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BIRDS OF THANE CREEK

FOREWORD



This compact book about the avian wealth of Thane Creek is being published under the aegis of the newly launched Government of India-GIZ Project on "Sustainable Management and

Conservation of Coastal and Marine Protected Areas (SC-CMPA)". In Maharashtra, the Project Partner is the Mangrove Cell of the State Forest Department.

Since its inception in early 2012, the Mangrove Cell has been making concerted efforts not only for conservation of mangroves of the State, but also for presentation of the amazing biological wealth of the Konkan coast. Several pioneering works commissioned by the Cell helped us in deepening our understanding of mangroves, coastal birds, turtles, dolphins, finless porpoises, whales, corals and associated flora and fauna. The launch of the SC-CMPA Project opens up new vistas of opportunity to further explore our coastal biodiversity.

Thane Creek has always been a defining feature of the Mumbai landscape. Large swathes of well-preserved mangroves bordering both sides of the creek stand as testimony to nature's resilience in the face of centuries of human assault. Thousands of flamingos, waders and several species of migrant and resident birds make this an exciting place for bird-watching.

We are proud to present this first documentation of the birds of Thane Creek, prepared by Shri Sunjoy Monga, well-known naturalist, photographer and chronicler of Mumbai's birdlife. I sincerely hope that this book will serve as a treasure chest for bird lovers of all hues.

> N Vasudevan, Chief Conservator of Forests, Mangrove Cell, Mumbai

FOREWORD



'Conservation and Sustainable Management of Coastal and Marine Protected Areas' (CMPA) is one of the projects under the Indo-German Biodiversity Programme. The project aims

to contribute to conservation and sustainable use of biodiversity at selected sites in the four coastal states of Goa, Gujarat, Maharashtra and Tamil Nadu. Thane Creek, connected to the Mumbai harbour on its south and linked with a minor channel with Ulhas River, is one of the work areas of GIZ-CMPA project.

Besides the impenetrable mangrove forests, this area is home to a reservoir of rich diversity of flora and faunal. Often called a birder's paradise, the creek has been declared an Important Bird Area and is under the process of being declared a Wildlife Sanctuary.

This handy little book, "Birds of Thane Creek" by Mr Sunjoy Monga, is an interesting compilation of the birds in and around the Creek. I hope this book will be cherished by bird-watchers and inspire others to explore the enthralling environment of the Creek.

I would also like to express my gratitude for Mr N Vasudevan and the team of Mangrove Cell for bringing out this pictorial documentation, as a part of their endeavour to spread awareness and knowledge on biodiversity.

Edgar Endrukaitis, Director, Indo-German Biodiversity Programme





INTRODUCTION



M umbai's seaside setting has gifted the region with a variety of coast-influenced features, both topographical and ecological. While the sandy and rocky coast is the most familiar image of this habitat, there is another side to the Mumbai coastal scene. Of a dark and deep, impenetrable looking tangled jungle realm where a great many birds lurk and scamper, pale-coloured crabs dash about and goggle-eyed mud-skippers flip and flop with the tides. Indeed, life here, simply flows with the tides.

In a region with extensive terrestrial forests of tall trees and bamboo and ample undergrowth, this coastal forest at times towers up to 9 mt in height and is seen amid and along those maze of creek channels so intimately linked to the coast and constitute the outer lengths of the several small rivers of the region.



There is no jungle quite like this mangrove, an absolute banquet of organic lavishness for the discerning observer. Mumbai and its immediate surrounds contain more area under this unique forest than any other city of 10 million and more people. As many as 23 of India's 60 mangrove and associate species occur in the region and a feast of mangrove encrusts the seaward sweep of every west flowing river here.

The mangrove forests are seen along various creeks, such as Manori, Malad, Bassein, Panvel and Dharamtar, as also along the shelf of Elephanta Island; there are also small scattered pockets along the length of the Central and South Mumbai coastline. But the most wide-ranging mangrove growth exists along Thane Creek and its winding waterways, which are known to account for over half the extent of this forest-type in the region.

The Thane Creek (72055' to 73000'E, 190 00' to 190 15'N) is the region's major creek, connected to Mumbai harbor on its south and linked with a minor channel with Ulhas river on its north, near Thane city. Narrow and shallow at its northern, riverine end near Thane city, the creek is broader and deeper towards its southern sea-side expanse. It is a greatly tidal influenced creek with dominance of **neretic** waters and negligible fresh water flow, except during the monsoon. Extensive mudflats are formed along the banks of the creek and are characterised by a widespread growth of mangroves, dense and tall in several stretches.

Thanks to considerable public and media attention in recent years, mangroves in general, are a topic of conservation attention, and a special cell has been created under the auspices of the Forest Department.





Even then, saving these sites remains an enormous challenge, though the new-found attention and systematic understanding of this habitat has helped increase the quality and extent of mangrove growth at several sites.

Several mammals and birds in the region have discovered the largesse of the mangroves, and more importantly, the safety that this sheltered, waterlogged realm offers. To see 15,000 flamingos in a sweep, up to 1,50,000, even twice that many waders in a frenzied mass on a creek-edge, over a hundred kinds of marine fish and many marine snakes, not to forget countless other organisms, this is the empire of Thane Creek, and to a lesser extent the other creeks of Mumbai.

The Thane Creek ranks amongst the most important bird habitats in the region and is an interesting dividing line of sorts between the island city and urban Thane on the west and the vast sprawl of peninsular India just across. This handy pocket guide offers a glimpse into the empire of birds on and along this major creek.

BIRDS IN MANGROVES & CREEKS



Varied topographical designs and features, including the range of habitats available, provide a wealth of opportunities for ecological diversity in any region. Avifaunal distribution patterns can be the best and most visible gauge for a good understanding of ecological conditions across a broad spectrum of habitats.

Of more than 350 species of birds that have been observed across habitats in the Mumbai region, roughly 150 species are aquatic, divided between the coastal, brackish and the slightly inland freshwater. More than half of these comprise of winter migrants from afar and over a quarter of them could be termed highly habitat specific.

Interestingly, several faunal species, including numerous birds, have taken to thriving off the coastal bounty. Birds like Clamorous Reedwarbler, White-eared Bulbul and Little Heron are mostly seen in and around mangrove creeks, while several others are slowly moving in greater numbers to the cover of rising mangroves, and include White-spotted Fantail, Greater Coucal, Cattle Egret, Little Egret, Pond Heron and Little Cormorant, amongst others.

A total of nearly 200 species of birds have been observed on and along Thane Creek, with adjoining patches of openlands (grass and scrub) continue to host numerous terrestrial species. The Bhandup Pumping Station (BPS) environs flanking Thane Creek have today become the finest and most popular bird-watching site in the region.

The aquatic species are the main attraction of Thane Creek, often presenting great spectacles of featherfolk vivacity. The bulk of this aquatic avifauna comprises of the Waders, birds whose lives revolve around water.



Waders



A large and diverse group of birds that live by wading (walking) in water. They are best sighted during low tide, when vast expanses along the creek are exposed. During high tide these birds take to slightly higher ground, sometimes resting on mangrove branches. Typical waders, also called Shorebirds, belong to the Order Charadriiformes. Majority of species are winter migrants, associated with coastal wetlands, and include some of the longest travelling migratory species.

Wader identification can be a bit of a challenge. The predominant plumage of these birds when here (mostly October – March) is a sandy-brown or greyish-brown above, variably streaked and mottled darker, and largely whitish below, patchily streaked about throat and breast.

In early summer, just before leaving for their breeding grounds, members of some species may acquire part of the full breeding plumage, with vivid rufous-chestnut and black.



A combination of physical features, from the bird's size to shape of beak, length of legs, wing markings, and certain behavioural traits helps in wader identification.

A multitude of other aquatic birds too exhibit similar behavioral patterns, of wading into waters for feeding, and includes flamingos, storks, ibises, spoonbill, herons and egrets. These too have been depicted in this handy reference book.

Of the true waders, most prominent are the plovers, sandpipers and their ilk. Except for a solitary species, all are winter visitors here, and vary in size from the tiny stints to the towering, long-legged godwits and curlews.

The **Plovers** include small and medium-size waders that have short beaks, short necks and rounded heads. They typically feed by running in short spurts and suddenly pausing and standing erect a few seconds.

Little Ringed Plover

Charadrius dubius



Leg colouration and head pattern help separate the several species of ringed plovers. The Little Ringed Plover is the most widespread of

India's small plovers, seen on a variety of coastal and inland wetland habitats; also seen on drier margins of wetlands. Usually a few scattered amid other small waders. Black and white head pattern, paler during winter; yellow legs, eye-ring.

Kentish Plover

Charadrius alexandrinus

Far less common here than Little Ringed Plover, this species lacks a complete breast-band and its legs are black. Like the several other small waders, is likely to be seen during low tide. It is **not gregarious**.

Grey Plover

Pluvialis squatarola

Larger than the *Charadrius* plovers. Plain greyish upper-body, dark, short. A rather wary bird, seldom sighted easily, preferring to remain quietly settled in a small 'gang' at some muddy margin on a creek channel or tidal flat, only occasionally seen on beaches here. When it flies you can see the black on its under-wing.

Pacific Golden Plover

Pluvialis fulva



Of about the same size as Grey Plover, this species has a yellowish-tawny tinge to its upper body during winter; sometimes in mid-

summer (April–early-May), a few individuals may be seen in breeding plumage, with vivid black-spotted golden above, and deep black on face and under-body. Keeps in small loose gatherings to less disturbed stretches of tidal creek; appears to rest much during day-time, the beak tucked behind the wings in a characteristic pose.

Red-wattled Lapwing

Vanellus indicus



One of India's most widespread species, this large plover is also the only one that is resident here. More likely to be seen along the creek margins, on drier land though at times it appears on tidal flats during low tide. It is also the noisiest of waders, its loud call amongst the most familiar bird-calls of openland and rural India.

The Sandpipers

This is a diverse group of actively moving waders, several of which are gregarious. Sandpipers generally have proportionately longer beaks than the plovers, and is a far more complex group, with species of two genera, the *Tringa* and *Calidris*, dominating here.

The *Tringa* species are mid and large-size waders; they are also proportionately longer-legged. Rump, wing-edge markings and leg colour help identification. Variable seasonal plumage may be seen here, many species exhibiting a richness in breeding plumage (seen April-early May). The following are the species of Tringa waders seen on and along Thane Creek:

Wood Sandpiper

Tringa glareola



Slim-looking and richly speckled above; yellowish legs, a small whitish rump and absence of wing-bar helps. Very active and vocal, usually a few

scattered in creek-edge and shallows, preferably where there is reed and herbage.

Green Sandpiper

Tringa ochropus

Somewhat stockier and darker plumaged than the Wood Sandpiper; has much less spotting on upper-body. Prefers freshwater wetlands and only occasionally sighted along the creek.

Marsh Sandpiper Tringa stagnatilis



Slender built, with long, dark-greenish legs and a long, fine beak. In flight, look out for the extensive white rump. Prefers freshwater wetlands but can be

occasionally sighted along Thane Creek, especially around Airoli, on either side of the bridge.

Terek Sandpiper

Xenus cinereus

Yellow legs, slightly up-turned beak and white trailing edge to the secondaries (seen in flight). Solitary or a few scattered amid other waders in shallow waters at low tide, moving about actively, busy probing with its longish beak.

Common Greenshank

Tringa nebularia



Largest of *Tringa* species here; some what stocky built is balanced by the long, greenish legs; longish beak, slightly up-turned (though

not easily seen in field); in flight, extensive white rump and lack of wing-bar helps. Distinctive loud, ringing call. Solitary or several scattered along a creek length or some flooded salt-works.

Common Redshank

Tringa totanus



Widespread along Thane Creek. A noisy, largish wader with diagnostic, loud, anxious sounding call; usually calls in low flight. Orange-

red legs and base of long beak; in flight, extensive white trailing edge to wings. Usually several scattered over a wetland area, and invariably a must amidst mixed wader gatherings.

Spotted Redshank

Tringa erythropus

Appears like Common Redshank, but paler overall, with more noticeable supercilium; in flight, absence of white trailing-edge to wings helps. Usually solitary, either feeding by itself or amidst other waders. An uncommon species in the region.

Common Sandpiper

Actitis hypoleucos



Widespread small wader, often solitary or a couple around; keeps to wetland edges, and a must amid mixed wader gatherings. Has a

horizontal stance, constant bobbing action and rapid wing-beats in low flight over water.

The Calidrine Sandpipers

(CALIDRIS AND LIMICOLA SPECIES)

These are a diverse group of actively moving, usually gregarious (some highly so) waders, with proportionately shorter legs and beaks. Most of them are small, and include the Stints, the tiniest of our wintering waders. Many species exhibit seasonal variation in plumage, with more profuse mottling and vivid shades visible during late summer, when may attain breeding plumage here.

This group includes the highly gregarious species that make up those enormous clouds of waders sighted on Thane Creek. Wheeling, twisting turning and dashing, they are a sight to behold as their glistening underbodies gleam with every twist and turn, that rush of thousands of wings a sight like no other on the creek. The following are the widespread species observed here:

Little Stint *Calidris minuta*



The two species of Stints are our tiniest waders; very active and highly gregarious, often there are great numbers of this species in those

clouds of waders that wheel and twist and flash in that rushing flight on the creek. Dark legs, grey tail-sides and prominent supercilium. Almost always part of the sprinkling of waders anywhere here during low tide.

Temminck's Stint

Calidris temminckii

Yellowish legs and white tail-sides. Less common than Little Stint yet good numbers often part of those enormous congregations of waders that also includes the following three species.

Curlew Sandpiper

Calidris ferruginea



Slightly larger than the two Stints, and somewhat longerlegged. Elegantly down-curving beak visible in good light. White wing-bar and

white-rump help, but often enough lost in those hyperactive, rushing swarms of tiny waders.

Dunlin

Calidris alpina

Squatter than Curlew Sandpiper, with shorter beak and darker rump. Less widespread but invariably a few amid the mixed wader gatherings at low tide.

Broad-billed Sandpiper

Limicola falcinellus

A small, stocky-looking wader with visibly downsloping, kinked, thickish beak, conspicuous supercilium and dark eye-stripe; narrow wing-bar. Actively feeds in shallow waters, often amid other small waders. Evidently fairly widespread on Thane Creek.

The Long Legged Waders

This is not any specific wader family or genera but is a bunch of some half dozen species placed here on account of some physical similarities - their strikingly long legs and longish necks - that make them tower over the great armies of smaller, shorter-legged waders. Some of these have striking plumage patterns, yet others have quite peculiar beaks, and a few even exhibit great seasonal plumage variation, especially evident in a few individuals that may overstay here up to mid-summer here (mid-April – early-May). Species include the following:

Black-tailed Godwit

Limosa limosa



Fairly common on Thane Creek. A longlegged, lanky looking wader with long beak. Blackish legs and crimson basal half of beak; in flight,

blackish tail-band, white rump and broad white wing-bar. Wades about slowly, often in deeper waters than most other waders, probing with its long beak. Flocks of several hundred have been seen here.

Bar-tailed Godwit

Limosa lapponica

Less common here than Black-tailed, compared to which appears less lanky; in flight, absence of white wing-bar and black tail tip pinpointing. Often seen in mixed wader flocks.

Black-winged Stilt

Himantopus himantopus



An unmistakable, noisy, strikingly black and white wader with gangly pinkish-red legs. Widespread here but seldom in any

sizeable flocks; at most, a score or more birds at the creek-edge, and in the dry and drying wetland beds here and there. Moves about briskly, though its very long legs make its foraging walk appear deliberate.

Pied Avocet *Recurvirostra avosetta*



A most striking looking long-legged wader, its pied plumage and unique beak making it stand apart. The beak is so fine and it is sharply up-curved (de-curved) and the bird skims the ooze with it, moving it rapidly like a hockey-stick. The species is an irregular winter migrant here; some years, flocks of up to 1000 birds have been sighted, and yet there can be barely a handful some years. Can wade into deeper waters, almost to belly level, even swimming along.

Eurasian Curlew Numenius arquata



A tall, darkish looking wader with the longest beak amongst true waders, and what a beak is it! It is a good 5–6 inches long and is slender and down-curved. In flight, the white rump helps. Solitary or few scattered over a large creek-edge sprawl at low tide; sometimes you may hear its distinctive mournful cry, a long-drawn coor..lee

Whimbrel *Numenius phaeopus*



A somewhat smaller version of the Curlew, with a shorter beak. Has more pronounced head-pattern, with conspicuous super-

cilium and eye-stripe. Usually a few scattered over a creek-edge at low tide, often amid other waders.

The Egrets & Herons

Widespread but their diversity is little known

Perhaps the most familiar water-side birds by sight, yet beyond the ubiquitous term Bagla for the white egrets, few people are acquainted with the great species richness of this group of long-beaked, long-legged and usually long-necked birds that fly with their neck pulled-in. Egrets are the largely white birds, with four widespread species, identifying some of which requires a bit of experience for they exhibit seasonal variation (especially when breeding, April-Sept here) in plumage and presence of plumes, as also colours of lores.

There is also the Western Reef-egret that is polymorphic, one of its morphs/forms being snow-white like the widespread egrets. Of the big, lanky Herons, there are two widespread species, Grey and Purple Herons, both shades of grey, black and variable rufous. Several other herons too are found on Thane Creek, and include the Pond Heron, Little Heron and the Night Heron.

Cattle Egret Babulcus ibis



One of India's most widespread birds, the ubiquitous *Bagla*, a term casually applied to all egrets in general. Smallest of our egrets, with short dark legs and yellow beak; rich orangebuff head, neck and back

when breeding (Apr – Sept). in recent years, the species, along with several others, has started nesting in mangroves along Thane Creek.

Little Egret *Egretta garzetta*



A slimmer, taller and 'neater' looking bird than Cattle Egret; black beak, black legs and striking yellow feet pinpointing. Showy plumes on nape, back and breast when breeding. Often gregarious, along with other egrets feeding on the ooze at low tide.

Intermediate Egret *Mesophoyx intermedia*



Taller and bigger than Little, with all black legs and feet; however, beak is yellow (non-breeding) and blackish (breeding) with yellow-green lores; acquires plumes only on breast and mantle. May be confused with the equally widespread Great Egret (see below). Often along with the other egrets.

Great EgretCasmerodius albus



The largest egret here, lanky and towering, with longer beak and neck. When breeding, beak is black, lores bluish and tibia a deep reddish, and ornamental plumes only on mantle (back). At close range, or through a good spotting scope, look for the black gape-line extending to behind eye. Watch this and some of the other egrets sometimes actively jumping and leaping as they disturb and bunt fish.

Western Reef-egret

Egretta gularis



A chiefly coastal egret, about same size as Little, from which separated by a heavier looking beak that can be yellowish-brown (not black). Only egret with two distinct colour phases, a snow-white and a slaty-bluish

phase with white patch on throat. Actively moves on creek-edge ooze, occasionally the two phases seen together.

Grey Heron

Ardea cinerea



A large heron, about as tall as Great Egret. Largely grey and white, with long yellow beak; in flight, shows all black flight feathers and grey wing-coverts. Solitary or a few scattered over a creek-edge expanse, quite

conspicuous amongst the smaller and mid-size waders. Evidently only a winter and summer visitor here, with no confirmed breeding reports from Thane Creek or other sites in Mumbai region.

Purple Heron

Ardea purpurea



A gangly, tall, dark-plumaged heron, the only one that shows variable rufous-chestnut on head and long, slender neck. In good sunlight, can appear to have a purplish wash. Solitary, often crepuscular; observe this bird for an understanding of the legendary heron patience when stalking prey.

Prefers fresh-water wetlands and uncommon overall on creeks but is occasionally sighted on Thane Creek.

Striated Heron *Butorides striata*



An elusive, small heron, short-legged and stocky looking. Bronze-green, Mostly crepuscular but sometimes may actively feed during day in shaded creek channels or in overcast weather. Largely keeps to the cover of mangrove inlets.

Black-crowned Night Heron

Nycticorax nycticorax



A stocky-looking, grey, black and white heron, with a stout beak and thick neck. Usually several around, spend day resting in cover, including in mangroves; sometimes active by day though largely crepuscular and nocturnal.

Indian Pond Heron

Ardeola grayii





Widespread resident, this thick-set little heron suddenly springs to life when it flies, the flashy white wings and tail now suddenly striking; often overlooked when settled hunched up at creek-edge, often even close-by. Shows rich maroon-brown and yellow-buff when breeding (May-Sept).

The Ibises

argish waders with proportionately short-looking legs by beaks. One is white and black, the other a deep glossy shwaters and creek-edge ooze. The two species likely to be

Black-headed IbisThreskiornis melanocephalus



A stocky white and black bird with a diagnostic, large, thick, down-curving beak. The black legs and feet are easily visible. Moves actively on the marsh ooze, even wading in shallow water, probing with its curved beak in the soft mud, the mandibles kept partly open as the bird moves about. Usually several along with other aquatic birds.

gs but best characterized by their peculiar, down-curved sy shade. Can be gregarious and keep mostly to shallow

be seen here are:

Glossy Ibis Plegadis falcinellus



A smaller, dark-plumaged ibis with a slender beak. Bronze-green, blackish-maroon, the colours are usually seen in bright light. Quite gregarious, numbers evidently rising in region, including Thane Creek environs, in recent years. Flocks often fly in a V-formation. Head often fully submerged when feeding in shallows and water-edge.





ged giants on the creek.

h ough a few scattered individuals
g summer and monsoon.

The Flamingos

Lesser Flamingo *Phoenicopterus minor*



A tall, unmistakable bird, confusable only with Greater Flamingo. Important clues are its smaller size, deeper rose-pink overall, and darker, smaller beak that is more kinked. The commoner species in Mumbai region, mostly seen along Thane Creek/Sewri Bay. Several thousand spend 6–7 months (Nov/Dec – May-June) in great congregations. Specialised feeder.

Greater Flamingo *Phoenicopterus roseus*



Very tall, rose-pink and white; the tallest bird to be seen on Thane Creek. Thinner, longer rose-pink legs than the Lesser; also, it has a larger, pinkish beak, with a shallow bend (kink). Gregarious, but much less common here than the Lesser, with which often associates. Small, loose flocks of this species have also been sighted on some of the other creeks in the region.

The Storks and Spoonbills

Painted Stork

Mycteria leucocephala



A large, bright-coloured stork with a heavy yellow beak and a bare orange-yellow head; pinkish legs and rose-pink on wings and shoulders. Often gregarious, with numbers evidently increasing in recent years on Thane Creek and in Mumbai region; may be seen with other large aquatic birds.

Asian Openbill *Anastomus oscitans*



The smallest stork here, about as tall as the Intermediate Egret. Dull-whitish overall with

extensive black on wings and tail; has a peculiar beak, stout and long with a distinctive gap between the mandibles. Usually several around, often with other aquatic birds; intermittently appears in region and no confirmed report of any breeding in or immediately around Mumbai.

Eurasian Spoonbill *Platalea leucorodia*



A conspicuous, large snow-white bird with black legs and feet, and a most amazing beak; long, large and black with a yellow tip, the beak is flat with a spoon-shaped tip (spatulate tip). A gregarious species; wades into shallow water, the head often submerged, the actively moving bird sweeping its beak to rake up the wetland ooze to scoop out prey. A rising number of this bird is being observed in recent years.

Gulls & Terns

These are the whitish, often gregarious, birds you see flying about acrobatically, or occasionally settled on water. Gulls are the larger, grey and white, with somewhat heavier built, and the ones that settle regularly, on ground and on water.

Terns, in contrast, are more slender-built, with narrower, pointed wings, and a more flexible flight. Identification of gulls and terns can be a real challenge and there are wing markings, leg colours, tail shapes and more to look for. Nearly 15 species of gulls and terns have been observed on Thane Creek. All are Winter Visitors. Some of the Gulls seen here are:

Slender-billed Gull

Chroicocephalus genei

is about same size as Brown-headed, and evidently somewhat more widespread than appears; it seems to be easily overlooked on account of its general similarity to the commoner Black-headed, but its longish neck and beak, and the more gently sloping forehead helps identification. The two other gulls sighted on Thane Creek are much larger birds.

Heuglin's Gull

Larus heuglini

A large, dark-plumaged gull; has more extensive black on wing-tips. Small gatherings on creek-margins; large congregations have been seen in March, in association with other gulls, terns and waders.

Black-headed Gull Chroicocephalus ridibundus



Most widespread gull here. About the size of House Crow. While seen throughout winter (late-Sept – March), greater numbers seen

during mid/late-March, evidently on passage.

Brown-headed GullChroicocephalus brunnicephalus



Slightly bigger than Black-headed Gull, and far less common overall. Broad black wing-tips have prominent white spots (mirrors).

Pallas's Gull *Ichthyaetus ichthyaetus*



Largest of the gulls here; much paler plumaged, with large, dark-tipped beak; yellow-beak with red spot on lower mandible. Breeding

adult (sometimes seen March-April here) has a dark hood. Solitary or small flocks.

The two widespread terns are:

Whiskered Tern Chlidonias hybrida



A small tern, frequently seen flying around; often there can be several together; in flight, short tail fork.

Gull-billed Tern *Gelochelidon nilotica*



Slightly smaller than House Crow; a somewhat stocky looking gull with diagnostic beak, short and stout looking, more like a gull's beak. Solitary or a few scattered along a length of the creek.

Other terns seen on Thane Creek include:

Little Tern

Sternula albifrons

Caspian Tern *Hydroprogne caspia*



In recent years, there have been several sightings on and around the Thane Creek of

River TernSterna aurantia



Indian Skimmer *Rynchops albicollis*

Lesser Crested Tern
Thalasseus bengalensis

Greater Crested Tern *Thalasseus bergii*

Raptors or Birds of Prey

These are the great hunters of the bird-world. While several species of terrestrial raptors too periodically appear on and along Thane Creek, a few have taken to an aquatic existence.

White-bellied Sea-eagle Haliaeetus leucogaster



An unmistakable, large raptor. Mostly seen in flight, (white body, wing-coverts short, wedge-shaped tail, black flight-feathers). Soars and circles overhead, sometimes quite high; scoops fish, snakes in its talons. Has become locally uncommon in recent years.

Osprey Pandion haliaetus



A long-winged raptor that is quite a sight when hunting, as it drops and dives to scoop fish in its talons. In overhead flight, white body and underwing coverts, angled wings and dark carpal patches.

Brahminy Kite *Haliastur indus*



An eye-catching bright rufous-chestnut and white raptor, quite unlike any other you will see on Thane Creek. Smaller than the widespread Black Kite. Seasonal and sporadic visitor, usually seen flying low in vicinity of wetland habitats or at times perched on some pole or mangrove branch.

Black Kite Milvus migrans



Widespread and familiar, dark-brownish raptor with that shallow fork in its tail. Perhaps the finest bird around to study the dynamics of flight, as it twists and dives and displays remarkable aerobics using its wings and tail. Both, the Brahminy Kite and this species scavenges along the creek edge.

SOME OTHER BIRDS SEEN ON THANE CREEK

While the aquatic species certainly dominate the featherfolk scene on Thane Creek, there are several other birds that have taken to the mangrove cover and can be regularly sighted along Thane Creek.

Clamorous Reed-warbler

Acrocephalus stentoreus



You are more likely to hear the fairly loud and repetitive calls of this bird than sight it; and when you do see one it will be a fleeting glimpse as it clambers up through

the mangrove tangle. About bulbul size, it is a pale greyish-olive bird. Fairly widespread species in the Thane Creek mangroves.

White-spotted Fantail

Rhipidura albicollis



Mumbai's widespread flycatcher, even hunting and nesting in mangroves. Keeps to the land-ward side of mangrove growth. Deep smoky-brown

and whitish, slightly bigger than a sparrow. It is unlike any other bird in action, perky, frequently fanning-out its long, cocked tail, the wings drooping on the sides, the bird every now and then uttering its delightful whistling song.

White-eared Bulbul

Pycnonotus leucotis



Black crown, white cheeks and a yellow vent are the distinctive features of this bulbul; in Mumbai region, appears to have taken entirely to living in

and around mangrove creeks where reasonably widespread. Sprightly, like most bulbuls; keeps to vegetation, now and them emerging out; has cheery, melodic calls.

House CrowCorvus splendens



Mumbai's most famous bird is invariably found along Thane Creek, feasting on offal and garbage that gets washed with the tides; in recent years a rising

number have been observed nesting in mangroves.

Jungle Crow
Corvus macrorhynchos



The larger, all glossyblack crow of the region; is sometimes sighted in mangroves.

Little Bee-eater





Regularly sighted hunting insects around the mangroves. Small numbers of this bird, one of India's most widespread species, breeds along the drier margins and adjoining

tracts of Thane Creek; is commoner during winter when numbers augmented by migrants from across the mainland.

Blue-tailed Bee-eater

Merops philippinus



Passage migrant through region; mostly sighted October-November; small parties in mangrove-edge areas; the open expanse

around the Bhandup Pumping Station is the best spot to sight this and the Blue-cheeked Bee-eater.

Ashy PriniaPrinia socialis



Seen in mangrove-edge scrub and herbage where breeds in largeleaved monsoon growth.

Blue-cheeked Bee-eater

Merops persicus

Passage migrant through region, sometimes along with Blue-tailed Bee-eater.

Common Kingfisher

Alcedo atthis



A small kingfisher with an iridescent-blue and orange-chestnut plumage, and coral-red legs. Though it is more often seen on inland water-bodies, it is

occasionally sighted on Thane Creek. It darts low over water, uttering a shrill call as it flies. On sighting fish, watch the little bird hover and dive and return to a perch with a fish in its beak.

White-throated Kingfisher

Halcyon smyrnensis



India's most widespread kingfisher is regularly sighted along Thane Creek, including on adjoining grass and scrub areas. This myna-size bird has a striking plumage, with

a dagger-like red beak, and an unmistakable loud, rattling call. This species can be regularly sighted away from water too, where it mostly hunts lizards, insects and frogs.

Bluethroat
Luscinia svecica



Widespread winter visitor; keeps to mangrove margins, preferably where slightly damp, emerging into open. A ground-living species.

Lesser Whistling-duck Dendrocygna javanica



Flocks have been observed roosting in mangrove channels, flying around dusk; at times large gatherings visible. This is the widespread waterfowl

species of the Mumbai region, where evidently small numbers also breed locally.

Long-tailed Shrike

Lanius schach



Seen mostly along the mangrove edge scrub and openlands; highly vocal bird; rufous and grey above, white below, with broad black eye-stripe, blackish tail. Seen mostly mid-September – March.

Indian Cormorant Phalacrocorax fuscicollis



Along with Little Cormorant, sometimes in small flocks; numbers seem to be rising in recent years, with the bird also having begun nesting

in the mangroves. Besides slightly larger size, also has a longer, more slender beak;

Little Cormorant *Phalacrocorax niger*



The region's common species, sometimes sizeable flocks seen on the creek; few reports of nesting in mangroves. Often in association with the Indian Cormorant.

Red-vented BulbulPycnonotus cafer



India's most wide spread bulbul is regularly sighted in scrub and other adjoining areas along the Creek and sometimes in mangrove growth where also has been observed nesting.

Indian RollerCoracias benghalensis



A familiar and common bird across peninsular India; roughly pigeon-size but with a slender-built; colourful plumage, especially the blues in flight. An uncommon winter visitor to the mangrove-edge areas here.

European Roller *Coracias garrulus*



A Passage Migrant, observed fairly regularly since past 5 years; up to 15 birds have been sighted during 2013-14; keeps to the mangrove-edge open areas where seldom stays more than a week or so.

Blyth's Starling



This form, with whiter head, breast (sometimes considered a separate species) is sporadically sighted along Thane Creek during late-August- early-Oct, often along with the Chestnut-tailed.

Asian Pied Starling

Gracupica contra



Regularly sighted in openland and urban areas along the fringes of Thane Creek; a black and white myna-size bird with a rich mix of call-notes.

Rosy Starling

Pastor roseus



Seasonal migrant across region. Huge numbers seen during late-Feb – mid-April, coinciding with the flowering of certain trees and fruiting of the Toothbrush plant (Salvadora persica) that grows extensively around mangrove creeks; the birds also roost in mangroves. Rose-pink and black, extremely vocal.

Chestnut-tailed Starling

Sturnia malabarica

A Winter Migrant, or possibly seasonal visitor, seen more regularly during Sept-Oct and again during March; has been observed feeding on Salvadora berries, along with Rosy Starling. Small, noisy parties.

Red Avadavat

Amandava amandava

A tiny bird, one of the several species of munias seen in openlands along the creek-edge, the breeding male (monsoon) is a striking red with white spots; female and non-breeding male are brownish, but have red beak and rump. Pairs or small parties, sometimes with other munias.

Baya Weaver *Ploceus philippinus*



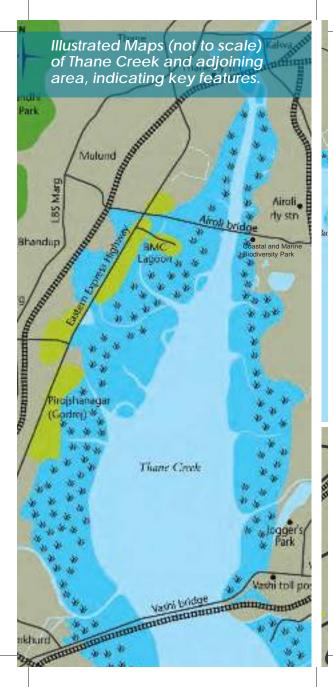
This species has declined much in Mumbai proper; a few still appear along the margins of Thane Creek, breeding during the monsoon, and sporadically sighted during winter. Renowned for its hanging nest.

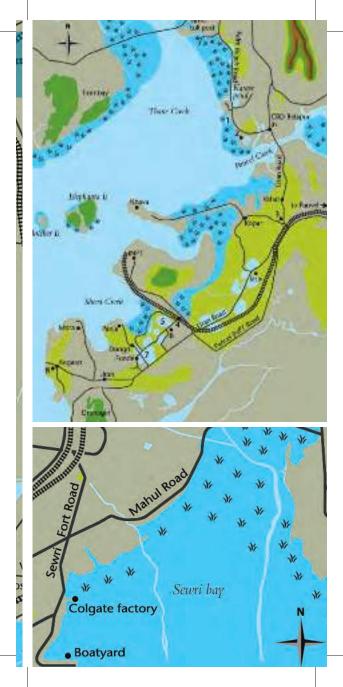
Scaly-breasted Munia *Lonchura punctulata*



Small flocks regularly sighted in openlands along the creek-edge, where also breeds (monsoon). The other species of Munias seen here include Blackheaded, White-rumped and the Indian Silverbill.

Besides, several species of wintering warblers and wagtails are regularly sighted in the creek-edge landscape, and some of the more widespread are Paddyfield Warbler, Blyth's Reed Warbler, Yellow Wagtail and White Wagtail.



















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About the Mangrove Cell

In order to protect, conserve and manage the mangroves of Maharashtra State, a "Mangrove Cell" was created by the government on 5th January 2012. The Cell is headed by a Chief Conservator of Forests. The Cell has been given the additional responsibility of conservation of coastal biodiversity. Since its establishment, the Mangrove Cell has made concerted efforts for a better understanding of mangroves, to create awareness and to train staff for effective conservation of mangroves. The Mangrove Cell has also initiated regeneration efforts to enhance mangrove cover.

About GIZ-CMPA

The Conservation and Sustainable Management of Existing and Potential Coastal and Marine Protected Areas (CMPA) Project, is a flagship of the Indo-German technical project cooperation. The project is funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). Using funds provided under the International Climate Initiative (IKI), the BMUB has commissioned the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH to jointly implement the project with the MoEFCC. This project aims at conservation and management of potential marine protected areas in India through strengthening participatory management, by developing capacity of individuals and building community support for conservation through education and outreach. In Maharashtra, the Mangrove Cell is implementing the project in three sites i.e. Thane Creek, Velas-Dabhol Coastal Stretch and Ansure Creek.











of the Federal Republic of Germany