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CURRENT STATUS AND SOME BIOLOGICAL
CHARACTERISTICS OF THE OTTER (LUTRA LUTRA L.)
IN VIETNAM

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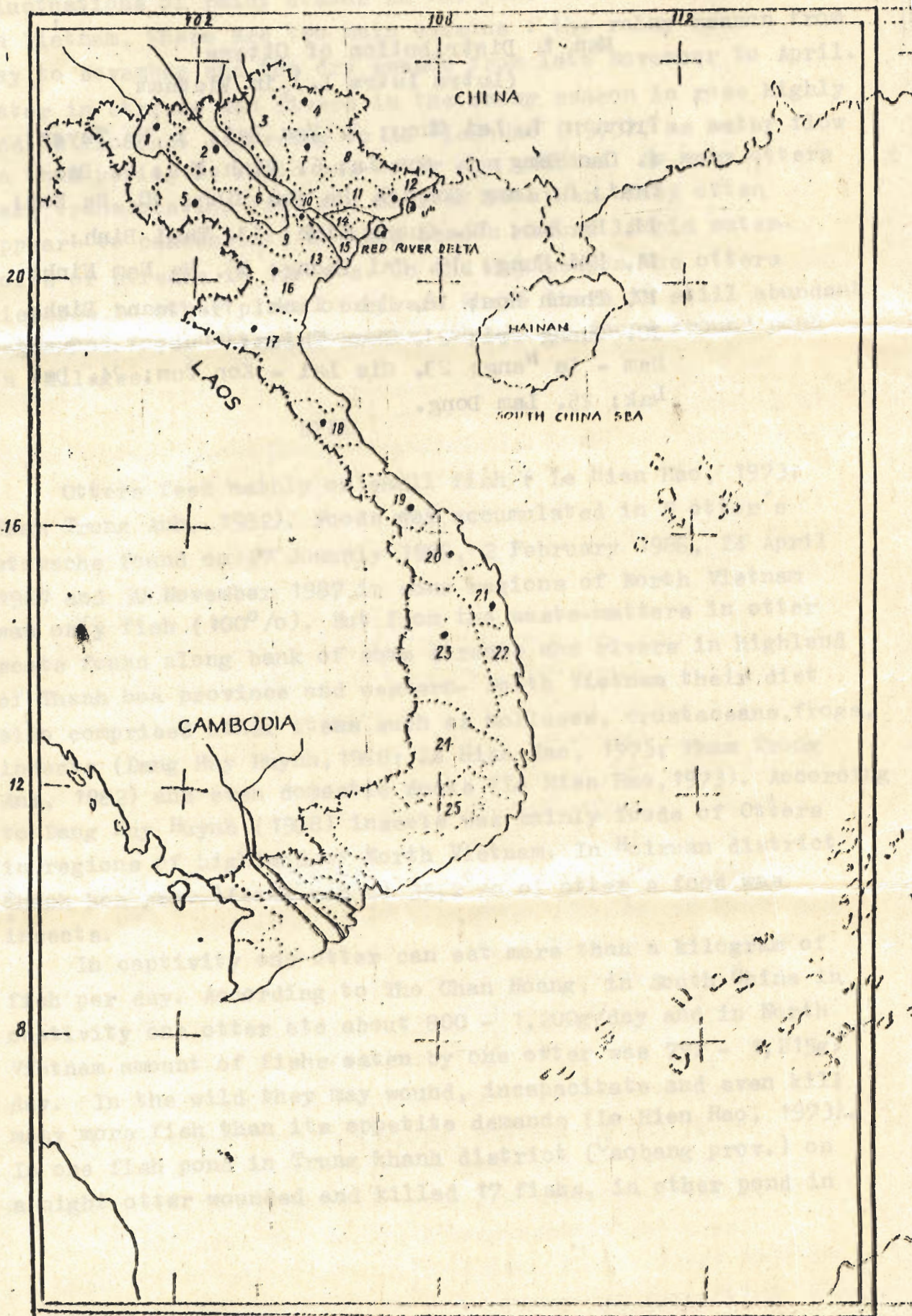
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INTRODUCTION

In Vietnam, the Order Canivora is represented by 5 families namely, Canidae (4 species), Ursidae (2 species), Mustelidae (9 species), Viverridae (11 species) and Felidae (7 species) (Van Peenen et al., 1969; Pham Trong Anh, 1982; Dao Van Tien, 1985). The subfamily Lutrinae of the family Mustelidae has 4 species: *Lutra lutra* L., *Lutra sumatra* Gray, *Lutra perspicillata* Geoffroy and *Aonyx cinerea* Illiger (Osgood, 1932; Pocock, 1941; Ellerman and Morrison Scott, 1956; Van Peenen et al., 1969; Pham Trong Anh, 1982; Dao Van Tien, 1985), but just one *Lutra lutra* is disseminated. So aspects of the ecology of Otter *Lutra lutra* in Vietnam have been studied for many years. In this report describe the distribution and habitat of Otter in Vietnam, brief summarize information on feeding ecology and reproduction, a discuss needed conservation measures.

DISTRIBUTION AND HABITAT

The European Otter (*Lutra lutra*) is distributed throughout northern and central parts of Vietnam (map N^o 1) (Pocock, 1941; Van Peenen et al., 1969; Le Hien Hao, 1973; Dang Huy Huynh, et al., 1981; Pham Trong Anh, 1982; Dao Van Tien, 1985; Tran Hong Viet, 1986); It is not found still in South Vietnam - Cochinsin. *Lutra lutra* in Vietnam occupies a variety of habitats that range from highlands to lowland deltas and occurs along the sea shores as well as off shore islands (Le Hien Hao, 1973; Pham Trong Anh, 1982). Otters require deep and pure water and slow-moving streams and rivers. In highland habitat they prefer swampy areas, lakes and water-holes to slow-moving streams; Around the deltas, the Otter frequents marshy areas and ponds in the villages with thick vegetative cover.



Map 1. Distribution of Otters
(*Lutra lutra* L.) in Vietnam

Prov. : 1. Lai Chau; 2. Yen Bai; 3. Ha Tuyen;
4. Cao Bang; 5. Son La; 6. Vinh Phu; 7. Bac
Thai; 8. Lang Son; 9. Ha Son Binh; 10. Ha Noi;
11. Ha Bac; 12. Quang Ninh; 13. Thai Binh;
14. Hai Hung; 15. Hai Phong; 16. Ha Nam Ninh;
17. Thanh Hoa; 18. Nghe Tinh; 19. Quang Binh;
20. Quang Tri; 21. Thua Thien; - Hue; 22. Quang
Nam - Da Nang; 23. Gia Lai - Kon Tum; 24. Dak
Lak; 25. Lam Dong.

The Otter's habitat may very seasonally in response to fluctuations of rainy status in the year and its food resources. In Vietnam, there are two main seasons : the rainy season from May to November and the dry season from late November to April. Water in streams and rivers in the rainy season is rose highly and is flooded. According to Le Hien Hao (1973), as water flow in this period is rapid and water are muddied. So many otters take translocation from old habitat to other. They often appear to concentrate in this season around limpid water-holes or streams in forests. In the dry season the otters disperse to other place of rivers where there is still abundant water and food. Otters, however, should be found around pond in villages.

DIET

Otters feed mainly on small fish (Le Hien Hao, 1973; Pham Trong Anh, 1982). Foods was accumulated in 5 otter's stomachs found on 27 Junually 1986, 2 February 1986, 24 April 1987 and 30 November 1987 in some regions of North Vietnam was only fish (100⁰/o). But from the waste-matters in otter scats found along bank of some streams and rivers in highland of Thanh hoa province and western- North Vietnam their diet also comprised other items such as molluscs, crustaceans, frogs, insects (Dang Huy Huynh, 1968; Le Hien Hao, 1973; Pham Trong Anh, 1982) and even domestic ducks (Le Hien Hao, 1973). According to Dang Huy Huynh (1968) insects was mainly foods of Otters in regions of Highland of North Vietnam. In Hoixuan district (Thanh hoa prov.)(look map 1) 35,2⁰/o of otter's food was insects.

In captivity one otter can eat more than a kilogram of fish per day. According to Tho Chan Hoang, in South China in captivity one otter ate about 800 - 1,200g/day and in North Vietnam amount of fishes eaten by one otter was 792 - 1,215g/day. In the wild they may wound, incapacitate and even kill many more fish than its appetite demands (Le Hien Hao, 1973). In one fish pond in Trung khanh district (Caobang prov.) on a night otter wounded and killed 17 fishes, in other pond in

Luc yen (Hoang Lien Son prov.) the number of wounded and killed fishs was about 50 .

REPRODUCTION

Little is known about reproduction of the otter in captivity in Vietnam, let alone in the wild. From the result of nest surveys done in many years there was no discernible seasonality in breeding (table 1). According to locality people the otter's nests could be found in different months of year : January (in Nghe Tinh prov.), March - April (In Hai van island, Quang ninh prov.), November - December (Ha Tuyen prov.). It is therefore likely that breeding and parturition occur throughout the year, irrespective of seasons. This pattern

Table 1. Number of young otters seen in the nests in some areas in North Vietnam

Date of capture	Name of region	No of nests	No of young in the nests	Average length in mm.	Average Wt in g.
2. 2	Quang Ninh Prov.	1	3	248	241
5. 2	Nghe Tinh Prov.	1	3	340	527
20.4	Cao Bang Prov.	1	2	306	305
26.4	Son La Prov.	1	1	250	245
30.4	Quang Ninh Prov.	1	1	250	239
18.6	Bac Thai Prov.	1	2	210	185
28.8	Ha Noi Prov.	1	3	240	241
15.10	Lao Cai Prov.	1	3	325	351
7; 11	Quang Binh prov.	1	2	350	600
10.11	Quang Binh Prov.	1	2	340	415
25.12	Thanh Hoa Prov.	1	3	331	425

appears typical of the species in South China (Tho Chan Hoang, 1962) and in western Europe as west (Mason and Macdonald, 1986). According to Tho Chan Hoang (1962) in captivity in South China otter's breeding and parturition was two times per year, but there was not seasonality.

POPULATION STATUS AND CONSERVATION

The number of Otter in Vietnam is unknown, its although distribution and relative abundance can be secured from the number of otter scats found along river bank or shore lines. During field surveys in some regions of the North Vietnam on 1974 - 1978 censusing of otter's scats done on early morning on 3 days along some river or stream banks or shore lines of island a stretch of 1 to 3km (table 2); Data in table 2 show that population of otter concentrated mainly in highland along streams or rivers in the forest. But in the opened midland and specialty in the lowland of delta number of otter were very thinly populated and difficultly saw it (Le Hien Hao, 1973) .

In Vietnam, the wild otter has not been exterminated as the Vietnamese neither eat the animal nor use its pelt. However, the otter is severely treated because of loss of habitat. Many people from lowland of delta displaced to highland and forest to open develop new lands under the plough. They built houses on the stream or river banks in the forest. That's why, the enormous amount of otter habitat was destroyed. Even otters in some regions of highland of North Vietnam, where censusing of otter showed in table 2 today was difficultly saw them. Otter population have therefore declined in number over the years, and are likely to decline further unless, conservation measures are taken to rehabilitate its habitat. Consideration should be given to captive breeding programs with the view to restocking areas from which the animal has disappeared through man - made changes in the habitat. More study is needed to establish the whereabouts of viable populations of otter and to design conservation areas to safeguard these population. These activities require not only expertise and manpower, but money. Vietnam therefore looks to International Conservation Agencies assistance in helping to preserve the from becoming extinct.

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Table 2. Number of otter dungs found along a stretch of 1 km river in North Vietnam

Name of Region	Number of dungs ⁺	Number of new dungs
Bao Lac District, Cao Bang Prov.	54	7 - 11
Trai Hut District, Yen Bai Prov.	39	4 - 7
Van Hai Island, Quang Ninh Prov.	42	5 - 7
Cat Ba Island, Hai Phong Prov.	32	3 - 5
Hoi Xuan District, Thanh Hoa Prov.	45	4 - 6
Trai Tru District, Nghe Tinh Prov.	27	2 - 4

+) Number of otter dungs was found along two banks of river.
Number of dungs is all old and new.

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