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Kehinde Rilwan Salau*, 617 N Santa Rita Ave., Tucson, AZ 85719, and **David W Shanafelt** and **Richard T Melstrom**. *The optimal timing of reintroduction: The case of the endangered black-footed ferret*. Preliminary report.

Species reintroduction into the wild is a popular conservation tool. One of the flagship species for reintroduction is the black-footed ferret (*Mustela nigripes*), which is endangered due to declines in its primary food source, prairie dogs. Reintroduction programs are expensive, incurring costs to grow captive populations as well as to manage wild ones, but most recovery studies ignore these costs and focus on the biological complexities of the problem. We conduct a bioeconomic analysis of a stylized ferret reintroduction program, where the objective is to minimize the costs of reintroduction while providing a suitable number of ferrets to establish a viable wild population. This analysis accounts for the fact that reintroduction requires jointly managing (1) ferrets in captivity and (2) ferrets and prairie dogs in the wild. Under scrutiny is the period when a wild ferret population should be established, so the control variable is the timing of reintroduction. This distinguishes the paper from prior work in bioeconomics, which largely examine problems involving adjustable controls. The simplicity and realism of this control means that the ferret application can provide insights into efficient management for a wide range of reintroduction programs. (Received September 22, 2015)