

Nina F. Caraco

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Education:

B.S. Cornell U. 1978

PhD. Boston University Marine Program, 1986

Professional Positions:

Post Doctoral Associate — Institute of Ecosystem Studies

Research Associate I, II and III — Institute of Ecosystem Studies

Scientist — Institute of Ecosystem Studies

Senior Scientist — Cary Institute of Ecosystem Studies

Research Interests and Activities:

I am an aquatic biogeochemist with particular interest in the link between anthropogenic activities and ecosystem function of lakes, rivers, and estuaries. I have worked at the single system to global scales and have used modeling, cross-system analysis, long-term studies and natural abundance isotope analysis to pursue these goals.

Selected Publications:

- Caraco, N.F., J.J. Cole and G.E. Likens. 1992. "New" and "recycled" production in an oligotrophic lake: Insights for summertime phosphorus dynamics. *Limnol. Oceanogr.* 37:590-602.
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- Cole, J.J., N.F. Caraco and B. Peierls. 1992. Can phytoplankton achieve a positive carbon balance in a turbid river, the Hudson River, New York? *Limnol. Oceanogr.* 37:1608-1617.
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- Caraco, N.F. 1993. Disturbance of the phosphorus cycle: A case of indirect effects of human activity. *Trends in Ecol. Evol.* 8:51-54.
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- Cole, J.J., N.F. Caraco, G.W. Kling and T.W. Kratz. 1994. Carbon dioxide supersaturation in the surface waters of lakes. *Science* 265:1568-1570.
- Caraco, N.F. 1995. Influence of humans on P transfers to aquatic systems: A regional scale study using large rivers. Pp. 235-244. In: Tiessen, H. (Ed.) *Phosphorus cycles in terrestrial and aquatic ecosystems*. SCOPE. Wiley & Sons, Chichester.
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- Caraco, N.F., J.J. Cole., P.A. Raymond, D.L. Strayer, M.L. Pace, S.E.G. Findlay, and D.T. Fischer. 1997. Zebra mussel invasion in a large turbid river: Phytoplankton response to increased grazing. *Ecology* 78:588-602.
- Raymond, P.A., N.F. Caraco and J.J. Cole. 1997. CO₂ concentration and atmospheric flux in the Hudson River. *Estuaries* 20:381-390.
- Caraco, N.F. and R.A. Miller. 1998. Effects of CO₂ on competition between a cyanobacteria and eukaryotic phytoplankton. *Can. J. Fish. Aquat. Sci.* 55:54-62.
- Bastviken, D.T.E., N.F. Caraco, and J.J. Cole. 1998. Experimental measurements of zebra mussel (*Dreissena polymorpha*) impacts on phytoplankton community composition. *Freshwater Biology* 39:375-386.
- Cole, J.J. and N. F. Caraco. 1998. Atmospheric exchange of carbon dioxide in a low-wind oligotrophic lake estimated by whole-system SF₆ addition. *Limnol. Oceanogr.* 43:647-656.
- Caraco, N.F., G. Lampman, J.J. Cole, K.E. Limburg, M.L. Pace, and D. Fischer. 1998. Microbial assimilation of DIN in a nitrogen rich estuary: Implications for food quality and isotope studies. *Mar. Ecol. Prog. Ser.* 167:59-71.
- Carpenter, S., N.F. Caraco, D.L. Correll, R.W. Howarth, A.N. Sharpley, and V.H. Smith. 1998. Nonpoint pollution of surface waters with phosphorus and nitrogen. *Ecol. Appl.* 8:559-568.
- Smith, T.E., R.J. Stevenson, N.F. Caraco and J.J. Cole. 1998. Changes in phytoplankton community structure during the zebra mussel (*Dreissena polymorpha*) invasion of the Hudson River (New York). *J. Plank. Res.* 20:1567-1579.
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- Strayer, D.L., N.F. Caraco, J.J. Cole, S. Findlay, and M.L. Pace. 1999. Transformation of freshwater ecosystems by bivalves: a case study of zebra mussels in the Hudson River. *BioScience* 49:19-28.
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- Caraco, N., J.J. Cole, S.E.G. Findlay, D.T. Fischer, G.G. Lampman, M.L. Pace, and D.L. Strayer. 2000. Dissolved oxygen declines in the Hudson River associated with the invasion of the zebra mussel (*Dreissena polymorpha*). *Env. Sci. Tech.* 34:1204-1210.
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- Lampman G. G., Caraco N. F., and Cole J. J. 2001. A method for the measurement of C and P on the same filter. *Mar. Ecol. Prog. Ser.* 217:59-65.
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