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Bernard R Lipat* (bernardlipat@yahoo.com), 156 Carlton Ave., Apt. 2, Jersey City, NJ 07306, and **Rusty Laracuenti** (rlaracuenti@gmail.com). *Modeling the Effects of the Fukushima Daiichi Nuclear Meltdown on the Marine Environment*. Preliminary report.

With the increasing frequency of nuclear power as a source of energy, understanding the effects of radioactivity on the marine environment is a problem whose solution is vital for a comprehensive approach to nuclear safety. In particular, the recent meltdown of the Fukushima Daiichi Nuclear Power Plant provides a case study out of which we develop a mathematical model using numerical approximations of the diffusion equation with advection and decay to study the spread of radionuclides and their effects on the populations of the Pacific Bluefin Tuna (*Thunnus orientalis*) and the Pacific Pink Salmon (*Oncorhynchus gorbuscha*). (Received September 21, 2011)