

AN UNLIKELY HERO TO THE MIGRATORY BIRDS!

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Every year thousands of birds, some no larger than sparrows embark on an incredible journey from the northern hemisphere to the south, leaving their breeding grounds in search of warmer temperatures and better feeding areas. This spectacular annual migration occurs along many clearly defined routes, one being the East Asia-Australasia flyway. Along the flyway lie the straits of Malacca, where its coastal plains offer rich feeding grounds full of worms and shellfish for the tired migrants. Six months later, the birds fly back to the freezing arctic tundra to breed and give life to a new generation of birds who will continue the 11,000 mile journey across the Earth once again.

This marvel of nature that has occurred for centuries; dating back to the time of the ancient Greek authors Homer and Aristotle is now plummeting. Extinction is knocking on the door of countless migratory birds and the cause for extinction is almost always linked to humans. The major cause of extinction along the East Asia-Australasia flyway is due to destruction of intertidal habitats in a mad race to achieve development across emerging economies in Asia. In an era where tidal mudflats are converted to building sites and natural coastlines to walled coastlines; an unlikely hero has emerged to nestle these feathery creatures. The Kapar Power Station 'Ash Ponds' strategically located in the North-Central Selangor coast, on the East Asia-Australasia flyway creates ideal conditions as roosting grounds for many shorebirds.

Coal power stations generate fly-ash; a toxic, non-biodegradable waste product that is deposited in manmade wastelands in the form of slurry. These wastelands collect layers of ash transforming over time to ponds, known as ash ponds; creating a unique manmade wetland, supporting avifauna. The Kapar Power Station attracts waders due to its strategic location on the North-Central Selangor coast, an Important Bird and Biodiversity Area (IBA) under the BirdLife International IBA Program. Birds that use the IBA as low tide roosts fly towards Kapar during the high tide. From freezing winds to tropical storms, these birds fly 11,000 miles non-stop day and night risking their lives, navigating across a planet infinitely changed by humans to reach the ash ponds of Kapar during high tide.

Bird counts from the Kapar ash ponds show a steady increase of migratory birds over the last 20 years, giving it fame as Malaysia's prime site for waterbirds at present. The migratory season from September to January records the highest number of species in Kapar. Asian Waterbird Census (AWC) data from 1990 to 2008 show a positive increasing trend which however, underlies a dark secret. The increase of waterbirds in the AWC at Kapar is speculated to be fuelled by the destruction of feeding grounds in other parts of the Malayan peninsular, thereby forcing the migrants to congregate at Kapar in larger numbers than previous years. Therefore, preserving Kapar will ensure a safe passage for migrants flying across the East Asian- Australasian Flyway which will save a few ecologically threatened species (Spoon-billed sandpiper and Nordmann's Greenshank) from the brink of extinction, creating a link that may be the future, to our past.

In this unlikely and in fact, extremely unique occasion where migratory bird populations depend on a manmade structure for roosting, the sustainability of the ash ponds of Kapar is of mammoth value. Minor changes to the ecology and habitat conditions of the ash ponds may increase the point of vulnerability of the site, threatening the 20,000 birds that find refuge within its shallow waters. The site has already been affected by changes in fresh slurry flow released to the phase 1 and 2 ponds, which has resulted in the birds moving away from the initial site (pond 1) to a different ash pond to roost. Vegetation gradually colonised the phase 1 ash pond as it dried up owing to reduced flow.

The phase 2 ash pond has already exceeded its life expectancy and would reach capacity regardless of the amount of power generated by the station. Once the pond reaches capacity, the slurry flow will come to a halt which will result in drying the pond completely, rendering it useless to the migrants that fly across the earth, thereby forcing them to roost in a different site or avoid flying to the peninsular altogether. Furthermore, Malaysia has pledged to focus on renewable energy in future; risking the future of the Kapar Power Station. Therefore, the need for mitigation of such events is of paramount importance for Kapar, and the Malaysian Nature Society's (MNS) Asian Waterbird Census (Malaysia) Seminar titled 'Charting the Future of Malaysia's Most Important Migratory Waterbird Roost Site: the Kapar Power Station Ash Ponds' was aimed at addressing the matter at hand. The importance of Kapar ash ponds increase owing to the fact that they are intricately linked to the Klang Islands and remain as the only recorded major high tide roosting ground in the entire North-Central Selangor coast.

The lifespan, slurry flow and sustainability of the ash ponds will rely on the decisions made by the management of the Power Station. Therefore, the seminar was aimed to gather stakeholders from different backgrounds to recognise the importance of the ash ponds and form recommendations to follow through. The seminar was also a platform to share the results of the 2015/2016 waterbird census conducted at the Kapar Power Station by MNS.

An interesting theory was put forward by David Bakewell, renowned MNS Birder and Photographer. He pointed out that Curlew Sandpipers and Great Knots that have declined by a staggering 80% in Australia have increased by 158% and 460% respectively at Kapar. His explanation was that the historical patterns of migration in the East Asian-Australasian Flyway are changing due to human impacts, directing the birds towards Kapar since they are unable to find adequate food in their traditional Australian wintering grounds.

These birds embark on their journey across the earth in order to survive, however the migration itself is a treacherous journey and the risks involved are increasing rapidly. Since Kapar is distracting the migrants from their traditional migratory routes, its importance in the context of the flyway has increased markedly. Kapar now plays a critical role in the long term survival of these species therefore its management and sustainability has never been more important than now. In the long run, it is not only Kapar that needs saving but the entire North-Central Selangor Coast IBA. Kapar is only a unique high tide roost; but the long term sustainability and conservation of the migratory species are interlinked with its low tide roosts as well. Sometimes rather unexpected outcomes come off good decisions. In a world which aims towards a transition from coal to renewable energy lies Kapar, a silent manmade hero and an unfortunate victim of circumstances.