

## **Sharing of experience and expertise from Port-Cros National Park in France with the Islas Choros-Damas Marine Reserve in Chile**

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In 2004, the Chilean State began promoting the creation of a network of coastal MPAs (Marine Protected Areas) in Chile. In 2005, three MUM (Multiple Uses Management) MPAs were created along the Chilean coast, as well as two marine reserves in northern Chile, the Choros-Damas Islands Marine Reserve (CHDIMR) in the Coquimbo Region, and the Chañaral Island Marine Reserve in the Atacama Region (Thiel *et al.*, 2007; Jorquera-Jaramillo *et al.*, 2012; Cárcamo and Gaymer, 2013; for MUM MPAs, see Boudouresque *et al.*, 2019). Following the creation of these Marine Reserves, the Chilean State planned to develop their management plans.

At this time, the first author (Carlos F. Gaymer), researcher at CEAZA (*Centro de Estudios Avanzados en Zonas Áridas*), a research center for the Coquimbo Region (Chile), was requested by CEAZA to take the lead in the development of the management planning for MPAs in northern Chile.

Because there was no one in Chile with experience of managing marine protected areas (MPAs) Carlos Gaymer requested help in 2004 through a cooperation agreement between the Coquimbo Region and L'Hérault Department (France), which included scientific exchanges

between CEAZA and Agropolis International (France). At this time Philippe Robert was the Scientific Officer of the Port-Cros National Park (PCNP, France) (Bougeant, 1990; Barcelo and Boudouresque, 2012). The PCNP is a founding member of MedPAN, the network of Mediterranean Marine Protected Areas managers, created in 2008 (Monbrison *et al.*, 2013; MedPAN, 2020). Philippe Robert was invited to Chile in 2004 to share the expertise of the PCNP. Discussions started on how the PCNP could provide support to the management planning of MPAs that would integrate scientific, social, economic and legal aspects. Assistance was also sought in learning scientific criteria for marine conservation, and using PCNP experience to save time and avoid mistakes in planning MUM MPAs in Chile. It was agreed to run a permanent exchange program including field visits both to PCNP and MPAs in northern Chile. The first visit to PCNP was held in 2005 and included meetings with the different stakeholders involved in the PCNP. As a result of this visit, it was agreed that a PCNP delegation would visit Chile in 2006, to start drafting a management plan that could be useful for any MUM MPA along the south Pacific coast.

At the same time, the Coquimbo Regional Government (in charge of the area where the CHDIMR is located) launched a call to develop the management plan of CHDIMR. Carlos F. Gaymer, Philippe Robert and Nicolas Gérardin (PCNP Communications and International Relations Officer), along with a team of Chilean and international scientists won the competition and started to work. Following field visits and interviews with the main users of the reserve, they developed the first draft of the CHDIMR management plan. They used the methodology of ATEN (*L'Atelier Technique des Espaces Naturels*) a French organization supporting training and management of protected areas which is now part of the French Biodiversity Agency: *l'Office français de la biodiversité* (Réserves Naturelles de France and Chiffaut, 2006; Parc national de Port-Cros, 1997; BRL ingénierie, 2002, 2004a, 2004b). Carlos F. Gaymer also visited Port-Cros and Porquerolles islands twice to work on the management plan draft. In 2006, Philippe Robert and Nicolas Gérardin visited Chile for several weeks, attended several workshops and met with the main users and stakeholders of the CHDIMR and discussed the draft management plan.

The plan was finalized and submitted to the Chilean Government in 2007, becoming the first ever management plan for MPAs in Chile (Gaymer *et al.*, 2007). After a long process of political discussion and revision by the committee of Ministers, the management plan was approved and officially published in 2016 (Decreto Supremo N° 159, 2015). Since then, the government has been able to allocate resources for the management of the marine reserve. During the nine years that it took to get its official approval the CHDIMR was managed by the

National Fisheries Service and continuously advised by an Advisory Council that included all the key stakeholders. Several regulations such as restriction zones, approach distance to fauna, ecological moorings, and an underwater trail were set in place, based on the experience of PCNP.

The management plan presented in 2007 served as a model to develop the management plan of the Isla Chañaral marine reserve, and other areas in Chile working on their management plans. This included for the first time large-scale MPAs such as the Nazca-Desventuradas Marine Park, the largest fully no-take MPA in Latin America, which was established in 2016 (Gaymer *et al.*, 2018), and more recently, the Motu Motiro Hiva Marine Park, the Rapa Nui MUM MPA, and the Diego Ramirez and Drake Passage Marine Park.

In 2017, Chile hosted the 4<sup>th</sup> International Marine Protected Areas Congress, IMPAC4. PCNP was invited to attend the Congress as one of the main speakers to share this successful collaboration that inspired many other MPAs in Chile.

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