



Bald Eagle Monitored Seven Years by Satellite Telemetry

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When we released bald eagle 28017 on that cold morning on January 20, 1998 we had no idea we would be tracking a special bird. This eagle was one of 26 migrant bald eagles we captured on the Skagit River in northwestern Washington to determine their breeding locations, long-range migration corridors, and identify sources of mortality (Watson and Pierce 2001). Over the next 2,624 days (7 years, 69 days*) the 95g PTT-100 harnessed to her back provided 2,838 locations (including Z class) that revealed a wealth of information about her annual habits.



Photo by Jim Watson

Mark Horowitz releases bald eagle 28017 on the Skagit River, Washington in early 1998.

The opportunity to monitor the long-range movements of any bird over such a long period is unusual. A few bald eagles marked with patagial markers have been resighted by researchers up to 20 years later, but satellite monitoring is unique in that it provides a continual history of movements on a specific individual. In fact, there were never any actual resightings of eagle 28017 after she left the Skagit River and everything we learned was through remote monitoring. Particularly interesting is the fact that eagle 28017 did not return to the Skagit River in any winter after her capture. While it would be easy to attribute that to her avoidance of the place where she was captured, several other eagles captured on the Skagit did return in subsequent years. It is more likely that in any given year eagle 28017 traveled no further south from her nest down the coast of British Columbia than

was necessary to supply her winter food. Salmon begin to spawn in southeast Alaska in the summer, and salmon carcasses collect in estuaries and along lower rivers. Salmon runs progress down the coast



Photo by Jim Watson

Bald eagle 28017.

of British Columbia to Washington in the late fall. During the 7 years, eagle 28017 left her breeding territory between October 15 and November 18. In two winters subsequent to her capture, she wintered near the north end of Vancouver Island, and for three winters she wintered on the central British Columbia coast (Fig. 1). She was in southeast Alaska during early winter of 2004-05 when her PTT expired.

The coastal migration paths of eagle 28017 were similar during fall and spring and she typically ranged within 100 kilometers of the coast (Fig. 2). These movements were typical of eagles we found nesting in southeast Alaska and wintering in Washington (Watson and Pierce 2001). Eagle 28017 returned to Alaska between February 23 and March 13 in 7 consecutive springs. Although we were unable to confirm whether she nested each year, she returned to Wrangell Island each year (Fig. 3).

Other than the fact that the PTT was equipped with an early version of the Lix2™ battery, there was nothing especially unique about the PTT. Evidently, the perfect combination of battery power, electronic tuning, and the fact that the eagle did not break or remove the antenna accounted for the exceptional life of the PTT. The duty cycle was variable and

Continued on page 6

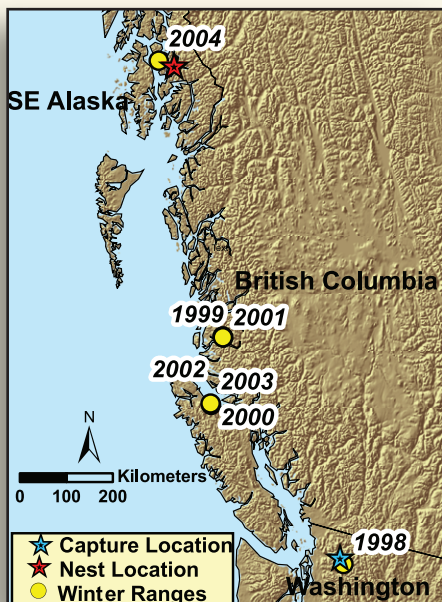


Fig. 1. Annual wintering locations of eagle 28017 with respect to her capture location in Washington, and breeding location in southeast Alaska.

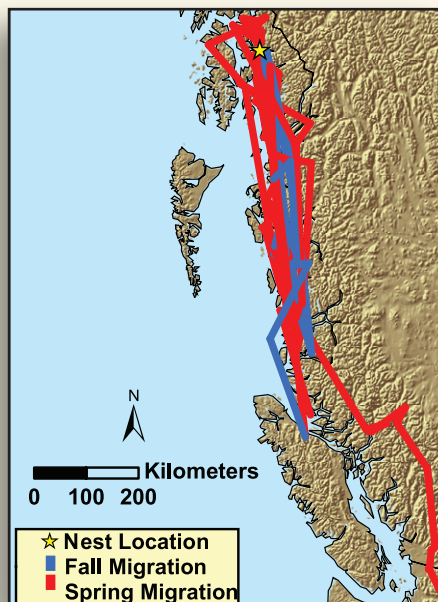


Fig. 2. Migration corridors used by eagle 28017 during seven complete migrations.

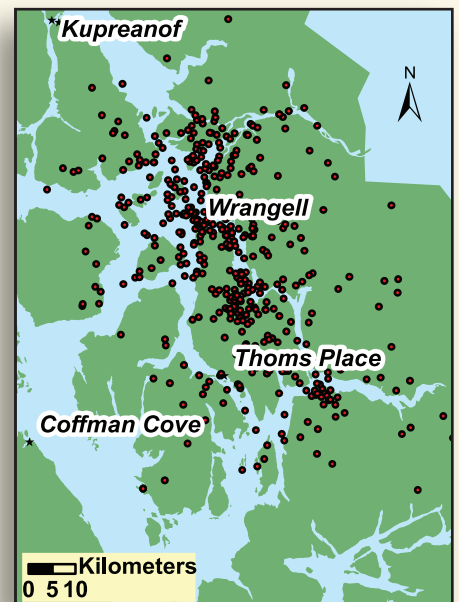


Fig. 3. Class 0-3 satellite locations of bald eagle 28017 in southeast Alaska during seven breeding seasons.