



EDITORIAL

Editorial

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Red alert for urban wetlands 2

Last November 17th, a fire started by a flare, laid waste to 10 ha of the Paicavi urban wetland in Concepción, which is part of the larger Rocuant-Andalién water system. The incident once again raised a red flag for these green spaces, which have been left behind in Chilean urban management and planning in recent decades, on not having been acknowledged as urban green infrastructure, or as part of a broader environmental matrix.

In the academic sphere, urban wetlands have been acknowledged. Although initially the view was more conservationist in nature, linked to their biological diversity, and their ecosystem values as water reserves -hydrophyte vegetation and stopovers for migrating birds-, as the decades have gone by, they have started to be viewed as settings that provide an important number of ecosystem services to urban settlements: water and temperature regulation, CO₂ capture, water purification, leisure and recreation and, in the case of Chile, mitigation for natural threats like tsunamis.

From the protection point of view, the Convention on Wetlands of International Importance (1971), commonly known as the RAMSAR Convention, led by non-governmental conservation organizations, established the first globally coordinated institutional framework to protect this unique type of ecosystem. This framework was built upon three basic pillars: (1) the designation and management of wetlands within the Ramsar network; (2) the prudent use of wetlands; and (3) international cooperation. However, the focus of the network has evolved. While initially, the identification of wetlands to protect habitats of migrating birds was its first goal, in the 1980s the second pillar gained weight. In the 90s and at the turn of this century, the discourse moved onto the protection and evaluation of ecosystem services that the wetlands provide, associating them to the implications for the quality of life, before then moving to involve communities and associated agents. But despite the complexity that was added to the discourse, urban wetlands were not formally recognized as a concern of the RAMSAR discourse until 2008, with resolution X.27. Furthermore, the general principles to establish governance of urban wetlands and the basic principles to guide their management were not determined until resolution XI.11 in 2012. This tardy international recognition has slowed down institutional action for the most at-threat wetlands.

The conceptual frameworks from which aspects have been studied have also been evolving. From a basic framework, where the protection and management of these spaces was the focus of extra-urban wetlands, to intra-urban concepts, like urban ecology, which appear to have garnered strength in recent decades. This is based on the understanding that ecological processes and interactions among the social and ecological dimensions in an urban ecosystem are very different from those taking place in non-urban settings.

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Figure 1, 2 Humedal Paicaví, Concepción 2021. Camilo Riffo

In the Chilean domestic context, the lack of a regulatory framework for recognition and protection, quick urban transformations from a neoliberal logic, alongside indifference about the values these ecosystems provide, have fostered an urban siege and the disappearance of many wetlands. The threats have not changed much in recent years: deficient urban planning that disregards them, urban sprawl, fragmentation by infrastructures that see them as urban vacuums, refills, drainage, contamination, the destruction of flora or harassing of fauna by passersby, pets, and grazing, have been the main causes behind their reduction and degradation.

The Metropolitan Area of Concepción, due to its location on coastal land that once was a fluvial-deltaic plain, has an interconnected underground water system that on the surface emerges as a large number of lacustrine and wetland spaces. The value of their flora and fauna have been widely identified and recorded, however, they still experience the problems identified domestically.

In the last decade, the support given to these water bodies has been diverse, both from socioenvironmental associations, where the Bio-Bio Wetlands Network stands out, which emerged in 2017 as a socio-environmental organization to take into the public sphere the positive values of wetlands; and from the academic area, which has focused on providing data and indicators on the loss of biodiversity and wetland surfaces, whether in scientific journals or through digital platforms open to the general public (see urbancost.cl)

The joint work of both blocks on a national scale led to the passing of Law 21.202, in 2020, whose purpose is the protection of urban wetlands which, in many aspects, brought hope for these strongholds of socioecological biodiversity in the city. The Regulations of the Law, published on July 30th, establish that to label space as a wetland, it must at least have one of the following criteria: (1) the presence of hydrophyte vegetation; (2) the presence of wet soil with poor or no drainage; and/or (3) a hydrological saturation system, be this permanent or temporary, that causes regular flooding. It also defines some minimum sustainability criteria, for sustainable management and the governance of urban wetlands.

To date, there are already 33 wetlands cataloged domestically, two of which belong to the Metropolitan Area of Concepción, Laguna Rayencura in Hualqui, and Paso Seco Sur in Coronel. There are another two in Lebu, one in Cañete, and a further one in Los Ángeles. The Bio-Bio Wetlands Network is set up in work committees that support councils in writing up files so that these can present the request. In Coronel, several files have already been presented. In Concepción, two were prioritized, Cárcamo Wetland, hidden amid the gorges of Caracol Hill (Cerro Caracol), and Pichimapu Wetland, in the Nonguén neighborhood, currently reduced in size and besieged by possible new property development. This accompaniment is also being given to the councils of San Pedro de la Paz and Hualpén, seeking to change the way the city has worked with these wetlands up until now.

Nevertheless, the urban wetlands law, which provides an initial framework for their protection, particularly in domestic identification, and in the description of minimum criteria, is not enough to ensure their long-term continuity. It leaves the management, implementation of governance, monitoring, inclusion, along with their recognition and protection within urban and territorial planning, in the hands of councils. This task, which is so relevant for the continuity and sustainability of urban wetlands, is left without any controlling body until the Biodiversity and Protected Areas Service, part of the Ministry of the Environment and future successor of CONAF, is approved and implemented. This is expected to administer Protected Public Areas and supervise private ones, prepare and update management plans, and will be in charge of monitoring. On the other hand, the Regulation indicates that any project developed in these areas must undergo an environmental impact assessment, but it does not restrict the possible development of projects within the area marked off as a wetland, as such the lack of determination under which sustainability and the rational use of urban wetlands are defined, becomes ever more concerning.

Finally, it is not much use to make progress with protection legislation without running a series of awareness campaigns to companies and citizens about the values of urban wetlands. To the former, so that they prefer to not pay fines on including the environmental dimension as a red flag, and the latter, so that they recognize not just the values, but also the fragility of these spaces.

