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Climate change brings a variety of expected and unexpected consequences. We found that egg cannibalism in marine gulls increases sharply when sea surface temperature rises as little as a half degree. This is because even slightly higher sea surface temperatures depress marine food webs, thus reducing the amount of food available to marine animals. Cannibalism provides an alternate source of food during such times. Indeed, an egg cannibal can obtain nearly half its daily energy requirement by stealing and eating a single neighbor's egg. But female gulls have developed a strategy to reduce the chance that one of their eggs will be cannibalized. They ovulate synchronously with other females, analogously to the way human females synchronize menstrual cycles when living or working in close proximity. When female gulls lay eggs at the same time, each egg has a smaller chance of being cannibalized. In short, cannibalism functions as an adaptive response to food scarcity associated with rising sea surface temperatures; reproductive synchrony, in turn, functions as an adaptive response to cannibalism. In this talk we consider the biological setting that motivates the mathematical models in the following two talks. (Received February 02, 2015)