

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Inclusion of Ptyas mucosus, Naja naja and Ophiophagus hannah in Appendix II.

B. PROPONENT

The Republic of India.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Raptilia
12. Order: Squamata
13. Family: a) Colubridae
b) Elapidae
c) Elapidae
14. Species: a) Ptyas mucosus (Linnaeus, 1758)
b) Naja Naja (Linnaeus, 1758)
c) Ophiophagus hannah (Cantor, 1836)
15. Common Names: English: a) rat snake or Indian rat snake
or oriental rat snake, whip
b) cobra or Indian cobra
c) king cobra or hamadryad
French: a)
b) serpent à lunettes, naja
c)
Spanish: a)
b)
c)
Hindi: a) Dhaman
b) Nag
c) Nagrai
16. Code Numbers: a) L.305.005.230.003 (I.D. Manual)
b) L.305.006.028.010 (I.D. Manual)
c)

2. Biological Data

21. Distribution:

Rat Snake (Ptyas mucosus): It occurs throughout India including the islands of Andamans and Nicobar. Elsewhere, it is found in Sri Lanka, Pakistan, Bangladesh, Nepal, Afghanistan, Burma, China, Indonesia, Kampuchea, Laos, Viet Nam, Thailand, Malaysia, Hong Kong and Singapore (see Map).

Cobra (Naja naja): The currently defined range of cobra (Naja naja) comprises all of the South-East Asian mainland and most of the larger islands and archipelagos. About 10 (ten) subspecies of Naja naja have been identified as described below.

- i) Naja naja naja (Linnaeus) - occurs through most of the Indian sub-continent and Sri Lanka.
- ii) Naja naja kaouthia Lesson - occurs in eastern India, east of Nepal, whole of Indo-China and as far North as the upper Burma and southern China.
- iii) Naja naja oxiana (Eichwald) - occurs from Transoaspia and Southern Turkmenistan (USSR) East across most of Afghanistan to Kashmir, the North-West Frontier Province and the North-Eastern Baluchistan (Pakistan).
- iv) Naja naja atra Cantor - occurs in South-eastern China, Taiwan, Thailand and northern Viet Nam.
- v) Naja naja miolepis (Boulenger) - occurs in the Philippines (Palawan) and Borneo.
- vi) Naja naja philippinensis Taylor - occurs in the Philippine Islands.
- vii) Naja naja sagittifera Wall - occurs in Andaman Islands.
- viii) Naja naja samarensis Peters - occurs in the Philippines.
- ix) Naja naja sputatrix Boie - occurs in Indonesia (Bangka, Bali, Celebes, Flores, Java, Komodo, Lombok, Sumbawa), Riou Archipelago, Malaysia and Thailand.
- x) Naja naja sumatrana Muller - occurs in Sumatra.

A map showing the distribution of prominent Indian subspecies of Naja naja is appended.

King Cobra (Ophiophagus hannah): In India, it occurs in the dense jungles of western Ghats and in forests of hills, plains and estuaries of Orissa, Bengal and Assam and also the Andaman. In Bangladesh, it occurs in Sunderbans and in the forests of Sylhet, Chittagong and Chittagong Hill Tracts. Elsewhere it occurs in Hong Kong, Thailand, Burma, Viet Nam, South China, Malaysia and the Philippines.

22. Population:

Rat Snake (Ptyas mucosus): Although Ptyas mucosus population occurs widely in India, yet urbanisation of its habitat, commercial exploitation and other factors have resulted in gradual depletion of the population to an alarming level (in most of the cultivated areas not more than 20-50 snakes per sq. km). In some areas, the entire population has been wiped out. Ptyas mucosus is reported to be common in Pakistan and Bangladesh. Population status in other regions of occurrence is not known.

Cobra (Naja naja): Population status of Naja naja in India is not exactly known but the two subspecies viz. N. n. naja and N. n. kaouthia are widely and commonly found. The third subspecies N. n. oxiana has a very localised distribution only in North-western parts of India. However, in some parts of the country, cobras have become scarce with heavy pressure for their skins.

In Pakistan, N. n. naja is reported to be rare and found in small numbers in Punjab, Sind and Baluchistan. During surveys in 1987, not a single specimen was sighted or collected. Another subspecies N. n. oxiana occurs in Sind, Punjab and North-West Frontier Province and less commonly in Baluchistan. During the surveys in Thatta and Badin Districts (total area 24,617 sq kms) in 1987, its population index was found to be 0.104 per sq km which leads to a total population figure of 2,575.

In Bangladesh, N. n. naja is reported to be uncommon while N. n. kaouthia is said to be common. In Thailand, N. n. kaouthia, N. n. atra and N. n. sputatrix spread out all over the country and the last named subspecies is reported to be abundant in southern Peninsula.

Exact information regarding the population of Naja naja in other regions of occurrence is not available, but the status of subspecies N. n. philippinensis, N. n. sagittifera and N. n. samarensis is believed to be vulnerable.

King Cobra (Ophiophagus hannah): King cobra is a rare snake and nowhere is common throughout its range. Population is certainly depleting for the last many years on account of its shrinking habitat - which includes mangrove swamps of Orissa, West Bengal and Bangladesh.

23. Habitat:

Rat Snake (Ptyas mucosus): It is found in rat holes, termite mounds, rice fields, woods, tree hollows, etc. They are quite adaptable and found in varied places from sea level to 4,000 m. In Thailand, Ptyas spp. is reported to occur in open areas, particularly in the paddy field, swamp, marshy area or near the water course. In Pakistan, P. mucosus is reported to be commonly found near the water pools, river banks, deltas, etc.

Cobra (Naja naja): Indian cobras occur in many habitats but are most plentiful in rather damp grassland and cultivated fields. They are common in agricultural fields in villages and are occasionally found in suburbs and cities. Cobras have been collected from sea level to 2,500 high lands. The most ideal habitats for cobras are agricultural fields, rocky areas, earthen dams, termite mounds, hollow of trees, debris of old uninhabited buildings, etc.

King Cobra (Ophiophagus hannah): King cobra occurs in scrubby bush jungles, plains, dense forests to fairly open country, near water bodies, tea and coffee plantations of the lower elevations (up to 1,200 above sea level), mangrove swamps. The most suitable habitat of king cobra is the dense forests of heavy rainfall areas with dense undergrowth. In Thailand, king cobra is reported to exist only in forests of low land or lower hills all over the country.

3. Trade Data

31. National Utilization:

Skins of rat snake, cobra and sometimes king cobra, are used in making foot wear, belts, purses, handbags, garments, etc. However, in India internal trade in snake skin articles made therefrom has been banned since January 1987, and to dispose of the existing stocks confiscated by the customs, a government undertaking has been permitted to manufacture articles from the snake skins and export them. Live specimens of these species are also kept in zoological parks, snake farms and medical institutes for public display, research, extraction of poison for anti-venim, etc. In India, these snakes are also kept by the traditional snake- charmers. Meat of the rat snake and cobra is occasionally eaten by some people - mostly tribals - in India.

32. Legal International Trade:

321. Export from India: Export of raw snake skins (tanned/untanned) has not been permitted from India since April 1978. Also, for the export of manufactured articles of snake skins, only Bahrat Leather Corporation - a government undertaking, has been permitted. The following table describes the legal export from India in respect of rat snake (Ptyas mucosus), cobra (Naja naja) and king cobra (Ophiophagus hannah) during the last six years:

Table 321.

	Total Number of Articles Exported			Total No. of Skins Used (All Three Species)
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	
1983	11,931	505	nil	Not known
1984	48,961	3,882	nil	218,612
1985	39,356	17,190	nil	176,454
1986	53,065	12,230	nil	121,261
1987	18,488	13,949	nil	153,328
1988	58,787	4,501	nil	63,388

Export of live snakes or meat of snakes from India is not permitted. Venom of cobra is permitted to be exported subject to an annual ceiling of 50 gms.

322. International Trade: On the basis of the information supplied by the Wildlife Trade Monitoring Unit (WTMU) in respect of all CITES transactions in snake species, the following tables have been compiled, which give an idea about the international trade in respect of rat snake (Ptyas mucosus), cobra (Naja naja) and king cobra (Ophiophagus hannah).

Table 3221.

CITES TRANSACTIONS IN SNAKE SKINS

	<u>Imports Reported</u>			<u>Exports/Re-exports Reported</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	196,034	2,401	-	614,324 + 2 kg.	62	1,750
1985	766,728 +141 m.skin +95 sq.m.skin	14,158	162	388,303	5,487	500
1986	693,735	6	-	22,39,299 +47 m.skins +16 ft.skins +450 gm.skins	260,932	1,455

(Note: Figures denote number of skins unless otherwise indicated)

Table 3222.

CITES TRANSACTIONS IN SNAKE SKIN ARTICLES

	<u>Imports Reported</u>			<u>Exports/Re-exports Reported</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	253,179	5,553	-	146,841	17,191	-
1985	3,367,219	30,056	1,872	676,979	19,260	-
1986	40,843	108	-	1,979,956	34,481	77

(Note: Figures indicate number of articles; one pair of shoes has been counted as one article)

Table 3223.

CITES TRANSACTIONS IN LIVE SNAKES

	<u>Imports Reported</u>			<u>Exports/Re-exports Reported</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	4	67	11	-	20	7
1985	191	119	12	-	33	2
1986	-	50	6	274	22,141	104

(Note: Figures indicate number of heads)

Table 3224.

CITES TRANSACTIONS IN SNAKE MEATS (kg)

	<u>Imports Reported</u>			<u>Exports/Re-exports Reported</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	-	-	-	-	-	-
1985	9,163	242	-	-	-	-
1986	-	-	-	-	302	-

Table 3225.

CITES TRANSACTIONS IN SNAKE BODIES

	<u>Imports Reported</u>			<u>Exports/Re-exports Reported</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	-	1	-	-	-	-
1985	-	438	11	-	-	-
1986	-	147	1	-	11,425	-

(Note: Figures denote number of pieces)

Considering the fact that the records of the WTMU are incomplete due to non-availability of annual reports from many member countries of CITES or lack of maintenance of records relating to trade in snakes by many countries, it can be safely assumed that total magnitude of international trade in rat snake, cobra and king cobra is much more than that shown in the above tables. Export data of live snakes furnished by Thailand (Table 3226.) when compared with Table 3224. above tends to re-inforce this assumption.

Table 3226.

Export of Live snakes from Thailand

	<u>Live animals (Head)</u>		
	<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1985	1,001,351	159,135	51
1986	592,767	214,133	22
1987	463,697	262,333	27

The information provided by WTMU indicates the following countries as 'Country of origin' in respect of the snakes involved in international trade:

Rat Snake: Bangladesh, China, Indonesia, Thailand, India, Malaysia, Pakistan, Singapore, Colombia, Nepal, Taiwan, U.A.E., Viet Nam, Sudan, Tunisia, Hong Kong, Korea, Macau, German Democratic Republic, Papua New Guinea, Philippines, Federal Republic of Germany, United States of America, United Kingdom, Northern Mariana Islands.

Cobra: Indonesia, Thailand, Pakistan, Singapore, India, China, Taiwan, Sudan, United States of America, Denmark.

King Cobra: Thailand, Indonesia, India, China.

33. Illegal Trade: Illegal trade on large scale in respect of skins of rat snake (Ptyas mucosus) and cobra (Naja naja), and in a limited scale in case of king cobra (Ophiophagus hannah), is known to exist in India. Smuggling of live snakes or snake meat or any part of the snake except the skin, has not been reported in India. Illegal trade in made up articles of snake skins also does exist. The following table (Table 331.) gives the number of snake skins seized by the Customs and other enforcement agencies in India.

Table 331.

No. of Snake Skins Seized in India

	<u>By the Customs</u>	<u>By Other Agencies</u>
1979	347,691	not known
1980	689,745	167,000*
1981	529,956	184,000*
1982	671,564	75,000*
1983	485,440	221,000*
1984	871,000*	151,000*
1985	84,513	73,000*
1986	52,017	57,658
1987(til Oct.)	131,393	124,471

*Estimated on the basis of newspaper reports and other records.

Species wise break up the numbers given above is not available but Ptyas mucosus and Naja naja accounted for most of the snake skins seized.

It may be mentioned that export of snake skins from India was banned in April 1978, but the CITES transactions in snake skins reported by WTMU during 1984, 1985 and 1986 continue to show India as either an exporting country or country of origin, thereby suggesting illegal export of snake skins from India. The following tables (Tables No. 332. and 333.) prepared on the basis of the information provided by WTMU indicate the imports and exports/re-exports of snake skins of Indian origin, suspected to be illegal.

Table 332.

Suspected Illegal Imports of Snake Skins of Indian Origin

<u>Year</u>	<u>Importing Country</u>	<u>Import Reported</u>		
		<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	U.S.A.	87,235	-	-
	Switzerland	500	-	-
	Fed. Rep. of Germany	665	756	-
	Netherlands	3,000	-	-
1985	U.S.A	17,879	-	-
	Switzerland	440	-	-
	Fed. Rep. of Germany	2,813	-	-
	Netherlands	240	-	-
	United Kingdom	-	1	-
	Austria	182	-	-
1986	Canada	34	-	-
	Switzerland	6,175	-	-
	Spain	3,750	-	-

Table 333.

Suspected Illegal Imports of Snake Skins of Indian Origin

<u>Year</u>	<u>Exporting Country</u>	<u>Export/Re-export Reported</u>		
		<u>Rat Snake</u>	<u>Cobra</u>	<u>King Cobra</u>
1984	Fed. Rep. of Germany	12,359	-	-
	Denmark	13	62	-
	France	440	-	-
	United Kingdom	2,268	-	-
	Italy	353	-	-
	Sweden	28	-	-
	U.S.A	2	-	-
1985	France	105	-	-
	United Kingdom	9,358	-	-
	U.S.A	-	80	-
1986	Switzerland	2,667	-	-

The WTMU's records of CITES transactions indicate import of 1 (one) hand bag of king cobra skin imported in the United Kingdom from India in 1985 - which appears to be illegal. Similar reports are occasionally received from other countries. For example, the Egyptian authorities informed the CITES Secretariat in February 1984 about the seizure of king cobra skins originating in India at Cairo airport.

The following table (Table 334.) prepared on the basis of the information provided by Andrews and Birkinshaw (1988), regarding the customs statistics of a few European countries also suggest illegal export of snake skins from India despite the ban imposed by the Government of India in April 1978.

Table 334.

Suspected Illegal Import of Reptile Skins or Leather (Raw
and Semi Tanned/Vegetable Tanned) from India 1978-1985 (kg)

(April - March)

<u>Importing Country</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
France	3000	3000	0	4000	1000	2000	0	*
F.R.G.	17000	16500	13600	23100	14400	11400	2100	0
Italy	21727	20614	6187	15900	21446	12361	2800	*
Spain	12000**	122	937**	2000**	3202	4516	*	*
U.K.	8748	5727	981	0	400	8145	5686	0

* = figures not available

** = figures indicate only semitanned/vegetable tanned reptile skins or leather.

Illegal export of snake skins is, however, not only confined to India. CITES transactions in snake skins reported by WTMU indicate UAE, Colombia, the Sudan, Tunisia, the United States of America, the United Kingdom, Democratic Republic of Germany, Denmark, etc, as 'Country of Origin' in respect of a number of transactions involving rat snake and cobra which is absurd and suggests dubious transactions. Likewise, although Pakistan has reported a complete ban on the export of reptiles including their derivatives, yet in a number of CITES transactions in respect of rat snake and cobra, Pakistan figures as the country of origin. Inskipp, T. (1981) and Josephine, A. and Chris, B. (1988) have given a detailed account of the illegal export in snake skins - mostly of rat snakes and cobra - from India, Pakistan, Bangladesh and Nepal.

34. Potential Trade Threats:

341. Live Specimens: Live snakes are neither in trade inside India nor do they form a part of export from India. However, live specimens of Ptyas mucosus, Naja naja and Ophiophagus hannah constitute a significant part of the international trade in these species. Only a small component of the total international trade in live snakes is believed to be utilised for scientists and medicinal purposes. A large number of live snakes in trade are exploited either for food or for procuring skins for commercial use which if permitted without any control. This is likely to be detrimental to the survival of the concerned species in nature. Such a threat is more pronounced in the case of king cobra (Ophiophagus hannah) which is not a common snake anywhere in its range, and being less adaptable it is the worst victim of the rapidly shrinking habitat. Considering the importance of snakes in controlling rodents and thus increasing agricultural output, reckless trade in live snakes can even threaten the economy as well as ecological balance. Thailand, a major exporter of live specimens of rat snake, cobra and king cobra, has also advocated the need to control over-exploitation of these species by law and has introduced an annual quota system for export of rat snakes since November 1986.

342. Parts and Derivatives: Most of the trade in respect of these species is in the form of skins (raw or semitanned or vegetable tanned) or made up products such as shoes, handbags, purses, garments, etc. Occasionally venom of cobra is also traded for producing anti-venom. The pressures on the market have resulted in tremendous exploitation of rat snake and cobra in many places in their range, where they have become either vulnerable or endangered. A number of references were made by the scientists in the first IUCN/SSC Snake Group meeting in November 1982 regarding the potential trade threats to the species under reference, Dr. O.L. Rossolimo pointed out that rat snake (Pytas mucosus) and cobra (Naja naja oxiana) were listed in the Red Data Book of the USSR. Dr. M.A.R. Khan of Dhaka University (Endangered Snakes of Bangladesh) mentioned that the cobra (Naja naja) was killed for its skin and exploited in large numbers for the last 15 years and was now a rare species in Bangladesh. Dr. T.S.N. Murthy (Indian Snakes under Heavy Pressure) listed the rat snake (Pytas mucosus) and king cobra (Ophiophagus hannah) as endangered species. Professor B.D. Sharma (Endangered snakes and their conservation in N.W. India) stated that random killing for exploitation made cobra (Naja naja naja and N. n. oxiana) and rat snake (Pytas mucosus) rare in North-western India.

4. Protection Status

41. National: Rat snake (Pytas mucosus), cobra (Naja naja) and king cobra (Ophiophagus hannah) have been included in Schedule II (part II) of the Wildlife (Protection) Act 1972 in November 1986 - thereby banning all trade in respect of these species and their derivatives inside India. Also, the Import-Export Policy (1988-1991) of the Government of India, permits only Bharat Leather Corporation (A Government of India Undertaking) to export products of snake skins confiscated by the Customs and other protection agencies. Trapping permits for snakes for commercial purposes are not issued in India. However, trapping of a limited quantity of snakes for scientific and medicinal purposes is permitted.
42. International: Rat snake (Pytas mucosus), cobra (Naja naja) and king cobra (Ophiophagus hannah) have been listed by India in Appendix III of CITES with effect from 13 January 1984 and currently enjoy the protection provided under Article V of CITES.
43. Additional Protection Needs: Although, hunting and trading inside India has been banned in respect of the species under reference, yet smuggling of skins and articles of these species from India continues because of heavy demands for the same in the foreign markets. Inclusion of these snakes species in Appendix III of CITES in 1984 has not brought the desired effect as can be seen from the continuous and large scale illegal trade in respect of these species since 1984 as described in paragraph 33. above. A number of instances have come to notice when snake skins smuggled from India to a country were further exported on the strength of a false certificate of country of origin issued by the local chamber of commerce. A major problem in enforcement is the continued willingness of importing countries to accept snake skin consignments with certificates of origin from unlikely countries

such as Singapore and the United Arab Emirates. It is, therefore, earnestly felt that stricter international protection should be made available to these species by placing them under Appendix II of CITES.

5. Information on Similar Species

51. The genus Ptyas also consists of the following species similar to the Indian rat snake (Ptyas mucosus):

- i) Indo-Chinese rat snake i.e. Ptyas korros (Schlegel)
- ii) Keeled rat snake i.e. Ptyas carinatus (Gunther)
- iii) Chinese keeled rat snake i.e. Ptyas dhumnades (Cantor)

Ptyas mucosus is distinguishable by scale numbers and colour pattern. Identification sheets for P.mucosus (L-305.005.230.003) and P.korros (L-305.005.230.002) are available.

52. The genus Naja also consists of the other cobra species similar to the Indian cobra (Naja naja):

- i) Naja margani Mocquard or the Egyptian cobra
- ii) Naja melanoleuca Hallwell or the forest cobra
- iii) Naja nigricollis Reinhardt or the black-necked spitting cobra
- iv) Naja nivea (Linnaeus) or the Cape cobra
- v) Naja mossambica or the Mozambique spitting cobra

Several other cobras are placed in separate genera; these include the king cobra (genus Ophiophagus), the ringhals (genus Hemachatus) and the water cobras (genus Boulengerina).

Entire skins of Indian cobra (Naja naja) are easily distinguishable by spectacled or monocled hood. The underside of the hood bears two dark round spots running to four scales surrounded by white lateral borders. There are three dark bands on the underside of the hood. Even if the mark on the upperside is absent, the underside invariably bears the three transverse bands which are quite a distinctive feature of the Indian cobra.

This snake could further be identified by the smooth oblique scales on the body which are 25 - 35 on the neck, 21 - 25 in midbody and 15 - 17 at vent. The caudal scales are paired. The ventral scales range from 176 to 200. Identification sheet for Indian cobra (L-305.006.028.010) is available.

53. King Cobra (Ophiophagus hannah): It is the only species of the genus Ophiophagus and there is no similar species except perhaps the Indian cobra (Naja naja) from which it can be distinguished by the presence of a pair of large occipital shields (absent in Indian cobra) and 15 rows of scales (21-25 in case of Indian cobra) at midbody.

6. Comments from Countries of Origin

Comments on the proposal were invited from the Management Authorities for CITES in Bangladesh, Thailand, China, Indonesia, Malaysia, Nepal, Hong Kong, Singapore, Pakistan, the United States of America, the Philippines, and Sri Lanka. Detailed replies were, however, received only from Pakistan, Bangladesh, Thailand and Hong Kong. Information

provided by these countries has been incorporated at appropriate places in the preceding paragraphs. Pakistan and Bangladesh have expressed their support in favour of the proposal. Thailand has also optioned in favour of measures to regulate trade in the species under reference to control their over-exploitation.

7. Additional Remarks

The proposal is made under Article II 2(a) of the Convention.

8. References

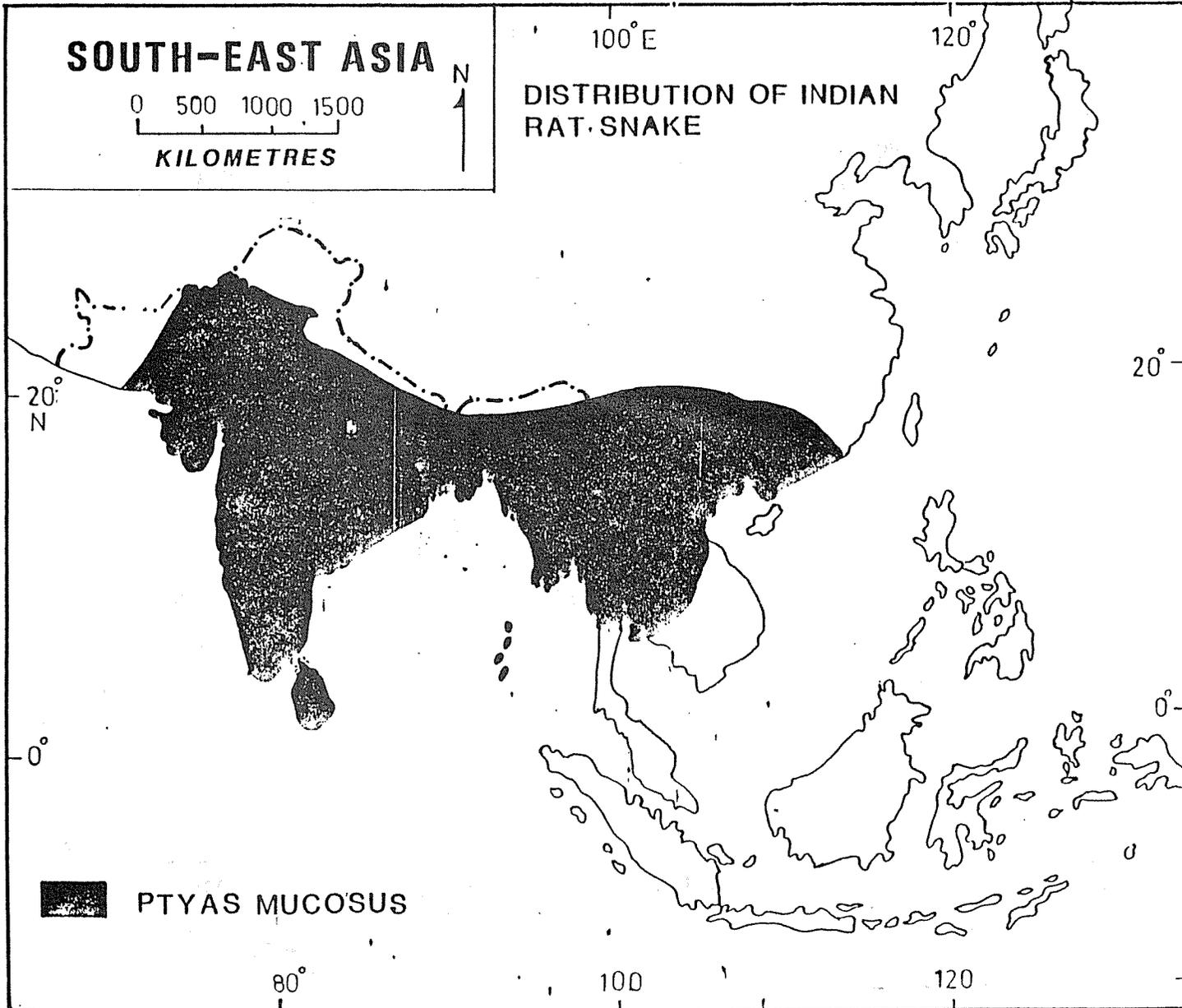
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SOUTH-EAST ASIA

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KILOMETRES



DISTRIBUTION OF INDIAN RAT SNAKE



77

