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## DIET COMPOSITION AND BODY CONDITION OF NORTHERN CONTINENTAL DIVIDE GRIZZLY BEARS, MONTANA

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From 2009–2013, we documented apparent population health by investigating food use and physiological condition of grizzly bears (*Ursus arctos*) in the Northern Continental Divide Ecosystem (NCDE), Montana. We used stable isotope analysis upon hair and blood tissue to obtain information on percent terrestrial meat and plant matter in the diets of NCDE bears. We also assessed body fat content of grizzly bears via bioelectrical impedance analysis. Adult females used less meat compared to subadults and adult males ( $P < 0.0001$ ). Bears within regions on the southwestern, southern, and eastern periphery of the ecosystem consumed a significantly higher proportion of meat than those in the interior or northwestern periphery ( $P < 0.0001$ ). Diets of bears in the Whitefish Mountains and North and South Fork of the Flathead River were, on average, composed of 70% less meat than those on the East Front. Adult males had significantly higher den entrance body fat contents than adult females and subadults ( $P < 0.0001$ ). Average body fat of adult females varied significantly between those in areas of high consumption of meat and those otherwise. However, we find adult females across all regions enter dens at mean fat levels above those thought to be critical for cub production (i.e.,  $> 20\%$ ). We conclude that, within each region, the quantity and quality of foods appear adequate to meet the needs of reproductively-active adult females. As truly opportunistic omnivores, grizzly bears in each region of the NCDE exploit diverse combinations of food items to arrive at productive body conditions.