

# MPA NEWS



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## New software tools to encourage compliance, manage enforcement

As technology marches forward in general, new tech tools are becoming available to MPA management - including for compliance and enforcement. Here are two recent additions to the manager's toolbox: one that helps fishers be aware of MPA boundaries, and one that helps rangers catch rulebreakers.

### Can I Fish Here?

Parks Victoria manages 24 no-take marine national parks for the Australian state of Victoria. To help recreational fishers keep track of their position in relation to these sites, the agency (in partnership with Fisheries Victoria) has introduced the "Can I Fish Here?" tool. Included as part of Fisheries Victoria's Recreational Fishing Guide app for mobile phones, the tool uses a phone's geolocation ability to show fishers whether they are inside a no-take zone (a red warning message), close to one (an orange message), or safely clear of one (a green message). Maps of the MPAs are also included.

Mark Rodrigue, program leader for marine and coasts with Parks Victoria, says boundary awareness of MPAs has always been a challenge. "Marine managers have relied in the past on traditional methods such as markers on shorelines, in-water markers in areas that are relatively shallow and low energy, maps at key access points or in park publications, or other methods," he says. "While these tools are all useful and will continue to be used, they also have limitations and rely on the users being adequately prepared with maps or within visual sight of boundary marks."

People who are caught fishing inside Victoria's no-take areas often claim to have no knowledge of the boundaries, says Rodrigue. "Since many people these days are using smart mobile phones or devices, one of our marine rangers suggested using the fishers' phones to help them locate in relation to the boundaries." Parks Victoria created the tool with Fisheries Victoria and a small team of in-house software developers. For more information on the tool, go to [www.dpi.vic.gov.au/fisheries/recreational-fishing/recreational-fishing-application-for-smartphones](http://www.dpi.vic.gov.au/fisheries/recreational-fishing/recreational-fishing-application-for-smartphones).

[Editor's note: the US state of California also offers an MPA boundary awareness tool for MPAs in its waters. Like the Victoria tool, it is designed for smartphones and provides positional information; technically, though, it is a Web-based resource rather than a standalone app. It is at [www.dfg.ca.gov/m/MPAMap](http://www.dfg.ca.gov/m/MPAMap).]

### SMART anti-poaching software

Debuted at last year's World Conservation Congress in South Korea, the SMART software tool allows for measuring, evaluating, and improving the effectiveness of wildlife law enforcement patrols - both on land and at sea. SMART (which stands for Spatial Monitoring and Reporting Tool) includes a desktop application, training and implementation manuals, and web-based training materials. The entire package is free and open-source, allowing it to be modified to meet varied and changing needs ([www.smartconservationsoftware.org](http://www.smartconservationsoftware.org)).

"This characteristic of SMART means that add-ons can be programmed that could focus on marine specific applications, such as environmental monitoring of sea surface temperatures," says Olivia Needham of the Zoological Society London (ZSL). ZSL is part of a consortium of conservation organizations that developed the software; the group also includes WWF, Wildlife Conservation Society (WCS), Frankfurt Zoological Society, North Carolina Zoological Park, and the Monitoring Illegal Killing of Elephants program of CITES.

Consortium members aim to pilot SMART at various MPA sites within the next year. ZSL will pilot the software at 34 community-managed MPAs in the Philippines. WCS will support the Belize Fisheries Department in using the software to centralize its enforcement data.

The SMART consortium would like to hear from individuals and organizations interested in helping develop the software in marine systems over the coming year. "In the near future, we could be using detailed law enforcement monitoring information, collected with the SMART system from MPAs around the world, to inform our decision-making on MPA designations and management," says Needham. "That is a very exciting prospect."

#### For more information:

**Mark Rodrigue**, Parks Victoria, Melbourne, Australia. Email: [mark.rodrigue@parks.vic.gov.au](mailto:mark.rodrigue@parks.vic.gov.au)

**Olivia Needham**, Zoological Society London, UK. Email: [Olivia.Needham@zsl.org](mailto:Olivia.Needham@zsl.org)

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