** Identifying a Hidden Social Structure in a Solitary Carnivore

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The American black bear (*Ursus americanus*) is traditionally considered a solitary species, yet accumulating evidence suggests complex social behavior. We integrate land-tenure, resource dispersion, and kinship theories to generate predictions about carnivore social structure. We tested predictions about spatial overlap, association, and resource sharing using GPS, genetic, and video data from 50 bears across a 2,400 km² region encompassing the northern Bitterroot Valley and the adjacent northern Sapphire Mountains in western Montana, USA, between 2010 to 2024. Home ranges overlapped extensively (mean overlap = 38.5%), and tracking behavior—defined as directional movement following for a sustained period—accounted for 39.5% of all recorded interactions, occurring more than an order of magnitude more frequently than avoidance. Genetic analyses assigned 11 sires for 45 cubs with multiple paternity detected in 4 of 11 litters (36%); neither age nor body mass predicted male annual reproductive success. We also documented sustained synchronous movements among dyads, including unrelated individuals outside the mating season, as well as evidence of stable, spatially dispersed, pack-like social groups. Together, these results demonstrate that black bear social structure extends beyond mating and kinship, supporting classification of the species as facultatively social along the solitary–social carnivore spectrum.