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Pack size vs. Prey Density in the Mexican wolf. Preliminary report.

Pack size vs. Prey Density in the Mexican wolf The best known populations of grey wolves (*canis lupus*) are probably the Northern packs such as in Yellowstone and on Isle Royale. These packs are generally 5 to 8 wolves, sometimes as many as 14. The Mexican Lobo, subspecies (*canis lupus baileyi*), recently re-introduced in New Mexico currently form packs of only 2 adults plus juvenile pups. Historically, lobo packs seem to have been larger. We explore the relationship between prey density and hunting effort, and the effect on pack size. The mathematics involved are suitable for use in a systems of ODEs class. (Received September 22, 2011)