Purpose and Practicality of Congregating: A Naturalist's Understanding of Combating Loneliness in the Animal Kingdom

Extract from a short story

On the twenty-third floor of the Oak City Nittochi Nishi-Shinjuku Building in the Shinjuku ward of Tokyo, Japan, Helen is working at her desk.

She pays no attention to the foreign skyline outside. Instead, she focuses on the work before her.

She clears her throat once, then again. She smooths her auburn hair and tightens her ponytail, scrolling back to the top of her advertisement proposal. Briefly, she considers taking a break to listen to the audiobook on animal migration she started on the plane.

At the slide entitled 'Predicted International Impact' she starts reading.

It has been five days since she arrived in this new city, and her body is finally becoming accustomed to the time change from her native Minneapolis.

She picks up a folder from the desk and fans herself. The heat is sticky here. Unlike the time difference, her body won't adapt to the humidity during her short stay in Tokyo.

In the same Nishi-Shinjuku Building as Helen, men head towards the indoor golf driving range for a bit of exercise. Deep beneath the building, the ever-busy Marunouchi Line rumbles on. Ambulance sirens blare as they enter the nearby Tokyo Medical University Hospital. A steady honking of car horns and screeching of breaks permeates the air.

Meanwhile, inside her office on the twenty-third floor, Helen continues to work quietly, swiftly, and alone.

Twice a year, every autumn and spring, across North America and Europe, starlings prepare for their bi-annual migration south. In Denmark, this event is nicknamed Sort Sol, or Black Sun. The sheer number of starlings that cover the sky over the marshlands of Jutland are said nearly to blot out the sun.

A starling murmuration is a true feat of navigational acrobatics. The birds move together, appearing as a gigantic, multi-individual creature. The swarm twists and weaves and folds in on itself, but never once do any of the birds collide. They fly with a precision that makes the Blue Angels

envious. They accomplish this by tracking the movements of up to seven of their closest neighbours.

Their flight is maintained by three rules:

- Rule of Separation:
  Steer oneself to avoid crowding or bumping one's neighbours.
- Rule of Alignment:
  Match oneself to the assumed direction of one's neighbours.
- Rule of Maintenance:
  Direct oneself towards the average position of one's neighbours.

The purposes of flocking are many, but, in a migratory sense, the main function is aerodynamic. By arranging themselves in specific shapes, the starlings can take advantage of changing wind patterns, using the surrounding air in the most efficient way.

Using one another, they make their own struggles easier to bear.

Helen rechecks the consumer figures for the ad proposal she input earlier in the day. She is holding a sandwich in one hand.

She plays the rough version of their ad.

A car winds between low, country hills. There is no evident location, but it looks vaguely Scottish. The Highlands, perhaps. The rugged environment suggests wilderness, exploration, a final frontier here on Earth.

Cut to a man in a tailored suit. He smiles, shifting gears.

Cut to a car speeding quickly across the screen, into dense fog, vanishing from view.

The tagline, 'Adventure is Waiting', fades in, before the screen fades to black.

Helen takes a bite of her sandwich. She chews, scrunches her face, and looks at it. There, between the tomato and the ham are thin slices of cucumber.

She hates cucumber. Her father used to tell her that she'd like it when her taste buds matured. She is still waiting.

A knock turns her attention to the door.

'Your smile always manages to brighten my day.' A man leans against the frame of the door, his white teeth set apart from his dark caramel skin. The sleeves of his dress shirt are rolled to his elbows. His hands are in his pockets.

'What do you need?' She puts her sandwich down on the table, sidestepping his effort at humour.

Helen and Mark have worked together off and on for the last eight months. This is their fifth ad campaign together. She enjoys working with him, despite his attempts to make her open up. They divide the work according to their strengths: her organising presentations and calculating

figures, him liaising with the creative team and pitching ads to clients.

'Are you coming?'

'We don't have a meeting today.'

'To the breakroom.' He jerks his head left. 'There's gonna be cake.'

'What for?'

'Miko's birthday.' Mark contextualises slowly. 'Miko. The translator. Our translator. She's been working with us since we landed.'

'Of course.'

'So, you'll come?'

'I still have a lot to put together here.'

Mark stands for a moment at the door before making his way to the breakroom by himself.

Every year, millions of wildebeests circle the African plains during the great Serengeti Migration. It occurs without fail, following the same route.

Following the short rains in November, the herds congregate in the south-east quadrant of the Serengeti National Park in Tanzania. Over the next few months, the herds will grow as they graze, give birth, and prepare for their journey. In April, they start to move north.

The migration continues through the summer, traversing plains flourishing with grass and fresh water alongside hordes of zebra and gazelle. Their first river crossing occurs in June when the herd comes across the Grumeti River, more a series of pools and shallow channels when they encounter it.

It is in September, more than halfway through their journey and after migrating into Kenya, that the wildebeests face their greatest threat: the Mara river – its surging, frothy waters still swelling from the late summer rains.

The herds gather at the edge of the waters – waiting, watching for signs of the danger lurking beneath the muddy surface – for the long jaws, the sharp, hooked teeth, that could drag them under without hesitation. All at once, the wildebeests charge into peril.

The survivors feast in celebration on the opposite shore. Then, quickly breaking into smaller herds, they continue their journey. For they still have months before they return to where they started the year before, in the short-grassed plains on the southern tip of the Serengeti. There, they will mate and prepare for their great migration again. For that is all they know. They constantly pursue survival.

The water from the tap is cold. Helen splashes herself twice, rubs her eyes and pushes herself up from the basin. She watches the water drip from her face, swirl around the drain, and rush down the pipe.

She turns to find a towel to dry herself, but only sees hand dryers along

the wall. She enters a stall and wipes her face dry using some toilet paper, flushing it when she's done.

Back in her office, she scrolls through her emails. One from her landlord. One from her mother. Most are promotions.

She stops and clicks on an email with no subject line. It's short, informing Helen they left her key in the mailbox. It's simply signed 'Aisha'. Helen remembers not two weeks ago when they signed off with 'Love', and before that 'XOXO'.

She returns to her inbox. She responds to her mother telling her that everything is fine, that she'll be home for Christmas, and that the food is good. She replies to her landlord to let him know that she is fine with the increase in rent if the leaky toilet is fixed before she gets back.

She returns to Aisha's email, reads it again. Then, deletes it.

She packs her bag, turns off her desk lamp and heads for the elevator.

She ignores Mark calling her name, pressing the close door button before anyone else has the chance to enter.

Between May and July off the east coast of South Africa, an unexplained phenomenon known as The Sardine Run takes place.

Ecologically, little is known about this mass migration, as it doesn't happen every year. In fact, in the last fifteen years the run didn't take place in 2003, 2004, 2006, 2013, or 2015. However, when it does occur, it results in a frenzy of excitement that infects every living thing which encounters it.

The main purpose of sardines schooling in such large quantities is protection. They instinctively group together when they feel threatened. This behaviour is a defence mechanism, as lone individuals are more likely to be picked off by predators than while in large groups.

When confronted with an enemy, the sardines put on an underwater ballet that is awe-inspiring, confusing their would-be attackers.

They pirouette, twirl, turn, encircle, disperse, and reconfigure. Anything to get under, above, behind, beside, around, and beyond the danger confronting them. Then, after side-stepping death itself, the school reassembles itself and continues up the coast.

Outside, Helen puts in her earbuds and starts up her audiobook. She lights a cigarette, takes a long drag, holds it in, then breaths out.

She started smoking when she was in university as an excuse to leave parties. Despite the habit, she tells doctors she doesn't smoke.

She extinguishes her cigarette at the entrance of the Nishi-Shinjuku station. She scans her pass and walks to the platform for the Marunochi line. It is crowded with people heading home for the day.

She stands by the door of the car, finding comfort in staying close to

an exit. She leans against the cold window until she disembarks at the Shinjuku station.

It is busier here: school children in black gakurans, their collars stiff, scurry past her; a gothic-Lolita pokes her in the head with a frilled umbrella; a station worker yells at the young man rushing past on a skateboard, swerving and weaving between the hordes of people.

Helen turns around, then back again. Finally, she spots a green sign with Yamanote Line printed in English beneath the Japanese. She's caught in a wave of people as they surge into the nearest car. She feels compressed on all sides. She twists, squirms, trying to fold herself back towards the exit, deciding to take the next train. The doors hiss closed, cutting off her escape.

The train jerks, screeches, and picks up speed through the underground. Helen, forced flush against the door, watches as another train glides up next to hers. Inside, people are identically crowded, packed tightly side by side. It twists, turning down a separate tunnel.

The train roars through the earth like thunder. She watches condensation bead on the window until it falls under its own mass. It reminds her of thunderstorms back home. The weight of the clouds pressing down from the sky, lightning creating a cage. Storms always make her feel claustrophobic.

The Globe Skimmer holds the record for the longest migration by any insect. Measuring no more than five centimetres, this species of dragonfly travels nearly eighteen thousand kilometres roundtrip. They can fly nearly seven thousand kilometres without rest and can fly up to sixty-two thousand metres high. Their migration takes them from southern India to Mozambique and Tanzania, with stops in the Maldives and the Seychelles along the way.

The swarm follows the Intertropical Convergence Zone (ITCZ), which aids their flight across the Indian ocean. A narrow stretch of space near the equator, the ITCZ is where the northern and southern trade winds converge, resulting in low atmospheric pressure. The Globe Skimmer uses these trade winds to travel faster and glide longer than normal.

However, it is the resulting storms from the low atmospheric pressure that the dragonflies truly seek. The swarm departs from India to avoid the dry season, as they require fresh water in order to reproduce. They chase storms across the ocean to ensure the birth of the next generation. For it takes at least four generations of Globe Skimmers to complete one migratory cycle. Generations of dragonflies born in one location and dying in another. An existence seemingly doomed never to return home.

At Shibuya station, she flails out of the train, trying to beat the stampede to the surface.