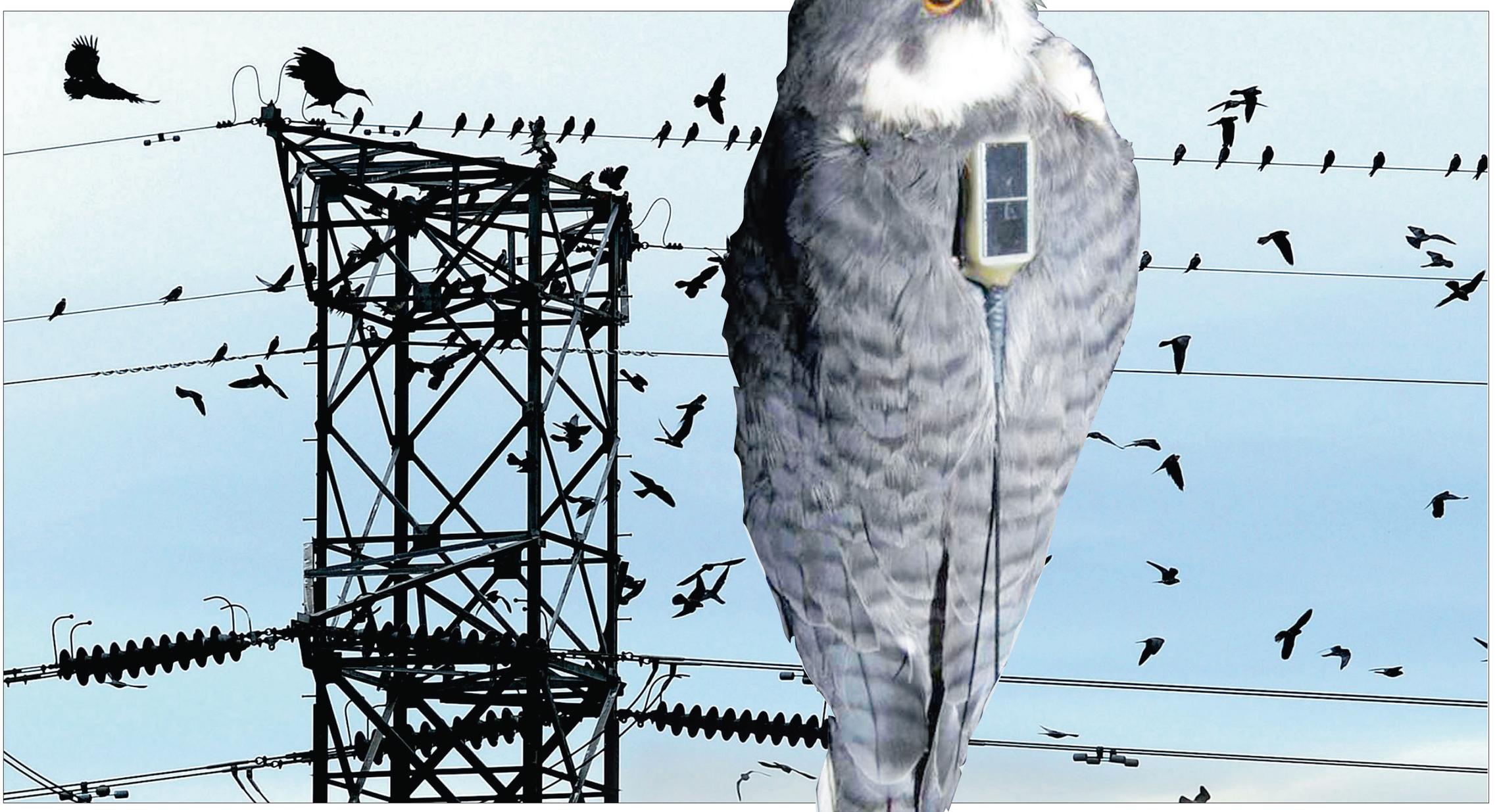
The ‘amazing’ saga of this Amur Falcon



ROOST TIME: Amur Falcons swirl around Eskom power lines in Newcastle before landing on the branches of nearby pine trees. It is estimated that 26 000 falcons take up residence here annually. PICTURE: CHRIS COLLINGRIDGE

HIGH TECH: 95773 shows the tiny transmitter and antenna on her back. Satellites 850km above track her journey. PICTURE: BIRDLIFE NORTHERN NATAL

FLIGHT 95773

Wearing a tiny solar-powered transmitter on her back, and tracked by satellites 850km above, she flies 14 560km, including a 5-day non-stop journey of 5 912km at 50km/h

BY SHAUN SMILLIE

SHE’S the pilot. The sole passenger. The navigator. The engine. The refueller. She’s Flight 95773.

It’s the first day of autumn, one year ago. She lifts off on an epic 14 560km journey. Part of this will be a five-day non-stop 5 912km flight, mostly over the Indian Ocean, a journey one scientist describes as “amazing”.

She’s an Amur Falcon, a small bird of prey not much bigger than a pigeon.

95773 is built for long-haul flight. Her sleek tapered wings power her to speeds of more than 50km/h and allow her to glide on thermals for long distances.

The small shark-toothed markings on the feathers of her breast reveal she is an adult.

What makes this Amur Falcon special is that sitting on her back is a matchbox-sized GPS transmitter that will beam data to several satellites orbiting 850km above the earth.

Tracking 95773 will be expensive. The 5g transmitter on her back costs R26 000. Add another R26 000 to download the information from the satellites.

She is one of 10 falcons trapped in Newcastle last January and fitted with transmitters.

The people behind the venture don’t believe in giving birds names, but they give her, and nine other falcons, numbers. Each is the ID of the GPS Platform Terminal Transmitter (PTT) strapped to their backs.

Hers is PTT 95773.

The bird lovers and scientists behind the venture are hoping these small birds with their tiny transmitters will solve one of ornithology’s great mysteries.

Where 95773 is heading on that first day of autumn is known.

The mystery is her route, not her destination: the breeding grounds of Mongolia.

For a long time ornithologists have debated the route that Amur Falcons take to Mongolia.

There have been attempts to plot the transcontinental migration, but all ornithologists have been able to rely on are odd sightings through east Africa and the Middle East. Whole legs of the journey have been missing.

But advances in technology and the work of a handful of amateurs will change this. Here’s how the story goes.

On January 10 last year, Professor Dr Bernd-Ulrich Meyburg arrives in Newcastle, KwaZulu-Natal, from Germany.

He’s a plastic surgeon with a passion for birds.

Meyburg has made a name for himself in birding circles from the work he’s done in studying the migration paths of birds of prey.

Meyburg says a book about the Lesser Spotted Eagle sparked his passion as a schoolboy in West Germany.

On reading the book the youngster becomes fascinated with the bird’s long migration to southern Africa.

By 1994 the fall of the Berlin Wall and access to satellite telemetry finally allow Meyburg to fulfil his childhood dream.

He and his wife, Christina, fit transmitters to four adult Lesser Spotted Eagles and track the complete migration of one of the birds to Zambia.

Transmitters become smaller and smaller and he then tracks the migrations of other raptors.

In 2008 Meyburg is given a prototype transmitter to test.

It weighs about the same as a teaspoon of sugar – just 5g.

On August 9 2008 he fits the transmitter to an adult female Eurasian Hobby he catches near Berlin.

Meyburg follows the Hobby’s migration to Angola. It flies via the island of Elba, south into North Africa and arrives in Angola 49 days later.

With this success, he wants to try the transmitter on something even smaller.

His choice: the Amur Falcon.

His destination: Newcastle.

The reason: just 1km from the town centre is the largest-known roost of Amur Falcons in the world.

Between December and March every year, an estimated 26 000 Amur Falcons take up residence in the tall pine trees that line Allen Street, a major thoroughfare through the town. The ideal spot to catch the falcons.

The problem: how to do it.

About two months before he arrives in South Africa, Meyburg approaches Birdlife Northern Natal.

“He asked us if we would be able to capture the falcons using high-altitude nets,” veteran bird ringer Rina Pretorius remembers.

At the time Pretorius knows a lot about mistnets and catching birds, but she’s never heard of an Amur Falcon being caught using these nets.

The problem: they fly too high, and if the birders want to catch them they will need to raise the nets tens of metres alongside the pine trees.

Electricity giant Eskom and funding from the local municipality come to their rescue.

Cables are strung through the trees, long poles erected and then they put in a pulley system to hoist the nets into the air.

By December 12 they are ready for a trial run.

Just after dusk Pretorius and the team achieve a South African first. They net their first Amur Falcon.

By the end of the evening they catch five more. Each bird is ringed and released.

It is time to call in Bernd and Christina Meyburg. They arrive in Newcastle on January 10 and that evening join the bird catchers.

They spread out their nets and prepare to raise them as Meyburg lays out the tools and transmitters on the table in the lapa.

They are ready.

In the fading light columns of falcons, thousands strong, reel above the roost site.

So many that the standing joke among the ringers is not to look up with your mouth open…

To draw the birds closer to the nets, the team uses a lure, a method known in ringing circles as “callback”.

They have recorded the call of the Amur – *kew kew kew… kew kew kew* – and play it loudly on Pretorius’s bakkie sound system.

“The idea,” explains Sylvia Francis, another ringer, “is that birds follow (other) birds that make the most noise because they believe they have the fullest crops. What they plan to do is roost close by and then follow that particular flock, believing they know where there is a lot of food.”

Soon the falcons begin descending, darting among the trees looking for a branch for the night.

Then the mistnet catches the first of four birds, including 95773, trapped that evening.

The catchers untangle the falcons from the net, place each in a small cloth bag, and take them to the lapa.

95773 is the first to be weighed.

“Bernd told me that I could do the first bird, because I had prepared all the infrastructure,” Pretorius says.

The catchers have a strict rule: so as not to hinder the flight of the bird, the transmitter cannot weigh more than 3 percent of the bird’s mass.

95773 comes in at 160g.

“Bernd suddenly got very excited, his eyes never left that bird,” remembers Pretorius.

Pretorius rings 95773, measures her and takes a blood sample.

Meyburg takes over. He fits a small wire harness across the bird’s chest to hold the transmitter high on her back and positions the antenna to follow the contour of her tail.

This is when she becomes 95773.

When they’re done, Pretorius, mindful of the raptor’s sharp beak, carries the bird into the open.

Pretorius places her on a chair to give her a few moments to recover from the ordeal of her capture.

Then 95773 lifts off into the night.

Five days later they meet their target of 10 birds: eight females and two males.

With the first part of their mission over, Bernd and Christina Meyburg return to Germany.

This is too early for the launch of her migration, but soon 95773 begins revealing part of the hidden life of an Amur Falcon.

“We found out that she moved a lot at night between roosts,” says Pretorius. “The Roberts book said that they hunt only 50km from their roost, but we found her travelling to Memel and Standerton.”

In Germany it is Christina Meyburg’s job to access the satellite website and download the data.

The first glitch comes soon after the 10 birds are released: three of the transmitters stop working.

No one knows why: it might be that there is a glitch with the transmitters, or it could be that three birds have died.

But not 95773.

Her transmitter keeps beaming data, and what they learn is that for two months she wanders, criss-crossing northern KwaZulu-Natal, hopping between the different roosts, and then she moves into Swaziland.

Amur Falcons favour open grasslands, where they gather in big flocks and feed on insects like dragonflies and flying ants.

Sometimes they go for bigger prey, taking barn swallows on the wing.

Meyburg and company suspect she is building up vital fat reserves for her journey ahead.

Ornithologists refer to these rest spots as stopovers, migratory bird refuelling stations, where a bird can take time out to carbo-load for the next leg of the journey.

Then, at 11am on Friday, March 21 last year, the satellite sends the team the data that they have been waiting for.

95773 has begun her migration to the breeding grounds in Mongolia.

HOW IT’S DONE: A small wire harness s placed across the bird’s chest. This holds the solar-powered 5g transmitter in place on the bird’s back. An antenna runs along the bird’s back. PICTURE: BIRDLIFE NORTHERN NATAL

UP AND AWAY: Rina Pretorius and ringing partner Sylvia Francis release a falcon after a routine ringing. The falcon in this picture is not fitted with a transmitter. PICTURE: CHRIS COLLINGRIDGE

TOMORROW

PART 2

95773’s epic journey. Will she come home?