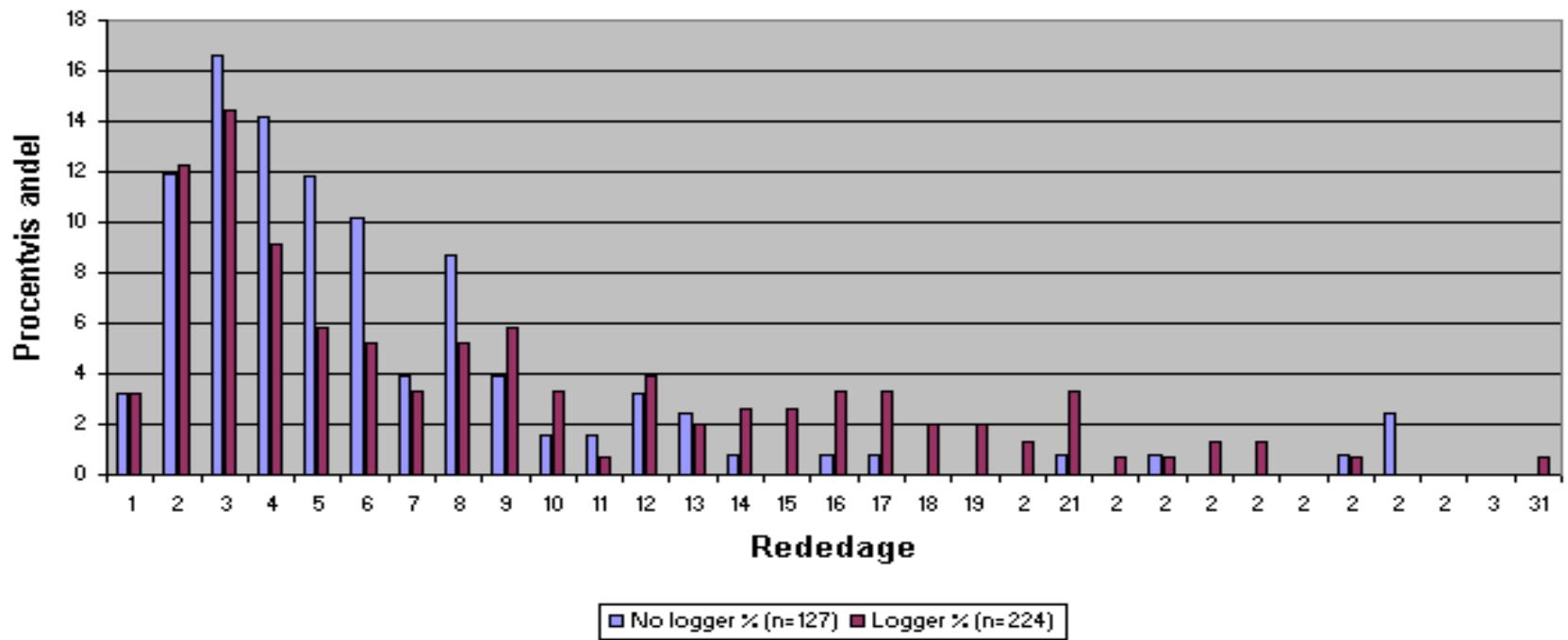
Electric fence exclosures

- Improve breeding success – but predation still present
- In field season 2000 – still nocturnal predation
- In field season 2002 – none nocturnal predation
- Variation in between areas and years



SLUT....

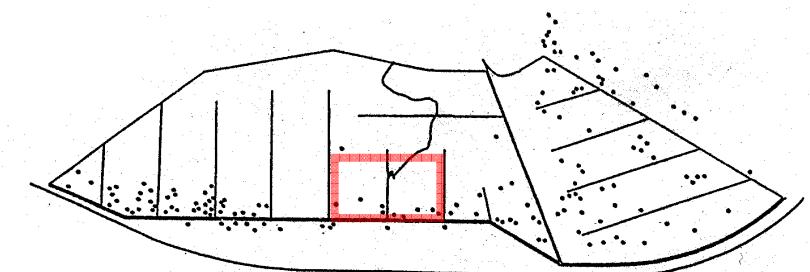
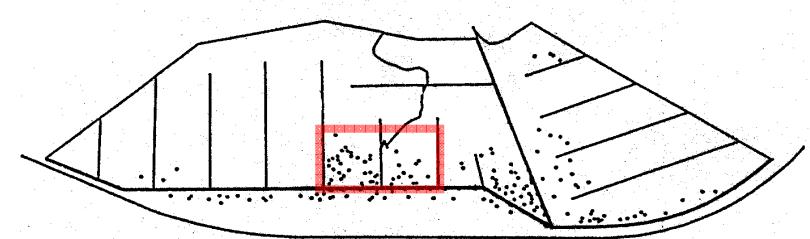
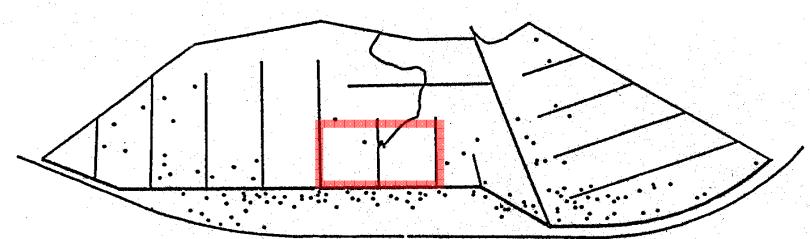
Redeoverlevelse +/- data loggere



- Ingen forskel mellem andel af reder der prædateres/klækker

Afgræsning og vadefugleterritorier

- Før afgræsning
- Delvist afgræsset
- Hele reservatet afgræsset



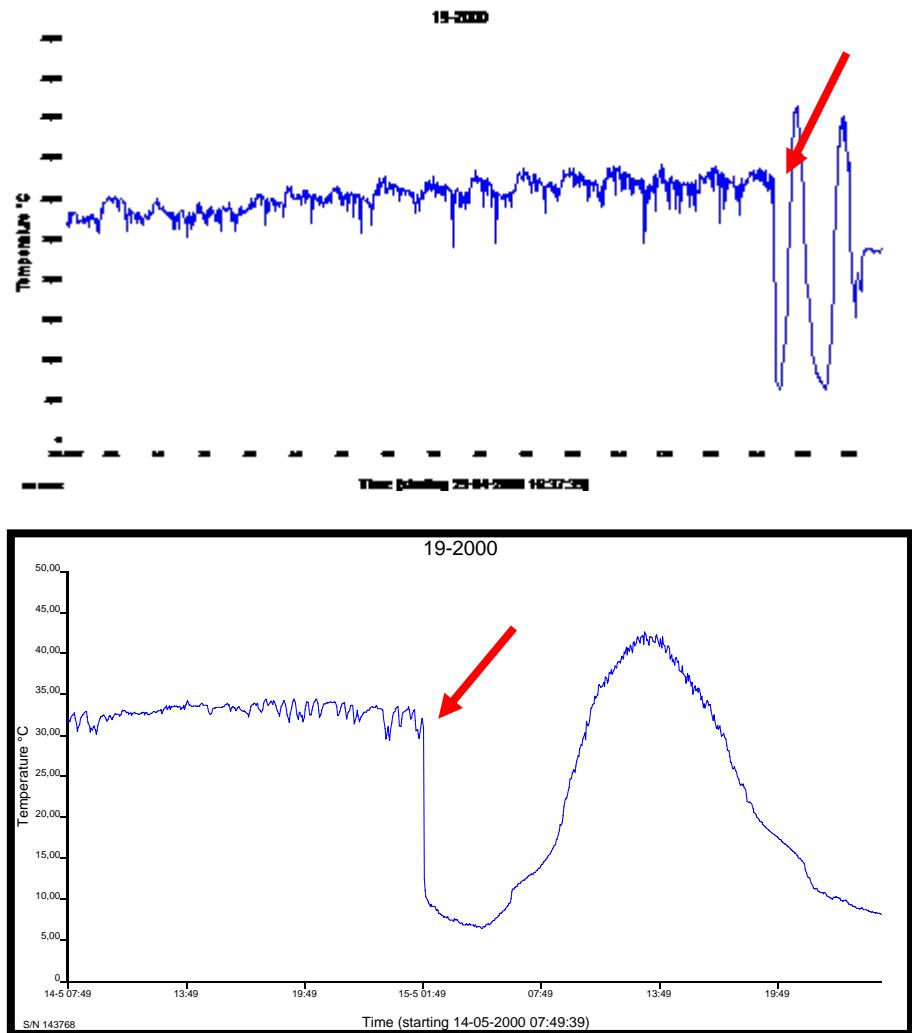
Effekt af tiltag

	Græsning	Vandstand	NAO
Vibe	++		
Rødben		++	
Klyde	++		
St.Præstek r.		+	-
Strandskad e	-		+

Prædationstidspunkt af vibereder

Temperaturkurver

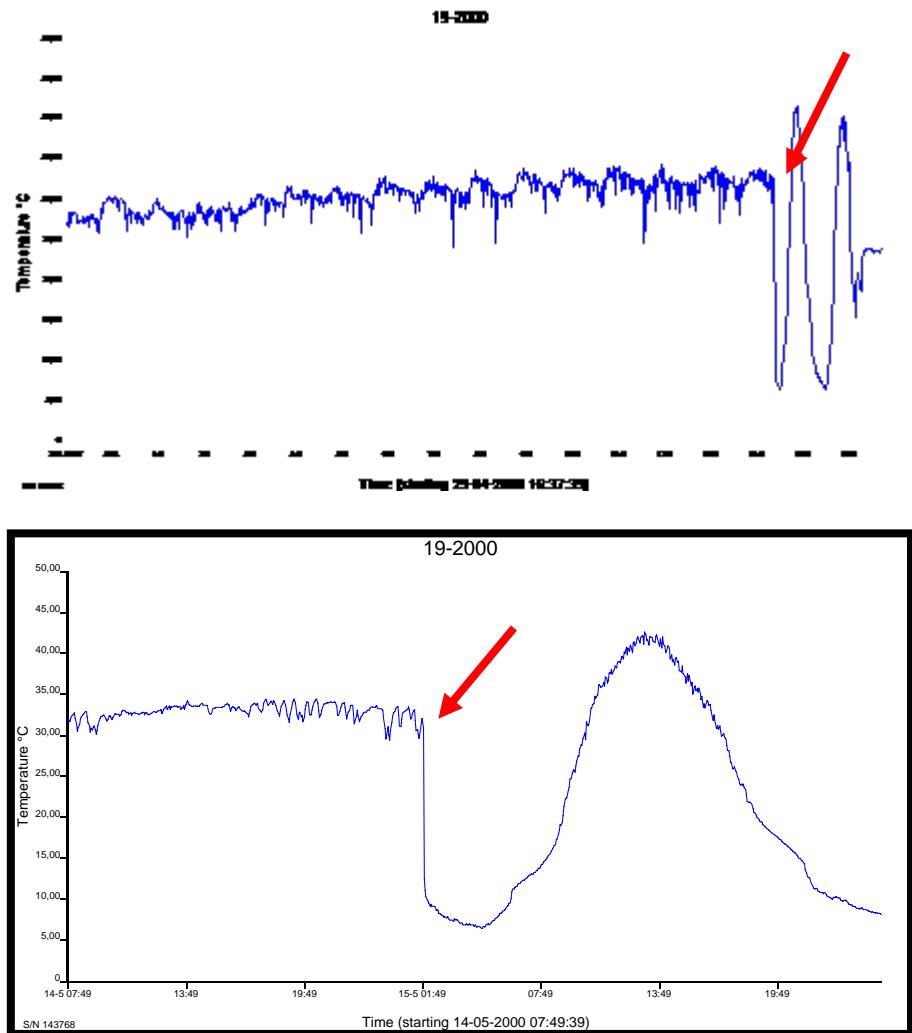
- Temperatur
målinger fra en
rede der prædateres
- Forstørrelse af
samme til aflæsning af
prædationstidspunkt
(d. 15/5 kl. 01:49)



Prædationstidspunkt af vibereder

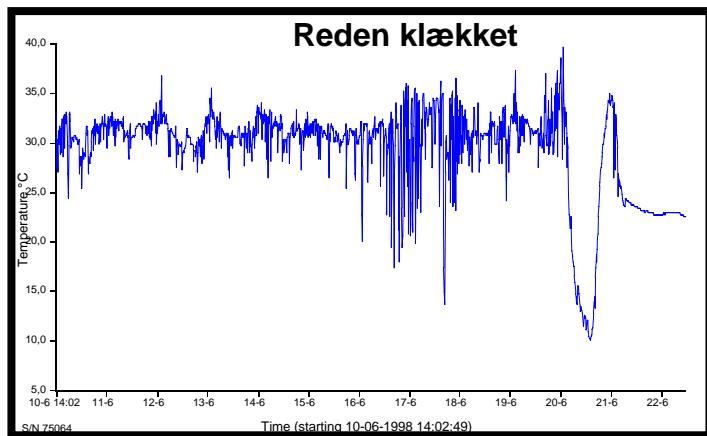
Temperaturkurver

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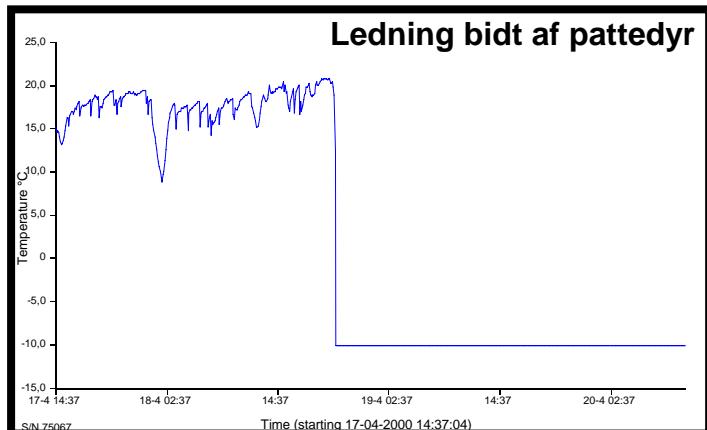


Prædationstidspunkt af vibereder

Andre 'logger' resultater



- Erkendes ved, ungeforekomst, skal-efterladenskaber og/eller kendskab til rugelængde



- Kendskab til prædations-tidspunkt
 - Ødelagt udstyr

Konklusion

- Naturpleje har gavnlig effekt på vadefugle populationer
- Effekten er artsspecifik

Olsen & Schmidt, 2003. Impact of wet grassland management and winter severity on wader breeding numbers in eastern Denmark. Basic and Applied Ecology (In press)

- Kragers yngleaktiviteter er følsomme over for fangstaktiviteter
- Især gældende ved høj bestandstæthed

Olsen & Schmidt, 2001. The impact of trapping and handling activities on the breeding performance of Hooded Crows Corvus corone cornix. Ringing and Migration 20 (4) 377-380.

- Krage reagerer hurtigt og effektivt på let føde tilgængelighed
- Husskade reagerede ikke på samme vis men måske i stedet på antallet af krager

Olsen & Schmidt, 2003. The response of Hooded Crows and Magpies to exposure of artificial nests. Bird Study (In press).

Konklusion (fortsat)

- Krager er talrigt og aktivt fouragerede på vadefuglenes yngle habitater i alle døgnets lyse timer
- Krager synes ikke at fouragere aktivt efter vibe reden

*Olsen & Frandsen. Hooded crow (*Corvus corone cornix*) activity on wader breeding grounds in eastern Denmark (Manuscript).*

- Vibederne prædateres hovedsageligt om natten
- 90% af all reder plyndres af pattedyr på Vestamager

*Olsen, H. Patterns of predation on lapwing *Vanellus vanellus* nests on a coastal meadow in eastern Denmark. (Submittet: Ardea).*

- Ynglesucces kan forbedres ved hegning mod ræve
- Fortsat prædation på hegdede reden
- Stor variation mellem områder

*Olsen, H. Impact of electric fence exclosures on lapwing *Vanellus vanellus* breeding success (Manuscript/progress report).*