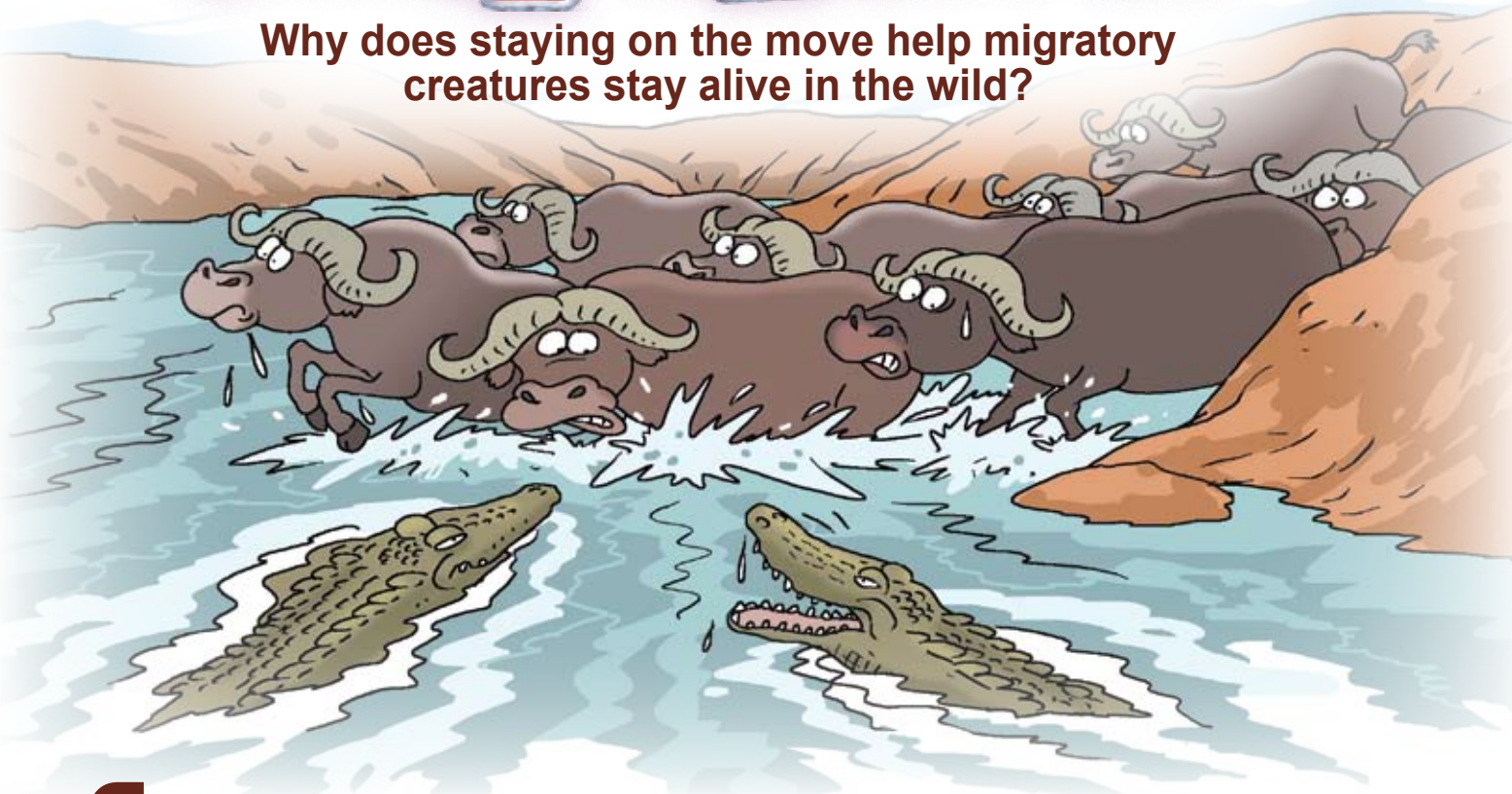


MOVING TO STAY ALIVE

Why does staying on the move help migratory creatures stay alive in the wild?



Every year, a huge cast of migratory animals, birds and insects put up an incredible extravaganza in Nature known as **mass migration**. These migrations are difficult, often spanning thousands of miles, and are fraught with danger as opportunistic predators lay in wait. Yet, despite the dangers, these migratory animals press on because their lives depend on it!

The Great Serengeti Migration

Life in the African savannah is tough. Just ask the two million herbivores that have to travel seven hundred miles across the Serengeti, from Tanzania to Kenya, just to get a drink of water and a bite of fresh grass.

During the dry season, buffaloes, gazelles, wildebeest and zebras in Tanzania head for green pastures in Kenya, where they remain until their food source runs out.

When that happens, they make the reverse journey back to their homeland again. By that time, the pastures are once again green from the returning rains. They travel a total distance of over 2000 kilometres!

Unfortunately, the hordes of herbivores are not the only ones on the move. Tigers, hyenas and crocodiles also tag along in the hope of enjoying a never-ending buffet of fresh meat. The young and the weakest

ENDLESS PLAINS

“Serengeti” means “endless plains” in the local Maasai language. It is easy to see why it has such a name - the savannah stretches over 60,000 square kilometres and is home to over two million animals, including Thompson gazelles, wildebeest, giraffes, zebras, elephants and lions!

herbivores in the herd are usually the first ones to be picked off the buffet spread and devoured.

The killings usually take place at river crossings of the Mara River, a crocodile-infested river that lies across the migration route. These river crossings are undoubtedly the most perilous part of the journey. The herbivores must wade into the river and climb up the riverbanks to get across the river, and any clumsy herbivore can easily become crocodile food! Fortunately, most of them make it across the river safe and unscathed, even repeating the migration several times during their lifetime.

A Sky of Locusts

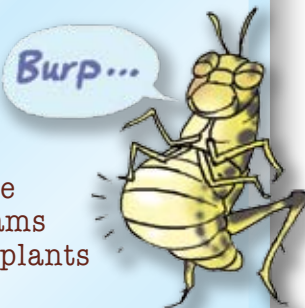
Mention the word "locust" to any farmer if you want to see him cringe. A swarm of locusts flying over farmland can only mean one thing – devastation! These winged eating machines were so feared in ancient times that they were named one of the Ten Plagues of Egypt in the Bible!

Migratory locusts (*Locusta migratoria*) are a type of grasshopper that usually forms flying swarms so large that an estimated eighty million locusts make up the swarm! These voracious eaters invade fields and

EAT LIKE AN INTER-CONTINENTAL FLYER

Locusts may be hated and reviled by farmers as nothing more than winged vermin, but these hungry insects are great voyagers! A swarm of locusts was once spotted flying from Africa to Britain, all the while chomping non-stop on plants!

These locusts sure know to eat on the run! A single locust weighs about 2 grams and can eat its weight in plants each day.



farmlands, and binge-eat until the food runs out. After that, they simply move off to the next field and binge-eat all over again!

Amazingly, locust swarms as large as several hundred square kilometres (roughly half the size of Singapore) have been sighted; they are known to darken the skies when they fly past! It is no wonder that farmers despair when these clouds of destruction descend on their crops.





Every autumn, millions of these black and orange butterflies congregate and fly towards Mexico from Canada and northern USA. The Monarchs' laborious journey takes them over mountains and rivers and seas. Not only that, they also have to battle strong winds, storms and hungry birds along the way! Talk about a rough journey!

Undeterred, these brave travellers fly on tirelessly day and night, making occasional pit stops to fuel up on carbohydrates in the form of flower nectar, to reach their destination some three thousand kilometres away!

Their goal is to find a warm climate where their favourite food, the poisonous milkweed, is abundant. And along the way, the butterflies mate and reproduce, adding new members to their expedition team. Remarkably, it takes three generations of Monarch butterflies to complete the migration!

Monarch Butterfly

It is difficult to imagine a frail little butterfly with paper-thin wings flying over mountains and seas, but these butterflies are amazing aviators! The aptly named Monarch butterflies (*Danaus plexippus*) are extraordinary creatures that fly westward over vast distances to escape the cold each year.

Once the tenacious travellers arrive at their sunny destination, they settle on trees in shimmering clusters, giving the trees a beautiful sheen. The "royals" then settle in for the summer and begin mating. When the new generation of butterflies are mature, the butterflies then make the return trip back to their homes in the north.

Pole to Pole Traveller

Each year, an unassuming little bird covers distances so vast that it would astonish the toughest traveller.





SUPER DIVER

The sooty shearwater is also an accomplished diver. It can dive-bomb into the sea in search of krill, fish and seafood at depths of up to 68 metres!

Meet the sooty shearwater bird; this sleek, grey-

feathered bird is a seasoned traveller that flies between the hemispheres every year in search of the richest fishing grounds on the planet. Globetrotter sooty shearwater birds have been all over the world, to places like Chile, New Zealand, Alaska, California, Japan and even Antarctica!

Sooty shearwaters fly past the equator twice a year, logging about sixty-five thousand kilometres! That's the world's longest animal migration ever recorded!

The sooty shearwater's ability to fly over great distances allows it to get to the best feeding grounds according to the season. For example, when it is winter in the Northern hemisphere, flocks of sooty shearwaters would fly southwards past the equator where it is summer, and gorge on the abundant seafood found in the warm waters. The birds then reverse the trip and return to the Northern hemisphere when the food starts to run out. These resourceful birds sure know how to make the best of both worlds!

Reality TV

Nature is full of wondrous creatures with extraordinary habits. The next time you are in the mood for some real entertainment, look towards Nature, where the most incredible sights can be found!

NEXT MONTH:
Interview with real-life Wildlife Biologist Shivani Bhalla!

Science Wonder Contest

Answer two simple questions and you could win a hamper from BIC!

1. Which animal is a pole to pole traveller?

2. What is the Monarch butterfly's favourite food?

Send your answers to: **YG 319 Moving To Stay Alive**, Panpac Education Private Limited, Times Centre, 1 New Industrial Road, Singapore 536196 or you can drop off your entry at your primary school bookshop. **Closing date: 30 November 2007**

Name: _____ Sex: M / F Age: _____

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