Feline cat populations cause ecological destruction and spread many diseases in places that people live. Here, we describe a mathematical model for their population dynamics. The gender-based model includes kittens, adult females and adult males. A net reproduction number $R_0$ distinguishes between population extinction ($R_0 < 1$) and population persistence ($R_0 > 1$). In a separate talk, the model will be extended to include the spatial movement of adult males between patches and the spread of feline leukemia.