

PRESS RELEASE

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LUND UNIVERSITY
Centre for Animal Movement Research



Action for Swifts

Out Of Africa! The Beijing Swift's Incredible Journey Charted At Last

A ground-breaking study has revealed that the Beijing Swifts¹ which breed at The Summer Palace in Beijing, travel more than 13,000km to spend the winter in southern Africa before returning the following Spring.

This means that, in its lifetime, the average Beijing Swift will cover a migration distance greater than 180,000 km, about half of the distance from Earth to the Moon.

These iconic birds - *synonymous with Beijing since 1417 when they made their nests in the original city gatehouses* - arrive in Beijing in April and, after breeding, begin their long journey to Africa in late July, taking

¹ "Beijing" Swift (*Apus apus pekinensis*) is currently considered to be a subspecies of the European Common

a route that first leads them west-northwest into Mongolia, from where they pass north of the Tianshan mountains, then south through Iran and central Arabia into tropical Africa, before spending 3 months of the winter in Namibia and the Western Cape

They begin the return journey in February, retracing a similar route, arriving in Beijing in mid-April, a journey that sees them cross about 20 borders.

The project, a collaboration between scientists from Beijing and Guangzhou in China, Belgium, Sweden and the UK, began in May 2014 when ultra-lightweight 'backpacks' containing tiny light-sensing geolocators were fitted to 31 Beijing Swifts as part of an ongoing banding operation by the China Birdwatching Society at The Summer Palace. The geolocators, generously provided by scientists in Sweden and the UK, log the position of the Swift by measuring day length and local midday from which positions are calculated. When the Swift is recaptured, one year later, the data is downloaded and analysed using special software.

Until now there was only speculation about the journeys made by one of Beijing's iconic birds. For the first time we know the distance traveled, the route taken and wintering areas used by an individual bird.

As in many other parts of the world, Swifts in Beijing have declined dramatically (60 per cent in the last 30 years, according to a Beijing Professor). Understanding their movements will help scientists and conservationists to discover the reasons for the decline and to put in place measures to help them.

Ms Fu Jianping, President of the China Birdwatching Society, said: *"Swifts have a special place in the hearts of Beijingers and their screaming flights at dusk around many of our major landmarks are one of the most enchanting features of our summer. For years we have waved them*

goodbye at the end of July not knowing where they go. Thanks to this project, now we do.”

Prof. Zhao Xinru, consultant of China Birdwatching Society, said: *“Birds are sensitive to environmental change. They fly all over the world without the constraint of national boundaries. We care about the ecology of Swifts not only because we want to discover the mystery of their migration but also to help conserve these amazing travellers. The experts and volunteers in China are proud to be part of this team.”*

Ms Yan Su from The Summer Palace added: *“We are privileged that, at the end of their epic spring migration from southern Africa, these incredible birds choose the Summer Palace to breed. We are delighted to work with experts from the China Birdwatching Society and overseas to help understand more about the life of the Swift and we hope that the millions of visitors to this historic attraction in the heart of Beijing will now get even more out of their visit to the Summer Palace”*

Prof. Susanne Åkesson at the Centre for Animal Movement Research at Lund University in Sweden, said *“The Swift is an exceptional bird, with advanced flight and navigation adaptations that mean it spends all migration and wintering continuously on the wing. The migration between China and Africa is unusual among birds, and shows a capacity to explore rich feeding areas far apart for this highly aerial bird species. The data will help us understand how birds, like the Common Swift, have evolved long-distance migration routes and time their migrations to local environmental conditions and peaks in food abundance. The great success of the project is thanks to the fruitful cooperation between local ornithologists, ringers and scientists.”*

And **Dr. Dick Newell** of Action for Swifts in the UK said: *“The Common Swift is one of 2 species that we know makes this epic journey from Beijing to Africa, (the other being the Amur Falcon). Action for Swifts works to conserve and create nesting places for Swifts on the breeding grounds. It is only by finding where Swifts go that we can know where they may be encountering other problems outside the breeding season”*

“As a bird ringer, migration has always fascinated and driven me. Swifts embody all the wonder of a life in the air. I’m grateful to have had the opportunity to take part in this ground breaking study. To have achieved this result is a crowning moment.” added **Lyndon Kearsley** of the Royal Belgian Institute of Natural Sciences.

“This project has been made possible by the teamwork, dedication, cooperation and passion of the organisations and individuals involved. That this tiny bird – that can fit into a human hand – travels to southern Africa and back every year without landing once, is simply awe-inspiring and proof that the natural world is the greatest source of inspiration there is.” **Terry Townshend**, Founder of Birding Beijing.

Background About Swifts

- The east Asian subspecies of Common Swift (*Apus apus pekinensis*) arrives in Beijing in April and, after rearing young, most have left the capital by the end of July
- Until now there was only speculation about where they spent the other 8 months of the year
- Supreme aerialists, Swifts spend almost all their life in the air, a lot of that at low level, feeding on airborne insects.
- If they need to, Swifts can fly very high; they have been observed migrating at 18,700 feet (5,700 metres) over Ladakh in the Himalayas.
- Some species of swift are among the fastest animals on the planet, with some of the fastest measured flight speeds in active flapping flight of any bird. The top speed recorded in a recent scientific study was 111.6km/h (69.3mph)!²
- Swifts feed, drink, mate and sleep on the wing, and only land to breed. So **a young Swift will spend its first two or three years in constant flight** before it nests.

² Henningson et al “How swift are swifts?” J Avian Biol 2010 41: 94-98

- Because they never land on the ground, and are so fast and so totally aerial, Swifts are very hard to study. There's still a lot that we don't know about them.
- Swifts eat billions of harmful insects every single day.
- Swifts are fun - they enhance our lives with their dramatic flight and exciting calls.

About The Project

Since 2007 The China Biodiversity Conservation and Green Development Foundation Birdwatching Society (formerly The Beijing Birdwatching Society) has been banding Swifts (*Apus apus pekinensis*) at The Summer Palace. This banding has revealed important information about the longevity of Swifts and their loyalty to breeding sites; re-trapping has shown that most Swifts return to the same breeding location every year. However, this work has not revealed any information about the location of the wintering grounds or the migration route. Following successful projects to fit geolocators to Common Swifts in Europe and the generous support of Susanne Åkesson at the University of Lund in Sweden, and Dick Newell, of Action for Swifts in the UK, a project was developed to fit geolocators to some of Beijing's Swifts. In May 2014, 31 geolocators were fitted to Swifts caught at The Summer Palace in an operation led by veteran Swift bander, Lyndon Kearsley. These tiny ultra-lightweight 'backpacks' record the location of the Swift by measuring light level and time every minute resulting in daily positions, which are stored in the memory of the device. Retrapping of the birds allows the data to be downloaded for analysis. Given the site loyalty, proven by the work of the Beijing Birdwatching Society, the scientists knew that there was a very high chance that the birds carrying geolocators could be retrapped at the same site a year later. On 24 May 2015 nets were erected to catch Swifts at the same pavilion at the Summer Palace and 13 birds carrying geolocators were retrapped, allowing the data to be downloaded and analysed. The initial results presented here are part of an ongoing project to find out more about the migration patterns of Beijing's (and east Asia's)

Swifts. Understanding their movements will help scientists and conservationists to discover the reasons for their dramatic decline and to put in place measures to help them.

Note: A comprehensive analysis of the data from all recaptured geolocators in May 2015 will be published in due course in a full scientific article.

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