

Peter P. Principe, Research Scientist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

[Mailing Address](#)

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Area of Expertise: Peter Principe has expertise in the characterization and quantification of ecosystem services provided by coral reefs and other marine ecosystems and of the effect of environmental and land-use policies on the delivery of those services. He also has expertise in development of indicators for these ecosystems of their potential for yielding natural products with pharmaceutical potential. Principe has developed methods to characterize, quantify, and value ecological benefits (goods and services), including both market values and total economic values (market plus nonmarket values), particularly with respect to plant biodiversity and to well-being and quality-of-life.

Select Publications:

Macpherson AJ, Principe PP and Mehaffey M. 2013. Using Malmquist Indices to evaluate environmental impacts of alternative land development scenarios. *Ecological Indicators*, 34:296-303.

Macpherson AJ, Principe PP and Shao Y. 2013. Controlling for exogenous environmental variables when using data envelopment analysis for regional environmental assessments. *Journal of Environmental Management*, 119:220-229.

Principe PP, Bradley P, Yee SH, Fisher WS, Johnson ED, Allen PE and Campbell DE. 2012. *Quantifying Coral Reef Ecosystem Services*. US EPA, Office of Research and Development, Research Triangle Park, NC. EPA/600/R-11/206, January 2012.

Yee SH, Bradley P, Campbell DE, Carriger J, Principe PP and Fisher WS. 2011. *Measures and Methods to Quantify Production of Coral Reef Ecosystem Services*. US EPA, Office of Research and Development, Gulf Breeze, FL. September 2011.

Macpherson AJ, Principe PP and Smith ER. 2010. A directional distance function approach to regional environmental-economic assessments. *Ecological Economics*, 69(10):1918-1925.

Advanced Measurement Initiative. Program Review & Research Status. 2000. US EPA, Office of Research and Development, Washington, DC. EPA/600/R-00/089, September 2000.

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Education:

- M.S. in Administration of Science & Technology, George Washington University, 1977

- B.S. in Chemical Engineering and English, Carnegie Mellon University, 1971
[Part-time Ph.D. student in Duke's School of the Environment, from 1992-2000]

Professional Experience:

Honors and Awards:

- EPA Bronze Medal for Guanica Bay Community Support (2015).
- STAA award for Holland *et al.* paper in *Atmospheric Environment* (1999).
- EPA Bronze Medal for work on the PCB Ban Rule under the Toxic Substances Control Act (1980).
- U.S. Patent 4,128,880. Issued Feb. 13, 1979 to JB Cohen & PP Principe. "Vapor Emission Recovery Measuring Method and Vapor Recovery Collection Boot".