

Battlefield through Bird Sanctuary - the Pulicat Lake

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Pulicat Lake was most popular busy town right from the 6th to 13th century A.D. The existence of Pulicat can be traced back from the Cholas. Pulicat has evolved into an urban centre and the successive stages of evolution of pulicat can be classified in to Chola period (until 13th century A.D.), Nayak period (14th to 16th century A.D), Colonial period (17th century to 1947 A.D.) and Post Independence period.

Chola and Nayak Period

Pulicat was under the Imperial Cholas who first built temple at Thiruppalaivanam near Pulicat. The Cholas divided their territories into kottams (presently called district). Pulicat was referred to as Payyar Kottam, Puliur Kottam and Pular Kottam. Veeran Thirubuvana Chakravarthy ruled the Puliur Kottam. Latter on during the Nayak period the Vijayanagar kingdom was founded in 1336 A.D., which became a dominant force in Tamil Nadu where Viswanath Nayak was ruling Madurai in 1529. Under the Nayaks the Vijayanagar kingdom was frequently waged war against the native Tamil rulers and brought the entire land under their control. Due to the conflicts within the Nayak groups which enabled the sultans of Bijapur and Golconda to penetrate the Tamil Country. The battle of Thalaikotta (1565) enabled the sultans to capture some regions of the Vijayanagar kingdom and thus pulicat came under their rule. In 1572, Thirumalai Nayak, who had been vassal of the sultan, divided his kingdom into three parts, one of which was given to Venkatapathi who ruled it from Chandragiri as his capital. Pulicat was a part of his rule and was referred to as Pralaya Kaveri. Latter, Queen Eraivi, wife of Venkata II, ruled Pulicat. It was during her period that the Dutch were given permission to trade and to build the fort. Again, in 1656, Sri Ranga Nayak waged war against the Sultan of Golconda to recapture Pulicat and other regions.

Colonial Period

During colonial period the quest for the east and lucrative textile trade in silk and cotton, inspired the Europeans to find an alternative route to the Indian subcontinent. The Spanish and Portuguese were the pioneers. The Portuguese were the first to establish direct

contact with India, on the Coromandel coast and halted at Pulicat Lake on the way from Malacca where they built a catholic church, which was dedicated to 'Nossa Senhora Dos Prazeres' in 1515 A.D. Again during the reign of Venkata II, (1586-1614) the 'farman' (right) for trading in Pulicat was given to the Dutch which disturbed the Portuguese for their trade, then decided to attack the Dutch and its favours. Two ships belongs to the Pulicat Muslims were destroyed. After this incident, the Dutch ask for permission to build a fort at Pulicat, which was given by Queen Eraivi in 1607 A.D, and Fort Geldria came into existence in 1610 A.D. Meanwhile the Portuguese stationed at Santhome (presently at Chennai) and tried to destroy the Dutch fort many times between 1612, and 1629, though they failed in all efforts.

Latter, in 1781, the English wanted to monopolise trade and trading system along the Coromandel Coast attacked and captured Pulicat. However, the treaty of 1784 paved way for the Dutch to recover Pulicat in 1785. Again, in 1795 during a massive attack, the Dutch lost Pulicat to the English. Negotiations after 10 years a peace treaty was made in 1814, through which the Dutch retrieved Pulicat in 1818. Under the 1824 treaty, Pulicat came under the E.E.I.C. (English East India Company) in 1825. It remained with English until India's Independence.

Post independence period

During the Dutch times, Pulicat was no more an international trade centre. After the British occupation, they did not showed interest in developing trade and commerce activities further. They centralized all the trade activities in Madras. However, the British contributed a lighthouse in 1859, and the construction of the Buckingham Canal, which helped trade and fishing activity. Since from 1931, pulicat was in rural panchayat with the inclusion of Kottai Kuppam, Thangalperumbulam and Kalangakarai Vilakkam. Remains of the Dutch constructions were dilapidated including the garrison Fort Geldria, which was built during 1610 A.D. After the independence Pulicat under went a series of changes, new road links between the various settlements were built. The southern side of the fort became the centre of all activities. The old market was abandoned and a new commercial area developed along the main road.

Location & Uniqueness

Pulicat Lake (13°24' 13° 47' N and 80°03 80°18' E) is the second largest brackish water lake after Chilika in India, sprawling across the states of Andhra Pradesh and Tamil Nadu, in Nellore and Tiruvallur districts.

Area

About 750 km² including the Tamil Nadu part. Of which 84% of the lake falls in Andhra Pradesh and the remaining 16% in Tamil Nadu. Both the portions of the lake are notified as bird sanctuaries. Considering the importance of Pulicat Lake during 1976 both, the portions of the Andhra Pradesh and Tamil Nadu part of Pulicat was declared as bird sanctuaries presently called as Pulicat Bird Sanctuary.

The Lake

The Lake is about 60 km in length, and its breadth varies from 0.2 to 17.5 km. The lake is comparatively shallow with an average depth of a little over a meter, with north to south and west to east slope. The maximum depth of the lake is near *Theevu* at the southern portion of Pulicat, measuring about 7 m. The lake has three major openings into the Bay of Bengal, the major at the southern end of Sriharikota Island called Pazhaverkaddu, another at Rayadurg, and the third at the extreme northern part near Durgarajupatnam and Tuplipalem. The Buckingham canal traverses in a north to south direction at the eastern edge of Pulicat Lake, along the Sriharikota Island. The Buckingham Canal is a 419 km long navigatin canal dug during the early 19th century by British, extending from Pedda Ganjam in Guntur district, Andhra Pradesh, southwards through Chennai and to Marakanam, Chengalpet district, Tamil Nadu. The problem of siltation and the advent of the railway along the coast after the canal was constructed gradually saw it in disuse. The rivers Swarnamukhi and Kalangi in the northern part, and the Arani and Korttalaiyar in the southern part drain into the lake during the monsoon. During the dry season, water is generally present only in the southern areas and near the two openings. The other areas receive inflows from the Bay of Bengal during spring tides and by strong winds.

Forests

The Pulicat Lake has several islands of which the larger islands are the Sriharikota Island, Venadu Island, Irrakam Island and Pernadu Island. The islands are having very significant forest type called as Southern Tropical Dry Evergreen Forest (TDEF). Vegetation representing species are *Manilkara hexandra*, *Albizia amara*, *Strychnos nuxvomica* and *Maba buxifolia*. In addition to this, the lake has mangrove forests on the northern portion, littoral vegetation and canebrakes on Sriharikota, Venadu and Irrakam islands and plants of great botanical interest. Mangrove vegetation consists of *Ecoecaria agollocha*, *Avicenia officinalis*, *Acanthus ilicifolius* and *Aegiceros corniculatum*. Littoral vegetation consists of *Spinifix littoralis*, *Ipomea biloba*, *Phyllanthus rotundifolia*, *Solanum xanthocarpum*. The cane species found here is *Calamus viminalis*.

Faunal diversity of Pulicat Lake

Butterflies: About 50 species of butterflies is found in the Pulicat Lake area. Commonly seen species are Common Grass Yellow *Eurema hecabe*, Common Emigrant *Catsopsilia Pomona*, Common Mormon *Papilio polytes romulus*, Crimson Rose *Pachliopta hector*, Common Rose *Pachliopta aristolochiae*, Common Crow *Euploea core*, Tawny Coster *Acraea violae*, Lemon Pansy *Junonia lemonias* and Danaid Eggfly *Hypolimnas misippus*.

Fishes, Prawns & Crabs: About 65 species of fishes, five species of prawns and three species of crabs are found in Pulicat Lake. The most dominant fish species are Long-Whiskered Catfish *Mystus gulio*, River Snapper *Lutjanus argentimaculatus*, Greenback Mullet *Liza subviridis*, Flathead Mullet *Mugil cephalus*, Bloch's Gizzard-Shad *Nematalosa nasus*, Commerson's Glassy Perchlet *Ambasis commersoni*, Mosambique Tilapia *Oreochromis mossambica*, Contaguri Half-beak *Hyporhamphus limbatus*, Spot-tail Garfish *Strongylura strongylura* and Milk Fish *Chanos chanos*. The commercial Tiger Shrimp and Banana Shrimp are dominant in Pulicat Lake.

Amphibians: 12 species of amphibians found in Pulicat Lake area, of which the most commonest species are Ornate Mochrohylid Frog *Mycrohyla ornate*, Indian Cricket Frog *Fejervarya limnocharis*, Painted Kaloula *Kaloula taprobanica*, Indian Burrowing Frog *Tomopterna rolandae*, Common Indian Toad *Bufo melanostictus*, Indian Pond Frog *Euphlyctis hexadactylus* and Skittering Frog.

Reptiles: 34 species of reptiles is recorded in and around Pulicat Lake. Of which 4 species of turtles and tortoises, 3 species of geckos, 2 species of agamid, 5 species of skinks, 1 species of Chameleon, 1 species of monitor lizard and 18 species of snakes. Of the 18 snake species, four species are poisonous. The Russell's viper *Daboia russelii*, Common Indian Krait *Bungarus caeruleus*, Saw-scaled Viper *Echis carinatus* and the Indian Cobra *Naja naja* are found here.

Birds: The region of south coastal Andhra Pradesh is ornithologically rich as varied habitats ranging from tropical dry evergreen forests, mudflats, marshes and mangroves occur in the area. Of the 456 species of birds recorded in Andhra Pradesh Pulicat lagoon alone account for about 50% of the total avifauna in the state. So far, 215 species of birds is recorded over all Pulicat Lake including the Sriharikota Island. The Bombay Natural History Society has been undertaking lot of research activities in this region.

Mammals: 26 species of mammals is found in Pulicat Lake and Sriharikota reserve forests. Of which the endangered species like the Slender Loris *Loris lydekkerianus*, Rusty-

spotted Cat *Felis rubiginosa* and Small Indian Civet *Vierricula indica* are sighted during the night visits. One Leopard *Panthera pardus* was also recorded in Pulicat Lake during 2001.

Best Season

October to March.

Conclusion

Pulicat is a town of immense heritage value, which is naturally made up of a complex of wetlands and lagoons, and its history gave a unique character to its man-made heritage. Disappointingly, the heritage buildings are in dilapidated condition showing signs of neglect and decay. The heritage edifices in Pulicat have to be restored and preserved. Siltation in pulicat Lake and the sand bar formation at the mouth of the lagoon threatens the complete ecological balance of the area. Wetlands are important repositories of biodiversity; some have become important sanctuaries for birds and other wildlife. Pulicat Lake attracts large concentrations of the Greater Flamingos *Phoenicopterus ruber*, Spot-billed Pelican *Pelecanus philippensis*, Painted Stork *Mycteria leucocephala*, Grey Heron *Ardea cinera*, and birds like ducks, teals, terns, gulls and waders. Pulicat is the third most important wetland for migratory shorebirds and for several Palaearctic migratory waterfowl on the eastern board of India. The islands of Pulicat Lake have remnants of Tropical Dry Evergreen Forest of considerable botanical interest.

Sadly, over the years due to increasing human population and hunger for land the need and care for wetlands is drastically diminishing. There is growing pressure to harness and utilize water sources like the rivers and large lakes. Pulicat Lake has been known for its ecological, economic and social importance over almost four hundred years. Despite its ecological, economic, social and cultural importance, the Pulicat Lake is under serious biotic pressures. There is an urgent need to conserve this 'waterlogged wealth' before it fritters away. Evolving a technically sound and comprehensive approach, and people's participation in conserving this waterlogged wealth is vital.