

DIETARY BIODIVERSITY IN THE *VIṢṆU-SAMHITĀ*

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Ethnobiological analysis of early Sanskrit works is considered important, since it reveals not only various facets of relationship of human beings with the biodiversity of the period, but also throws some light on the possible gradual expansion of utilitarian aspects of greater number of biological entities. The *Viṣṇu-saṃhitā*, an ancient *smṛti-sāstra* in Sanskrit (c. 300 BC to 600 AD), is one such text which gives details of plants and animals, containing discussions on the edibles, non-edibles, and on the food articles capable of satisfying even the manes/gods. The data available in this text have been collected and analyzed to estimate the range of biodiversity, permitted by *Viṣṇu*, as diet. Here only cereals - two types, fishes - five types, birds - five types and nailed animals - five types have been named in this work as edibles. The number of inedibles is large, and the catalogue of the biodiversity, meant to satisfy manes/gods, is still larger. In this respect this work bears close similarities with the *Manu-saṃhitā* and *Yājñavalkya saṃhitā*, which refer greater number of plants and animals. This observation extends support to the idea that the *Manu-saṃhitā* and *Yājñavalkya-saṃhitā* originated earlier than the *Viṣṇu-saṃhitā*.

The reference of *mayūra* as edible, and *śyāmāka* and *priyaṅgu* as prescription for manes/gods, and consumption of flesh of camel, horse, etc., probably suggest that this *smṛti-sāstra* possibly originated somewhere in arid zone of India.

Key words: Biodiversity, Edibles, Non-edibles, *Viṣṇu-saṃhitā*.

INTRODUCTION

It is needless to mention that all ingredients of diet of a human community are obtained from his ambient biodiversity. The selection of the dietary materials depend largely not only on availability and utility of the same, but also is conditioned by the attitude of the particular human society towards them. It is quite likely that some socio-religious customs of human communities regulate the consumption of the components of diet, and thereby influence the pro-

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cess of conservation of biodiversity. Obviously a study of dietary biodiversity of human society not only illuminates some fundamental aspects of cultural dimensions of biodiversity¹, but also help to comprehend the traditional methods of conservation of biodiversity. The critical examinations of the food articles of past ages may be taken as one of the critical components to comprehend the gradual domestication of plants and animals and point out some resource(s) of nutrition to modern people.

In this context Sensarma² explains the need and importance of studying the relevant instructions contained in the Sanskrit works. The texts written in this ancient language are large in number, and on the basis of the specialities of their contents they have been classified into various categories, Vedas, Epics, Dharmasāstra, Purāṇas, etc. Texts of different classes should be scrutinized separately. Further, works belonging to same category were written/compiled in diverse areas of India and in different centuries. Hence for comprehending the gradual evolution of perceptions of Indians about biodiversity and their conservation, it is logical to study the texts belonging to one group separately. After collecting the relevant information from each text, the same may be arranged, if possible, in the sequence of time and place of origin of the works. Following this principle the *Viṣṇu-saṃhitā*, a *dharmasāstra*, believed to have originated before *Yājñavalkya saṃhitā*, has been selected. After elaborate scrutiny of all available data, Kane³ conjectures that the original *Viṣṇu-saṃhitā* might have seen the light of the day sometimes between 300 BC and 100 AD, and the present enlarged text developed between 400 AD to 600 AD. The attributes and importance of this *smṛti-saṃhitā* have briefly enumerated elsewhere by the present author⁴.

MATERIALS AND METHOD

The data regarding dietary biodiversity are dispersed in various chapters of the Bangabasi edition of the text edited by Tarkaratna⁵. The same have been recorded in this article under the following heads: edibles (Table I) and non-edibles (Table II) of the *dvijas*, i.e., the three upper castes, viz., Brahmin, Kṣatriya and Vaiśya, and foods for satisfaction of the manes and gods (Table III). The information, in the Tables, has been again subdivided into (A) Plants and Plant-parts, and (B) Animals and Animal products.

Table I : Edibles for the *Dvijas***A. Plants and Plant-parts**

Sl.No.	Name of Plant(s)/Plant part(s)	Reference
1.	<i>Yava</i> (barley: <i>Hordeum vulgare</i>), <i>godhūma</i> (wheat: <i>Triticum aestivum</i>), and their derivatives, <i>khāṇḍava</i> (crystallised cane sugar) - even when they are old.	51.35
2.	During <i>vānaprastha</i> , i.e., the third stage of life, when one has to live in forests,	
	(a) One should eat flowers, fruits, green stems, leaves, and roots - names not specified.	95.7-11
	(b) <i>Yavāṇna</i> (boiled barley : <i>Hordeum vulgare</i>) once in a fortnight.	95.12

B. Animals and Animal products

Sl.No.	Name of Animal(s)/Animal product(s)	Reference
1.	Fish - the following fishes can be consumed - <i>pāṭhina</i> (a kind of large catfish akin to the flounder: <i>Wallago attu</i>), <i>rohita</i> (rohu: <i>Labeo rohita</i>), <i>siṅghatuṅḍa</i> (lion-faced: <i>Bagarius bagarius</i>), <i>śakula</i> (Banerji ⁶ considers it as cat fish, i.e. <i>Heteropneustes fossilis</i>), it appears to be striped snakehead i.e. <i>Channa striatus</i>), <i>rājīva</i> (according to Apte ⁷ it means a kind of deer, a crane and also an elephant, but Monier Williams ⁸ states that it is a species of fish).	51.21
2.	According to the text, under the following conditions meat can be consumed:	
	(a) meat offered in <i>śrāddha</i> to please the man(e)/god(s), and/or <i>yajña</i> , (b) meat sanctified by religious rite(s).	51.59
3.	Among the five-nailed animals only the following can be eaten: <i>śaśaka</i> (hare/rabbit: <i>Lepus nigricollis</i>), <i>śallaka</i> (hedge hog: <i>Hystrix indica</i>), <i>godhā</i> (iguana: <i>Varanus</i> sp.), <i>khadga</i> (rhinoceros: <i>Rhinoceros unicornis</i>), and <i>kūrma</i> (tortoise: <i>Testudo</i> sp.).	51.6
4.	Flesh of the following birds: <i>tittira</i> (francoline partridge: <i>Francolinus</i> sp.), <i>kapiñjala</i> (Indian black partridge: <i>Francolinus francolinus</i>), <i>mayūra</i> (peacock: <i>Pavo cristatus</i>), <i>vartikā</i> (quail: <i>Coturnix coturnix</i> or <i>Perdica</i> sp.), <i>lāvaka</i> (Monier Williams ⁹ identifies it as <i>Perdix chinensis</i> , but there is no such species under <i>Perdix</i> , in this situation it should be taken as a species under <i>Perdix</i> , i.e. <i>Perdix</i> sp.)	51.39
5.	Milk of <i>go</i> (cow: <i>Bos indicus</i>), <i>aja</i> (female wild goat: <i>Capra hircus</i>), <i>mahiṣī</i> (female buffalo : <i>Bubalis bubalis</i>).	51.39
6.	Curd	51.42

Table II : Non-Edibles for the Dvijas

The *Smṛti-saṃhita* instead of categorically giving list(s) of inedibles, mentions different methods of expiation for consuming some commodities of vegetal and animal origin. These are tabulated below:

A. Plants and Plant parts

Sl.No.	Name of Plant(s)/Plant part(s)	Expiation to performed	Reference to chap verses
1.	<i>Laśuna</i> (garlic: <i>Allium sativum</i>), <i>palāṇḍu</i> (onion: <i>Allium cepa</i>), <i>gr̥ñjana</i> (carrot: <i>Daucus carota</i>), and substances having odour of any of these.	<i>Cāndrāyaṇa Vrata</i>	51.3
2.	<i>Chatrāka</i> (mushroom), <i>kavaka</i> (fungi growing on trees).	<i>Sāntapana</i>	51.34
3.	Extract obtained by cutting a tree, blood-coloured exude of a tree, plants growing on excreta or in unclean place	One should consume stale sour food	5.36
4.	None of the following can be consumed before offering the same to god(s): <i>kṛsara</i> (rice boiled with sesame: <i>Sesamum indicum</i> / <i>mudga</i> - a kind of pigeon-pea: <i>Phaseolus aureus</i>), <i>sañjāva</i> (powdered wheat: <i>Triticum aestivum</i> boiled with <i>ghṛta</i> - clarified butter, mollasses, etc.), <i>pāyasa</i> (rice-porridge), <i>apūpa</i> (sweet pie), <i>śāskuli</i> (a kind of baked cake or rice-gruel), <i>śāluka</i> (water lily: <i>Nymphaea</i> sp.)	One should consume stale sour food	5.37

B. Animals and Animal Products

Sl.No.	Name of Animal(s)/Animal product(s)	Expiation to be performed	Reference to chap verses
1.	Fish - all fishes excepting the five named in 51.21 (vide serial no.1 of Table I(B))	Fasting for three days	51.21
2.	All aquatic animals	Fasting for three days	51.22
3.	Meat of (a) <i>Viḍvarāha</i> (wild boar: <i>Sus scrofa</i>), <i>grāmykukkuṭa</i> (domestic fowl: <i>Gallus domesticus</i>), <i>vānara</i> (Money: <i>Macaca mullata</i>), <i>go</i> (cow: <i>Bos indicus</i>); (b) <i>Khara</i> (ass: <i>Equus hemionus</i>), <i>uṣṭra</i> (camel: <i>Camelus</i> sp.), <i>kāka</i> (crow: <i>Corvus</i> sp.);	<i>Cāndrāyaṇa Vrata</i>	51.3
		<i>Cāndrāyaṇa Vrata</i>	51.26

(c) <i>Kalaviṃka</i> (sparrow: <i>Passer</i> sp.), <i>plava</i> (according to Monier Williams, a kind of aquatic bird), <i>cakravāka</i> (ruddy sheldrake: <i>Tadorna ferruginea</i>), <i>haṃsa</i> (swan: <i>Anser anser/A. indicus</i>), <i>rajjudāla</i> (a kind of wild fowl), <i>sārasa</i> (stork: <i>Ciconia</i> sp. or <i>Anastomus</i> sp.), or <i>Anastomus</i> sp.), <i>dātyūha</i> (moorhen: <i>Gallinula chloropus</i>), <i>śuka</i> (parrot : <i>Psittacula krameri</i>), <i>sārikā</i> (myna: <i>Acridotheres tristis</i>), <i>baka</i> (egret or heron: <i>Babulcus ibis</i> or <i>Ardea</i> sp.), <i>balākā</i> (common teal: <i>Anas crecca</i>), <i>kokila</i> (cuckoo : <i>Eudynamys scolopacea</i>), <i>khañjarīṭa</i> (wag tail: <i>Motacilla alba</i>)	Fasting for three nights	51.29
(d) <i>Kravyāda mṛgapakṣmi</i> (carnivorous animals and birds;	<i>Taptakṛcchra</i>	51.28
(e) <i>Ekaśafobhayadanta</i> (one hoofed animals, e.g., horse, and double toothed animals, e.g., elephant);	Fasting for three nights	51.3
(f) <i>Anarcīta</i> (not offered in sacrificial rite), <i>vṛthāmāṃsa</i> (meat not offered to god(s)/ mane(s);	To subsist by drinking only milk for seven days	51.20 & 51.49
(g) <i>kiṭa</i> (worm or insect);	To subsist for twenty four hours on decoction of	51.32
(h) <i>śunām māṃsa</i> (flesh of dog: <i>Canis familiaris</i>);	<i>Brahmasuvarcala</i> (<i>Bacopa monieri</i>)	51.33
(i) unidentified animal, left in abattoir, and dried meat.	To subsist for twenty four hours on decoction of	51.33
(i) unidentified animal, left in abattoir, and dried meat.	<i>Brahmasuvarcala</i> (<i>Bacopa monieri</i>)	51.33
(i) unidentified animal, left in abattoir, and dried meat.	<i>Cāndrāyaṇa Vrata</i>	51.27
4. Milk of		
(a) <i>syandinī</i> (a cow bearing two calves at a time);		
(b) <i>sandhini</i> (cow in heat);	Fasting for one day	51.40
(c) <i>vivatsā</i> (cow without calf);		
(d) <i>amedhyabhojī</i> (cow surviving on fodder of unholy/unclean places).		51.41

Table III : Dietary Articles for Satisfying the Manes**A. Plant(s) and Plant part(s)**

Sl.No.	Name of Plant(s)/Plant part(s)	Expiation to performed	Reference to chap verses
1.	<i>Tila</i> (sesame: <i>Sesamum indicum</i>), <i>vr̥hi</i> (paddy: <i>Oryza sativa</i>), <i>n̥ivāra</i> (a variety of paddy i.e. <i>Oryza sativa</i>), yava (barley: <i>Hordeum vulgare</i>), godhūma (wheat: <i>Triticum aestivum</i>), <i>māṣa</i> (black gram : <i>Phaseolus radiatus</i> var. <i>Roxburghii</i>), <i>mudga</i> (golden gram: <i>Phaseolus aureus</i>), <i>śyāmāka</i> (jungle rice or shama millet: <i>Echinochloa colona</i>), <i>priyangu</i> (panic seed: <i>Aglaia odoratissima</i>), <i>mūla</i> (root), <i>śāka</i> (pot herb), and <i>phala</i> (fruit).	One month	80.1
2.	<i>Kālaśāka</i> (according to Monier Williams, it means a pot herb, preferably <i>Ocimum sanctum</i>).	Indefinite period	80.14

B. Animal(s) and Animal product(s)

1.	Fish	Two months	80.2
2.	Flesh of		
	(a) <i>harīṇa</i> (deer: since there are five genera available in India, it is difficult to determine the correct equivalent);	Three months	80.3
	(b) <i>urabhra</i> (sheep: <i>Ovis ammon/O. orientalis</i>);	Four months	80.4
	(c) <i>śākuna</i> (birds edible by <i>dvijas</i>);	Five months	80.5
	(d) <i>chāga</i> (goat: <i>Hemitragus jemlahicus</i>);	Six months	80.6
	(e) <i>ruru mṛga</i> (spotted deer or black buck: <i>Antelope cervicapra</i>);	Seven months	80.7
	(f) <i>pr̥ṣata</i> (spotted deer: <i>Axis axis</i>);	Eight months	80.8
	(g) <i>gavaya</i> (cow: <i>Bos indicus</i> ; it also refers to <i>Bos gaurus</i> , and a hybrid of <i>B. gaurus</i>);	Nine months	80.9
	(h) <i>mahiṣa</i> (buffalo: <i>Bubalis bubalis</i>);	Ten months	80.10
	(i) <i>kūrma</i> (tortoise: <i>Testudo</i> sp.);	Eleven months	80.11
	(j) <i>mahāśalka</i> (a type of fish with large scales: <i>Tor tor</i>), <i>viṣāna varjyā ye khadga</i> (hornless(?) rhinoceros: <i>Rhinoceros</i> sp.), <i>vārdhr̥inosa</i> (according to Haradatta ¹⁰ it refers to a kind of bird having the nose resembling leather; Banerji ¹¹ states that it means rhinoceros or old goat or a type of bird; Tarkatna ¹² describes it as a old white coloured goat);	Indefinite period	80.14
	(k) cow's milk, curd, etc.	Twelve months	80.12

References to the respective chapter(s) and verse(s) have been given along with each information. The Sanskrit names of the plants and animals, as mentioned in the text, have been retained in this article, while common English and Latin equivalents of the same, wherever possible, have been given in parenthesis.

ENUMERATION OF INFORMATION

The *Viṣṇu-samhitā* does not mention any criterion for selecting the dietary articles. It, however, appears from the contents of the *samhitā* that it permits a small number of plants, animals and animal products to constitute the ingredients of normal diet of a house-holder. For the persons in *vānaprastha* the choice of diet is more limited.

The text states (51.7-20), in general terms, that the following types of food should not be consumed - *nārcita* (neither worshipped nor offered to manes/gods), *vṛthāmāṃsa* (meat not used in any religious rite nor offered to gods/manes), *patatrinavalīdham* (eaten/beaked by bird), touched by dog (*śuṅṅa samprṣtam*) or by a woman in her manes (*udakyā samprṣtam*), *gavāghrātam* (smelled by cow), *padasprṣtam* (touched by foot) and *avkṣutam* (food on which some creature has sneezed). The *dharmaśāstra* also gives a long list of many categories of persons from whom food should not be accepted. Since this list does not throw any light on biodiversity connected with diet, the same has not been considered in this article.

DISCUSSION AND CONCLUSION

On the basis of the above tables, it may be said that *Viṣṇu-samhitā* considers a small number of angiosperms (only two cereals have been named, but sources of green vegetables, roots, flowers and fruits are not specified), five fishes, five birds, and five animals as edible. The number of inedible plants and animals is larger than that of the edibles, and the list of articles meant for satisfying the manes is still longer. In this respect this *smṛti-śāstra* bears close similarities with the works of *Manu* and *Yājñavalkya*.

Vegetal food: The list of edible vegetal materials mentioned in this work is slightly longer than the same in *Yājñavalkya-samhitā*¹³ but smaller than *Manu-samhitā*¹⁴.

It appears that all the three above named *smṛti-saṃhitās* consider only two cereals viz., barley (*yava*) and wheat (*godhūma*) as staple food. It is true that these two cereals are amongst the most ancient of cultivated plants. Barley is supposed to have originated somewhere in the region between north west of India and Abyssinia¹⁵, and was grown at least in the northern India in very remote times¹⁶. Barley was in use even before wheat. Earliest written references to this grain are available in the *Rgveda* (I.23.15; III.52.7; X.45.9; etc.). It is now grown in the hilly regions of the Himalayas upto an altitude of 4,200 m, and in the Indo-Gangetic area extending upto Madhya Pradesh. The cultivation and harvesting of barley is similar to that of wheat. At present the flour of barley is used in India as staple food by the poor people. Barley is more valued as a food for children, old, sick and the convalescents. Thus it may be said that barley has been used as food in India since hoary past.

Perhaps recognizing the nutritional value of the barley, *Viṣṇu-saṃhitā* (95.12) states that during *vānaprastha* one can consume *yavānna* (boiled grains of barley) once in a fortnight. It may be remembered in this connection that according to this *smṛti-saṃhitā* consumption of cultivated (*phālakṛṣṭa*) plant is prohibited for a person in *vānaprastha*. Then now one can eat *yavānna* while living in forest? Was some wild but edible variety of barley available then? Answer to this query may help to determine the time-period of origin of this *śāstra*.

Wheat is one of the oldest cultivated cereals. There are various types of wheat. Perhaps India has a very comprehensive series of time honoured forms of wheat. De Candolle¹⁷ feels that there is strong evidence in favour of India being the home of some of the forms of wheat. The discovery of wheat grains at Mohenjo Daro¹⁸ indicates that northern western India was one of the ancestral lands of this cereal. At present wheat is considered as the second staple food crop of India, and is mainly grown in northern, western and central India. It may be said that wheat, a multipurpose cereal having good nutritive value, continue to be cultivated and used in India since ancient age.

The attitude of the *Viṣṇu-saṃhitā* along with the works of *Manu* and *Yājñavalkya* towards paddy (*vṛīhi*) deserves critical attention. All of them mention that *vṛīhi*, when offered, can keep the manes satisfied for a period of one

month, and articles offered to the manes can be consumed by human beings after completion of the concerned religious rite. Hence the mortal men can consume paddy only once in a month; in other words consumption of paddy is restricted. But why was there this restriction? Paddy is easily digestible, nutritious, many varieties including wild ones are available in India. References to *vr̥hi* are available in the *R̥gveda* (I.26.15; III. 52.7; X.45.9; etc.) and other literature. It may be mentioned here that cultivation of paddy in India dates back to the periods even earlier than 3,000 BC¹⁹. Further, India is considered as one of the centres or origin of rice by Vavilov²⁰, while Watt²¹ maintains that paddy originated in peninsular India and it spread out from there. In view of the above, it is not unlikely to conjecture that the provenance of the *Viṣṇu-samhitā* and the other two *smṛti-śāstras* under discussion occurs in some non-rice growing areas of India?

The list of vegetal materials, mentioned in the *Viṣṇu-samhitā* in connection with gratification of manes includes *godhūma*, *nīvāra*, *mudga*, *śyāmāka*, and *priyaṅgu*, besides *tila*, *vr̥hi*, *yava*, *māṣa kālaśāka*, roots and fruits which are not enumerated in the works of *Manu* and *Yājñavalkya*. This point lends support to the idea that the *Viṣṇu-samhitā* originated at a later period than the *Manu* and *Yājñavalkya-samhitā*.

Some sort of religious sanctity is conferred to the articles which are considered fit to please the manes. According to this dictum wild paddy i.e. *nīvāra*, a millet i.e. *śyāmāka*, a pulse i.e. *mudga*, and a medicinal plant i.e. *priyaṅgu* have been consecrated by *Viṣṇu-samhitā*. *Mudga* is considered to be a native of India and its progenitor is supposed to be *Phaseolus sublobatus* Roxb.²² *P. sublobatus* occurs in the Himalayas in wild state. Mehra²³ informs that carbonised seeds of this pulse were identified among the archaeological remains excavated at Navdatoli-Maheshwar, belonging to the period from 1500 BC to 1000 BC. It is also mentioned in *Śāṅkhāyana Āraṇyaka* (XII.8), *Kautilīya Arthaśāstra* (XV.5; XXIV.16) and many other Sanskrit texts. *Mudga* grains are still being used by the Hindus in many religious rites. The grains are consumed as nutritious pulse.

Śyāmāka and *priyaṅgu* and plants of arid regions, *nīvāra* also does not require much water for its growth. Seeds of *śyāmāka*²⁴ still form staple food of

some ethnic communities of east Rajasthan and some other arid zones, while leaves and fruits of *priyangu*²⁵ are used by some ethnic communities of Rajasthan as medicines. This should support the view of origin of *Viṣṇu-saṃhitā* some where in or around Rajasthan.

Faunal food: Like *Manu-saṃhitā* and *Yājñavalkya-saṃhitā*, the *Viṣṇu-saṃhitā* contains provisions allowing consumption of aquatic (fishes and amphibians), terrestrial and avian fauna. It may be mentioned here that according to Majumdar²⁶, varieties of palatable and delicious dishes used to be prepared in ancient India out of fish, bird's flesh, venison etc.

Fish: The *Viṣṇu-saṃhitā* adds *śakula* to the list of edible fishes mentioned in the *Manu-saṃhitā* and *Yājñavalkya-saṃhitā*. What is the significance of inclusion of *śakula*? Banerji²⁷ informs that there is a floating verse in Sanskrit containing names of some fishes including *śakula*. While *Manu-saṃhitā* (5.16) maintains that fishes can be eaten only after offering the same to gods/manes; but there is no such stipulation in *Viṣṇu-saṃhitā*. Does it indicate that eating fish became rather common by the time of this smṛti work? However, the *Viṣṇu-saṃhitā* states like *Manu-saṃhitā* and *Yājñavalkya-saṃhitā* that one feed of fish can keep the gods/manes satisfied for a period of two months. Besides these five fishes and tortoise no other aquatic animal is considered by this *dharmaśāstra* as edible. Like *Manu-saṃhitā* it states that a feed of flesh of tortoise can keep the gods/manes satisfied for a period of eleven months.

Viṣṇu-saṃhitā makes a big departure from the tradition of *Manu-saṃhitā* and *Yājñavalkya-saṃhitā* when it states, albeit indirectly, that the five following birds are edible - *tittiri*, *kapiñjala*, *lāvaka*, *vartikā*, and *mayūra* (*tittirikāpiñjalalavakavartikāmayūrarjam sarvapakṣimāmsasañcāhorātram*). The other two *smṛti-śāstras* give long lists of inedible birds - the list mentioned in *Yājñavalkya-saṃhitā* is longer than the same in *Manu-saṃhitā*, and *Viṣṇu-saṃhitā* includes all these birds in its catalogue of non-edible birds.

Meat: The text does not like consumption of meat as that entails avoidable violence on animals. It continues that he, who does not violate other animals, lives in peace in this world and also after death (51.69-71), and one, who refrains from eating meat becomes popular and normally remains free of diseases (51.73). On the other hand, one earns merit of hundred *aśvamedha*

yajna (51.76) by refraining from eating meat. According to this *smṛti* all persons connected with killing, slaughtering of any animal and cooking, distributing and eating meat become sinners (51.74). The *śāstra* threatens that one, who eats flesh of an animals in this life, gets devoured by the same animal in the abode of the dead (51.78). This work, however, gives a long list of animals which can satisfy manes for different periods of time (Table III), and states that meat properly sanctified by *mantra* may be consumed by mortal man (51.59). Following this dictum, the meat offered to the manes may also be eaten. Thus indirectly this *dharmaśāstra*, like *Manu-samhitā* and *Yājñavalkya-samhitā*, allows men to eat meat of large number of animals.

The *Viṣṇu-samhitā* states in general terms that meat belonging to any of the following categories should not be consumed - (a) *anarcita* (not sanctified by *mantra*) and *vṛthāmāṃsa* (meat not used to satisfy gods/manes; 51.20), (b) *ajñātam* (not determined as edible), (c) *sūnāstham* (left in abattoir), and (d) *śuṣkamāṃsa* (dried meat; 51.27). The *śāstra* grades the flesh of carnivorous animals and birds as inedible (51.28). It gives long list of non-edible birds and terrestrial animals (Table II). The catalogue of non-edible birds does not include any bird which is not categorized as unfit for human consumption by *Manu-samhitā* and *Yājñavalkya-samhitā*. Thus it may be said that this work does not extend information on this point. But the provision for expiation for consuming the flesh of *śunā* (51.33), *vānara*, *vidvarāha*, *go* (51.30), *khara*, *uṣṭra* (51.26), *ekaśafa* and *ubhayadanta* (51.30) indicates that flesh of these animals used to be consumed then. Some ethnic communities, who do not come under the pale of Vedic culture, still now eat the flesh of dog and monkey, poor people of arid zones consume the flesh of camel, and the pork is not unpopular with the people of rural and urban societies. But flesh of ass, horse and elephant do not form items of diet in India now.

Like *Manu-samhitā* and *Yājñavalkya-samhitā*, *Viṣṇu-samhitā* mentions (Table III) that the flesh of the following animals can satisfy manes and Gods for some specific periods of time - *hariṇa*, *urabhra*, *śakuna*, *chāga*, *prṣata*, *ruru*, *kūrma*, *mahāsalka*, *khadga*, *vārdhrīṇasa*, and *lohāmiṣa* but it excludes the names of *eṇa*, *varāha*, *śaśa* of the other two *smṛti* works. The *Viṣṇu-samhitā* continues that the flesh of *mahiṣa* and *gavaya* can also be offered to the manes for their satisfaction. *Manu-samhitā* also mentions *mahiṣa* for the same

purpose. Inclusion of beef in this list by *Viṣṇu-saṃhitā* invites attention. It may be recalled that *Viṣṇu-saṃhitā* prohibits (51.3) consumption of beef by the *dvijas* (Table II). At the same time, the meat offered in religious rites should be consumed. Taking all these instructions together, it appears that by the time the *Viṣṇu-saṃhitā* was authored, beef eating became a prevalent practice in India; and to protect the cows from random slaughter, the *smṛti-saṃhitā* declares beef as normally inedible. But to bring in a balance between the desire of men and conservation of cow, it permits offering of beef to the manes once in nine months (80.9).

Milk and Curd: The *Viṣṇu-saṃhitā* considers milk, curd products as important constituents of diet (Tables I and IIIB). It declares, in general terms, that the milk of cow, goat and buffalo is edible (Table I), while it prohibits (Table II) consumption of milk of certain categories of cows. It may be stated here that even now milk and curd constitute items of normal diet of most of the Indians, while the restrictions enumerated in *Viṣṇu-saṃhitā* (51.40 & 41) are normally followed. Thus it may be said that these dietary instructions contained in *Viṣṇu-saṃhitā* have stood the test of time. The information about dietary biodiversity in *Viṣṇu-saṃhitā* is very similar to the same contained in *Manu-saṃhitā* and *Yājñavalkya-saṃhitā* but less elaborate and comprehensive than *Manu-saṃhitā*. The list of edibles, mentioned in this text, provides for balanced diet of man; while the instructions about the inedibles of the *dvijas*, and dietary articles for satisfaction of manes seek to strike a balance between the desire of man and conservation of biodiversity.

Inclusion of *mayūra* as edible and *śyāmāka*, *priyaṅgu* in the list of article fit to satisfy the manes/Gods, and references to the consumption of flesh of camel, horse, etc. in *Viṣṇu-saṃhitā* perhaps indicate that this *smṛti* text originated somewhere in arid zone of India.

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