Conflicts on Agricultural Lands: Rocky Mountain Front 1986-2018
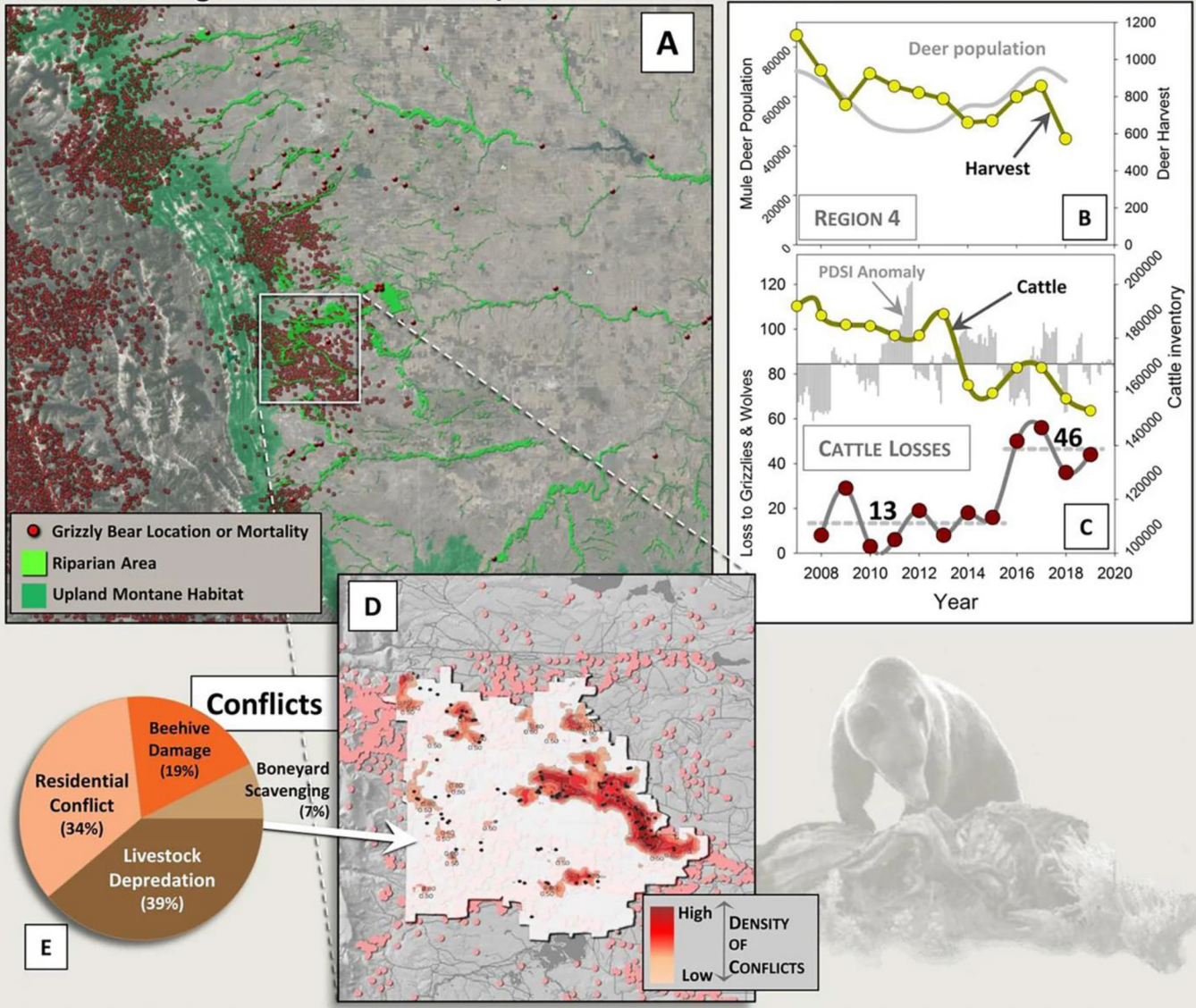
These maps and graphs show spatial and temporal patterns of conflicts between grizzly bears and people on agricultural lands along the East Front of the Rocky Mountains in the Northern Continental Divide Ecosystem (NCDE). Map (A) shows the distribution of radio-telemetered grizzly bears (as red dots) along the East Front, aligning with west-east trending riparian corridors (shown as light green). Map (D) shows concentrations of conflicts (as shades of tan to burgundy) that also align with riparian areas along a portion of the East Front (from work done by Seth Wilson). As shown by the pie diagram in (E), most conflicts were associated with bears depredating vulnerable livestock or accessing unsecured foods near people's residences. Secondary catalysts for conflict included unsecured beehives (a source of honey) and unsecured carcasses of livestock dying from natural causes (i.e., boneyards). Increasing numbers of cattle depredations are shown in (C), with a sharp jump during 2016 coincident with or shortly after marked declines in deer populations (indicated by harvest and population estimates in [B]) and restocking of cattle after reductions in numbers triggered by a pronounced drought during 2013-2015 (shown in the top graph of [C], where PDSI indicates drought severity). In other words, the jump in bear depredations on cattle were very likely driven by changes in comparative availability of two primary sources of meat for bears: mule deer and cattle.