

## ILLICIT TRADE IN WILDLIFE SPECIES, PRODUCTS AND DERIVATIVES IN MAHARASHTRA STATE

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Imposition of Wildlife (Protection) Act, 1972, has helped Indian vigilant agencies to hold back, to some extent, the illegal and uncontrolled killing of wildlife and also the trading of its products and derivatives. Wildlife authorities of Maharashtra State Forest Department approached Western Regional Station of Zoological Survey of India, Pune, for the first time in 1981 with a request to issue identification reports of confiscated wildlife skins for filing cases in the court of law under the provisions in the Wildlife (Protection) Act, 1972. Since then a large number of such cases were dealt with by this station. The present article deals with the studies based on the data retrieved from these identification reports since 1981.

### ISSUANCE OF IDENTIFICATION REPORTS

Table I shows five-year-wise breakup of number of cases attender' to by the Regional Station for issuing identification reports to the various authorities of subordinate offices of Forests, Wildlife, Police, Railways and Custom departments. The table refers to the cases registered within the jurisdiction of Maharashtra State alone.

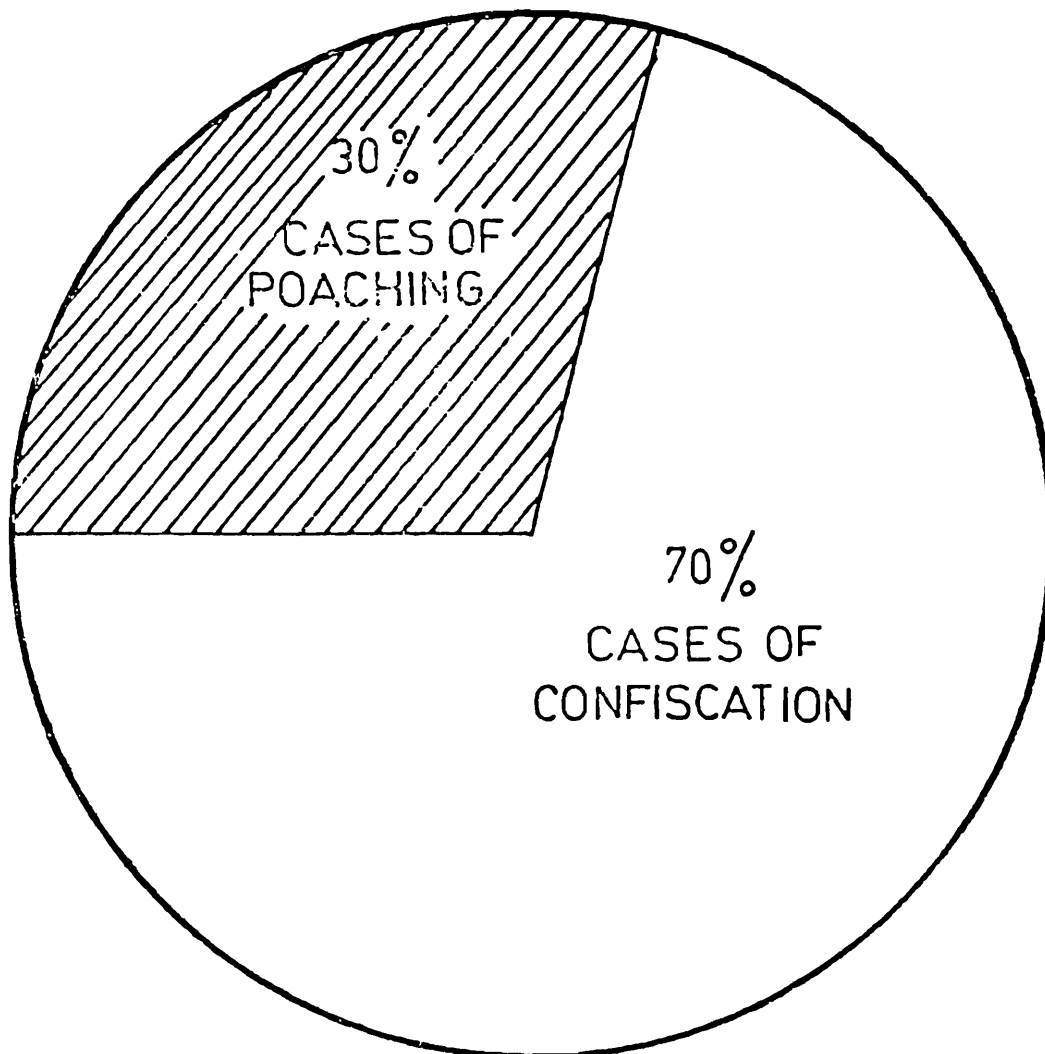
TABLE 1

Number of cases received for issuing identification reports

Sl. No.	Period	Total No. of cases	Cases related with poaching	Cases related with confiscation
1.	1981-85	10	Nil	10
2.	1986-90	24	10	14
3.	1991-95 (March)	50	15	35
	Total	84	25	59

During the period of fifteen years from 1981 to 30th March 1995, eighty four cases were studied. Out of these, 25 cases were related to poaching while 59 with confiscation. That means 30% of instances of poaching have been recorded in the total number of offences registered by the state law enforcement authorities (Fig. 1).

FIG. 1: Percentage of cases registered  
by the state law enforcement authorities

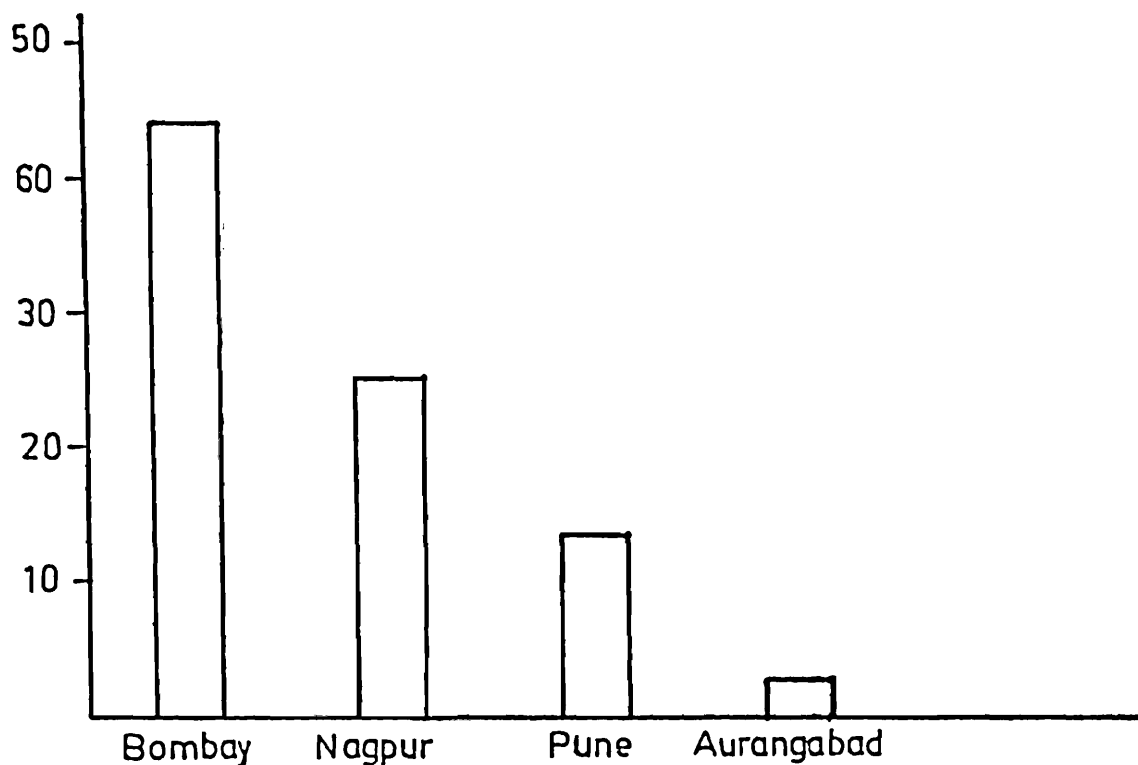


#### ILLEGAL TRADE ROUTES

Though table No. 1 shows rise in the total number of offences committed, it is because most of the cases were received initially from the Range Forest officer (Bombay

Region), Thane. Later, requests for issuing identification reports in connection with invoking the provisions in the Indian Wildlife (Protection) Act, 1972, started flooding from all the regions of Maharashtra State. However, maximum number of cases were reported from Bombay region only, followed by Nagpur region (Fig. 2).

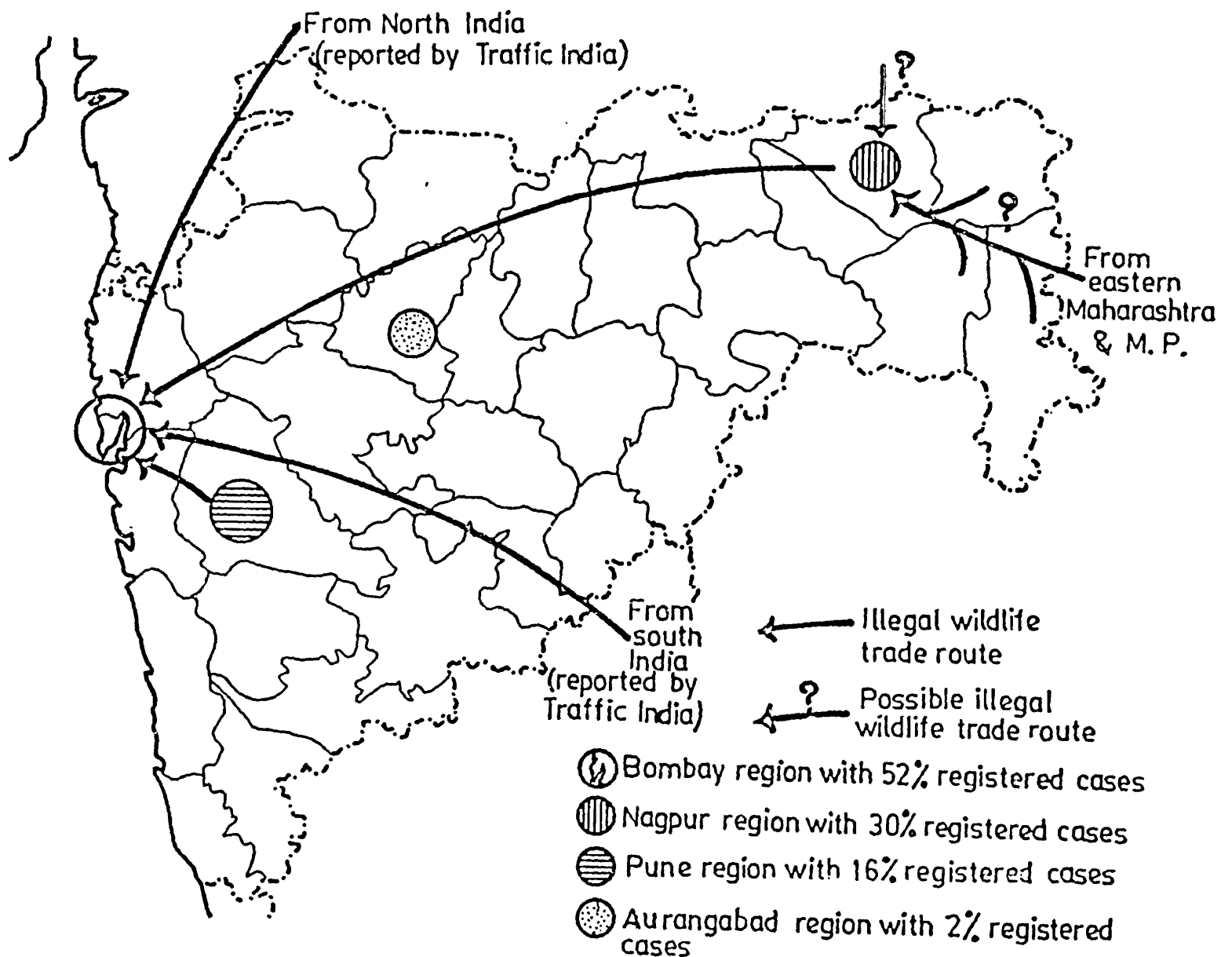
FIG. 2: HISTOGRAM SHOWING NUMBER OF REGION-WISE-REGISTERED CASES IN ILLEGAL WILDLIFE TRADE IN MAHARASHTRA



Bombay city, being the key commercial export point, must have been at the receiving end of the internal illegal wildlife trade routes. Two regions appear to be involved more in the illegal wildlife trade, viz. Bombay and Nagpur. Fig. 3 shows possible illegal trade routes of the wildlife specimens, products and derivatives in Maharashtra State. Eastern Maharashtra has an excellent habitat for the growth of rich and diversified biological resources and, hence, it attracts the attention of anti-social elements. Moreover, sale of certain wildlife products like shed deer antlers is totally banned in Madhya Pradesh, while it has been allowed with some restrictions in Maharashtra State. Such disparity in the provisions of the state legislative acts, mostly, encourages illegal movement of the products across the borders. Wildlife products in any form of the finishing stages are being transported to the export points by any means through the available routes by the poachers. Some of these routes are shown in Fig. 3. Records show that wildlife products and derivatives are being illegally transported out of the state as well as exported from the country from Nagpur and Bombay regions (Fig. 4). Routes shown in Figs. 3 & 4

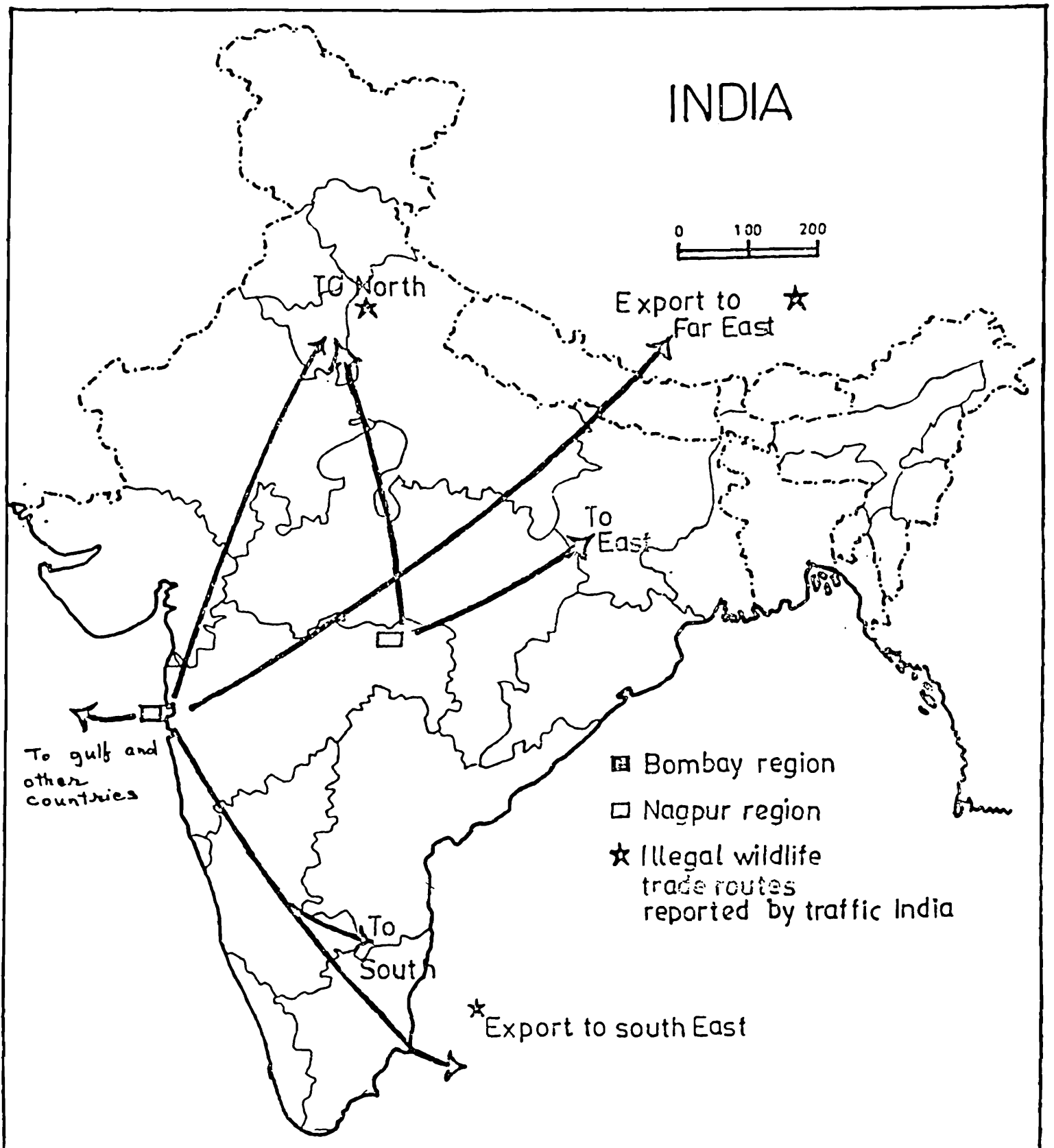
are based on the Traffic-India reports (Menon *et al.* 1994) and the present studies. It seems, therefore, from the present studies that the law enforcement authorities should be more vigilant at these centres, especially at the collection sites in Eastern Maharashtra region which is harbouring one of the finest biological resources. Of course, conservation

**FIG. 3: ILLEGAL WILDLIFE TRADE ROUTES IN MAHARASHTRA STATE**



measures have already been adopted by the State. Govt. authorities by declaring National Parks, Tiger Reserves and Sanctuaries in this area. However, there is a strong need for adopting stringent measures by the vigilant agencies against all those who are involved in poaching activities. There is also equally strong necessity for initiating local public awareness programmes against such heinous acts committed by the poachers.

FIG. 4: NATIONAL AND INTERNATIONAL WILDLIFE TRADE ROUTES FROM MAHARASHTRA



### CATEGORISATION OF THE MATERIAL STUDIED

As stated earlier altogether 84 cases were received by us for issuing identification reports. These cases were categorised as detailed in table 2 and figure 5. It will be seen that maximum number of cases were related to the confiscation of wildlife material followed by the cases related to poaching and also with the seizure of fake imitation material. The last two categories indicate consumers' unjust demand for such products in the market which may fulfil their inert desire of exhibition of falsified supremacy above all.

TABLE 2

#### Categorisation of the registered cases

Total No. of cases	Cases related with confiscation of finished or unfinished products and also of derivatives	Cases related with poaching	Cases related with seizure of fake or imitation material	Cases related with confiscation of live wild animals & birds	Cases related with confiscation of items used in traditional medicines, talismans & occultism
84	30	25	18	6	5

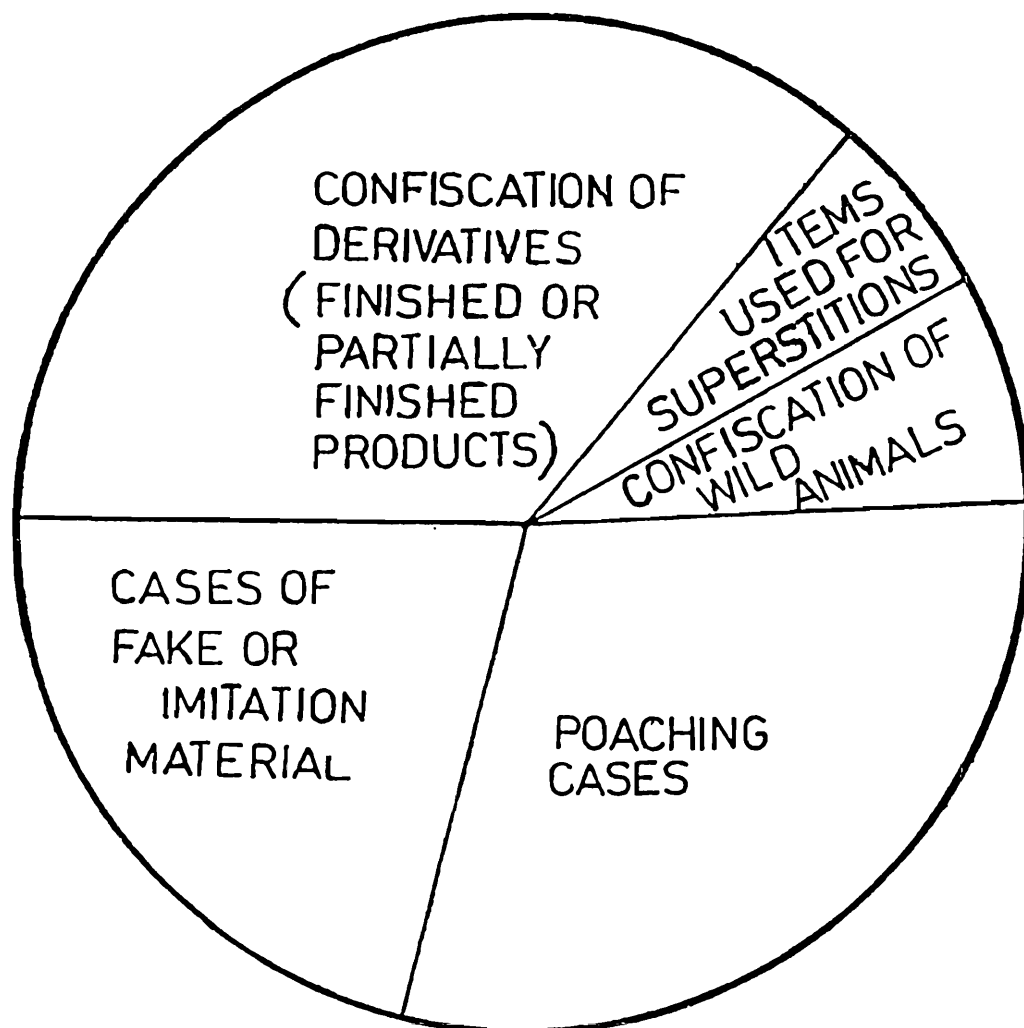
Table 3 gives us some idea about the nature of the material used in the illegal trade. They can be divided mainly into four types *viz.* (1) Fur or skin, (2) Body parts, (3) Derivatives and (4) Artifacts.

Due to strict implementation of Wildlife (Protection) Act, 1972 (as amended up to 1991), Export (Control) Order (1991) and CITES regulations in India, there has been a decline, in recent years, in the number of cases related with confiscation of finished products prepared from wildlife material such as fur coats, belts, shoes, bags, purses, ivory items etc. However, cases related to poaching have increased steadily.

It has been observed that most of the wildlife products involved in poaching consisted of fragmented items like pieces of skins, broken ivory, bone pieces, remains of big cats, shed antlers, horns, claws, musk and other type of pods, hairs, etc. Forest Dept. officials explained that since there was a major demand for parts and derivatives only,

the wild animals were poisoned and killed and then buried underground by the poachers to obtain the desired parts easily from the carcass. Most of these cases were reported from the Nagpur region only where a substantial number of wildlife species is thriving even

FIG.NO.5:- CATEGORIZATION OF THE SEIZED MATERIAL RECEIVED FOR SPECIES IDENTIFICATION



today. The region is situated in Central India and the state border is not very far for the poachers to escape from being arrested and, in turn, punished. Possibility of existence of international links can not be ruled out (Fig. 4). Hence, as stated earlier, the region should be under strict surveillance of the law enforcement authorities to check such offences.

Uncertainty, and shortage in supply of genuine products have led the traders to introduce mixed, fake and imitation products in the market to meet the demand. During last sixteen years six out of 18 such registered cases were brought to our notice. Table 4 gives an idea of some of these articles being sold in the market.

TABLE 3

## Categories of material received for species identification

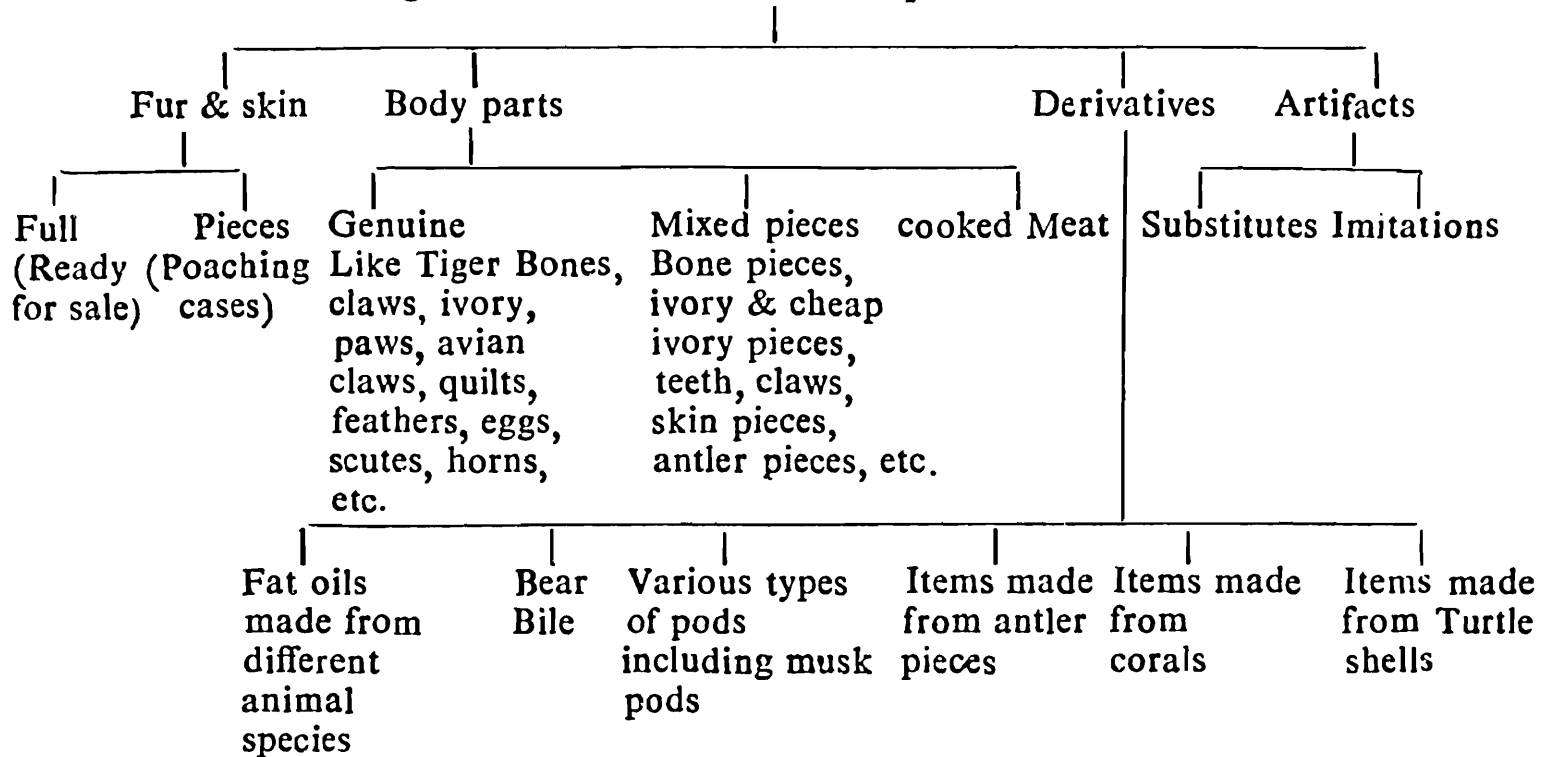


TABLE 4

## Imitation, fake and mixed wildlife products being marketed by the traders

Sl. No.	Name of parts	Name of the animal and its parts used for making the products	Commercial Name of the product
1.	Artificially painted skins	Skins of sheep, goat, dog and/or calf	"Tiger" or "Leopard" skins
2.	Flat skins	Skin prepared by stitching together pieces of hyaena skins.	"Tiger" skin
3.	Skull stitched with flat skins	Dog skull	"Tiger" or "Leopard" skull



4. Claws	Processed and sharpened end pieces of domestic cattle horns	"Tiger" or "Leopard" claws
5. Canines	Canines of wild boar	"Sloth Bear" Canines
6. Scented pods	Scented soil pressed in a piece of hairy skin	"Musk" pods
7. Molars	Fox molars	"Jackal" molars
8. Bone pieces	Tiger and/or leopard bone pieces mixed with bone pieces of any animal	"Tiger or "Leopard" bone pieces
9. Bone pieces	Camel bone pieces	Cheap ivory
10. Gall Bladder	Cow or sheep gall bladder	"Bear Bile"
11. Horn	Buffalo horn	"Rhino horn"
12. Claws	Jungle fowl spurs or claws	"Eagle Claws"
13. Coloured skins	Skins of any non-poisonous snake	"Cobra" skin
14. Snake skin	Boa skin	"Python" skin
15. Articles like bags, purses, belts, etc. prepared from reptilian skins	Pressed rexin material	Articles prepared from "reptilian" skins

The list in Table 4 is incomplete in the sense that seller's imaginations have no limitations. The list also indicates that it is not just the scheduled animals that are being killed, but the domestic as well as the wild animals of lesser importance like hyaena, wild boar, jackal, jungle fowl, sand boas, etc. are also not being spared by the poachers to fulfil the whims and fancies of the buyers.

#### ACCOUNT ON SPECIES-WISE TRADE (MAMMALIA ONLY)

Analysis of the data on the species killed for the illegal trade depicts astonishing results. Table 5 gives a detailed account of the mammalian species which were killed for the trade. Incidentally, as per the Export (Control) Order, 1991, there is a complete ban on the export of products and derivatives made from any part of these species.

TABLE 5

List of mammalian species abused in the illegal trade  
during the period between 1981-March'95

Sl. No.	Common Name	Scientific Name	Total No. of specimens killed in diff. cases	Conservation Status		
				Indian Wildlife (Protection) Act, Schedules (Part).	CITES Appendix	IUCN Status
1.	Panther or Leopard	<i>Panthera pardus</i> (Lin.)	32	I	I	VU
2.	Jungle cat	<i>Felis chaus</i> (Guld.)	19	II(II)	II	VU
3.	Blackbuck	<i>Antelope cervicapra</i>	15	I	III (Nepal)	EN
4.	Fox	<i>Vulpes</i> spp.	14	II(II)	III (India)	VU
5.	Tiger	<i>Panthera tigris</i>	11	I	I	VU
6.	Desert cat	<i>Felis sylvastris</i> = <i>F. lybica</i>	11	I	II	EN
7.	Civet	<i>Paradoxurus hermaphroditus</i>	6	II(II)	—	—
8.	Indian Civet	<i>Viverricula indica</i>	6	II(II)	III (India)	—
9.	Jackal	<i>Canis aureus</i>	6	II(II)	III (India)	VU
10.	Hyaena	<i>H. hyaena</i>	6	III	—	VU
11.	Hare	<i>Lepus nigricolis</i>	6	IV	—	—
12.	Indian Gazelle	<i>Gazella gazella</i>	5	I	—	—
13.	Four-horned antelope	<i>Tetraceros quadricornis</i>	5	I	III (Nepal)	VU

14.	Spotted Deer	<i>Axis axis</i>	5	III	—	—
15.	Barking Deer	<i>Muntiacus muntjack</i>	3	III	—	—
16.	Nilgai	<i>Boselaphus tragocamelus</i>	2	III	—	—
17.	Sambar	<i>Cervus unicolor</i>	2	III	—	—
18.	Sloth Bear	<i>Melursus ursinus</i>	2	I	I	VU
19.	Mongoose	<i>Herpestes edwardsi</i>	2	IV	III	—
20.	Wild Boar	<i>Sus scrofa</i>	1	III	—	—
21.	Ivory	<i>Elephas maximus</i>	Three lots	I	I	VU
22.	Horn	<i>Rhinoceros sp.</i>	1	I	I	EN
23.	Scutes	<i>Mains crassicaudata</i>	Two lots	I	II	VU
24.	Canine teeth	<i>Panthera leo</i>	One lot	I	I	EN

*Abbreviations used* :—EN=Endangered ; VU=Vulnerable

Table 5 and Fig. 6 also indicate that about 60% of the mammalian species mentioned in the list fall in the category of "species with highest conservation status". The target species, obviously, are leopard, jungle cat, blackbuck, fox, tiger and desert cat. All these species have attractive fur which can easily fetch good price in the underworld markets. Moreover leopard and tiger lure the poachers most, since their every part is price-worthy in South-East Asia. It is, therefore, really tragic to see that 60% of the large and medium sized mammalian species of this state are being targetted to fulfil the fanatisms of the most selfish species of this planet, *Homo sapiens*.

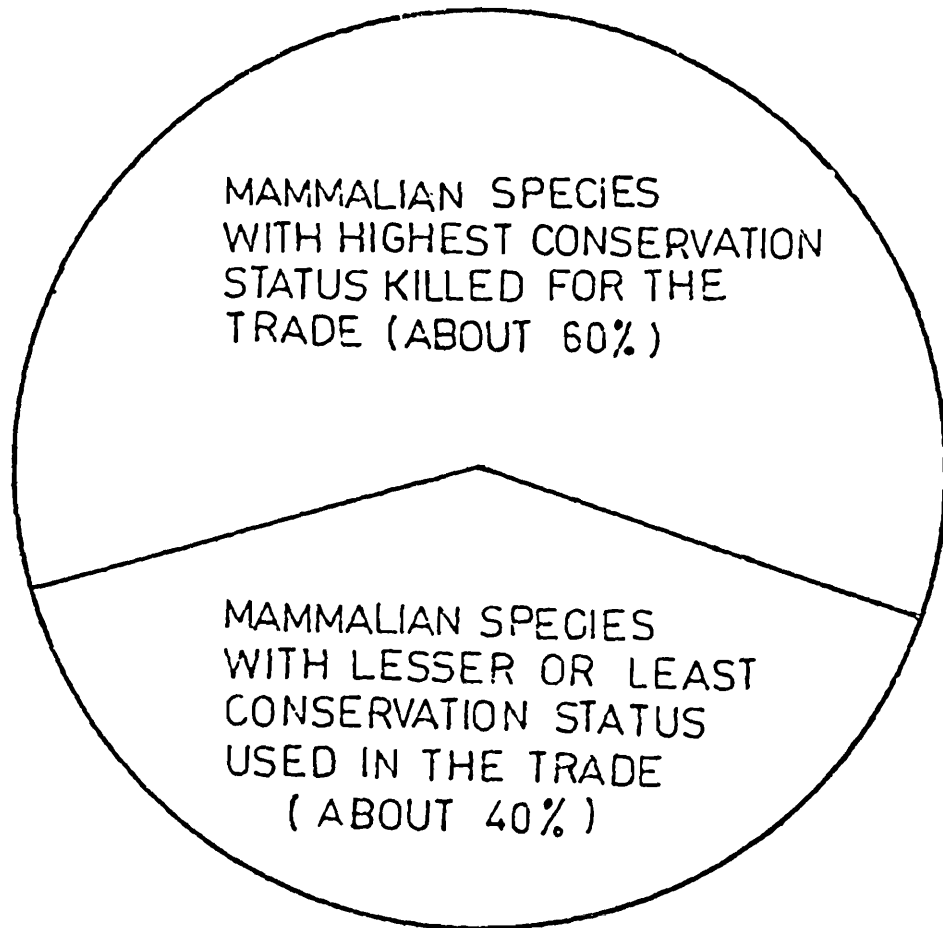
#### USE OF LIVE WILD ANIMALS FOR ENTERTAINMENT

In recent years another trend appears to have set in. Certain vested interests have started keeping live wild animals in the tourist resorts and starred hotels for the pleasure (i) and entertainment of the tourists. Table 6 shows the list of such live specimens confiscated recently from the commercial establishments in Bombay by the Forest Dept. officials. The list includes species with highest national as well as international conservation status. Some of the names like Golden langur, Hoolock Gibbon, Himalayan

black bear, Mrs. Hume's barred Phaesant, Malabar pied Hornbill etc. are sufficient enough to increase alarmingly the pulse rates of biologists and conservationists.

It was also reported by Forest Dept. authorities that some of the species like Himalayan Black Bear, Golden Langur, Hoolock Gibbon, etc. were illegally trapped

FIG. NO. 6:- MAMMALIAN SPECIES FROM MAHARASHTRA STATE  
ABUSED IN THE ILL EGAL TRADE



alive by the poachers from the areas across the international borders. That means, not only Indian Wildlife (Protection) Act was violated, but provisions in the international trade legislations (CITES) were also provoked by the illegal trading agencies. If we want to take the conservation efforts seriously, use of wildlife species which are under constant threat of extinction should be strictly banned for any purpose. However, their use in academic studies and research should be legally allowed under close surveillance. Otherwise, the day is not very far for the species like Hoolock Gibbon and Golden Langur when their wild populations will be wiped out from North East India at the cost of tourists' amusement! If required, amendments in the wildlife Act be considered for heavy punishments against the guilty in such cases.

TABLE 6

List of live specimens confiscated by the Forest Dept. officials  
from the starred tourist resorts in Bombay

Sl. No.	Name (Scientific Name)	No. of seized animals	Conservation status		
			Indian Wildlife (Protect.) Act, Schedule (Part)	CITES Appendix	IUCN Status
1.	Hyaena ( <i>Hyaena hyaena</i> )	One	III	—	VU
2.	Four Horned Antelope ( <i>Tetracerus quadricornis</i> )	Five	I	III (Nepal)	VU
3.	Blue Bull ( <i>Boselaphus tragocamelus</i> )	One	III	—	—
4.	Spotted Deer ( <i>Axis axis</i> )	Four	III	—	—
5.	Leopard Cat ( <i>Felis bengalensis</i> )	One	I	I	VU
6.	Himalayan Black Bear ( <i>Selenarctos thibetanus</i> )	Four	II(II)	I	—
7.	Capped Langur ( <i>Presbytis pileatus</i> )	Two	I	I	VU
8.	Golden Langur ( <i>Presbytis geei</i> )	Three	I	I	VU
9.	Stump-tailed macaque ( <i>Macaca arctoides</i> )	Two	II(I)	II	VU
10.	Rhesus monkey ( <i>Macaca mulatta</i> )	Nine	II(I)	II	—
11.	Hoolock Gibbon ( <i>Hylobates hoolock</i> )	Two	I	I	EN
12.	Indian Giant Squirrel ( <i>Ratufa indica</i> )	Two	II(II)	II	—

13.	Indian Porcupine ( <i>Hystrix indica</i> )	Two	IV	—	—
14.	Grey Pelican ( <i>Pelecanus</i> spp.)	Two	IV	—	—
15.	Pea fowl ( <i>Pavo cristatus</i> )	One	I	I	VU
16.	Malabar Pied Hornbill ( <i>Anthracoceros malabaricus</i> )	Two	I	—	VU
17.	Mrs. Hume's barred Phaesant ( <i>Symaticus humiae</i> )	One	III	—	CR
18.	Demosoille crane ( <i>Anthropoides virgo</i> )	One	IV	III	—
19.	Sarus crane ( <i>Grus antigone</i> )	One	IV	II	—
20.	Moorhen ( <i>Porphyria</i> sp.)	Two	IV	—	—
21.	Crocodyle ( <i>Crocodylus palustris</i> )	Two	I	I	EN

*Adrevations used* : EN = Endangered ; VU = Vulnerable ; CR = Critical.

Finally, one can draw following inferences from the present studies :—

1. Confiscation and poaching of wildlife and its products are in practice ever since pre-Wildlife Act era.
2. With introduction of stringent legislation at national and international levels, cases related with confiscation of finished products prepared from wildlife parts declined, while those related with poaching of fragmented items like pieces of skins, bones, ivory, antlers, claws, musk pods, horns, etc. have increased steadily. Chengappa (1993) has also warned about alarming spurt in poaching in past few years.
3. More than 50% of the scheduled mammalian species with highest conservation status inhabit Maharashtra State and they are being used in the illegal trade by the poachers.
4. Interestingly, leopard and not the tiger appears to be the main target species of the poachers.

5. Indian civet species are the victims of myths and have, surprisingly, escaped attention of international organisations like IUCN and CITES. Attempts may be made to study all the species under this category in detail and they can be brought under appropriate international conservation status.
6. Similarly, Indian Four Horned Antelope and Indian Gazelle need a detailed status survey studies for appropriate conservation status under IUCN.
7. Fairly large number of cases have been registered from Nagpur region (Vidharbha in Maharashtra State). Bombay and Nagpur regions appear to be involved more in the illegal wildlife trade. It is, therefore, no wonder if the inter- as well as intra-state illegal wildlife trade routes are in operations. Some of them have been depicted in Figures 3 & 4. This gives the law enforcement authorities an alarm for increasing and concentrating additional vigilance in these regions.
8. A number of rackets appear to be operating at both national as well as international levels. So, proper implementation of the law with the help of domestic legislation and international trade regulations (like CITES) is, now, a must against such illegal activities. Jackson (1995) has pointed out that only six out of 14 tiger range countries are the signatories of CITES. His suggestion of strict implementation of CITES by all the 14 tiger range countries should not remain unheeded.
9. Table 4 shows that it is not just the scheduled animals that are being killed, but the domestic as well as the wild animals of lesser importance are also not being spared by the poachers. It's quite possible that the genuine products like tiger bone pieces, claws, ivory pieces, musk pods, etc. might have been slipped out, unknowingly alongwith the imitation and fake material in the market. Unless the strong desire to purchase the wildlife products is checked by the buyers, the seller can not limit his imaginations to procure the products by any means and sell them in the market.
10. After looking at Table 6 showing the list of species confiscated alive from the tourist establishments, it is strongly recommended that this kind of use of wildlife for the entertainment of the tourists must be totally banned.
11. The present studies agree with the observations made by Bhattacharya (1984) and Thakur (1985) that possibility of over-exploitation in the licenced trade cannot be ruled out. Hence, there should be proper monitoring and assessment of the situation from time to time.
12. Officials from the law enforcement departments like customs, police, post offices, etc. are not technical experts of wildlife. It is, therefore, recommended that a periodic training of such field staff in preliminary identification of wildlife species, products and derivatives be arranged at the export points by the Scientific Authority of India. Such traininigs have been given in the past by The Zoological Survey of India at Calcutta and New Delhi.

13. For effective check over the illegal wildlife trade, it is essential to have uniform application of wildlife Act in all the states.
14. Lastly, educating the masses is most essential. They should be made aware of the future consequences. Unless the education becomes effective amongst themselves, there can never be fall in the selfish demand for the wildlife articles in the underworld market.

### SUMMARY

The article presents analysis of the data for a period of fifteen years (1981-1995) derived from the identification reports of the wildlife material seized by the law enforcement authorities from Maharashtra State.

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