



Definition

1. Care will not allow the cub(s) to survive its injuries without causing undue pain and suffering (e.g. serious burn);
2. Cub(s) will not return to normal function once rehabilitated (e.g. blind);
3. Cub(s) require long-term veterinary care;
4. Cub(s) found after July 31st and require >2 individual caretakers

Note: If staff are unsure injuries meet this definition, consult with appropriate Regional Wildlife Manager in conjunction with Rehabilitation staff and Veterinarian

Note: If den disturbed in winter, cub(s) require immediate care

Note: Given a February 1st birth date at the latest, August 1st is the date staff can assume cubs have been weaned (i.e. 6 months of age)

Assessing Orphaned Black Bear Cubs for Rehabilitation

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Intent

The orphaning of black bear cubs can occur through a variety of means, both naturally or as a result of human activity. Mortality of the maternal female can result from hunting, vehicular collision, nuisance removals, starvation and disease. Abandonment may occur due to food shortages and separation due to fluctuating environmental conditions, den disturbances (Beecham 2006; Clark et al. 2002) and also due to members of the public picking up cubs they assume are orphaned when the maternal female may just be feeding elsewhere in the area.

This document describes a number of considerations department staff use to assess the eligibility of orphaned black bear cubs for rehabilitation as well as the reasoning behind recommended actions.

Cub age considerations

Black bear cubs are born while the maternal female is in the den, which is generally in early January but they can be born as late as early February (Alt 1983). They emerge from dens in late April or early May weighing ~5kg (10lbs) (Ontario Ministry of Natural Resources, 2009), and are approximately 3-4 months old. Most cub mortality occurs soon after den emergence, when cubs are more prone to predation and still highly dependent on the maternal female for nutrition (McLaughlin et al. 1994). Cubs are typically weaned between 5 to 6 months of age (Beecham, 2006), and studies have shown cub mortality to occur at a higher rate prior to weaning (Elowe and Dodge 1989, Beck 1991, Schwartz and Franzmann 1991). For example, Elowe and Dodge (1989) reported 76% of cub mortality occurred between 1.5 and 5 months of age. This suggests orphaned cubs less than 6 months of age are good candidates for rehabilitation as they may require human intervention to survive at levels similar to cubs accompanied by maternal females in the wild.

Using the estimate that all cubs of the year in Manitoba are born as late as February 1, it is safe to assume cubs should be weaned from the mother by July 31st and if not the case, they have shown to be capable of being forcibly weaned much earlier (Beecham, 2006). After July 31st is the suggested cut-off date to stop receiving intakes of cubs that are uninjured and of average to above-average weights. This is later than the standard date threshold of July 1 used by many previously surveyed northeast jurisdictions that allow orphaned black bear rehabilitation (Northeast Black Bear Technical Committee, 2014).

Cub weight considerations

Black bear cubs under one year of age can vary considerably in size and weight. This is due to seasonal variations in the quality of the food available and is also closely related to the size of the mother (Noyce and Garshelis, 1994). It is incredibly difficult to predict the age of a cub older

than 50 days as a result of increasing variation in growth rates due primarily to nutritional status (Alt, 1989). In order to provide some direction to assess bears for rehabilitation in the field, average weights found in literature will be used as a reference. Erickson (1959) examined self-sufficiency in orphaned cubs and released 39 cubs of ages between 5.5 and 8 months at an average weight of 27lbs. Given this information, a safe estimate of a healthy weight for a cub at approximately 6 months is 30lbs, or about the size of a medium sized dog (Figure 1). The standard weight threshold used by northeast jurisdictions that allow black bear cub rehabilitation ranges between 20-33lbs (Northeast Black Bear Technical Committee, 2014). The chosen threshold of 30lbs is at the upper end of this range because bears in Manitoba must endure more extreme seasonal variations. It is suggested that black bears found orphaned under this size threshold be considered for rehabilitation, especially in years when food availability is scarce and/or productivity low.



Figure 1. Size comparison of a healthy 6 month old black bear.

Category III Mother Considerations

For the safety of the public, it is departmental procedure to euthanize all cubs of Category III mothers that engaged in dangerous behaviour due to the assumption that the conflict behaviour the mother has engaged in may have been inherited by their associated cub(s) as a learned trait.

Cubs that are found before August 1st are assumed to be under 6 months and are typically still weaning. At this age, the cub(s) have likely have not learned the conflict behaviour themselves, and because experienced rehabilitators have had demonstrated success in releasing cubs with mothers that had prior histories of conflict (Beecham et al 2015; Blair et al 2020), the department does allow for cubs of Category III nuisance mothers (re-offending Category II bears) for consideration as being eligible for rehabilitation.

Handling Considerations

Limiting the amount of human-bear contact in rehabilitating orphaned black bear cubs has been cited widely as an important management practice to reduce the potential for human-bear conflict occurrences upon release (Beecham 2006, Smith et al. 2016, Myers and Young 2018, Blair et al. 2020).

Citing habituation concerns, rehabilitation organizations surveyed at the 2007 International Workshop on the Rehabilitation, Release and Monitoring of Orphan Bear Cubs held in Russia indicated that restricting the number of caretakers assigned to a bear to 1 or 2 individuals was important. (Beecham and Ramanathan, 2007). For handling and general care protocols, the Alberta government has adopted the practice of not allowing more than 2 human caregivers to care for a cub between its admittance and release (Alberta Environment and Parks, 2018).

Limiting contact with caretakers has been shown by experienced rehabilitators to be less of a concern for pre-weaned cubs less than 6 months of age, provided contact with caretakers was limited during post-weaning rehabilitation (Beecham, 2006).

Injured cubs pose a unique problem in that they may be subject to increased levels of human-bear contact in the form of requiring more caretakers on average as well as short to long-term veterinary care in order to heal from their injuries. At the 2007 International Workshop on the Rehabilitation, Release and Monitoring of Orphan Bear Cubs, many organizations also agreed that bears requiring long-term veterinary care were not suitable candidates for rehabilitation programs (Beecham and Ramanathan, 2007).

For these reasons, Manitoba has adopted practices to reduce the potential for rehabilitated bear cubs to become habituated and engage in conflict activities post-release. Unless the cub is pre-weaned and less than 6 months of age, caretakers will be limited to not more than 2 individuals engaging in care and handling of injured and orphaned bears, and bears requiring long-term veterinary care will not be accepted for rehabilitation.

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