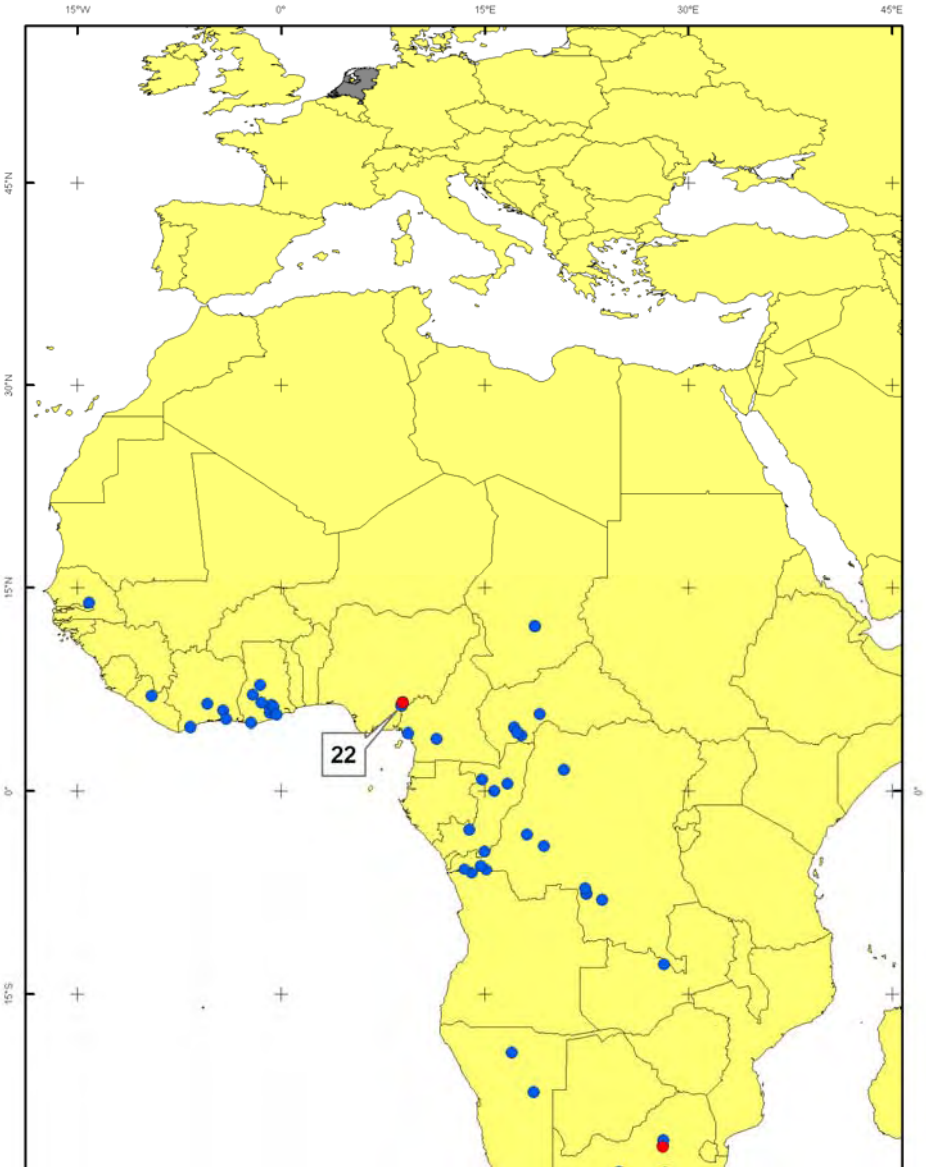
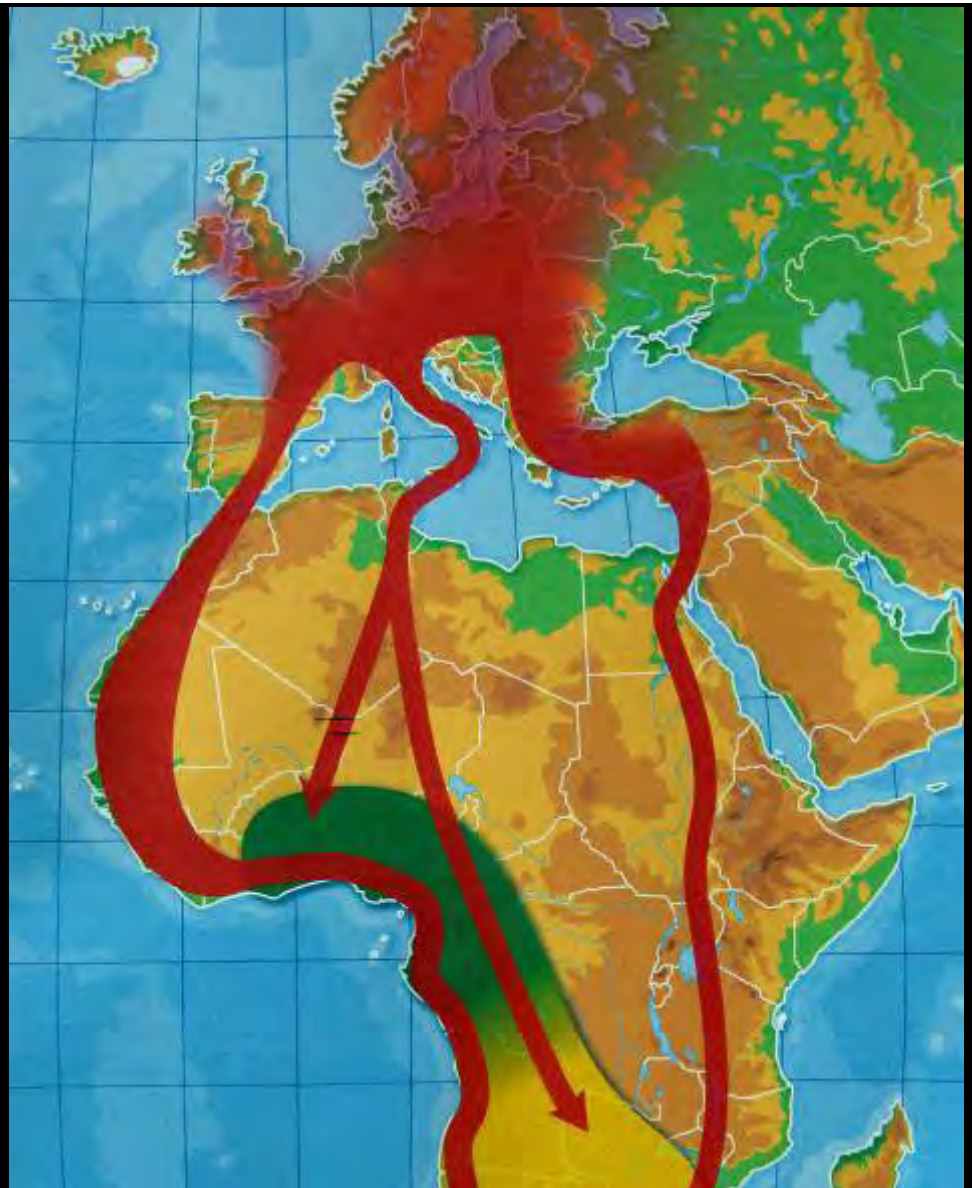
Boerenzwaluwen in Afrika

Onderzoek in Botswana en Zambia


15°W
0°
15°E
30°E
45°E
45°N
30°N
15°N
0°
15°S
22



Doelen van het Botswana Swallow Project: 1993 - 1995

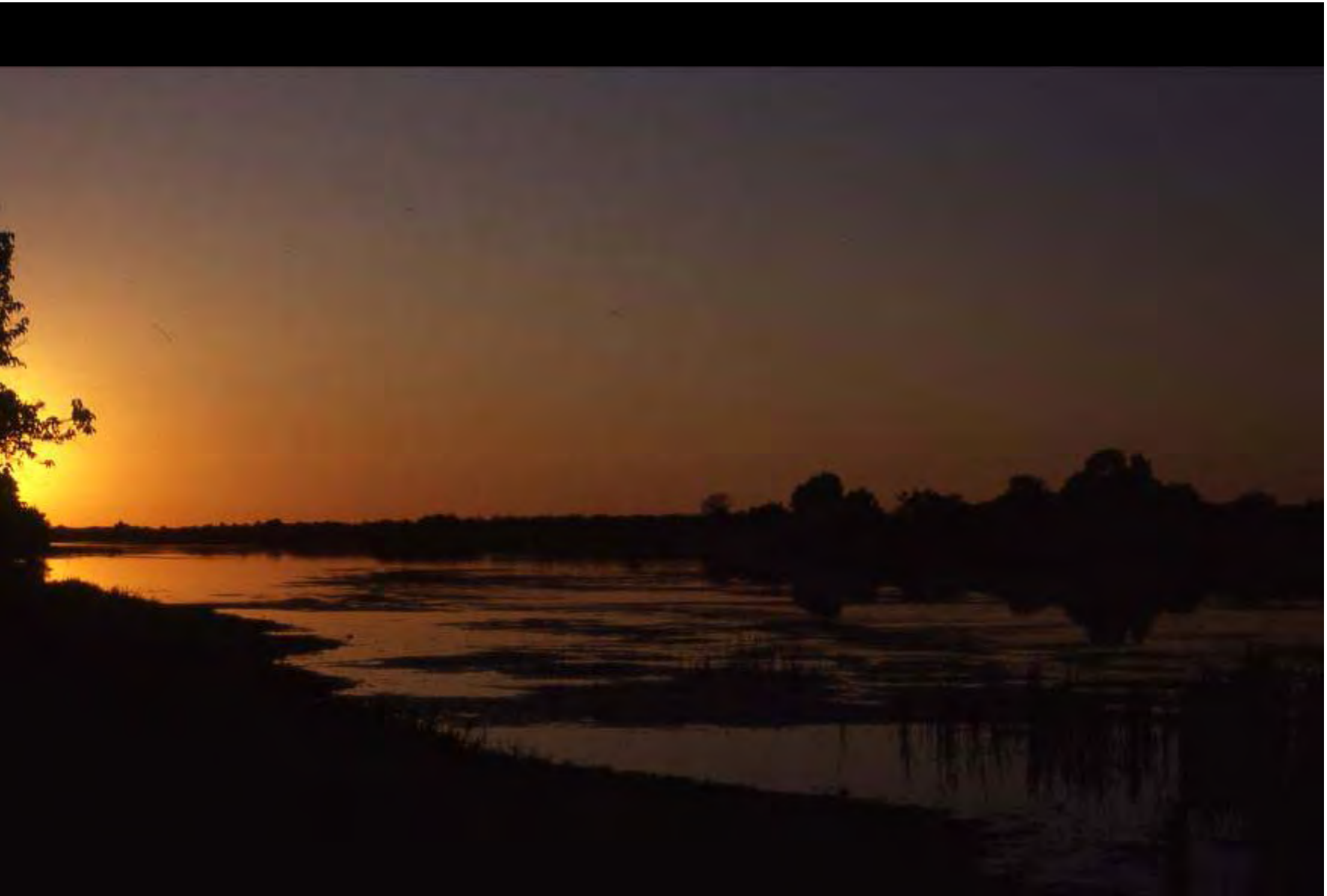
- het bestuderen van milieufactoren die rui en conditie beïnvloeden.

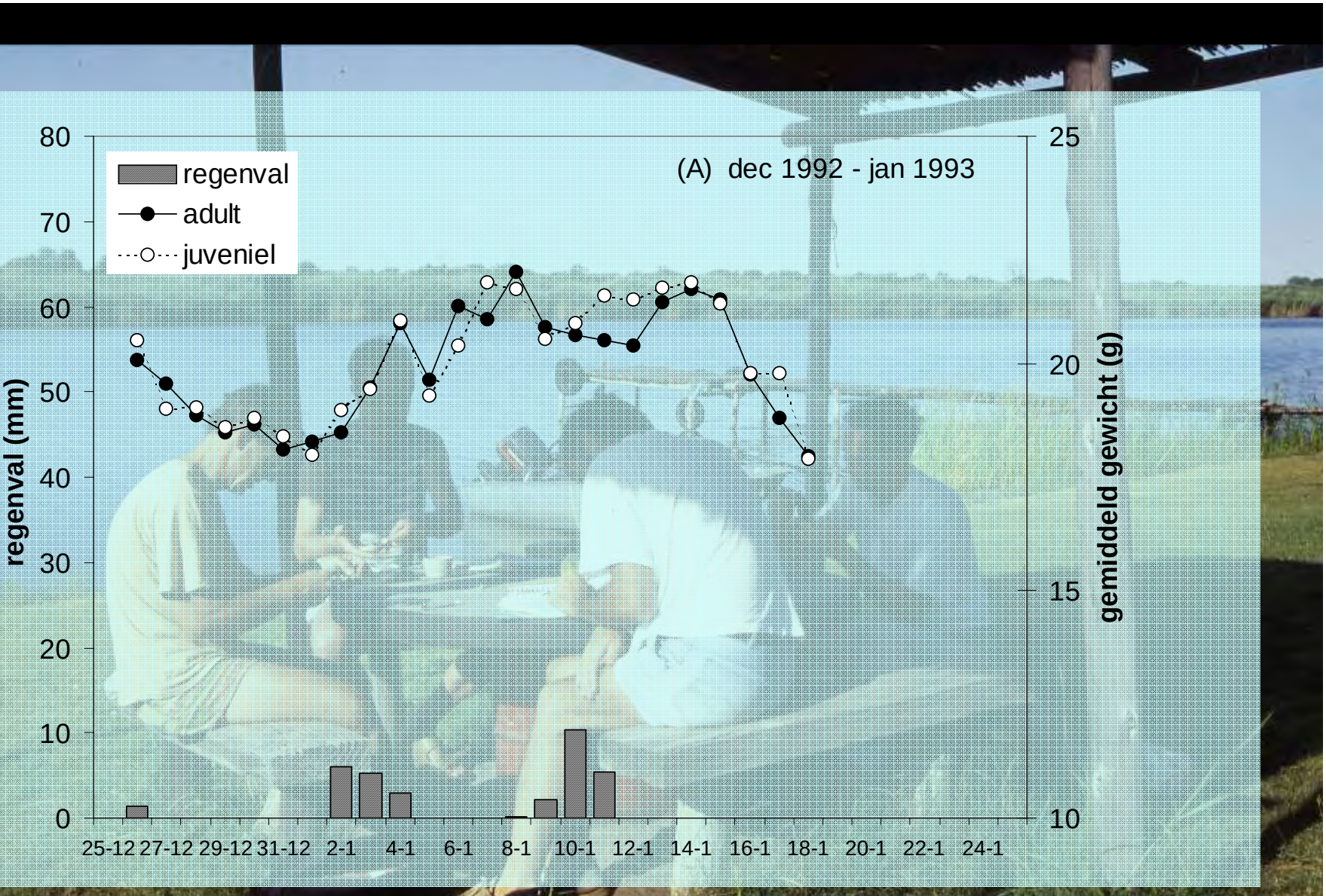
- het bestuderen van verschillen in het ruiproces bij adulte en juveniele boerenzwaluwen

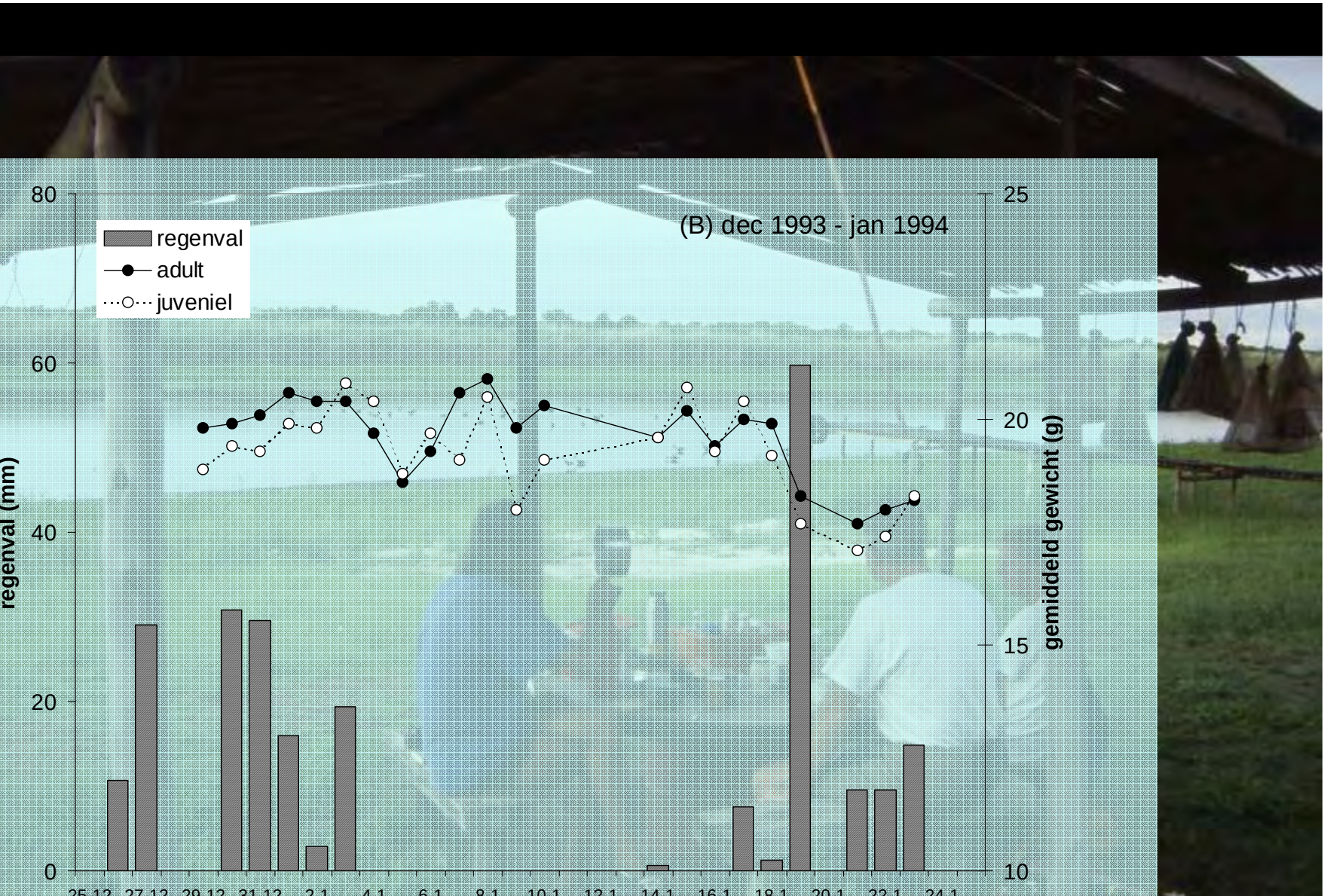
* informatie verkrijgen over de herkomst van boerenzwaluwen die in Botswana overwinteren

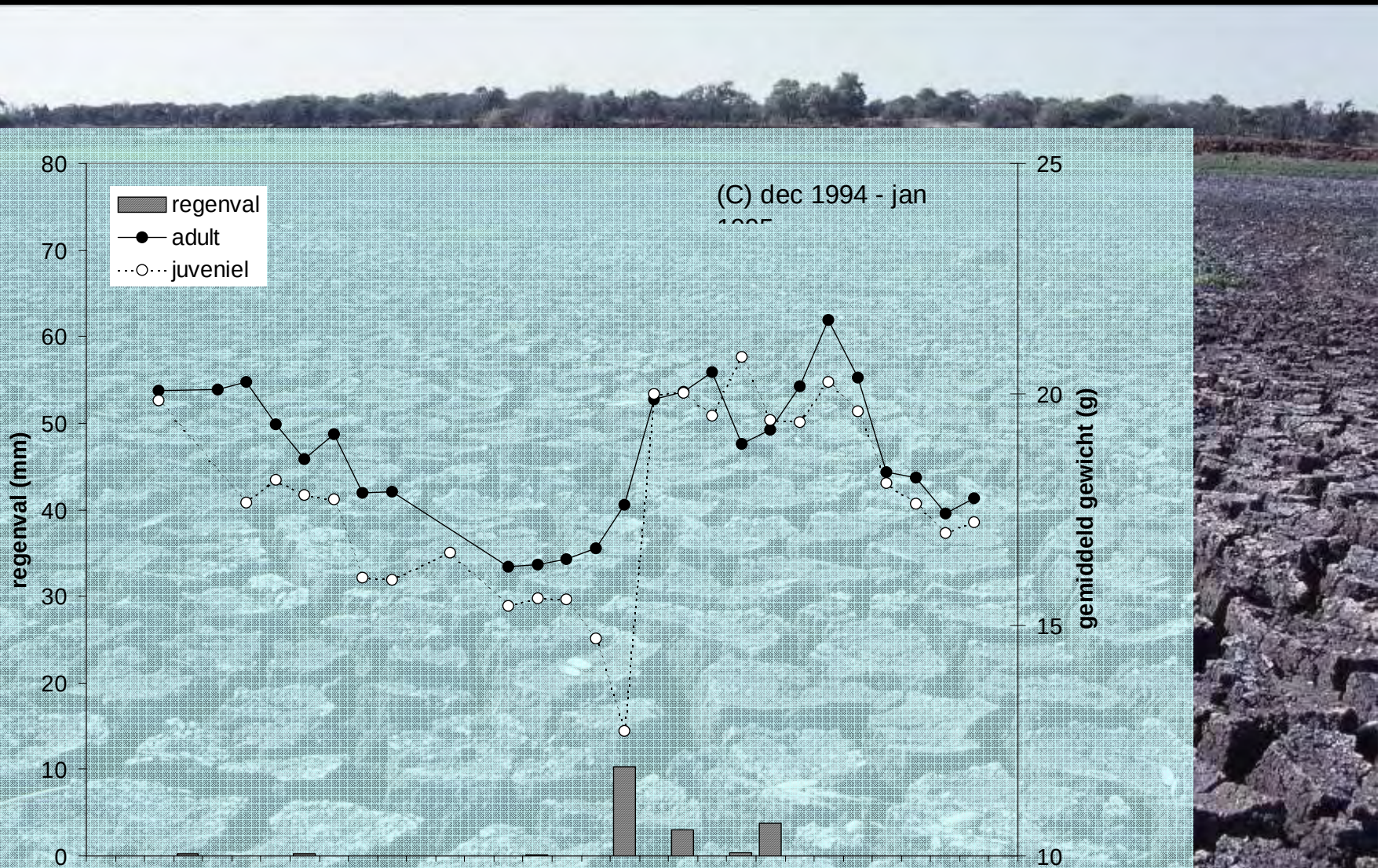
- het onderzoeken van mogelijke bedreigingen van slaapplaatsen

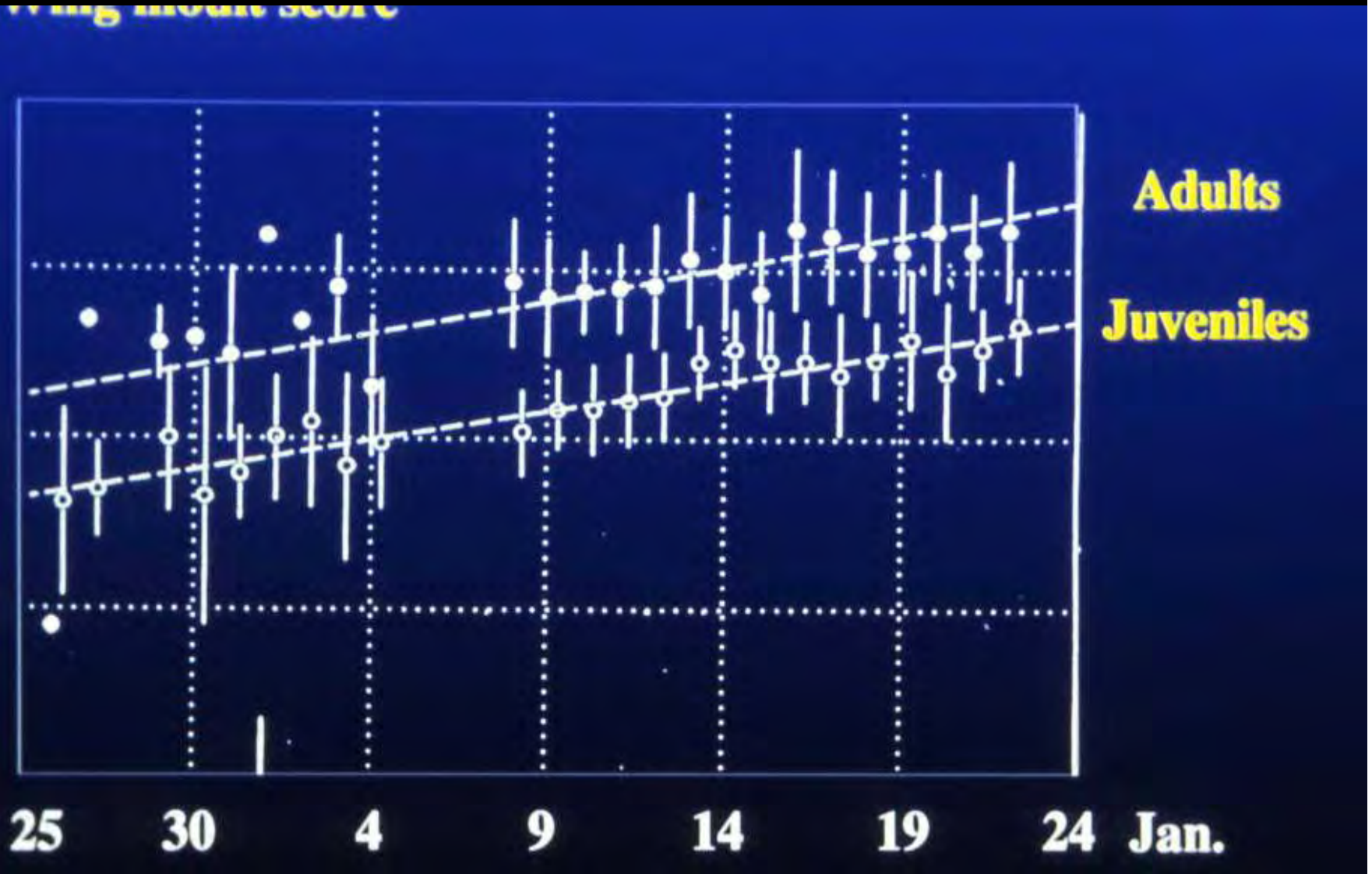
Botswana
International boundary
District boundary
National capital
District capital
Railroad
Road
0 50 100 Kilometers
0 50 100 Miles
ZAMBIA
ANGOLA
NAMIBIA
ZIMBABWE
SOUTH AFRICA
CHOBE
NGAMILAND
GHANZI
CENTRAL
KWENENG
KGALAGADI
SOUTHERN
NORTH EAST
SOUTH EAST
KGATLENG
Choma
Kazungula
Livingstone
Katima Mulilo
Kasane
Hwange (Wankie)
Rundu
Andara
Caprivi Ziptel
Okavango Swamps
Nokaneng
Maun
Tsau
Sehithwa
Lake Ngami
Nata
Plumtree
Bulawayo
Rakops
Makgadikgadi (salt pans)
Orapa
Letlhakane
Francistown
Gwanda
Ghanzi
Mamuno
Seruli
Selebi-Phikwe
Selophe
Beitbridge
Messina
Serowe
Palapye
Mahalapye
Kang
Tshane
Molepolole
Mochudi
Gaborone
Jwaneng
Khakhea
Kanye
Lobatse
Werda
Tshabong
Pietersburg
Potgietersrus
Nylstroom
Zeerust
Rustenburg
Pretoria
Witbank
Middelburg
Mafikeng
Johannesburg
Bethal

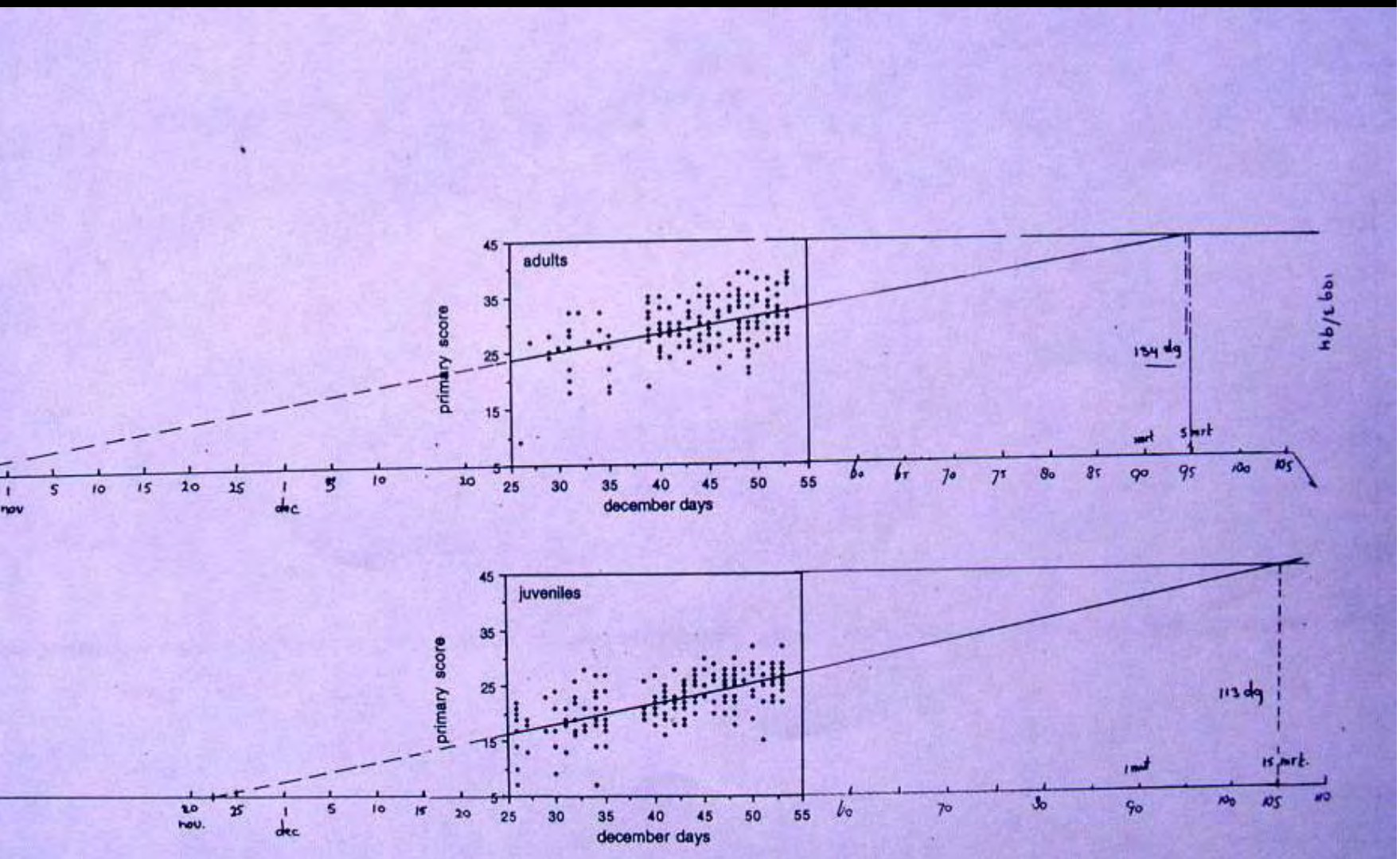


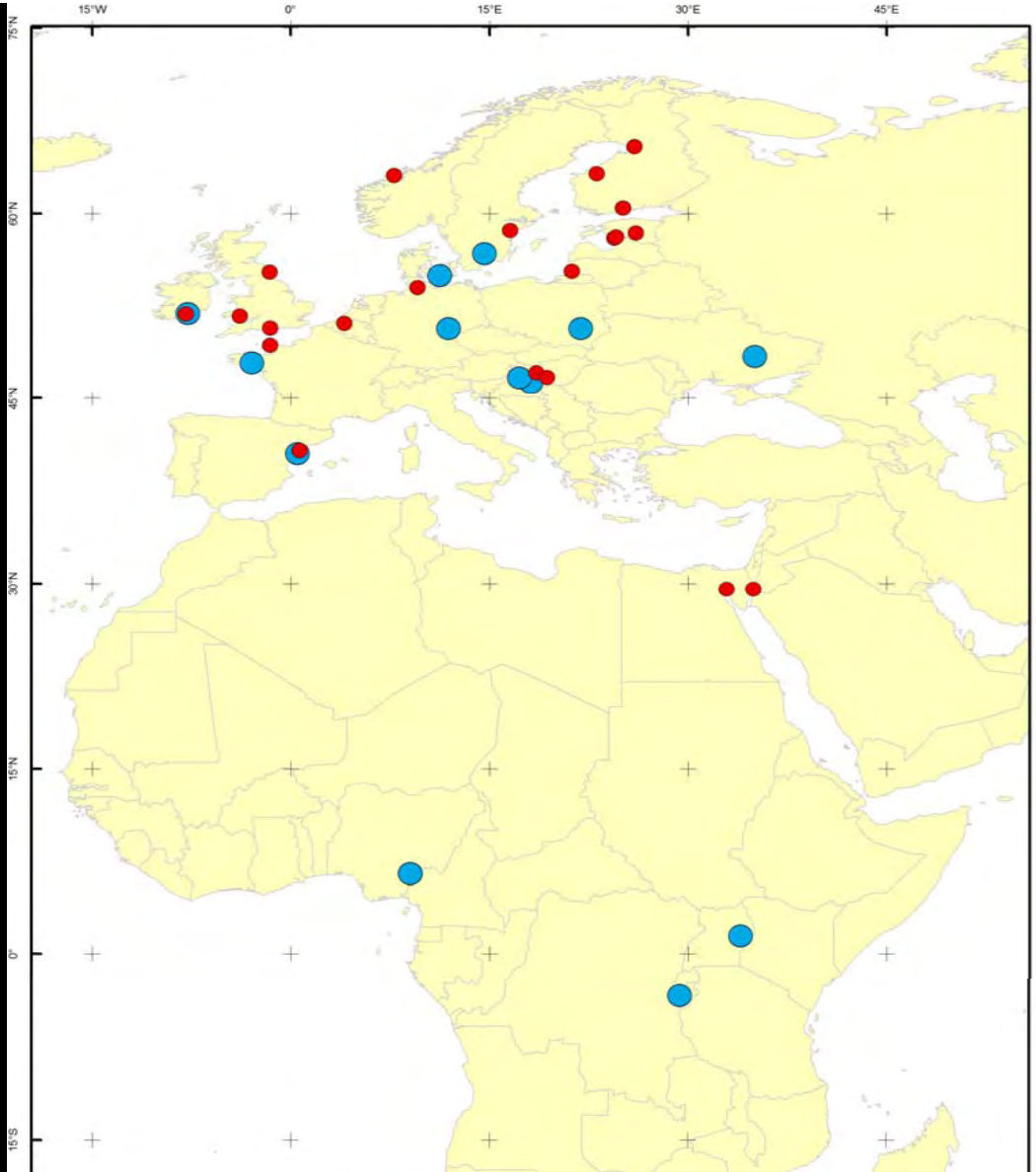

(A) dec 1992 - jan 1993
regenval
adult
juveniel
regenval (mm)
gemiddeld gewicht (g)
0
10
20
30
40
50
60
70
80
10
15
20
25
25-12
27-12
29-12
31-12
2-1
4-1
6-1
8-1
10-1
12-1
14-1
16-1
18-1
20-1
22-1
24-1

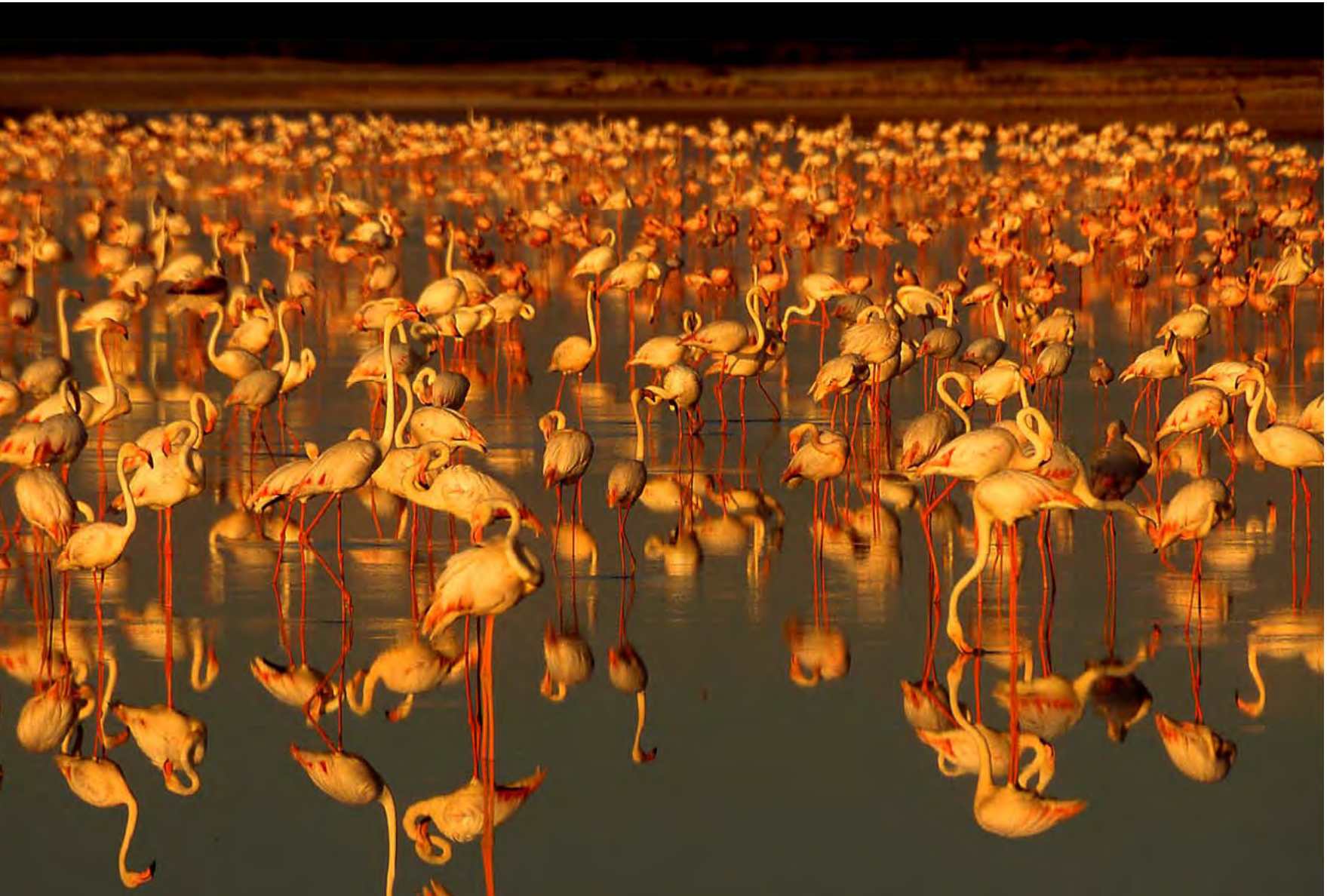

(B) dec 1993 - jan 1994
regenval
adult
juveniel
regenval (mm)
gemiddeld gewicht (g)
0
20
40
60
80
10
15
20
25
25-12
27-12
29-12
31-12
2-1
4-1
6-1
8-1
10-1
12-1
14-1
16-1
18-1
20-1
22-1
24-1

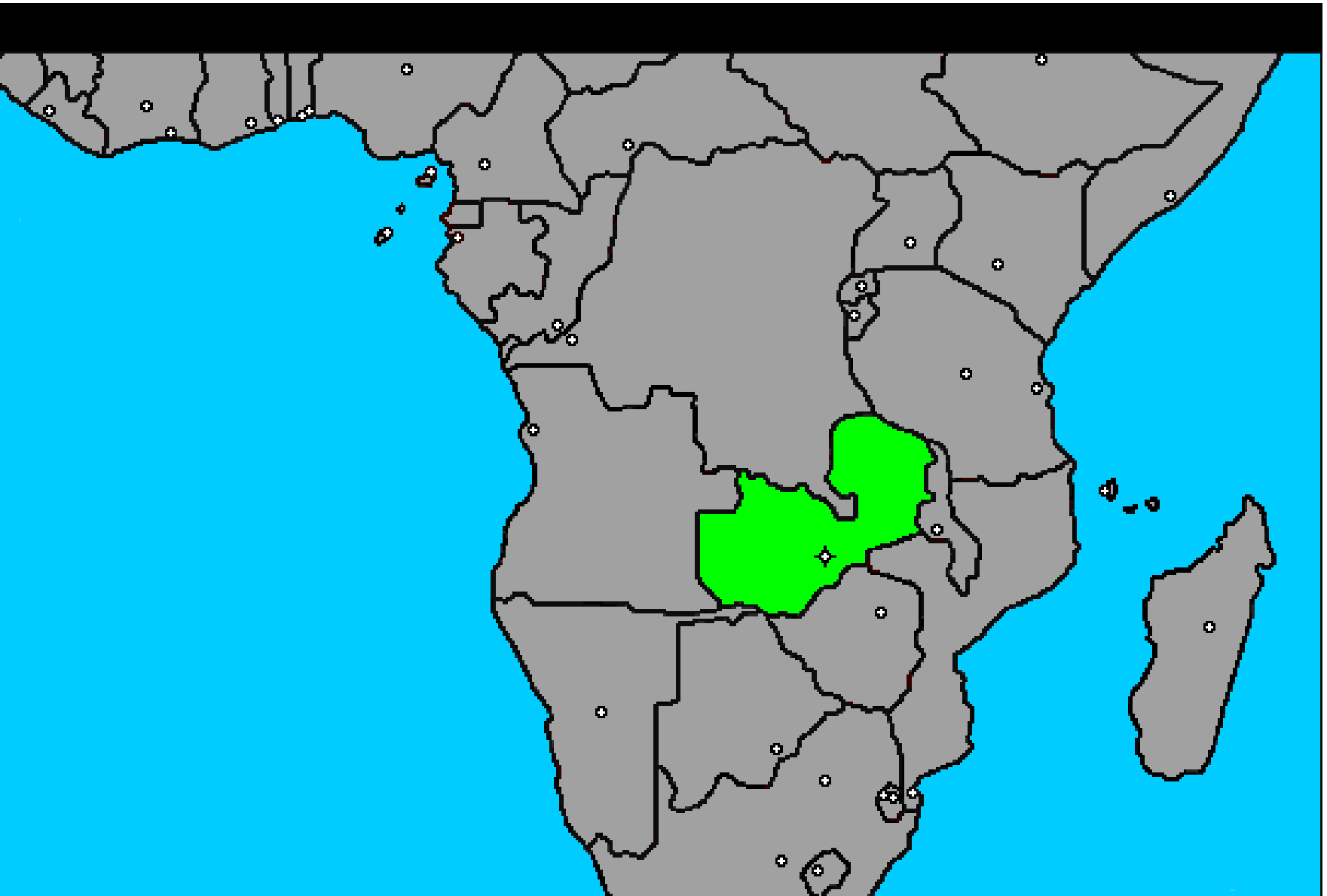

(C) dec 1994 - jan
regenval
adult
juveniel
regenval (mm)
gemiddeld gewicht (g)
0
10
20
30
40
50
60
70
80
10
15
20
25


Adults
Juveniles
25
30
4
9
14
19
24
Jan.


adults
primary score
december days
134 dg
juveniles
primary score
december days
113 dg


15°W
0°
15°E
30°E
45°E
75°N
60°N
45°N
30°N
15°N
0°
15°S





ZAMBIAN Ornithological SOCIETY

13 Chindo Rd. Woodlands.
PO Box 33944 Lusaka Zambia.
Telephone. +260 - 1 260709
Email: Zos@zamnet.Zm

Doel van het Zambia Barn Swallow-Projekt: 2007 - 2008

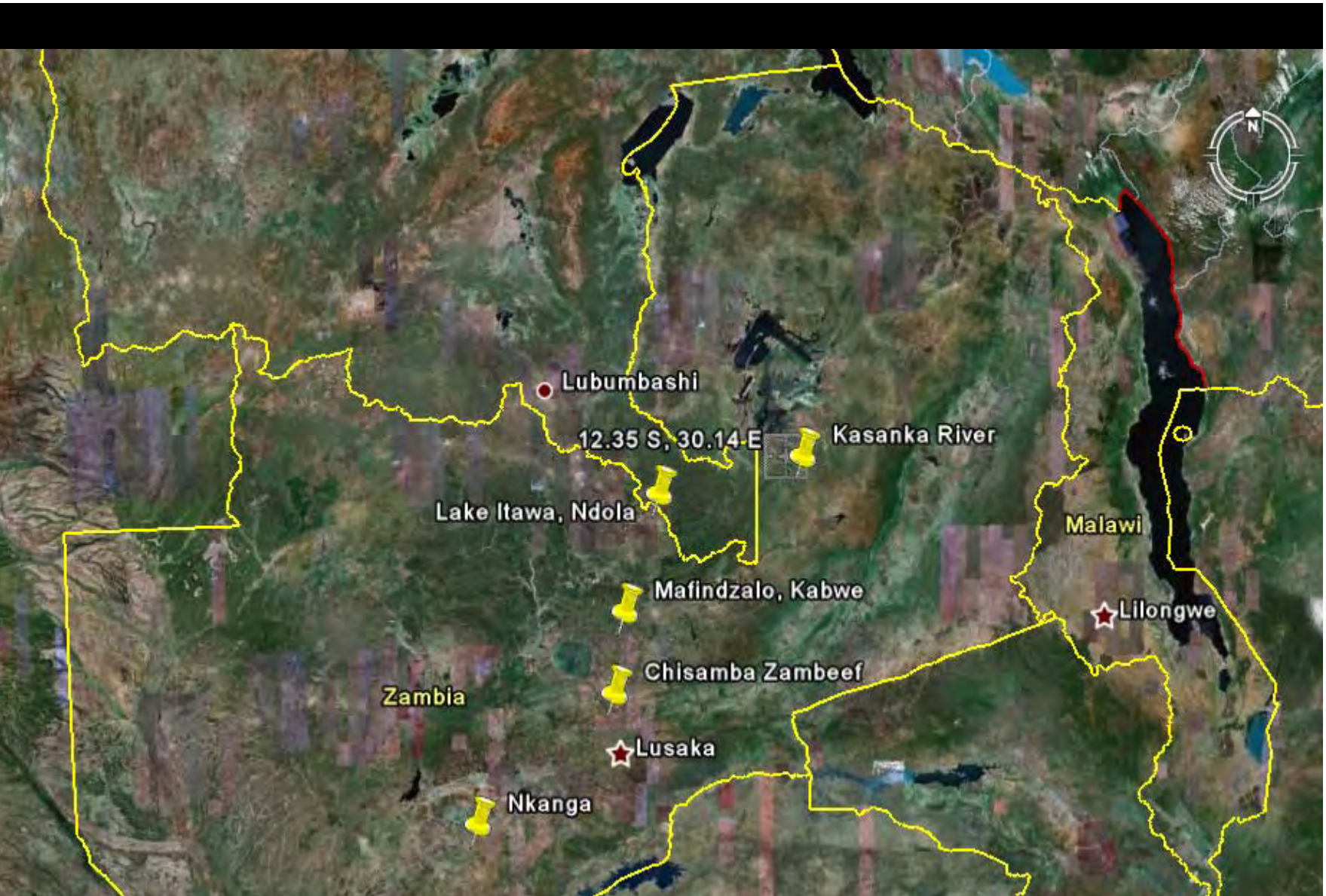
Verschil in conditie en ruisnelheid in relatie tot slaapplaatsgrootte onderzoeken

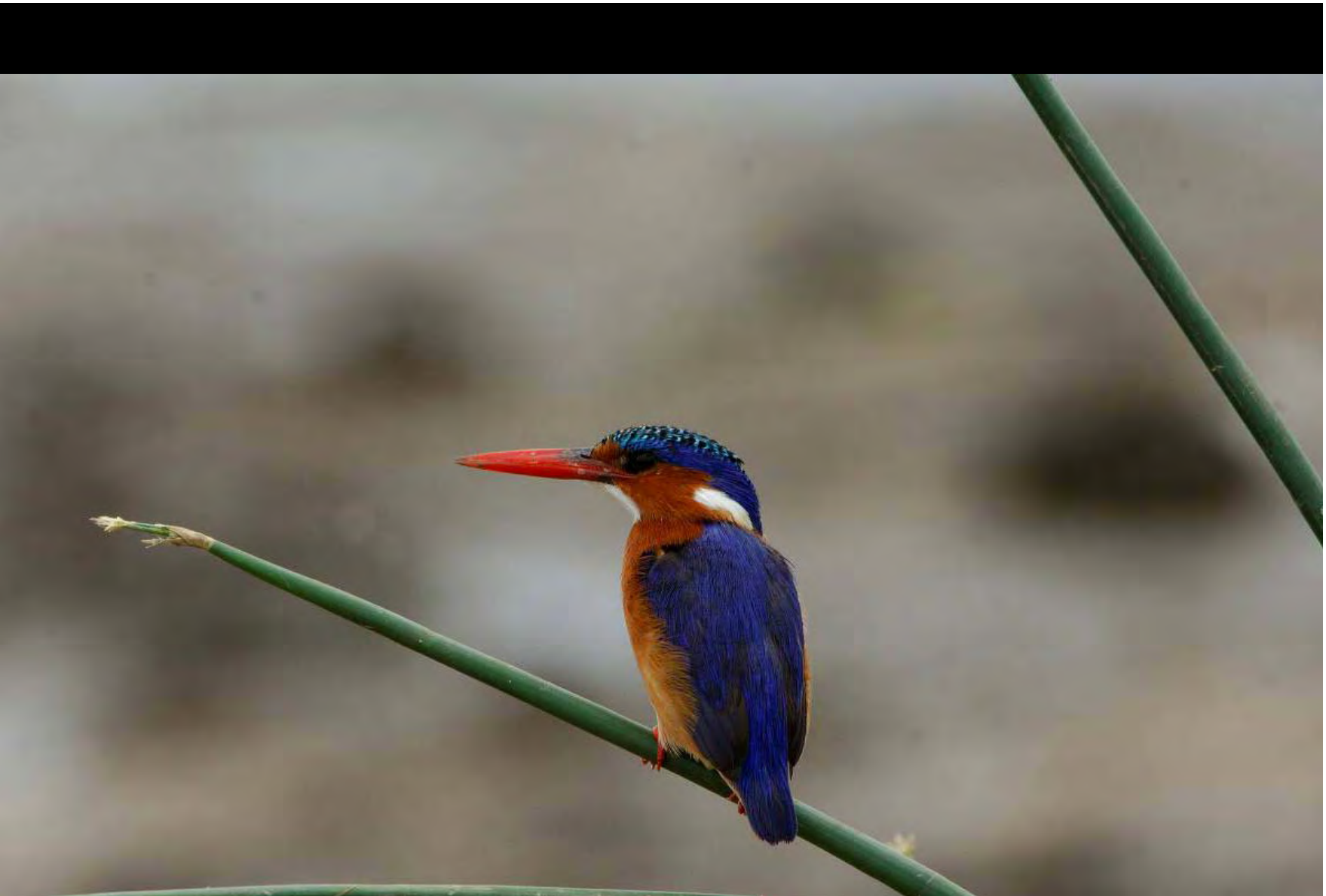
Methode:

Slaapplaatsen van verschillende grootte zoeken (klein, middel, groot)

Systematig vangen van boerenzwaluwen op de gekozen

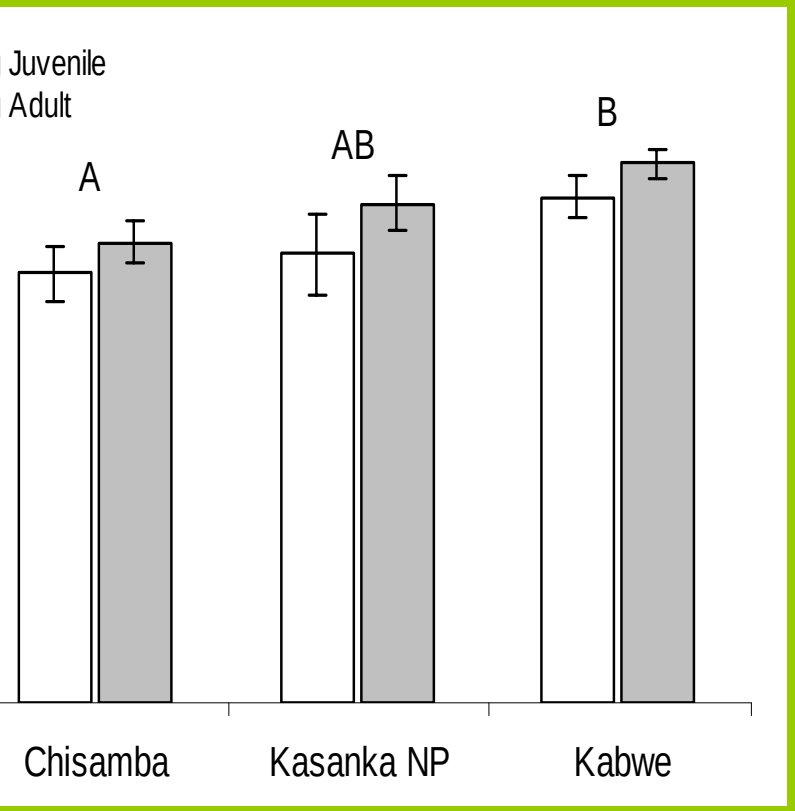
ABF
4908

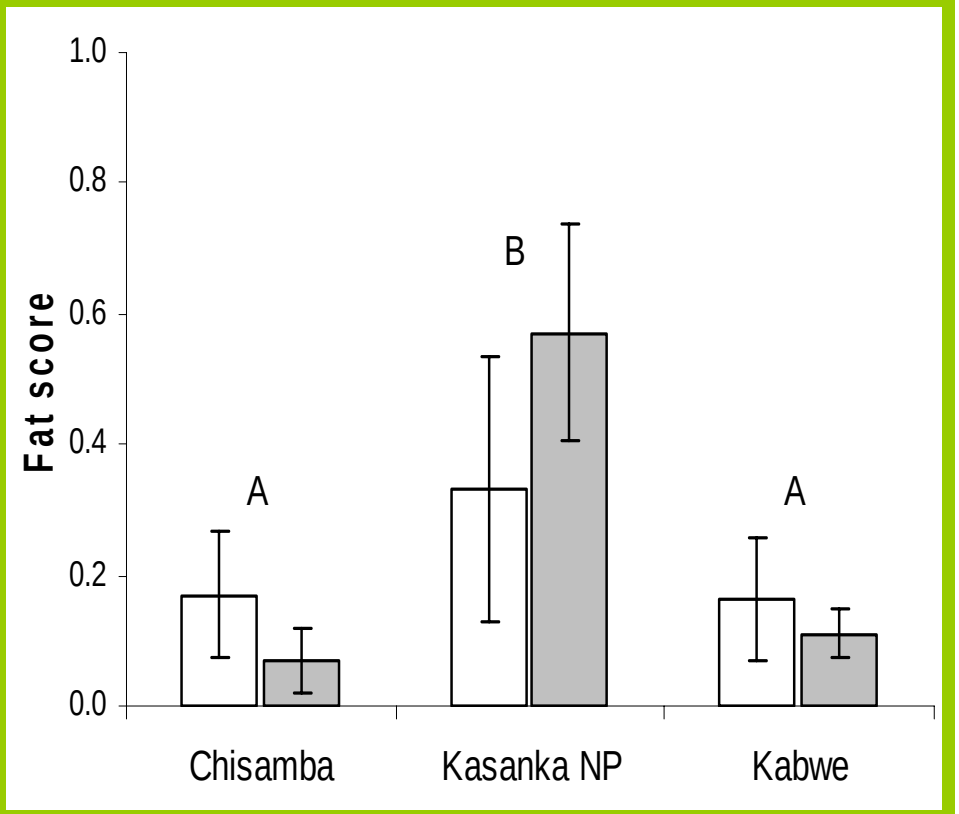

Lubumbashi
12.35 S, 30.14 E
Kasanka River
Lake Itawa, Ndola
Malawi
Mafindzalo, Kabwe
Lilongwe
Chisamba Zambeef
Zambia
Lusaka
Nkanga
N

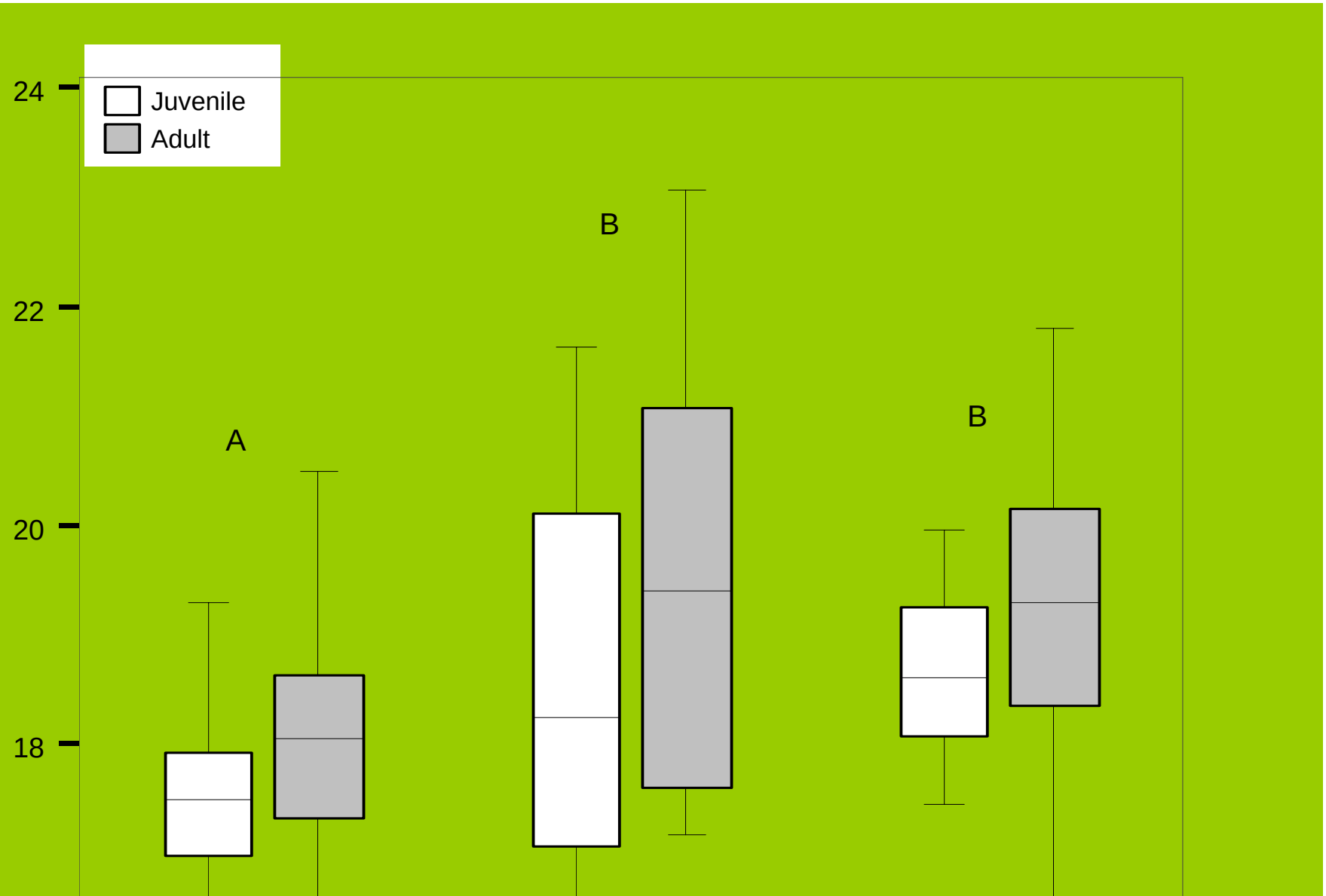


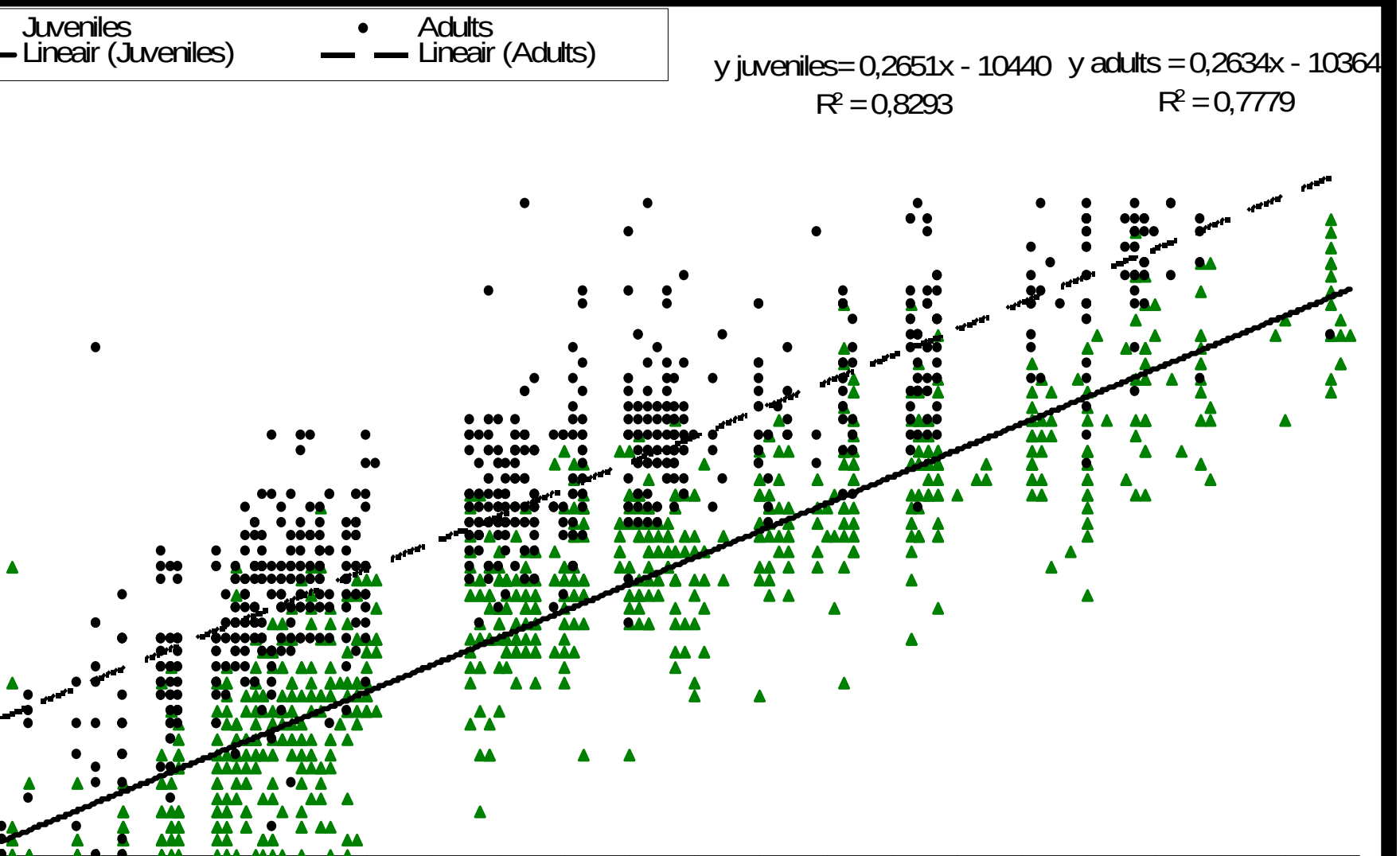
NISSAN

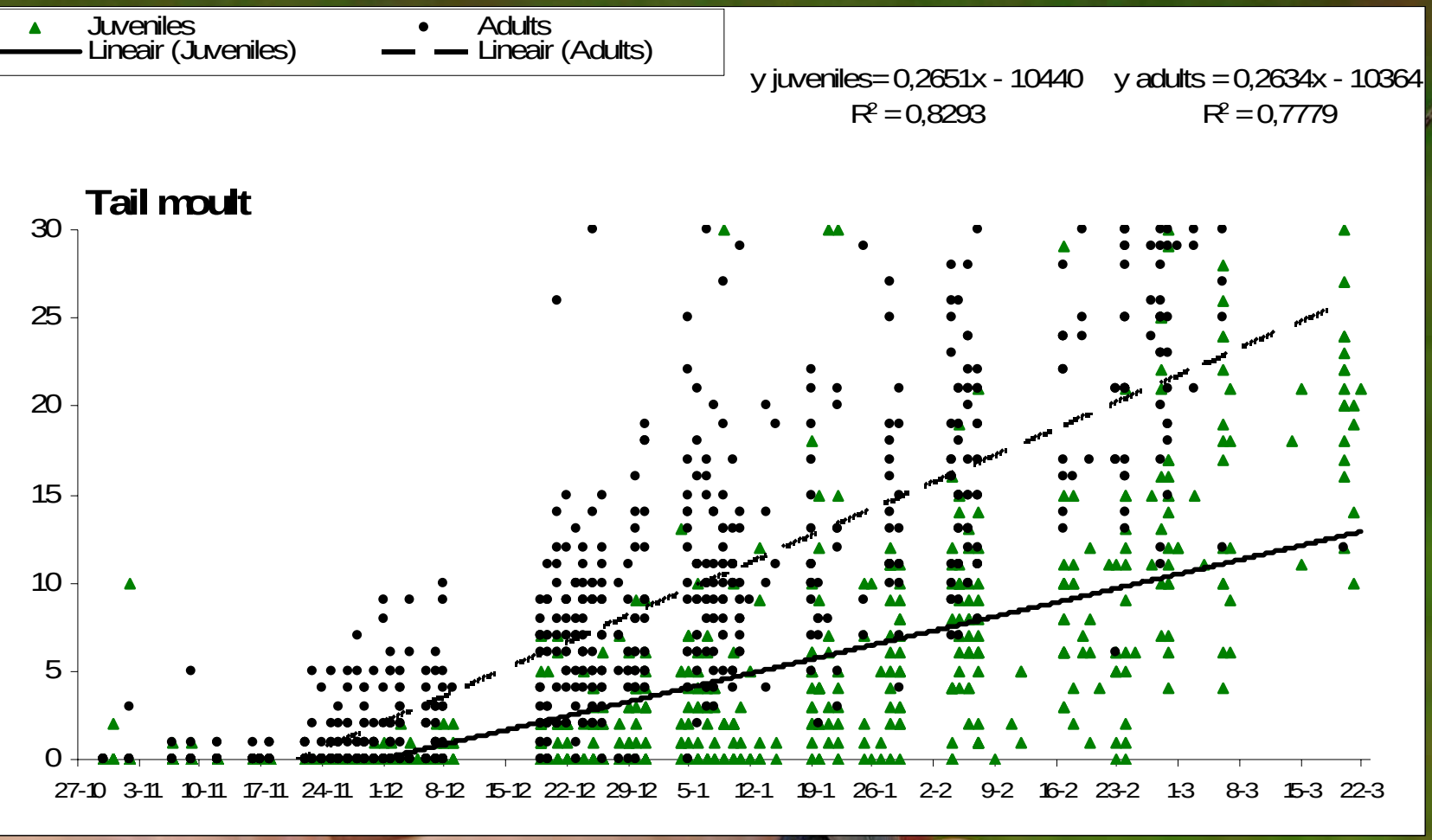
NISSAN

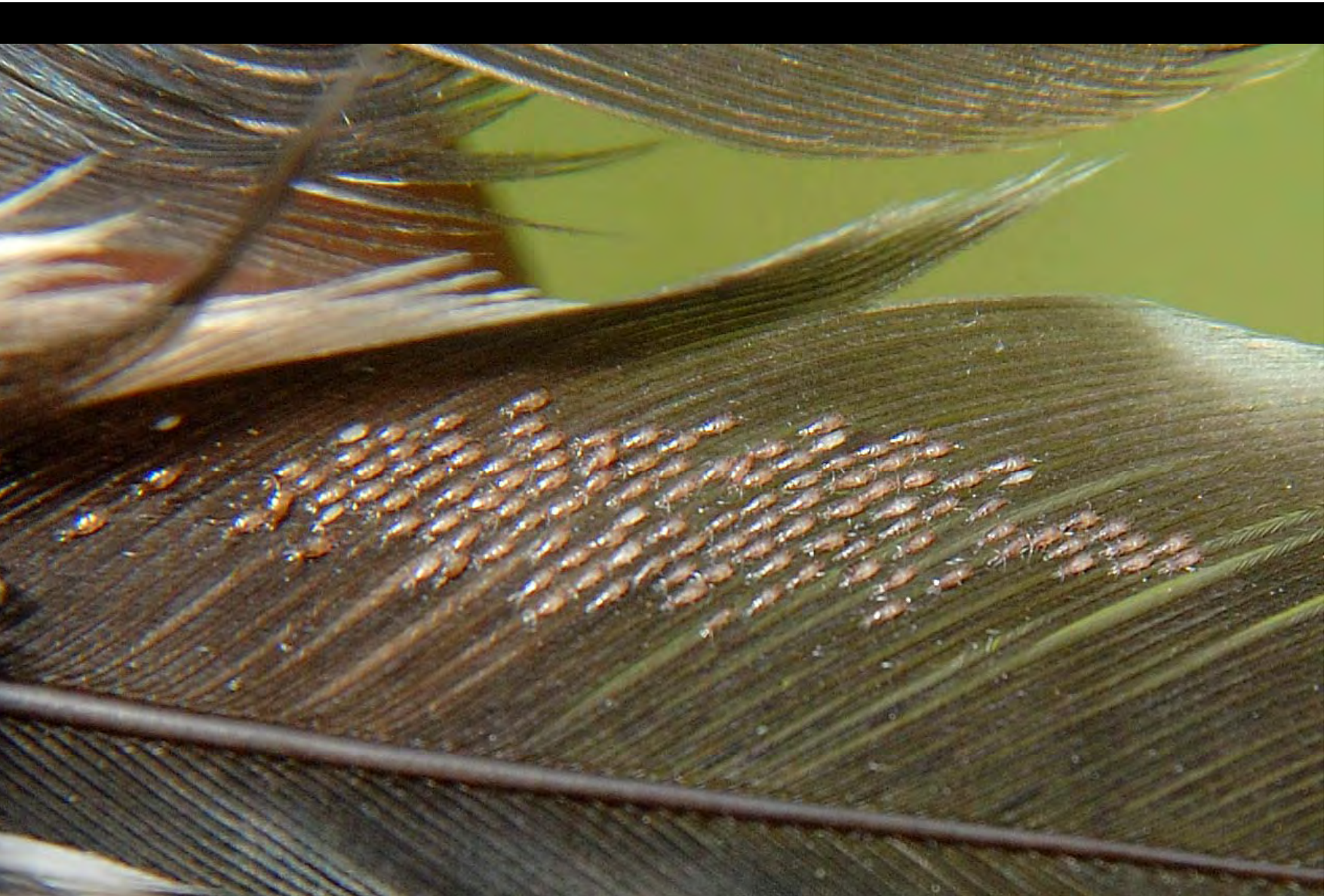

Juvenile
Adult
A
AB
B
Chisamba
Kasanka NP
Kabwe


Fat score
1.0
0.8
0.6
0.4
0.2
0.0
A
B
A
Chisamba
Kasanka NP
Kabwe


Juvenile
Adult
24
22
20
18
A
B
B


Juveniles
Lineair (Juveniles)
Adults
Lineair (Adults)
y juveniles= 0,2651x - 10440
R² = 0,8293
y adults = 0,2634x - 10364
R² = 0,7779


Juveniles
Lineair (Juveniles)
Adults
Lineair (Adults)
y juveniles= 0,2651x - 10440
R² = 0,8293
y adults = 0,2634x - 10364
R² = 0,7779
Tail moult
30
25
20
15
10
5
0
27-10
3-11
10-11
17-11
24-11
1-12
8-12
15-12
22-12
29-12
5-1
12-1
19-1
26-1
2-2
9-2
16-2
23-2
1-3
8-3
15-3
22-3



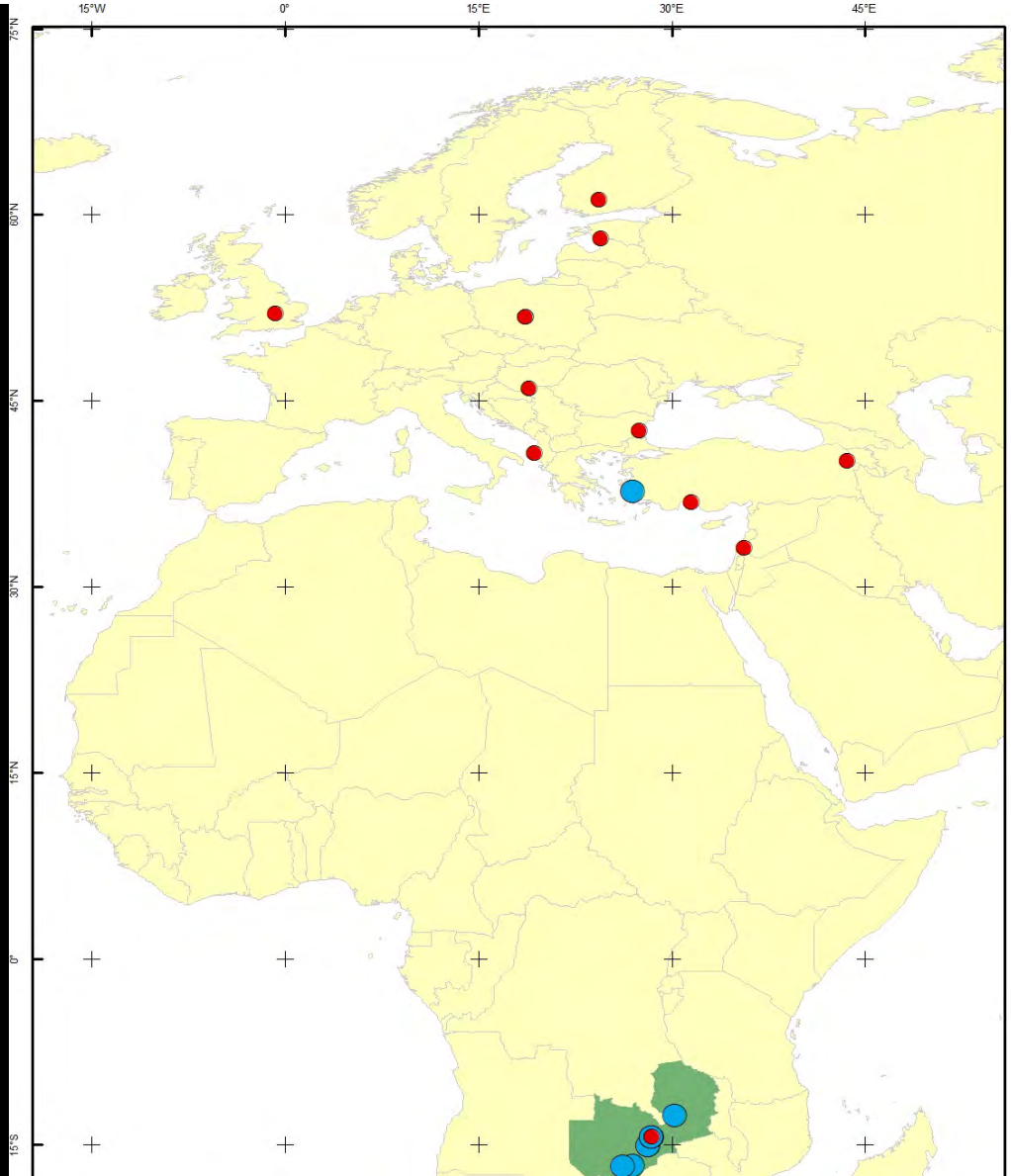
Resultaten Zambia:

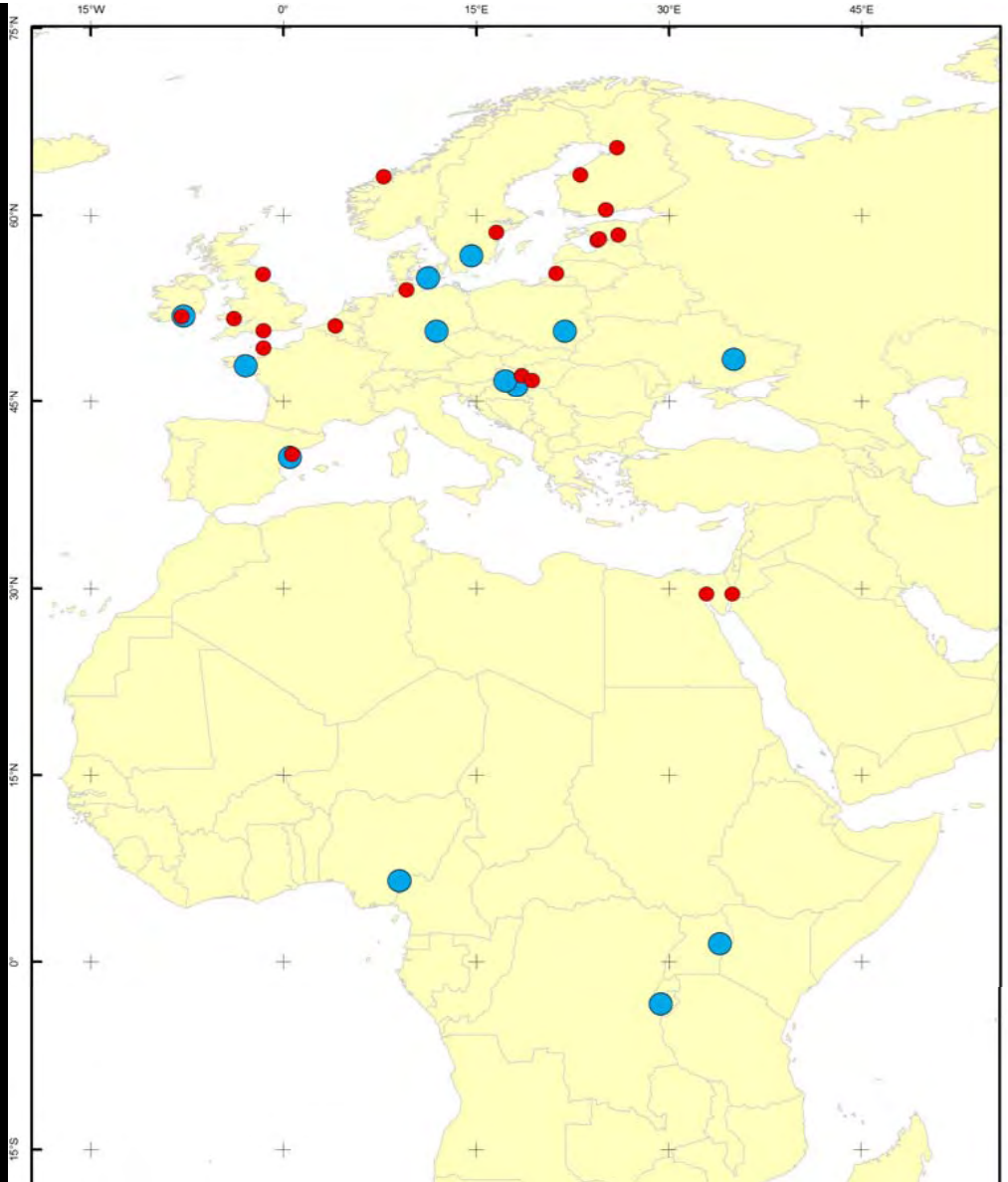
* conditie is beter op grote slaapplaatsen
* lichaamsgewicht is hoger op grote slaapplaatsen
* geen verschil in ruisnelheid van slagpennen.
* geen verschil in ruisnelheid van staartpennen
* geen verschil in veerluis-scores
* lagere predatiekans op grote slaapplaatsen

Conclusie:

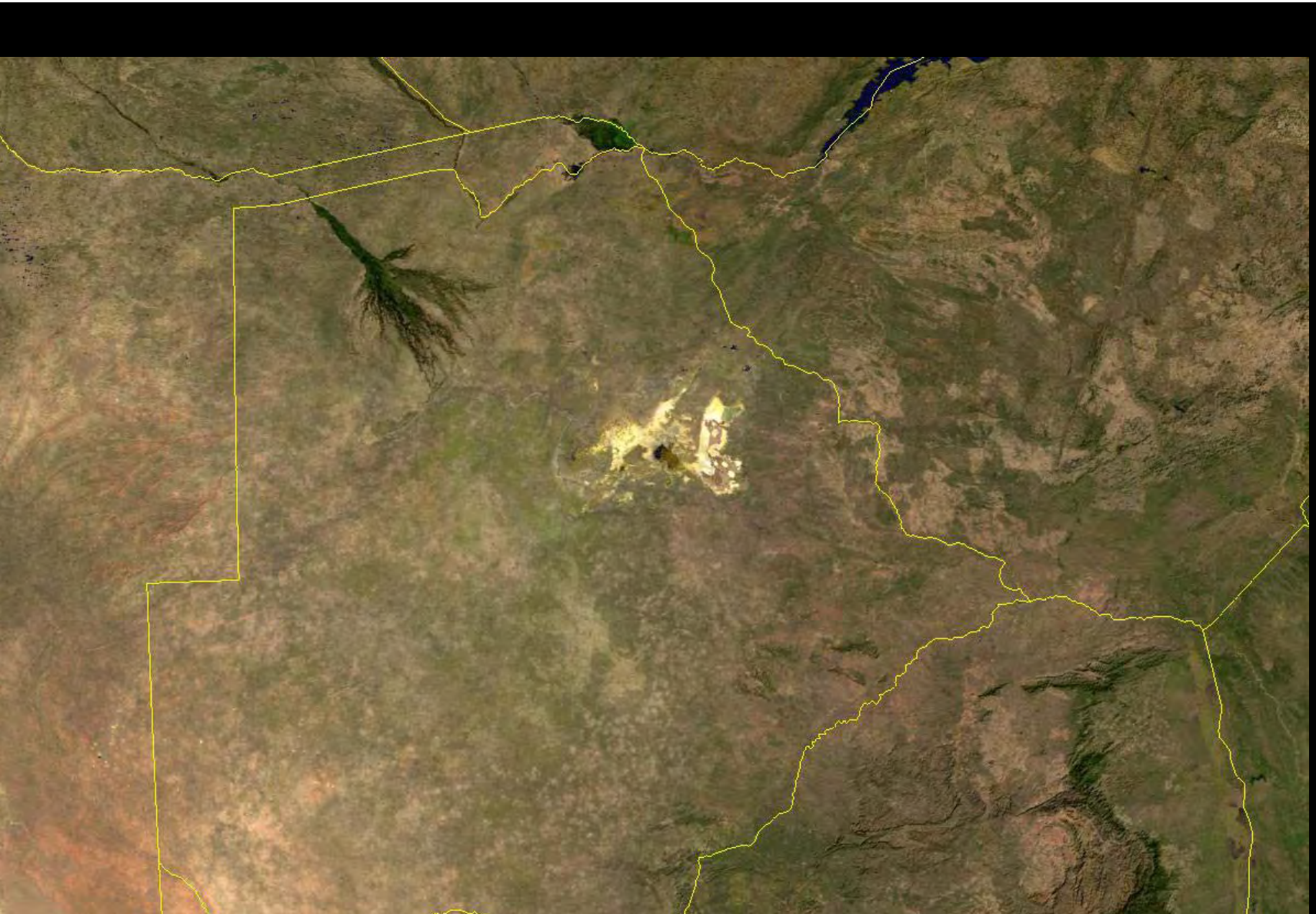
Grotere slaapplaatsen zijn belangrijk voor boerenzwaluwen vanwege een betere lichaamsconditie en lagere predatiekans.

Bescherming van grote slaapplaatsen van boerenzwaluwen is van belang voor de overleving van de soort in Afrika.


15°W
0°
15°E
30°E
45°E
75°N
60°N
45°N
30°N
15°N
0°
15°S


15°W
0°
15°E
30°E
45°E
75°N
60°N
45°N
30°N
15°N
0°
15°S

29-mei
24-mei
19-mei
14-mei
09-mei
04-mei
datum
1992
1994
1996
1998
2000
2002
2004
2006
2008



Objectives of the Botswana Swallow Project:

* study environmental factors that influence moult and body condition.

* study difference in timing of moult in adult and juvenile swallows

* collect information about the origin of swallows wintering in Botswana

* investigate possible threats to roost sites

Results:

* body mass is bigger in larger roosts
* condition is better in larger roosts
* no difference in speed of moult of primaries
* no difference in speed of moult of tailfeathers
* no difference in feather lice scores
* Less preditor density in larger roosts

Aim of the Zambia Barn Swallow Project:

o asses differences in roost variables and body condition

Method: searching for swallow roosts of different sizes

small
intermediate
large

Monthly trapping of barn swallows on the selected roosts

Conclusion:

Larger roosts are more beneficial in terms of body condition and preditor density.

Conservation of large swallow roosts is beneficial for the survival of the species in Africa.

Ziel des Sambia Barn Swallow Projekts:

Unterschied in Korperkondition, Mausergeschwindigkeit und Schlafplatzgrosse erhalten

Methode:

*** Schlafplatze von unterschiedene Grosse suchen: klein, mittler und gross**

***Seriemassig Rauchschwalben fangen and die bestimmte Schlafplatze**

Ziele des “Botswana Swallow- Projekts‘: 1992 - 1995

- Untersuchung der Umweltfaktoren die Mauser und Korperkonditionbeeinflussen.

- Untersuchung des Mausersverlauf bei jungen und adulten Rauchschwalben.

* Ermittlung der Herkunft von Rauchschwalben die in Botswana uberwintern.

* Ermittlung moglicher Bedrohungen fur Schlafplatze.

iel des “Sambia Barn Swallow-Projekts”:
2007 - 2008

eststellung der Unterschiede in Korperkondition und
lausergeschwindigkeit in Relation zu Schlafplatzgrosse.

Methode:

Suche nach Schlafplatzen unterschiedlicher Grosse
klein, mittel, gross)

Seriemassiger Fang von Rauchschwalben an ausgewahlten

Ergebnisse Sambia:

* Kondition ist hoher an grossen Schlafplatzen
* Korpergewicht ist besser an grossen Schlafplatzen
* Kein Unterschied in der Mausergeschwindigkeit der Handschwingen.
* Kein Unterschied in der Mausergeschwindigkeit der Schwanzfedern
* Kein Unterschied in der Infektionsrate von Federlausen

Folgerungen:

Grossere Schlafplatze sind vorteilhafter fur das Korpergewicht und eine niedrige Predatorendichte.

Schutz von grosse Rauchschwalbenschlafplatzen ist vorteilhaft fur das Uberleben der Art in Afrika