

# Memorandum

*To:* Jennifer Vashon  
*From:* Randy Cross  
*cc:*  
*Date:* March 27, 2009  
*Subject:* 2009 Bear Den Summary

The 2009 den crew included myself, contractors David Pert, Lisa Bates and Eric Rudolph ( first 2 weeks) and volunteer, Kelly Young. Snow conditions were excellent through most of the winter. Noisy crusts were not an issue until late Feb as there was no January thaw. Lisa and I recovered GPS collars from 5 bears in Spec in late Dec and we began working regularly on Jan 6, finishing on March 23.

## Bradford Study Area

In the BSA, we visited 25 dens ( 9 solo, 3 yearling, and 13 cub dens). We handled 7 yearlings (3F, 4M; avg. wt. = 57.4 lbs) and 31 cubs (16F, 15M) in 12 litters. Last year's cub survival was 70% (7/10). We elected to not disturb 2221 (and her cubs) in her second den after she ran and escaped us early in the winter (prior to giving birth).

Some remarkable weights were observed in this study area this winter. A 2yr-old (2360) weighed 120 lbs (up from 52 lbs as a yearling). ID 1979 weighed a record 277 lbs in her den with 4 cubs whose aggregate weight was 22.5 lbs. She denned a 4th time (new record as well) in the den she used with cubs in 03, 05 and 07 in W Old Town. A logging operation was conducted in the area with the main skid trail within 25 feet of the den. ID 2225 reused her ground nest from 06 and ID 2228 built a new nest within 10 yards of last year's. There was only one other den reuse in the study this winter (2205 - DE).

ID1907 produced a third brown cub. This one, a male, is much browner than the other two and can best be described as chocolate in color. In our continuing effort to limit the number of collared bears for budgetary concerns, we withheld collars from 2 yearlings. We collared one yearling who will potentially be part of the GPS program next winter.

## Downeast Study Area

In the DESA, we visited 37 dens (13 solo, 4 yearling, and 20 cub dens). We handled 7 yearlings (4F, 3M) and 38 cubs (13F, 25M). The preponderance of male cubs (near 2:1) is curious. We chose not to visit 2159's second den after she ran from us early in the winter. We assume she gave birth to cubs in her second den. One female yearling escaped capture (2145's). ID 2349 ran off 2 cubs and, despite being darted, failed to go down or return to her cubs. We transferred her cubs to 2348, who had one cub of her own.

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The average yearling weight of 56.9 lbs is relatively high indicating an excellent natural food year here. Many bears remained active foraging for beech nuts in this area late into the fall. Cub survival, however, was relatively low at 54% (7/13).

We successfully deployed 15 GPS collars and one satellite collar on females in the northern portion of the study area in an effort to establish a density estimate for the study area. This will be the first density estimate obtained for this relatively young study area that represents bears living in eastern Wildlife Management Districts. The satellite collar was given to us by Northstar including free air time which allows us to check on the bear's locations at any time on the web.

We removed 2319 and 2145's collars and chose not to collar two female yearlings.

#### Spectacle Pond Study Area

In the SPSA, we visited 29 dens (12 solo, 7 yearling, and 10 cub dens). We handled 13 yearlings (5F, 8M; avg. wt. = 46.5 lbs.) and 23 cubs (11F, 12M). Cub survival was 76.5% (13/17). ID 2095 lost both cubs from last year's litter (her first). She produced two more female cubs this year. These 2 litters are the first 6th generation cubs born to the study. Next winter, we should have the opportunity to place a collar on one of these yearlings whose great great great grandmother wore a radiocollar here 30 years before.

We recovered 12 GPS collars here with up to 800 locations stored in each. This will allow us to estimate the density of females in a portion of the study area (this was last done in 89). Three cub dens (2214, 2450 and 2476) were visited earlier than usual in order to facilitate refurbishing and redeploying their GPS collars downeast. One of these dens (2450) contained two males - one weighing 6 lb 3 oz and the other 1 lb 14 oz on Feb 19. We pulled the collar from one bear (2445) and held 2 from yearlings.

#### Summary

We visited 91 dens this winter handling a total of 208 bears. Three adults and one yearling escaped capture. We handled 27 yearlings (12F, 15M) and 92 cubs (40F, 52M; 2.24 cubs/litter). Among 41 cub litters, there were three 4-cub litters and five single-cub litters this year. Last year's cub survival was 67.5% (27/40). Yearling weights averaged 52.0 lbs. in all 3 study areas combined. This year, a relatively high percentage (42%) of litters were born to mothers who had never had cubs before (6/10 in Spec, 5/13 in Brad and 7/20 in DE). These younger mothers range from 4-6 years old. Their "first litters" tend to be smaller in number and their cubs have a lower chance of survival compared to those born to older, more experienced mothers.

As we did last year, we placed a few collars with minimal battery life (less than 14 months left) on some bears. These were deployed with magnets attached loosely in hopes of saving a month or more of battery life while the bears were still in their dens.

We removed 3 collars from adults and chose not to collar 6 yearlings. We now have 94 active collars (31 Spec Pond, 26 Bradford, and 37 Downeast) including only 6 yearlings.

We hosted 197 guests on 28 days including groups from colleges (UM-26, Unity-22, COA-18) and legislators and guests of the commissioner (2 groups - 44). Media included IF&W's Regis Tremblay, MPBN Radio, and a freelance photographer and videographer, both from Presque Isle.

We tested a cocktail of Telazol, Ketamine and Xylazine. This mixture allows for very low volume (less than 1cc/100lb) and will immobilize about twice as many bears as the drugs used separately would.

The pilots were unable to locate ID 2580 (DE) and 1048 (Spec) who were wearing Sirtrac GPS collars. We will continue to search for these bears in hopes of recovering the expensive units and the data they contain.

