

What Stakeholders Think About Marine Protected Areas: Case Studies from Spain

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Abstract Marine protected areas (MPAs) are often met with reluctance by affected stakeholders, and in some instances outright objection. Some argue that this is due to insufficient understanding of the functions of MPAs. Others suggest that it could be because of a perception that they are losing more than they are gaining. It is also possible that stakeholders are generally supportive of the idea but think that the MPA should be located elsewhere. We argue that it is images people have about what the MPA is and does that determine how they react. Drawing from three MPA case studies in Spain, we illustrate the importance of critical examination of stakeholders' images and what they imply for the governance of MPAs.

Keywords Marine protected areas · Interactive governance · Governability · Images · Small-scale fisheries · Spain

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Introduction

Although the number of marine protected areas (MPAs) has increased sharply around the world in recent decades (Thorpe *et al.* 2011b), they have proven more cumbersome and time consuming to implement than anticipated when the commitment was made at the Convention on Biological Diversity (CBD) in 2006 (CBD-UNEP) to protect and conserve at least 10% of the world's marine and coastal regions by 2012. How much of the world's marine area under national jurisdiction is currently protected is somewhat uncertain. According to Wood *et al.* (2008) only about 1.6% of the world's ocean space is protected, which leads Toropova *et al.* (2010:36) to conclude that "MPA coverage remains remarkably low and far below the current CDB targets."

Given the poor health of marine ecosystems globally and the general appeal of the MPAs among scientists and policy makers, the discrepancies between anticipated goals and actual outcomes are quite astonishing. In our view, an examination of the issues pertaining to the governability of MPAs is required to establish the reason for this. By governability, we mean the capacity to govern in relation to the demands of those being governed (Kooiman 2008). Several factors may cause discrepancies, many of which are likely to be context specific and related to the ecological, social, and cultural characteristics of the area (Christie 2004; Christie *et al.* 2003; Ferse *et al.* 2010; Fiske 1992; McGoodwin 1990; Pomeroy *et al.* 2007; Sowman *et al.* 2011). It may also be because MPAs are designed in ways unsuited for these contexts (Acheson 2006). MPAs do come in many shapes and sizes (Kelleher *et al.* 1995; National Research Council 2001; Wood 2011) and are not simply a tool easily manipulated and controlled by managers (Pomeroy *et al.* 2004). On the contrary, they are social and institutional arrangements involving a variety of stakeholders with particular and

often conflicting interests and agendas. Stakeholders exercise their power in continuous negotiation about values, norms, principles, and goals in order to advance their interests (Jentoft *et al.* 2011; Mikalsen and Jentoft 2001).

In numerous instances MPAs have been met with skepticism, sometimes outright rejection, from affected stakeholders (Bustamante *et al.* 2001; Christie 2004; Halpern and Warner 2003; Suman *et al.* 1999) despite the expectations of MPA planners and managers. People may resist MPAs because they have insufficient understanding of what they are or what they are meant to accomplish. People may also think that the MPA will leave them worse off. Their lack of enthusiasm may be a NIMBY (“not-in-my-backyard”) problem—they may support MPAs in general but want them located elsewhere. They may doubt the potential of MPAs to solve what they perceive to be the problem.

We argue here that it is not the MPA itself and the promises it holds that determine how stakeholders respond; instead, it is the images that they have about what the MPA is and does that determines their reaction. Images are not simply perceptions or opinions stated by stakeholders (Agardy *et al.* 2003; Mangi and Austen 2008; McClanahan *et al.* 2005; Suman *et al.* 1999). In our conceptualization, images go deeper; they are representations of the issues in question and the world at large which people draw from when they determine what to think about MPAs. It follows from this that the more diverse the images, the greater the challenge to governability. In other words, the work it would take to increase coherence among stakeholders in order for the MPA to function would incur substantial costs. We present findings from an ongoing research program on interactive governance and governability issues related to the initiation, planning, and implementation of MPAs in Spain. Specifically, we draw from three MPA case studies to illustrate the importance of critical examination of stakeholders’ images and what they imply for the governance of MPAs. We commence by discussing what images are, how they are formed, and what they are informed by. Secondly, we analyze the image concept into separate constitutive elements and present an analytical heuristic for empirical examination of stakeholders’ images. This is followed by a presentation and comparative analysis of three MPAs in L’Estartit-Medes Islands (Catalonia), La Restinga (Canary Islands), and Lira (Galicia). We conclude by reflecting on some of the challenges related to research on images and on the implications of diverging images on the governability of MPAs.

Theorizing Images

An image is a representation of what people believe, what they perceive could happen, and what they think should be (Jentoft *et al.* 2010). It contains elements of how the world

looks in the eyes of the beholder, what keeps it together, what potential it has for change, as well as an idea of what would make it better. Images are descriptive: they summarize and synthesize independent observations into a consistent whole. But they can also be normative by providing guidance for actions. In that sense, images are both “models of” and “models for” (Geertz 1973:93) social phenomena or institutions, in this case MPAs.

Images are what we read into what we see, as they allow us by analogy to recognize what we observe. They turn an observable object or event into something that we already have an idea of (Shore 1996). They have consequences for what we do in the real world. When sociologists argue this point, they often refer to the so-called Thomas theorem, which states: “If men define situations as real, they are real in their consequences” (Thomas and Thomas 1928). It is for these reasons that images often turn into self-fulfilling prophecies—as the sociologist Robert Merton (1968) argued. MPAs, for instance, provide a “way of seeing, understanding and (re) producing the world” (West *et al.* 2006:252). If stakeholders have an image of the MPA as ecosystem protection, which will be to their benefit, the likelihood that they will support it is high, thus increasing its potential. If, on the other hand, they have a negative image and expect it to fail, the likelihood that it will do so is high. How the image fits with reality at the outset, as well as after having been implemented, is a matter of investigation.

Kooiman (2003:29–45) observes that governing is inconceivable without the formation of images. Instituting governance arrangements such as MPAs requires an alternative image of the world, one that sees the marine environment as an ecosystem where species and organisms interact. A governability problem with regard to MPAs is that no single image is shared by all stakeholders. Whether marine ecosystems should embrace human and social dimensions is still not evident to everyone, even to scientists, as it would require a more interdisciplinary science than that currently utilized (Stepp *et al.* 2003; Teh and Teh 2011; Thorpe *et al.* 2011a).

Like other governance arrangements, MPAs have a ‘step zero’ when the idea is first conveyed, impressions are formed, and goals are formulated (Chuenpagdee and Jentoft 2007; Jentoft *et al.* 2011). Images and the meaning they convey “is never an exclusively individual activity” but “constructed by individuals in social settings” (Shore 1996:250). Stakeholders may have acquired images of MPAs from the media, from following discourse about resource management, from seeing them implemented at other locations, or from listening to their peers. Their particular experiences and interests in the marine ecosystem are also likely to play an important role.

People tend to see what they are brought up to see, used to seeing, and want to see. Their images therefore do not shift easily. This means that experiences, observations, and arguments that may challenge, disturb, and distort whatever the images people have will be easily downplayed or ignored (Boulding 1956). Stakeholders' images are, however, not necessarily stable but are generally subject to change. They may change as stakeholders become engaged in the discussion about MPAs, learn more about them, and about the views of others. The degree of overlap of stakeholders' images is likely to influence the outcome of the process. In order to enhance governability, efforts should be made during step zero to facilitate communication about images, making them as explicit as possible, and bringing them into convergence. From a research point of view, attention should be paid to the moment (or moments) when the MPA concept is first communicated to stakeholders, and the impressions it leaves should then be examined.

Stakeholders may have problems distinguishing the images they have about the MPAs from the images they have about those who promote them. They may, for instance, have negative experiences from dealing with the government, which influences how they perceive government-promoted MPA initiatives (Gonzalez and Jentoft 2011). For the same reason, MPAs initiated by the community or by trusted agencies are likely to assume legitimacy.

Analyzing Images

In order to discern what comprises images of MPAs, we propose an analytical model or “an image of images” (Fig. 1). In concurrence with interactive governance theory (Chuenpagdee 2011; Kooiman 2003; Kooiman *et al.* 2005), we argue that the MPA can be seen as both a *system-to-be-governed* and a *governing system* (Jentoft *et al.* 2007). As a system-to-be-governed we are primarily referring to the ecological and social systems that exist within the confines of the MPA. As a governing system, we focus on the institutional dimensions of the MPA such as decision-making arrangements, rules and regulations, enforcement

and monitoring apparatus, and conflict resolution mechanisms (Thorpe *et al.* 2011a) established in order to direct the system-to-be-governed. These two systems interact in producing certain outcomes and realizing goals.

In the model, we assume that stakeholders have ideas about three variables pertaining to the current state of the system-to-be-governed: *Ecosystem health*: They may perceive the marine ecosystem to be fragile or robust, in good or bad health; *Wellbeing*: They have ideas about limitations, risks, or opportunities that affect their livelihoods and way of life; *Power*: They have perceptions about who determines how things work within their community and of their own capacity to influence which rules apply. While power is located within both the system-to-be-governed and the governing system, here we are interested in stakeholders' images of power in the system-to-be-governed, where they are situated.

Stakeholders are also expected to have an image of how the MPA may work as a *governing system*, for instance, ideas about what rules are good and should guide access and control. They may also have opinions as to who deserves to sit at the negotiating table, who should have access privileges or rights, and why. The model therefore identifies three intrinsically linked meta-order image variables (Kooiman and Jentoft 2009). *Values* are what people consider important, and what they therefore would like to see happen with the MPA, the ecosystem, and their own community or group. *Norms* are what people believe to be obligatory, something they must abide by or avoid, which may be encoded in law or institutionalized in terms of local social practice and knowledge. *Principles* are the codes of conduct for those who govern the MPA and also guide how the MPA is implemented.

Finally, three other variables are given in the model for exploring images related to the outcomes of the MPA resulting from governing interactions. *Relevance*: If the MPA is not well attuned to stakeholders' reality as they perceive it, they may not see the need for the MPA, and may therefore withhold their support. *Effectiveness*: If the MPA does not deliver on its promises, stakeholders may change their perception of its meaning and refuse to participate. *Equity*: If the MPA leaves stakeholders feeling that some groups

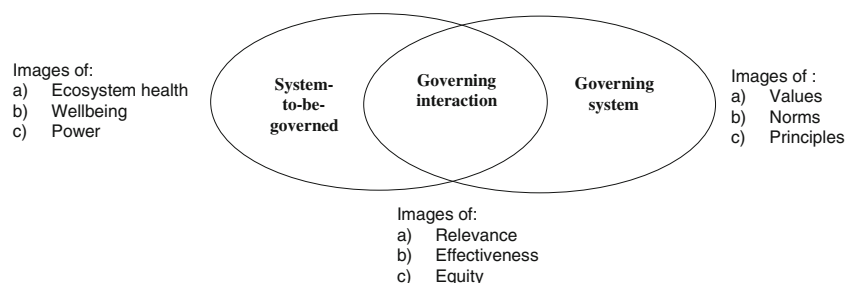


Fig. 1 A framework to analyze MPA governance images

benefit at their expense, they are likely to be hostile towards it. All this undermines the legitimacy of the MPA, hence restricting governability.

Case Studies

As elsewhere, MPAs in Spain come in different forms: Protected Areas (PAs), Marine Reserves (MRs), and Marine Reserves of Fishing Interest (MRFI), which are multi-purpose and allow some forms of fishing. In this section, we present three MPA cases from different regions of Spain: Catalonia, the Canary Islands, and Galicia, as illustrations of the diverse ‘images’ that stakeholders have of the inception, governability, and functioning of MPAs (Fig. 2).

Research for the studies began in 2002 in La Restinga and Medes Island, and in 2006 in Lira. We employed a mixed methods approach, which was mostly qualitative and longitudinal, including interviews, participant observation, questionnaires, and archival and literature review. In all cases, relevant stakeholder groups such as local residents, fishers, divers, entrepreneurs, scientists, tourists, recreational fishers, and administrators, were key informants.

L’Estartit-Medes Islands (Catalonia)

The archipelago of the Medes Islands is composed of seven uninhabited islets located one mile from the village of L’Estartit on the Spanish Mediterranean coast. The origin of the village is historically linked to the rise of semi-pelagic fisheries. However, from 1950s onwards, economic growth changed direction with the development of tourism. The archipelago was traditionally a refuge for L’Estartit fishers on windy days. In the early 1970s, the area became an attractive site for scuba-diving, and fishers were able to benefit from these incipient tourism activities. It was around this time that the first protected area proposal was made by the Spanish Federation of Sub-aquatic Activities, primarily for recreational purposes (Ballester Nolla 1971). It was supported by fishers who hoped to exclude trawlers and to continue their involvement in tourism. The proposal, however, was not accepted for consideration by the government. Later, in 1983, the Catalan government introduced the first regulation that created a no-take zone for all ‘extractive’ human activities in a perimeter of 75 m around the islets, in order to protect red corals. Since they wished to manage scuba-diving activities in this area, in 1984 the local authorities and fishers proposed the creation of

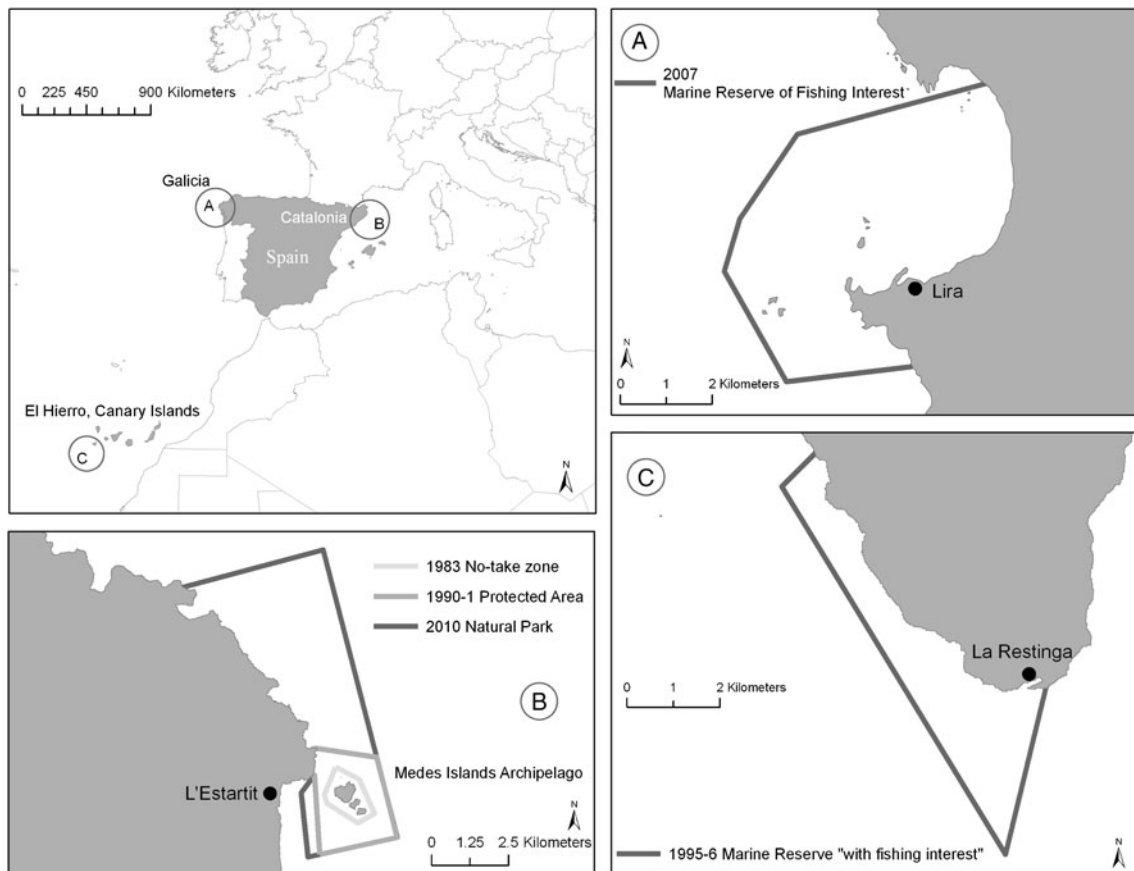


Fig. 2 Maps showing locations of the three MPAs and the time of their establishment. ‘a’ is La Restinga; ‘b’ is L’Estartit—Medes Islands; and ‘c’ is Lira

a “Marine Park” for recreational purposes to the Catalan government with a ‘local level’ administrative body. The Catalan government disregarded this request; instead they implemented other measures that restricted scuba-diving and boating activities, and introduced a visitors’ timetable inside the no-take zone. In 1985, a news article entitled “Save the Medes Islands according to what every stakeholder wants” was published in a local magazine illustrating that, despite a common interest in protecting the area, stakeholders, including scientists, local administrations, fishers, and tourist entrepreneurs, differed about how it should be done.

In 1990, the Catalan government enacted the Law for the Conservation of the Flora and Fauna of the Seabed of the Medes Islands, which extended the no-take zone from 75 to 200 m. In 1991 a local advisory council was created, consisting of a broad range of stakeholders including fishers, the tourism sector, various administrations, scientists, and villagers. The main aim of this protected area (PA) was to control tourist activities. The presentation of this PA as an archipelago with extraordinary values for diving led to a rebranding of L’Estartit village as an important environmentally-friendly, marine tourism destination (Mundet and Ribera 2001). In the words of a local politician, “It demonstrates that scuba divers generate more income than fishing, so we must develop more marine reserves [...] in order to exploit this resource.”

The management system devised by the advisory council mostly favored large-scale tourist enterprises and not fishers, despite the latter’s early support of the PA. Initial protectionist proposals depicted fishers as ‘boatmen for tourists’ (Ballester Nolla 1971:14). Accordingly, they were not considered PA users or a concerned party, which affected the legitimacy of their role in the decision about future usage of the PA. Fishers were generally displeased about the PA and felt marginalized by how it was managed. For 10 years after its creation, disagreements about the level of activities allowed in the PA continued between scientists and scuba-diving entrepreneurs on the advisory council.

On the whole, stakeholders had a mixed image of the PA. Some villagers described the Medes Islands as a private area reserved for some business entrepreneurs or a laboratory for scientists. Local newspapers portrayed it as an amusement park. A change in the Catalan government later resulted in the dismantling of the advisory council and the restructuring of the management system for the PA, which reverted to the original conservation area. Today a large Natural Park, created in 2010, encompasses the former Medes Islands PA. However, the change is still seen by local managers as a way to improve tourism management.

La Restinga (Canary Islands)

La Restinga is a small-scale fishing village on the island of El Hierro, founded in the 1940s. Traditional fishing activity

took place around Mar de las Calmas (Sea of Calms). The village expanded during the 1950s with the development of the tuna fishery, known locally as *zafra*. The 1970s and 1980s saw the beginning of tourism in La Restinga with vacationers and the first scuba-divers, and since 2000 it has become a popular diving destination.

In the 1980s, biologists from the University of La Laguna (Tenerife) proposed the creation of marine reserves (MR) in three different areas around El Hierro. The initial proposal was rejected by fishers because the selected area was important for bait fishing. Moreover, there were no other protected areas in the Canary Islands at that time and fishers had limited confidence in the researchers. However, in the 1990s, under the influence of a new leader (a *patrón mayor*) of the *Cofradía*¹ in La Restinga, fishers reconsidered the idea of a marine reserve. A prominent local fisher’s son, who studied with the biologists who promoted the original MR, mediated the discussions between scientists and fishers within the *Cofradía*. The proposed MR was considered by local fishers a good strategy to protect benthic resources inside the Mar de las Calmas from outside fishers, especially recreational fishers and spear fishers. They were also worried that the declining tuna fishery and increased fishing effort on benthic species could compromise their fishing activity. However, a small group of fishers who were restricted to fishing in the Mar de las Calmas alone opposed the idea. Moreover, some fishers felt the reserve was unnecessary, given that the area was already protected during the *zafra* period (May to September) when effort was shifted to tuna fishing.

In 1995, fishers wrote to the government requesting the creation of an MR in the Mar de las Calmas. The proposal was discussed by the entire *Cofradía*, and a consensus was reached with the declaration of “Punta de La Restinga—Mar de las Calmas” as a reserve “with fishing interest,” meaning that its main goal is to sustain the small-scale fishery (Revenga 2003). This MR aligned with the biodiversity conservation criteria promoted by biologists.

Other stakeholders, such as local tourist entrepreneurs, were not involved in the discussions about the MR and thus were much less supportive than the fishers. They considered that restrictions on scuba-diving inside the reserve would have a negative impact on the whole village. While tourist entrepreneurs agreed about the need to protect the Mar de las Calmas, they could not understand why diving was prohibited

¹ *Cofradías* are local non-profit corporations with public rights, which represent the interests of the whole fishing sector by acting “as consultative and cooperative bodies for the administration, undertaking economic, administrative and commercial management tasks” and with the ability to “cooperate in matters of regulating access to the resources and informing over infractions occurring in their territory” (Pascual Fernández 1999). They have played an important role in the implementation of MPAs in Spain.

in the no-take zone but tuna fishing was allowed. A scuba-diving operator facing the prohibition stated, “I have heard the news and I can’t believe it! (...) To conserve flora and fauna, they allow fishing but not diving? I have to keep repeating it to myself because I really don’t understand it.”

A few years after the MR was set up, La Restinga became one of the most important diving spots in Spain, which helped draw the support of entrepreneurs for the MR, despite new limits on their business expansion proposed by fishers. From the beginning, fishers became empowered as the main users of the MR, and their role has been strengthened. Although different opinions still exist about the protected area, the majority of stakeholders are supportive.

Lira (Galicia)

Lira is a small fishing village in the province of A Coruña, Galicia. One third of total employment in the community is directly related to fisheries. Lira is known for its rich fisheries resources, which in recent decades have declined due to overfishing and illegal fishing. The fishing population is aging and declining, and the number of fishing boats dwindled at the turn of the century. As one fisher explained, “Now there are no young people going to sea anymore, and we older ones are retiring.” These situations have convinced local people that fisheries management needs to be changed.

After the *Prestige* oil tanker disaster in 2002 the community became much more supportive of the possibility of implementing a reserve. As expressed by one local fisher, “People thought that it was all over, we weren’t safe anymore, and we wouldn’t be able to make a living from fishing. We thought a reserve would help us (...).” The patrón mayor said, “I would like local people, my children, and grandchildren to stay here and live with dignity, making a livelihood from the sea, just like our fathers and grandfathers did.” In 2003, local fishers and the Cofradía of Lira, together with an anthropologist from Fundación Lonxanet, who was also a lecturer from the University of A Coruña and had been working on fisheries in this area for years, began drawing up a marine reserve proposal. Subsequently, public servants from the regional fisheries administration, other researchers at the University of A Coruña, and environmental organizations became involved. Several workshops were held in Lira to discuss the idea and what it might entail. At one such workshop, fishers from La Restinga MR were invited to Lira to talk about their experience. Following that, several Lira fishers went to El Hierro to see how the reserve functioned there. La Restinga MR thus served as a model for the design of “Os Miñarzos Marine Reserve of Fishing Interest” (MRFI), which was officially declared in 2007 and was the first MPA of this type established in Galicia. MRFI differs from other MPAs

in that its main goals are directly related to the sustainability of small-scale fisheries. Moreover, in this case, fishers constitute half the governing body, while the other half is comprised of regional government representatives. The opinions of scientists and environmental organizations, are taken into account but they are not allowed to vote.

Prior to the legal declaration, an interim working group, consisting of the patrón mayor and cofradía secretary, as well as fishers representing different sectors, was in charge of proposing rules and regulations for the reserve; meetings were facilitated by scientists. A high degree of consensus was achieved, despite some rules and regulations being more restrictive than those applied by the regional authorities. The working group was able to devise a model that fitted fishers’ interests. On the whole, the community of Lira recognized that an MPA would be an important means of securing their economic, social, and environmental viability. The Lira MRFI has also become a tool to promote economic diversification based on fishing tourism and the preservation of fishing heritage. Importantly, it has garnered interest among young people to engage in fishing activities.

Results and Discussion

The three case studies provide an introduction to the analysis of stakeholders’ perceptions of MPAs and how their thinking has evolved over time. As expected, stakeholders do not necessarily share the same ideas about what the MPAs are for and what they may accomplish, especially when there are multiple and incompatible uses, for instance when tourism activities have been developed in areas where small-scale fishing takes place (De la Cruz Modino 2008; Pascual Fernández 2004; Santana Talavera 1997). Neither is it a surprise that many stakeholders, particularly at the initial stage, were reluctant to support the creation of MPAs. However, many of them later changed their minds as they learned more, as their involvement in the process evolved, or when they witnessed the changes within the community.

Below we present a comparative analysis of the images that stakeholders have in the three case studies, using the assessment framework presented in Section 3 (Fig. 1). The images of the MPAs in the three study areas are summarized in Table 1.

System-to-be governed

- a) *Ecosystem health*: People who have been operating in a marine area for decades are aware of ecosystem changes and disturbances (Ruddle 2000; Ruddle and Akimichi 1984) and are likely to have concrete ideas of what is required to conserve it. This includes perceptions of whether or not management institutions are effective.

Table 1 Summary of stakeholders images of the three MPAs

Research questions		Image dynamics		
		L'Estartit—Medes Islands	La Restinga	Lira
System-to-be governed	<i>Ecosystem health</i> : What do stakeholders think about the marine environment?	The marine and terrestrial ecosystems were considered rich and relatively healthy but were perceived as fragile by conservationists. In particular, the red corals were considered vulnerable to extraction. Local fishers were concerned about the use of damaging gears, i.e. trawls.	Biologists considered the Mar de las Calmas diverse but fragile. Local fishers did not perceive any environmental problem in the area, but they were concerned about the increasing exploitation of fisheries resources.	The local community perceived Lira as a rich marine environment, but threatened by overfishing and the <i>Prestige</i> oil spill. Fishers felt that fisheries catches had declined.
	<i>Wellbeing</i> : What do stakeholders think about livelihoods?	Because local stakeholders participated in marine tourism activities, they perceived the livelihoods as beneficial and could imagine gaining more benefits through management of these activities.	Fishers regarded themselves as a strong community, but they were concerned that tourism would expand and compromise their fishing identity and their small businesses.	People regarded themselves as a strong community and considered fishing as the most important economic and livelihood activity. Tourism was viewed as an added possibility.
	<i>Power</i> : What do stakeholders think about power dynamics?	Fishers initially felt that they had certain control over the use of the area, partly because of the informal management strategies. However, when rules were imposed by the government and with increased uses by other groups, fishers felt that they had no say in decisions about the area.	Through the Cofradía fishers were recognized as main stakeholders. They felt that they were heard, due partly to their good relationship with the island government.	Fishers felt collective control linked to the Cofradía. Because of the personal relationship with the key administrations and scientists, local fishers felt trusted and empowered.
Governing system	<i>Values</i> : What do stakeholders think about the significance of the MPA for conservation and use?	Fishers felt that the MPA was a conservation and livelihood diversification opportunity, but later felt that it was intended mainly to benefit a few tourist entrepreneurs. Local administrators perceived the MPA as an opportunity to promote scuba-diving development.	The protection of the Mar de las Calmas was considered by the majority of fishers as a way to conserve and control their main fishery. Biologists also viewed this as an opportunity to implement a network of reserves in El Hierro.	Fishers recognized their responsibility for the conservation of their environment and saw the MPA as a means of securing control over fishing activities and to sustain the future of fisheries in the area.
	<i>Norms</i> : What do stakeholders think about MPA rules and regulations?	Because the MPA excluded fishers from the Medes Islands, they perceived the rules to be unfair, as they also had to compete with recreational fishers. Biologists felt that the rules controlling diving were insufficient. Tourist entrepreneurs felt that the rules restricted their business capacity.	Fishers felt that the rules reinforced their appropriation strategies. Other stakeholders thought that the rules were unfair because they banned diving in some areas in the MPA but allowed fishing.	Although some stakeholders originally opposed the MPA, through negotiation they felt that the rules were appropriate. Fishers felt that the rules adequately addressed poaching problems and were effective in achieving MPA goals.
	<i>Principles</i> : What do stakeholders think about the underlying considerations in the design and management of the MPA?	Because it was a top-down process and the majority of the advisory council favored tourism development, stakeholders perceived that the MPA was designed with tourism interests as the main	State legislation supported artisanal fishers as the main stakeholders. Because other stakeholders were not allowed to participate in the MPA design, they perceived	Fishers felt justified in taking the leadership role in the design and management of the MPA. They thought that lessons could be learned from La Restinga experience and

Table 1 (continued)

Research questions		Image dynamics		
		L'Estartit—Medes Islands	La Restinga	Lira
Governing interaction	<i>Relevance:</i> What do stakeholders think about the meaning of the MPA?	consideration and was managed for the benefit of tourist entrepreneurs. Fishers felt that MPA management ignored their issues. Tourist entrepreneurs not benefiting from the MPA considered it a way of privatization. Stakeholders had mixed feelings about the MPA because management distorted the spirit of conservation.	fishing interests as the main consideration. Since fishers were able to decide about the future of the Mar de las Calmas, they felt that the MPA was highly appropriate. Other stakeholders felt that the MPA was not sufficiently aimed at conservation but focused instead on fishing.	thus felt they were capable of leading the process. People perceived the MPA as benefiting the whole village. Fishers felt that their expectation of what the MPA would deliver in terms of high yield was not met soon enough. However, they felt that the future of their community linked to the sea was more secure.
	<i>Effectiveness:</i> What do stakeholders think about the contribution of the MPA?	Stakeholders felt that MPA objectives had not been met, regardless of what they were. They perceived poor surveillance, concentrated economic benefits, and ineffective problem management. However, the local administration considered the protected area as a tool for managing tourism.	The administrators considered the MPA a success in terms of conservation and sustainability of small-scale fishing activities. Fishers felt that the MPA was important in maintaining their livelihoods.	As the MPA increased surveillance, fishers felt that it delivered. In addition, the MPA led to increased ecological knowledge about the area and about its uses, and they felt that it was possible to manage the fisheries.
	<i>Equity:</i> What do stakeholders think about the distribution of impacts of the MPA?	Everybody, even the few tourist entrepreneurs who had benefited greatly from the MPA, perceived that they were more negatively affected than others. The impacts were perceived as unequally distributed, with fishers as the first group to be marginalized.	The MPA was generally perceived to benefit the whole village. However, scuba diver entrepreneurs thought that the MPA had not resulted in the equal sharing of benefits.	Fishers felt justified that they were the main beneficiary of the MPA, with indirect rewards for the community. Nobody felt severely disadvantaged.

In all cases, stakeholders recognized the value of the marine environment and the need for protection. Not only did they acknowledge the potential damage caused by certain activities, as in the case of La Restinga, they had also taken steps to halt further destruction, such as banning gears such as trammel nets, longlines, and fish traps and restricting other uses. In Lira, the *Prestige* oil spill reinforced the perception of the vulnerability of the marine environment. In all cases, the general image of the marine ecosystem as both fragile and valuable provided the basis for the establishment of the MPA.

- b) *Wellbeing:* Local people have a vision of how their livelihoods are related to the natural world (Berkes 2009; Berkes and Folke 2000; Johannes 1981; Johannes

2007; Johannes *et al.* 2000). Fishers rely on access to the territory designated for protection but they also rely on accumulated knowledge, abilities (Ruddle and Davis 2011), and capacities to adapt to the dynamics within the area and to the changes that the MPA brings (Bavinck and Vivekanandan 2011). However, different livelihoods entail different interests and opportunities, and images are often in conflict (Pascual-Fernández *et al.* 2005; Pascual Fernández 2004). Thus, as in other parts of the world, commercial and subsistence coastal fisheries in Spain compete for space and resources with other activities like tourism and recreational fishing (Bianchi and Santana Talavera 2004; Santana Talavera and Pascual Fernández 2003). In the case of the Medes

Islands, fishers began to combine fishing with tourism, expecting to secure their livelihood. However, the system for managing tourism activities imposed by the MPA governing body promoted a more intensive form of tourism than that operated by the fishing families. Consequently, their expectation of the MPA as beneficial to their interests was not fulfilled. In the other two cases, tourist development has been slow or almost nonexistent and is mostly locally controlled, placing fishers in a better position to negotiate favorable conditions. They therefore perceive the MPA as an asset and an opportunity.

- c) *Power*: MPAs can be initiated by or imposed on stakeholders, or they may be developed through a collaborative process (Ferse *et al.* 2010; Jones and Burgess 2005; Sowman *et al.* 2011). MPAs may undermine or reinforce local power dynamics. In the Medes Islands, for instance, despite fishers' initial control of resources, the top-down implementation of the MPA left them disempowered. Scuba diving entrepreneurs, on the other hand, became more influential because of the support from the government, which saw greater economic gain from tourism than from small-scale fishing. The opposite was the case in Lira where tourism was not important. Even where tourism was prominent, as in La Restinga, entrepreneurs were not considered stakeholders. In both cases, through the *Cofradías*, fishers had a strong voice and were the only local stakeholder group to obtain seats on the MPA governing bodies. Their identity as fishers has been reinforced through the process. However, fishers of the Medes Islands MPA see themselves as dispossessed of any control over their traditional territories.

Governing system

- a) *Values*: Fundamentally, stakeholders do not differ significantly in how they value marine resources and MPAs (Chuenpagdee *et al.* 2004). Whatever their criticism with regard to the particulars of the MPA, they all acknowledge the need for conservation that the MPA promises. In all three cases, the main stakeholders supported the MPA proposals, including the fishers in La Restinga, who were initially skeptical. Stakeholders acknowledged that the area may have multiple uses, and they saw the MPAs as an opportunity to diversify their livelihoods into tourism while maintaining traditional culture and identity. They therefore do not see the MPA as opposing their value system and their aspirations concerning resource sustainability, community wellbeing, and cultural heritage. In La Restinga, despite the absence of legal titles, decades of continuous use

make fishers feel their traditional values are at stake and that it is therefore important that they engage in protecting their fishing interests. Indeed, they employed the MPA as a protective measure against new users, such as spear fishers. This has also helped to provide outsiders with a positive image of the community as one promoting ecosystem health and sustainable tourism. The values of the main stakeholders in Lira and La Restinga were affirmed by the MPAs, whereas in the Medes Islands, fishers felt marginalized and even betrayed because their cultural values had not been recognized.

- b) *Norms*: As with many other cases of collective action, the compatibility of MPA regulations with existing local norms is relevant to understanding how people respond to MPAs (Gibson *et al.* 2000; Wade 1987). In the Medes Islands, without inputs from local fisheries, the protected area radically changed the rules of fishing operations. Despite being marginalized in the process, fishers worked constructively with local administrations to make them fit with their circumstance. In the other two cases, fishers participated actively in determining the rules and ensuring that aspirations for the area were taken into account. As a result, the MPA rules were clearly linked to the local community norms in La Restinga, and slightly less so in Lira.

Non-fishing stakeholders have different images about MPA rules. Disagreement among scientists, tourist entrepreneurs, and local government in the Medes Islands generated conflicts about the rules pertaining to the tourism-carrying capacity of the MPA. In La Restinga, divers had different images of the MPA and found it difficult to accept rules that excluded them both from using some areas and from participating in the governing bodies. Rule conflicts in this case were, however, mostly contained within the local area. Unlike La Restinga, the main conflict in Lira initially involved other *Cofradías* who responded critically to the rules that they felt were imposed on them and whose impact they were unsure of. It was only later, through closer involvement, that the MPA rules gained legitimacy. In all cases, the MPA has led to an increased compliance with norms, which is also the result of MPA surveillance.

- c) *Principles*: Several principles underlie how the MPA is defined, designed, and implemented (Hilborn *et al.* 2004). In the three MPAs, these principles are rather different. The Medes Islands MPA primarily focused on area and species conservation, but in the eyes of local fishers the real intention was to support tourist development. In the other two cases, the design principles affirmed the key role of fishing activities in the MPA, as reflected in their official

name “Marine Reserve with Fishing Interest.” Such branding suggests that fishers’ needs and livelihoods are prioritized and that fishers should have key leadership roles in the governing of the MPAs. This was also the situation in La Restinga and Lira, which explains why the MPAs have been functional and well received in the communities.

Governing interactions

- a) *Relevance*: People’s images of MPAs are also determined by their perceptions of MPA outcomes (Breen and Breen 2008; Dimech *et al.* 2009; Gerhardinger *et al.* 2009; Launio *et al.* 2010; Webb *et al.* 2004). Their satisfaction with what the MPA provides would then depend on their expectations—the higher they are, the more likely that the MPA will lead to disappointment. When fishers in the Medes Islands were excluded from the MPA, the MPA became irrelevant for them. Fishers’ expectations were more closely met in La Restinga than in Lira, due partly to the length of time it took to establish the MPA. In both cases, fishers are pleased with the responsiveness of the MPA to their demands. They thus regard the MPA as an ecological, economic, and social improvement.
- b) *Effectiveness*: The development of MPAs may follow different paths, some of which may be considered more effective than others (Pomeroy *et al.* 2004). The governing system can also be dissimilar, leading to different forms of interaction with the system-to-be governed. In the Medes Islands, the MPA has been so conflict-ridden that its implementation has been cumbersome. The fishers in particular considered the MPA to be ineffective in meeting their demands, despite being represented on the governing body. Ecological effectiveness is not clear in this case either. Unlike the Medes Islands, there was a general sense of success in La Restinga. However, local stakeholders felt that there was a gap between the formal governing system setup and day-to-day operations. They complained of a lack of transparency and knowledge about what the MPA governing body and scientists were doing. In Lira, because of the equal representation of fishers in the governing body and their interaction, fishers felt more informed and more involved. Thus, they perceived the MPA to be effective in terms of transparency and communication.
- c) *Equity*: Unequal allocation of benefits and burdens is commonly a source of contention among stakeholders (Fernandez 2007). MPAs have the effect of creating winners and losers, despite the advances in ecosystem health and social wellbeing (Christie 2004; Jentoft *et al.* 2007). In La Restinga, tourist and scuba-diving entrepreneurs consider themselves the weaker players, with

little influence on MPA decision-making. In contrast, fishers have gained from the MPA and appreciate how the benefits have been distributed within their community. In the Lira case, it is too soon to tell, but development so far suggests that most stakeholders are pleased with the distribution of benefits from the MPA. In the Medes Islands, tourist development was strong before the MPA was conceived and this has disadvantaged local fishers in the use of the MPA. Thus, the distribution of benefits is perceived as inequitable.

Conclusion

The idea advanced in this paper is that it is not the MPAs themselves and the promises they hold that determine how stakeholders receive them. Rather, it is the images that stakeholders have of them, i.e., of what the MPAs are and do, which determine how they respond. Understanding why MPAs falter in some instances but succeed in others requires an analysis of the role images play in the initiation and implementation process.

Images are formed within concrete contexts. Stakeholders arrive at their image of the MPA based on what they believe it might do to, and for, them. The images that stakeholders have of the MPA as a governing system must somehow correspond to their image of the natural and social systems-to-be governed. Lack of correspondence makes stakeholders question their relevance. In addition, different images among stakeholders may lead to dispute and conflict. Since it is unlikely that a complete matching of images would occur, the MPA as a governing system must find a way to accommodate conflicting images. As demonstrated in the case studies, conflicts are common and can put the MPA at risk.

Exploring images is about understanding *what*, *why*, and *how* people think, in line with what Harris (1979) called “emic mental analysis.” But, like Kipling (in his story *Elephant’s Child*), in order to do so, we would also need to address the question of *who*, *where*, and *when*. Stakeholders vary from place to place and may have different opinions about the MPAs. Why they differ is largely determined by what is at stake for them. Stakeholder images are also contextual and are not necessarily stable over time, but change with experience, learning, and interaction. As the case studies show, stakeholders have different perceptions and relations to their MPAs. For instance, fishers in La Restinga have a more supportive view of their MPA than those in the Medes Islands, who do not identify with the ownership of the MPA. This is due to several factors, such as their own role in the MPA governing body, how functional the MPA is in addressing the problems that they have, and how MPA boundaries cut into their action space. The

latter is described by Isaacs (2011) as a critical determinant for the success of MPAs in South Africa. How people reason about MPAs may not be fully understandable to outside observers. But as Geertz (1974) suggests in a different context, we may not fully understand what they think, but we may at least comprehend what they think *with*. In other words, we may be able to clarify what images stakeholders have when they reason and argue about MPAs.

In this article, we submit that exploring images about MPAs is essential for enhancing their governability, which will ultimately determine whether they will be successfully implemented. As social institutions, MPAs are dependent on the support and compliance of stakeholders. This is not only related to the extent to which stakeholders have a positive image about MPAs, nor is it only about how realistic images are, and whether MPAs deliver on their promise. Governability will also hinge upon image diversity and compatibility. Stakeholders need not necessarily agree on images, but they must at least be aware of which images are present, how they vary or concur, and they must understand where such images come from and what prospects they hold. Enhancing governability would therefore require an interactive process where stakeholders are allowed to exchange ideas and learn from each other. This also makes MPAs more robust as institutions and prepares them for situations where their objectives and outcomes are questioned by stakeholders who have not obtained what they expected.

We concur with the argument by Kooiman (2003) that governance also has a “meta order” which should not be considered as external but inherent. In Kooiman’s conceptualization, image formation is among the things that occur as part of that order. Thus, we conclude that one should not only be concerned with the institutional design of MPAs and their day-to-day operations. We should also be concerned with the interactions that take place among stakeholders when the MPA is first conceived, communicated, negotiated, decided, and acted upon. How people in these situations mobilize and employ their images of the world at large and the MPA in particular is an important but far from straightforward research issue. This is because images must often be inferred from what position people argue, the metaphors they apply, and the terminology they use (Hunn 1995; Lakoff and Johnson 2003).

MPAs are not politically neutral instruments for marine conservation. They interfere in people’s livelihoods and social relationships. They tend to reconfigure the economic, social, and political action space of stakeholders, but in a way that does not necessarily provide equal opportunity for all. Here, images serve as “discursive power” (Foucault 1980) and must therefore be analyzed as part of the power dynamics where stakeholders are defending or exerting their interests by positioning themselves relative to each other in the competition for resources. Therefore, images, including those stakeholders have of each other, have implications for

negotiation and an ability to resolve conflicts, reach goal consensus, and secure compliance (Medin *et al.* 2007). At the end of the day, images have a major impact on the governability of MPAs and hence their success.

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