



Vernacular (common) names of Indian giant flying squirrel (*Petaurista philippensis*, Elliot 1839) and its importance in conservation

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A total of 44 species of flying squirrels belonging to 14 genera are present worldwide ranging from northern coniferous forest to the tropical lowlands, with most of the species occurring in Southeast Asia (Corbet and Hill, 1991). *Petaurista philippensis* is one of the 13 species of flying squirrels found in India. It occupies the broadest distribution among all the species of flying squirrel (Nandini, 2000) covering seven major states of India (Kerala, Tamil Nadu, Karnataka and Goa by Prater, 2005, Nandini, 2000, Umapathy and Kumar, 2000; Rajasthan by Tehsin, 1980, Koli et al., 2013, Gujarat by Singh et al., 2016, Nisha and Dharaiya, 2016 and Maharashtra). Wide distribution of the species has made them popular and hence it is known with different common names within its distributional range in India.

P. philippensis or Indian giant flying squirrel (IGFS) is the only species of flying squirrel present in Gujarat state occupying the north-eastern to southern belt of the state. Presence of a good number of Mahua (*Madhuca longifolia*) trees in the forest with minimum disturbance is considered to be a typical habitat for this squirrel in Gujarat (Singh and Dharaiya, 2018; Singh and Dharaiya, 2020). During our study on flying squirrels in Gujarat (2015-2018), we found presence of IGFS in all major types of forests ranging from Evergreen, Moist deciduous as well as Dry deciduous forests.

As we were conducting interviews with the local communities living in and around the flying squirrel habitats in Gujarat, we came across changes not only in the forest types, environmental conditions, and flying squirrel's ecology (Singh and Dhariya, 2018) in these areas but also the diversity in common names by which the squirrel is known locally. In the present article, we tried gathering the vernacular names of flying squirrels and to understand how these names correlate with this species (Figure 1).

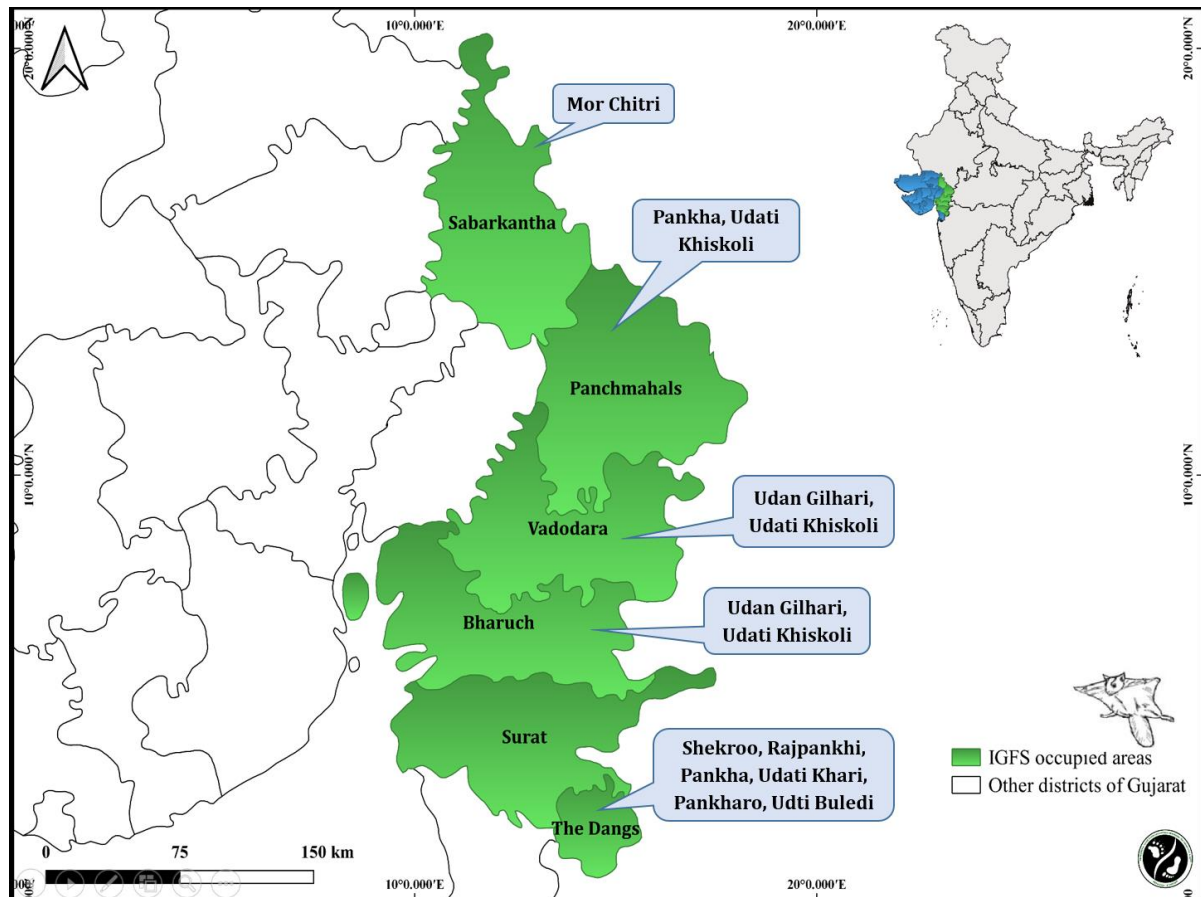


Figure 1: Map showing the flying squirrel occupied landscape and different local names by which the species is known in respective localities in Gujarat, India.

Scientific or binomial nomenclature (a combination of two Latin names: *Genus* and *species*) system gives recognition to individual species universally in scientific studies providing a unique identity to a species across the world. Such scientific names have global impacts in research like worldwide status, distribution, migration patterns, conservation and managing impacts on the species and also helps the policy makers to recognize the need of gradation of any species for future conservation. For example, the IUCN Red list, which classifies the species based on the present scenario of the risks faced by them and the level of conservation or management needed worldwide. These gradation of species are done based on the data received from different scientists working on any particular species around the world (<https://www.iucnredlist.org/>).

It is evident that individual species are hardly known by their scientific names in common language or by local people and stakeholders. In general, at any particular location species are more precisely identified by its local name. And such names are very useful describing the species, its morphology, behaviour, and significance in the way local communities recognise



or perceive them. Local names given by indigenous community of a region provides a broad range of information on their understanding of any species and plays an important role in ethno-zoological/botanical studies (Singh, 2008). These local names are most often given based on some relevant features which can describe its appearance, biological features, distribution, natural history, and/or phylogeny of the organism (Sarasa et al., 2012).

Table 1: Local names of *P. philippensis* in Gujarat

Local Name	Description	Indicating features
<i>Udati Khiskoli</i>	' <i>Khiskoli</i> ' is the Gujarati word used for squirrels while ' <i>udati</i> ' is flying indicating the "squirrel which is capable of flying" (locals call them by this name probably looking to the ability of the species to glide).	Presence of "Patagia or wings" on either side of the individual
<i>Udan Gilhahri</i>	' <i>Udan</i> ' defines flying and ' <i>Gilahari</i> ' is the common name used for squirrel	Presence of "Patagia or wings" on either side of the individual
<i>Pankha/ Pankharo</i>	Meaning "the animal having wings" (the term ' <i>pankh</i> ' means wings).	Presence of wings indicates the patagia in flying squirrels for gliding.
<i>Rajpankhi</i>	The term is a combination of two words: ' <i>Raj</i> ' means royal and ' <i>pankhi</i> ' meaning wings and thus the term is "the animal with royal wings".	Presence of "Patagia or wings" on either side of the individual
<i>Udati Khari</i>	' <i>Khar or Khari</i> ' is the local term used for squirrels in Dangs by tribes. Thus, the name again signifies flying squirrel.	
<i>Udti Buledi</i>	' <i>Udti</i> ' means flying and ' <i>Buledi</i> ' is something similar to a cat (which is known as <i>billi</i> in hindi). The second word indicates the physical appearance of flying squirrels which are found to be similar to a cat.	<ul style="list-style-type: none"> • Ability to glide • Flying squirrel's appearance
<i>Mor Chitri</i>	In some areas flying squirrels were believed to eat birds such as cocks/hen and peacocks (locally called <i>Mor</i>) and hence the name.	Although this is not true.

Local names and their meanings as provided in Table 1 advocates the knowledge and awareness among local communities/tribes about the physical appearance, anatomy, and adaptations of this species. The words devoted to describing any character varies with languages or dialects and thus, the same species can be known by different names with languages and regions (Singh, 2008). Moreover, the local names we came across during the



study were found to be closely related to its English name. These can be very informative and can help in conservation issues of species locally. Further, local names connect the local communities with the specific species and help to determine the concern level of the species among local communities.

Study by Sarasa et al. (2012) specifies the use of common words to describe an individual species and its impact on perception of local people towards such species. They further clarified that people accept the species more easily when the species' common names are similar to domesticated animals as they deserve the treatment a domestic animal receive. There are many such success stories worldwide where scientists/organizations have tried to connect the local community with specific species by developing an ownership approach among peoples (Morgera and Wingard, 2009). These ownerships not only connect the people with the species emotionally but also give responsibility to conserve these species locally. Singh (2008) stated the importance of these local names and emphasised the proper documentation of these names for future.

Looking at the broad distribution of IGFS in India with approximately 12 local names in Gujarat alone, we tried searching the literature focused on different local names by which the species is known within their occupied states as the region and community's changes. We found around 36 local names as suggested to this species by different researchers in India (Table 2).



Table 2: Distribution of *P. philippensis* in Indian states and its local names

Common name	Region	Reference
Rajasthan		
Udan Pankhi, Kali Minki	Sitamata Wildlife Sanctuary, Pratapgarh district	Koli et al., 2013
Ravi devi, Rawai devi, Moor-chitri	Kushalgarh (Banswara)	
Billari, Gulrawari Hulrawan,	Phulwari-ki-nal Wildlife Sanctuary	
Moor-chitri, Mrig chitri, Khank Bola, Jog Hulrawan, Rawai, Ravaya, Khank Balla, Udni-Minki, Pankha	Kotra and Jhadol Tehsils	
Moor-chitri	Dungarpur	
Gujarat		
Udan Gilhahri, Udati Khiskoli	Chota Udepur, Jambughoda WLS, Shoolpaneshwar WLS	Broach Gazetteer, 1961; Nisha, 2017
Shekroo, Rajpankhi lokharke, Pankha, Udati Khari, Pankharo, Udti Buledi	Dangs (Purna WLS and Vansda NP)	
Pankha, Udati Khiskoli	Ratanmahal	
Mor Chitri	North east Gujarat (Polo forest)	
Udnari khar	Maharashtra	Personal communication with forest field staff of Maharashtra
Pakhi, Pakhio	Goa	Nandini, 2001
Karnataka		
Harabeku, Parabeku, Phagmanjar, Pakhi, Pakhio	Brahmagiri WLS	Kumara and Singh, 2006; Nandini, 2001
Malapanjan, Panjan, Tulu	Kudremukh NP	
Haralubeku	Pushpagiri WLS	Nandini, 2001
Phagmanjar	Anshi NP	
Paran or Parachathan	Kerala	
Mayapoonai	Tamil nadu	

Table 2 shows the overall distribution range of *P. philippensis* in India along with its local names. However, it was quite difficult searching the meanings of these local names but we assumed that they must be well associated with the species behaviour or appearance as it was found in Gujarat. Individually both scientific and common names play an important role in the success of conservation efforts of any species, at national/international level or influencing the perception of locals towards a species.



After knowing the significant impacts of language that it can provide to conservation efforts, it can be used by scientists/organizations to involve the local communities in conservation programmes and these communities could act as the conservation ambassador for a particular species at regional as well as national level.

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