

The First Capture History of Indian Giant Flying Squirrel (*Petaurista Philippensis* Elliot, 1839 Mammalia: Rodentia: Sciuridae) in Jeypore Forest Division, Koraput District, Odisha, India

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Annotation: The life history of Indian giant flying squirrel is very less studied as compared to its relative Indian Giant squirrels. As far as its nocturnal behavior and its detection is little difficult for general observation. Its status is critically endangered according to IUCN conservation red list and protected under Scheduled-I category under Indian Wildlife protection Act 1972. On 3rd September 2025 there was a call from the BSF camp at Ramagiri near Gupteswar Biodiversity heritage site that a squirrel like animal fall from the tree when gliding with its mother. It could not walk properly, immediately our Anti-smuggling and Para squad team with veterinary attendant's rush into the spot and brought to Jeypore as there is better veterinary treatment. The animal was taken to veterinary hospital and proper treatment was started after x -ray scan of the Indian giant flying squirrel which was quite young weigh

around 235 grams.

Keywords: Indian giant flying squirrel, Ramagiri, Gupteswar Biodiversity Heritage Site, Koraput, Odisha, Scheduled-I. Rescue, life history.

Introduction

The Indian Giant Flying Squirrel have occupied the status of CR (critically Endangered) under IUCN conservation red list of protected species and have the status of Scheduled-I category under Indian Wildlife protection Act 1972. The Indian Giant Flying Squirrel shortly (IGFS) have the scientific / zoological name *Petaurista philippensis* and is also commonly known as common giant flying squirrel or large brown flying squirrel. It is a solitary, nocturnal arboreal, and has a wide distribution in China, India, Laos, Myanmar, Sri Lanka, Taiwan, Thailand, and Vietnam. It inhabits dry deciduous and evergreen forests, usually at elevations from 500–2,000m and has been recorded in plantations (Walston et al. 2016). In Gupteswar area the species is seen in Sal and Teak patches and extensive mango orchards close to forests. Das et al 2025. There are traditional mango troops developed by ester while kings of the Jeypore and also demarcated sacred grooves demarcate for tribal communities. Currently, 44 species of flying squirrels belonging to 15 genera are recognized world over, with the majority (14 of the 15 genera and 42 of the 44 species) occurring in Eurasia, especially southeastern Asia (Thorington & Hoffmann 2005). So far 14 sub species of flying squirrels are being reported from India (Koli et al. 2013a; Sharma et al. 2013; Koli 2015; Krishna et al. 2016), and mainly found in the Himalayan and the northeastern regions, while the Western Ghats holds only two species (*Petaurista philippensis* and *Petinomys fuscicapillus*) (Sharma et al. 2013).

The distribution of IGFS is restricted and scattered. It has been identified from Gujarat (Nisha & Dharaiya 2016), Andhra Pradesh (Sreekar et al. 2012), Karnataka (Nandini 2000; Kumara & Singh 2004, 2006), Kerala & Tamil Nadu (Rajamani 2000; Umapathy & Kumar 2000; Nandini 2001), Maharashtra (Nandini 2001), Madhya Pradesh & southern Rajasthan (Tehsin 1980; Chundawat et al. 2002; Sharma 2007; Koli 2012; Koli et al. 2013b), and West Bengal, Bihar, & Goa (Ashraf et al.1993; Srinivasulu et al. 2004; Molur et al. 2005). This species is a rodent and comes under family Sciuridae and inhabiting in tree clefts. However, in Gupteswar area, abandoned nests of Wood pecker and Barbets and parakeets and natural rotten woods in live trees are occupied by flying squirrels. In the global context, this species is of 'Critically Endangered -CR' (Walston et al. 2016). However, a few studies on *P. philippensis* indicate its decreasing status in India due to hunting (Nandini 2000a,b), anthropogenic disturbances, habitat destruction, and agricultural encroachment (Kumara & Singh 2004, 2006). The species was recently reported last two year by Polai et al in Badrama Wildlife Sanctuary of Sambalpur district in Odisha, Mallik P. S (2023).

In addition to IGFS, important mammals found in the Biodiversity heritage sites are Sambar (*Rusa unicolor*), Barking Deer (*Muntiacus muntjak*), Wild Boar (*Sus scrofa*), Indian giant squirrel (*Ratufa indica*) Four-horned Antelope (*Triceratus quadricornis*), Leopard (*Panthera pardus*), Rusty-spotted Cat (*Prionailurus rubiginosus*), Jungle Cat (*Felis chaus*), Indian Grey Wolf (*Canis lupus*), Striped Hyena (*Hyaena hyaena*), Golden Jackal (*Canis aureus*), Indian Fox (*Vulpes bengalensis*), Sloth Bear (*Melursus ursinus*), Indian Giant Squirrel *Ratufa indica*, Hanuman Langur (*Semnopithecus entellus*) are two key species survived from tribal hunting pressures in this region. Due to nocturnal and solitary in nature the Indian giant flying squirrel is escaped from the poachers and due to arboreal life, it could not be captured live for pet keeping and there is fear from the forest department that no one could kept wild animals as pet in their homes.

Study area

Geographically, the Gupteswar shrine lies close to the border of Odisha and Chhattisgarh, and is positioned amidst dense forested hills and limestone caves along the banks of the Kolab River. The Latitude: Approximately 18.775009° N and Longitude: Approximately 82.24497° E and elevation Altitude: Ranges between 650–800 meters above sea level. Despite its remote location, Gupteswar is around 80 km from Koraput town, the district headquarters. The shrine is accessible via Jeypore, a major town in the region having rail and Airport link, which is about 60 km away. From Jeypore, regular buses and private vehicles can be hired to reach Ramagiri and Gupteswar (Das et al may 2025).

The mean temperatures of the Ramagiri and Gupteswar area are winter range $5\text{--}20^{\circ}\text{C}$ and in summers range from $30\text{--}41^{\circ}\text{C}$. There are three distinct seasons, i.e., summer 1(March–June), monsoon (July–October), and winter (November–February). The rainfall varies 1,000–1,800 mm. Grazing livestock and collection of forest products are the major activities of tourism earns of the people. The sanctuary is dominated by northern tropical dry deciduous forests, dry peninsular Sal forests, and northern dry mixed deciduous forests (Champion & Seth 1968). The dominant trees of the shrine area include Sal (*Shorea robusta*) dominate patches with *Terminalia tomentosa*, *Anogeissus latifolia*, *Tona ciliata*, *Pterocarpus marsupium*, *Diospyros melanoxylon*, *Adina cordifolia*, *Terminalia chebula*, *T. bellirica*, *Lagerstroemia parviflora*, *Buchanania lanzan*, *Lannea coromandelica*, and *Dalbergia latifolia* (working plan 2010). The common climbers in these forests are Siali (*Bauhinia vahlii*) and Smilax species, while Atundi (*Combretum decandrum*) occurs in valleys and ravines.

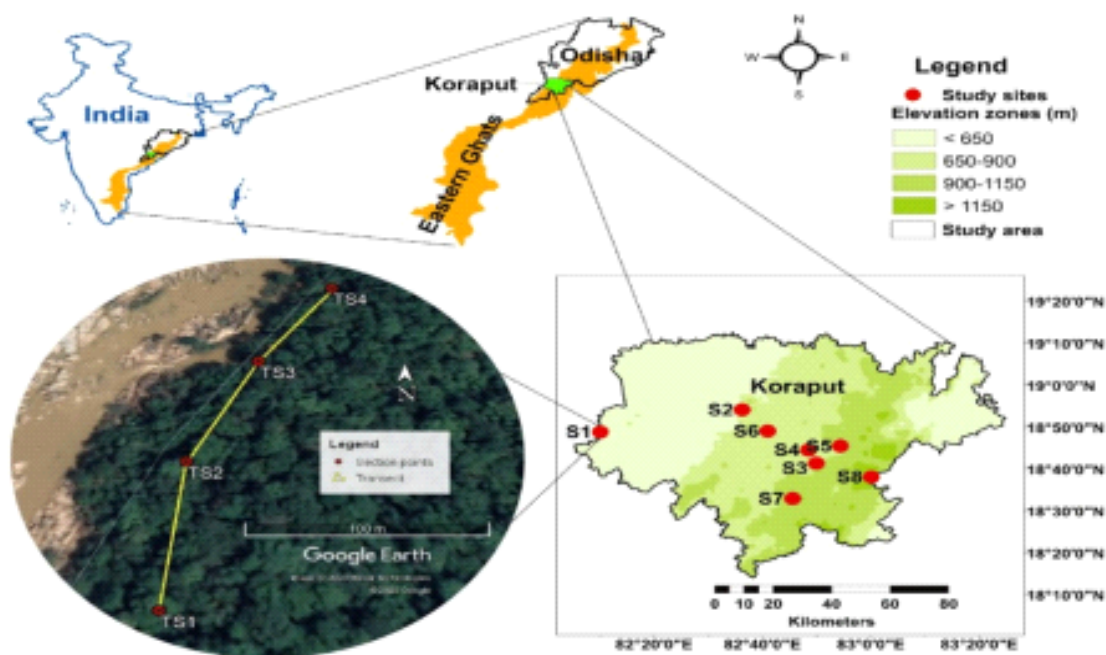


Fig-1 Situation of Koraput district in Odisha and India map, Yellow green patches are the Eastern Ghats of India

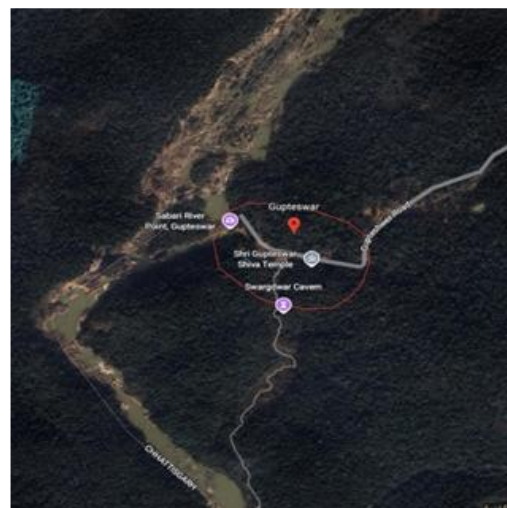


Fig-2 Google map of the Gupteswar Biodiversity sites and adjoin area as deep / dark green as forest patches and the brown patch as rivers.

Materials and methods

On 3rd September 2025 there was a call from the BSF camp at Ramagiri that a squirrel like animal fall from the tree when gliding with its mother and could not walk properly , immediately our rescue team with veterinary attendants rush into the spot and brought to Jeypore as there is better veterinary treatment. The animal was taken to veterinary hospital and proper treatment was started after x ray scan of the Indian giant flying squirrel which was quite young weigh around 230 grams, after minor treatment it started little movement and kept under observation at Range office Jeypore. When we feed the animal it also spreads its legs, patagium in the room floor. We also provide antibiotic, ORS, and dietary supply of ground nuts, cow peas, apple and piece of gourd, cucumber to take as food. It feeds and then did little movement. it also started urinate and defecate two times during 4 th evening. To give it warm floor dry gunny bags is spread to sleep. The animal stayed with us as a strange and first to all of us and caring him as live for 3 days was remarkable and release in wild. . Most of our staff even old age retired forest staff does not see this animal in their previous lifetime duty during service periods and sighted this species as an Indian giant flying squirrel (IGFS). or **Udanta Gunduchi Musa** in local Odia language.

Photo gallery



Photo-1 -During 1st day capture at outside of the range office, it was active after first aid treatment. Receives food from hand, walked little steps. Photo taken when the flying squirrel was active and spreads its tail. It was a young stage flying squirrel, it has independent movement with its mother and learning gliding with its mother when it falls and injured, it was rescued and brought up Jeypore for better treatment.



Photo 2- The flying squirrel kept over a paper plate to avoid soil , infection and photo taken back side of the animal



Phot-3 given feeding in a paper plate in order to avoid sands and dusts attached food, apple, grapes, fig fruits were given as dietary items.



Photo-4 of X Ray of the Pelvic region showing little dis assemble of bones. The human (Care takers left hand), 1st and index finger comes in image during capture and X-ray- radiography.

Results and Discussion.

There has been no record of IGFS from not just the western Odisha and South Odisha at Badrama Wildlife Sanctuary have first sighting and published records of flying squirrel (Mallik, P.S., N.C. Palei & B.P. Rath (2023). It was past story and history of records one young forester seen one larger flying squirrel that his father captures and kept as pet for some days in Jeypore outskirts from Deoghati area. Presently the DFO Nabarangpur, Sri Suvendu Behera, OFS SB reported that there are flying squirrels recorded in around Papadahandi deer park forest area. There should be further intensive study and survey of the IGFS in this area. During my all-Odisha giant squirrel project work the State I have recorded giant squirrels in Gupteswar temple site the last surviving extreme distribution of the population in Koraput district (Das U.K., et. al 2021). This is the first capture evidence of IGFS in Odisha. The measurements are 13 cm tail 7 cm weight 235 gram and it is a young one and independently move in the forested area sex is male. The X- ray image of an Indian giant flying squirrel is new to science.

My personal 25 years of wildlife research and conservation in Odisha and elsewhere in India explores biogeographic distribution in India. Its past distribution in Dasapalla forests of Nayagarh forest division and gallery area under Ghumusur north forest division. However sighting was obtained by old foresters in Pondakhola forest of Ghumusur south division and Kotagarh wildlife sanctuary in Kandhamal district of Odisha. However, there is past records from management plants and working plans records in Angul, Keonjar, Nayagarh forest division. Now the extends of its past distribution area in Odisha restricted and synchronized to western parts and Koraput district. However, the tree shrews are seen in high altitude hilly forests of Deomali area of the Koraput district, Kotagarh, Kapilas , Mahendragiri and Buxa tiger reserve (Pers. Obst)

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