



URBAN TREE SPARROWS THROUGH IN HONG KONG

For people in built-up areas, this bird represents their only interaction with wildlife.
Now, a census reveals the sparrow's love for air vents, pipes and wall cracks

Hong Kong, City of Lights. Famous for its crowded centre crammed with soaring skyscrapers and gaudy signs. Despite its reputation for being intensely urbanised, around three quarters of Hong Kong's land area is mountainous and undeveloped, and there are many nature reserves rich in exotic bird species and

↑ Tree sparrows are embracing the city life.
Photo Minoru Karamatsu

other wildlife. However, one hundred per cent of Hong Kong's human population live in built-up areas, which means they have little daily interaction with wildlife apart from the humble Tree Sparrow *Passer montanus*. Tree Sparrows are shy, rural creatures in Europe, and rarely nest near people or their dwellings. In

Hong Kong, however, this little bird is a friendly and familiar sight in urban gardens and parks. In fact, a recent study has shown they are far more likely to build their untidy little nests in air vents, pipes and walls than in trees. This information has emerged from Hong Kong's first ever Tree Sparrow census, which is also its first survey of a common bird and the first conducted by a local citizen science project.

Many people associate bird surveys with scientific researchers and threatened species – but this study couldn't be more different. Organised by the Hong Kong Bird Watching Society (HKBWS, BirdLife Partner in Hong Kong SAR, China), 420 inexperienced volunteers aged 6–80 years old took part in the census, each counting their local Tree Sparrows – a common, widespread bird that is found from Norway to Vietnam. In one day, they counted 4,500 sparrows across a range of habitats. Based on these findings, HKBWS estimates that there are, on average, around 5,200 sparrows per square mile in urban areas.

But why is it important to count common birds? Shouldn't conservationists focus their energies on keeping track of the rare, endangered species? Although at first it might seem a waste of time, birds are actually an excellent gauge of the health of the environment. As the European Bird Census Council (EBCC) says: "Common birds are good as indicators as they are widespread, relatively easy to identify and count, sensitive to land use and climate change, and are popular with the public." BirdLife International and the EBCC started the Pan-European Common Bird Monitoring Scheme in 2002, and since then other conservation groups around the globe have initiated similar initiatives.

As a widespread and well-loved bird, the Tree Sparrow was the perfect candidate for such a study in Hong Kong, but the next challenge was to find and train enough volunteers to survey their numbers across the territory's different habitats. Birdwatching isn't a popular pastime in the city, but Tree Sparrows hold a special place in its citizens' hearts, and are widely celebrated in Chinese art. Many 'Hong Kongers' live in high-rise buildings with no gardens, so it's up to these lively, cheerful-looking birds to bring life to the grey city streets below. What's more, their name shares similar pronunciation with the well-loved game *mah-jong*. So when the HKBWS put out its appeals for participants, they received an encouraging response from the public. To bring the volunteers up to speed on the survey techniques, HKBWS provided training and a trial survey in advance of the big event on 8 May 2016, and the census itself was a great success.

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SURPRISING AND HEARTENING: THE TREE SPARROW, WHICH HAS UNDERGONE WORRYING DECLINES IN THE UK, THRIVES IN THIS DENSELY POPULATED AREA

The HKBWS intends to repeat the study on a yearly basis, thereby gathering useful data about the health of the sparrow population as well as engaging people with conservation issues and bringing them closer to wildlife.

"We could contribute so much more to bird conservation through public involvement", says Yu Ya-tung, HKBWS's Research Manager. "Our ultimate goal is to gather long-term data on Tree Sparrow population trends, as well as encouraging people to get hands-on experience with conservation."

Citizen science – the involvement of the public in scientific research, from community-driven studies to international scale investigations – is steadily gaining in popularity. Over the past 20 years, thousands of citizen science projects engaging millions of participants in the collection and/or processing of data have sprung up around the world. From the popular eBird site to Africa's MammalMap, opportunities for non-scientists to get involved in research is increasing every year.

A recent study from the University of Cornell found growing evidence that citizen science projects raise participants' knowledge about science and methods, increase public awareness of the diversity of scientific research, and to give people's hobbies a deeper meaning. They also found evidence that citizen science can contribute positively to social wellbeing by influencing the questions that are being addressed and by giving people a voice in local environmental decision-making.

In a world where people, especially children, are becoming increasingly cut off from nature, citizen science plays an important role in inspiring people to turn off their gadgets and get back in touch with their local environment. Exposure to nature can improve symptoms of stress and depression, contributes to an increased sense of health and wellbeing, and outdoor classes promote better behaviour and learning in children. Nelson Tang, who took part in the survey with his family, said: "After the census, my daughter shared her experiences with her classmates during school assembly, which really gave her a chance to learn and share her appreciation of nature."

The existence of this survey and its initial results provide us with hope for the Tree Sparrow, which has undergone worrying declines in the UK and other parts of western Europe over the last 30 years. The fact that it thrives in one of the world's most densely populated areas is both surprising and heartening. ■

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