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

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

I. BACKGROUND

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 schlegelii 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 novaequinae* 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, Pedamanar 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.....
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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 correspondence 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 correspondence 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 macaque 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, Ngaya, 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 caught 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, Llang 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.
IT IS EASY
TO CATCH
T. SCHEGELII
IN BELAYAN RIVER
C. SIAMENSIS IN THE FARM (MAKMUR ABADI PERMAI)