

《城市生物多样性的启示》

来自“城市生物多样性保护研讨会：城市助力昆蒙框架目标实现”倡议机构

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全球面临着生物多样性丧失和气候变化加剧的双重生态危机，情势严峻，每况愈下。如果任其发展，人类社会的经济繁荣、安全稳定及民生福祉将岌岌可危。国际社会已通过气候变化《巴黎协定》（2015年）以及最近中国在担任联合国《生物多样性公约》第十五次缔约方大会（COP15）主席国期间推动 190 多个国家达成的《昆明-蒙特利尔全球生物多样性框架》（2022年）做出回应。要有效管控、化解这些危机和风险，各国政府及社会各界必须协同推进其经济、社会发展目标和上述协议的目标。

城市是44亿人口（占全球总人口的 56%）的家园，预计到2050年，这一比例将上升到 70%左右。因此，城市可以发挥至关重要的作用。在生物多样性方面，城市可以让公众认识到大自然的重要性以及人类对大自然的依赖。与此同时，城市也是野生动物的重要栖息地。除了支持本地物种在此定居外，许多城市还位于主要的鸟类迁徙路线上，候鸟是其迁徙通道上所有国家和大陆共有的自然瑰宝，而保护候鸟及其栖息地也所有国家其义不容辞的共同责任。

“城市生物多样性保护研讨会”聚焦城市与全球生物多样性框架目标的协同。相关部门的政府官员、国内外知名学者、非盈利机构和工商企业代表为此齐聚一堂，集思广益。

经过讨论，会议向城市传递了以下关键信息：



一、城市在实现联合国气候变化《巴黎协定》和《昆明-蒙特利尔全球生物多样性框架》的目标方面可以发挥重要作用，从而更好地保障民众的福祉和安全。

二、鉴于气候变化与生物多样性丧失之间的紧密关联，应该统筹协调应对上述双重危机的各项措施，力求实现协同效应的最大化，避免顾此失彼。（比如清洁能源设施选址需考量其对生物多样性的影响）。

三、城市应根据国家的《生物多样性战略与行动计划》（NBSAP）制定专门的生物多样性战略，包括相关的融资机制，将生物多样性目标纳入城市规划和管理的各个环节。**该战略应包括但不限于以下内容：**

1、开展生物多样性调查，确定科学的基线，为成效评估奠定基础。

2、对关键物种种群（如哺乳类、鸟类、爬行类、两栖类、昆虫和植物）进行定期监测，对种群的变动趋势提出预警，评估干预措施的效果，并善于发挥公益机构和公民科学在此过程中的重要作用。

3、探索新兴技术和分析手段在生物多样性监测中的应用前景，如生物声学、天气雷达数据和人工智能。

4、将保护野生动物的需求纳入城市绿地的规划和管理实践，如为候鸟穿越城市提供天然森林、草地/灌木丛和湿地等栖息地或“落脚点”。

5、支持正在开展的各项研究，更好地了解本地物种和候鸟的需求，并有针对性地调整管理策略。

6、推广基于自然的解决方案，如划定再野化区域，在保护生物多样性的同时减缓气候变化。

7、深入了解候鸟对城市空域的使用情况，摸清光污染和撞击建筑物玻璃及基础设施对候鸟的影响。

8、基于以上知识制定战略，为候鸟安全飞越城市提供便利和保障。**具体措施包括：**

- 对所有公共建筑和基础设施进行审查，评估鸟撞风险，为私营部门树立榜样。



- 在候鸟迁徙季节，关闭夜间非必要的灯光。条件允许的话，通过天气雷达数据对鸟群的飞行轨迹进行分析和预测，并据此实施灯光管理。此举所节约的能源也有助于推动实现净零目标和改善人类福祉。
- 将候鸟迁徙的需求纳入建筑标准和城市生物多样性战略与行动计划，鼓励采取缓解措施对现有高风险建筑进行改造。
- 开展公众宣传，利用媒体平台、公共活动和学校课程等多个渠道，提升人们对生物多样性的重要性、丧失风险、城市的角色及个人参与方式的认知与理解。鼓励市民积极利用城市绿地作为窗口，深入探索 and 了解城市生物多样性，并积极投身于各类保护活动中。

通过汇聚监管机构、学术界、企业、社区及公众之力，我们能携手将城市打造为人类与野生动物共荣的美好家园。

参考资料：

《气候变化巴黎协定》： URL: <https://unfccc.int/process-and-meetings/the-paris-agreement?>

《联合国生物多样性公约》和《昆明-蒙特利尔全球生物多样性框架》：
URL: <https://www.cbd.int/gbf>

全球城市人口：

URL: <https://www.worldbank.org/en/topic/urbandevelopment/overview#>

自然大使： URL: <https://wildbeijing.org/the-ambassadors-for-nature-initiative/>



Insights for Cities on Biodiversity

from the chairs of the *Symposium on Cities and Biodiversity: Aligning Cities with the Kunming-Montreal Global Biodiversity Framework*

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The world faces the serious, and worsening, twin ecological crises of biodiversity loss and climate change. Unabated, they present tremendous risks to our prosperity, including our economies, security and wellbeing. The international community has responded through the Paris Agreement on climate change (2015) and, more recently, the Kunming-Montreal Global Biodiversity Framework (2022), agreed by more than 190 countries under China's presidency of the 15th Conference of the Parties to the UN Convention on Biological Diversity (COP15). If the international community is to succeed in managing the risks associated with these crises, countries and all sectors of society must align their activities and economies with the goals of these agreements.

As home to 4.4 billion people (c56% of the global human population, predicted to rise to around 70% by 2050), cities have a vital role to play. On biodiversity, cities can engage the public on the importance of, and the human reliance on, nature. At the same time, cities are important places for wildlife; in addition to native species, many cities lie on major bird migratory routes involving species that are shared by all the countries and continents they grace, and with this shared natural heritage comes a shared responsibility to protect it and the places it needs.

The Shenzhen symposium focused on how cities can align with global biodiversity goals. It brought together government officials, leading academics, and the not-for-profit and private sectors from China and overseas.



Following the discussions, the key messages for cities are:

I Cities have an important part to play in achieving the goals of the Paris Agreement on climate change and the Kunming-Montreal Global Biodiversity Framework in order to help secure their citizens' prosperity and security

II Given the strong interlinkages between climate change and biodiversity loss, the responses to the two crises should be integrated to maximize synergies and minimize the risks of actions taken to address one having a negative impact on the other (for example, the location of clean energy infrastructure)

III Cities should develop a dedicated biodiversity strategy, including financing mechanisms, which is aligned with their country's National Biodiversity Strategy Action Plan (NBSAP) and integrates biodiversity goals across the full range of urban planning; **it should include, but not be limited to, the following elements:**

- An audit of biodiversity to provide a robust baseline against which to measure progress;
- Regular monitoring of key groups of species (e.g. mammals, birds, reptiles, amphibians, insects and plants) to provide early warning of population trends and to understand the effectiveness of interventions, recognizing that the not-for-profit sector and citizen science can play important roles;
- Exploration of the potential to exploit new technologies and analytic techniques for biodiversity monitoring, for example bioacoustics, weather radar data and AI;
- Integration of the needs of wildlife in designing and managing urban green spaces; this should include consideration of providing 'stepping stones' of natural forest, grassland/scrubland and wetland habitat for migratory birds to cross the city;
- Supporting ongoing research to better understand the needs of native and migratory species and revising management strategies as more knowledge is available;
- Promoting nature-based solutions, such as allocating areas for rewilding, as a way to support biodiversity and mitigate climate change;
- Understanding the use of the cities' airspace by migratory birds, including the impact of light pollution and collisions with glass buildings;
- Use this knowledge to develop a strategy to facilitate safe passage for migratory birds over the city, **including, for example:**



1. An audit of all publicly-owned buildings to assess for bird collision risk, setting an example for the private sector;
2. Turning off unnecessary light at night during the migration seasons, ideally informed by analysis, and predictions, of bird movements using weather radar data, noting that the energy saved will also contribute towards net zero goals and improved human wellbeing;
3. Integrating the needs of migratory birds into building standards and cities' biodiversity strategy and action plan, and encouraging the retrofitting of existing high-risk buildings with mitigation measures;
4. Conduct public outreach, including through media, events and the school curriculum, to raise the level of awareness and knowledge about the importance of biodiversity, the risks of its loss, the role of cities and how everyone can be part of the solution.

Together, by utilizing the power of regulators, academia, companies, communities and citizens, we can make our cities great places for people and for wildlife.

Useful references:

- Paris Agreement on Climate Change: URL: <https://unfccc.int/process-and-meetings/the-paris-agreement?>
- UN Convention on Biological Diversity and the Kunming-Montreal Global Biodiversity Framework: URL: <https://www.cbd.int/gbf>
- The global population in cities: URL: <https://www.worldbank.org/en/topic/urbandevelopment/overview#>
- Ambassadors for Nature: URL: <https://wildbeijing.org/the-ambassadors-for-nature-initiative/>

