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Berrien Springs, MI 49104. *A Darwinian dynamics model for the evolution of "comfort behavior"*  
*in seabirds*. Preliminary report.

Heritable behaviors that serve important physiological functions can be co-opted to serve psychological purposes. For example, in humans the behavior of eating can be used as a "comfort behavior". Preening is an important behavior in birds that occupies up to 27% of waking time on their territories. The most obvious function of this behavior is feather maintenance, which is crucial for flight and thermoregulation. Studies suggest that preening also can serve as a "comfort behavior" that soothes birds after periods of disturbance by predators. We use a Darwinian dynamics model to suggest mechanisms by which a behavior with physiological function can evolve into a comfort behavior. (Received September 14, 2010)