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Cross-cultural Investigation on Common Phytonyms of *Caryota urens* L. (Arecaceae): some Indications

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ABSTRACT: Common phytonyms are closely associated to physical, biological and cultural features. The ways in which indigenous people coin name, conceptualize and organize the plants in their ambience have been of great interest to ethnobotanists. Such names help us to understand interrelationships between languages, cognition, memory, survival and world view if analyzed comparatively on etymological ground. *Caryota urens* L. (Arecaceae) is a multipurpose and still undernutralized tree species inhabiting some Asian countries. The present author examined its common names in various Indian languages as well as outside India where it grows. This attempt encoded morphological data, ecological features, folklore, medicinal virtues and such other functions from the common names studied. Such comparative studies are desirable as the incredible knowledge of our ancestors is being eroded because of modernization and fast rate of acculturation worldwide.

Keywords: *Caryota urens*, Common phytonyms, Etymology, Ethnobotany.

INTRODUCTION

Plants are known by the common or vernacular names to indigenous societies, while botanists and environmentalists use scientific names for communication worldwide. It is not easy to conjecture when speech developed and evolved amongst our homonid ancestors. It is but likely that common phytonyms were among the earliest words. Mankind was intimately associated with the plant world for his very survival. After onset of sedentary agriculture life pattern, he started loosing contacts with his earlier surrounding. This force eventually distanced mankind from flora and fauna and now-a-days a stage has reached when some people are rendered 'plant-blind'. Because of long strides of modernization and acculturation, the knowledge of ancient or earlier common plant names are being lost in the sands of time. The present author, therefore, thought worth to study common phytonyms cross-culturally. One such multipurposely used but sill underutilized species in Asian countries is *Caryota urens* L. (Arecaceae). A literary survey on past ethnobotanical and floristic investigations are critically re-examined tracing origins and indications as conceived from common names for the said species in Indian states and also outside India.

METHOD ADAPTED

Common names are generally documented during floristic and ethnobotanical studies. Floras especially of coastal Indian states and other countries apart from earlier ethnobotanical reports are critically studied. The roots-word of common names are searched out which are in vogue in India and other countries. The common names used in non-Asian countries are also studied wherever the said species has been introduced in ancient times. The revelations are compared, utilities and loan words also searched out. The names and ethnobotanical information are provided in tabular form for the sake precision along with the literary sources. Common names are borrowed from Watt (1972), Anonymous (1948-1976), Cooke (1958), Gamble and Fischer (1915-1936), Hooker (1872-1897) and E-references 1 to 7.

Table 1: Diversity of Common Names in Indian Languages.

S.No.	Language/Country	Common names
1.	Hindi	Mari, Ramguah, Madi, Ban-Khajur, Marika, Marika Jhad
2.	Assamese	Chuo tamol, Sewa, Sewa-tomol, Sao-tumol, Suraguti-goch, Sowat goch, Chewa gosh, Bara Flawar.
3.	Malayalam	Anappana, Ana pana, Kala pana, Iram pana, erimpana, Konda pana, Schundapana, Kalipanna, Olutti, Vainava, Chuntappana, Panamkula, etc. (Total 20 names)
4.	Tamil	Thipilli Panai,, Kuntha Panai, Iram Panai, Kunta Panai, Konda panaei, Koonthal Panai, Kundal Panai, Konda Panna, Koondal Panai, Kontalpani, etc. (Total 58 names)
5.	Marathi	Sur-mad, Bherli-mad, Ardhi-supari, Berli, Berli-mad, Bherava, Bherlamad, Dongri mad, etc. (Total 14 names)
6.	Kannada	Bayni, Baini, Kondapanna, Bagani, Bayne, Bagani mara, Kannida kona, Kannida, etc. (Total 24 names)
7.	Konkani	Birlomad, Birli-mad.
8.	Telugu	Jeelugu, Kond kjeluga, Bakini, Chirugu, Maare, Mardie, Mari, Chiruguchettu, Tar-mardi, etc. (Total 29 names)
9.	Bengali	Sopari, Gol sago
10.	Gujrati	Shivjatu, Shankarjata
11.	Sanskrit	Madu, Dirgha, Srihalah, Madardruma, Rajju, Madhyadruma, Madhyadru, Vitanaba, Mohaharin, Dhoajavriksha.
12.	Oriya	Salap, Salpa, Salopa, Jivalaggu

Table 2: Diversity of Common Names In Different Countries.

S.No.	Language/Country	Common names
1.	Sinhala/Sri Lanka	Kithul
2.	English	Toddy palm, Sago, Fish tail palm, Jaggery palm, Indian sago palm, Elephant's palk, Solitary fishtail palm, Wine palm, Kitul-tree, Kitul palm, Ceylon piassava, Kittool.
3.	French	Palmier queque de poisson, Palmeri Celeri, Caryot brulant.
4.	German	Kitulpalme, Brennpalme
5.	Hungeria	Diopalma
6.	Polish	Kariota Parzacc
7.	Spanish	Palmera de sagu
8.	Nepali	Jagar
9.	Portuguese	Palmeira jaggeri
10.	Dutch	Jagerie boom
11.	Finnish	Malesian evapalmu
12.	Myanmar (Burma)	Minbo, Kimbo
13.	Thailand	Dton dtao rahng, Taorang
14.	Vietnam	Mocden, Dung dinh ngura

Table 3: Glimses of Ethnobotany of *Caryota urens* L.

S.No.	Part/Product used	Reference
1.	Toddy obtained used in rituals in Kerala state, India, consumed as fresh refreshing drink. When fermented also liked to drink as intoxicant.	(Chaithra & Thomas, 2017), (Watt, 1972)
2.	Root and few other plant parts boiled and given to ladies who have taken salap during pregnancy to remove effect of salap.	(Raut *et al*., 2013)
3.	Leaf and nut used to hyperpiesia, arthritis, burning sensation, migraine and general weakness in Dantewada, Chattisgarh, India, used to treat hemicrania.	(Sahu *et al*., 2014 Watt, 1972)
4.	Fresh toddy from stem used as food during famine in Indo-Burma Hotspot region.	(Rai and Lalramnghinglova, 2011)
5.	Ash obtained from old leaves with honey prescribed to treat tympanitis in Similipal, Orissa, India.	(Behera, 2006)
6.	Country liquor 'Solopo' tapped from tree given to check spermatorrhoea in Orissa State (India)	(Prusti & Behera, 2007)
7.	Three glasses of 'toddy' administered daily once for a month against loss of appetite in Khammam district, Andhra Pradesh, India	(Reddy *et al*., 2008)

8.	Paste of leaf powder applied to head and bath taken after one hour twice a week to remove dandruff. Nut used locally to treat hemicrania in Palghar district (M.S.) India	(Rao *et al*., 2016 Shivprasad *et al*., 2016)
9.	Leaf used to treat hemiarania and root for abortion dysentery and tooth decay (Reported in Ayurveda)	(Mariyan R. *et al*., 2015)
10.	A favorite fodder for elephants in Kerala and also for cattle.	(Renuka, 1999; Hegde, 1992)
11.	Toddy considered as anti-aging, anti-hyperglycemic and anti-oxidants.	(Kumar *et al*., 2012)
12.	Porridge prepared from Kitul flour/ starch used to cure malaria, migraine, headache, catarrah, gastric ulcer, fatique, snake bite, and rheumatic swellings in Sri Lanka.	(Evarett, 1995; Karthika *et al*., 2013; Orwa *et al*., 2009; Charles *et al*., 2011)
13.	Tender flowers used to promote hair growth; roots employed for tooth ailments.	(Orwa, *et al*., 2009; Charles *et al*., 2011)
14.	Fibres obtained from leaf-bases used for brooms, ropes, baskets, stuffing, cushions, tool handles, plows, mortars, etc.	(AICRP, 2014; Kulkarni & Mulani, 2004)
15.	Treacle used to flavour milk curld in Sri Lanka. Jaggery also obtained from it.	(Dissanayake, 1977; Zoysa, 1992)
16.	Kitul flour used in various food articles e.g. Roti, gruel, etc. in Andhra Pradesh.	(Rajyalakshmi, 2004)
17.	Leaves used for thatching huts in tribal and rural areas. Wood used for agricultural purposes, water conduits, buckets and for building purposes.	(AICRP, 2014; Watt, 1972)
18.	Terminal bud (cabbage) or apices chewed raw or cooked as a delicacy in Chattisgarh, India.	(Orwa *et al*., 2014)
19.	Toddy consumed as a pleasant drink, also useful as laxative; on fermentation and distillation, it becomes arrack (the gin of India); pith yields sago which is used in famine.	(Watt, 1972; Anonymous, 1948-1976)
20.	Nut used as masticatory, fruit juice as tonic, wood used for music drum, sago obtained from pith, etc.	(Jain, 1991)

RESULTS AND DISCUSSION

The derivation of common plant names helps us to understand its cultural history as well as its history of uses. The common phytonyms of *Caryota urens* are self-explanatory: (1) Hindi: Ban-Khajur (Ban-jungle, wild; Khajur-date, date-palm). The fruits resemblance of these is indicated. (2) Assamese: Surgutti-goch (Sura-wine) Toddy obtained turns into intoxicating drink after fermentation. (3) Marathi: (a) Dongri-mad (Dongri-inhabiting in hilly forests; mad-a palm). The palm grows in wild in hilly forests. (b) Sur-mad: (Sur, Sura-wine, mad-palm). The palm is a resource for obtaining wine. (c) Ardhi-supari (Ardhi-half one, supari-arecanut). Resemblance of half-cut areca-nut is indicated. (d) Bherli-mad (Bherli-indicative of state of mind going out of control, mad-a palm). This refers to Neera, a fermented product (obtained from toddy) which is intoxicating. (4) Konkani: Birli-mad or Birlo-mad. The meaning and indication as the Marathi name explained above. (5) Bengali: (a) Sopari (Sopari-arecanut). Again comparison with fruits of areca-nut is indicated. (6) Gujrati: Shivjata or Shankarjata (Shiv or Shankar: Hindu god Lord Shankar or Mahadeo, Jata-entangled mass of hair often shown with this god). The very elongatd tangled mass of inflorescence conspicuously simulate hair of Lord Shiva. (7) Oriya: Salap, Salpa or Salopa. This name in the state of Orissa (India) refers to the fibre obtained from sheath, stalk of leaf and inflorescence. Country liquor is called 'Solop' in Orissa. (8) Sanskrit: (a) Dirgha: It indicates longevity, the palm being considerably tall. (b) Dhoaja-Vriksha: (Dho-bestowing essential materials, vriksha-a tree). It appropriately suffices the fulfillment of basic needs by this tree. (c) Madhyadruma: (Madhya-wine, druma-tree), a tree being source of intoxacating liquor (toddy) after fermentation. (d) Mohakarin (Moha: delusion, greediness; Karin-maker), intoxicating liquor from this tree is thought as if delusion maker. (9) Telugu: Jeelugu, refers to toddy obtained from this palm. (10) Malayalam: Konda panna. Konda refers to hilly habitat of this tree. (11) Tamil: Kuntha panai, Konda panaei, Konda panna, Kondal pannai, etc. Panai (probably) torsioned for Tamil word 'Pannadai' (Panai-palm; adai-covering) referring to the fibrous covering about the base leaf or inflorescence of this palm.

This palm is known by other names outside India. (1) English: (a) Toddy palm: suggest toddy obtained from it. (b) Sago palm: points out to the starchy product sago obtained from pith of this tree. (c) Wine palm: Toddy turns into a fermented liquor called 'Neera' which in intoxicating. (d) Jaggery palm: Toddy after heating is turned into a sweet product jaggery. (e) Kitul palm: Referrinig to the fibre (Kitul-fibre from it. (f) Elephants palm: suggesting its use of fodder for elephants. (g) Fish-tail palm: The leaflets resembles fins of fishes. (h) Solitary fish-tail palm: Similar fish-tail like leaves are found in *Caryota mitis* but it grows in groups of few

individuals. But *Caryota urens* is always solitary. (i) Ceylon piassava: Earlier name of Sri Lanka indicating its one of the place of nativity in Asia. (2) French: Caryot brulant: The name borrowed from scientific name Caryota. (3) German: Kitulpalm, a name of palm yielding Kitual fibre or flour and borrowed from Indian names. (4) Polish: Kariota Parzacc, a name derived from generic name. (5) Spanish: Palmera de Sagu, a palm yielding sago (obtained from its pith). (6) Sinhala (Sri Lanka): called Kithul, being a source of Kithul treacle, a liquid jaggery. (7) Portuguese and Dutch names recall the product jaggery from it. (8) Finnish name refers it Malesia as its nativity.

Caryota urens is monoecious, monocarpic and leaf flushing continue throughout a year. The scientific as well as phytonyms or common names of *Caryota urens* are interesting and meaningful. The Latin generic name *Caryota* is of Greek derivation (Greek: Karyohtuh), with which the fruit of palm was designated (Patil, 2007). The specific epithet 'urens' means burning or stinging alluding to the oxalic acid crystals in the unripe fruits, which are skin and membrane irritants (Everett, 1995; Kumar *et al*., 2012). The common phytonyms are intimately interwoven with physical, biological and cultural features. This is indicated by the names coined for *Caryota urens* within and outside India. This palm is a native of Asian countries and introduced in other regions of the world in ancient time. The names wherein this palm is introduced are mostly loan-words from Asian countries based on morphological features, habitat, habit and local utilities. This plam is being exploited for multifarious uses but still thought underutilised. This is shown by its little commercial importance. Some modern uses and applications mentioned above indicate its potentiality for commerce. Nearly all its parts/products are useful. At this backdrop it should be called 'Kalpvriksh' (wish fulfilling tree). This attempt thus exposes its history and potentiality for welfare of mankind. It is slow-growing and also needs long duration of about four months for seed germination. Seed germination period can be shortened by treating the seeds with 50% HNO_3 for five minutes resulting into at least 85% germination. This will help plant breeders and farmers who cultivate it (Rodringo *et al*., 2012). Presently, it is included in IUCN category as LC (Least Concerned) because being conserved by local people for its multipurpose uses. It is grown as an ornamental tree but as such its fullest potentiality is not tapped. It is, therefore, desirable to have captive plantations in monsoon fed regions by farmers.

In a nutshell, studies in phytonyms are useful multifold as such investigations may reveal economic utilities e.g. medicine, food, shelter, industrial uses, apart from abstract relationships of mankind in different regions, countries and societies of the world. Studies on this line are few and for between and hence there is a dire necessity of research of phytonyms worldwide.

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