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Dear reader,

What is MPA News doing right? What are we doing wrong? How can we serve you better?

Every couple of years, MPA News surveys its readers to see how we can improve our services to you. This year we are combining our survey with one for our sister website OpenChannels.org. Please participate. There are just 10 questions, and most are Yes / No. In appreciation, we are giving away an official OpenChannels canvas tote bag to one in every five survey participants!

For the survey please go to <http://openchannels.org/surveys/feb2015>. Thanks!

Also, I may not have mentioned this before: OpenChannels offers a weekly literature update by email for those of you looking to stay up-to-date on journal articles and reports pertaining to MPAs and other ocean management issues. It is the best literature update in the field. To receive it (it's free), simply create

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For more information on these events, go to <http://openchannels.org/upcoming-events-list>

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## Table of Contents

The 30% no-take target of the World Parks Congress: Why it is both problematic and useful 1

Notes & news ..... 3

Perspective: The MPAs of Cuba and the implications of a potential end to the US embargo ..... 4

Mentorship program in Caribbean is pairing up MPA managers across region ..... 5

Diseased lobsters in UK's Lundy Marine Conservation Zone: A natural or "unnatural" result of protection? ..... 7

Notes & news ..... 8

From the MPA News vault ..... 8

## The 30% no-take target of the World Parks Congress: Why it is both problematic and useful

In our previous issue, MPA News reported on the outcomes of the World Parks Congress, held in Sydney, Australia, in November 2014 (MPA News 16:2). Convened once a decade, the WPC sets priorities for the next ten years of protected area practice. The central output of November's meeting was The Promise of Sydney: this document compiles recommendations from multiple "themes" and "streams" of delegates at the meeting, grouped by subject matter ([www.worldparkscongress.org/about/promise\\_of\\_sydney.html](http://www.worldparkscongress.org/about/promise_of_sydney.html)).

The WPC's Marine Theme was led by four institutions: the World Commission on Protected Areas – Marine, the (US) National Oceanic and Atmospheric Administration, the Great Barrier Reef Marine Park Authority, and Australia's Department of the Environment. This theme provided its own set of

recommendations (<http://worldparkscongress.org/downloads/approaches/ThemeM.pdf>), which the theme's organizers had developed with community input leading up to and through the Congress.

The primary recommendation from participants in the Marine Theme featured a percentage-based target for no-take areas:

"Recommendation 1. Urgently increase the ocean area that is effectively and equitably managed in ecologically representative and well-connected systems of MPAs or other effective conservation measures. This network should target protection of both biodiversity and ecosystem services and should include at least 30% of each marine habitat. **The ultimate aim is to create a fully sustainable ocean, at least 30% of which has no extractive activities.**"

[emphasis added]



## Note to reader about long website links:

There are several URLs (website links) in this issue of MPA News. Some are short and can fit on one line of text. Others are long, in which case we add a line break or two to fit them in the newsletter.

Some PDF-viewing software is smart enough to interpret a long, line-broken URL as a single URL. Other software is not and misinterprets the line-broken URL as two or more URLs. As a result, you can end up with an error message in your browser.

If you're reading this newsletter as a PDF and want to view one of the line-broken URLs, we recommend you cut and paste the whole URL from the PDF to your browser's address field. Then make sure your web browser has not added an extra space in the URL where there was a line break. Thank you.

However, as pointed out by a reader of MPA News (<http://openchannels.org/node/8515> — scroll down for his comment), this percentage-based target could be seen as conflicting with recommendations from another group of delegates at the WPC: namely Stream 1, which focused on Reaching Conservation Goals (<http://worldparkscongress.org/downloads/approaches/Stream1.pdf>). In its recommendations, Stream 1 did not call for a specific percentage-based target. In fact, it called such targets “problematic”:

“Recommendation 20: Governments and peoples must move far beyond the Aichi targets to adaptive conservation systems that are based on halting biodiversity loss.... This must be done balancing biodiversity and human needs. We need to increase conservation until biodiversity loss is halted. The total area of protected areas and connectivity lands needs to be far higher than current conceptions and delegates agreed on the importance of setting ambitious targets. **Percentage targets are problematic in focusing on area at the expense of biodiversity objectives.** Nonetheless, many delegates argued that these should be around 30% of the planet for no-take reserves, 50% overall protection, and 100% of the land and water managed sustainably.” [emphasis added]

So does this mean there is a conflict between Stream 1 and the Marine Theme on a percentage-based target? If so, whose recommendation should take priority, and what does this all mean going forward for the MPA field?

## Increasing protection until the loss of biodiversity stops

As anyone who has observed the crafting of recommendations at large international meetings can attest, things can move quite quickly between drafts, with language changing — sometimes significantly — over the course of a few hours. In the case of the WPC, leaders of the themes and streams had an opportunity to preview early drafts of recommendations from their peers ahead of the meeting. Once the WPC began, though, it became more difficult to follow what was going on in each group.

“At the Congress, things were moving very quickly and it wasn't possible to track everything that was happening at once,” said Lauren Wenzel, acting director of NOAA's National MPA Center, in an 8 January 2015 webinar “Keeping the Promise of Sydney” (<http://openchannels.org/node/8559>). “So we did have somewhat different philosophical approaches to some of these discussions. I think the marine community felt it was important to honor the commitments that were made in Durban [at the 2003 WPC, where marine delegates called for between 20-30% of the world's oceans to be placed in no-take areas] and to

try to move the ball forward. Spatial targets were a good way of doing that.”

Hugh Possingham of the University of Queensland, who co-developed the conservation planning software Marxan, was instrumental in the drafting of recommendations from Stream 1. Although he had no official role in the Stream's drafting process, the ideas he delivered to the Stream's delegates in a talk on the second-to-last day are directly embodied in many of the recommendations.

“Spatial targets are misleading,” says Possingham. “How much does nature need in terms of protected areas? The only real answer we have right now is ‘more’, because what we have now is demonstrably insufficient to stem the loss of biodiversity.”

According to Possingham, a better approach than percentage targets would be an adaptive one: keep increasing the amount of area that is protected — and its representation — until biodiversity losses fall to background rates, at which point we can stop. Conceivably, this might mean protected percentages of significantly higher than 30%. In fact, Possingham views 30% no-take coverage as the “bare minimum” for sustainable marine ecosystems and fisheries, based on various studies (like <http://palumbi.stanford.edu/manuscripts/Gerber%20et%20al%202003.pdf>).

Although that minimum is not communicated in the stream's Recommendation 20, the phrase “[t]he total area of protected areas and connectivity lands needs to be far higher than current conceptions” refers to Possingham's concept. Incidentally, a near-final draft of Stream 1's recommendations called for a 30% target for no-take MPA coverage; that call was removed in the final version.

## Balancing aspirational and operational goals

IUCN, which produces the WPC meetings, is managing a process now to harmonize the recommendations of the various themes and streams from Sydney. This will include addressing the MPA percentage target question. Meetings among theme/stream leaders will occur in coming months.


Asked whether he feels the Marine Theme recommendations or the Stream 1 recommendations should take precedence, Possingham suggests taking the 30% target but adding a big caveat. “No specific percentage will secure biodiversity, and any target between 30% and 100% would be a compromise reflecting different aspirations of users and stakeholders,” he says. He notes that setting high targets can be discouraging — for resource users (because they feel their activities are threatened) and for conservationists (because they feel the targets may be impossible to reach). “This is as much about the management of aspirations and hopes as it is about the science,” says Possingham.

Management of aspirations may also be a factor in discussions on the UN Convention on Biological Diversity, under which Aichi Target 11 (binding on signatory governments) calls for just 10% of marine areas to be conserved by 2020, with no mention of no-take coverage. That target greatly lags the (non-binding) recommendations from Sydney. Dan Laffoley, WCPA – Marine chair, says the Sydney target could be useful for directing the forthcoming CBD conversations.

“What happens after 2020?” says Laffoley. “I think we need to put in place a new vision for what countries should do with regard to MPAs. Sitting where we are, knowing what we know about the multiple stresses facing the marine environment and the directions of a lot of ecosystem indicators, we need to apply a much more ambitious vision for MPA coverage, and very soon.” Notably, current no-take coverage still amounts to less than 1% of the world ocean.

Laffoley also notes that the outcomes of the WPC are not all about percentage targets. “We need to bear in mind that there are a couple aspects to this,” he says. “One is the aspirational material, the targets, that we talk a lot about at congresses like the WPC. There’s also the operational side — the practical steps of making MPAs effective.” The Marine Theme recommendations from Sydney include calls for applying new surveillance tools, supporting collaborative learning between fisheries and MPA managers, managing sites for human as well as ecological benefits, and developing innovative partnerships, including for creative financing of sites.

Leading up to the next World Conservation Congress (in Hawaii in 2016) and the next International MPA

Congress (Chile in 2017), the Marine Theme organizers will be developing plans and projects to help support these site-level goals. Says Wenzel, “We’re going to be focusing on the practical steps of making these things happen, and not just on a number.” 

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#### More MPA News coverage of percentage targets for MPAs

Over the years, MPA News has published several articles on percentage-based targets, including voices in favor of broader-scale management for the whole ocean or in favor of not setting percentage targets at all. Our range of coverage includes:

- “New calculation of world MPA coverage is twice previous estimates, but still far below target” MPA News 14:1
- “The MPA math: How to reach the 10% target for global MPA coverage” MPA News 13:5
- “How close is the MPA field to meeting its targets?” MPA News 12:1
- “Global targets for MPA designations will not be met; experts respond” MPA News 7:5
- “Perspective: Dangerous targets and inflexible stances threaten marine conservation efforts” MPA News 3:11

These and all other back issues of MPA News are available at <http://mpanews.org/issues.html>

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## Notes & News


### UN agrees to draft international agreement to protect high seas

After nine years of deliberations, the United Nations agreed in January 2015 to convene an intergovernmental conference to draft a treaty for governing waters beyond national jurisdiction. Although this basically amounts to an agreement to draft an agreement, it is a significant step toward the future conservation of marine life in the world’s high seas — including the possibility of a worldwide system of MPAs beyond just national waters. (The high seas comprise 64% of the global ocean but have almost no MPAs.)

A special preparatory committee comprising all UN member states will start work in 2016 to craft a draft treaty on high seas biodiversity under UNCLOS, the

UN Convention on the Law of the Sea. There is no agreed-upon deadline for finalizing the treaty.

“Though the final results remain uncertain, many have high hopes for the new treaty,” says Kristina Gjerde, IUCN senior high seas advisor. “It could help secure the designation of a truly global system of marine protected areas; mainstream biodiversity conservation into the governance of high seas fisheries, shipping, and seabed mining; and provide for more effective access to marine genetic resources. The treaty could also foster important new scientific and commercial discoveries while ensuring the benefits are shared by all.”

For more information, visit the website of the High Seas Alliance, a coalition of 27 NGOs (plus IUCN) that has advocated for such a UN agreement: <http://highseasalliance.org> 

# Perspective: The MPAs of Cuba and the implications of a potential end to the US embargo

By Daria Siciliano

## Editor's note:

Daria Siciliano, Ph.D., is lead scientist for The Ocean Foundation's Cuba Marine Research and Conservation Program ([www.cubamar.org](http://www.cubamar.org)). She oversees the program's scientific initiatives and works closely with partners in the US and Cuba, including the Marine Research Center of the University of Havana and agencies of the Cuban Ministry of Science Technology and Environment (CITMA). She is also a research associate at the Institute of Marine Sciences of the University of California, Santa Cruz.

The ecologically rich and relatively understudied Cuban coasts have not experienced the levels of development seen in the rest of the Caribbean. This is due in large part to the US trade embargo of the country, which dates back to the early 1960s. Although the countries are divided by just 150 km of water, there has been very little trade or travel between them for 55 years.

The embargo has also greatly limited scientific collaborations. While US scientists have been allowed to travel to Cuba under specific research licenses issued by the US Treasury Department, only a handful of US universities and NGOs have established collaborations with Cuban peers. This is typically accomplished despite severe resource limitations and vexing bureaucratic challenges.

## A coming boom in tourism?

A thaw is now occurring in US/Cuba relations. On 17 December 2014, US President Barack Obama ordered the restoration of full diplomatic relations with Cuba and the opening of a US embassy in Havana for the first time in more than a half-century. While the historic deal did not actually lift the embargo, it broke an enduring stalemate between two countries and represented a turning point — one largely embraced by the science, research, environmental, and medical communities in the US and Cuba.

In fact there are some nuances to that endorsement. Many scientists and resource managers believe that the US embargo of Cuba has been a two-edged sword for the latter nation. While it has certainly limited economic, social, and cultural contacts between the two nations, it has also indirectly helped environmental protection of Cuba's diverse ecosystems.

Consider, for example, that Cuba, roughly the size of the US state of Florida, hosts only three million tourists per year and mostly practices small-scale, organic agriculture. Florida, in contrast, hosts upwards of 90 million tourists annually, generating more than US\$65 billion in tourism revenue per year.

If, or when, the embargo is eventually lifted in total, Cuba will likely experience a veritable boom in American tourism. The relaxed travel restrictions recently enacted already point to a surge in visitation starting this year from qualifying travelers.

## Progressive stance in marine conservation

The Cuban government has historically taken a progressive stance in terms of crafting environmental

legislation and managing its natural resources, especially its marine assets. The Cuban government's current goal is to include 25% of the insular shelf in marine protected areas. The existing 108 MPAs in Cuban waters already cover:

- 15% of Cuba's insular shelf;
- 35% of its coral reefs;
- 31% of its seagrass beds;
- 27% of its mangroves; and
- 16 fish spawning sites.

Of these 108 MPAs, 48 have national relevance and the remaining 59 areas have local significance. [Editor's note: The August 2004 issue of MPA News profiled efforts by Cuba's National Center for Protected Areas to establish carrying capacity limits for its protected areas, in light of a potential tourism boom ("Assessing the carrying capacity of MPAs: How many visitors can your MPA hold?," MPA News 6:2).]

## Example of an effective Cuban MPA

Most studies addressing the effects of marine reserves on fish assemblages in the Caribbean have focused on relatively small sites, since few large and continuous marine reserves exist in the region. However, in terms of supporting the recovery of large, mobile reef fish populations (like groupers, snappers, sharks, and other commercially targeted species), bigger and older marine reserves may play a more significant role.

Cuba's Jardines de la Reina (Gardens of the Queen) archipelago stretches 360 km in length, about 100 km south of the central Cuban coast. It is composed of more than 650 uninhabited cays and includes a variety of coral reef, seagrass, and mangrove systems. In 1996, the Cuban government set aside 950 km<sup>2</sup> of the archipelago as a no-take zone, the Jardines de la Reina Marine Reserve — the largest MPA in the Caribbean. There is limited recreational access to the site: only 500 catch-and-release fishermen and 1000 divers are permitted to enter the MPA each year.

After designation of the reserve, commercial fishing efforts relocated outside of it. As with most any large marine reserve, particularly in developing nations, enforcement presents a challenge for the site's limited management budget. Most of the MPA's enforcement activities are concentrated in its central area, where a research station also exists. Some poaching of large, commercially valuable species has been observed along the edges of the reserve.

How effective is this MPA? Fabián Pina-Amargós (of Cuba's Center for Coastal Ecosystems Research) and colleagues studied densities of the ten most frequent,


highly targeted, and relatively large reef fish species inside and outside the Gardens of the Queen marine reserve over a period of a year and a half ([www.ncbi.nlm.nih.gov/pmc/articles/PMC3932734](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3932734)). They found higher abundance inside the reserve for most months during the study, and five out of these ten species were twice as abundant inside than outside the reserve in the habitats surveyed. Previous studies had found that habitat complexity and major benthic communities were similar inside and outside the reserve, while fishing pressure prior to reserve designation was homogeneous across the archipelago. In light of all this, the current patterns observed can be explained by the effective protection inside the reserve.

Besides this scientific study, less rigorous evidence comes from anecdotes of scientists and tourists who have visited and conducted research in this jewel of a marine reserve. There are swarms of huge groupers, snappers, and sharks in addition to healthy coral stands and mangroves, all of which have largely disappeared elsewhere in the Caribbean.

### A future of protecting shared resources

Gardens of the Queen is a success, and should represent a goal for what the US and Cuba could achieve together in joint management of shared resources — once the embargo is lifted and the countries' scientists and conservationists can work together in earnest.

Organisms have always flowed freely from Cuba to the US, depending on healthy habitats on both sides of the Florida Straits, paying no heed to international boundaries or economic embargoes. The need to develop common scientific understanding and cross-boundary policies to protect our shared marine resources has long been clear to both Cuban and American scientists. The recent political thaw between the two countries and the new US policy toward Cuba announced in December 2014 are a great step in the right direction.

Now it is essential that foresight and careful planning stem the potential tide of development, which carries with it possible disastrous environmental consequences. The time is ripe to ensure that protections are established bilaterally before the recently enacted, and soon to be expanded, changes in US travel restrictions result in an enormous wave of tourism, causing dramatically increased beach visitation, boat traffic, fishing, and coastal development. 

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## Mentorship program in Caribbean is pairing up MPA managers across region

A program is underway in the Caribbean to build MPA management capacity through mentor relationships. The program is pairing senior MPA professionals with less-experienced practitioners in the region, and providing a small grant to each pair to support geographic exchanges and knowledge-sharing between them.

Initiated in 2013, the program is managed by the UNEP Caribbean Environment Programme (UNEP-CEP) and the Regional Activity Centre for Specially Protected Areas and Wildlife in the Caribbean region (SPAW-RAC), as part of the activities of the Caribbean MPA Management Network and Forum (CaMPAM). It receives financial support from Italy's development cooperation program.

The mentorship is an outgrowth of CaMPAM's Training of Trainers in MPA Management program — a two-week regional course (plus local training activities) that has been held ten times in the region since 1999. Over the years, senior marine resource

professionals approached CaMPAM about developing a mentorship program, aimed at supporting professional development of the next generation of MPA managers across the wider Caribbean.

The program offers eight available mentors, possessing unique sets of expertise and hailing from different areas of the Caribbean. There are currently three active mentor/mentee pairs working together:

- Mentor at Reef Check Dominican Republic; mentee at Guanahacacibes National Park in Cuba
- Mentor at Bonaire National Marine Park; mentee at Caye Caulker Marine Reserve in Belize
- Mentor with CARIBSAVE (<http://caribbean.intasave.org>) in the Eastern Caribbean; mentee at Barbados Coastal Zone Management Unit

“We are very excited about this program, as the concept is many years in the making,” says Georgina Bustamante, CaMPAM coordinator.

continued on next page

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Below, MPA News talks about the mentoring program with Rich Wilson, executive director of Seatone Consulting, which provides program coordination support.

#### • MPA News: How did CaMPAM develop this program?

• **Rich Wilson:** Senior marine resource professionals from around the Caribbean collaborated closely with the CaMPAM project team to develop strategic lines of action, a program framework, and a work plan to guide the program's early development. Six of these professionals were alumni of the Training of Trainers, and two were close collaborators. We then asked for expressions of interest from junior MPA managers around the region.

The core project team — UNEP-CEP Senior Program Officer Alessandra Vanzella Khouri; CaMPAM Coordinator Georgina Bustamante; former SPAW-RAC Director Helene Souan; and I — analyzed mentee applications to determine appropriate matching of mentees to mentors. Once two professionals were paired, they worked jointly to develop a mentoring agreement to guide the relationship. The mentoring agreement outlines goals of the relationship; specific activities that build mentee knowledge, skills, and competency; methods for ongoing communication and information sharing; and reporting commitments. We now have three agreements guiding the mentor/mentee pairs, and each pair is expected to collaborate for a period of two years or more.


#### • MPA News: What kinds of activities does a mentor/mentee relationship involve?

• **Wilson:** Each relationship is unique and so each mentor/mentee pair has flexibility to manage the relationship. Most pairs engage in some kind of geographic exchange — either the mentee visiting and learning at another site, or the mentor visiting the mentee to bring knowledge, skills, and professional development opportunities. For example, our Bonaire pairing involved two mentees spending a week at the Bonaire National Marine Park in summer 2014 learning about sustainable finance, education and outreach, mooring buoy program development, and enforcement. Whereas the Cuba pairing involved an exchange that focused on community involvement in MPA management, reef monitoring, and lionfish control. Since that time, two of the mentees have been provided additional small grants to apply new knowledge and lead capacity-building activities at their local MPAs.

All mentor/mentee pairs are in regular communication via email and Skype. Mentors regularly support ongoing mentee work and monitor performance improvements based on the goals of the mentoring

agreement. All parties are required to participate occasionally in check-in calls with the project team.

#### • MPA News: How much does the program cost for mentees?

• **Wilson:** Mentees do not pay for mentoring. UNEP-CEP covers all expenses with resources attracted from government and NGOs and, in the last year, from the Italian Agency for International Cooperation. Mentors receive a small honorarium at the outset of the relationship. 

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### Study of Caribbean MPAs finds most are making progress toward their goals

An assessment of whether MPAs across the Caribbean are meeting their stated objectives has concluded that most are making progress. The study, which analyzed 31 sites, examined progress toward ecosystem and/or social goals, depending on each site's mix of objectives. Several sites were making significant progress toward ecological *and* social objectives, while other sites were exhibiting more progress toward one type (typically ecological) than the other (social).

The authors, led by Tracey Dalton of the University of Rhode Island (US), write, "As large-scale regional efforts promote the establishment of additional MPAs, it is useful to know that most of the existing MPAs seem to be working, at least in terms of achieving their goals and objectives, but there is still room for improvement." The study "Are Caribbean MPAs making progress toward their goals and objectives?" appears in the journal *Marine Policy*; the abstract is at [www.sciencedirect.com/science/article/pii/S0308597X14003467](http://www.sciencedirect.com/science/article/pii/S0308597X14003467)

# Diseased lobsters in UK's Lundy Marine Conservation Zone: A natural or "unnatural" result of protection?

Most ecological studies of the reserve effect of no-take zones focus on changes in abundance and diversity of marine life inside reserves: in other words, is a reserve leading to more individuals and more species inside its boundaries? However, a recent study of lobsters inside the UK's Lundy Marine Conservation Zone has sparked a novel discussion and some controversy. It asks, Is there such a thing as *too much* abundance in a reserve — and if so, what should be done about it?

The study, led by Charlotte Eve Davies of Swansea University (UK), examined lobster populations inside Lundy's 3.3-km<sup>2</sup> no-take zone and in adjacent fished waters. Her team found that lobsters were twice as abundant inside the no-take zone as outside. In itself, this was not a surprise: no-take zones typically lead to increases in abundance inside their boundaries.

What was unusual was the team's other finding: lobsters inside the no-take zone were 71% more likely to exhibit shell injuries than lobsters outside — most likely due to competition among individual lobsters, according to the researchers. And injured lobsters are 76% more likely than uninjured lobsters to exhibit shell disease. The shell disease exposes lobsters' underlying soft tissues and is caused by bacteria that enter through injuries to a lobster's carapace. (The disease is typically non-lethal but can lead to secondary infections and molting difficulty, and can also cause lobsters to be thrown back by fishermen for aesthetic reasons.)

By the study's analysis, the abundance of lobsters inside the no-take zone is leading them to battle for territory. The researchers suggest the competition and incidence of disease amount to "negative effects" of the no-take zone. And in a follow-up opinion piece that Davies published online, she went further:

"Our study...introduces the idea that un-fished populations in marine parks may eventually reach a threshold at which conditions become unhealthy. This may even introduce the possibility of controlled fishing in long-standing no-take zones." (<http://theconversation.com/competitive-lobsters-are-fighting-it-out-in-uks-first-marine-park-35830>)

## What is "natural"?

Davies' suggestion that one of the UK's very few no-take areas should perhaps be reopened to fishing is controversial, not least because England is just starting to plan its second allotment of marine conservation zones (see box, this page). And the idea that lobsters should be fished in order to protect them from disease is also somewhat contentious.

Peter Jones of University College London suggests the study is an unfair criticism of no-take zones. He says what is going on inside Lundy is simply population ecology in action — an inevitable outcome of protection that should be accepted and welcomed.

"Density dependence is a well-recognized central tenet of population ecology," Jones wrote on OpenChannels.org in response to the study (<http://openchannels.org/node/8522>). "As the density of a population is restored back to unexploited levels, a number of 'natural' trends will increase, such as increased prevalence of disease amongst more crowded populations and older 'senile' individuals (as natural age structure is restored), along with increased competition for space, sexual partners, food, etc., leading to increased fighting-related injuries. Per capita production will also decrease due to competition for food, cannibalism, etc. This is naturally what happens when you stop thinning a population through harvesting."

Davies suggests, though, that it is difficult to say what is really "natural" or "unnatural" in this case. For

one thing, there was no baseline monitoring of Lundy prior to designation of its no-take zone in 2003. Furthermore, centuries of fishing have long since shifted any ecosystem balance in the region.

"Large cod, which are natural predators of juvenile lobsters, have long been fished out of the Lundy waters," says Davies. "Hence, in the Lundy reserve where fishing is now prohibited, there is nothing to prey on lobsters, so the lobster population will dramatically increase, potentially beyond 'natural' levels. I agree with Peter: basic population ecology will be in action. But if we follow this basic ecology, at present with increased population and injury/disease,

## Public consultation begins for second wave of Marine Conservation Zones in England

A public consultation is underway on 23 proposed Marine Conservation Zones (MCZs) in English waters, as well as new conservation features for 10 existing MCZs. The proposed MCZs would be a second tranche (or portion) of an eventual, ecologically coherent network of MCZs for England. The network is being implemented in a phased approach. The first tranche of 27 MCZs was designated in November 2013 (MPA News 15:4).

Together the sites proposed for designation in the second tranche cover a total area of 10,810 km<sup>2</sup>. This would add to the 9664 km<sup>2</sup> protected by the first tranche of MCZs. To participate in the consultation, go to <https://consult.defra.gov.uk/marine/tranche2mczs>

Conservation NGOs have expressed disappointment that an additional 14 sites that had been slated for the second tranche of MCZs were dropped this year, largely on the grounds of potential costs to the fishing and ports industries, coupled with concerns about potential limitations on recreational boating (<http://bit.ly/secondtranche>).



the lobsters are in the process of declining health.”

Davies points out it is a changing world: fishing pressure, disease, and other factors like climate change can all have profound effects on ecosystems. “Our study highlights that it is imperative to continuously monitor any management plan and each MPA should be treated like a live experiment, as essentially that is what they are,” she says.

Editor’s note: The paper “Effects of population density and body size on disease ecology of the European lobster in a

temperate marine conservation zone” was published in the ICES Journal of Marine Science; the abstract is here: <http://icesjms.oxfordjournals.org/content/early/2014/12/29/icesjms.fsu237.abstract> 

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## Notes & News

### Finland designates 11 new MPAs

In January 2015, Finland designated 11 new marine and coastal protected areas covering an overall area of 720 km<sup>2</sup>. The newly protected ecosystems include reefs, sandbanks, islands, and more. These new sites bring the total MPA coverage under the auspices of HELCOM — the Baltic Marine Environment Protection Commission, which includes nine nations — to 174 sites covering 540,400 km<sup>2</sup>, or about 12% of the Baltic Sea. For more information, visit <http://helcom.fi/news/Pages/Network-of-Baltic-marine-protected-areas-expands-in-Finland.aspx>

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### Best practices in MPA enforcement legislation

A new report analyzes best practices in MPA enforcement legislation in the Caribbean region. Published by the Environmental Law Institute, the study identifies the similarities and differences in statutes across eight Caribbean nations, and examines how violations

are prosecuted and what penalties are available. It is intended to provide a basis for individual countries and the Caribbean as a whole to improve the legal foundations for MPA enforcement.

*Legal Frameworks for MPA Enforcement in the Caribbean: Challenges and Opportunities* is available at <http://eli-ocean.org/mpa/caribbean-mpa-enforcement>

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### Great Barrier Reef in the news

In June 2015 at its annual meeting, UNESCO’s World Heritage Committee will again consider whether the Great Barrier Reef should be added to the list of World Heritage in Danger in light of various threats the site faces, including runoff and coastal development (MPA News 15:6 and 16:1). In the run-up to that meeting, the Great Barrier Reef has been the focus of reports and other publications examining its overall health and what is needed to protect the ecosystem over the long term. Here are some recent ones:

- State Party Report on the State of Conservation of the Great Barrier Reef World Heritage Area (Australia): In Response to the World Heritage Committee Decision. By the Australian Government Department of the Environment. <http://bit.ly/GBRstatepartyreport>
- WWF Australia’s response to the State Party Report. [www.wwf.org.au/?12560/Australias-report-to-UNESCO-denies-serious-decline-of-Great-Barrier-Reef](http://www.wwf.org.au/?12560/Australias-report-to-UNESCO-denies-serious-decline-of-Great-Barrier-Reef)
- Six things Queensland’s next government must do to save the Great Barrier Reef. By Bob Pressey, Alana Grech, Jon Brodie, and Jon Day. <https://theconversation.com/six-things-queenslands-next-government-must-do-to-save-the-great-barrier-reef-36258>

#### From the MPA News vault: Features and news items from yesteryear

**Five years ago:** January-February 2010 (MPA News 11:4)

- The reserve effect on fisheries: In light of recent studies, should it be considered settled science?
- Letters to the editor: Seismic surveys and MPAs

**Ten years ago:** February 2005 (MPA News 6:7)

- Assessing tsunami damage to Indian Ocean MPAs: Efforts underway to find answers amid chaos
- IUCN recommends temporary ban on high-seas bottom trawling

**Fifteen years ago:** February 2000 (MPA News 1:5)

- Bahamas to create no-take reserve network to protect fisheries, fishermen
- Council calls for several new no-take reserves in Australian state of Victoria

For these and all other issues of MPA News, go to [www.mpanews.org/issues.html](http://www.mpanews.org/issues.html)