Predator revival sparks dunlin weight loss

January 28 2010

(PhysOrg.com) -- It's a weight loss plan with life or death consequences. If you're a dunlin, chances are you're spending more time flying than eating.

According to a team of Simon Fraser University researchers, the average Pacific dunlin has lost weight - two to four grams over the past four decades - due largely to the return of a key predator, the peregrine falcon .

SFU ecologist Ron Ydenberg, whose team has tracked data on dunlins going back 40 years, says the "tremendous and steady" increase in peregrine falcons follows the 1973 banning of DDT, which prompted the revival of several predator species and led to the falcons being taken off the endangered species list.

Dunlins breed in Alaska and can be seen by the hundreds of thousands wintering in Boundary Bay. "Since the revival of the peregrine falcons, dunlins have had to manage the danger, and instead of roosting on the foreshore at high tide they spend hours flying around," says Ydenberg, whose researchers also use radar units to monitor dunlin activity. "It's simply safer."

Dunlins typically stored fat reserves through the autumn months in order to survive when food was short during harsh Canadian winters.

While 'over-ocean flocking' eats up energy the researchers say the risk from predators is now greater than the threat of starvation.

Researchers are winding up their fieldwork for the season but say their research, published this month in the online journal *BMC Ecology*, will continue.

Provided by Simon Fraser University