Edible Weights of Wildlife Species used for Country Food in the Northwest Territories and Nunavut

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Abstract

The average edible weight (EW) of wildlife species used for country food in Northern Canada is an important component used to estimate the economic value of subsistence food production in Aboriginal communities. This report compiles reported average edible weight estimates of wildlife species in Northern Canada that have been used in economic valuation and for other purposes. Factors affecting edible weight generally, and for particular species are discussed. Large ranges in the reported average edible weight estimates of species are also discussed. This comprehensive listing of EW estimates of country food in Northern Canada and related discussion is intended to provide guidance in determining appropriate EW estimates for replacement value work.

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Introduction

Some regional or local economies, especially Aboriginal communities in remote areas, produce a substantial amount of food that is derived from locally-harvested wildlife. This informal economic activity may be relatively important to the regional or local economy but it is not monitored through conventional economic methods. However, the economic value of such subsistence or domestic harvests can be estimated, assuming that the number and types of species harvested are known, that the food products derived from the harvest can be assigned a price and if the average edible weight for each species is known.

Edible weight is defined as the raw weight of meat and other edible parts of an animal normally consumed as human food. Edible weight contrasts to the whole or live weight (total body mass) of an animal or to the carcass weight. Carcasses generally do not include the skin, head, internal organs and lower limbs, but do include some bone and other inedible tissue that is difficult to remove prior to consumption. Carcass weight has become a practical measure intermediate between live weight and edible weight because of the convenience of carcasses for their ease of handling, transport and storage.

Ideally replacement food value estimation would require the direct measurement of appropriate edible weights of wildlife species consumed in the area of study. Edible weights estimated in this manner will vary for a number of reasons most of which are noted in Usher (1976; 2000). Some of these are:

- variation in the average live weights of sub-species or populations of a species across its range
- cultural and local variation in the butchering of wildlife and in what is considered to be edible parts of wildlife
- variation due to sex and age preferences of harvest, opportunity of harvest, and other factors that influence the sex and age makeup of a harvest
- variation in animal condition due to variability in annual environmental productivity
- extent of wastage (intentional and unintentional)
- extent of use as human food versus dog food
- differences in seasonal yields due to:
    - varying condition of animals from one season to the next
    - human factors such as less desirable cuts being left at the kill site in summer because of difficulty in transporting them

However, such detailed field work to determine edible weights specific to a species in a particular area, at a particular time, would be labour and time intensive, costly, and logistically difficult. As a result, specific field measures are rarely done based on a review of literature. Approximations or reliance on the edible weight estimates of other studies appears to be the norm.

In deriving estimates of the economic value of wildlife used as food (known in northern Canada as country food or traditional food), the most common approach has been to

adopt the edible weight estimates used in another study. This is occasionally supplemented by making adjustments to account for factors such as geographic differences in average size of a species across its range (e.g. moose in Tobias and Kay (1994)). A number of studies have consulted experts or done literature research to determine appropriate average edible weight estimates (JBNQNHRC 1982, Usher 2000).

The edible weight estimates of the James Bay and Northern Quebec Native Harvest Research Committee (1976; 1982) have been relied on to a large extent, probably due to the rigourous methodology employed. Even with rigourous methodology, some caution is still appropriate when edible weight estimates are transferred from other studies since methodologies and assumptions may vary for a number of reasons discussed below. For example, several studies have adopted edible weight estimates of Pattimore (1985), yet some of Pattimore's estimates are at the extremes of the ranges used for a species (e.g. seal), and others vary substantially from the sources cited by Pattimore, yet no explanation for these variations is given.

This report lists and discusses edible weight estimates for a number of northern Canadian wildlife species or groups of species collected from published and "grey" literature. Its purpose is to provide a comprehensive source of edible weight estimates previously used for wildlife replacement food value appraisal in Northern Canada. It includes geographic and other contextual references that will assist in selecting appropriate edible weight estimates for replacement food value estimation.

A review of the listing of edible weight estimates will reveal a number of issues which warrant discussion. These are reviewed below.

Prior to that review, the methodology used to derive edible weight estimates of two studies are reviewed in detail to highlight these two studies. Most other studies provided no explanation of methodology employed to derive edible weight estimates, and this severely limits the transferability of those estimates. These two studies are the James Bay and Northern Quebec Native Harvesting Research Committee (1976, 1982) and the Wildlife Management Advisory Council (NWT) Standard Edible Weights (Usher (2000).

James Bay and Northern Quebec Native Harvesting Research Committee

The James Bay and Northern Quebec Native Harvesting Research Committee (JBNQNHRC) work resulted from the James Bay and Northern Quebec Agreement of 1975. Its objective was to document the extent of wildlife harvesting by the Cree and Inuit of Northern Quebec. Part of this work involved estimating the average edible weight of appropriate wildlife species.

Edible weight estimates of the JBNQNHRC (1976; 1982) have been used extensively as a source of edible weight estimates for other work. JBNQNHRC (1982) notes that although additional research to further refine some of their edible weight estimates was proposed following the completion of the first phase of the JBNQNHRC work

(JBNQNHRC 1976), the research did not proceed. Thus edible weight estimates reported in JBNQNHRC (1976), should be the same as those reported in JBNQNHRC (1982). As noted above, the extensive use of JBNQNHRC estimates is probably the result of the rigorous methodology employed, especially in light of some of the challenges of estimating edible weights noted in the introduction.

JBNQNHRC (1982) notes that edible weight estimates derived and reported should be considered potential edible weights; that is, what weight of food is potentially available from a harvested animal, based on Cree customs. Actual edible weight will vary as noted in the introduction.

The summary table of edible weight estimates by species in JBNQNHRC (1982) notes that the estimates will include the weight of some bone. This likely refers to limb, rib and other bones not easily separated from meat during field dressing of an animal. This is an admission that the exact edible weight of meat and other edible parts of any animal cannot be practically determined for the reasons outlined in the introduction. With specific reference to the issue of bone in meat, consider that bone marrow is a favoured edible portion to some cultures and individuals, or that long (major appendage) bones may or may not be boiled to render broth.

The remainder of this section describes JBNQNHRC (1982) methods used to derive edible weight estimates for various species or species groups.

Moose, caribou, beaver, and Canada geese

For moose, caribou, beaver and Canada geese, the approach of JBNQNHRC (1982) consisted of four steps. Each of the first three steps involved reviewing existing published studies. Where necessary, consultation with experts was done in all four steps.

The first step determined the proportion edible per animal for a species. This was done by examining the component distribution of body weight (proportional weights of various body parts) of each species or species group from available literature. Common components were meat, bones, fat, organs and viscera, and skin. In some cases components were combined (meat and fat) or were sometimes further divided into edible and non-edible (organs and viscera, or bone in meat and other bone).

The second step was to select average whole weights for a number of age classes (usually three) from available literature, and with the exception of beaver, male and female adults of a species. Generally the most conservative whole weight for each age/gender class was applied in the final step in estimating edible weight.

The relative distribution of age/gender classes in James Bay Cree harvests was the third step in deriving average edible weight estimates.

Finally, the results of the three steps were combined into an average edible weight estimate per animal for each species.

A simpler methodology was used for other species. This was probably due to one or more of the following factors:

- a lack of detailed data (which was available on the four species discussed above),
- the lesser relative importance of these species in the diet of James Bay Cree,
- or the simpler anatomy of some species (fish for example, relative to birds and mammals).

Fish

Average whole weights for fish relied on studies from Cree fisheries or other harvests that used fishing gear common to James Bay Cree fisheries (i.e. gillnets of appropriate mesh size). For most species, average whole weights were calculated for “near” or “coastal” and “away” or ”inland”. These designations account for smaller average size of fish harvested in waters closer to communities, most of which are coastal.

The edible proportion for fish species was based on commercial food data pertaining to filleting yields, with adjustments for Cree custom such as boiling bones to extract nutrients, and the use of the head and some organs.

These measures of average whole weight and proportion edible are combined to provide estimates of edible weight. The “near” or “coastal” and “away” or ”inland” designations in average whole weights was carried through to edible weight estimates.

Seal

For estimating the edible weight of seal, JBNQNHRC assumes that 90% of the harvest is ringed seal and the remainder bearded seal. This harvest structure was estimated by an expert based on knowledge from one James Bay Cree community. Although JBNQNHRC cites ringed and bearded seal average whole weights from five studies, the average whole weights adopted are from the same expert. With one exception the adopted average whole weights are lower than reported in the five studies. A weighted average whole weight for seals results from this harvest structure and average harvested whole weight by species. Three of the studies also provide food portion yields from which a mid-range yield is selected. This yield and the weighted average whole weight are used to generate an average edible weight estimate for seals.

Remaining species

The methodology used by JBNQNHRC (1982) to determine edible weight estimates for the remaining species is similar to that employed for fish and seals. Between one and six studies that report average whole weights are referenced for each species, and from these an average whole weight is selected which tends to be in the mid-range. One exception is the average whole weight for loons which was estimated without reference to studies of that species, since none were found in the literature.

Average food portions as a percentage of average whole weights for each species were also drawn from published literature, though there are no more than two sources for each species. From these, an edible proportion is selected and this is combined with the average whole weight to derive an edible weight estimate. However there is a much

greater reliance on data from related species than for the more important species, for which species-specific information was available.

As a review of the edible weight estimates derived by JBNQNHRC (1982), their estimates are compared to edible weight estimates from three studies, which reported food portions of various animals by observing Cree hunters. While JBNQNHRC (1982) consider the correspondence good, they note that for a number of species, the differences in estimates exceed 25% in both directions.

The approach of JBNQNHRC (1982) for estimating edible weights for wildlife species was the most detailed work of this type at that time. It used a variety of sources and approaches; consulted the available literature, utilized expert advise, applied local knowledge and took account of factors that would cause variations in edible weights.

Despite this rigorous approach, caution should be exercised when transferring JBNQNHRC (1982) edible weight estimates to harvests that vary by culture or geographic area. For example, seals are a relatively unimportant species in Cree diet, but a very important species in Inuit diet. Therefore, the edible weight estimate derived for seals by JBNQNHRC (1982) may not be appropriate to use in Inuit replacement value studies. Similarly, JBNQNHRC provides edible weight estimates for black bear and beluga. The black bear edible weight estimate is high relative to the estimates of other studies, some of which note that bear is not normally eaten. In the case of beluga, JBNQNHRC reports an edible weight estimate of zero, since Cree harvest

beluga for dog food. This contrasts with Inuit use of beluga, for which the muktuk (muktaaq) is a valued delicacy.

JBNQNHRC (1982) estimates of edible weight for seal and caribou combine species or subspecies based on their proportion in James Bay Cree harvests. Transferring these edible weight estimates to a harvest that does not have the same species or subspecies proportions is not advisable.

An example of appropriate caution in transferring edible weight estimates is probably Tobias & Kay (1994). They used information from JBNQNHRC (1982) for their EW estimate of moose. But they also used other information to adjust for the sex and age-class components in the harvest for which they were interested and adjusted for the larger average whole weight of moose in northern Saskatchewan than that found in the James Bay area.

Wildlife Management Advisory Council (NWT) Standard Edible Weights

New edible weight estimates for wildlife species used for country food in the Inuvialuit Settlement Region were derived by Usher (2000). This work was done to determine the potential exposure of Inuvialuit to environmental contaminants through the consumption of country foods. A major task of this work was to determine standard edible weights for species consumed in the Inuvialuit Settlement Region.

Usher (2000) used available literature and existing unpublished datasets of scientists working in the North to derive his edible weight estimates. His approach was to identify total body mass, and/or carcass weights and applicable conversion ratios (yields) between these and edible weights. He then made adjustments where necessary to account for edible viscera, reliance on commercial harvest-based data and other factors that would affect the edible weight as applied to an Aboriginal subsistence harvest. In deriving average edible weight estimates for species consumed in the Inuvialuit Settlement Region, Usher could make use of ten years of Inuvialuit harvest data. This would have provided sex and age proportions in the harvest for some species, which should result in more realistic edible weight estimates.

For caribou, total body mass and carcass weights were available for most of the herds in the Inuvialuit Settlement Region by sex, and the harvest study provided the sex ratios of the harvest. Therefore these factors were taken into account in estimating the

average edible weight of caribou. For muskox, adult and sub-adult weights were also taken from data of the commercial harvest on Banks Island and these, as well as sex ratios, were taken into account in determining the edible weight estimate for muskox.

For most small mammals, and for birds and fish, carcass weights were not known, or perhaps were less relevant for smaller animals, so conversion ratios applied only to total body mass and edible weights. Usher (2000) notes that muskrat and lynx are harvested for their pelts and therefore edible weights may not represent what is actually eaten.

Usher (2000) provides some guidance on the transferability of his edible weight estimates to other areas by species or species groups.

The remaining text reviews general and specific issues relevant to the transfer of edible weight estimates.

Average Adult Weights

Many of the edible weight estimates reported may be based on average adult weights. However an Aboriginal subsistence harvest is likely to consist of a mixture of adult and sub-adult animals. In many species, the presence of sub-adults in the harvest will tend to reduce the average edible weight per animal, relative to a harvest consisting solely of adults. Some studies note that harvest preference tends to favour smaller, younger

animals. The harvest of some species may simply reflect opportunity - which animals were encountered and thus killed. This may not coincide with average adult weights.

Utilization and Wastage

Few studies explicitly differentiate between potential and actual edible weight. Potential edible weights are likely reported, yet in replacement value appraisal it is actual edible weight that is more relevant. A number of factors contribute to this difference.

Cultural Variation in Edibility

A cultural preference to consume non-meat parts of an animal (organs, viscera, head, skin) as well as meat, will result in a higher yield than a yield based on an assumption that only muscle tissue is eaten. This issue can be illustrated by contrasting yields from commercial meat harvests and Aboriginal subsistence harvests. Commercial meat harvest yields are relatively low since the product is marketed to mainstream Western and middle-class tastes, which generally do not favour non-meat cuts. Conversely, Aboriginal tastes tend to favour, or at least consider as equal, some organs and other non-meat parts.

Cultural variation in edibility is not mentioned in most studies. JBNQNHRC (1982) methodology does account for it by making adjustments to yield when commercial yields are used to derive edible weight estimates.

Wastage

The extent of wastage varies due to many factors. It may even include the issue of cultural preference of edible parts discussed above. Although Western values and tastes often result in discarded organs and other non-meat edible parts, Aboriginal values may consider discarding such edible parts as waste.

Adequately accounting for the extent of wastage is difficult if not impossible. Consider, for example, other issues discussed below.

Dog Food

Some country food is fed to dogs though the extent is not well known. Country food fed to dogs is included in harvest studies but is generally not differentiated from human food. This differentiation would be of little significance to replacement value appraisal except that the replacement value of country food used as dog food will probably be lower than the replacement value of country food used for human food. This difference assumes that the average price of dog food in stores is lower that the average price of human food.

Usher (1971) investigated the extent to which country food was used for dog food on Banks Island. His results showed that some species were clearly preferred food by the Bankslanders, such as caribou, goose, ptarmigan and fish, while other species were clearly not preferred and most or all of this meat was used as dog food (seal, bear, owl and fox). Only two species were used about equally as human food and dog food (duck

and hare). Almost 75% of the edible weight harvested by a “typical” Bankslander was used as dog food.

What must be clearly recognized in interpreting the results of Usher (1971), is that dogs are no longer used for working purposes (harvesting food and furs from the land), having been supplanted by snowmobiles. The impact of this with respect to the use of country food for dog food, is twofold. Because of the widespread replacement of dogs by snowmobiles in the North, the harvest (both overall, and for species used mainly for dog food) has probably decreased (at least per capita), with the possible exception of species where the meat was a byproduct of a fur harvest. Secondly it is possible that wastage has increased, especially for species harvested mainly for purposes other than food.

Non-meat Hunt or Harvest

Many studies appear to make an erroneous assumption that edible parts of all harvested animals are eaten. This is not the case with some species, particularly species that are harvested mainly for the commercial value of the fur. While much of the edible parts of some of those species may have been used for dog food historically (before snowmobiles supplanted dog teams as the main form of winter transportation), this is probably no longer the case.

Five studies explicitly mention the issue of human food versus other use. One of these (Usher 1971) was referenced previously with respect to dog food. With respect to non-

meat hunts, Brody (1982) notes that black bear is harvested for its fur and is not normally eaten, and that not all beaver is consumed, as it too is mainly harvested for fur. Though Quigley & McBride (1987) note an edible weight estimate for polar bear, they do not calculate replacement food value estimates for that species, presumably because little polar bear meat is eaten. Beckley & Hirsch (1997) include otter and lynx edible weight estimates in calculations of replacement food value though they note that consumption will be less than that harvest. Lastly Usher (2000) notes that the meat of muskrat and lynx is a by-product of a fur harvest and thus the quantity consumed is something less than that harvested.

Muktuk (or Muktaaq)

Only one study explicitly recognizes that it is the muktuk or skin of whale that is the principle edible part. While much of the whale meat may have been consumed historically (though possibly as dog food), in most cases presently, the meat is not removed from the kill or butchering site, so is not consumed as human food. However some meat may be taken for dog food and occasionally to make dried whale meat. The one study to make any special note of non-meat edible parts of whales (Berger 1977, presumably on analysis from Brackel 1977) lists an edible weight estimate for meat and notes estimated edible weights of muktuk and edible oil.

Beluga provides an interesting example of cultural differences in utilization. JBNQNHRC (1982) list the edible weight of beluga as zero because it is only used as dog food. This is ironic because Inuit consider muktuk to be a valued delicacy.

Fish - Average Weights

The use of a single estimate of edible weight or whole (round) weight for fish across a wide geographic area may be questionable. This point relates to the growth function of fish, relative to the growth functions of mammals and birds. Growth rates of fish tend to be more uniform throughout their life-span relative to mammals and birds, which are more likely to have higher growth rates prior to sexual maturity, and slower or no growth after sexual maturity. Thus unlike mammals and birds which reach maximum size relatively early in their life-span, fish tend to grow in size throughout their life, though the age-size relationship is not linear.

The implication of this more constant growth rate of fish for edible weight studies is that the average edible weight of fish is more likely to be influenced by factors other than the species. These factors could be the type of gear used in the fishery (hook and line, gill net, etc.), the overall intensity of fishing effort at the harvest site (which may be related to proximity to communities or ease of access), and the consistency in intensity of effort over time (fished every year, fished only some years, etc.). A lake that is heavily fished will likely yield relatively smaller fish on average, whereas the same lake subjected to less fishing pressure would yield on average, larger fish.

Thus to get an accurate assessment of average edible weights of fish applicable to the area of interest, original research into the average whole weight of fish harvested is required. This is reflected in the methodology JBNQNHRC (1982) employs and

probably accounts for the field research done by Tobias and Kay (1994) for their estimates of fish edible weights.

Large Range in Reported Edible Weights

Many species show a large range in the reported edible weight estimates. For species where the range is such that the highest estimate is twice that of the lowest, or nearly so, these differences are discussed below in further detail for that species.

Barren-ground caribou

The edible weight estimate for barren-ground caribou of Loring (1996) at 90 kg is 164% of the next highest (55 kg). Loring's estimate is based on field measurements: still, it is difficult to accept this estimate as something other than an error. Excluding Loring's estimate, the barren-ground caribou edible weight estimate range is 29 to 55 kg, the higher being 190% of the lower. Even though this is a relatively large range, estimates are well distributed within the range, so this may simply reflect the range in total body mass of barren-ground caribou across their geographic distribution.

Woodland caribou

There appears to be five original sources of the reported edible weight estimates for woodland caribou. None provide any methodology used to derive estimates. The lowest estimate of 50 kg (Veitch 1996) is the same as reported by Veitch for barren-ground caribou. While a few studies (in the "caribou" listing in Table 1) do not

differentiate between woodland and barren-ground caribou when the study area would suggest both might be present in the harvest, most studies that report edible weight estimates for caribou do differentiate between woodland and barren-ground caribou with respect to edible weight. The edible weight estimates listed in Table 1 for each of woodland and barren-ground caribou suggest that different edible weights would apply. Aside from the edible weight estimate of Veitch, the next lowest estimate for woodland caribou (61.8 kg) is 65% of the highest (95 kg). These two extremes in edible weight estimates are from northern and southern limits of woodland caribou distribution, which may have some effect on regional mean total body, mass.

Wood bison

The lowest estimate of edible weight for wood bison (250 kg) is 61% of the highest (409 kg). One of the studies distinguishes between male (409 kg) and female (272 kg) edible weight estimates and it is these two estimates that are separately reported in two other studies without reference to gender. With the exception noted below, methodology used to derive edible weight estimates is not outlined. Berger (1977) reports the lowest edible weight estimate of 250 kg and notes that this estimate takes account of a harvest preference for young adults and the use of non-meat edible parts. Attention to these two issues suggests this study is more likely to accurately estimate edible weight.

Muskox

The lowest edible weight estimate for muskox (69 kg), from Usher (2000), is also the most recent estimate. Like edible weight estimates of JBNQNHRC (1982), Usher's

estimates result from an explicit and detailed methodology. The edible weight estimate of Usher (2000) is 50% of the highest reported (137.5 kg).

Mountain goat

All edible weight estimates for mountain goat appear to originate from one source, however two estimates appear to be typographical or other errors (Pavich n.d.; DRR 1994) since they reference the original source but report different numbers without explanation for the difference. If these are not errors then the lowest reported edible weight estimate (31.8 kg) is 47% of the highest (68.2 kg). A large range in reported edible weight estimates may not be critical, as mountain goat is not a common food species of Aboriginal people in the NWT.

Dall's sheep

As with mountain goat, Pavich's (n.d.) edible weight estimate for Dall's sheep appears to be an error for the same reason. For other edible weight estimates, the lowest (23 kg) is only 34% of the highest reported estimate (68.18 kg). Two of the studies that report lower edible weight estimates note a harvest preference for female and younger age classes, which would decrease the average total body mass, and consequently the edible weight.

Ringed seal / seal

Two of the edible weight estimates for seal (no specific species mentioned), note that most of the harvest is made up of ringed seal (Berger 1977; JBNQNHRC 1982). A third

edible weight estimate for seal (Pavich n.d.) and a separatecites an estimate for ringed seal. The remaining two edible weight estimates are from communities where the bulk of the harvest would also be ringed seal although this is not stated (Harper 1980; Arctic Pilot Project 1981). Consequently the edible weight estimates of seal and ringed seal will be discussed together.

The edible weight estimate for ringed seal of Pattimore (1985) at 59 kg, is 236% of the next highest (25 kg) and 454% of the lowest (13 kg). Excluding Pattimore's estimate, the range is reduced considerably as the highest estimate of 25 kg (Harper 1980) is now 192% of lowest estimate of 13 kg (Usher 2000).

For a number of reasons, it is difficult to accept the edible weight estimate for ringed seal of Pattimore (1985) as anything other than an error. First of all, Pattimore (1985) does not provide a source for edible weight estimates, nor does he outline any methodology used to derive estimates. Although the lack of reference or explanation of methodology is not uncommon in edible weight estimates, in combination with other factors it questions the validity of Pattimore's estimate of ringed seal edible weight.

Secondly, Banfield (1974) reports the average total body mass of adult ringed seal to be 91 kg and the maximum male weight to be 101 kg. The yield ratios of JBNQNHRC (1982) for seal, and of Usher (2000) for ringed seal are 0.53 and 0.275 respectively. Applying these ratios to Banfield's average total body mass for adult ringed seal of 91 kg yields estimates of edible weight of 48 kg and 25 kg respectively. Applying the yield

ratios to the Banfield's maximum male weight of 101 kg results in estimates of 54 kg and 28 kg. Since these would represent edible weight estimates for adult ringed seals, when some portion of the harvest would be sub-adults, one would expect these to be maximum edible weight estimates for ringed seal.

The third reason suggesting the edible weight estimate for ringed seal of Pattimore (1985) is too high is that Inuit prefer younger seals. The smaller, the better - in fact, baby seals are a highly-sought Inuit delicacy. This preference for smaller seals is so strong that larger seals are often not kept when killed, with the exception of the fur, which has had a relatively high cash value in some years, and in some cases the carcass, for use as dog food.

Clearly then, 59 kg as an edible weight for ringed seal is too high. This conclusion deserves some discussion in the context of replacement value and the use of liberal edible weight estimates. Quigley & McBride (1987) is a detailed study of the microeconomy of Sanikiluaq, an Inuit community on the Belcher Islands in southeast Hudson Bay. The study documents the importance of country food in Sanikiluaq, accounting for $2.9 million of in-kind income out of a total of $4.9 million assessed for combined cash and in-kind income in Sanikiluaq in 1984. As is true of many Eastern Arctic communities, ringed seal is a staple food item, and in Sanikiluaq, according to Quigley & McBride's estimates, ringed seal accounts for $2.0 million of the country food replacement value. This replacement value figure is based on an average edible weight for ringed seal of 59 kg, which Quigley & McBride attribute to Pattimore (1985).

Arbitrarily assigning a more conservative estimate of edible weight for ringed seal of 20 kg instead of 59 kg decreases Quigley & McBride's estimate of country food replacement value in Sanikiluaq in 1984 to about $1.5 million, from the reported $2.9 million.

Oddly, another study (Weihs & Okalik 1989) reports 18 kg as the edible weight for ringed seal and also attributes that estimate to Pattimore (1985). Excluding the estimate of Pattimore, 18 kg is about the mid-point of reported edible weight estimates for ringed seal.

Harbour seal

Quigley & McBride (1987) report an edible weight estimate for harbour seal of 73 kg, which is attributed to Pattimore (1985). This estimate is well above the other estimates, the next highest of which is 28 kg reported by Pattimore. No explanation is provided by Quigley and McBride for this discrepancy. Possibly Quigley & McBride have used Pattimore's edible weight estimate for harp seal in error.

Atlantic walrus

The lowest estimate of edible weight for Atlantic walrus of 140 kg (Harper 1980) is 30% of the highest of 462 kg (Loring 1996). None of the reviewed studies provide details of methods used to determine edible weight estimates, although it is possible JBNQNHRC (1975) may. A copy was not located for this review. Thus it is not possible to reconcile or discuss this large range in edible weight estimates.

Narwhal

Edible weight estimates for narwhal appear to originate from three sources. The lowest edible weight estimate of narwhal of 190.9 kg (Lu 1972) is 32% of the highest of 595 kg (Gamble 1984), specified for male narwhal. No explanation of methodology is provided in any of the reviewed studies. One issue that could account for the large variation in edible weight estimates for Narwhal is that of muktuk, whale meat and wastage, which was discussed in an earlier section of this report. Ewan Cotterhill & Associates Inc. (1986) touches on this issue by reporting (without supporting reference) the proportion of meat and muktuk in narwhal. None of the other studies touch on this issue. Applying this proportion of edible weight of meat to the highest estimate yields an edible weight very close to the two lower edible weight estimates for narwhal. Otherwise, it is uncertain whether edible weight estimates take account of actual (muktuk) versus potential (muktuk and meat) edible weight. See the paragraph on muktuk in the "Utilization and Wastage" section of this report for more detail.

Beluga

With the exception of the JBNQNHRC (1982) edible weight estimate of zero (owing to Cree use of beluga only as dog food), the lowest estimate of 106 kg (Berger 1977) is 19% of the highest of 555.0 kg (Gamble 1984), specified for male beluga. Only one source (Berger 1977) mentions the issue of utilization and wastage with respect to muktuk and whale meat and notes edible weight estimates of muktuk and edible oil while reporting the edible weight estimate of meat. Ewan Cotterhill & Associates Inc.

(1986) provides an estimate of the proportion of meat and muktuk in Beluga although their only source is Gamble, who does not discuss this issue. Usher (2000) explicitly reports “potential” edible weight and so the issue of whale meat and wastage is implicitly considered. Otherwise, it is uncertain whether beluga edible weight estimates take account of actual (muktuk) versus potential (muktuk and meat) edible weight. See the paragraph on muktuk in the “Utilization and Wastage” section of this report for more detail.

Arctic hare

One reported edible weight estimate for artic hare (Weihs & Okalik 1989) is almost certainly a typographical error (a decimal point precedes the reported number). Otherwise the reported edible weight estimates are close.

Beaver

The lowest edible weight estimate for beaver (7.6 kg) is 56% of the highest (13.6 kg). All estimates are either between 13.5 to 14 kg or between 7.6 to 7.91 kg. With one exception, Usher (2000), who derived his estimate independently, this is probably due to all estimates originating from two original estimates (Lu 1972; JBNQNHRC 1982).

The estimates of both JBNQNHRC (1982) and Usher (2000) are based on rigourous methodology, yet yield substantially different results. In trying to determine possible reasons for this difference a possible error was discovered in JBNQNHRC (1982) methodology. Aleksiuk & Cowan (1969) report total body mass for what appears to be

mature beaver as 18 to 23 kilograms. JBNQNHRC (1982) quote Aleksiuk & Cowan's total body mass for two-year-old beaver as 18 to 23 pounds. The remaining seven references of total body mass of beaver cited in JBNQNHRC were more obscure references not readily accessible, so they were not verified. So the extent to which a kilogram/pound error would affect the overall estimate of JBNQNHRC (1982) is difficult to determine. As previously noted, JBNQNHRC (1982) edible weight estimates for beaver take account of the relative frequency of age classes in the harvest, whereas other studies do not, or do not appear to take this factor into account. This may account for the different edible weight estimates.

Lynx

There is a large range in edible weight estimates for lynx, due entirely to the highest reported estimate. This edible weight estimate is based on an assumption that lynx edible weight is the same as the edible weight for beaver (Pavich n.d.). Given the consistency among the other estimates, all of which reference either JBNQNHRC (1982) or Usher (2000), both of whom apply rigourous methodology, Pavich's assumption appears to be a poor one. The edible weight of lynx may be somewhat irrelevant since lynx is not commonly eaten, but rather harvested for its pelt. This is noted in Beckley & Hirsch (1997) and Usher (2000).

Bears

There are large ranges in estimates of edible weight for all three species of bears. With the exception of JBNQNHRC (1982), methodology used to derive estimates is not

outlined. These large ranges may not be critical because bears are not an important food species, being hunted for their hides and for cultural purposes. This is briefly discussed in the preceding section of the report entitled "Non-meat Hunt or Harvest".

Brant

There are three original sources for edible weight estimates of brant. The estimate from JBNQNHRC (1982) (0.68 kg) is reported in pounds (1.4 lb). The same number (1.4) is listed for Pattimore (1985) and those that reference Pattimore but the unit of measure they report is kilograms. Unfortunately, Pattimore provides no details in support of his estimate other than a personal communication reference to Makivik Corp. Makivik Corp. would have been involved in the JBNQNHRC work, so the edible weight estimate of Pattimore is likely an error. The remaining estimate (Usher 2000) was derived independently and is about midway between the other two estimates.

Eider

The lowest edible weight estimate of 0.68 kg (Loring 1996) is 39% of the highest at 1.75 kg (Usher 2000, for common eider). Usher (2000) reports separate estimates for king and common eider, while other studies do not. Therefore, it might be assumed that other reports present a combined estimate for the two types of eider. This would make Usher's (2000) edible weight estimate of 1.75 kg for common eider, not comparable to the others. Assuming a 1:1 ratio of king to common eider in the harvest would put a combined edible weight estimate for eider by Usher (2000) at 1.53 kg – the same as most other reported estimates for eider.

Ptarmigan

The edible weight estimates for ptarmigan sometimes specify a difference between willow ptarmigan and rock ptarmigan. With the exception of three estimates (Pattimore 1985, Quigley & McBride 1987, and Weihs & Okalik 1989), the latter two of which reference Pattimore, all estimates fall between 0.3 and 0.5 kg with the lower estimates explicitly or by deduction, the smaller rock ptarmigan. Pattimore (1985), however, reports 0.63 kg for rock ptarmigan, but references Gamble (1984) who reports 0.4 kg for ptarmigan. Pattimore provides no explanation for the difference.

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
caribou				
36.4 (80.00 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island (barren-ground caribou)	
45 (100 lb)	Mackenzie Valley NWT	Bissett (1974)		• New estimate based on Game Management Service, Northwest Territories - no methodology provided
45.45 (100.00 lb)	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut	• Despite source of estimate stated as Lu, no explanation for different EW is provided
58.2 (128 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Harvest assumed to consist of 2/3 barren-ground and 1/3 woodland
barren-ground caribou				
36 (80 lb)	Banks Island	Usher (1971)		• New estimate based on field measurements and Foote (1965), Ledger & Smith (1964) and White (1953) for the purpose of determining EW on Banks Island
55 (120 lb)	Mackenzie Delta, Northern Yukon	Berger (1977)		• New estimate based on Foote (1965) and/or Kelsall (1968) and assumes harvest is subspecies *R.t. granti*
48 (105 lb)	Great Slave Lake, Mackenzie River	Berger (1977)		• New estimate based on Foote (1965) and/or Kelsall (1968) and assumes harvest is subspecies *R.t. groenlandicus*
41 (90 lb)	Beaufort Sea	Berger (1977)		• New estimate based on Kelsall (1968) and/or Usher (1971) and assumes harvest is 35% subspecies *R.t. pearyi* and 65% *R.t. groenlandicus*

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
barren-ground caribou (continued)				
37 (81 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• Original source not seen so original geographic reference unknown (but see Arctic Pilot Project 1981 [3])
37 (81 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• EW (caribou) from Pavich is different - Arctic Pilot Project provides no explanation for difference
48.0	Keewatin region	Gamble (1984)	Berger (1977) • Mackenzie River, Great Slave Lake	
48	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
48	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
45	Beverly & Qamanirjuaq herd	DRR (1990)		• Source or methodology not specified
45 (100 lb)	NWT, Nunavut	DRR (1994b)	Pavich n.d. • Yukon, NWT, Nunavut (caribou)	• Pavich's estimate was for caribou (not specifically barren-ground)
90	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on partial field measurements
36 (80 lb)	NWT, Nunavut	DRR n.d.		• Source or methodology not specified
50	Sahtu Settlement Area	Veitch (1996)		• New estimate - methodology not specified
45	N & S Slave regions	Ashley (2000)		• Based on review of literature (early draft of the present table and report) • Outfitted trophy hunts by non-resident hunters

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
barren-ground caribou (continued)				
37.0 (Porcupine) 36.0 (Bluenose) 33.0 (Dolphin & Union) 29.0 (Banks Island)	Inuvialuit Settlement Region	Usher (2000)		• New estimates based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
woodland caribou				
77 (170 lb)	Mackenzie Valley NWT	Berger (1977)		• New estimate - appears to be based on Foote (1965)
61.8	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate - appears that Berkes *et al*. adjusted JBNQNHRC (1982) estimates to account for a harvest comprised of only woodland caribou
68 (150 lb)	NWT	DRR (1994b)		• New estimate - methodology not provided though source is DRR staff
95	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on JBNQNHRC (1982) whole weight to EW ratio applied to other (not specified) whole weights
61.8	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
50	Sahtu Settlement Area	Veitch (1996)		• New estimate - methodology not specified
reindeer				
48	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region (barren-ground caribou)	• Average weight for caribou is used for reindeer transplanted to the Belcher Islands (location of Sanikiluaq)

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
moose				
159.1 (350.00 lb)	NWT	Lu (1972)		• New estimate based on 2/3 of live weight – no other detail provided
160 (350 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
199 (438 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [1] • E James Bay, SE Hudson Bay	
204.5 (450.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	• New estimate • EW from Lu is different – Pavich provides no explanation for difference
199 (438 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
160 (350 lb)	NW British Columbia	Brody (1982)		• Methodology not outlined nor is original source stated but appears to be Lu or Bissett
199.0	Keewatin region	Gamble (1984)	Berger (1977) • Great Slave Lake, Mackenzie River and Delta, N Yukon	
199	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
205 (450 lb)	NWT	DRR (1994b)	Pavich n.d. • Yukon, NWT	
227	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on a detailed calculation using sex/age components of Pinehouse harvest and data from Banfield (1974), JBNQNHRC (1982) and Saskatchewan Wildlife Branch

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
moose (continued)				
199	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
180	Sahtu Settlement Area	Veitch (1996)		• New estimate - methodology not specified
140.0	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
wood bison				
272.7 (600.00 lb)	NWT	Lu (1972)		• New estimate based on 2/3 of live weight – no other detail provided
273 (600 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
250 (550 lb)	Great Slave Lake	Berger (1977)		• New estimate based on Novakowski (1965, 1977 pers. comm.) and includes consideration of a harvest preference for young adults, and the use of non-meat edible parts
272.7 (600.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	
409 (bull) 272 (cow)	Mackenzie Bison Sanctuary	DRR (1994a)		• New estimate - methodology not provided though source is DRR staff
409 (900 lb)	North Slave region, South Slave region, Deh Cho region	DRR (1994b)	Pavich n.d. • Yukon, NWT	• EW from Pavich is different – DRR provides no explanation for difference

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
muskox				
137.5 (302.50 lb)	NWT, Nunavut	Lu (1972)		• New estimate suggested by Novakowski pers. comm.
136 (300 lb)	Beaufort Sea	Berger (1977)		• New estimate based on Tenor (1965) - includes consideration of a harvest preference for smaller females and juveniles
110.0	Keewatin region	Gamble (1984)		• New estimate from, or based on Riewe (1977)
110	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
110	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
95 (210 lb)	Eastern ISR, Kitikmeot	DRR (1994b)		• New estimate - methodology not provided though source is DRR staff
100	Sahtu Settlement Area	Veitch (1996)		• New estimate - methodology not specified
69.0	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife • Estimate based on commercial yield data
mountain goat				
68.18 (150.00 lb)	NWT	Lu (1972)		• New estimate from, or based on Villiers (1967)
68 (150 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
31.8 (70.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	• New estimate • EW from Lu is different – Pavich provides no explanation for difference

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
mountain goat (continued)				
36 (80 lb)	Mackenzie Mountains	DRR (1994b)	Pavich n.d. • Yukon, NWT	• New estimate • EW from Pavich is different – DRR provides no explanation for difference
68.2	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Bissett (1974) • Mackenzie Valley NWT	
Dall's sheep				
68.18 (150.00 lb)	NWT	Lu (1972)		• New estimate from, or based on Villiers (1967)
68 (150 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
34 (75 lb)	Mackenzie River and Delta	Berger (1977)		• New estimate based on Banfield (1977) and Simmons (1973) and includes consideration of a harvest preference for females and juveniles
31.8 (70.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	• New estimate • EW from Lu is different – Pavich provides no explanation for difference
32 (70 lb)	Mackenzie Mountains	DRR (1994b)	Pavich n.d. • Yukon, NWT	
68.2	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Bissett (1974) • Mackenzie Valley NWT	
23	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife

continued…

Table 1. Edible Weight (EW) Estimates for Ungulates

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
deer				
36.4 (80.00 lb)	NWT	Lu (1972)		• New estimate equated to EW of caribou
36 (80 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
36.4 (80.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	
36 (80 lb)	NW British Columbia	Brody (1982)		• Methodology not outlined nor is original source stated but appears to be Lu or Bissett
mule deer				
46	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)		• New estimate based on Banfield (1974), JBNQNHRC (1982) and Tobias & Kay (1994) • Beckley & Hirsch state deer as "mule", but reference Tobias & Kay, who refer to "white-tailed"
white-tailed deer				
46	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on Banfield (1974) and JBNQNHRC (1982) • It appears that Banfield's whole weights by sex are applied to an assumed equal sex distribution in the harvest and what appears to be the JBNQNHRC estimate of whole weight to EW ratio of caribou
elk				
140	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)		• New estimate based on Stelfox pers. comm.

Notes following Table 7.

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
seal				
14 (30 lb)	Mackenzie Delta, Beaufort Sea	Berger (1977)		• New estimate based on JBNQNHRC (1976a) [4], McLaren (1958) and Usher (1971) mainly for ringed seal but assumes harvest includes a small portion of bearded seals and assumes blubber is only used for dog food
13.6 (30.00 lb)	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut (ringed seal)	• EW from Lu is different – Pavich provides no explanation for difference
21 (46 lb) (Resolute) 25 (55 lb) (Grise Fiord) 22 (48 lb) (Arctic Bay, Pond Inlet)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• New estimates • Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3]) • variance between EWs for the four communities would suggest EWs are based on field research or other literature
21 (46 lb) (Resolute) 25 (55 lb) (Grise Fiord) 22 (48 lb) (Arctic Bay, Pond Inlet)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• EW from Pavich is different - Arctic Pilot Project provides no explanation for difference • Source appears to be Harper (1980)
24 (52 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Harvest is assumed to consist of 90% ringed and 10% bearded

continued…

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
ringed seal				
17.6 (38.8 lb)	Banks Island	Usher (1971)		• New estimate based on McLaren (1958) and field measurements • Usher reports that 98% of seal is used for dog food
21.0 (46.23 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island	• EW from Usher is different – Lu provides no explanation for difference
14.3	Keewatin region	Gamble (1984)	JBNQNHRC (1975, (1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	• New estimate
59	Baffin region	Pattimore (1985)		• New estimate from, or based on Anders (1966b)
14.3	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
59	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
18	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	• New estimate • EW from Pattimore is different - Weihs & Okalik provide no explanation for difference
19	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on field measurements of small spring seals combined with estimates from Wenzel (1981)
13.0	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the edible weight of wildlife for purposes of exposure to environmental contaminants

continued…

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
bearded seal				
70.5 to 88.2 (155 to 194 lb)	Banks Island	Usher (1971)		• New estimate based on limited field measurements
141.8 (312.00 lb)	NWT, Nunavut	Lu (1972)		• New estimate from, or based on Foote (1965)
98.4	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	• New estimate
98	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
98	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
98	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
92	Igloolik, N Foxe Basin	Loring (1996)		• New estimate from, or based on Foote (1967)
harbour seal				
23.36 (51.40 lb) (ranger seal)	NWT, Nunavut	Lu (1972)		• New estimate from, or based on Brack & McIntosh (1963) • Ranger seal is apparently a freshwater population of harbour seals found in a lake in the southern Keewatin
27.7	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	• New estimate
28 continued…	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
harbour seal (continued)				
73	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	• New estimate • EW from Pattimore is different - Quigley & McBride provide no explanation for difference (perhaps Pattimore's EW for harp seal is used in error?)
28	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
harp seal				• Harp seals are not normally eaten in Nunavut, but are harvested for their skins and for dog food
70.91 (156.00 lb)	Nunavut	Lu (1972)		• New estimate from, or based on Bissett (1967)
43.1	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	• New estimate
73	Baffin region	Pattimore (1985)		• New estimate from, or based on Anders (1966b)
73	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
hooded seal				• Hooded seals are not eaten, but are harvested for their skins
98	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	• New estimate • EW from Pattimore is different – Weihs & Okalik provide no explanation for difference - it appears the EW of bearded seal has been used • Pattimore includes hooded seal in species listing but no EW entry is made

continued…

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
Atlantic walrus				
395.88 (870.93 lb)	Nunavut	Lu (1972)		• New estimate based on Bissett (1967) and Novakowski pers. comm.
140 (308 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• New estimate • Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
140 (308 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• Pavich is referenced as source of estimate but Pavich does not provide EW estimates for walrus
185.1	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	• New estimate
185	Baffin	Pattimore (1985)	Gamble (1984) • Keewatin region	
185.1	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
185	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
185	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
460	N Foxe Basin	Anderson & Garlich-Miller (1994)		• New estimate based on Anders (1966a), Freeman (1969/70), Friesen (1975), Loughrey (1959) and Orr *et al.* (1986) and original field work - see appendix 2 of Anderson & Garlich-Miller for details
462	Igloolik, N Foxe Basin	Loring (1996)	Anderson & Garlich-Miller (1994) • N Foxe Basin	

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
continued…				
beluga				
190.9 (420.00 lb)	NWT, Nunavut	Lu (1972)		• New estimate based on Bissett (1967) and Foote (1965)
106 (232 lb) (see notes / comments)	Mackenzie Delta, Beaufort Sea	Berger (1977)		• New estimate based on Bailey (1952) and Brackel (1977) – EW considers only meat but report indicates another 136.4 kg (300 lb) muktuk and 84.5 kg (186 lb) of edible oil
200 (440 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
200 (440 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• Pavich is referenced as source of estimate but Pavich does not provide EW estimates for beluga
0 (see notes / comments)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• Beluga used only as dog food by James Bay Cree
555.0 (male) 407.9 (female)	Keewatin region	Gamble (1984)		• New estimates from, or based on Sergeant & Brodie (1969)
372	Baffin region	Pattimore (1985)		• New estimate from, or based on Anders (1966b)
555.0 (male 407.9 (female) 481.4 (aver.)	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	• Average determined by EC&A Inc. and assumes a harvest of equal numbers of males and females • EC&A Inc. also reports that EW consists of 37% meat and 63% muktuk
372	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
372	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
335.0	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
continued…				

Table 2. Edible Weight (EW) Estimates for Marine Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
narwhal				
190.9 (420.00 lb)	Nunavut	Lu (1972)		• New estimate suggested by Novakowski pers. comm.
200 (440 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• New estimate • Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
200 (440 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Nunavut	• Pavich is referenced as source of estimate but Pavich does not provide EW estimates for narwhal
595.2 (male) 397.0 (female)	Keewatin region	Gamble (1984)		• New estimate from, or based on Hay pers. comm. and Sergeant & Brodie (1969)
595 (male) 397 (female)	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
595.2 (male 397.0 (female) 496.1 (aver.)	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	• Average determined by EC&A Inc. and assumes a harvest of equal numbers of males and females • EC&A Inc. also reports that EW consists of 37% meat and 63% muktuk
496	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	• Estimate appears to be an average EW based on a harvest of equal numbers of male and female.
496	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	• Estimate appears to be an average EW based on a harvest of equal numbers of male and female.

Notes following Table 7.

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
snowshoe hare				
0.86 (1.9 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
0.86 (1.9 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW available from Eastern James Bay Cree country food harvest
1 (2 lb) (hare)	NW British Columbia	Brody (1982)		• Methodology not outlined nor is original source stated but appears to be JBNQNHRC
0.86	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.84	Pinehouse Sask.	Tobias & Kay (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.9	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
1.0	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
arctic hare				
2.3 (5 lb)	Banks Island	Usher (1971)		• New estimate based on spring field measurements of 36 specimens, and comparison to Manning & MacPherson (1958) data • Usher notes that about half of hare is used for dog food

continued…

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
arctic hare (continued)				
2.3 (5 lb)	Mackenzie Delta, Beaufort Sea	Berger (1977)	Usher (1971) • Banks Island	
2.3	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, SE Hudson Bay	• It appears that JBNQNHRC estimate was based on Usher (1971)
2	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
0.2	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	• Decimal point typographic error in Weihs & Okalik?
2	Sanikiluaq	Tobias & Kay (1994)	Pattimore (1985) • Baffin region	
2.9	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
muskrat				
0.45 (1.00 lb)	NWT	Lu (1972)		• New estimate suggested by Novakowski pers. comm.
0.45 (1 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
0.64 (1.4 lb)	Great Slave Lake, Mackenzie River and Delta, Beaufort Sea, N Yukon	Berger (1977)	JBNQHRC (1976a) [4] • E James Bay, SE Hudson Bay	
0.45 (1.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	

continued…

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
muskrat (continued)				
0.64 (1.4 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
0.64	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.64	Pinehouse Sask.	Tobias & Kay (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.6	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
0.7	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife • Usher notes that meat is a by-product of fur harvest so all animals are not eaten
beaver				
13.6 (30.00 lb)	NWT	Lu (1972)		• New estimate suggested by Novakowski pers. comm.
14 (30 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
7.91 (17.4 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
13.6 (30.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	

continued…

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
beaver (continued)				
7.91 (17.4 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
8.2 (18 lb)	NW British Columbia	Brody (1982)		• New estimate • Methodology not outlined nor is original source stated • Brody notes that beaver is harvested mainly for its pelt and is not always eaten
7.91	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
7.6	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on JBNQNHRC (1982) whole weight to EW ratio applied to local (source not specified) whole weights
7.9	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
13.5	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
porcupine				
4.77 (10.5 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
5	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)		• New estimate based on Stelfox pers. comm.

continued…

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
squirrel				
0.41 (0.90 lb)	Yukon, NWT	Pavich n.d.		• New estimate equated by Pavich to EW of ptarmigan
otter				• Unless otherwise stated, EWs may not be relevant since otters are normally harvested for the pelt
4.77 (10.5 lb)	Great Slave Lake, Mackenzie River, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
4.77 (10.5 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
lynx				• Unless otherwise stated, EWs may not be relevant since lynx are normally harvested for the pelt
3.9 (8.5 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
13.6 (30.00 lb)	Yukon, NWT	Pavich n.d.		• New estimate equated by Pavich to EW of beaver
3.9 (8.5 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
3.9	Pinehouse Sask.	Tobias & Kay (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	

continued…

Table 3. Edible Weight (EW) Estimates for Small Mammals

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
lynx (continued)				
3.9	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Tobias & Kay (1994), JBNQNHRC (1982) • E James Bay, SE Hudson Bay	• Beckley & Hirsch note that harvest and consumption are not equal as harvest is mainly for the pelt
3.8	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife • Usher notes that meat is a by-product of fur harvest so all animals are not eaten

Notes following Table 7.

Table 4. Edible Weight (EW) Estimates for Bears

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
black bear				• Unless otherwise stated, EWs may not be relevant since bears may not normally be harvested for food
113.6 (250.00 lb)	NWT	Lu (1972)		• New estimate based on 2/3 of live weight (no other detail provided)
45 (100 lb)	Mackenzie Valley NWT	Bissett (1974)		• New estimate based on Game Management Service, Northwest Territories – no methodology provided
95 (210 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	• Estimate includes a small portion of grizzly bears in the harvest assumed to be of same EW
95 (210 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EWs of food available from Eastern James Bay Cree country food harvest
68 (150 lb)	NW British Columbia	Brody (1982)		• New estimate • Methodology not outlined nor is original source stated • Brody notes that black bear is harvested for the fur and is not normally eaten
45.4	Keewatin region	Gamble (1984)		• New estimate from, or based on Dome *et al*. (1982)
95.4	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
68 (150 lb)	NWT	DRR (1994b)		• New estimate - methodology not provided though source is DRR staff

continued…

Table 4. Edible Weight (EW) Estimates for Bears

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
black bear (continued)				
95	Pinehouse Sask.	Tobias & Kay (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	• Tobias & Kay did a detailed calculation using Banfield (1974) whole weights by sex, JBNQNHRC average whole weights and age/sex components of the Pinehouse harvest which resulted in a higher estimate that JBNQNHRC's estimate which was then chosen as more conservative
95.4	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
grizzly bear				• Unless otherwise stated, EWs may not be relevant since bears may not normally be harvested for food
113.6 (250.00 lb)	NWT, Nunavut	Lu (1972)		• New estimate from, or based on Foote (1965)
113.6 (250.00 lb) (brown bear)	NWT, Nunavut	Lu (1972)		• New estimate suggested by Novakowski pers. comm. • Lu provides the same EW estimate for both "brown" bear and "grizzly" bear although they appear to be based on different sources
45 (100 lb)	Mackenzie Valley NWT	Bissett (1974)		• New estimate based on Game Management Service, Northwest Territories - no methodology provided
45.4	Keewatin region	Gamble (1984)		• New estimate from, or based on Dome *et al*. (1982).
90 (200 lb)	E Inuvialuit Settlement Region, W Kitikmeot	DRR (1994b)		• New estimate - methodology not provided though source is DRR staff

continued…

Table 4. Edible Weight (EW) Estimates for Bears

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
polar bear				• Unless otherwise stated, EWs may not be relevant since bears may not normally be harvested for food
114 (250 lb)	Banks Island	Usher (1971)		• New estimate based on Foote (1965) and relatively few field measurements - considers that the average size of animal harvested is much lower than maximum size
121.5 (267.33 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island	• New estimate • EW from Usher is different – Lu provides no explanation for difference
80 (175 lb)	Beaufort Sea	Berger (1977)		• New estimate based on JBNQNHRC (1976a) [4], Stirling pers. comm. and Usher (1971) - considers that "many of the bears taken are of younger age classes"
121.5 (267.33 lb)	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut	
121 (267 lb)	Lancaster Sound region	Harper (1980)	Pavich n.d. • Yukon, NWT, Nunavut	
121 (267 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	
159 (350 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
158.8	Keewatin region	Gamble (1984)	JBNQNHRC (1975, 1976b) [4] • N Quebec, E James Bay, SE Hudson Bay	
159	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	

continued…

Table 4. Edible Weight (EW) Estimates for Bears

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
polar bear (continued)				
158.8	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
159	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	• Despite showing an EW for polar bear, Quigley & McBride do not calculate replacement food value for polar bear because they acknowledge these hunts as primarily for the hide and traditional significance
159	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
120 (265 lb)	ISR, Nunavut	DRR (1994b)	Pavich n.d. • Yukon, NWT, Nunavut	

Notes following Table 7.

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
waterfowl				
0.67	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on species composition of Pinehouse harvest applied to JBNQNHRC (1982) whole weight to EW ratios and whole weights from Bellrose (1976), JBNQNHRC (1982) and Saskatchewan Wildlife Branch
geese				
1.59 (3.50 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island (snow geese)	• Based on Usher's (1971) estimate for snow geese
1.6 (3.5 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
1.6 (3.5 lb)	Great Slave Lake, Mackenzie River and Delta, Beaufort Sea, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay (snow geese)	• Estimate based on snow geese EW because it is the "bulk" of harvest in all regions
1.59 (3.50 lb)	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut	
1.8 (4.0 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• New estimate • Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
1.8 (4.0 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• EW from Pavich is different – Arctic Pilot Project provides no explanation for difference • Source appears to be Harper (1980)
1.59/1.60 (3.50/3.52 lb)	NWT, Nunavut	DRR (1994b)		• 3.50 lb listed in DRR table but 3.52 lb used in DRR replacement food value calculations • Source of estimates or methodology not stated
1.6	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay (snow geese)	• Assumes all geese consumed are snow geese – estimates considered conservative since Canada geese have substantially more meat per animal than snow geese

continued…

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
geese continued)				
2.0	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on partial field measurements.
snow geese				
1.3 to 1.9 (2.8 to 4.2 lb)	Banks Island	Usher (1971)		• New estimate based on whole weight range of Manning *et al*. (1956) and yield ratio of White (1953)
1.6 (3.5 lb) (lesser snow)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
1.6 (lesser)	Keewatin region	Gamble (1984)		• Estimate from, or based on Bellrose (1976)
1.6	Baffin region	Pattimore (1985)		• Estimate based on Makivik research pers. comm. (1985)
1.6	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
1.6	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
1.6	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
1.59	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
1.70 (lesser)	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife

continued…

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
white-fronted geese				
1.70	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
Canada geese				
2.1 (4.7 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
2.4 (*hutchinsii*)	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
2.4	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
2.4	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
2.4	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
2.4	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
2.14	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
1.70	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental

continued…

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
				contaminants through consumption of fish and wildlife
Ross's geese				
1.0	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
brant				
0.64 (1.4 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
1.4	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers. comm. (1985)
1.4	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
1.4	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
1.00	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
ducks				
1.18 (2.60 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island (eider)	• EW from Usher is different – Lu provides no explanation for difference • Methodology not outlined nor is original source stated but appears to be Lu
1.2 (2.6 lb)	Mackenzie Valley NWT	Bissett (1974)		
0.77 (1.7 lb)	Great Slave Lake, Mackenzie River and Delta, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
1.18 (2.60 lb) continued…	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut	

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
1.1 (2.4 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
1.1 (2.4 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• EW from Pavich is different – Arctic Pilot Project provides no explanation for difference • Source appears to be Harper (1980)
0.77 (1.7 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
0.77	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.795/0.800 (1.75/1.76 lb)	NWT, Nunavut	DRR (1994b)		• Source of estimates or methodology not stated • 1.75 lb listed in DRR table but 1.76 lb used in DRR replacement food value calculations
0.8	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
oldsquaw (long-tailed duck)				
0.5	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
0.5	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
0.5	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
0.5	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	

continued…

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
0.5	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
0.60	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
eider				
1.1 (2.5 lb)	Banks Island	Usher (1971)		• New estimate based on whole weight estimates of Manning *et al*. (1956) and Foote (1965) and yield ratio of White (1953)
1.1 (2.5 lb)	Beaufort Sea	Berger (1977)	Usher (1971) • Banks Island	
1.5 (Hudson Bay)	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
1.5	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	
1.5	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
1.5	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
1.5	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
0.68	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on partial field measurements
1.30 (king) 1.75 (common)	Inuvialuit Settlement Region	Usher (2000)		• New estimates based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
continued…				wildlife
mallard				
0.7	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
0.85	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
white-winged scoter				
1.30	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
surf scoter				
0.65	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
pintail				
0.65	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
continued…				

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
wigeon				
0.55	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
swan				
6.8	Keewatin region	Gamble (1984)		• New estimate from, or based on Bellrose (1976)
4.75	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
thick-billed murre				
0.7	Baffin region	Pattimore (1985)		• New estimate from, or based on Anders (1966b)
0.7	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
0.7 (murre)	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
black guillemot				
0.4 (guillemot)	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers. comm. (1985)
0.4	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
0.4 (guillemot) continued…	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	

Table 5. Edible Weight (EW) Estimates for Waterfowl

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
loon				
1.1 (2.5 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate by JBNQNHRC without reference to any other research
other birds (loons, brant, swans and large shorebirds)				
1.0	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on JBNQNHRC (1982) but methodology not provided
eggs				
0.075	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on partial field measurements • Species not specified but likely eider

Notes following Table 7.

Table 6. Edible Weight (EW) Estimates for Birds (not waterfowl)

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
grouse/ptarmigan				
0.33	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on whole weights provided by Saskatchewan Wildlife Branch and JBNQNHRC (1982) yield ratio and an assumed composition of three species of grouse and one species of ptarmigan
ptarmigan				
0.5 (1 lb) (willow) 0.3 (0.7 lb) (rock)	Banks Island	Usher (1971)		• New estimates based on whole weight estimates of Manning *et al*. (1956) and yield ratios of White (1953)
0.42 (0.90 lb)	NWT, Nunavut	Lu (1972)	Usher (1971) • Banks Island	• EW from Usher are different – Lu provides no explanation for difference though probably an assumed harvest ratio of willow/rock
0.4 (0.9 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
0.4 (0.8 lb)	Great Slave Lake. Mackenzie River and Delta, Beaufort Sea, N Yukon	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
0.41 (0.90 lb)	Yukon, NWT, Nunavut	Pavich n.d.	Lu (1972) • NWT, Nunavut	
0.3 (0.7 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [3])
0.3 (0.7 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• EW from Pavich is different – Arctic Pilot Project provides no explanation for difference • Source appears to be Harper (1980) or Usher (1971)

continued…

Table 6. Edible Weight (EW) Estimates for Birds (not waterfowl)

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
ptarmigan (continued)				
0.4 (0.8 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
0.4	Keewatin region	Gamble (1984)		• New estimate from, or based on whole weight from Thomas (1982) and standard poultry industry yield ratio
0.63 (rock)	Baffin region	Pattimore (1985)	Gamble (1984) • Keewatin region	• New estimate • EW from Gamble is different – Pattimore provides no explanation for difference
0.63	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
0.63	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
0.36	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.4	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
0.40 0.50 (willow) 0.35 (rock)	Inuvialuit Settlement Region	Usher (2000)		• New estimates based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife

continued…

Table 6. Edible Weight (EW) Estimates for Birds (not waterfowl)

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
grouse				
0.455 (1.00 lb)	NWT	Lu (1972)		• New estimate suggested by Novakowski pers. comm.
0.5 (1 lb)	Mackenzie Valley NWT	Bissett (1974)		• Methodology not outlined nor is original source stated but appears to be Lu
0.3 (0.7 lb)	Great Slave Lake, Mackenzie River	Berger (1977)	JBNQNHRC (1976a) [4] • E James Bay, SE Hudson Bay	
0.455 (1.00 lb)	Yukon, NWT	Pavich n.d.	Lu (1972) • NWT	
0.3 (0.7 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• Estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
0.5 (1 lb)	NW British Columbia	Brody (1982)		• Methodology not outlined nor is original source stated but appears to be Lu or Bissett
0.32	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)	JBNQNHRC (1982) • E James Bay, SE Hudson Bay	
0.3 (grouse/ pheasant)	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay	
snowy owl				
1.6 (3.6 lb)	Banks Island	Usher (1971)		• New estimate - methodology not outlined • Usher notes that owl is used almost exclusively for dog food
1.8	Keewatin region	Gamble (1984)		• New estimate from, or based on Earhart & Johnson (1970) •
sandhill crane				
4.1	Keewatin region	Gamble (1984)		• New estimate from, or based on Stevens (1965)

Notes following Table 7.

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
trout, whitefish, grayling, pike, walleye				
0.8 (Fort Liard) 0.7 (Nahanni Butte)	Fort Liard, Nahanni Butte	Beckley & Hirsch (1997)	Berkes *et al.* (1994) • W James Bay, SW Hudson Bay (lake whitefish)	• New estimates • Beckley & Hirsch reference two EWs without explanation; 0.8 kg in Fort Liard and 0.7 kg in Nahanni Butte • Assumes all fish harvested are lake whitefish, the preferred species
whitefish				
0.59 (1.3 lb) or 0.3 (0.7 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimates based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Lower EW applied to fisheries in coastal areas near communities • Includes whitefish and ciscos
2.8	Keewatin region	Gamble (1984)		• New estimate from, or based on Bond (1975) and Keleher (1964)
2.8	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
0.76	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on Hopper & Power (1991) and JBNQNHRC (1982) • Includes lake whitefish and lake ciscos
lake whitefish				
0.78	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on original research of EWs
1.25	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife

continued…

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
broad whitefish				
1.65	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
inconnu				
2.55	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
arctic cisco				
0.45	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
arctic grayling				
0.9	Keewatin region	Gamble (1984)		• New estimate from, or based on Falk & Gillman (1975) and Keleher (1964)

continued…

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
lake trout				
1.2 (2.6 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest
2.4	Keewatin region	Gamble (1984)		• New estimate from, or based on Bond (1975) and Keleher (1964)
1.7	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on original research of EWs
1.30	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
arctic char, lake trout, whitefish				
0.68 to 1.4 (1.5 to 3 lb)	Banks Island	Usher (1971)		• New estimate based on yield ratio of Brack & McIntosh (1963) and field observation
arctic char				
0.3 (0.7 lb)	Lancaster Sound region	Harper (1980)	Petro Canada (unknown date – not given in Harper)	• New estimate • Original source not seen so original geographic reference unknown (but see Arctic Pilot Project (1981) [33])
0.3 (0.7 lb)	Lancaster Sound region	Arctic Pilot Project (1981)	Pavich n.d. • Yukon, NWT, Nunavut	• Pavich does not report an EW for arctic char or fish • Source appears to be Harper (1980)

continued…

arctic char (continued)

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
0.50 (1.1 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimate based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Estimate conservative since James Bay is at the southern limit of this species distribution - this is presumed to have an impact on potential size of a species
2.5	Keewatin region	Gamble (1984)		• New estimate from, or based on Carder (1983)
2.5	Beaufort Sea, Lancaster Sound, High Arctic	Ewan Cotterhill & Associates Inc. (1986)	Gamble (1984) • Keewatin region	
2.7	Igloolik, N Foxe Basin	Loring (1996)		• New estimate based on partial field measurements
0.65 (Aklavik) 1.55 (Holman) 1.60 (Paulatuk) 0.70 (Sachs Harbour)	Inuvialuit Settlement Region	Usher (2000)		• New estimates based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
arctic char - sea-run				
2.0	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers. comm. (1985)
2	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
2	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	

Continued…

arctic char - landlocked

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
1.0	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers. comm. (1985)
1	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
1	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
Pacific herring				
0.20	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
northern pike (jackfish)				
1.0 (2.2 lb) or 0.59 (1.3 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimates based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Lower EW applied to fisheries in coastal areas near communities
2.1	Keewatin region	Gamble (1984)		• New estimate from, or based on MacDonald & Fudge (1979) and Keleher (1964)
1.14	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on Hopper & Power (1991) and JBNQNHRC (1982)
1.55	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on original research of EWs

continued…

northern pike (continued)				
2.20	Inuvialuit	Usher (2000)		• New estimate based on detailed research of

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
	Settlement Region			literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
walleye (pickerel or dore)				
0.50 (1.1 lb) or 0.32 (0.7 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimates based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Lower EW applied to fisheries in coastal areas near communities • Includes sauger
0.62	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on Hopper & Power (1991) and JBNQNHRC (1982)
0.73	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on original research of EWs
suckers				
0.55 (1.2 lb) or 0.18 (0.4 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimates based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Lower EW applied to fisheries in coastal areas near communities • Includes white and long-nose suckers
0.89	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on Hopper & Power (1991) and JBNQNHRC (1982) • Includes white and long-nose suckers
continued…				
white sucker				
0.87	Pinehouse Sask.	Tobias & Kay (1994)		• New estimate based on original research of EWs

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
burbot (loche or lingcod)				
0.4 (0.9 lb) or 0.4 (0.8 lb)	E James Bay, SE Hudson Bay	JBNQNHRC (1982)		• New estimates based on detailed literature research specific to the purpose of determining potential EW of food available from Eastern James Bay Cree country food harvest • Lower EW applied to fisheries in coastal areas near communities
0.96	W James Bay, SW Hudson Bay	Berkes *et al.* (1994)		• New estimate based on Hopper & Power (1991) and JBNQNHRC (1982)
1.40	Inuvialuit Settlement Region	Usher (2000)		• New estimate based on detailed research of literature, unpublished datasets, and other relevant information applicable to determining the potential human exposure to environmental contaminants through consumption of fish and wildlife
cod				• Species not identified - probably Greenland cod
1.0	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers. comm. (1985)
1	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
1	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	
sculpin				• Species not identified
0.23	Baffin region	Pattimore (1985)		• New estimate based on Makivik research pers.

continued…

Table 7. Edible Weight (EW) Estimates for Fish

Species and Edible Weight Estimates in kg per Animal [1]	Geographic Reference [2]	Source	Original Source and Original Geographic Reference [2]	Notes / Comments
				comm. (1985)
0.23	Sanikiluaq	Quigley & McBride (1987)	Pattimore (1985) • Baffin region	
0.23	Baffin region	Weihs & Okalik (1989)	Pattimore (1985) • Baffin region	

Notes to Tables.

[1] Edible weight estimates are listed in kilograms (kg). Where an estimate is reported in a study in pounds (lb), that number is included in brackets following the conversion in kg (2.2 lb per kg).

[2] Throughout these tables, NWT refers to "post-division (1999) Northwest Territories"; i.e. without Nunavut. Thus within these tables, cited sources with geographic reference to pre-division NWT, will have a geographic reference of "NWT, Nunavut".

[3] Arctic Pilot Project (1981) is likely an update or final version of the undated reference to a Petro Canada study in Harper 1980 entitled "Arctic Pilot Project…" The table of edible weight estimates in Harper (1980) and Arctic Pilot Project (1981) are virtually identical except that APP attributes all EW estimates to Pavich. Harper, on the other hand, attributes only the polar bear estimate to Pavich, with all other estimates "adapted from Petro Canada" (no date).

[4] JBNQNHRC (James Bay and Northern Quebec Native Harvesting Research Committee) issued reports in 1975 and 1976, which were referenced by Berger (1977) and Gamble (1984). Other references to the JBNQNHRC work cite a 1982 report. As noted in JBNQNHRC (1982), additional research to refine some edible weight estimates was proposed following the 1976 reports, but it did not proceed. Thus JBNQNHRC (1982) EW estimates are as reported in JBNQNHRC (1976a).

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