

# **INLAND FISHERIES & WILD LIFE**

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## *Memorandum*

*To: Jennifer Vashon  
From: Randy Cross  
Date: April 4, 2006  
Subject: 2006 Bear Den Summary*

The 2006 den crew included Kendall Marden, David Pert, and myself. Snow depths were very low in all three study areas and temperatures were also generally warmer than usual. Rains and floods occurred in December, mid-January, and early February with a short period of extreme cold in late February/early March.

### **Bradford Study Area**

In the Bradford Study Area, we visited and attempted to capture bears in 26 dens (8 solo, 9 yearling, and 9 cub dens). One collar (from 1706) was recovered as a premature leather failure. We handled 16 yearlings (6F, 10M; average weight = 51.2 lbs.), and 16 cubs (9F, 7M).

Ten of the first 13 bears that we attempted to capture in this study area ran, with a total of 25 runs on 34 attempts. We failed to capture 7 adults (1099, 1784, 1907, 1919, 2221 (solo), 2225, and 2233), despite numerous attempts to do so. We also did not handle 2223's two cubs after she left the nest, for fear of causing abandonment.

We recorded some impressive weights in this study area, with yearlings averaging more than they have since 1999. We also saw a 128 lb. 3-year old and a 4-year old that weighed 168 lbs. Cub survival in this study area was 100% (12/12) for known litters.

Two females lost their entire litter of cubs during the denning period. ID1099 lost or left her litter (we heard them in her den in late Jan) and 1881 had no cubs in her den, despite obvious signs of having nursed cubs earlier. ID1784 abandoned young cubs (under 2 lbs.) on February 2<sup>nd</sup>. We revived her 2 nearly-frozen female cubs and gave them to Dawn Brown. At 13 lbs on March 24<sup>th</sup>, they will be the first to be rehabbed in the Browns' new large outdoor enclosure.

ID1881 reused her '04 den site and 2225's original den showed signs of use in previous years. We used hounds in late March, attempting to capture 2225 and 1919 with no success.

### **Downeast Study Area**

In the Downeast Study Area, we visited 13 dens (4 solo, 7 yearling, and 2 cub dens). We handled only 6 yearlings (3F, 3M) and 5 cubs (3F, 2M) in 2 litters. We failed to capture 6 adults (2106, 2135, 3137, 2145, 2157, and 2158) and 6 yearlings (4F, 1M, 1 unk). We made at least 2 attempts to capture most of these bears. The collar of ID2106 stopped transmitting between late December, when her location was flagged and February 8 when we attempted to capture her.

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Due to our general lack of success capturing these bears, we tried a night stalk of 2114 in the predawn darkness. This attempt was successful and may be a valuable technique to improve capture efficiency of high risk individuals in the future.

This was our first opportunity to measure yearling weights in this new study area. In sharp contrast to the other 2 areas, yearling weights were relatively low at 36.9 lbs. Cub survival also appeared low (12/19, 63%) but may be conservative due to the lack of tracking snow. Some separations may have occurred on our first attempts with no snow.

A Downeast Rivers Land Trust worker (Darren Kelley) located a dened bear in North Cherryfield (about 14 miles south of the study area line). This bear turned out to be a young female (70 lbs.). We intended to remove the collar on 2137 in Machiasport and decided to collar this (much closer) future surrogate mother candidate. Unfortunately, 2137 escaped capture and will persist as long as her collar's leather and battery holds up.

We deployed a Lotek GPS collar on ID2144 (a 13-year old). This will provide data on den emergence this spring and den entry next fall, as well as potential beechnut/ blueberry barren use in this relatively unknown study area.

### **Spectacle Pond Study Area**

In the Spectacle Pond Study Area, we visited 23 dens (10 solo, 3 yearling, and 10 cub dens). We handled 4 yearlings (2F, 2M) and 20 cubs (9F, 11M). Yearling weights averaged 52 lbs., which is the highest ever recorded for this study area (next highest in the last 12 years was last year at 32 lbs.). Strangely, the four 2-year old bears also averaged 52 lbs. in weight; these bears each gained just 4 lbs., except 2097 (30-88 lbs).

We deployed a Lotek GPS collar on ID1847 who had litters 3 years in a row (a lone male cub). One bear (ID1889) showed evidence of losing her entire litter prior to our visit. There may have been partial litter losses as well from the more exposed dens, as we saw 3 litters of only a single cub in this study area. A subadult female (2010) was lost unexplainably during cub season. ID2005 reused her '04 cub den with cubs again.

### **Summary**

We handled 119 bears in 53 dens. We attempted to capture bears in 62 different dens (a total of 79 attempts). We failed to capture 13 adults, 7 yearlings, and 2 cubs. To offer some perspective, in the last 24 years, we failed to capture only 47 bears (mostly yearlings) for an average of less than 2 per year.

The strange weather patterns we saw may have also impacted newborn cub survival, as we saw evidence of whole litter losses in each study area, along with some unexpected smaller litters. Snow depths never exceeded ankle deep in either of the 2 southern study areas.

We captured and handled 26 yearlings (11F, 15M) and 41 cubs in 19 litters (21F, 20M; 2.16 cubs/litter). Overall, cub survival for last year was relatively high at 77.8%.

We finished the season with 71 active collars (32 Bradford, 24 Spec., 15 DE). Rita Seger continued her investigation of bone metabolism, collecting blood samples and x-rays. Rita accompanied us to most of the dens with the exception of the first trip to Spectacle Pond (we collected blood samples). Rita collected blood from 61 bears and x-rayed more than 50 bears. We collected 70 hair samples from adults and yearlings, and 30 earplugs from cubs.

As in the past, we hosted guests (188 guests over 25 days) including groups from College

of the Atlantic, Unity College, University of Maine, Downeast Rivers Land Trust, International Paper, Maine Guides (North Maine Woods Bear Hunt Improvement Council), and other key landowners and foresters.