PRELIMINARY SURVEY
of
BUAYA SUMPIT (Tomistoma schlegelii)
and
BUAYA KODOK (Crocodylus siamensis)
in
EAST KALIMANTAN

by

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&

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PRELIMINARY SURVEY OF TOMISTOMA SCHLEGELII AND CROCODYLUS SIAMENSIS IN EAST KALIMANTAN AND RIAU

I. BACK GROUND

Crocodiles and false gavials are of the Indonesian wildlife which are being utilized by some of the Indonesian citizens to support daily life as well as to support local economy. It also has some share in international trade of classical skins.

Because of indiscriminate utilization in previous time, its population became dwindled. In order to halt its further depletion the Government of Indonesia included its status into protected species list. Hence, utilization of crocodiles by some locals has been unavoidable since it has been a continuation of activity since a very long periods of time. For some areas utilization of crocodiles is even the only source of life support. Therefore, conservation management efforts has to be implemented in order to continue utilization in a sustainable manner.

National as well as International bodies has been very supportive to the conservation of the Indonesian crocodilians despite the midst of conservation motions. Realizing the factual evidence of the Indonesian situation the Chairman of Crocodile Specialist Group of the IUCN has been continuously assist and support Indonesia in its efforts to promote conservation through sustainable utilization.

With the support of the Asian Conservation and Sustainable Utilization Group (ACSUG) under the guidance of the Chairman of CSG, preliminary studies had been carried out to study the presence of Tomistoma schegelii and Crocodylus siamensis in East Kalimantan and Riau.

II. STATUS.....

II. STATUS AND HISTORY

There are four species of crocodilians known to exist in Indonesia

(a) Crocodylus novaeguinae or locally known as buaya air tawar (fresh water crocodile, river crocodile) exists in the tributary of the rivers in Irian Jaya. It is declared as a protected species by the Government of Indonesia since 1978 and listed in Appendix II of the CITES.

(b) C. porosus, locally known as buaya muara or buaya laut (estuarine crocodile, marine crocodile) was formerly distributed in almost all over Indonesian archipelago in various endangered population status. It is declared as a protected species by the Government of Indonesia since 1980 and is listed under Appendix I of the CITES

(c) Tomistoma schlegelii, locally known as buaya sumpit or sinyulong, distributed in Sumatra and Kalimantan. It is declared as protected species since 1978 and listed under Appendix I of the CITES.

(d) C. siamensis, locally known as buaya kodok (frog crocodile) are known to exist in East Kalimantan and suspected to be distributed in South and Center Kalimantan. It is protected under Indonesian regulation and listed under Appendix I CITES.

(e) C. palustris was reported to occur in Ujung Kulon, West Java (Hoogerwerf 1975) but there were no further clarification on its existence.

III. OBJECTIVE OF THE SURVEY

During the November 1992 CSG review recommendation on the need of knowing the distribution of T. schlegelii and C. siamensis were raised. Indonesia should find out its distribution, potency and performs continuous monitoring. The monitoring has been carried hence due to the shortage of resources survey on distribution is still couldn't be implemented. The recommendation remains until the October 1993 CSG review, therefore supported by the enthusiastic support of the ACSUG this preliminary survey was carried out.

VI. LOCATION....

IV. LOCATION AND TIMING OF PRELIMINARY SURVEY

Preliminary survey were carried in Riau on October 29 to November 5 and in East Kalimantan on November 28 to December 4, 1993.

For the Riau Province, information were collected in the villages reported or informed to have population of the species. The upper rivers of Siak Kecil (Tasik Seroi, Sungai Sepotong, Lubuk Muda), upper Sungai Kampar (Kampar Kiri, Langgam, Muara Tolam, Kuala Panduk) and Sungai Kuantan were reported as the habitats of T. schlegelii. Since there was not enough time to make direct observation, reconfirmation is needed as to its presence or absence and clarification will not be given in this report.

In East Kalimantan some branches of Mahakam river within Kutai Regency were visited as well as the crocodile farms in Samarinda and Balikpapan. Unlike in Riau in which evidences were based on reports on the presence of T. schlegelii from the locals in villages which were visited, in East Kalimantan T. schlegelii as well as C. siamensis were actually encountered in the wild.

Specific locations which were carefully observed were Muara Muntai, Danau Melintang, Danau Semayang, Teluk Muda, Pedamaran village, Tuana Tuha village, Belayan river, Danohan Tanah, Sungai Kemujan, Lake Tempatung, Sei Bongan and Lake Belibis.

V. METHODS

Two kinds of means were used:

1. Questionnaire, by distributing questionnaire/anquete to the responder which were sampled from the locals
2. Direct observation in the field.

Questionnaire formats, the maps of the study area, binoculars, spot-lights, measuring tapes, speed boats and cars were utilized during the survey.

Questionnaires were distributed to the representative of the village people exploring their experience of encountering with the crocodile(s).

Local reptile collectors were employed to guide the team in finding specific locations for observations. Catching T. schlegelii were experienced by the survey member by means of using local fines or rattan cane.

VI. FUNDING.....

VI. FUNDING

As mentioned previously, this survey was funded by ACSUG and the IRATA (Indonesian Reptile Association), prior to the result of the ACSUG meeting of October 1993.

VII. RESULTS

1. From respondence in Pedamaran it was found that during high water (November-June) both T. schlegelii as well as C. siamensis is difficult to be observed unlike during dry season (low water) where people often see C. siamensis and T. schlegelii basking on the bank of the lake. Some villagers keep T. schlegelii and be advised to released them back to the wild because of its protection status.

2. From the information of respondence in Tuana Tuha it can be found that despite the fact that it is difficult to find crocodiles during high water, during the month of July people saw both species along the Belayan river. Some people in that village keep "yellow crocodile" (C. porosus).

3. It was reported that during the previous dry season, when the water level is low, some C. siamensis were trapped in fish nets set in Danau Tempatung.

4. In Sungai Bongan long-tailed macacque and several stork were seen. Danau Belibis is reported to be a good habitat for the siamensis. A nest with 28 eggs was found during the previous dry season.

5. In Muara Muntai 4 siamensis and 6 schlegelii are kept as pet by a villager. The keeper reported that they had experienced evidences that some fisherman are willing to offer sale of both siamensis and schlegelii which are accidentally trapped in their fishing net but the offer were refused.

6. In Muara Kaman, only evidence of T. schlegelii were found. Some people keep them under their stilled houses. In Ngayan Tua the survey team experienced in catching T. schlegelii by using local vines. Semambah, Ngayau, Muara Bengkal, Muara Ancalong and the fresh water swamps surrounding Muara Ancalong are reported to be the habitat of T. schlegelii.

7. Despite.....

7. Despite the fact that danau Melintang is a busy route of motor boats, T. schlegelii is frequently cought by accident in fishing net. No evidence of C. siamensis were reported.

8. Captivity:

C. siamensis :	316	(PT. Makmur Abadi Permai
	20	(CV. Surya Raya)
	4	(Villager, Muara Muntai)
T. schlegelii:	53	(PT. Makmur Abadi Permai)
	16	(CV. Surya Raya)
	6	(villager, Muara Muntai)

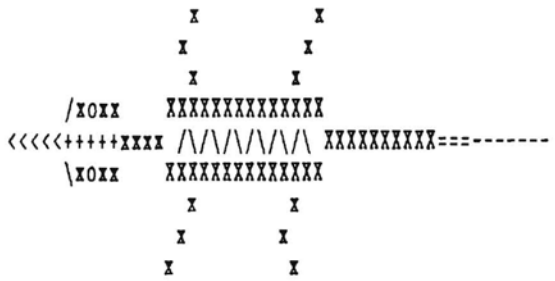
VIII. CONCLUSION

1. T. schlegelii are found along the Belayan river, Danau Belibis and Belibis river, Kahala river and Danau Tempatung in Muara Muntai and sungai Kandang Rantau, Liang Lahat, Ngayan Muda, Ngayan Tuha, Senambah, Muara Ancalong in Muara Kaman.

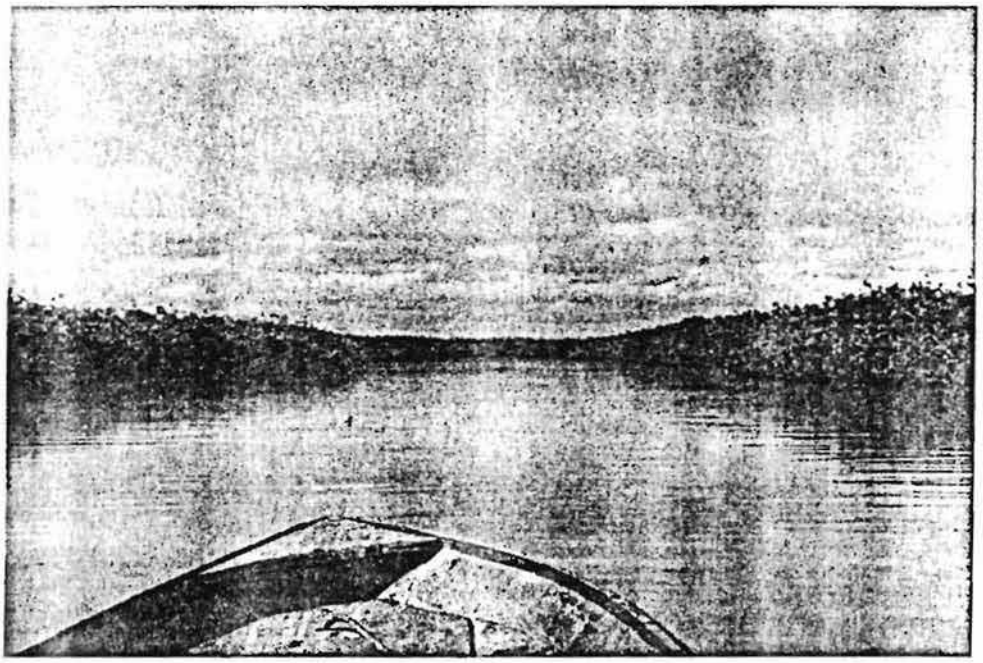
2. C. siamensis are found in Danau Tempatung and Danau Belibis

3. In totals of 16 schlegelii and 4 siamensis are kept by locals within the survey area.

4. Rainy season (high water) is less favorable in surveying crocodilians in East Kalimantan.

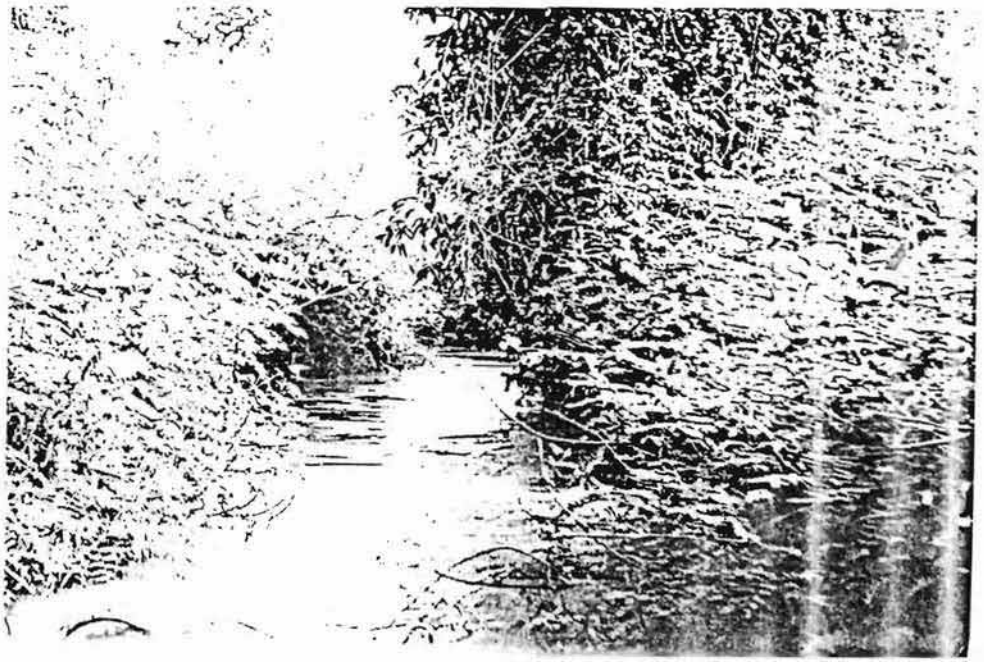


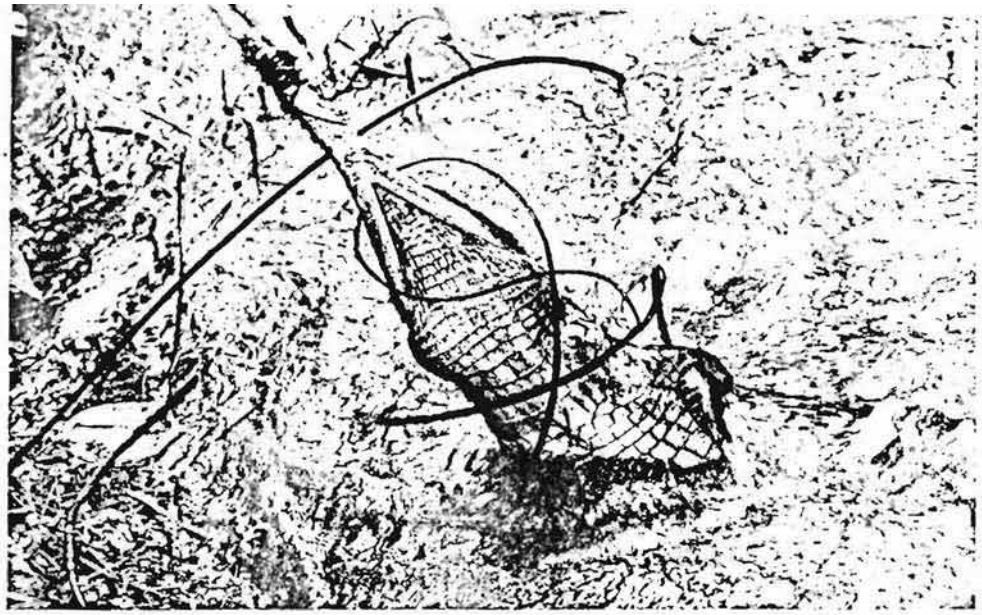
MELINTANG LAKE



BELAYAN RIVER

BELIBIS RIVER



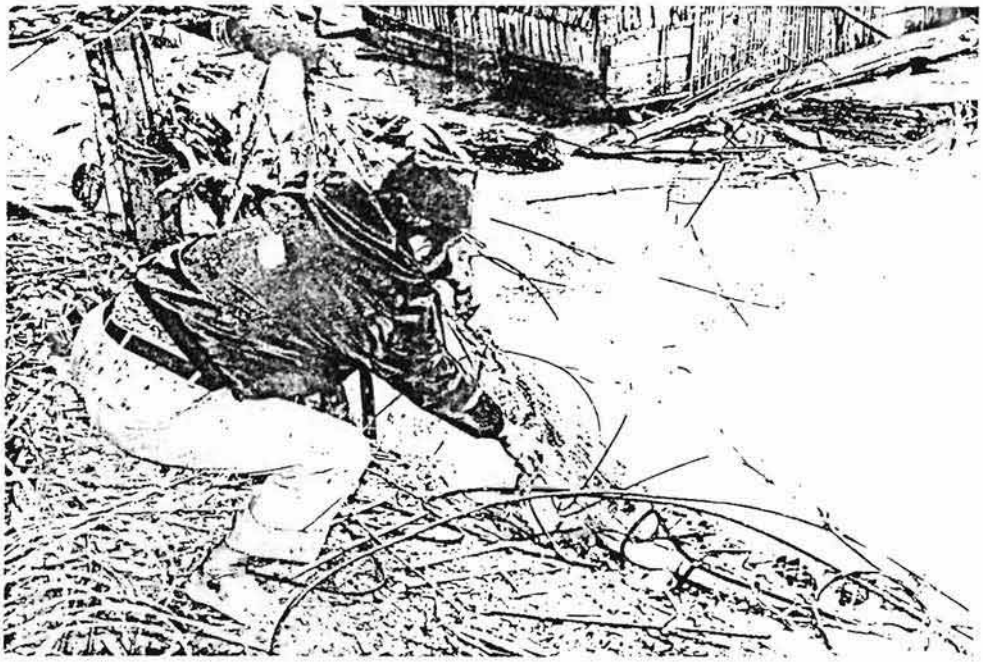


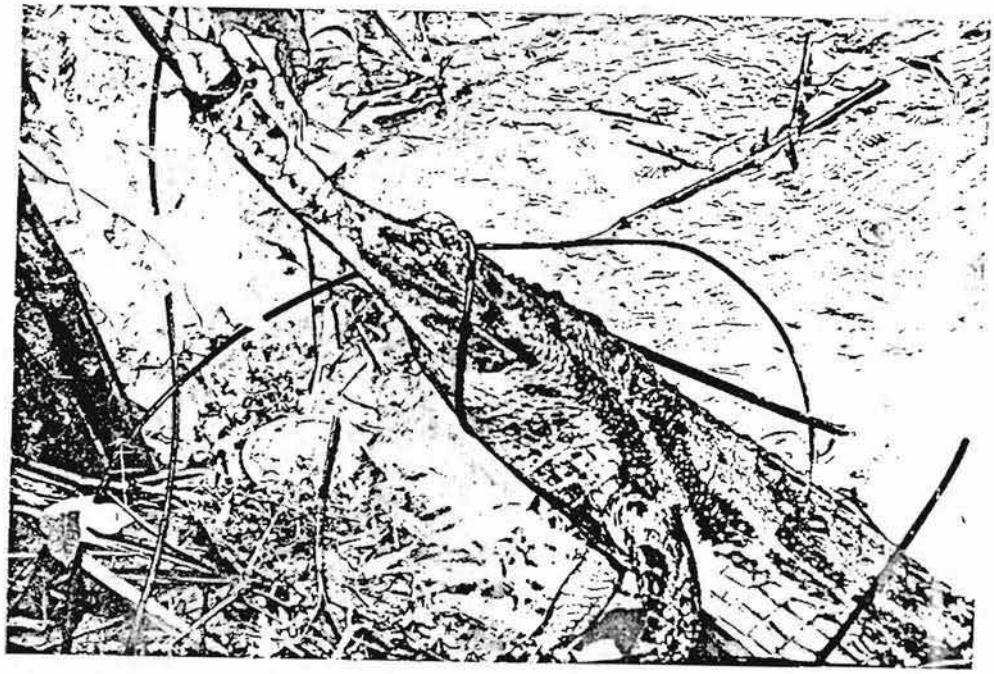
IT IS EASY

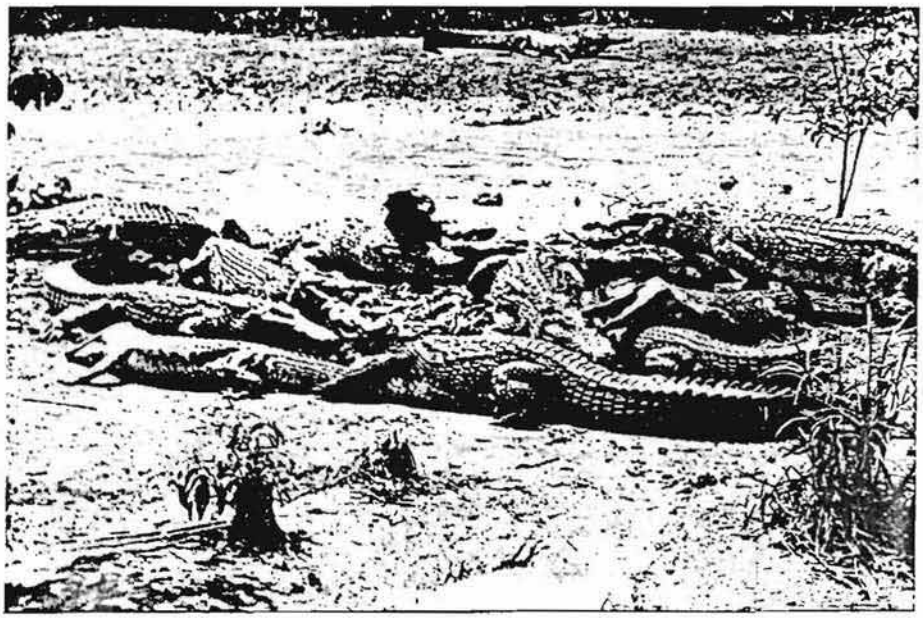
TO CATCH

T. SCHEGELII

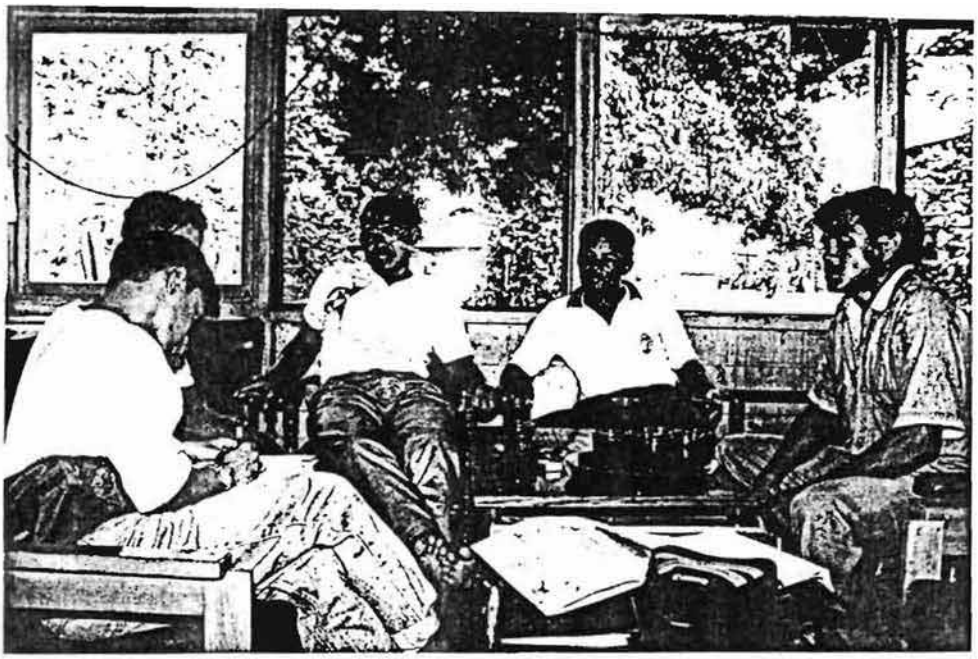
IN BELAYAN RIVER







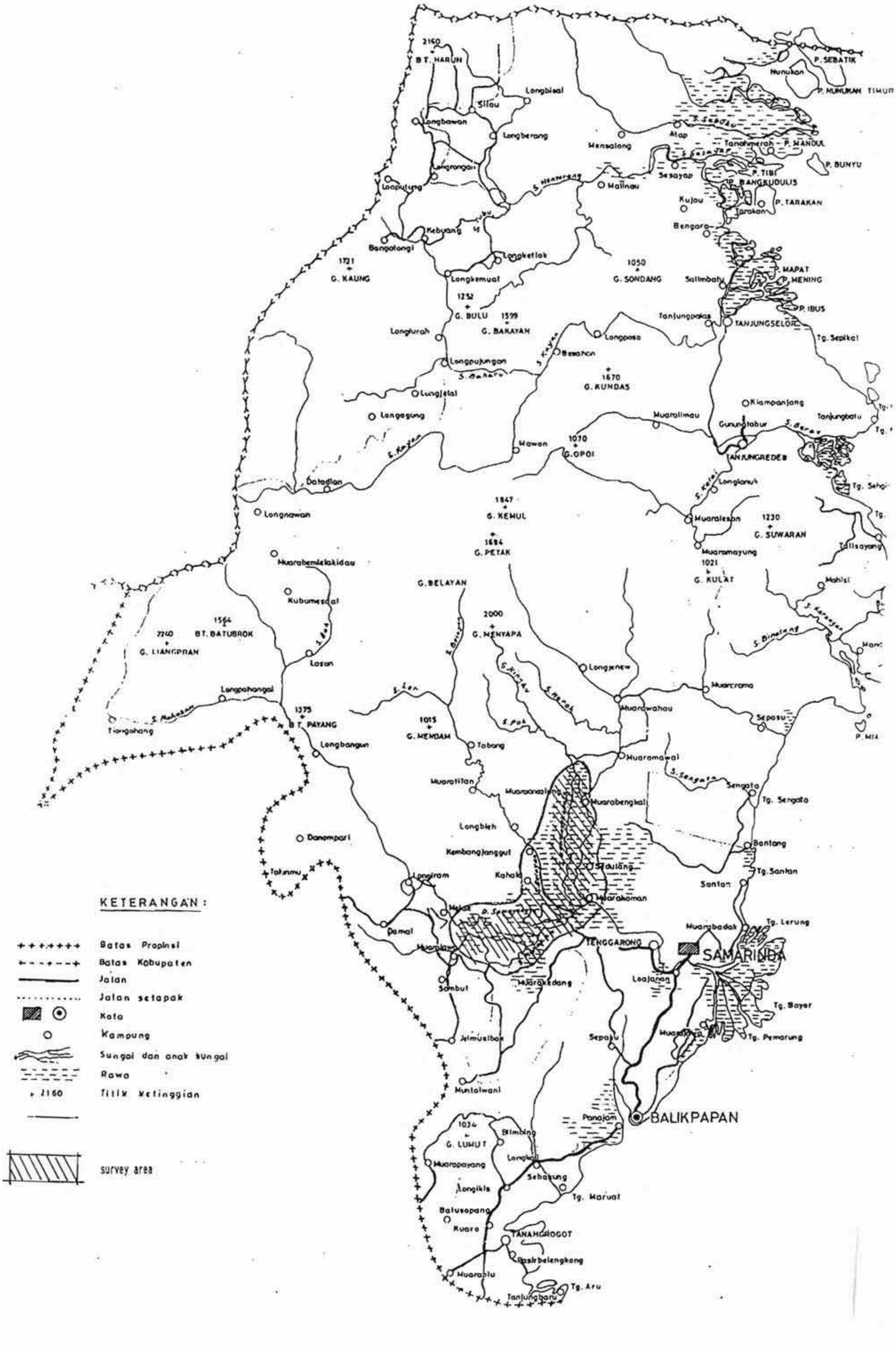
C. SIAMENSIS IN THE FARM (MAKMUR ABADI PERMAI)



QUISTIONING LOCALS

DISCUSSION

LOCAL FISHERMAN

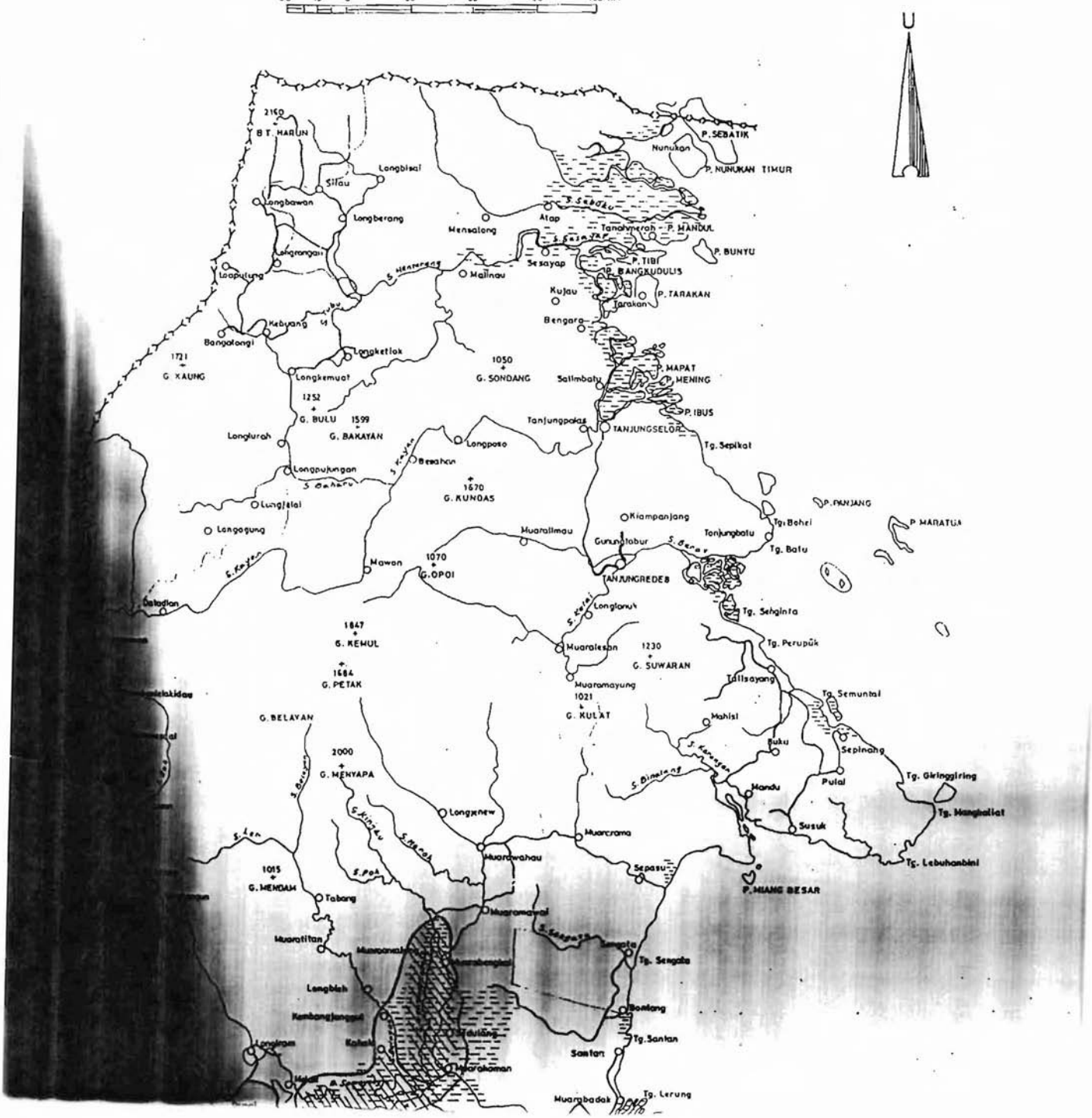


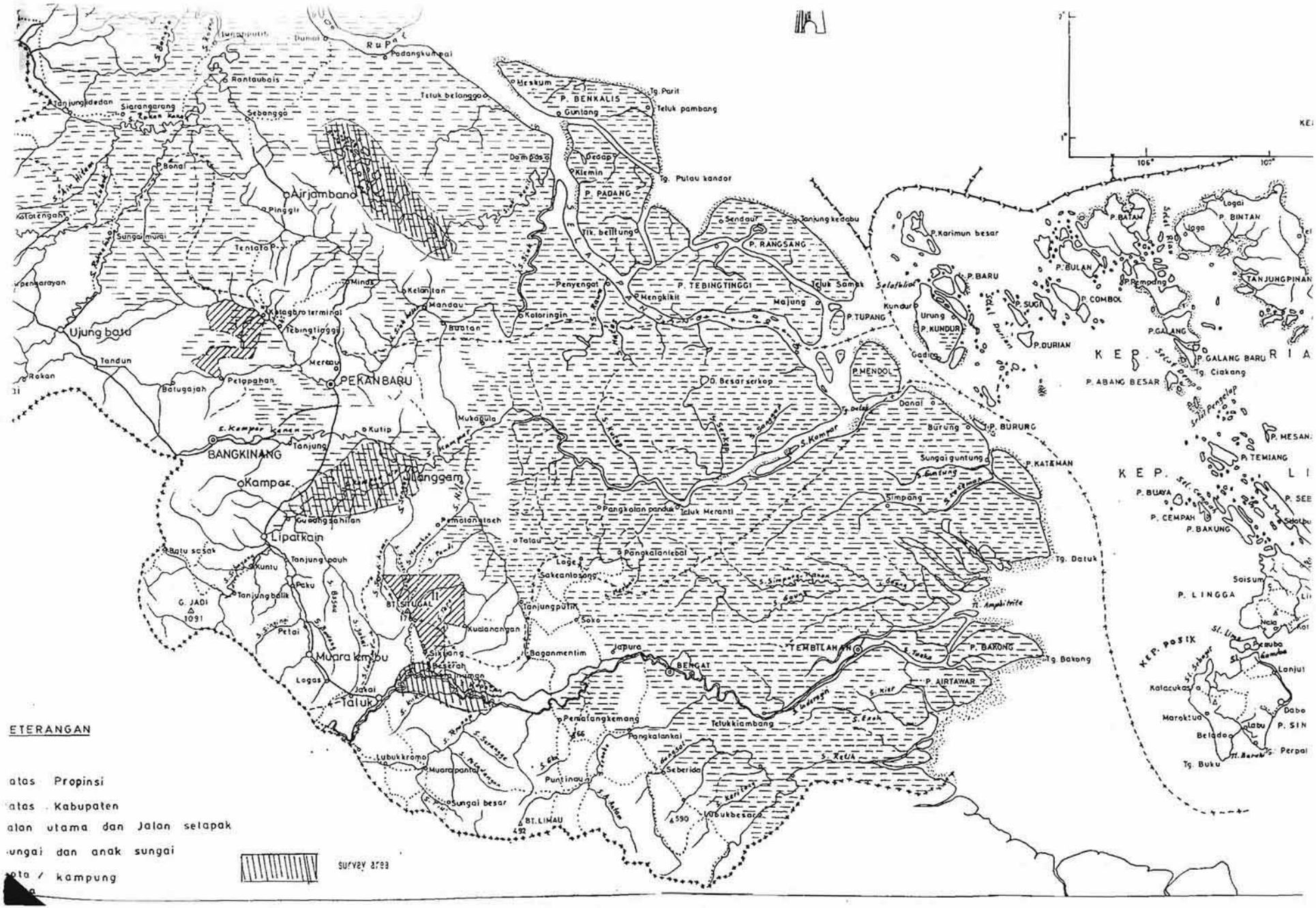
2160
BT. HARUN
Silau
Longbisai
Longbawan
Longberang
Longrangan
Loaputung
S. Mentarang
Kebuang
Bangalongi
Longketiok
1721
G. KAUNG
Longkemuat
1252
G. BULU
1599
G. BAKAYAN
Longlurah
Longpujungan
S. Bahau
Lungjelai
Longagung
S. Kayan
Datadian
Longnawan
Muarabemielakidau
Kubumesaai
1564
BT. BATUBROK
2240
G. LIANGPRAN
S. Boh
Lasan
Longpahangai
S. Mahakam
Tiongohang
1375
BT. PAYANG
Longbangun
Danompari
Tabang
Muaratitan
Longbleh
Kembangjanggut
Kahala
Longiram
Melak
D. Semayang
Damai
Muarapahu
Sambut
Jelmusibak
Muntaiwani
1034
G. LUMUT
Bilmbing
Muarapayang
Longkali
Longikis
Sebakung
Tg. Maruat
Batusopang
Kuaro
TANAHGROGOT
Pasirbelengkong
Muaraplu
Tanjungbaru
Tg. Aru
P. SEBATIK
Nunukan
P. NUNUKAN TIMUR
S. Sebuku
Atap
Mensalong
Tanahmerah
P. MANDUL
P. BUNYU
S. Sesayap
Sesayap
P. TIBI
P. BANGKUDULIS
Malinau
Kujau
Tarakan
P. TARAKAN
Bengara
1050
G. SONDANG
Salimbatu
P. MAPAT
MENING
P. IBUS
Tanjungpalas
TANJUNGSELOR
Tg. Sepikat
Longposo
Besahan
1670
G. KUNDAS
Kiampanjang
Muaralimau
Gunungtabur
Tanjungbatu
S. Berau
TANJUNGREDEB
Mawan
1070
G. OPOI
S. Kelai
Longlanuk
Tg. Sehgi
1847
G. KEMUL
1684
G. PETAK
Muaralesan
1230
G. SUWARAN
Muaramayung
1021
G. KULAT
Talisayang
G. BELAYAN
Mahisi
2000
G. MENYAPA
S. Karangan
S. Bengalon
Longjenew
S. Lan
Muarawahau
Muaracrama
1015
G. MENDAM
Seposu
S. Poh
P. MIA
Muaramawai
S. Sengata
Sengata
Tg. Sengata
Muaraancalong
Muarabengkal
Bontang
Sidulang
Tg. Santan
Santan
Muarakaman
Muarabadak
Tg. Lerung
TENGGARONG
SAMARINDA
Loajanan
Muarakedang
Tg. Bayor
Muarajawa
Tg. Pemarung
Sepaku
Panajam
BALIKPAPAN
KETERANGAN :
Batas Propinsi
Batas Kabupaten
Jalan
Jalan setapak
Kota
Kampung
Sungai dan anak sungai
Rawa
+ 2160
Titik Ketinggian
survey area

PETA

PROPINSI DATI I KALIMANTAN TIMUR

SKALA 1 : 1.500.000





ETERANGAN

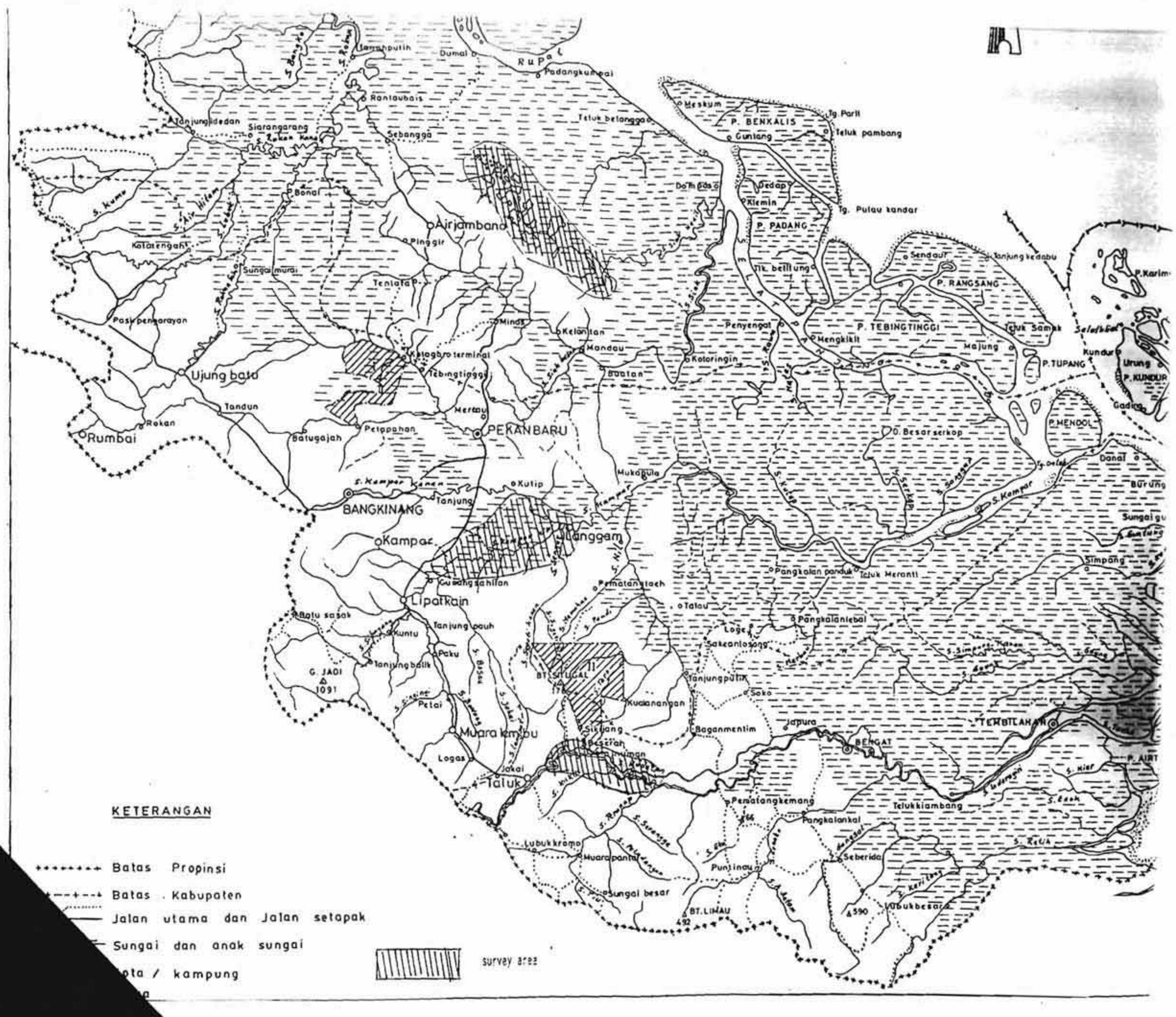
atas Propinsi

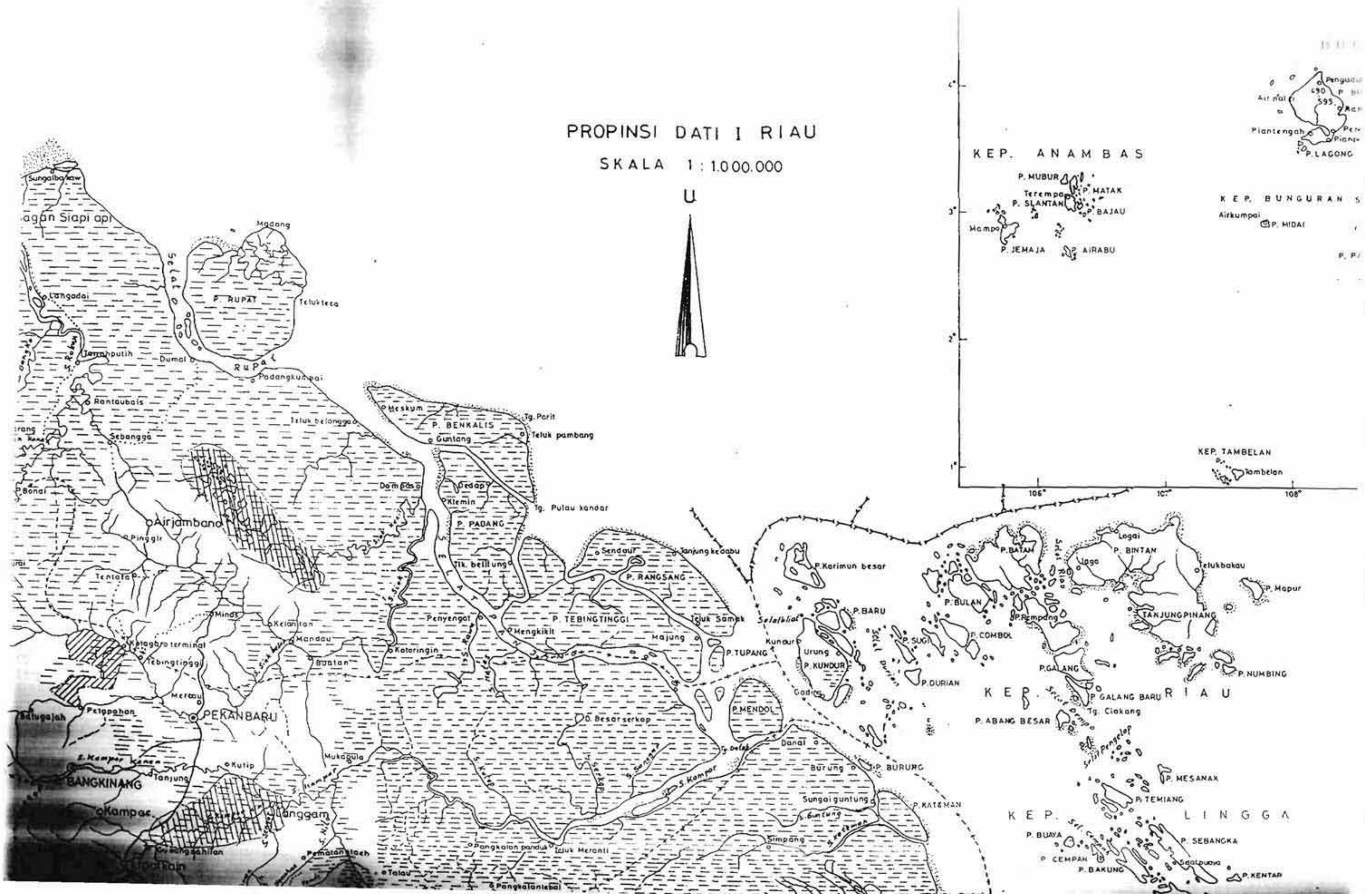
atas Kabupaten

alan utama dan Jalan setapak

ungai dan anak sungai

ota / kampung


KETERANGAN
Batas Propinsi
Batas . Kabupaten
Jalan utama dan Jalan setapak
Sungai dan anak sungai
survey area
PEKANBARU
BANGKINANG
oKampar
Lipatkain
Ujung batu
Rumbai
Rokan
Tandun
Batugajah
Petapahan
Airjambang
Pinggir
Tenlata
Minas
Kelantan
Mandau
Buatan
Mertau
Tebingtinggi
Kutip
Tanjung
Mukabula
Langgam
Pematangtaeh
Talau
Gunungsahilan
Tanjung pauh
Kuntu
Paku
Tanjung balik
Petai
Batu sasak
G. JADI
1091
Muara lembu
Logas
Jakai
Taluk
Lubukkromo
Muarapantai
Sungai besar
BT. LIMAU
492
Puntinau
Pangkalankal
Pematangkemang
Seberida
Lubukbesar
590
Teluklambang
TEMBILAHAN
BENGAT
Japura
Baganmentim
Kuanangan
Sikijang
Besarah
BT. SITUGAL
Tanjungputih
Soko
Loge
Sakeanlosong
Pangkalanlebai
Pangkalan panduk
Teluk Meranti
Simpang
Danai
P. MENDOL
P. TUPANG
P. KUNDUR
Urung
Kundur
Gading
Teluk Samak
Majung
P. TEBINGTINGGI
P. RANGSANG
Sendaur
Tanjung kedabu
Mengkikit
Penyengat
Kotoringin
Tlk. belitung
P. PADANG
Klemin
Gedap
Tg. Pulau kandar
P. BENKALIS
Meskum
Guntang
Tg. Parit
Teluk pambang
Teluk belanggai
Padangkumpai
Rupat
Dumai
Lamaputih
Rantaubais
Sebangga
Tanjungmedan
Siarangarang
Bonai
Kotatengah
Sungai murai
Pasir pengarayan
O. Besar serkop
S. Kampar
S. Kampar kanan
S. Rokan
S. Siak
P. AIRT
P. Karim
Burung
Sungai gu


PROPINSI DATI I RIAU
SKALA 1 : 1.000.000
U
KEP. ANAMBAS
P. MUBUR
Terempa
P. MATAK
P. SLANTAN
P. BAJAU
Mampa
P. JEMAJA
P. AIRABU
KEP. BUNGURAN
Airkumpai
P. MIDAI
Piantengah
P. LAGONG
KEP. TAMBELAN
Tambelan
106°
107°
108°
1°
2°
3°
4°
Sungaibakaw
Bagan Siapi api
Langadai
Selat Rupat
P. RUPAT
Madang
Teluktera
Dumai
Padangkumpai
Rantaubais
Sebangga
Teluk belangga
Bonai
Meskum
P. BENKALIS
Guntang
Tg. Parit
Teluk pambang
Tg. Pulau kandar
Dompas
Dedap
Klemin
P. PADANG
Tlk. belitung
Airjambano
Pinggir
Tentata
Minas
Kelantan
Mandau
Katagaro terminal
Tebingtinggi
Koteringin
Penyengat
Mengkikit
P. TEBINGTINGGI
Sendaur
P. RANGSANG
Tanjung kedabu
Teluk Samak
Majung
P. TUPANG
Buatan
Meraau
PEKANBARU
Petapahan
Kutip
BANGKINANG
Tanjung
Kampar
Langgam
Mukagula
Pematangtaeh
Talau
Pangkalan panduk
Teluk Meranti
Pangsalantebal
S. Kampar
D. Besar serkap
P. MENDOL
Danai
Burung
P. BURUNG
Sungai guntung
Simpang
P. KATEMAN
P. Karimun besar
P. BARU
Kunaur
Urung
P. KUNDUR
Gadina
Selat Durian
P. SUGI
P. DURIAN
P. BATAM
Selat Riau
P. BULAN
P. Rempang
P. COMBOL
P. GALANG
P. GALANG BARU
Tg. Ciakang
P. ABANG BESAR
Selat Dempo
Selat Pengelap
KEP. RIAU
Logai
P. BINTAN
Uaga
Telukbakau
P. Mapur
TANJUNGPINANG
P. NUMBING
P. MESANAK
P. TEMIANG
KEP. LINGGA
P. BUAYA
P. CEMPAH
P. BAKUNG
P. SEBANGKA
Sebatpuava
P. KENTAR