Wolves would rather eat salmon

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Although most people imagine wolves chasing deer and other hoofed animals, new research suggests that, when they can, wolves actually prefer fishing to hunting. The study, published today in the open access journal *BMC Ecology,* shows that when salmon is available, wolves will reduce deer hunting activity and instead focus on seafood.

Chris Darimont from the University of Victoria and the Raincoast Conservation Foundation, Canada, led a team of researchers who studied the feeding habits of wolves in a remote 3,300km^2 area of British Columbia. As Darimont describes, "Over the course of four years, we identified prey remains in wolf droppings and carried out chemical analysis of shed wolf hair in order to determine what the wolves like to eat at various times of year".

For most of the year, the wolves tend to eat deer, as one would expect. During the autumn, however, salmon becomes available and the wolves shift their culinary preferences. According to the authors, "One might expect that wolves would move onto salmon only if their mainstay deer were in short supply. Our data show that this is not the case, salmon availability clearly outperformed deer availability in predicting wolves' use of salmon."

This work gives researchers as much insight into salmon ecology as wolf ecology. Darimont's mentor and co-author Thomas Reimchen, also of the University of Victoria, admits, "Salmon continue to surprise us, showing us new ways in which their oceanic migrations eventually permeate entire terrestrial ecosystems. In terms of providing food and

nutrients to a whole food web, we like to think of them as North America's answer to the Serengeti's wildebeest."

The authors explain that the wolves' taste for fishy fare is likely based on safety, nutrition and energetics. Darimont said, "Selecting benign prey such as salmon makes sense from a safety point of view. While hunting deer, wolves commonly incur serious and often fatal injuries. In addition to safety benefits we determined that salmon also provides enhanced nutrition in terms of fat and energy".

The research also warns that this already vestigial predator-prey relationship – one that once spread from California to Alaska – might not be around forever. Darimont cautions, "There are multiple threats to salmon systems, including overexploitation by fisheries and the destruction of spawning habitats, as well as diseases from exotic salmon aquaculture that collectively have led to coast-wide declines of up to 90% over the last century".

Source: BioMed Central

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