

Belcher

Abdullahi Musse Yusuf

A. M. Yusuf

Mager. Wildlife park.

Wt low

Game Ordinance No 18 of 1955 of
Northern Region of Helon Territory as 26 6/12/52
Southern Region)

1952 - Southern Italian

1955 - Game ordinance northern

- John
- Baker
- Dyne
- Andrew
- Geller
- Hobbs
- 102

Law 15 of 1969 Article 3 Commence 1969
 (Schedule I)
 (Game Reserves) (No hunting at all except by Minister License)

Common 1969

Law 15 of 1969 (Article 3 (Schedule I))

A (Game Reserves) (No. hunting at all except by Minister Liona)

① Mandera Game Reserve (Barbera Hargeisa Road)

② Bushbuck Game Reserve (Juba Region)

③ Geedkebeleh Game Reserve (46 sq. Mile)

4. Hogaishay Game Reserve

Law 15 of 1969 Article 3 (Schedule II) A (Controlled Areas) (Hunting with Licence)

① Berame District Controlled Area

2. Bushbuck Controlled Area

3. Juba Left Controlled Area

Schedule II B (Partial Game Reserves)

1. ODDUR PARTIAL GAME RESERVE (No animal to be shot which are in Schedule III)

2. JOWHAR PARTIAL GAME RESERVE

3. BOLET WEIN PARTIAL GAME RESERVE

4. BULO BURT PARTIAL GAME RESERVE

Article 12 of Law 15 of 1969

Prohibited Game (Schedule 3 Part A & B)

Article 13 of Law 15 of 1969

closed season. (1st March to 31st July)

Article 12 of Law 15 of 1969 schedule 3

(Prohibited Game) Part A

18 sp

Part B - Protected Animals.

6 sp. Hippo, elephant, cheetah, lion, ostrich, giraffe
schedule 4

A General & supplementary Game Licences (25 sp)

B. Bird Licence & Small Game (12 sp)

schedule 10 Vermin. (10 sp)

1971 - Hunting prohibited

(Provided for prohibiting issue of game licences)

Not applicable to local hunters.

1952 - Italian Law Southern

1955 - British Northern Law

① 1965 (Network of PAs)

② 1983 Simonetti suggest Network of PAs (Page 470) ~~(CRRDP)~~

③ 1987 T. Parker refer to WWF & SES

③ 1988 J. G. Stephenson Network adjacent to World Bank (CRRDP)

④ 1989 (JRS) suggest strict nature Reserves of 100-300 km² with sharp focused objective of high quality protection to selection of ecosystems - representing Somalia's main biomes

Further suggestions: (A tentative map would help)

① Dry woodland habitat typical of Central Somalia:

South of Harardhere, astride the road to El Derc. (CRRDP)

② Central Grassland - Bond Bred area north of Hobbio or the Adale - Warsheh area north of Mogadishu (CRRDP)

③ Dry Southern Woodland - Lay Dhere area - West of Afmadow.

④ Moist woodland / Savannah - Bull. Bush Area. (EEC)

⑤ Swamp associated with Shabelle & Juba river systems. Atiokre Swamp project.

⑥ Riverine forest & associated swamps / grassland.

Shashto & Barako Forest Reserve in Middle Juba

⑦ Wild Ass habitat in Nugal Region - CRRDP

⑧ Northern Coastal plains & hills ←^a

Parker 7 (for WWF & SES) July 1987

Report on an Aerial Reconnaissance of Current & Potential Reserves in Southern and Central Somalia

~~First~~ - Shebelle

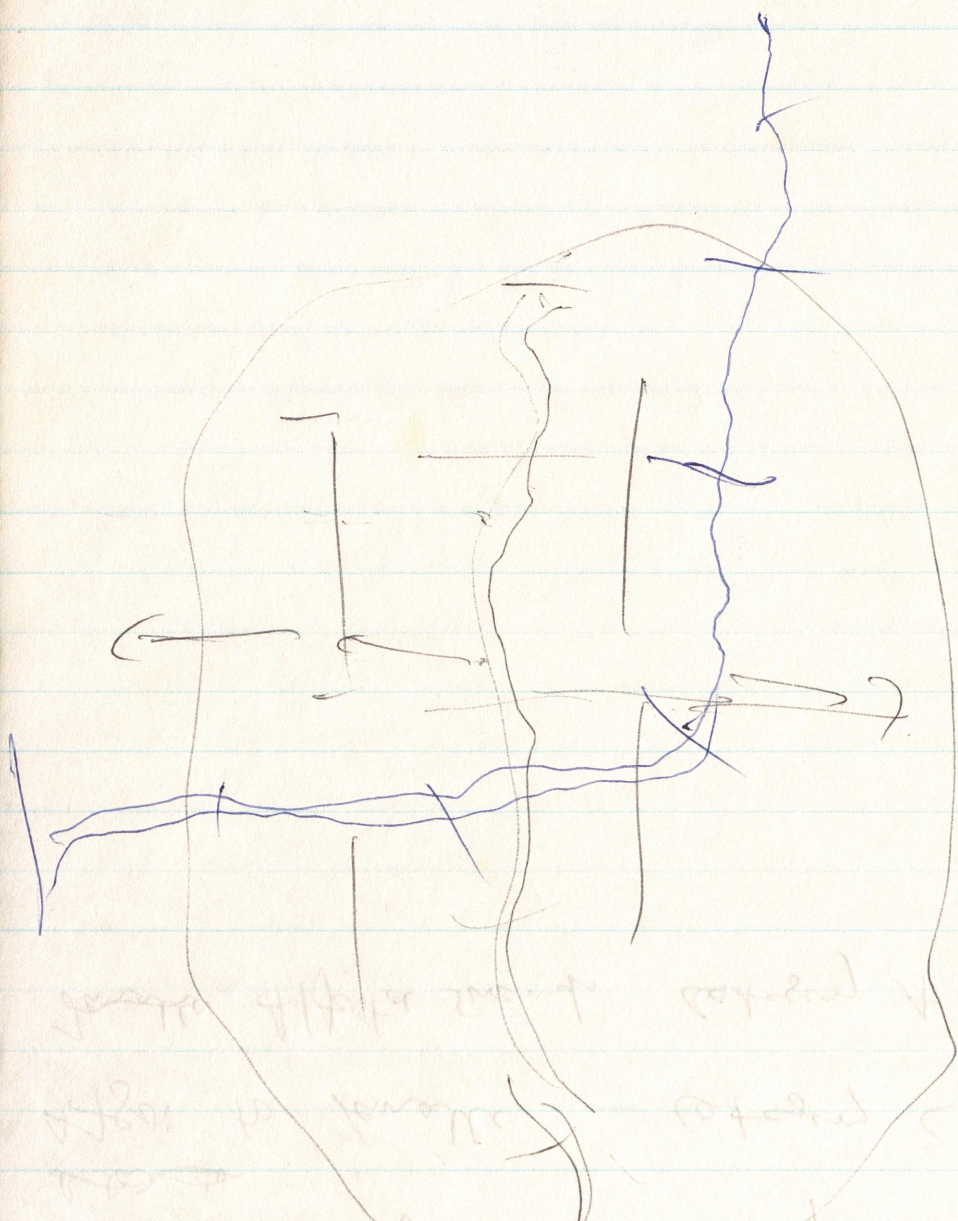
border to Jambou - Category A (?)

Jambou to ~~Agos~~ - Category B

~~Agos to~~

Agos to Jemalle - Category C

Jemalle ~~Agos~~ Swamh Category A (?)



Below Hawaray (Barrage)

with jumps
 Afgoi to Bagdad - 201
 river crossing - 13

Alger to Baghdad - water pumps 201
river crossings - 13

Baghdad to bulad - 119
river crossings - 9

Tenalle to Hubbarah -
water pumps
canals
river crossings - 6

~~Bante~~ Bnulo bante
Falalagei
Mahadday weyne ?
Jawhar ?

Xawaadley
Balad
Atgoi ? x

Malable
Janneale
Qoryooley

Wanke // Arbawo heerow
Haaway

Tactical Pilotege chart
ONC-2-6 TREC L-6A

Toxio - 700
300

1000 bowl

oil 10 lit -

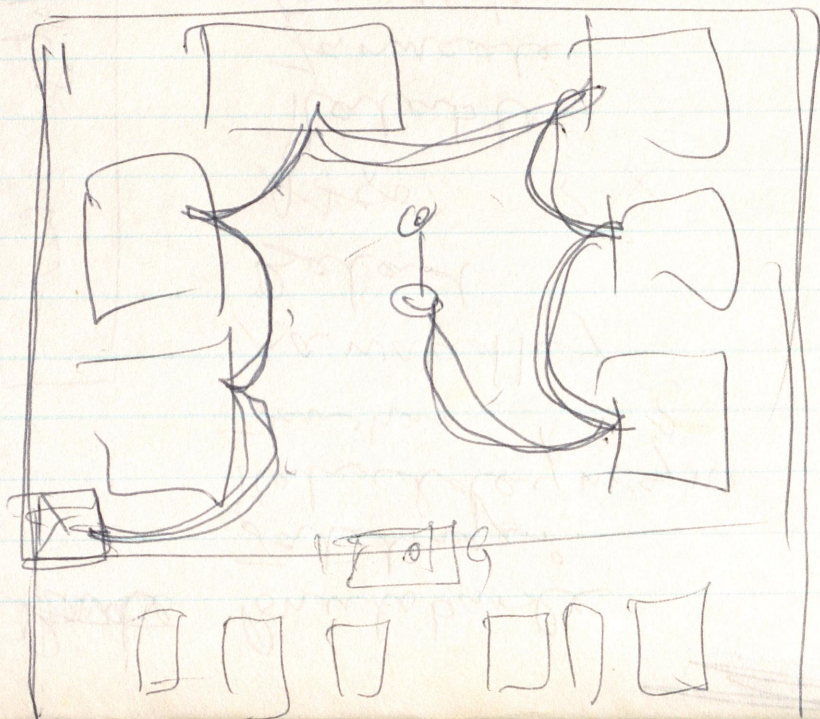
bowl 1000 Petrol 12 lit - (3 times)

generator 100 Petrol

Truck	1500 km 2000 km 1500 km	500 Lt Diesel	500
2 Car	1500 km	210 x 2	420
1 L/C	1500 km	300 x 1	300

3

1220 Diesel



crocodil survey to be done

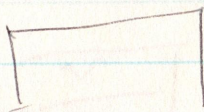
- Aloofoto

- south of Aloofoto.

| Protected population

| Baseline figure

Aloofoto Management



T'

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T'

ESPPALM

CPA 213

Dr. Vargha A. Horvath

London

HB 1001 (2010) 21

Business Management + Research

Dr. Vargha A. Horvath

Dr. R.M. Watson,
Resource Management + Research
16 B West Central St.,
London.

Dr. Andrew J. Harberd,
C10 GT 2,
Eschborn
Germany

① Alajuntas Crocodile Survey Master Register.
Base line data.

② Plan - crocodile / Crocodile - livestock conflict records.

③ Alajuntas Crocodile Protection Plan - Pakolling etc.

④ Alajuntas Reserve ^{Conservation Area based} crocodile utilization and Project -
Sabalala or Below Haway (under the control & right of
the Alajuntas Reserve - Initially under the supervision
of the FAO project. - Also will serve as the crocodile
Management (wild - capture) Model & Trig Centre for other
areas.

① Three such Conservation Area based projects in
Shaballe -

Syggad - one in Hiran Region.

② one ^{Crocodile} Conservation Area - (~~Balad~~ ^{Hawadley} - Shalbin River)
stretch) - associated project area - location
Jambek or Xahawdley.

③ Balad - Afgoi Crocodile Conservation Area

Hirran - Chinese Canal.

Middle Shabelle - Shallow Barrage
Bulad Barrage
Xhe Wiley Reservoir

Lower Shabelle - Fannelle
Kurtan wavy
Shabelle - Bar Majan
Hway Barrage
- Kafunge Lake }

Future plans

Met data | FAO Agroclimological Data Africa-1
Rome . 1989

Station Balet Ven Lat- 4.42 long 45.13 Elev - 17 mt
Number 63240 / Somalia

	J	F	M	A	M	J	J	A	S	O	N	D	yr
PPT	0	1	5	48	89	6	3	3	8	51	17	5	206
Max	34.5	35.3	36.6	36.8	34.8	34.0	33.0	33.7	35.2	34.3	34.7	34.5	34.8
Min	22.0	22.0	23.3	23.8	23.3	22.7	22.5	21.5	22.6	22.5	22.2	22.2	22.6

Station Bulo Buro Lat 3.15 long 45.34 Elev 158 mt

	J	F	M	A	M	J	J	A	S	O	N	D	yr
PPT	3	3	11	70	64	5	3	3	8	90	61	7	328
Max	35.5	37.7	38.3	37.6	35.0	32.8	31.8	32.5	34.2	34.8	35.5	35.1	34.4
Min	21.8	21.7	23.0	23.5	23.3	22.3	21.8	21.6	22.3	22.5	22.3	22.0	22.3

Station AFGDI Lat 2.09 long 45.08 Elev 83 mt

	J	F	M	A	M	J	J	A	S	O	N	D	yr
PPT	3	0	3	82	83	63	41	19	7	52	79	35	467
Max	33.5	34.1	35.0	34.3	32.8	31.2	30.5	31.1	32.0	32.2	32.3	32.0	32.7
Min	21.6	21.8	23.0	23.5	23.1	22.6	21.5	21.5	21.7	22.0	21.8	21.6	22.1

Station TIOMAS Lat - 2.46 long 45.30 Elev - 108 mt

	J	F	M	A	M	J	J	A	S	O	N	D	yr
PPT	6	1	22	99	87	25	26	18	12	104	84	21	498
Max	34.0	35.2	36.2	35.7	33.6	31.5	30.1	31.0	32.3	32.8	32.6	32.5	33.1
Min	21.1	21.5	22.5	23.2	23.0	21.6	20.8	20.8	21.3	22.0	21.8	21.5	21.8

Station Mogadiscio Lat - 2.02 long 55-21 Elev 9 mt

	J	F	M	A	M	J	J	A	S	O	N	D	yr
PPT	0	0	8	62	55	81	57	35	22	27	35	8	394
Max	30.4	30.7	30.8	32.7	34.3	34.5	28.5	28.5	29.3	30.1	30.5	30.6	30.1
Min	23.0	23.3	24.8	25.5	24.8	23.6	23.0	23.0	23.3	24.2	24.1	23.5	23.8

Station	Jenale				Lat 1.50	Long 44.45	Elev 69 mt						
	J	F	M	A	M	J	J	A	S	O	N	D	
PPT	2	0	4	76	74	81	55	47	22	33	57	26	473
Max	22.2	32.6	33.5	33.0	31.5	29.5	28.5	28.8	29.5	30.5	31.0	31.5	31.0
Min	21.6	21.5	22.8	23.5	23.2	21.7	21.3	21.1	22.0	22.6	22.7	21.5	22.0

Skatman begins on 8 Apr End on 16 July

(Close to Sd lake)

Station	BRAVA				Lat 1.06	Long 44.02	Elev 6met						
	J	F	M	A	M	J	J	A	S	O	N	D	
PPT	0	0	5	46	81	96	66	23	17	14	20	10	378
Max	28.7	28.5	29.5	30.2	29.7	28.1	27.6	27.6	27.6	28.6	29.0	29.1	28.7
Min	23.6	23.7	24.6	25.5	24.7	23.7	22.7	22.0	22.7	23.5	24.1	24.0	23.7

Station	Lesmaie				Lat -0.22	Long 42.21	Elev 16mt						
	J	F	M	A	M	J	J	A	S	O	N	D	
PPT	0	0	0	24	92	94	52	17	10	21	5	3	318
Max	29.5	29.8	31.0	31.7	30.5	28.5	28.0	28.2	28.5	29.5	30.5	30.5	29.7
Min	24.1	24.5	25.8	25.7	24.7	23.5	23.0	23.2	23.2	24.0	24.5	24.3	24.2

Station	Bardera				Lat 2.21	Long 42.18	Elev 118 mt						
	J	F	M	A	M	J	J	A	S	O	N	D	
PPT	6	6	22	93	55	15	25	7	6	63	57	29	384
Max	38.1	39.2	41.3	38.0	35.5	34.0	32.5	33.0	34.8	36.0	35.8	36.6	36.2
Min	21.3	22.0	22.8	22.9	22.5	21.2	20.3	20.8	21.5	22.0	21.6	21.5	21.7

KARRESIA - 1321 mt
63170

Seasons

hawai

Rain - deri

Dry - gidai

← - 'gu'

0320

Amall and crop had 100 and 1000000

0320

Amall will accept 150000 and 1000000

American University 1981 - Somalia: A Country
Study. Area Handbook. American University.
Washington D.C.

Somalia Landmass Productivity

13,750,000 ha

11% rangeland production

41.5% non cultivable terrain

10.4% possibly cultivable

27.2% marginal cultivation

9.4% cultivation

Livestock Population

	1975
Cattle	3,056,000
Camel	2,044,000
Goats	4,000,000
Caprine	5,000,000

Accia's horrid

	out	In	Res
Bommas	600	500	300
June	1.000	1.000	800
St. Homberg			
Defressini: into June	3.400	2.400	2.200

Vegetation

Arif dry zone. - (50-150 mm rainfall)

Suaeda frutescens

Salsola verna

Arnebia hispidissima

Gymnosporia obbiadensis

Statice cylindrofolia

Palatable grasses etc

Cynopogon ancheri

Tetrapogon macroanthus

Cynodon dactylon

Laricina hirsuta

Cenchrus ciliaris

Dactyloctenium glaucophyllum (Samarium)

Setaria verticillata

Panicum goriniis

Panicum hypoleucadum

Lactuca taraxacifolia

Commelina frutescens

Clitoria ternata

Orotalaria comanustiana

Sand Dune vegetation (4 = 500,000 ha Dune)

A. *Thalassia hemprichii*

B. *Sporobolus per-caprae*

Ariflex farinosa

Sporobolus spicatus

Dactyloctenium aegyptium

C. *Scoroparia plumieri*

Centropus procerus

Sporobolus

Eragrostis cilicaria

" *arabica*

D. *Cyperus chordeorrhizus*

Scoroparia plumieri

Blepharis edulis

E. *Acacia bussei*

" *benadirensis*

" *ingel*

" *planiformis*

" *nilotica*

Gordyla africana

Aristida involucrata

Aerva tomentosa

8 Adansonia digitata
Miconia densiflora
Sideroxylon discopyroides
Vitex negundo

8 Ardisia

11 Arthrochemum glaucum

Strobilium spicatum

" minutus

Scaevola plumieri

Artibeus farnesi

Cyperus chordorrhizus

ZONING

Core (NPRA area)

Inner (NPRA zone) - natural resource

Recreation/education

Rehabilitation zone (NPRA)

Administrative zone

Professional (NPRA area) zone

NPRA (NPRA)

Human dimension - education

Objectives (Fit in the Restate Resumes)

A - Unique habitat protection

B - Rehabilitation

C. Recreational / Educational Tourism. (Public awareness / Non-consumptive Utilization)

4. Setting up an example for protection of

5. Development of consumption utilization in the (buffer area)

6.

ZONING

CORE (N. PARK AREA.)

BUFFER (MULTIPLE ZONE) NATIONAL CONSERVATION
RECREATION / EDUCATIONAL

REHABILITATION ZONE (RESTORING)

ADMINISTRATIVE ZONE

PROTECTION (PATROLLING PLAN) SPECIAL
WIRELESS NETWORK

HUMAN DIMENSION - RELOCATION.

CS9 Chairmen

Prof Harry Messel, School of Physics
University of Sydney, NSW 2000, Australia
Tel (61) (2) 692 3383 Fax (61) (2) 660 2903.

Vice Chairmen

Prof F. Wayne King,
Florida Museum of Natural History
Gainesville, FL 32611 USA
Tel (1) (544) 321 1721 Fax (1) (904) 352 9267

C. niloticus Trade

Trade

Vice Chairman: Kevin van Jaarsveldt.
PO. Box 129 Chiredzi
Zimbabwe.
Tel (263) (4) 708 836
Fax 263 (31) 2782

Trade Monitoring:

Vice chairman: Ginette Hamberg.
TRAFFIC USA, 1250 24th Street NW
WASHINGTON, D.C. 20037 USA
Tel: (1) (202) 293-9800.
Fax (1) (202) 293-9345

Deputy Vice chairman: Richard Lummoose
World Conservation Monitoring Centre
219 C Huntington Road.
Cambridge CB3 0DL UK.
Tel: (44) (223) 277 314
Fax (44) (223) 277 136

APRICA

Area / Vice chairman / Deputy vice chairman

Dr Jon Hulton.
16 Cambridge Ave
Highlands. Harare
Zimbabwe.

Tel (263) (4) 739 163.
Fax 263 (4) 708 554

Olivier Behoz
Borj TCP / MAR / 8954
C/o FAO Rep. BP 2971
Antananarivo. Madagascar

Tel (261) (2) 28821.
WWF Fax (261) (2) 33986.

Trade . Early 1990 Prices ^{Source} CSG Newsletter

Crocodilus niloticus in South Africa

March 1990 Hides = \$ 6.00 - \$ 6.75/cm width.

Tail meat - \$ 3.56/kg (Natal).

Other meat - \$ 8.92/kg (Cape Province)

- \$ 2.00/kg

Adult breeding stock approx \$ 5,000/ea (♀♀)

\$ 3,000/ea (♂♂)

\$ 85.00 (Hatchlings)

Record prices for live *C. niloticus*.

Demand in European Market

Currently has an increased demand for large skins for spotlight products.

Demand in Germany (Source CSG Newsletter by Walter Herold.

Postfach 10 07 29 D 6050.

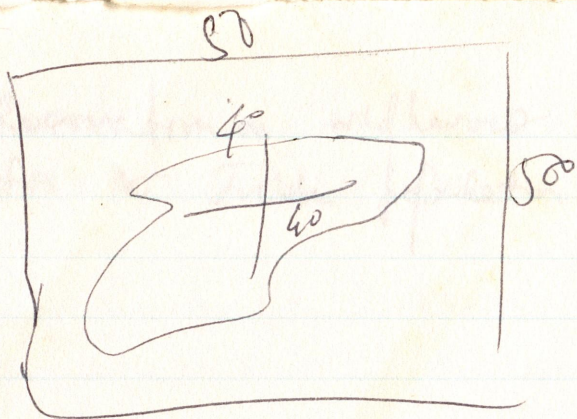
Oberbach (Hess.)

Federal Republic of Germany.

By Species

By Size

Demand	Supply	Sp.	Demand	Supply	Size
25%	10%	C. porosus	15%	5%	18-24cm
15%	17%	Unrecognized	45%	84%	25-39 cm
20%	20%	<i>C. niloticus</i>	10%	5%	40-44 cm
20%	50%	Alligator	10%	3%	45-59 cm
10%	3%	Cervina (flanders)	10%	3%	55+



Land : water

3 - 1
 2 - 2

Reservation on wild harvest (even with quotas)
falls the Tubba population is managed.

[Faint, illegible handwriting]

[Faint, illegible handwriting]

[Faint, illegible handwriting]

Unlike the other Crocodile management
project practices are

① Be In The US - Never seen an endangered
sp. (Alligator) but the management program
in the Louisiana, Florida state is to
① designate the population for a whole threat
and ② utilize the resource as a sustainable
basis for the wild. ③ Develop a fully
integrated system for a new land Alligator
industry to use alligators as an ideal farm
animal like cattle/chicken etc.

② In the 1970s, SCAP's Aristotle:
to rationalize the ^{industry in the} ~~market~~ of the
wild crocodiles which has been triggered by the
increasing demand & value of crocodile-skins. It
is a long-term investment of the way to protect the
sp. to extinction. Also inst. program measures to
define ^{staff or minimum} crocodile harvesting for wild to rest of
C. Be Reed Individuals.

③ The 90% strategy in this case to bring back
the sp. back from the brink of extinction

④ Africa - does not get into my 2
lines. In Africa has always been
there. But never on a scale that will be
shown in the future. But as population
increases & lifestyle is changing in a
number of ways further to a new order of things
~~done~~ along with changes - another human
conflict are on the increase - create
a negative attitude on work. The feeling
is "the ~~goal~~ ^{goal} ~~is~~ ^{is} a dead end".
The ~~major~~ ^{major} ~~goal~~ ^{goal} of world resource in Africa
~~should~~ be to convert such a negative
attitude, to show the utility and benefits
of such a resource by proper use.

Graham A (1968)

The Lake Rudolf Crocodiles (Crocodilus
niloticus Laurenti) Population. Ph.D.

dissertation. University of East Africa Nairobi;
- 14 month study (6,870 sq mile area of water surface
- 500 animal kits & exam)

L.R. 186 miles long (-20 miles wide. 526 mile
shore line < 25cm rainfall.

26-5°C to 36-5°C daily temp variation

- 80% estimates - aerial & night-ground
count.

12,459 animals - 2000

Density - 1-5/mile 71.9% in water

- 48.4% stomach empty - mainly fish
90.5% stomach
87% Tilapia

- Annual breeding season - ♂ peak spermatogenic
activity in October-December

♂ mature at 270cm. ♀ 180cm.

Large size - ♂ 470cm ♀ 320cm.

wild growth: 1.7cm/annum Captive 30cm/annum

Hitchel (1941) 587 stomach - Lake Kioga Uganda

Coth (1911) 651

Modhe (1917) Territoriality & Rep behavior Central Is. of Lake Rudolf

2 - fine river delta - dark - red bed with mud
filled open water
density 14/mile

II - Swamp - small scattered red clumps, moss
& inundated bank with extensive weed bed
with occasional sandy beach.

density 90/mile (52.27 g/hk)

III - human presence etc

IV - Rocky shore / Shingle beaches.

density 9/mile

v - like IV but subject to regular waves

26/mile & domestic stock

VI - like IV with extensive sandy beaches

density 19/mile

vii - Shingle & Rocky beach 3/mile density

viii - Hilly shore, Rocky with mudbank exposed to easterly
wind

density 7/mile human activities high

ix - Like 415 less sheltered.

density 11/mile

x - Gravelly / Sand & shingles with surf. 5/mile

xi - Turbine bank & Robb's egg.

X Gulf - Shelter bay sheltered. with small
swampy patches - 22/mile

XI Lave flow with sandy beach
D - 11/mile

XII Central Island with sheltered cove
Rocky shore
2 lakes - D 39/mile

XIII South Island. Rocky shore but with
sandy beaches.
24/mile

Aerial Total Counts

Feb 1965 - 1 observer other count 50-100ft-
height

June 1965 - Two observers 700-800ft. Rt side
down removed to left

Water 0.25 mile from shore - not examined

Notes - Samples / Drilled for error.

Sect	Feb 1965			D/mi	June 1966		D/mi
	Mile	Cont No	Est.		(cont)	Estimated	
1	88	202			546	1.201	14
2	75	1946			2974	6.565	50
3	29	162			97	213	9
4	29	130			288	134	26
5	68	306			574	1.203	19
6	29	45			34	73	3
7	54	114			195	429	7
8	36	138			175	381	11
9	121	170			147	328	3
10	16	41			161	363	22
11	5	10			2	4	1
12	15	218			267	587	39
13	18	97			192	422	24

576 | 3573 | 11765

5.154 / 12.435

Multiplying factor
3.1

Multiplying factor 2.2

Sample	no	Conts	for	Error	Estimate
or	Multiplying	factor			
Feb 1965	1 x 0.25 mi	67	259	2.86 X	} 3.1 X
1965	2 miles	61	205	3.31 X	
June 1966	2 miles	344	672	1.96 X	} 2.2 X
1966	2.5 miles	193	458	2.37 X	

4 most conts & respective log scale d'Heron

Total ignores very young crinoids
< 6 mm old

Shelton use - 576 mile shoreline
x 0.25 mile
= 144 sq mile area

Majority use (5.8 hrs?) 100 yrd of shore
(576 x 0.06 miles)
= 34.6 miles

34.6 miles = 12,439 = 360 / mile²

Higher density = 73 miles of shore (part 2)

will on 100 to 500 yrd of shoreline

4.38 - 18.25 sq miles

density = 1494 - 358 / sq miles

Factors that influence distribution

Shelton & Ford

Lake Rudolf cross mature ♂ at Shelton

length < 2800 cm

testes at 5-15 gm - 212 - 336 cm

♀ at 161 - 180 cm

Personnel Division

Forestry operations. FAO, Rome.

Sub - Travel Claim, Consultant - B.C. Chandhury
TCP/SOM/8956.

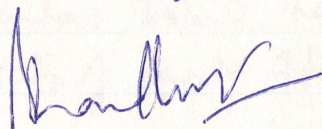
Attn - Mr Holte.

I enclose my TC form with several receipts etc enclosed for processing at your end.

As you will see, there has been some additional travel to CMC, Cambridge UK has been made without travel authorisation. I understand this may be approved with availability of funds for the project.

Also I stayed in Hogsdishes for an additional period of 6 days (upto 16/9/90) instead of 10/9/90 due to unavoidable working situation and travel arrangement changes.

I request that JSA for the number of additional days may please be arranged as possible.



Name

D.3/1/90 -

Encl. Itinerary

(B.C. Chandhury)

Consultant - TCP/SOM/8956

Boundary Season

♂ active (95.31) from October - December
Molthe (1967) observed copulation in Central
Island (Lake Rudolf) in second week in October
lasting until December.

Reinold L. Rudolf hatching notes were found in
Katz August & September ??

Gulane River (Kenya) (Rushen Dufur)
above 191 cm ♀ mature

Coit (1961) Zambia ♀ hatched at 238 cm.

Molthe M.L. (1967A): The ecology of the Nile
crocodile (*Crocodilus niloticus* Laurenti); In central
Island Lake Rudolf. East African Wildlife J. 5: 74-95.

Molthe M.L. (1967B). The ecology of the Nile
crocodile (*C. n. Laurenti*) on central Island Lake
Rudolf. M.Sc. Thesis. University of East-Africa.
1-131.

Koelbe (1967) | In central Ito Lake Rudolf
 nests start at the end of November,
 hatch ant. January with a peak in the
 second half of December.

hatching from Feb to April with a peak at
 the end of March. - Lake level was low in
 April!

Abraham (1968). Jan - March . 13.3% with eggs
 Oct - Dec 18.7% with eggs

<u>Clutch size</u>	Mean Clutch size	varied	Sample
Uganda (Lawson 1920)	59.9	38-76	13
Uganda Pitman F.Cott	60.4	25-95	775
Uganda Cott	54.9	-	17
Uganda Parker (un pub)	52	32-67	22
Zambia Cott G	56.2	-	23
Rudolf Koelbe 1967	33.5	14-46	65
Rudolf Graham	33	16-55	18

Wt Body Range	h. Body		Mean wt.
	n	Length	
26 - 55	-		
55 - 85	70		1.5
86 - 115	100		4.1 - 3.5
116 - 145	130		9.5
146 - 175	160		16.2
176 - 205	190		27
206 - 235	220		38
236 - 265	250		65
266 - 295	280		89
296 - 325	310		109.5
326 - 355	340		149
356 - 385	370		-
386 - 415	400		280
416 - 445	430		398
446 - 475	460		451

♂ Size 470 cm length (A. Graham)
 ♀ size 430 - 475 cm est. (also taller)
 ♀ 600 cm size class.

Gronoti River, Tanzania - 500cm or more

Watson, R.H., Graham A.D., Bell, R.H.V. & Parker I.S.C.
1971.

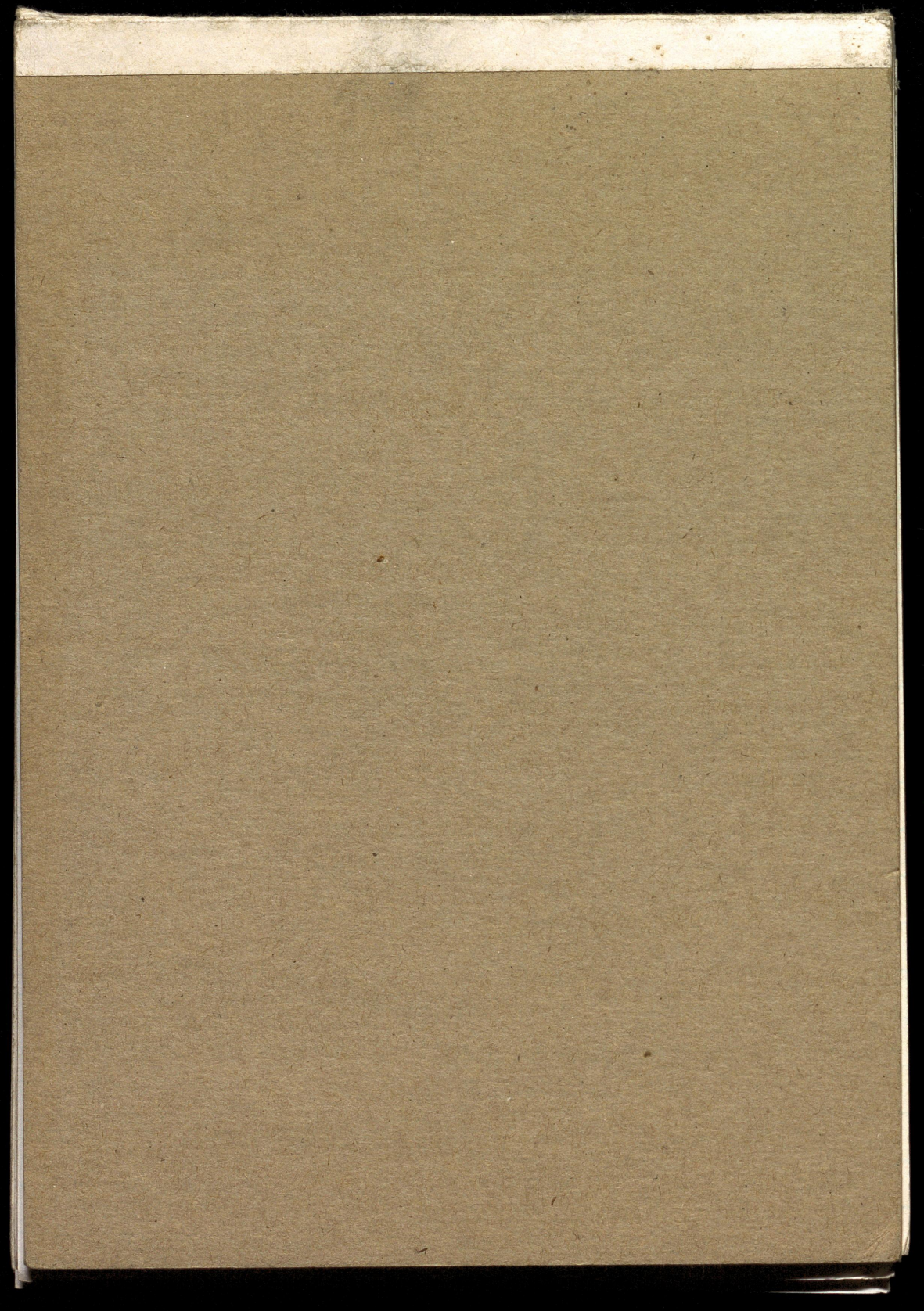
A Comparison of Jaw East African Crocodile
Crocodilus leucentis Population. East African
Wildlife Journal 9: 25-34.

Jonathan W. Hutton (1984).

The population ecology of the Nile crocodile
C. niloticus, Laurenti, 1768, at Ngezi, Zimbabwe

A thesis submitted in partial fulfillment of the
requirements for the Degree of Doctor of Philosophy

Division of Biological Sciences, University of
Zimbabwe, June 1984



Model Centre Requirements

- ① Hatchery - (20 Near capacity)
- ② Hatching Pools,
- ③ Yearling pools
- ④ Holding pools
- ⑤ Quarantine Pools
- has cum General
- ⑥ Office - cum - ~~General Store~~ (Record Room)
7. Water Reservoir.
- ⑧ Feed storage & preparation Room.
9. ~~Emergency~~ Staff Quarters & watchman's housing.
10. Visitor/Interpretation cum Training Centre.

TRAINING OF NATIONAL STAFF (OVERSEAS) YR I YR II

WILDLIFE DIRECTOR (1) 4 Weeks AFRICA PNGS INDIA

1. National Co-ordinator (1) 12 Weeks. INTENSIVE.
PNG / AUSTRALIA / INDIA.

2. SATELLITE LINITIAL CAPTIVE BREEDING CENTER CREATOR (10 WEEKS)

3. CROCODILE FFLM MANAGERS (4) INTENSIVE TRS. (2) (2)

(2 FOR SHOBELLE) (2 FOR SUBA) 12 Weeks EACH.

PNG / INDIA.

Each Rearing Centre (farm) assigned specific
Area of riverine stretch and other water bodies
for ~~the~~ wild-egg harvesting.

- Governed by licenced by the District wildlife

Community or cooperative owned with trustees
with local administration involvement

- Subsidised by Govt / as agencies during initial
establishment -

- Quarterly Stock-checking and ^{possession} Refurbishing by the
Farm to District wildlife and regular stock-books
certificate to be issued by the District wildlife + farms
based on physical verification by his authorised staff.

- Standards to be set

Suggested Model Captive Propagator

Centres

- Rationale
- Model & Needs
-

Safe-guard of Resource

① Wild Protection Plan

② Captive Management & Control

Recommendations

① Campaign on Crocodiles

② Need for Extensive Education

③ (a) Campaign on Crocodiles

(b) Training of Official @ Dept - protection

② Captive Centres

(c) For International Support

Introduction

- Nile Crocodile Distribution in Africa &
- ~~the~~ Status in general

Nile Crocodile in Somalia

- Review of existing literature on Status.

Law and Crocodile in Somalia.

Livestock, Man-Crocodile interaction.

Crocodile Resource Utilization (Pre-use position)

Crocodile Actual Resource position ^{CITES permission}

- A. ~~Present~~ ~~Survey~~ Reports Existing
- Pressure Survey.

B. Findings and Limitations

C. Evaluation of Resource

D. Feasibility of Utilization

(a) Wild harvest of wild crocodiles

(b) Captive propagation based on egg harvest

⊕ Natural Reserves ⊕ Natural Parks ⊕ Other Areas

① Model Crocodile Rearing Centre to be constructed with International Donor Agency support -

② Owned and managed by the Director/Inr with assistance and support by International experts and national counterparts.

③ Initial objectives of the centre is to act as a national model centre for training / extension and to set standards and actual requirements for other centres to be set-up.

④ To act as the National - Co-ordinating Centre for the network of Regional Centre with responsibility to maintain National ^{level} Crocodile stock position as well as status of wild crocodiles.

From Ighe Ma-Crocodile Interact

- ① Man-Crocodile & Man-Livestock Conflict situation Report from Afafoto
- ② Man-Crocodile - Man Livestock Conflict situation Report from Abdi Rizah Abelle Anelim Security
- ③ Gathering of Information during the survey.

Regions Through which Shabelle flows

capital

- HIRAAAN - TO BE IDENTIFIED. (Beled weyne)
- MIDDLE SHABEELLE = JAWHAR - HAWADLEY STRETCH (cap. Jawhar)
- LOWER SHABEELLE = BAKAD - BASHUDAO STRETCH
ALIFUUFU RESERVE & CONSERVATION AREA (cap. Merca)

Regions Through which Jubba flows.

- Gedo. (cap - Garbaharey)
- MIDDLE JUBBA (cap - Buraale)
- LOWER JUBBA (chisimaya).

Out of Six Regions with Nile crocodiles, surveys have been conducted only in two of three regions in which Shabelle flows.