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Surveys of Pacific Common Eiders (*Somateria mollissima v-nigra*) in the Bathurst Inlet area of Nunavut, 2006- 2008.

Garnet H. Raven and D. Lynne Dickson

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ABSTRACT

There is currently no regular breeding population survey to monitor Pacific Common Eider (*Somateria mollissima v nigra*) population trends in Canada. Concern for this subspecies of eider arose when migration counts showed a decline of more than 50% in the Canadian breeding population between 1976 and 1996. A survey of much of their breeding range in the central arctic in 1995 indicated that about 25% of the Canadian breeding population occurs within the Bathurst Inlet area of Nunavut. Given the relatively high density of eiders, isolation from the rest of the breeding range and logistical feasibility, we selected the Bathurst Inlet area to establish a baseline for monitoring the Canadian breeding population of Pacific Common Eider. Accordingly, we conducted three years of surveys from 2006-2008 using a technique similar to that used in 1995.

We surveyed for eiders during the early stages of nest initiation each year between 24 June and 2 July. Near complete survey coverage was attained in 1995, 2007 and 2008, while in 2006 only about a third of the study area was surveyed. Numbers of Pacific Common Eiders observed in 2007 were 4233 males and 4048 females. Results were similar but slightly higher in 2008 with 4916 males and 4578 females observed. These numbers are well below totals observed for the same areas in 1995 when 8950 males and 7809 females were observed. These data indicate a 43.3 - 50.6% decline in number of eiders in the Bathurst Inlet area since 1995.

Detection surveys using a double-counting technique were conducted in each of the three recent years of the survey. In 2006 limited effort was put forth for detection surveys due to limitations with aircraft time and weather. Detection surveys that year were done in areas with low eider densities resulting in a small sample size and a visibility correction factor (VCF) of 2.04. In 2007 and 2008 detection surveys were conducted in areas with higher eider densities, which better reflected the overall eider count, and resulted in a VCF of 1.19 and 1.12 respectively. Combining the 3 years of detection surveys yielded a VCF value of 1.18.

Based on this pilot study, we conclude that an effective and efficient breeding population survey for Pacific Common Eiders can be completed in the Bathurst Inlet area in 3 to 4 days when timed accordingly and conditions are favourable. Given the recent continental decline of Pacific Common Eiders and the increased resource development in arctic regions including the Beaufort Sea and Bathurst Inlet area, we recommend this survey in the Bathurst Inlet area become an on-going operational survey. An annual survey would be ideal, but at the very least the survey should be conducted for 3 years every 10 years. Consideration should be given to expanding the survey to include the nearby offshore islands in northern Queen Maud Gulf.

RÉSUMÉ

Aucun relevé n'est effectué de façon régulière afin de suivre l'évolution des populations d'eiders à duvet du Pacifique (*Somateria mollissima v-nigra*) qui nichent au Canada. Cette sous-espèce d'eiders a suscité des inquiétudes lorsque les dénombrements effectués au Canada entre 1976 et 1996 ont révélé un déclin de plus de 50 p. 100 chez les oiseaux nicheurs en migration. Une étude de 1995 portant sur la majeure partie de leur aire de reproduction au centre de l'Arctique a montré qu'environ 25 p. 100 de la population nicheuse d'eiders à duvet au Canada se trouvait dans la région de l'inlet Bathurst au Nunavut. En raison de la densité élevée de cette colonie d'eiders, de son isolement du reste de l'aire de reproduction et de la faisabilité logistique du projet, nous avons choisi la région de l'inlet Bathurst pour recueillir des données de référence en vue d'effectuer un suivi de la population canadienne nicheuse d'eiders à duvet du Pacifique. Par conséquent, nous avons réalisé des relevés sur une période de trois ans, de 2006 à 2008, à l'aide d'une méthode semblable à celle utilisée en 1995.

Cette étude a porté sur les premières étapes de la nidification, soit du 24 juin au 2 juillet de chaque année. Les relevés ont été effectués sur presque toute la zone à l'étude en 1995, 2007 et 2008, alors qu'en 2006, seulement le tiers de cette zone a été étudié. En 2007, nous avons dénombré 4233 mâles et 4048 femelles. Les résultats ont été légèrement plus élevés en 2008, soit 4916 mâles et 4578 femelles. Ces chiffres sont bien en deçà des ceux recueillis pour le même secteur en 1995 : 8950 mâles et 7809 femelles. Les résultats de notre étude montrent un déclin de 43,3 p. 100 et de 50,6 p. 100 du nombre d'eiders à duvet dans le secteur de l'inlet Bathurst depuis 1995.

Les relevés pour les trois années récentes ont été réalisés au moyen d'une méthode de double comptage. En 2006, les relevés n'ont pu être réalisés sur l'ensemble du secteur à l'étude en raison des conditions météorologiques difficiles et des limites de temps de vol. Par ailleurs, les relevés de 2006 ont été effectués dans des zones où la densité de la colonie d'eiders à duvet était faible. La taille de l'échantillon était donc limitée et le facteur de correction de la visibilité (FCV) était de 2,04. En 2007 et 2008, les relevés ont porté sur des zones à densité élevée, ce qui reflétait davantage le nombre total d'oiseaux. Les FCV étaient respectivement de 1,19 et de 1,12. Le FCV combiné pour les trois années était de 1,18.

En nous appuyant sur le déroulement de cette étude pilote, nous pouvons conclure qu'un relevé efficace et représentatif de la population d'eiders à duvet du Pacifique peut être réalisé dans la région de l'inlet Bathurst en trois ou quatre jours lorsque les conditions sont favorables. En raison du récent déclin de la population d'eiders à duvet du Pacifique et des activités accrues liées à l'exploitation des ressources dans la région de l'Arctique, notamment la mer de Beaufort et l'inlet Bathurst, nous recommandons que des relevés de la population de cette espèce soient effectués de façon continue dans la région de l'inlet Bathurst. Ces relevés devraient être réalisés, au minimum, sur une période de trois ans, tous les dix ans, mais, idéalement, ils devraient avoir lieu chaque année. Il faudrait également considérer la possibilité d'étendre ces relevés aux îles situées au large, dans la baie de la Reine-Maud.

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INTRODUCTION

The Pacific Common Eider (*Somateria mollissima v nigra*) is one of four recognized subspecies of Common Eider in North America. Its breeding range includes western and central arctic Canada (Cornish and Dickson 1997), Alaska and eastern arctic Russia, and it winters in the Bering Sea (Palmer 1976, Goudie et al. 2000).

Migration counts conducted at Point Barrow, Alaska indicate the Canadian breeding population of the Pacific Common Eider declined by over 50% between 1976 and 1996 (Suydam et al. 1997, 2000). Potential causes of the decline include over-harvest, oil pollution, contamination of prey species, and changing weather patterns resulting in altered food supplies or habitat conditions (Goudie et al. 2000). Resource development in the Canadian arctic has experienced a marked increase in recent years. Offshore oil and gas reserves have been discovered in two key spring staging areas used by the Pacific Common Eider (Alexander et al. 1997, Dickson et al. 2005, Oppel et al. 2009). Furthermore, there are currently several mines underway in the Bathurst Inlet area, as well as a proposal for a port and road to the interior. Habitat degradation and increased human activity resulting from such development may have adverse effects on the Pacific Common Eider population. Although recent research in Greenland shows that Common Eiders are susceptible to over harvest (Merkel et al. 2004), little is known regarding harvest levels of the Pacific Common Eider (Fabijan et al. 1997, USFWS 2007). There is an obvious need to better monitor the Pacific Common Eider population.

There is currently no regular breeding population survey to monitor Pacific Common Eider population trends in Canada. Over the past several decades Canada has relied exclusively on an infrequent (decadal) count of eiders as they migrate past Point Barrow, Alaska (Suydam et al. 2000). Unfortunately the waterfowl breeding population survey currently in development in arctic Canada does not provide reliable data on Common Eiders, since it is focused on terrestrial habitat, whereas Common Eiders are located in marine waters and nearby islands during the nesting period.

A survey of central arctic Canada in 1995 indicated that as much as 25% of the Canadian breeding population of Pacific Common Eiders occurs within the Bathurst Inlet area (Dickson, unpublished data; Fig. 1). The 1995 survey also indicated that the Bathurst Inlet area was a relatively closed system for breeding eiders since there were no other breeding colonies in close proximity. Additionally, research on eiders in the Bathurst Inlet area from 2001-2005 (Hoover and Dickson 2007, Dickson et al. 2005) provided key information on timing of arrival of eiders, nest initiation and departure of males which could be used in proper design and interpretation of results of the monitoring survey. Given the relatively high density of eiders, isolation from other nesting areas, and data available on timing of peak numbers of eiders in the study area, the Bathurst Inlet area was selected as the preferred site to initiate monitoring of eider breeding population trends. This report summarizes the historical data collected in 1995 and compares it to results from the recent surveys conducted 2006-2008.

METHODS

Survey methods

Aerial surveys completed in 2006-2008 were conducted in the same way as surveys in 1995, so direct comparisons could be made and population trend information ascertained. The study area was initially divided into numbered segments consisting of 10-20 km sections of coastline or clusters of islands. The survey was conducted using a helicopter (Bell 206B in 1995 and 2006; Bell 206L in 2007 and 2008) flown at 50 to 100 m (150-300 feet) and at 130-145 kph (80-90 mph). The flight path followed the coast as well as circled islands and open water areas. The objective was to get a complete count of all eiders in the study area (Lock 1986, Falardeau et al. 2003, Dau and Larned 2005). This was made possible because at the time of survey in late June the early open water where the eiders occurred was quite limited in extent. Most of the open water was along shore and typically in a band < 400 m wide. The helicopter flew at a higher altitude when large groups of eiders were present and we wanted to avoid flushing birds. In these areas of high densities of eiders, air speed was also reduced to facilitate an accurate count. To maximize visibility of birds on the water the surveys were conducted during mid-day hours and when winds were calm or light.

Two observers were used during the survey, one in the front left seat and the other in the rear right seat. Observers recorded on tape the species, number, and when possible, sex and age of birds, as well as the time of the observation. Observations of Pacific Common Eiders were recorded as flock size, noting the number or proportion of adult males and number or proportion of "brown" birds. Observations were recorded into a cassette tape recorder to allow observers to keep their eyes on the survey area. During the survey in 1995, in order to map eider locations, we specified the segment number for each eider observation. In 2006-2008, eider observations were mapped using FUGAWI GIS mapping software (Northport Systems Inc., Toronto, Ontario, Canada). The software logged all aircraft movements and provided real time locations at 2 second intervals, allowing observations to later be merged with specific locations using the time. We were then able to match each eider observation with a segment number to facilitate comparison with 1995 data. Additional information on survey date and time, weather, amount of open water, and visibility were also recorded. Dates of survey were 24 June to 1 July in 1995, 27 June to 2 July in 2006, 25 – 28 June in 2007, and 24-27 June in 2008

Detection surveys

Not all animals are observed and counted during aerial surveys. Consequently, these surveys typically underestimate the number of animals actually present in an area (Pollock and Kendall 1987). A double-counting technique was used to correct for differences in detection rate caused by annual variation in observers and environmental factors. The technique follows methods described in (Caughley and Grice 1982, Pollock and Kendall 1987, Anthony et al. 1992, Hines and Kay 2006, Raven and Dickson 2006) with modifications developed over the course of this study. Both observers were seated on the left side of the aircraft which was flown at the same elevation and ground speed as during the regular surveys. Each observer recorded the number of each species they observed and the time of each observation (to the nearest second). Sightings made by both observers within a 10 second interval were treated as duplicate observations. Sightings which did not meet these criteria were considered non-duplicate

observations. The number of birds present in the area of observation was then calculated using the Petersen-Lincoln method for mark-recapture data (Krebs 1989, Pollock et al. 1990):

$$\hat{N} = \frac{n_{front} n_{back}}{m}$$

$$SE_{\hat{N}} = \sqrt{\frac{(n_{front} + 1)(n_{back} + 1)(n_{front} - m)(n_{back} - m)}{(m + 1)^2(m + 2)}}$$

\hat{N} = estimated number of birds of a given species present

n_{front} = number of birds seen by front-seat observer

n_{back} = number of birds seen by back-seat observer

m = number of duplicate observations

$SE_{\hat{N}}$ = standard error of estimated number of birds present

The visibility correction factor (VCF) and its standard error (SE_{VCF}) was then calculated using the following formulas:

$$VCF = \frac{\hat{N}}{n_{front}}$$

$$SE_{VCF} = \frac{SE_{\hat{N}}}{n_{front}}$$

Since this double counting technique was developed for straight-line transect surveys for detection of widely distributed breeding pairs, there were some adjustments required if it was to be applied to this marine total-count survey. Firstly, since Pacific Common Eiders are colony nesters many observations are clumped. Many portions of the survey area have low eider densities and observations are rare. These low density areas contribute little to the overall eider count. In other portions of the study area large numbers of eiders can be observed in relatively small areas. These small, high eider concentration areas account for the majority of the overall count. Thus, the most representative results are obtained by focusing detection surveys in these higher density areas. It also enables adequate sample sizes without excessive flight time. The second adjustment required to make this double counting detection calculation technique

applicable to this survey involves the flight path. The flight path for this survey is often convoluted as the aircraft seeks the open water and small islands where the eiders reside. Consequently, the backseat observer has a much different view of the eiders than the person in the front, making it very difficult to match counts between the two observers. The front seat observer typically can see and count birds as they flush upon the helicopter's approach. However, the rear seat observer often doesn't see these birds until after the birds circle back into view, if they see them at all. Thus, observation times for individual birds can vary by as much as 30 seconds or more between observers, making it difficult to match observations. During the actual survey the front seat observer would count these birds then inform the rear seat observer to ensure that they were not double counted. To alleviate the problem of matching observations during detection surveys, we selected parts of the study area where the flight path was reasonably straight, yet eider densities were still relatively high. The third issue with this type of detection survey is that some of the eiders are in larger groups. In this situation the differences between observers may be due to flock size estimation and not differences in detection. This can confound detection calculations. To avoid errors in flock size estimation and the problems it can introduce to detection calculations as well as overall survey results it is important to use only experienced observers.

RESULTS

All 118 segments of Areas 1-3 were surveyed in both 2007 and 2008, and all but 3 segments (1-28, 1-29 and 2-37) were surveyed in 1995 (Figs. 1, 2, 3, 4). In 2006, we surveyed all of Area 4, but only portions of Areas 1 and 2, and none of Area 3 (Figs. 1, 5). Tables 1 and 2 show the number of male and female Pacific Common Eiders that were observed in Areas 1-3 in 2007 and, 2008 compared to 1995.

Area 1 consisted of the northeast portion of Bathurst Inlet (Fig. 2). Pacific Common Eiders observed in Area 1 in 1995 were 2433 males and 1933 females. In 2007 numbers were down 58.2% from 1995 at 960 males and 863 females (Table 2). Pacific Common Eiders observed in Area 1 in 2008 were very similar to 2007 at 858 males and 789 females.

Area 2 consisted of Parry Bay, Elu Inlet, and Melville Sound (Fig. 3). Pacific Common Eiders observed in Area 2 in 1995 were 3946 males and 3707 females. In 2007 numbers in this area were 34.1% lower than 1995 at 2545 males and 2497 females (Table 2). Pacific Common Eiders observed in area 2 in 2008 were higher than in 2007 and close to the totals observed in 1995 with 3407 males and 3208 females observed.

Area 3 consisted of the northwest portion of the Bathurst Inlet, including Chapman and Jameson islands, and the coastline as far west as Gray's Bay (Fig. 4). Pacific Common Eiders observed in Area 3 in 1995 were 2571 males and 2169 females. Numbers in Area 3 in 2007 were 728 males and 688 females which represented a substantial decline of 70.1% since 1995 (Table 2). Pacific Common Eiders observed in Area 3 in 2008 were similar but even slightly lower than in 2007 with 651 males and 581 females observed.

Overall, we observed similar numbers of Pacific Common Eiders in the Bathurst Inlet area in 2007 and 2008 (8 281 and 9 494 in 2007 and 2008 respectively; Tables 1 and 2; Fig. 6). These totals were considerably lower than the count of 16 759 eiders in 1995 (50.6% and 43.4% lower in 2007 and 2008 respectively; Table 2; Fig. 6). The decline in Pacific Common Eiders

observed between 1995 and the more recent surveys was not uniform across the study area. Area 2, where the greatest proportion of eiders occurred each year (45.7%, 60.9% and 69.7% of total eiders in 1995, 2007 and 2008 respectively), had the lowest rate of decline at about 25%. By contrast, eiders in Areas 1 and 3 declined by about 60% and 70% respectively. The biggest change occurred around the Chapman Islands in Area 3.

Only 46 of the segments surveyed in 2006 were comparable to the other two recent surveys. Results were quite similar for males in all recent years of survey, but observations of females were much lower in 2006 when the ratio of males to females was nearly 2:1 (Fig. 7). In 2006 we also surveyed Area 4 (Fig. 5), not surveyed in 1995, to determine whether it had enough eiders to include in future monitoring. We observed fewer than 300 eiders (Appendix A), so decided to exclude Area 4 from surveys in 2007 and 2008.

The number of male and female Pacific Common Eiders observed in each segment in 1995, 2006, 2007, and 2008 are presented in Appendix A. The location by latitude and longitude of each Pacific Common Eider observation as well as the date and time of each observation is shown in Appendix B1 for the 2006 survey, Appendix B2 for the 2007 survey, and Appendix B3 for the 2008 survey.

Surveys to calculate a detection rate were conducted in all three years of the recent surveys. In 2006 there was a limited effort put forth for detection surveys due to constraints with weather and aircraft time. Most detection surveys that year were conducted in areas with low eider densities that were not a good reflection of general survey observations. It also resulted in a relatively small sample size. That year a visibility correction factor (VCF) of 2.04 (± 0.19 ; Table 3) was calculated. In 2007 the detection survey technique was refined to better represent typical survey conditions and observations. This resulted in a larger sample size and a result that was more likely representative of our survey. The VCF calculated from the 2007 detection survey was 1.19 (± 0.02 ; Table 3). In 2008 we continued with the technique refined in 2007 but with an even larger sample size and calculated a VCF of 1.12 (± 0.01 ; Table 3). Combining the 3 years of detection surveys adequately represented overall survey conditions and gave us a VCF value of 1.18 (± 0.01 ; Table 3).

DISCUSSION

Our results indicate Pacific Common Eiders have decreased in number within the study area by nearly 50% since the surveys were conducted in 1995. This is in contrast to migration counts at Point Barrow, Alaska, in 2003 and 2004 which show the Canadian breeding population of Pacific Common Eiders may have rebounded in recent years (R. Suydam, North Slope Borough Dept. Wildlife Management, pers. comm.). Surveys conducted along Alaska's arctic coastal plain since 1999 do not show an obvious decreasing trend, but do show high annual variation (Dau and Larned 2005).

It is always risky to ascertain breeding population trends based on a single year of data as we have here. For one reason, arctic nesting birds display a high natural annual variability in breeding effort (Barry 1968, Lamothe 1973, Pehrsson 1986, Dickson 1992). However, an advantage of this survey is that we are counting breeding pairs prior to nesting, so that annual variability in nesting effort and early nest failure will not affect our measure of breeding population size. Nonetheless, other factors such as survey conditions (amount of open water,

wind, lighting), timing of survey in relation to timing of arrival and nest initiation, and degree of synchrony of arrival and nesting all could affect the count in a given year. Thus, it is quite possible that the count in 1995 was higher than would have been obtained in other years in the mid 1990's. Nevertheless the difference in number of eiders seen in 1995 compared to 2007-08 was substantial suggesting an actual decline in number did occur over the 12-year period.

Based on our data and that of monitoring elsewhere, the decline in number of Pacific Common Eiders from 1995 to 2007-08 was local, not continental. Therefore the factors influencing the decline were most likely local rather than due to changes on the wintering, moulting or staging area which would have had a more general affect on the population continentally. In a five-year study in the early 2000's, Hoover and Dickson (2007) found that the primary factor causing nest failure in the Bathurst Inlet area was predation by mammals, specifically the grizzly bear, arctic fox and wolverine. McIoughlin et al. (2003) believed grizzlies in the central Canadian arctic were stable or slightly increasing in population through the late 90's. Local residents in the vicinity of Bathurst Inlet report that both grizzly bears and wolverines have grown in numbers in the past couple of decades. It is possible an increase in mammalian predators has reduced eider hatch success over a long enough period to affect recruitment of new birds into the breeding population which would in turn affect the size of the local breeding population.

Pacific Common Eiders are harvested within and around our survey area. Local harvest could be affecting eider abundance although according to The Nunavut Wildlife Harvest Survey (2004) less than 400 eiders are harvested annually within the Kitikmeot region. Egging, the traditional activity of collecting eggs from eider nesting colonies, occurs within the region. To what extent egging occurs and what effect it may be having on recruitment of Pacific Common Eiders in the Bathurst Inlet area is unknown but could be having a negative effect.

In 2006 spring arrived very early in the Bathurst Inlet area. Unlike other years, much of the study area was ice free when the survey was conducted between 27 June and 2 July. As a result of the conditions, the survey was much less efficient. It took considerably more flight time to survey any given area because there were so many places the eiders could have been and thus needed to be checked. Initially we did not have high confidence in our survey results from 2006 because we felt it would have been easy to miss eiders that were in open water areas far from shore. However, when compared to the results obtained in the following 2 years, we concluded our count of males was reasonable. Count of females, on the other hand, was low by comparison. Common Eiders initiate nesting earlier in years of early spring thaw (Hoover and Dickson 2007), and females on their nest are difficult to see from an aircraft unless they take flight. Thus, the low female count in 2006 was likely a result of early nest initiation making females more difficult to detect.

For several reasons we believe our count is a good indicator of eiders that actually breed within the study area. Firstly, in 2006 we surveyed further south into the Bathurst Inlet (Figs. 1 and 5) and found that few eiders nest south of Umingmaktok. So we are confident that eiders counted in 1995, 2007 and 2008 were not simply staging in the study area before moving south into the Bathurst Inlet to nest. Additionally, the study area was chosen partially due to its isolation from other major Pacific Common Eider breeding areas. The only nesting region east of our study area is on the north side of Queen Maud Gulf where eiders nest among several groups of offshore islands (Dickson unpublished data). The logical route to that location would

be through Dease Strait to the north of the Kent Peninsula rather than through our study area. Consequently, only eiders intending to breed within the study area would be present during the survey. Satellite telemetry has also shown that eiders nesting within our study area typically stage in the area 1-3 weeks before actually beginning to nest (Dickson et al. 2005, 2009). This assures us that although the eiders may not have been near their actual nesting colony, they were still within the study area and were thus counted during the survey. Timing of surveys is critical though, if counts are to include all breeding pairs. If the survey is conducted too early, not all of the pairs will have arrived on the breeding grounds, and if surveys are too late, many of the males will have departed on moult migration (Dickson et al. 2005, 2009). Male Pacific Common Eiders typically leave the nesting area shortly after the onset of incubation (Hoover and Dickson 2007). Conditions and seasonal progression observed in 2007 and 2008 differed by 5-7 days, but the similar results give further evidence that our surveys were timed appropriately; hence there is some flexibility in timing of surveys. The similarity in results also helps confirm that we are counting only local breeding eiders.

Interestingly, count totals in Area 2 (Tables 1 and 2; Figs. 1 and 3) increased in 2008 over those observed in 2007. Area 2 is our most easterly area and likely represents an end point for eiders migrating from the west. Spring was slightly earlier in the study area in 2008 than in 2007 and so our survey was likely timed a bit later in the nesting season that year. It is logical that during the survey in 2007 eiders were staging in western portions of the study area, waiting for conditions to advance before continuing east to their nesting area. While in 2008 some of those same eiders had already moved further east and closer to their nesting areas by the time we surveyed. Satellite telemetry (Dickson et al. 2005, 2009) and previous field work in the study area (Hoover and Dickson 2007) support this hypothesis as it was typical for Pacific Common Eiders to stage in early open water in Area 1 while waiting for nesting conditions to improve in Area 2. Our results show that some of the increase in Area 2 in 2008 over 2007 is offset by a decrease in Areas 1 and 3 (Tables 1 and 2). This illustrates the importance of ensuring the area selected for monitoring encompasses both nesting islands and nearby staging areas for local breeders.

RECOMMENDATIONS

Through our surveys conducted 2006-2008 we believe we have found an efficient and cost effective technique to monitor the breeding population of Pacific Common Eiders. When the survey is timed appropriately and weather conditions cooperate it can effectively be completed in 3 days; one day for each of the three areas. An additional two days would be required to complete detection surveys and ferrying crew and gear between Cambridge Bay and the survey base camp (either DFO cabin at Nauyak Lake or a cabin at Umingmaktok). There should also be 2 or 3 days flexibility to ensure timing of surveys is appropriate, since timing of spring thaw is difficult to predict. Accordingly we recommend planning to start the surveys as early as 22 June, but if spring thaw is not unusually early start on 24 June (dates may change with changing climate). When conditions are favourable, the survey should take approximately 30 hours of flight time in a Bell 206L helicopter with an additional 10 hours required for detection surveys and ferrying crew and gear to and from the study area. In 2007 and 2008 we used approximately 12 drums of JetB fuel per year and used caches located at Elu Inlet (3 drums), Nauyak Lake (6

drums), Umingmaktok (3 drums), and at the Chapman Islands (6 drums). These would be minimum requirements and some extra fuel should be on hand in case weather or other unforeseen circumstances caused an increase in flight time required to complete the survey. Our surveys further south into the Bathurst Inlet in 2006 revealed that few eiders breed south of Umingmaktok and so Area 4 (Fig. 5) should not be included in future surveys. The areas surveyed in 2007 and 2008 (Areas 1, 2, and 3) should set the basis for a future operational survey. If logistical or financial situations require a further reduction in survey area we suggest areas west of the Chapman Islands in Area 3 could be eliminated from the survey as eider densities are relatively low. However, with a mine underway in the Gray's Bay area it would be prudent to monitor eider populations in this area as the data may be important to future environmental assessments.

The fact that eiders declined in our study area but were stable or increasing elsewhere over the past decade suggests that our survey area is adequate for monitoring eiders in Bathurst Inlet area, but too small to reflect what is happening to the population continentally. The survey should therefore be done in conjunction with other monitoring including the annual survey off Alaska and the periodic count at Point Barrow Alaska during spring migration. Furthermore, consideration should be given to expanding the survey within Canada to include another area of relatively high density nesting. We recommend the offshore islands in Queen Maud Gulf including Royal Geographical Society Islands, Hat Island and Nordenskiold Islands where 11,500 eiders were observed in the 1995 survey (Dickson, unpublished data). This area is near the eastern limit of their range, so that the count would not be confounded by the presence of migrants. It is also relatively close to the logistical centre, Cambridge Bay.

Detection surveys that were flown 2006-2008 show that few Pacific Common Eiders are missed during this type of survey. In fact the detection rate is likely even higher than our numbers suggests, since many of the unmatched observations were actually a result of differences in flock size estimation between observers rather than missed observations. Flocks large enough for errors to occur in estimated size were rare with this survey but they did occur and those flocks accounted for a significant portion of the total count (54% of eiders were in flocks of <30 birds, and all but one flock of 370 had <300 eiders). Overall we believe the methods described in this report give an adequate technique for acquiring a visibility correction factor. Although we have not provided the corrected numbers in our results, the correction factors are reported in case they are needed for comparison to future counts.

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Table 1. Number of male and female Pacific Common Eiders observed in 1995, 2007, and 2008 in Areas 1-3. Area 1 consists of the NE portion of the Bathurst Inlet. Area 2 consists of Parry Bay, Elu Inlet, and Melville Sound. Area 3 consists of the NW portion of the Bathurst Inlet, Chapman Islands, Gray's Bay, and the Jameson Islands (see Fig. 1).

Area (segment)	Males			Females		
	1995 ¹	2007	2008	1995 ¹	2007	2008
1 (1-34)	2433	960	858	1933	863	789
2 (1-45)	3946	2545	3407	3707	2497	3208
3 (1-39)	2571	728	651	2169	688	581
Total:	8950	4233	4916	7809	4048	4578

¹Segments 1-28, 1-29, and 2-37 were not surveyed in 1995.

Table 2. Total number of Pacific Common Eiders observed in Areas 1-3 in 1995, 2007, and 2008 in the Bathurst Inlet area of Nunavut and the percent (%) change from 1995. Area 1 consists of the NE portion of the Bathurst Inlet. Area 2 consists of Parry Bay, Elu Inlet, and Melville Sound. Area 3 consists of the NW portion of the Bathurst Inlet, Chapman Islands, Gray's Bay, and the Jameson Islands (see Fig. 1).

Area (segment)	Number of Eiders			Percent (%) change from 1995	
	1995 ¹	2007	2008	2007	2008
1 (1-34)	4366	1823	1647	58.2	62.3
2 (1-45)	7653	5042	6615	34.1	13.6
3 (1-39)	4740	1416	1232	70.1	74.0
Total:	16759	8281	9494	50.6	43.4

¹Segments 1-28, 1-29, and 2-37 were not surveyed in 1995.

Table 3. Visibility Correction Factors developed for Pacific Common Eider surveys in the Bathurst Inlet area of Nunavut 2006 to 2008.

Year	Number seen by front observer	Number seen by rear observer	Number seen by both observers	Estimated number present ± SE	% of total estimated number sighted by front observer	Visibility Correction Factor ± SE
2006	50	51	25	102 ± 9.7	49.0	2.04 ± 0.19
2007	246	195	164	292.5 ± 5.2	84.1	1.19 ± 0.02
2008	569	471	420	638 ± 5.2	89.2	1.12 ± 0.01
2006-2008	865	717	609	1018.4 ± 8.7	84.9	1.18 ± 0.01

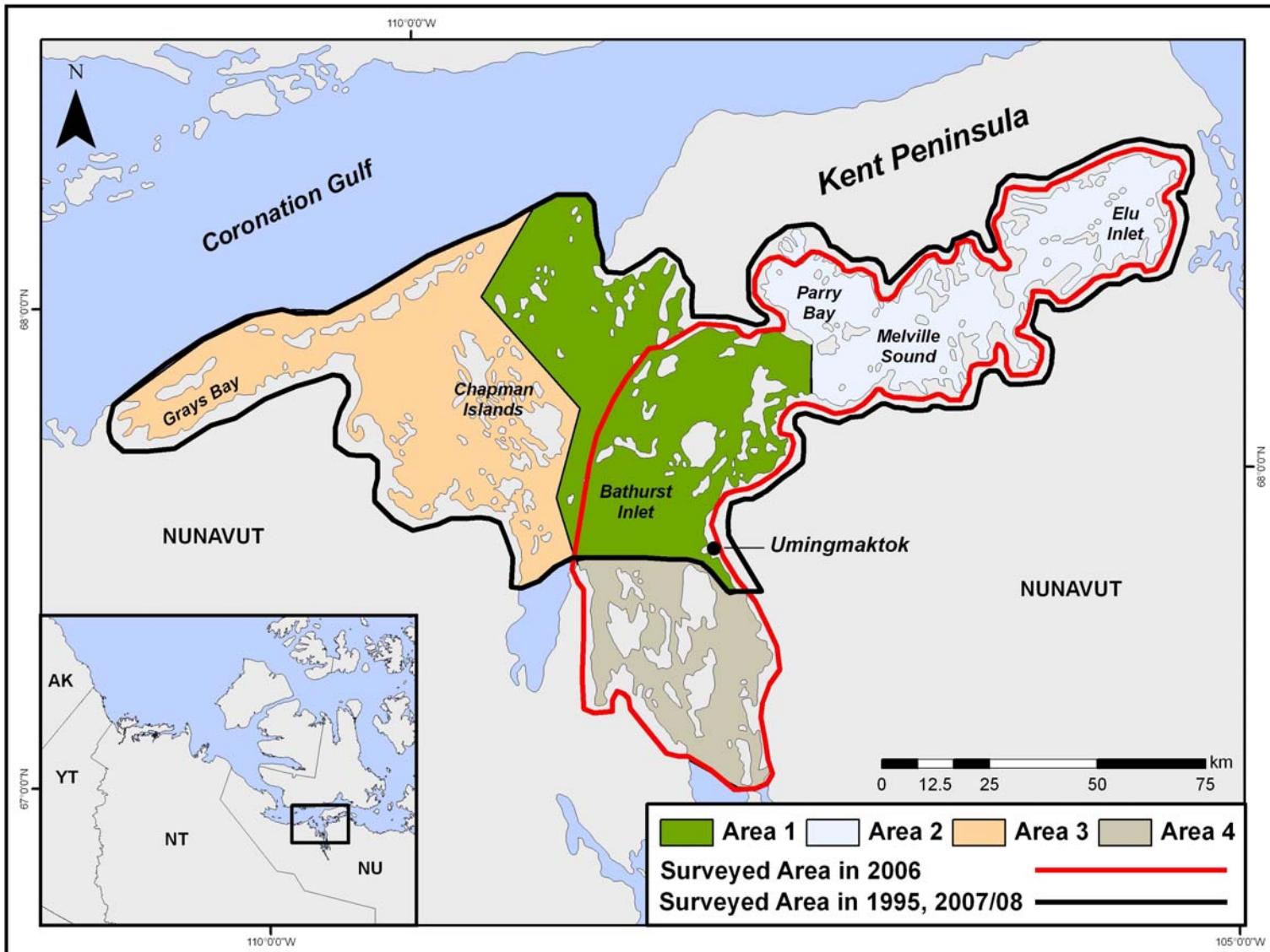


Figure 1. Map showing surveyed areas and extent of survey coverage for Pacific Common Eiders in the Bathurst Inlet area of Nunavut in 1995, 2006, 2007 and 2008.

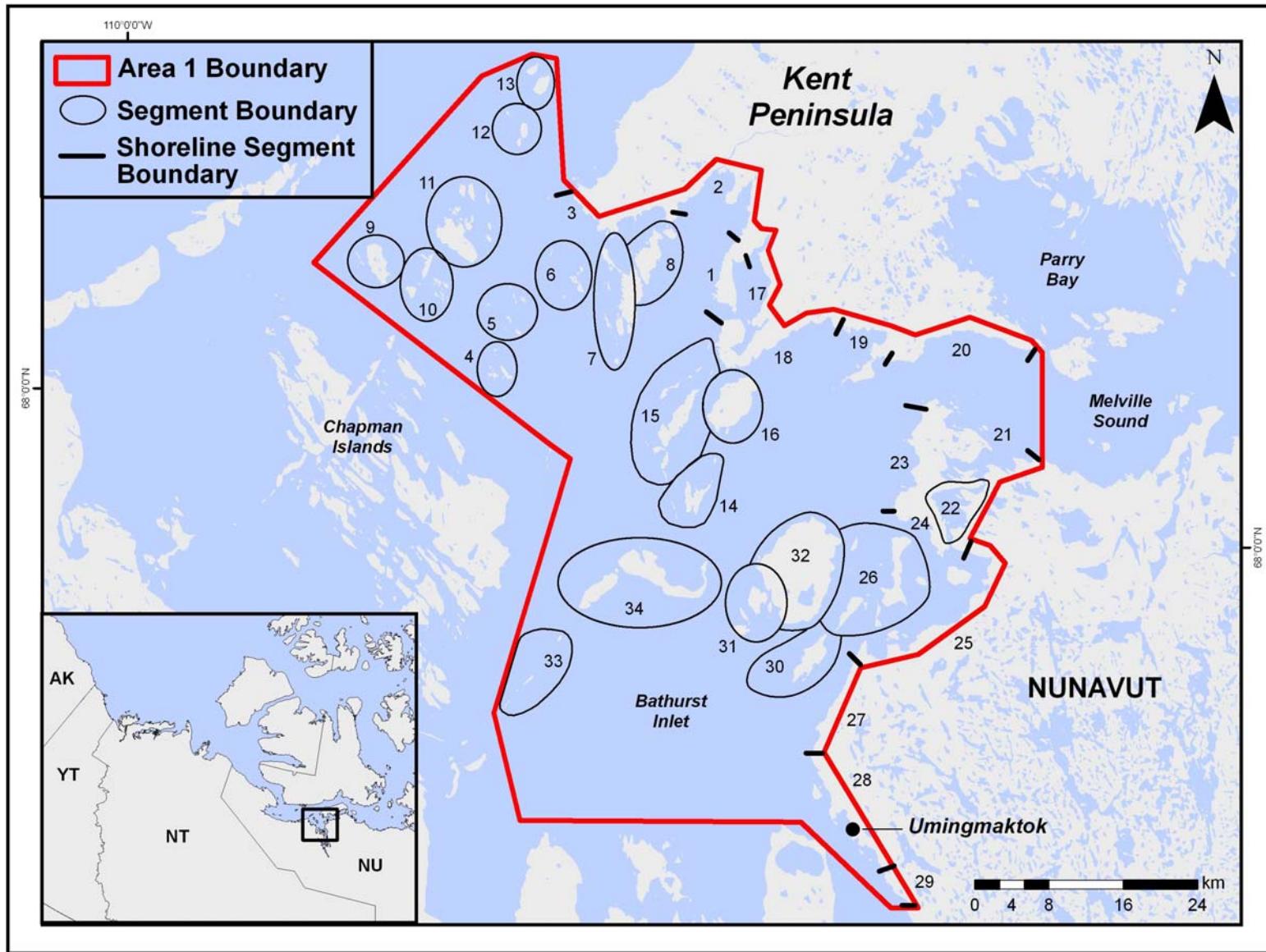


Figure 2. Map showing segments surveyed for Pacific Common Eiders in Area 1.

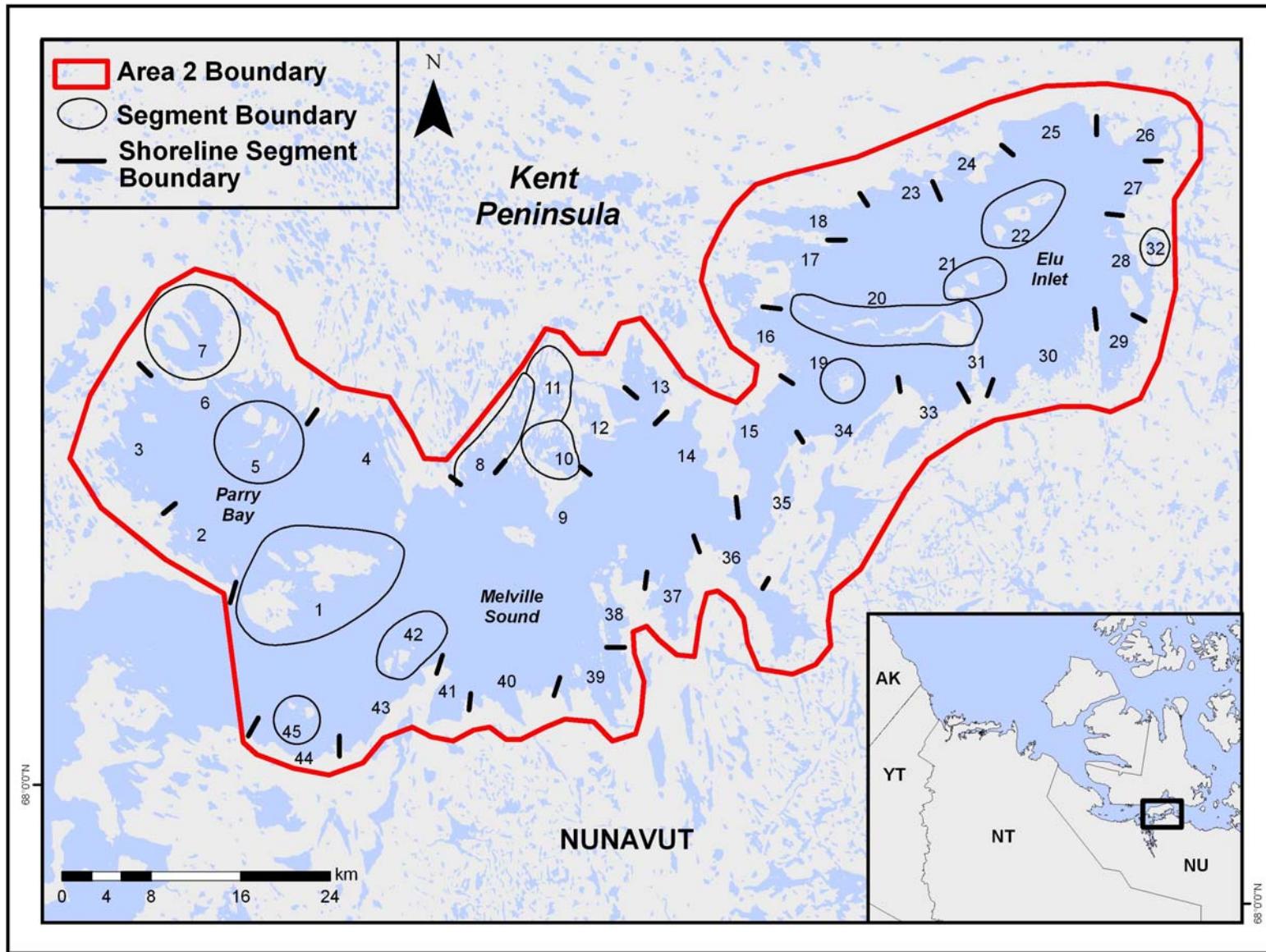


Figure 3. Map showing segments surveyed for Pacific Common Eiders in Area 2.

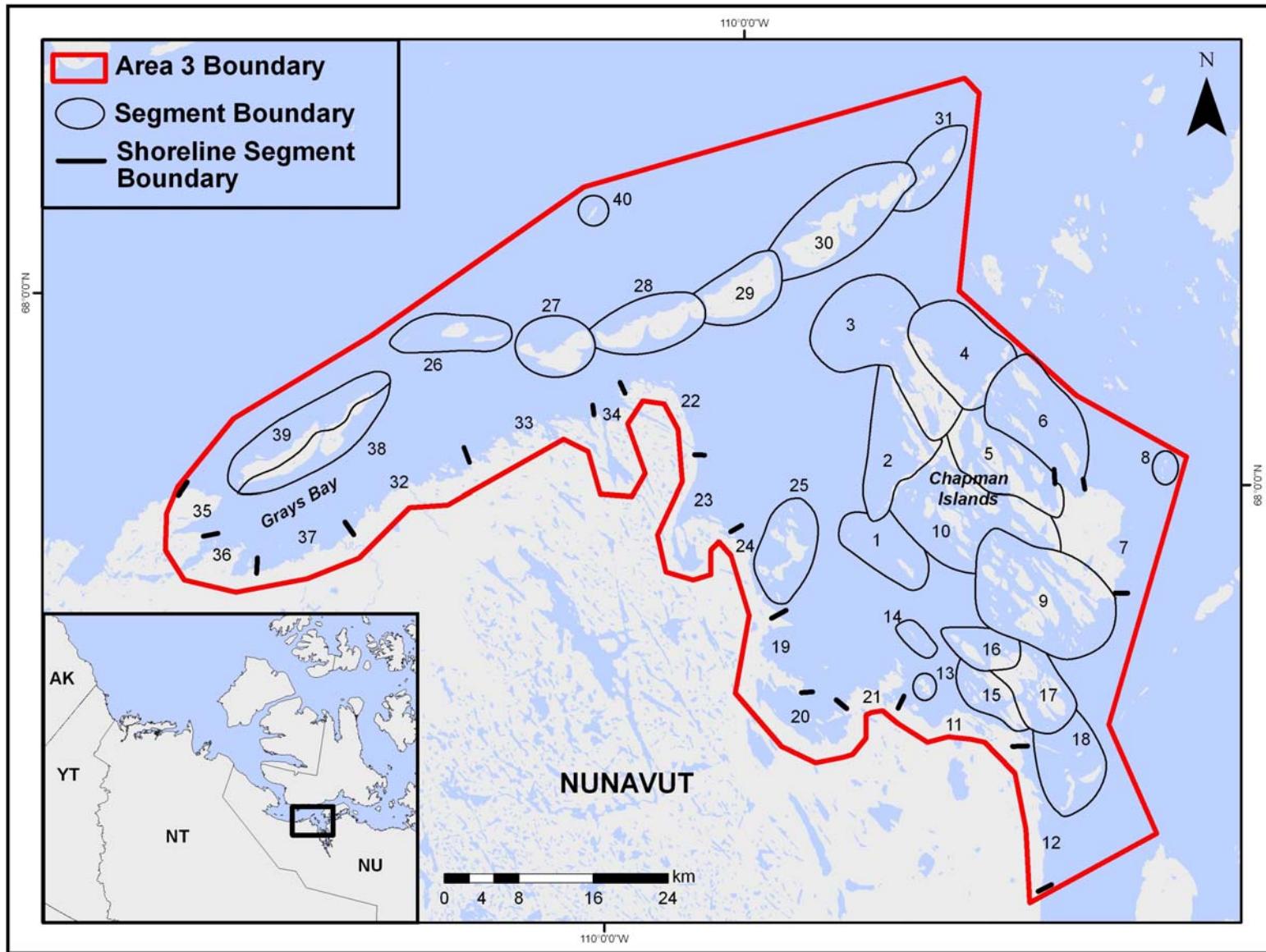


Figure 4. Map showing segments surveyed for Pacific Common Eiders in Area 3.

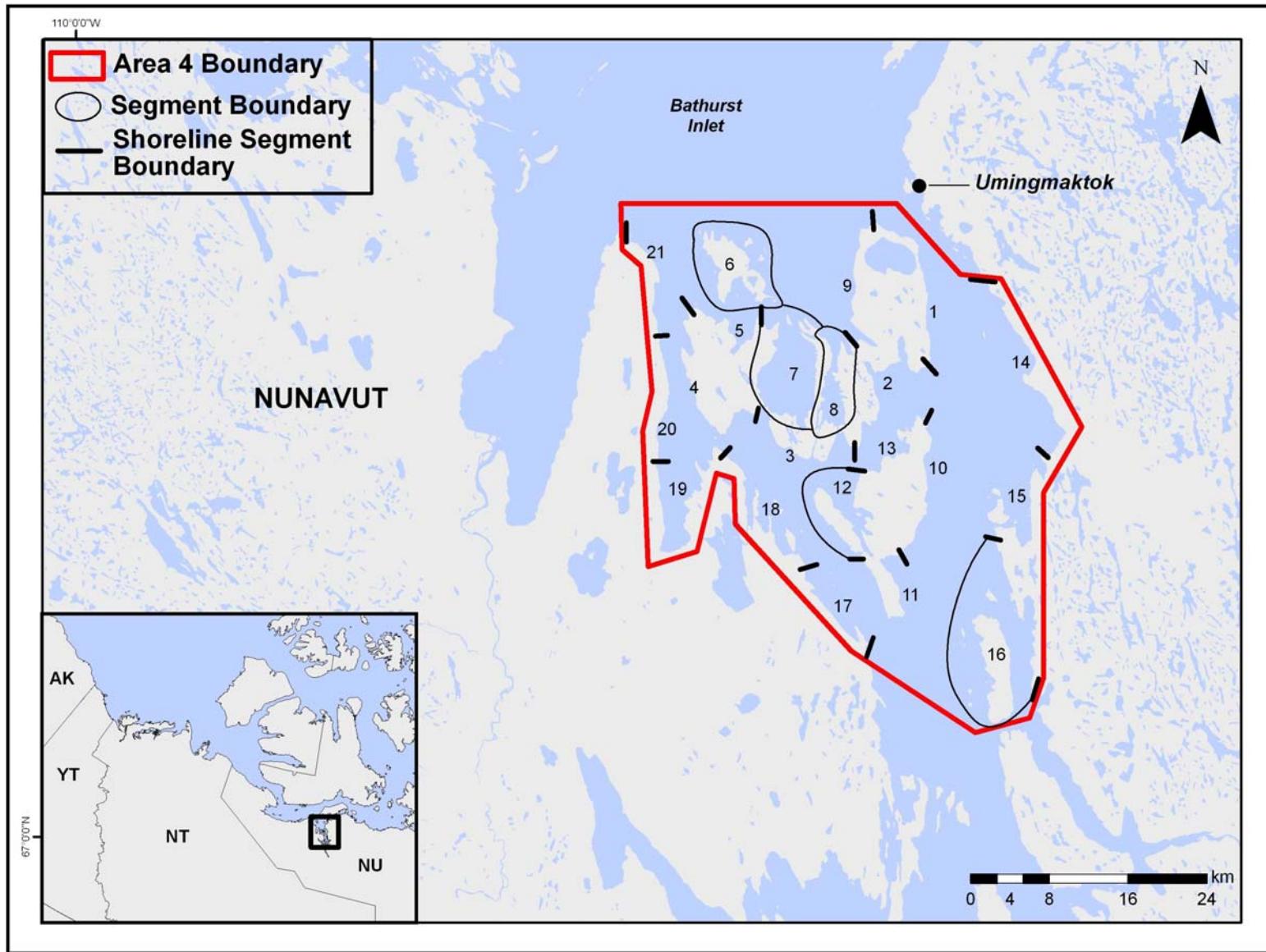


Figure 5. Map showing segments surveyed for Pacific Common Eiders in Area 4 (surveyed in 2006 only).

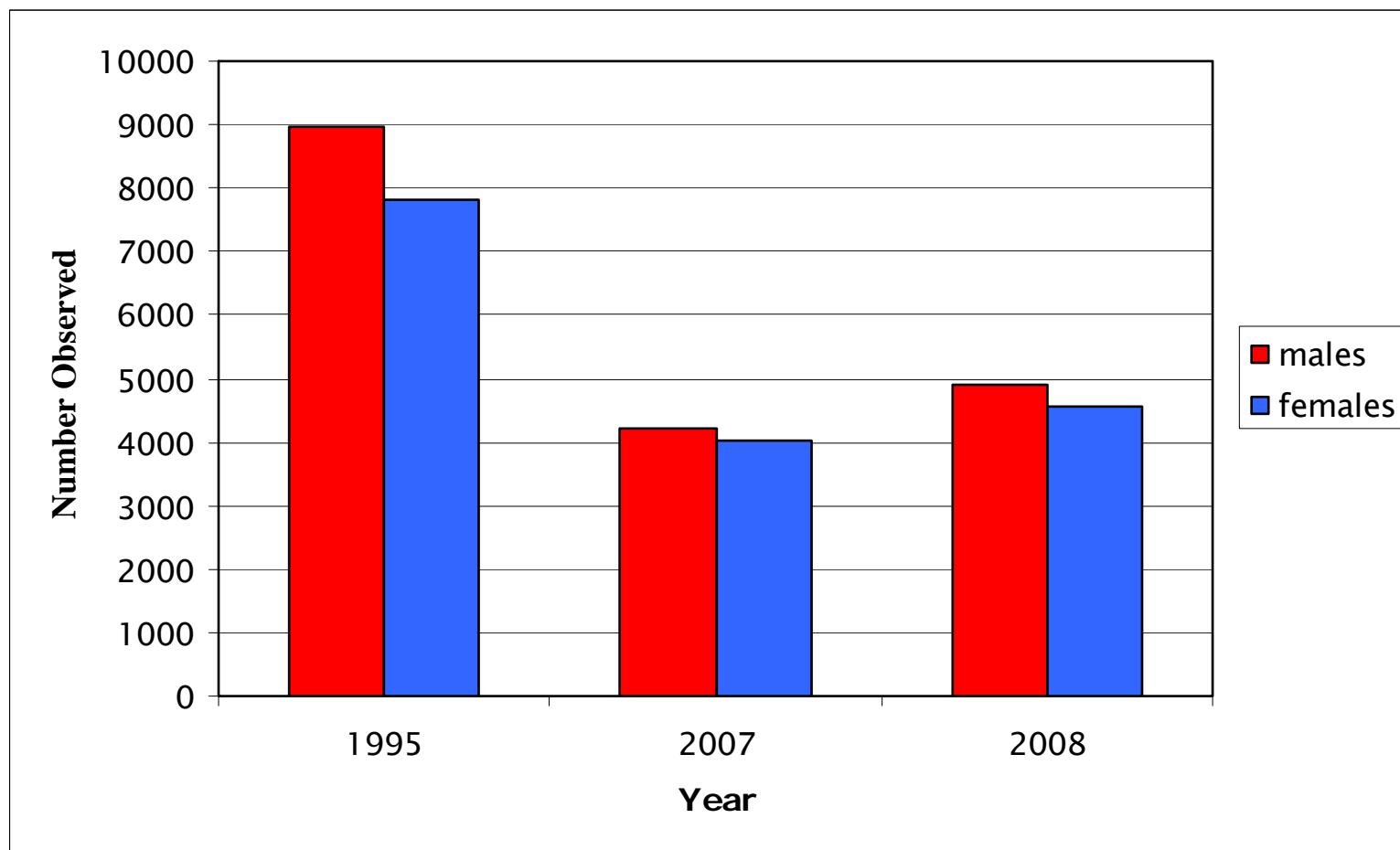


Figure 6. Numbers of male and female Pacific Common Eiders observed in the 115 segments surveyed in the Bathurst Inlet, Nunavut in 1995, 2007 and 2008.

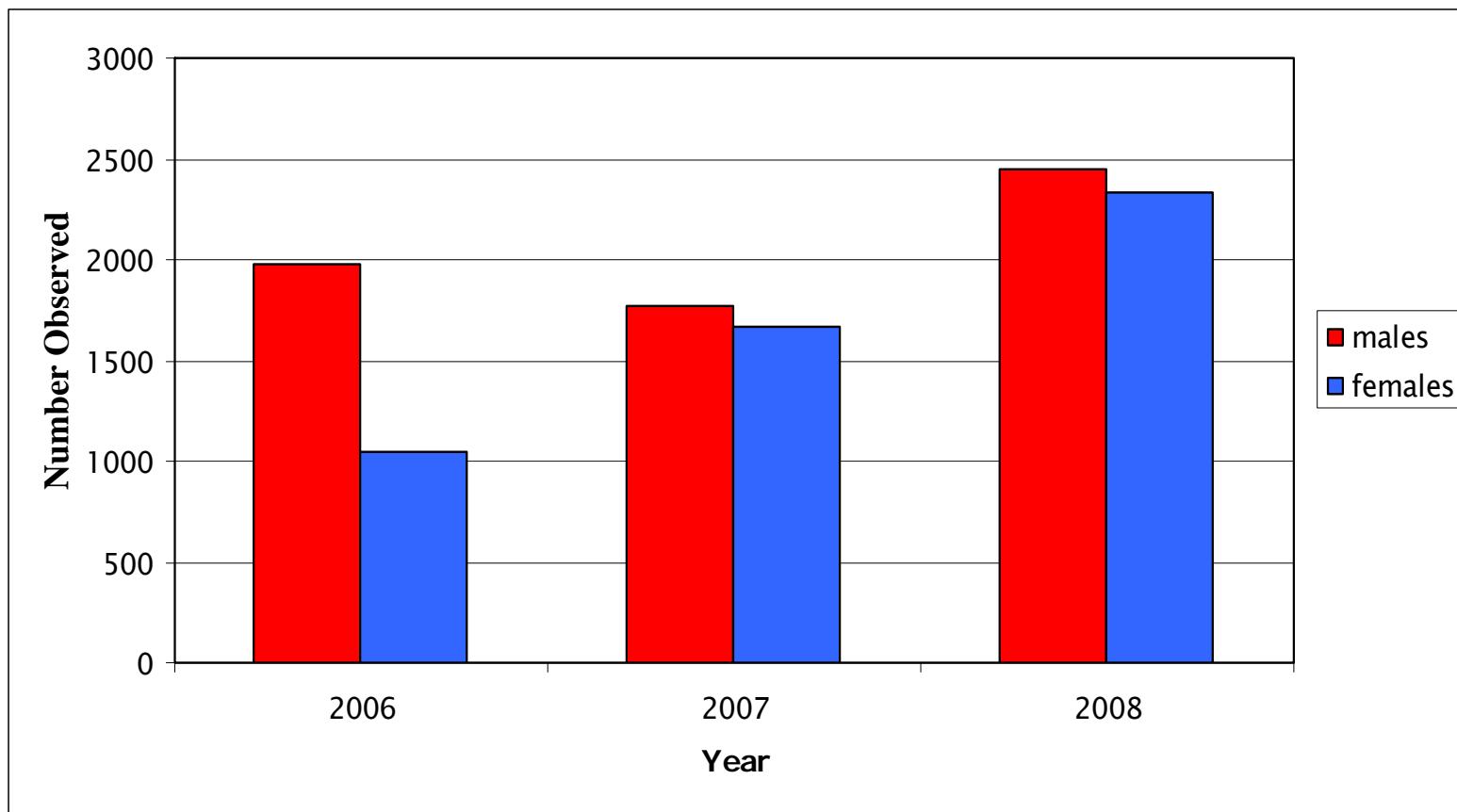


Figure 7. Numbers of male and female Pacific Common Eiders observed in the 46 segments surveyed in the Bathurst Inlet, Nunavut in 2006, 2007 and 2008.

Appendix A. Observations of Pacific Common Eiders in the Bathurst Inlet area of Nunavut in 1995, and 2006-2008 organized by Area and Segment. NS signifies the segment was not surveyed that year.

<u>Area</u>	<u>Segment</u>	<u>1995</u>		<u>2006</u>		<u>2007</u>		<u>2008</u>	
		<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
1	1	16	8	NS	NS	27	26	4	4
1	2	61	56	NS	NS	37	37	35	32
1	3	27	19	NS	NS	0	0	22	21
1	4	183	172	NS	NS	47	46	54	50
1	5	243	198	NS	NS	17	14	16	10
1	6	14	14	NS	NS	21	20	15	13
1	7	96	93	NS	NS	2	1	19	14
1	8	71	67	NS	NS	7	7	20	17
1	9	14	11	NS	NS	50	49	18	14
1	10	322	313	NS	NS	13	13	40	40
1	11	37	33	NS	NS	2	0	0	0
1	12	20	16	NS	NS	14	11	6	4
1	13	4	4	NS	NS	5	3	3	1
1	14	3	3	10	0	0	0	0	0
1	15	55	53	12	17	5	5	9	7
1	16	9	6	4	2	3	1	7	2
1	17	29	20	NS	NS	16	15	11	10
1	18	82	67	510	207	62	59	29	27
1	19	166	160	77	53	64	60	31	27
1	20	197	192	12	6	75	75	176	174
1	21	495	241	88	44	369	309	213	198
1	22	20	12	4	3	33	33	54	54
1	23	4	4	30	17	2	2	0	0
1	24	13	16	5	2	4	4	0	0
1	25	17	13	5	1	7	8	0	0
1	26	85	52	53	27	0	0	12	11
1	27	2	3	0	0	12	12	0	0
1	28	NS	NS	12	9	9	9	7	7
1	29	NS	NS	8	3	3	3	0	0
1	30	75	43	20	11	8	8	12	12
1	31	24	22	38	12	6	4	8	4
1	32	12	10	15	10	5	5	3	2
1	33	31	8	NS	NS	17	9	3	3
1	34	6	4	74	38	18	15	31	31
2	1	294	210	129	43	90	78	234	191
2	2	65	56	67	51	1	1	16	11
2	3	71	66	39	20	0	0	60	58
2	4	91	78	50	48	59	58	86	80
2	5	66	55	78	50	89	76	54	48
2	6	101	92	46	48	70	66	163	160
2	7	358	355	NS	NS	252	243	372	267
2	8	115	114	59	51	34	30	44	42
2	9	268	265	55	53	34	33	45	44
2	10	9	5	43	24	131	131	0	0
2	11	10	10	NS	NS	0	0	0	0
2	12	18	14	42	28	61	61	236	232
2	13	12	9	38	17	15	14	7	5
2	14	143	134	20	4	106	105	117	113
2	15	152	146	0	0	151	151	45	45
2	16	129	125	48	14	284	284	183	183
2	17	11	10	20	17	0	0	1	1

Area	Segment	1995		2006		2007		2008	
		Males	Females	Males	Females	Males	Females	Males	Females
2	18	33	27	2	1	30	30	44	44
2	19	263	247	25	20	53	53	263	263
2	20	766	737	38	29	496	496	259	259
2	21	1	1	12	9	1	1	0	0
2	22	5	4	11	7	2	2	12	10
2	23	44	36	2	0	11	11	16	15
2	24	6	5	5	6	35	35	41	40
2	25	15	14	0	0	1	1	23	17
2	26	150	148	65	27	64	63	117	117
2	27	8	5	27	5	0	0	4	4
2	28	222	206	66	27	14	13	93	91
2	29	156	149	196	38	21	21	74	74
2	30	29	27	NS	NS	16	16	40	40
2	31	40	40	8	3	11	11	378	378
2	32	3	2	41	29	10	10	0	0
2	33	7	6	12	2	2	2	11	10
2	34	10	7	0	0	0	0	0	0
2	35	6	6	1	0	48	47	75	75
2	36	17	19	20	3	0	0	2	2
2	37	NS	NS	15	2	2	2	2	1
2	38	73	67	38	18	84	85	75	73
2	39	7	8	15	12	1	1	30	30
2	40	0	0	0	0	0	0	0	0
2	41	0	0	2	5	0	0	3	3
2	42	143	174	58	47	266	266	181	181
2	43	3	4	5	3	0	0	1	1
2	44	3	2	0	0	0	0	0	0
2	45	23	22	13	7	0	0	0	0
3	1	15	11	NS	NS	15	15	3	3
3	2	87	84	NS	NS	8	8	39	36
3	3	80	76	NS	NS	55	52	30	27
3	4	88	85	NS	NS	8	9	10	9
3	5	182	159	NS	NS	35	36	45	45
3	6	133	99	NS	NS	17	18	11	9
3	7	28	14	NS	NS	1	1	3	3
3	8	46	38	13	4	0	0	5	5
3	9	730	571	NS	NS	227	226	238	205
3	10	463	427	NS	NS	93	87	73	61
3	11	18	10	NS	NS	26	26	54	52
3	12	13	8	NS	NS	2	3	0	0
3	13	0	0	NS	NS	0	0	2	2
3	14	2	0	NS	NS	2	1	0	0
3	15	51	42	NS	NS	20	20	6	5
3	16	83	65	NS	NS	12	7	3	1
3	17	93	90	NS	NS	46	46	16	16
3	18	14	10	NS	NS	3	2	0	0
3	19	7	2	NS	NS	2	2	0	0
3	20	66	49	NS	NS	28	28	13	12
3	21	50	44	NS	NS	15	13	17	14
3	22	5	3	NS	NS	6	6	0	0
3	23	12	2	NS	NS	3	3	0	0
3	24	3	2	NS	NS	0	0	0	0
3	25	34	27	NS	NS	21	14	52	48
3	26	75	81	NS	NS	6	4	1	0
3	27	31	37	NS	NS	2	2	0	0

<u>Area</u>	<u>Segment</u>	<u>1995</u>		<u>2006</u>		<u>2007</u>		<u>2008</u>	
		<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
3	28	33	35	NS	NS	1	0	0	0
3	29	12	10	NS	NS	6	7	0	0
3	30	12	4	NS	NS	6	6	1	1
3	31	18	19	NS	NS	13	10	0	0
3	32	1	1	NS	NS	7	7	1	1
3	33	27	14	NS	NS	23	14	0	0
3	34	1	2	NS	NS	0	0	0	0
3	35	1	0	NS	NS	2	1	5	3
3	36	20	14	NS	NS	6	4	20	20
3	37	8	8	NS	NS	1	1	0	0
3	38	11	8	NS	NS	3	3	2	2
3	39	18	18	NS	NS	7	6	1	1
3	40	8	8	NS	NS	0	0	0	0
4	1	NS	NS	5	1	NS	NS	NS	NS
4	2	NS	NS	4	3	NS	NS	NS	NS
4	3	NS	NS	0	0	NS	NS	NS	NS
4	4	NS	NS	0	0	NS	NS	NS	NS
4	5	NS	NS	1	1	NS	NS	NS	NS
4	6	17	6	25	9	NS	NS	NS	NS
4	7	2	1	3	2	NS	NS	NS	NS
4	8	0	0	19	13	NS	NS	NS	NS
4	9	NS	NS	0	0	NS	NS	NS	NS
4	10	NS	NS	2	0	NS	NS	NS	NS
4	11	NS	NS	12	5	NS	NS	NS	NS
4	12	NS	NS	3	3	NS	NS	NS	NS
4	13	NS	NS	1	1	NS	NS	NS	NS
4	14	NS	NS	2	0	NS	NS	NS	NS
4	15	NS	NS	18	3	NS	NS	NS	NS
4	16	NS	NS	38	18	NS	NS	NS	NS
4	17	NS	NS	4	0	NS	NS	NS	NS
4	18	NS	NS	68	28	NS	NS	NS	NS
4	19	NS	NS	2	1	NS	NS	NS	NS
4	20	NS	NS	0	0	NS	NS	NS	NS
4	21	4	5	2	0	NS	NS	NS	NS

Appendix B1. Time and location of Pacific Common Eider observations during surveys in the Bathurst Inlet area of Nunavut in 2006. Locations are given in decimal degrees using datum NAD27.

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.963	-108.433	02/07/2006	150338	1		1	14
68.051	-108.454	01/07/2006	170456	6		1	15
68.040	-108.476	01/07/2006	170530	2	2	1	15
68.030	-108.529	01/07/2006	171000	2		1	15
68.037	-108.478	01/07/2006	171136	2	2	1	15
68.090	-108.415	01/07/2006	171456	10	10	1	15
68.087	-108.426	01/07/2006	171510	1		1	15
68.066	-108.400	01/07/2006	165602	2	1	1	16
68.062	-108.390	01/07/2006	165616	2	1	1	16
68.055	-108.339	01/07/2006	165748	6	5	1	16
68.159	-108.215	01/07/2006	164954	1	1	1	18
68.145	-108.245	01/07/2006	165040	2	1	1	18
68.141	-108.258	01/07/2006	165056	1		1	18
68.137	-108.279	01/07/2006	165122	1		1	18
68.106	-108.080	01/07/2006	163734	189	27	1	19
68.111	-108.095	01/07/2006	163802	140	60	1	19
68.124	-108.058	01/07/2006	163850	180	120	1	19
68.132	-108.034	01/07/2006	163916	1		1	19
68.159	-108.013	01/07/2006	164128	46	25	1	19
68.163	-108.021	01/07/2006	164142	5	2	1	19
68.163	-107.979	01/07/2006	164300	4	1	1	19
68.165	-107.986	01/07/2006	164306	11	2	1	19
68.167	-107.971	01/07/2006	164358	1		1	19
68.170	-108.079	01/07/2006	164612	2	7	1	19
68.170	-108.089	01/07/2006	164712	2	12	1	19
68.172	-107.645	01/07/2006	162742	1	1	1	20
68.174	-107.658	01/07/2006	162756		1	1	20
68.175	-107.664	01/07/2006	162804	3	1	1	20
68.176	-107.666	01/07/2006	162806	2	1	1	20
68.162	-107.866	01/07/2006	163206	1	1	1	20
68.072	-107.667	28/06/2006	100420	1		1	21
68.088	-107.696	28/06/2006	100536	4	2	1	21
68.087	-107.693	28/06/2006	100540	5	3	1	21
68.086	-107.688	28/06/2006	100546	1	1	1	21
68.092	-107.687	28/06/2006	100614	1		1	21
68.091	-107.694	28/06/2006	100644	1		1	21
68.085	-107.713	28/06/2006	105644	2		1	21
68.089	-107.754	28/06/2006	105720	5	4	1	21
68.087	-107.760	28/06/2006	105726	4	1	1	21
68.085	-107.771	28/06/2006	105738	2	2	1	21
68.106	-107.760	28/06/2006	105912	2		1	21
68.111	-107.783	28/06/2006	105934	2		1	21
68.114	-107.769	28/06/2006	110014	13	4	1	21
68.109	-107.769	28/06/2006	110030	3	1	1	21
68.109	-107.769	28/06/2006	110030	48	2	1	21
68.110	-107.841	28/06/2006	110148	2	1	1	21
68.108	-107.855	28/06/2006	110202	1	1	1	21
68.108	-107.857	28/06/2006	110204	1	1	1	21
68.107	-107.860	28/06/2006	110208	1	1	1	21
68.041	-107.701	28/06/2006	111830	1		1	21
68.041	-107.725	28/06/2006	111852	2		1	21

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.037	-107.753	28/06/2006	111920	1		1	21
68.040	-107.765	28/06/2006	112038	9	5	1	21
68.058	-107.782	28/06/2006	112120	2	2	1	21
68.052	-107.714	28/06/2006	112304	3	3	1	21
68.052	-107.710	28/06/2006	112308	1	1	1	21
68.048	-107.758	28/06/2006	112432	2	2	1	21
68.051	-107.760	28/06/2006	112440	1	1	1	21
68.064	-107.692	28/06/2006	112600	1	1	1	21
68.068	-107.676	28/06/2006	112620	1		1	21
68.068	-107.676	28/06/2006	112620	1		1	21
68.015	-107.730	28/06/2006	95750	3	3	1	22
68.026	-107.705	28/06/2006	100018	2		1	22
68.018	-107.797	28/06/2006	111550	1		1	22
68.021	-107.790	28/06/2006	111600	1	1	1	22
68.021	-107.788	28/06/2006	111602	1		1	22
68.065	-107.884	28/06/2006	110434	1	1	1	23
68.022	-107.875	28/06/2006	110718	2	1	1	23
68.023	-107.884	28/06/2006	110726	2	1	1	23
67.990	-107.829	28/06/2006	111056	2	1	1	24
67.983	-107.797	28/06/2006	111140	1	1	1	24
67.909	-107.680	28/06/2006	94732	2		1	25
67.939	-107.761	28/06/2006	95100	1	1	1	25
67.908	-107.930	02/07/2006	133310	1		1	26
67.908	-107.930	02/07/2006	133310	2	2	1	26
67.898	-107.935	02/07/2006	133438	7	7	1	26
67.893	-107.948	02/07/2006	133500	4	4	1	26
67.875	-107.997	02/07/2006	133734	1	1	1	26
67.939	-107.894	02/07/2006	134254	13	10	1	26
67.939	-107.890	02/07/2006	134258	1		1	26
67.970	-107.835	02/07/2006	134526	4	3	1	26
67.938	-107.810	02/07/2006	134738	2	2	1	26
67.927	-107.802	02/07/2006	134834	3		1	26
67.927	-107.806	02/07/2006	134838	12	12	1	26
67.918	-107.816	02/07/2006	135040	2	2	1	26
67.912	-107.834	02/07/2006	135314	5	5	1	26
67.925	-107.926	02/07/2006	135846	2		1	26
67.927	-107.947	02/07/2006	135910	1		1	26
67.954	-107.975	02/07/2006	140108	1	1	1	26
67.721	-108.016	28/06/2006	92508	1	1	1	28
67.704	-108.006	28/06/2006	92604	2		1	28
67.687	-107.914	29/06/2006	125328	1		1	28
67.659	-107.881	29/06/2006	125600	3	1	1	28
67.650	-107.846	29/06/2006	125700	2		1	28
67.632	-107.803	29/06/2006	125940	2		1	29
67.579	-107.776	02/07/2006	160134	1	1	1	29
67.579	-107.776	02/07/2006	160134	3	3	1	29
67.780	-108.121	28/06/2006	93044	2		1	30
67.779	-108.119	28/06/2006	93050	2		1	30
67.862	-108.021	02/07/2006	132456	1	1	1	30
67.828	-108.060	02/07/2006	132634	2	2	1	30
67.825	-108.065	02/07/2006	132644	2	2	1	30
67.823	-108.067	02/07/2006	132648	1	1	1	30
67.821	-108.070	02/07/2006	132654	1	1	1	30
67.819	-108.083	02/07/2006	132718	2	2	1	30

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.808	-108.182	02/07/2006	152236	14	6	1	30
67.914	-108.204	02/07/2006	140948	1		1	31
67.881	-108.159	02/07/2006	141950	1	1	1	31
67.886	-108.226	02/07/2006	142200	1	1	1	31
67.908	-108.214	02/07/2006	142310	1	1	1	31
67.902	-108.185	02/07/2006	142340	1	1	1	31
67.873	-108.225	02/07/2006	142508	1	1	1	31
67.873	-108.223	02/07/2006	142654	3	2	1	31
67.861	-108.220	02/07/2006	142728	2	2	1	31
67.857	-108.242	02/07/2006	142752	1		1	31
67.858	-108.253	02/07/2006	142802	1	1	1	31
67.861	-108.264	02/07/2006	142814	2	1	1	31
67.901	-108.043	02/07/2006	140534	3	2	1	32
67.983	-108.088	02/07/2006	141338	2	2	1	32
67.975	-108.055	02/07/2006	141416	3	3	1	32
67.972	-108.052	02/07/2006	141424	1	1	1	32
67.932	-108.515	02/07/2006	143722	1	1	1	34
67.929	-108.527	02/07/2006	143744	1	1	1	34
67.924	-108.517	02/07/2006	143800	10	11	1	34
67.900	-108.604	02/07/2006	144114	1	2	1	34
67.898	-108.607	02/07/2006	144120	4	4	1	34
67.888	-108.634	02/07/2006	144154	1		1	34
67.865	-108.659	02/07/2006	144300	1	1	1	34
67.865	-108.659	02/07/2006	144300	1	2	1	34
67.858	-108.671	02/07/2006	144320		2	1	34
67.859	-108.656	02/07/2006	144342	1		1	34
67.875	-108.602	02/07/2006	144532	1	1	1	34
67.897	-108.564	02/07/2006	144634	2	2	1	34
67.902	-108.567	02/07/2006	144646	2	2	1	34
67.907	-108.569	02/07/2006	144724	4	3	1	34
67.905	-108.564	02/07/2006	144732	1	1	1	34
67.903	-108.547	02/07/2006	144754	1		1	34
68.227	-107.254	28/06/2006	153914	4	2	2	1
68.223	-107.247	28/06/2006	153928	7	4	2	1
68.219	-107.285	01/07/2006	132124	1	1	2	1
68.221	-107.308	01/07/2006	132148	1		2	1
68.222	-107.369	01/07/2006	132252	1	1	2	1
68.182	-107.388	01/07/2006	132624	3	2	2	1
68.183	-107.362	01/07/2006	132646		1	2	1
68.183	-107.357	01/07/2006	132650	1	1	2	1
68.197	-107.346	01/07/2006	132830	5	5	2	1
68.197	-107.334	01/07/2006	132840	1		2	1
68.197	-107.319	01/07/2006	132852	1		2	1
68.199	-107.297	01/07/2006	132910	1	1	2	1
68.211	-107.270	01/07/2006	132948	2	2	2	1
68.211	-107.268	01/07/2006	132950	1	1	2	1
68.211	-107.265	01/07/2006	132952	2		2	1
68.179	-107.427	01/07/2006	133406	1		2	1
68.180	-107.421	01/07/2006	133412	3	1	2	1
68.186	-107.417	01/07/2006	133428	11	4	2	1
68.197	-107.456	01/07/2006	133540	5	1	2	1
68.198	-107.464	01/07/2006	133550	2	2	2	1
68.198	-107.464	01/07/2006	133550	1		2	1
68.200	-107.469	01/07/2006	133556	1	1	2	1

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.213	-107.517	01/07/2006	133656	3	3	2	1
68.212	-107.526	01/07/2006	133710	5	2	2	1
68.210	-107.481	01/07/2006	133754	1	1	2	1
68.207	-107.470	01/07/2006	133806	1	1	2	1
68.181	-107.445	01/07/2006	134204	1	1	2	1
68.189	-107.440	01/07/2006	134224	1		2	1
68.191	-107.447	01/07/2006	134234	1		2	1
68.192	-107.478	01/07/2006	134306	1		2	1
68.190	-107.492	01/07/2006	134324	1	1	2	1
68.182	-107.508	01/07/2006	134448	2	7	2	1
68.146	-107.462	01/07/2006	134730	7	8	2	1
68.149	-107.453	01/07/2006	134740	1	1	2	1
68.160	-107.439	01/07/2006	134822	7	6	2	1
68.166	-107.419	01/07/2006	134858	1		2	1
68.176	-107.448	01/07/2006	134940		5	2	1
68.187	-107.544	01/07/2006	135138	5	9	2	1
68.188	-107.566	01/07/2006	135202	2	2	2	2
68.188	-107.570	01/07/2006	135206	1		2	2
68.205	-107.577	01/07/2006	135250	9	4	2	2
68.200	-107.577	01/07/2006	135348	1	1	2	2
68.182	-107.574	01/07/2006	135500	1	1	2	2
68.200	-107.639	01/07/2006	135626	8	8	2	2
68.205	-107.639	01/07/2006	135742	3	3	2	2
68.204	-107.634	01/07/2006	135748	2	2	2	2
68.201	-107.628	01/07/2006	135756	3	3	2	2
68.199	-107.624	01/07/2006	135802	6	2	2	2
68.194	-107.612	01/07/2006	135818	1		2	2
68.194	-107.610	01/07/2006	135820	1	1	2	2
68.203	-107.672	01/07/2006	135942	3	4	2	2
68.216	-107.676	01/07/2006	140014	2		2	2
68.218	-107.675	01/07/2006	140020	9	10	2	2
68.220	-107.677	01/07/2006	140026	1	1	2	2
68.206	-107.686	01/07/2006	140140	21	21	2	2
68.180	-107.561	01/07/2006	162530	9	6	2	2
68.256	-107.788	01/07/2006	140712	1	1	2	3
68.255	-107.796	01/07/2006	140722	2	1	2	3
68.252	-107.825	01/07/2006	140858	1		2	3
68.256	-107.833	01/07/2006	141038	1	1	2	3
68.256	-107.821	01/07/2006	141048	2	1	2	3
68.256	-107.816	01/07/2006	141052		1	2	3
68.262	-107.811	01/07/2006	141110	6	6	2	3
68.263	-107.812	01/07/2006	141112	12	2	2	3
68.264	-107.824	01/07/2006	141124	1		2	3
68.310	-107.815	01/07/2006	141922	7	6	2	3
68.302	-107.782	01/07/2006	141958	3	3	2	3
68.308	-107.770	01/07/2006	142024	6	5	2	3
68.310	-107.772	01/07/2006	142028	1	1	2	3
68.334	-107.779	01/07/2006	142300	3	15	2	3
68.270	-107.116	28/06/2006	153410	1	1	2	4
68.270	-107.116	28/06/2006	153410	8	9	2	4
68.264	-107.095	28/06/2006	153440	1	1	2	4
68.268	-107.090	28/06/2006	153450	4		2	4
68.272	-107.104	28/06/2006	153506	1		2	4
68.272	-107.115	28/06/2006	153516	1	1	2	4

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.272	-107.120	28/06/2006	153520	2	1	2	4
68.259	-107.237	28/06/2006	153744	1	1	2	4
68.256	-107.243	28/06/2006	153752	2	1	2	4
68.255	-107.245	28/06/2006	153756	3	3	2	4
68.251	-107.245	28/06/2006	153806	2		2	4
68.250	-107.245	28/06/2006	153810	1	1	2	4
68.258	-107.219	28/06/2006	154052	4		2	4
68.280	-107.253	28/06/2006	154148	1	1	2	4
68.283	-107.260	28/06/2006	154156	1	1	2	4
68.293	-107.275	28/06/2006	154220	8	6	2	4
68.295	-107.279	28/06/2006	154226	1	1	2	4
68.306	-107.299	28/06/2006	154256	1	1	2	4
68.315	-107.303	28/06/2006	154318	9	5	2	4
68.296	-107.250	28/06/2006	154540	1	1	2	4
68.299	-107.255	28/06/2006	154548	4		2	4
68.322	-107.301	28/06/2006	154936	1	1	2	4
68.325	-107.306	28/06/2006	154944	3	3	2	4
68.328	-107.390	28/06/2006	155110	1	1	2	4
68.320	-107.405	28/06/2006	155134	3	1	2	4
68.325	-107.416	28/06/2006	155204	15	15	2	4
68.331	-107.406	28/06/2006	155222	1	1	2	4
68.326	-107.418	28/06/2006	155246	2	1	2	4
68.312	-107.554	28/06/2006	160954	6	2	2	5
68.314	-107.546	28/06/2006	161004	2		2	5
68.317	-107.545	28/06/2006	161010	1	1	2	5
68.319	-107.547	28/06/2006	161016	1	1	2	5
68.299	-107.615	28/06/2006	161220		1	2	5
68.292	-107.612	28/06/2006	161240	2	2	2	5
68.289	-107.603	28/06/2006	161250	5	3	2	5
68.289	-107.603	28/06/2006	161250	8	1	2	5
68.293	-107.578	28/06/2006	161314	1	1	2	5
68.300	-107.557	28/06/2006	161340	11	4	2	5
68.293	-107.575	28/06/2006	161436	3	3	2	5
68.301	-107.560	28/06/2006	161510	1		2	5
68.319	-107.543	28/06/2006	161710	1		2	5
68.318	-107.544	28/06/2006	161714	1		2	5
68.316	-107.544	28/06/2006	161718	1		2	5
68.314	-107.545	28/06/2006	161724	4	3	2	5
68.291	-107.538	28/06/2006	161824	1		2	5
68.273	-107.512	28/06/2006	161918	1		2	5
68.273	-107.510	28/06/2006	161920	1	1	2	5
68.274	-107.504	28/06/2006	161926	3	1	2	5
68.292	-107.517	28/06/2006	162028	14	1	2	5
68.292	-107.517	28/06/2006	162028	2	1	2	5
68.288	-107.514	28/06/2006	162128	1		2	5
68.297	-107.517	28/06/2006	162150	2	1	2	5
68.300	-107.514	28/06/2006	162156	1		2	5
68.302	-107.508	28/06/2006	162204	6	2	2	5
68.303	-107.502	28/06/2006	162210	2	2	2	5
68.301	-107.489	28/06/2006	162414	12		2	5
68.287	-107.495	28/06/2006	162450	2	2	2	5
68.270	-107.498	28/06/2006	162534	2	1	2	5
68.247	-107.501	28/06/2006	162630	3	1	2	5
68.290	-107.609	01/07/2006	155540	4	1	2	5

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.290	-107.609	01/07/2006	155540	1		2	5
68.287	-107.600	01/07/2006	155552	2		2	5
68.284	-107.578	01/07/2006	155620	1	1	2	5
68.288	-107.592	01/07/2006	155712	9	2	2	5
68.322	-107.461	28/06/2006	155340		1	2	6
68.326	-107.460	28/06/2006	155352	2	4	2	6
68.328	-107.458	28/06/2006	155356	13	8	2	6
68.338	-107.452	28/06/2006	155420	1	1	2	6
68.329	-107.489	28/06/2006	155628	3	3	2	6
68.334	-107.505	28/06/2006	155914	1	1	2	6
68.345	-107.542	28/06/2006	160114		1	2	6
68.351	-107.576	28/06/2006	160300	2	2	2	6
68.345	-107.584	28/06/2006	160316	6	6	2	6
68.345	-107.584	28/06/2006	160316	4	3	2	6
68.333	-107.707	01/07/2006	142544	1	1	2	6
68.334	-107.694	01/07/2006	142554	1		2	6
68.334	-107.687	01/07/2006	142600	1	1	2	6
68.327	-107.015	28/06/2006	141724	5	4	2	8
68.302	-107.031	28/06/2006	152824	7	3	2	8
68.298	-107.044	28/06/2006	152840	1	1	2	8
68.293	-107.070	28/06/2006	152908	1	1	2	8
68.292	-107.074	28/06/2006	152912	13	12	2	8
68.296	-107.110	28/06/2006	152948	3	2	2	8
68.311	-107.105	28/06/2006	153020	1		2	8
68.315	-107.090	28/06/2006	153038	2	3	2	8
68.315	-107.084	28/06/2006	153044	1		2	8
68.316	-107.060	28/06/2006	153106	1	1	2	8
68.314	-107.042	28/06/2006	153124	11	3	2	8
68.303	-107.038	28/06/2006	153200	2	4	2	8
68.250	-106.944	28/06/2006	140552	2	2	2	9
68.252	-106.951	28/06/2006	140600	1	1	2	9
68.256	-106.960	28/06/2006	140610	5	5	2	9
68.255	-106.984	28/06/2006	140632	2		2	9
68.255	-106.993	28/06/2006	140640	4	3	2	9
68.255	-107.002	28/06/2006	140648	1	1	2	9
68.251	-107.019	28/06/2006	140710	1	1	2	9
68.248	-107.014	28/06/2006	140800	3	2	2	9
68.293	-106.855	28/06/2006	141242	1	1	2	9
68.295	-106.854	28/06/2006	141246	2	2	2	9
68.298	-106.716	28/06/2006	152102	3		2	9
68.262	-106.918	28/06/2006	152604	1		2	9
68.264	-106.924	28/06/2006	152612	1	1	2	9
68.269	-106.929	28/06/2006	152622	3	3	2	9
68.299	-107.006	28/06/2006	152802	2	2	2	9
68.301	-107.020	28/06/2006	152814	1	1	2	9
68.304	-106.851	28/06/2006	141306	13	7	2	10
68.307	-106.872	28/06/2006	141340	3	3	2	10
68.305	-106.873	28/06/2006	141344	2	2	2	10
68.307	-106.926	28/06/2006	141440	3	3	2	10
68.308	-106.933	28/06/2006	141446	5	2	2	10
68.321	-106.917	28/06/2006	141906	1	1	2	10
68.321	-106.907	28/06/2006	141916	1	1	2	10
68.322	-106.915	28/06/2006	142130	1	1	2	10
68.314	-106.913	28/06/2006	142200	3		2	10

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68.315	-106.884	28/06/2006	142230	8	4	2	10
68.314	-106.881	28/06/2006	142234	1	1	2	10
68.315	-106.858	28/06/2006	142310	2	1	2	10
68.315	-106.858	28/06/2006	142312	21	4	2	10
68.325	-106.862	28/06/2006	142340	1	1	2	10
68.327	-106.862	28/06/2006	142346	26		2	10
68.329	-106.862	28/06/2006	142350	1	1	2	10
68.367	-106.898	28/06/2006	142758	8	2	2	12
68.332	-106.842	28/06/2006	143122	1		2	12
68.330	-106.829	28/06/2006	143140	1		2	12
68.330	-106.826	28/06/2006	143144	9	9	2	12
68.330	-106.803	28/06/2006	143210	12		2	12
68.331	-106.794	28/06/2006	143220	1	1	2	12
68.345	-106.773	28/06/2006	143350	2		2	12
68.347	-106.765	28/06/2006	143400	9	3	2	12
68.347	-106.763	28/06/2006	143402	4		2	12
68.348	-106.758	28/06/2006	143408	1		2	12
68.350	-106.787	28/06/2006	143456	1	1	2	12
68.356	-106.801	28/06/2006	143524	1	1	2	12
68.357	-106.796	28/06/2006	143530	1	1	2	12
68.358	-106.740	28/06/2006	143740	4	2	2	12
68.374	-106.809	28/06/2006	144042	2	2	2	12
68.378	-106.777	28/06/2006	144146	1	1	2	13
68.383	-106.787	28/06/2006	144158	2	2	2	13
68.394	-106.788	28/06/2006	144222	1	1	2	13
68.378	-106.740	28/06/2006	144556	4		2	13
68.381	-106.743	28/06/2006	144604	3		2	13
68.388	-106.757	28/06/2006	144626	16	6	2	13
68.394	-106.763	28/06/2006	144640	18	6	2	13
68.403	-106.774	28/06/2006	144704	5		2	13
68.405	-106.775	28/06/2006	144708	1	1	2	13
68.398	-106.781	28/06/2006	144750	1	1	2	13
68.385	-106.723	28/06/2006	144918	4	2	2	13
68.364	-106.645	28/06/2006	145232	3	3	2	14
68.366	-106.639	28/06/2006	145238	6	6	2	14
68.369	-106.628	28/06/2006	145250	8	3	2	14
68.334	-106.696	28/06/2006	151900	1	1	2	14
68.405	-106.427	27/06/2006	131400	3	3	2	16
68.406	-106.422	27/06/2006	131406	1	1	2	16
68.408	-106.415	27/06/2006	131414	15		2	16
68.401	-106.427	27/06/2006	131502	26		2	16
68.401	-106.432	27/06/2006	131506	2	2	2	16
68.412	-106.440	27/06/2006	131534	6	2	2	16
68.437	-106.550	27/06/2006	131754	20		2	16
68.434	-106.541	27/06/2006	131806	1	1	2	16
68.453	-106.532	27/06/2006	132030	56		2	16
68.459	-106.549	27/06/2006	132050	3	3	2	16
68.464	-106.550	27/06/2006	132100	2	2	2	16
68.465	-106.535	27/06/2006	132118	5	3	2	16
68.476	-106.572	27/06/2006	132218	17	8	2	16
68.460	-106.545	27/06/2006	132602	6	3	2	16
68.495	-106.387	27/06/2006	134140	2	1	2	17
68.494	-106.378	27/06/2006	134158	1	1	2	17
68.491	-106.371	27/06/2006	134216		3	2	17

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68.493	-106.386	27/06/2006	134250	1	1	2	17
68.495	-106.393	27/06/2006	134258	3	2	2	17
68.513	-106.344	27/06/2006	134556	1		2	17
68.538	-106.359	27/06/2006	135228	1	1	2	18
68.397	-106.306	27/06/2006	120840	2	2	2	19
68.392	-106.334	27/06/2006	120908	1		2	19
68.389	-106.344	27/06/2006	120920	2		2	19
68.388	-106.315	27/06/2006	120954	1	1	2	19
68.405	-106.347	27/06/2006	121238	3	2	2	19
68.401	-106.358	27/06/2006	121256	18	6	2	19
68.398	-106.349	27/06/2006	121310	20	20	2	19
68.407	-106.334	27/06/2006	121340	2	2	2	19
68.405	-106.375	27/06/2006	121418	8		2	19
68.460	-106.441	27/06/2006	132936	2		2	20
68.446	-106.378	27/06/2006	133050	1		2	20
68.443	-106.321	27/06/2006	154056	18	1	2	20
68.446	-106.269	27/06/2006	154156	1		2	20
68.445	-106.266	27/06/2006	154202	1	1	2	20
68.438	-106.253	27/06/2006	154528		1	2	20
68.442	-106.193	27/06/2006	154630	1	1	2	20
68.443	-106.179	27/06/2006	154644	6		2	20
68.443	-106.169	27/06/2006	154654	2	1	2	20
68.444	-106.161	27/06/2006	154702	5		2	20
68.461	-106.139	27/06/2006	154802	1		2	20
68.440	-106.239	27/06/2006	154950	1		2	20
68.445	-106.121	27/06/2006	155310	6	6	2	20
68.440	-106.057	27/06/2006	155552	1		2	20
68.458	-106.088	27/06/2006	155806	4		2	20
68.476	-106.110	27/06/2006	160146	3	3	2	21
68.475	-106.087	27/06/2006	160212	5	1	2	21
68.489	-106.077	27/06/2006	160258	1	1	2	21
68.499	-106.041	27/06/2006	160746	1		2	21
68.530	-106.027	27/06/2006	161020	1	1	2	22
68.528	-106.025	27/06/2006	161026		1	2	22
68.542	-105.983	27/06/2006	161148	1		2	22
68.545	-106.009	27/06/2006	161350	5	3	2	22
68.558	-105.924	27/06/2006	161600	1		2	22
68.566	-105.907	27/06/2006	161630	4	1	2	22
68.566	-105.936	27/06/2006	161654	1	1	2	22
68.574	-106.184	27/06/2006	135718	3	3	2	23
68.578	-106.145	27/06/2006	140056	2	3	2	24
68.590	-106.094	27/06/2006	140216	2	3	2	24
68.596	-106.028	27/06/2006	140708	1		2	24
68.634	-105.787	27/06/2006	141302	1	1	2	26
68.634	-105.783	27/06/2006	141416	2	2	2	26
68.609	-105.748	27/06/2006	141822	7	5	2	26
68.609	-105.743	27/06/2006	141828	2	2	2	26
68.631	-105.701	27/06/2006	142214	7		2	26
68.630	-105.686	27/06/2006	142248	8	8	2	26
68.634	-105.653	27/06/2006	142336	2	2	2	26
68.641	-105.615	27/06/2006	142426	2	3	2	26
68.650	-105.599	27/06/2006	142456	1	1	2	26
68.627	-105.658	27/06/2006	142840	2	2	2	26
68.600	-105.657	27/06/2006	143156	3	1	2	26

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68.614	-105.658	27/06/2006	143242	25	25	2	26
68.607	-105.712	27/06/2006	143646	4		2	26
68.605	-105.713	27/06/2006	143654	4	3	2	26
68.592	-105.702	27/06/2006	143814	5	3	2	27
68.593	-105.702	27/06/2006	143910	1		2	27
68.583	-105.691	27/06/2006	143954	2		2	27
68.492	-105.667	27/06/2006	145000	3	2	2	28
68.535	-105.765	27/06/2006	145230	1	1	2	28
68.534	-105.763	27/06/2006	145440	1		2	28
68.539	-105.767	27/06/2006	145454	3	2	2	28
68.528	-105.742	27/06/2006	162206	1	1	2	28
68.526	-105.738	27/06/2006	162214	1	1	2	28
68.523	-105.732	27/06/2006	162224	1		2	28
68.514	-105.716	27/06/2006	162258		1	2	28
68.510	-105.712	27/06/2006	162310	2		2	28
68.508	-105.695	27/06/2006	162338	1	1	2	28
68.506	-105.733	27/06/2006	162550	6	6	2	28
68.505	-105.745	27/06/2006	162600	2	1	2	28
68.494	-105.747	27/06/2006	162630	1		2	28
68.482	-105.732	27/06/2006	162708	2	2	2	28
68.480	-105.728	27/06/2006	162716	2		2	28
68.480	-105.728	27/06/2006	162716	18	2	2	28
68.479	-105.726	27/06/2006	162720	1		2	28
68.496	-105.705	27/06/2006	162908	1		2	28
68.506	-105.721	27/06/2006	162940	4	1	2	28
68.498	-105.687	27/06/2006	163036	2	1	2	28
68.459	-105.711	27/06/2006	163236	1	1	2	29
68.454	-105.720	27/06/2006	163320	2	1	2	29
68.456	-105.717	27/06/2006	163328	2		2	29
68.449	-105.705	27/06/2006	163430	5	5	2	29
68.440	-105.696	27/06/2006	163500	1	1	2	29
68.438	-105.708	27/06/2006	163526	1	3	2	29
68.427	-105.735	27/06/2006	163726	1		2	29
68.430	-105.777	27/06/2006	164020	1	1	2	29
68.430	-105.752	27/06/2006	164106	3	5	2	29
68.431	-105.746	27/06/2006	164114	1	1	2	29
68.432	-105.743	27/06/2006	164118	2		2	29
68.420	-105.745	27/06/2006	164228	1		2	29
68.426	-105.747	27/06/2006	164246	2		2	29
68.428	-105.749	27/06/2006	164250	1	4	2	29
68.429	-105.753	27/06/2006	164256	16	3	2	29
68.446	-105.782	27/06/2006	164350	1	1	2	29
68.448	-105.783	27/06/2006	164356	1	1	2	29
68.453	-105.782	27/06/2006	164408	2	2	2	29
68.459	-105.778	27/06/2006	164424	1		2	29
68.464	-105.784	27/06/2006	164436	1	1	2	29
68.461	-105.822	27/06/2006	164544	1	1	2	30
68.450	-105.832	27/06/2006	164836	1	1	2	30
68.454	-105.835	27/06/2006	164846	1	1	2	30
68.442	-105.868	27/06/2006	165100	3		2	30
68.439	-105.857	27/06/2006	165114	15	6	2	30
68.439	-105.857	27/06/2006	165114	10	10	2	30
68.434	-105.841	27/06/2006	165134	2	2	2	30
68.427	-105.837	27/06/2006	165240	1		2	30

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68.420	-105.909	27/06/2006	165638	3		2	30
68.403	-105.963	27/06/2006	170002	1	1	2	30
68.397	-105.986	27/06/2006	170112	2		2	30
68.399	-105.974	27/06/2006	170126	3	2	2	30
68.427	-106.081	27/06/2006	155508	20	2	2	31
68.444	-106.042	27/06/2006	170402	1	1	2	31
68.423	-106.054	27/06/2006	170504	8	1	2	31
68.405	-106.043	27/06/2006	170602	1	1	2	31
68.531	-105.696	27/06/2006	144546	1	1	2	32
68.532	-105.696	27/06/2006	144550	2	2	2	32
68.526	-105.687	27/06/2006	144800	6	6	2	32
68.392	-106.144	27/06/2006	120430	6	6	2	33
68.390	-106.141	27/06/2006	120436	2	1	2	33
68.342	-106.440	27/06/2006	115156	1		2	35
68.200	-106.371	27/06/2006	180454	1	1	2	36
68.201	-106.359	27/06/2006	180512	1	1	2	36
68.185	-106.387	27/06/2006	181034	2	2	2	36
68.189	-106.612	28/06/2006	134214	1	1	2	37
68.195	-106.631	28/06/2006	134242	8	7	2	37
68.175	-106.628	28/06/2006	134338	1	1	2	37
68.229	-106.659	28/06/2006	134632	1		2	37
68.196	-106.742	28/06/2006	121728	2		2	38
68.250	-106.752	28/06/2006	122036	2	2	2	38
68.241	-106.766	28/06/2006	122110	1	1	2	38
68.233	-106.752	28/06/2006	122144	5		2	38
68.198	-106.777	28/06/2006	135310	2	2	2	38
68.203	-106.777	28/06/2006	135320	1		2	38
68.214	-106.789	28/06/2006	135346	5	3	2	38
68.171	-106.768	28/06/2006	135718	1	1	2	38
68.171	-106.768	28/06/2006	135718	4	1	2	38
68.177	-106.773	28/06/2006	135732	2	2	2	38
68.180	-106.776	28/06/2006	135740	1	1	2	38
68.183	-106.777	28/06/2006	135746	1	1	2	38
68.183	-106.777	28/06/2006	135746	3	1	2	38
68.166	-106.817	28/06/2006	135910	1		2	38
68.136	-106.738	28/06/2006	121058	1	1	2	39
68.120	-106.740	28/06/2006	121156	3		2	39
68.123	-106.756	28/06/2006	121232	4	2	2	39
68.126	-106.749	28/06/2006	121310	1		2	39
68.126	-106.749	28/06/2006	121310	3		2	39
68.154	-106.794	28/06/2006	140018	1	1	2	39
68.154	-106.788	28/06/2006	140024	1	1	2	39
68.126	-107.091	28/06/2006	114754	1	1	2	41
68.134	-107.167	28/06/2006	113936	18	3	2	42
68.137	-107.169	28/06/2006	113942	1		2	42
68.142	-107.173	28/06/2006	113956	3	2	2	42
68.147	-107.177	28/06/2006	114008	2	2	2	42
68.147	-107.188	28/06/2006	114022	6	4	2	42
68.141	-107.208	28/06/2006	114048	1	1	2	42
68.139	-107.209	28/06/2006	114056	6	3	2	42
68.137	-107.221	28/06/2006	114238	1		2	42
68.137	-107.212	28/06/2006	114248	1		2	42
68.132	-107.184	28/06/2006	114340	40	20	2	42
68.135	-107.185	28/06/2006	114348	1		2	42

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68.137	-107.112	28/06/2006	114710	1	1	2	43
68.086	-107.407	01/07/2006	131130	4	4	2	45
68.092	-107.415	01/07/2006	131152	2	2	2	45
68.084	-107.400	01/07/2006	131240	1		2	45
68.084	-107.398	01/07/2006	131242	2		2	45
68.086	-107.393	01/07/2006	131248	1	2	2	45
68.078	-107.379	01/07/2006	131356	4	2	2	45
68.080	-107.389	01/07/2006	131408	3	1	2	45
68.085	-107.394	01/07/2006	131422	2		2	45
68.013	-108.781	02/07/2006	151014	1	1	3	8
68.004	-108.785	02/07/2006	151036		1	3	8
68.002	-108.784	02/07/2006	151040	6	3	3	8
68.001	-108.783	02/07/2006	151044	4	1	3	8
67.610	-107.922	29/06/2006	114942	1		4	1
67.671	-108.037	29/06/2006	115256	1	1	4	1
67.679	-108.083	29/06/2006	115346	3		4	1
67.627	-107.788	29/06/2006	112838	3	3	4	2
67.481	-108.036	29/06/2006	112910	1		4	2
67.579	-108.319	29/06/2006	102512	1	1	4	5
67.587	-108.323	29/06/2006	94046	1		4	6
67.646	-108.472	29/06/2006	94912	1	1	4	6
67.648	-108.421	29/06/2006	95300	10		4	6
67.637	-108.361	29/06/2006	95420	1		4	6
67.639	-108.356	29/06/2006	95426	1	1	4	6
67.644	-108.348	29/06/2006	95440	1		4	6
67.645	-108.346	29/06/2006	95444	1	1	4	6
67.651	-108.342	29/06/2006	95458	2	2	4	6
67.643	-108.372	29/06/2006	95602	2		4	6
67.641	-108.339	29/06/2006	95852	2	2	4	6
67.610	-108.309	29/06/2006	100200	1		4	6
67.597	-108.298	29/06/2006	100246	2	2	4	6
67.572	-108.248	29/06/2006	102714	3	2	4	7
67.481	-108.139	29/06/2006	104258	1	1	4	8
67.493	-108.134	29/06/2006	104328	6	6	4	8
67.494	-108.135	29/06/2006	104330	1		4	8
67.497	-108.137	29/06/2006	104336	1	1	4	8
67.480	-108.147	29/06/2006	104434	1		4	8
67.502	-108.140	29/06/2006	110602	1	1	4	8
67.508	-108.134	29/06/2006	110620	2	2	4	8
67.516	-108.139	29/06/2006	110644	1	1	4	8
67.528	-108.137	29/06/2006	110712	1		4	8
67.536	-108.129	29/06/2006	110732	1		4	8
67.567	-108.148	29/06/2006	110926	1		4	8
67.520	-108.108	29/06/2006	111832	2	1	4	8
67.414	-107.861	29/06/2006	140956	1		4	10
67.445	-107.872	29/06/2006	141116	1		4	10
67.319	-107.885	29/06/2006	140424	1	1	4	11
67.353	-107.934	29/06/2006	140556	6	1	4	11
67.363	-107.958	29/06/2006	140628	1	1	4	11
67.366	-107.947	29/06/2006	140716	1	1	4	11
67.319	-107.885	29/06/2006	143950	3	1	4	11
67.422	-108.132	29/06/2006	142950	2	2	4	12
67.422	-108.108	29/06/2006	143018	1	1	4	12
67.499	-107.925	29/06/2006	141458		1	4	13

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.445	-107.996	29/06/2006	141940	1		4	13
67.549	-107.684	29/06/2006	130446	1		4	14
67.548	-107.684	29/06/2006	130450	1		4	14
67.468	-107.633	29/06/2006	131202	2		4	15
67.418	-107.657	29/06/2006	131714	1	1	4	15
67.441	-107.700	29/06/2006	132038	1		4	15
67.443	-107.725	29/06/2006	132106	5	1	4	15
67.435	-107.723	29/06/2006	132130	5	1	4	15
67.435	-107.718	29/06/2006	132214	4		4	15
67.386	-107.699	29/06/2006	132528	2	2	4	16
67.337	-107.694	29/06/2006	132910	1		4	16
67.341	-107.710	29/06/2006	132930	2	1	4	16
67.341	-107.799	29/06/2006	133124	12	1	4	16
67.247	-107.678	29/06/2006	134416	1		4	16
67.257	-107.715	29/06/2006	134542	3	2	4	16
67.242	-107.708	29/06/2006	134634	1	1	4	16
67.248	-107.712	29/06/2006	134730	1	1	4	16
67.273	-107.734	29/06/2006	135152	1	1	4	16
67.284	-107.736	29/06/2006	135224	7	7	4	16
67.294	-107.744	29/06/2006	135248	1		4	16
67.299	-107.758	29/06/2006	135310	1	1	4	16
67.306	-107.756	29/06/2006	135328	1	1	4	16
67.296	-107.713	29/06/2006	135642	3		4	16
67.306	-107.719	29/06/2006	135716	1		4	16
67.337	-108.060	29/06/2006	144336	1	1	4	18
67.342	-108.064	29/06/2006	144352	1		4	18
67.367	-108.148	29/06/2006	144610	5	4	4	19
67.380	-108.152	29/06/2006	151508	1	1	4	19
67.382	-108.184	29/06/2006	151556	1		4	19
67.393	-108.195	29/06/2006	151854	7	2	4	19
67.395	-108.197	29/06/2006	151900	45	15	4	19
67.399	-108.218	02/07/2006	165310	1	1	4	19
67.403	-108.214	02/07/2006	165322	2		4	19
67.410	-108.220	02/07/2006	165340	2	2	4	19
67.412	-108.278	02/07/2006	165716	2	2	4	19
67.408	-108.286	02/07/2006	170202	1		4	19
67.455	-108.358	02/07/2006	170508	1		4	19
67.453	-108.355	02/07/2006	170514	2		4	19
67.382	-108.428	02/07/2006	170944	2	1	4	20
67.634	-108.636	02/07/2006	172458	2		4	21

Appendix B2. Time and location of Pacific Common Eider observations during surveys in the Bathurst Inlet area of Nunavut in 2007. Locations are given in decimal degrees using datum NAD27.

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.182	-108.436	25/06/2007	113910	25	25	1	1
68.203	-108.417	25/06/2007	114224	2	1	1	1
68.278	-108.366	25/06/2007	114516	3	3	1	2
68.310	-108.420	25/06/2007	114914	10	10	1	2
68.311	-108.450	25/06/2007	115210	2	2	1	2
68.307	-108.456	25/06/2007	115220	10	10	1	2
68.268	-108.544	25/06/2007	115422	12	12	1	2
68.087	-108.945	28/06/2007	100244	6	6	1	4
68.090	-108.962	28/06/2007	100258	1		1	4
68.102	-108.951	28/06/2007	100512	40	40	1	4
68.165	-108.932	28/06/2007	95524	1	1	1	5
68.132	-108.917	28/06/2007	95726	3	1	1	5
68.130	-108.909	28/06/2007	95736	1		1	5
68.129	-108.933	28/06/2007	95850	5	5	1	5
68.119	-108.950	28/06/2007	95934	1	1	1	5
68.161	-108.979	28/06/2007	100736	6	6	1	5
68.174	-108.744	28/06/2007	95112	3	3	1	6
68.172	-108.752	28/06/2007	95126	1		1	6
68.173	-108.759	28/06/2007	95132	1	1	1	6
68.174	-108.766	28/06/2007	95138	2	2	1	6
68.168	-108.788	28/06/2007	95308	4	4	1	6
68.167	-108.789	28/06/2007	95312	4	4	1	6
68.165	-108.792	28/06/2007	95316	6	6	1	6
68.202	-108.684	25/06/2007	120626	1		1	7
68.219	-108.703	25/06/2007	120738	1	1	1	7
68.229	-108.602	25/06/2007	115626	1	1	1	8
68.224	-108.613	25/06/2007	115644	2	2	1	8
68.219	-108.653	25/06/2007	115740	1	1	1	8
68.197	-108.612	25/06/2007	115900	3	3	1	8
68.155	-109.232	28/06/2007	102312	14	14	1	9
68.163	-109.243	28/06/2007	102330	30	30	1	9
68.193	-109.307	28/06/2007	102452	1	1	1	9
68.173	-109.312	28/06/2007	102550	1	1	1	9
68.183	-109.337	28/06/2007	102622	1	1	1	9
68.165	-109.330	28/06/2007	102738	3	2	1	9
68.184	-109.199	28/06/2007	101458	1	1	1	10
68.181	-109.166	28/06/2007	101538	2	2	1	10
68.147	-109.093	28/06/2007	101928	1	1	1	10
68.146	-109.093	28/06/2007	101932	1	1	1	10
68.151	-109.137	28/06/2007	102014	6	6	1	10
68.156	-109.202	28/06/2007	102118	1	1	1	10
68.150	-109.203	28/06/2007	102136	1	1	1	10
68.185	-109.047	28/06/2007	100908	2		1	11
68.315	-108.947	28/06/2007	92926	2	2	1	12
68.314	-108.951	28/06/2007	92932	1		1	12
68.261	-109.029	28/06/2007	93238	3	2	1	12
68.259	-109.030	28/06/2007	93246	7	7	1	12
68.224	-109.083	28/06/2007	94300	1		1	12
68.375	-108.933	28/06/2007	92034	1		1	13
68.388	-108.952	28/06/2007	92316	2	2	1	13
68.376	-108.966	28/06/2007	92356	2	1	1	13

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.907	-109.295	27/06/2007	132028	1		3	1
67.885	-109.406	27/06/2007	132220	2	2	3	1
67.869	-109.385	27/06/2007	132326		1	3	1
67.896	-109.559	27/06/2007	165424	12	12	3	1
67.987	-109.431	27/06/2007	130048	3	3	3	2
68.004	-109.435	27/06/2007	130150	2	2	3	2
67.943	-109.457	27/06/2007	130658	1	1	3	2
67.929	-109.478	27/06/2007	130736	1	1	3	2
67.925	-109.473	27/06/2007	131050	1	1	3	2
68.094	-109.543	27/06/2007	122038	4	4	3	3
68.047	-109.416	27/06/2007	122408	12	12	3	3
68.045	-109.415	27/06/2007	122414	1	1	3	3
68.043	-109.411	27/06/2007	122422	18	18	3	3
68.035	-109.398	27/06/2007	122446	5	5	3	3
68.031	-109.389	27/06/2007	122500	4	2	3	3
68.029	-109.385	27/06/2007	122506	1	1	3	3
68.051	-109.440	27/06/2007	122744	1	1	3	3
68.127	-109.518	27/06/2007	123034	8	8	3	3
68.108	-109.476	27/06/2007	123152	1		3	3
68.075	-109.380	27/06/2007	123418	1		3	4
68.039	-109.310	27/06/2007	123634	7	9	3	4
67.989	-109.244	27/06/2007	134204	1	1	3	5
67.968	-109.165	27/06/2007	134352	1	1	3	5
67.981	-109.176	27/06/2007	134418	8	9	3	5
67.966	-109.106	27/06/2007	134834	15	15	3	5
67.959	-109.060	27/06/2007	134928	3	3	3	5
67.958	-109.039	27/06/2007	134950	3	3	3	5
67.980	-109.074	27/06/2007	135052	4	4	3	5
68.079	-109.157	27/06/2007	124110	1	1	3	6
68.070	-109.128	27/06/2007	124150	4	4	3	6
68.069	-109.126	27/06/2007	124152	1		3	6
68.047	-109.176	27/06/2007	124628	1	1	3	6
68.025	-109.167	27/06/2007	124934	2	3	3	6
67.979	-109.016	27/06/2007	135604	2	2	3	6
67.971	-108.991	27/06/2007	135638	1	2	3	6
67.990	-109.008	27/06/2007	135728	2	2	3	6
68.018	-109.052	27/06/2007	135830	1	1	3	6
68.025	-109.038	27/06/2007	135922	1	1	3	6
67.988	-108.978	27/06/2007	140116	1	1	3	6
67.919	-108.865	27/06/2007	141022	1	1	3	7
67.866	-108.895	27/06/2007	141322	2	2	3	9
67.888	-108.979	27/06/2007	141556	6	6	3	9
67.874	-109.179	27/06/2007	142744	3	3	3	9
67.882	-108.996	27/06/2007	153028	6	6	3	9
67.899	-109.053	27/06/2007	153144	1	1	3	9
67.859	-108.976	27/06/2007	153522	3	3	3	9
67.857	-108.973	27/06/2007	153530	1	1	3	9
67.855	-108.970	27/06/2007	153536	5	5	3	9
67.854	-108.969	27/06/2007	153538	5	5	3	9
67.847	-108.955	27/06/2007	153604	1	2	3	9
67.816	-108.916	27/06/2007	154114	9	9	3	9
67.809	-108.969	27/06/2007	154356	22	22	3	9
67.816	-108.992	27/06/2007	154458	1	1	3	9
67.824	-109.029	27/06/2007	154550	76	76	3	9

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.842	-109.008	27/06/2007	154904	1		3	9
67.876	-109.054	27/06/2007	155110	1	1	3	9
67.869	-109.115	27/06/2007	160000	60	60	3	9
67.851	-109.067	27/06/2007	160504	11	11	3	9
67.841	-109.100	27/06/2007	160554	5	5	3	9
67.825	-109.046	27/06/2007	160720	1	1	3	9
67.848	-109.116	27/06/2007	160842	1	1	3	9
67.861	-109.164	27/06/2007	161030	1	1	3	9
67.849	-109.143	27/06/2007	161112	1		3	9
67.831	-109.141	27/06/2007	161212	4	4	3	9
67.941	-109.441	27/06/2007	131134	1	1	3	10
67.943	-109.389	27/06/2007	131242	2	2	3	10
67.945	-109.388	27/06/2007	131246	10	10	3	10
67.958	-109.326	27/06/2007	131534	5	5	3	10
67.943	-109.373	27/06/2007	131710	1	1	3	10
67.943	-109.373	27/06/2007	131710	2	2	3	10
67.941	-109.372	27/06/2007	131716	1		3	10
67.923	-109.300	27/06/2007	131932	1	1	3	10
67.920	-109.292	27/06/2007	131944	1	1	3	10
67.918	-109.285	27/06/2007	131952	1	1	3	10
67.899	-109.253	27/06/2007	132624	1	1	3	10
67.893	-109.234	27/06/2007	132648	1	1	3	10
67.909	-109.237	27/06/2007	132818	5	5	3	10
67.922	-109.287	27/06/2007	132922	1	1	3	10
67.924	-109.260	27/06/2007	132954	6	6	3	10
67.922	-109.258	27/06/2007	132958	2	1	3	10
67.924	-109.246	27/06/2007	133038	2	2	3	10
67.929	-109.199	27/06/2007	133414	15	15	3	10
67.972	-109.323	27/06/2007	133630	2	2	3	10
67.973	-109.290	27/06/2007	133728	6	6	3	10
67.968	-109.273	27/06/2007	133748	3	2	3	10
67.964	-109.256	27/06/2007	133808	3	3	3	10
67.954	-109.173	27/06/2007	134012	1	1	3	10
67.915	-109.041	27/06/2007	141714	5	5	3	10
67.926	-109.075	27/06/2007	141754	1		3	10
67.933	-109.098	27/06/2007	141814	6	4	3	10
67.941	-109.123	27/06/2007	141836	8	8	3	10
68.112	-108.399	27/06/2007	93358	1	1	1	15
68.101	-108.464	27/06/2007	93502	3	3	1	15
68.080	-108.459	27/06/2007	94156	1	1	1	15
68.072	-108.308	27/06/2007	92850	2		1	16
68.106	-108.347	27/06/2007	93202	1	1	1	16
68.150	-108.326	25/06/2007	112446	1		1	17
68.189	-108.312	25/06/2007	113012	1	1	1	17
68.189	-108.335	25/06/2007	113036	12	12	1	17
68.191	-108.336	25/06/2007	113042	1	1	1	17
68.193	-108.300	25/06/2007	113114	1	1	1	17
68.177	-108.131	25/06/2007	111524	1		1	18
68.172	-108.145	25/06/2007	111544	2	2	1	18
68.171	-108.157	25/06/2007	111556	2	2	1	18
68.171	-108.167	25/06/2007	111606	6	6	1	18
68.168	-108.180	25/06/2007	111622	3	3	1	18
68.161	-108.206	25/06/2007	111654	16	16	1	18
68.160	-108.209	25/06/2007	111658	6	6	1	18

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.153	-108.225	25/06/2007	111722	1		1	18
68.144	-108.248	25/06/2007	111756	12	12	1	18
68.141	-108.256	25/06/2007	111806	5	5	1	18
68.138	-108.275	25/06/2007	111826	1		1	18
68.130	-108.286	25/06/2007	111848	7	7	1	18
68.123	-107.992	25/06/2007	105712	5	5	1	19
68.111	-108.073	25/06/2007	105834	1	1	1	19
68.111	-108.075	25/06/2007	105836	1	1	1	19
68.107	-108.089	25/06/2007	105852	2	4	1	19
68.107	-108.091	25/06/2007	105854	2	2	1	19
68.108	-108.097	25/06/2007	105900	1	1	1	19
68.108	-108.106	25/06/2007	105908	5	5	1	19
68.108	-108.112	25/06/2007	105914	1	1	1	19
68.108	-108.119	25/06/2007	105920	4	2	1	19
68.107	-108.125	25/06/2007	105926	9	9	1	19
68.107	-108.125	25/06/2007	105926	1	1	1	19
68.106	-108.157	25/06/2007	105956	2	2	1	19
68.109	-108.070	25/06/2007	110250	1		1	19
68.110	-108.057	25/06/2007	110300	2		1	19
68.098	-107.998	25/06/2007	110356	2	2	1	19
68.163	-107.986	25/06/2007	111110	2	2	1	19
68.163	-107.986	25/06/2007	111110	1		1	19
68.171	-108.001	25/06/2007	111214	20	20	1	19
68.171	-108.009	25/06/2007	111230	1	1	1	19
68.170	-108.046	25/06/2007	111326	1	1	1	19
68.169	-107.600	25/06/2007	104352	4	4	1	20
68.168	-107.651	25/06/2007	104440	17	17	1	20
68.164	-107.658	25/06/2007	104452	7	7	1	20
68.161	-107.663	25/06/2007	104502	2	2	1	20
68.159	-107.665	25/06/2007	104506	1	1	1	20
68.148	-107.674	25/06/2007	104536	1	1	1	20
68.147	-107.844	25/06/2007	105340	40	40	1	20
68.141	-107.889	25/06/2007	105446	2	2	1	20
68.142	-107.929	25/06/2007	105522	1	1	1	20
68.144	-107.488	25/06/2007	102056	1	1	2	1
68.171	-107.438	25/06/2007	102234	1	1	2	1
68.184	-107.399	25/06/2007	102448	1	4	2	1
68.183	-107.376	25/06/2007	102510	1		2	1
68.183	-107.355	25/06/2007	102528	1	1	2	1
68.197	-107.361	25/06/2007	102608	3	3	2	1
68.198	-107.318	25/06/2007	102658	1		2	1
68.199	-107.304	25/06/2007	102710	4	4	2	1
68.217	-107.261	25/06/2007	102824	10	10	2	1
68.215	-107.264	25/06/2007	102908	2	1	2	1
68.218	-107.258	25/06/2007	102922	1	1	2	1
68.221	-107.252	25/06/2007	102934	40	30	2	1
68.219	-107.289	25/06/2007	103326	6	6	2	1
68.222	-107.339	25/06/2007	103412	1	1	2	1
68.222	-107.362	25/06/2007	103432	1		2	1
68.210	-107.510	25/06/2007	103848	2	2	2	1
68.203	-107.464	25/06/2007	103936	1	1	2	1
68.180	-107.475	25/06/2007	104128	6	6	2	1
68.186	-107.482	25/06/2007	104144	1	1	2	1
68.180	-107.525	25/06/2007	104232	3	3	2	1

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.179	-107.528	25/06/2007	104236	1	1	2	1
68.171	-107.563	25/06/2007	104316	2	1	2	1
68.197	-107.633	25/06/2007	101620	1	1	2	2
68.327	-107.414	25/06/2007	141700	1	1	2	4
68.325	-107.389	25/06/2007	141750	2	2	2	4
68.329	-107.320	25/06/2007	141922	1	1	2	4
68.326	-107.305	25/06/2007	141952	3	3	2	4
68.318	-107.296	25/06/2007	142016	1	1	2	4
68.275	-107.175	25/06/2007	142700	1	1	2	4
68.275	-107.160	25/06/2007	142712	4	3	2	4
68.274	-107.141	25/06/2007	142728	4	4	2	4
68.268	-107.119	25/06/2007	142750	26	26	2	4
68.263	-107.103	25/06/2007	142808	6	6	2	4
68.269	-107.096	25/06/2007	142832	4	4	2	4
68.273	-107.114	25/06/2007	142850	1	1	2	4
68.275	-107.118	25/06/2007	142856	5	5	2	4
68.325	-107.590	25/06/2007	135450	1	1	2	5
68.320	-107.595	25/06/2007	135502	5	4	2	5
68.311	-107.560	25/06/2007	135544	1	1	2	5
68.276	-107.505	25/06/2007	135816	2	2	2	5
68.320	-107.516	25/06/2007	140044	2	2	2	5
68.321	-107.520	25/06/2007	140048	4	4	2	5
68.323	-107.540	25/06/2007	140106	26	14	2	5
68.323	-107.540	25/06/2007	140106	1	1	2	5
68.324	-107.551	25/06/2007	140116	2	2	2	5
68.327	-107.566	25/06/2007	140130	5	5	2	5
68.321	-107.519	25/06/2007	141120	40	40	2	5
68.333	-107.705	25/06/2007	95546	2	2	2	6
68.322	-107.733	25/06/2007	95812	1	1	2	6
68.318	-107.736	25/06/2007	95824	2	2	2	6
68.346	-107.616	25/06/2007	140432	1	1	2	6
68.344	-107.582	25/06/2007	140504	1	1	2	6
68.355	-107.538	25/06/2007	140710	16	12	2	6
68.355	-107.539	25/06/2007	140712	1	1	2	6
68.328	-107.485	25/06/2007	141004	1	1	2	6
68.328	-107.486	25/06/2007	141036	1	1	2	6
68.327	-107.498	25/06/2007	141050	27	27	2	6
68.323	-107.482	25/06/2007	141208	2	2	2	6
68.327	-107.465	25/06/2007	141224	1	1	2	6
68.339	-107.447	25/06/2007	141256	12	12	2	6
68.345	-107.446	25/06/2007	141308	2	2	2	6
68.311	-107.758	25/06/2007	95858		1	2	7
68.311	-107.799	25/06/2007	95938	110	110	2	7
68.311	-107.799	25/06/2007	95938	3	3	2	7
68.320	-107.779	25/06/2007	100008	1	1	2	7
68.306	-107.855	25/06/2007	100430	1		2	7
68.245	-107.785	25/06/2007	100934	1	1	2	7
68.245	-107.803	25/06/2007	100952	20	13	2	7
68.392	-107.774	25/06/2007	134340	4	4	2	7
68.390	-107.782	25/06/2007	134354	7	7	2	7
68.404	-107.741	25/06/2007	134502	40	40	2	7
68.406	-107.738	25/06/2007	134508	20	20	2	7
68.411	-107.731	25/06/2007	134520	10	10	2	7
68.414	-107.712	25/06/2007	134538	24	24	2	7

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68.412	-107.695	25/06/2007	134554	2	1	2	7
68.397	-107.664	25/06/2007	134640	2	2	2	7
68.354	-107.708	25/06/2007	134902	1		2	7
68.381	-107.798	25/06/2007	135056	6	6	2	7
68.292	-107.124	25/06/2007	143000	1	1	2	8
68.291	-107.123	25/06/2007	143002	19	19	2	8
68.291	-107.123	25/06/2007	143002	4		2	8
68.306	-107.103	25/06/2007	143100	10	10	2	8
68.250	-107.020	25/06/2007	144312	3	2	2	9
68.250	-107.020	25/06/2007	144314	10	10	2	9
68.244	-107.007	25/06/2007	144330	2	2	2	9
68.243	-107.000	25/06/2007	144336	3	3	2	9
68.241	-106.994	25/06/2007	144342	4	4	2	9
68.241	-106.994	25/06/2007	144342	6	6	2	9
68.261	-106.909	26/06/2007	92820	3	3	2	9
68.266	-106.906	26/06/2007	92830	2	2	2	9
68.291	-106.857	26/06/2007	92940	1	1	2	9
68.305	-106.854	26/06/2007	93012	10	10	2	10
68.311	-106.874	26/06/2007	93034	120	120	2	10
68.327	-106.863	26/06/2007	93544	1	1	2	10
68.341	-106.844	26/06/2007	93626	4	4	2	12
68.344	-106.844	26/06/2007	93632	51	51	2	12
68.344	-106.844	26/06/2007	93632	4	4	2	12
68.334	-106.799	26/06/2007	93802	2	2	2	12
68.376	-106.774	26/06/2007	94148	1		2	13
68.418	-106.772	26/06/2007	94330	11	11	2	13
68.407	-106.763	26/06/2007	94402	2	2	2	13
68.376	-106.695	26/06/2007	94544	1	1	2	13
68.351	-106.665	26/06/2007	94728	7	7	2	14
68.352	-106.655	26/06/2007	94738	8	8	2	14
68.356	-106.652	26/06/2007	94746	10	10	2	14
68.371	-106.625	26/06/2007	94830	5	5	2	14
68.371	-106.624	26/06/2007	94832	2	1	2	14
68.351	-106.637	26/06/2007	94940	6	6	2	14
68.350	-106.635	26/06/2007	94944	1	1	2	14
68.339	-106.619	26/06/2007	95014	1	1	2	14
68.337	-106.618	26/06/2007	95018	2	2	2	14
68.315	-106.586	26/06/2007	95120	2	2	2	14
68.286	-106.527	26/06/2007	95340	60	60	2	14
68.297	-106.495	26/06/2007	95426	20	20	2	15
68.300	-106.494	26/06/2007	95432	1	1	2	15
68.345	-106.476	26/06/2007	95848	130	130	2	15
68.474	-106.579	26/06/2007	100820	3	3	2	16
68.476	-106.566	26/06/2007	100834	1	1	2	16
68.448	-106.530	26/06/2007	101024	140	140	2	16
68.406	-106.405	26/06/2007	133216	140	140	2	16
68.523	-106.488	26/06/2007	101830	1	1	2	18
68.526	-106.547	26/06/2007	101920	14	14	2	18
68.534	-106.465	26/06/2007	102100	10	10	2	18
68.535	-106.423	26/06/2007	102138	5	5	2	18
68.399	-106.355	26/06/2007	133134	25	25	2	19
68.403	-106.373	26/06/2007	133150	8	8	2	19
68.397	-106.365	26/06/2007	133320	20	20	2	19
68.441	-106.056	26/06/2007	111344	270	270	2	20

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68.447	-106.263	26/06/2007	132414	110	110	2	20
68.443	-106.331	26/06/2007	132514	110	110	2	20
68.451	-106.397	26/06/2007	132616	6	6	2	20
68.488	-106.046	26/06/2007	131716	1	1	2	21
68.540	-105.975	26/06/2007	131306	2	2	2	22
68.570	-106.253	26/06/2007	102454	1	1	2	23
68.571	-106.250	26/06/2007	102458	10	10	2	23
68.570	-106.116	26/06/2007	102708	3	3	2	24
68.568	-106.053	26/06/2007	102810	16	16	2	24
68.562	-106.030	26/06/2007	102834	16	16	2	24
68.636	-105.874	26/06/2007	103658	1	1	2	25
68.631	-105.789	26/06/2007	103840	7	7	2	26
68.631	-105.789	26/06/2007	103840	5	5	2	26
68.622	-105.806	26/06/2007	103954	4	4	2	26
68.614	-105.794	26/06/2007	104014	4	4	2	26
68.610	-105.785	26/06/2007	104026	6	5	2	26
68.609	-105.779	26/06/2007	104032	4	4	2	26
68.609	-105.777	26/06/2007	104034	1	1	2	26
68.603	-105.746	26/06/2007	104048	8	8	2	26
68.607	-105.731	26/06/2007	104104	1	1	2	26
68.635	-105.676	26/06/2007	104224	1	1	2	26
68.635	-105.676	26/06/2007	104224	10	10	2	26
68.640	-105.625	26/06/2007	104308	2	2	2	26
68.650	-105.601	26/06/2007	104328	8	8	2	26
68.645	-105.593	26/06/2007	104336	3	3	2	26
68.539	-105.731	26/06/2007	105040	2	2	2	28
68.521	-105.728	26/06/2007	105142	5	5	2	28
68.517	-105.722	26/06/2007	105154	2	2	2	28
68.500	-105.679	26/06/2007	105534	4	4	2	28
68.505	-105.747	26/06/2007	105750	1		2	28
68.462	-105.708	26/06/2007	110004	3	3	2	29
68.442	-105.700	26/06/2007	110048	4	4	2	29
68.432	-105.718	26/06/2007	110120	3	3	2	29
68.417	-105.737	26/06/2007	110202	10	10	2	29
68.454	-105.779	26/06/2007	110418	1	1	2	29
68.420	-105.816	26/06/2007	110656	15	15	2	30
68.402	-105.964	26/06/2007	111012	1	1	2	30
68.420	-106.034	26/06/2007	111154	10	10	2	31
68.425	-106.033	26/06/2007	111206	1	1	2	31
68.537	-105.692	26/06/2007	105346	5	5	2	32
68.534	-105.672	26/06/2007	105410	5	5	2	32
68.384	-106.092	26/06/2007	111610	2	2	2	33
68.344	-106.434	26/06/2007	134710	30	30	2	35
68.319	-106.455	26/06/2007	134910	15	15	2	35
68.314	-106.449	26/06/2007	134934	2	2	2	35
68.302	-106.450	26/06/2007	135022	1		2	35
68.256	-106.594	26/06/2007	140208	2	2	2	37
68.251	-106.761	25/06/2007	145924	1	2	2	38
68.232	-106.777	25/06/2007	150036	75	75	2	38
68.205	-106.807	25/06/2007	150308	3	3	2	38
68.187	-106.791	25/06/2007	151500	3	3	2	38
68.165	-106.825	25/06/2007	151600	2	2	2	38
68.114	-106.839	25/06/2007	151942	1	1	2	39
68.138	-107.174	25/06/2007	153000	150	150	2	42

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68.146	-107.211	25/06/2007	153040	1	1	2	42
68.146	-107.213	25/06/2007	153042	15	15	2	42
68.131	-107.168	25/06/2007	153310	100	100	2	42
68.122	-107.725	25/06/2007	104654	1	1	1	21
68.123	-107.734	25/06/2007	104726	3	3	1	21
68.040	-107.686	25/06/2007	154728	8	8	1	21
68.113	-107.781	25/06/2007	182214	3	3	1	21
68.123	-107.790	25/06/2007	182358	260	200	1	21
68.101	-107.775	25/06/2007	182458	80	80	1	21
68.088	-107.730	25/06/2007	182644	1	1	1	21
68.043	-107.715	25/06/2007	183234	4	4	1	21
68.040	-107.686	25/06/2007	183300	9	9	1	21
67.981	-107.747	25/06/2007	155212	2	2	1	22
67.976	-107.749	25/06/2007	155234	14	14	1	22
67.980	-107.753	25/06/2007	155248	9	9	1	22
67.972	-107.744	25/06/2007	155328	1	1	1	22
67.977	-107.752	25/06/2007	183644	7	7	1	22
68.020	-107.875	25/06/2007	181630	2	2	1	23
67.957	-107.775	25/06/2007	173202	3	3	1	24
67.972	-107.797	25/06/2007	181332	1	1	1	24
67.915	-107.682	25/06/2007	172426	5	5	1	25
67.963	-107.645	25/06/2007	172634	1	2	1	25
67.962	-107.667	25/06/2007	172652	1	1	1	25
67.769	-108.015	25/06/2007	171356	6	6	1	27
67.792	-108.003	25/06/2007	171500	6	6	1	27
67.657	-107.837	25/06/2007	170432	6	6	1	28
67.671	-107.888	25/06/2007	170544	3	3	1	28
67.622	-107.777	25/06/2007	170254	3	3	1	29
67.833	-108.051	25/06/2007	174456	6	6	1	30
67.835	-108.096	25/06/2007	174638	1	1	1	30
67.845	-108.085	25/06/2007	174702	1	1	1	30
67.863	-108.266	25/06/2007	180246	1	1	1	31
67.876	-108.146	25/06/2007	180636	1		1	31
67.875	-108.143	25/06/2007	180640	1	1	1	31
67.874	-108.133	25/06/2007	180648	2	2	1	31
67.874	-108.115	25/06/2007	180704	1		1	31
67.926	-108.040	25/06/2007	175120	3	3	1	32
67.943	-108.032	25/06/2007	175220	1	1	1	32
67.978	-108.120	25/06/2007	175632	1	1	1	32
67.834	-108.698	27/06/2007	101322	1		1	33
67.790	-108.743	27/06/2007	101550	3	2	1	33
67.787	-108.746	27/06/2007	101556	1		1	33
67.785	-108.751	27/06/2007	101604	1		1	33
67.783	-108.756	27/06/2007	101610	3	3	1	33
67.780	-108.764	27/06/2007	101620	1	1	1	33
67.778	-108.768	27/06/2007	101626	1		1	33
67.767	-108.787	27/06/2007	101656	1		1	33
67.757	-108.800	27/06/2007	101724	2		1	33
67.747	-108.808	27/06/2007	101750	3	3	1	33
67.891	-108.444	27/06/2007	95940	1	1	1	34
67.893	-108.564	27/06/2007	100122	3	2	1	34
67.888	-108.571	27/06/2007	100134	3	3	1	34
67.884	-108.580	27/06/2007	100146	1	1	1	34
67.879	-108.593	27/06/2007	100202	3	3	1	34

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67.878	-108.595	27/06/2007	100204	1		1	34
67.874	-108.602	27/06/2007	100216	1	1	1	34
67.874	-108.604	27/06/2007	100218	1	1	1	34
67.872	-108.610	27/06/2007	100224	1		1	34
67.871	-108.617	27/06/2007	100230	2	2	1	34
67.869	-108.628	27/06/2007	100240	1	1	1	34
67.733	-109.041	27/06/2007	103834	1	1	3	11
67.737	-109.162	27/06/2007	110508	25	25	3	11
67.633	-108.957	27/06/2007	103146	1	1	3	12
67.637	-108.962	27/06/2007	103154	1	2	3	12
67.814	-109.359	27/06/2007	105342	1	1	3	14
67.806	-109.285	27/06/2007	105500	1		3	14
67.757	-109.077	27/06/2007	104038	20	20	3	15
67.818	-109.238	27/06/2007	105200	11	6	3	16
67.799	-109.214	27/06/2007	105624	1	1	3	16
67.784	-109.063	27/06/2007	104146	10	10	3	17
67.782	-109.026	27/06/2007	104230	26	26	3	17
67.774	-109.023	27/06/2007	104310	10	10	3	17
67.691	-108.847	27/06/2007	102014	1		3	18
67.689	-108.854	27/06/2007	102022	1	1	3	18
67.722	-109.009	27/06/2007	103604	1	1	3	18
67.755	-109.629	27/06/2007	164156	2	2	3	19
67.712	-109.573	27/06/2007	163002	1	1	3	20
67.717	-109.508	27/06/2007	163106	1	1	3	20
67.695	-109.565	27/06/2007	163430	26	26	3	20
67.746	-109.380	27/06/2007	162234	1		3	21
67.745	-109.390	27/06/2007	162242	12	12	3	21
67.745	-109.395	27/06/2007	162246	1	1	3	21
67.750	-109.381	27/06/2007	162326	1		3	21
68.002	-110.010	28/06/2007	105308	5	5	3	22
68.016	-110.031	28/06/2007	105338	1	1	3	22
67.883	-109.971	28/06/2007	104844	1	1	3	23
67.909	-109.962	28/06/2007	104950	1	1	3	23
67.915	-109.958	28/06/2007	105002	1	1	3	23
67.832	-109.658	27/06/2007	164938	5	4	3	25
67.840	-109.658	27/06/2007	164954	1		3	25
67.842	-109.658	27/06/2007	164958	1		3	25
67.843	-109.659	27/06/2007	165000	3	3	3	25
67.866	-109.656	27/06/2007	165156	5	1	3	25
67.895	-109.676	27/06/2007	165604	4	4	3	25
67.895	-109.676	27/06/2007	165604	1	1	3	25
67.909	-109.702	27/06/2007	165730	1	1	3	25
68.038	-110.637	28/06/2007	123938	1	1	3	26
68.012	-110.748	28/06/2007	124140	2		3	26
68.026	-110.632	28/06/2007	135014	1	1	3	26
68.029	-110.600	28/06/2007	135040		1	3	26
68.031	-110.515	28/06/2007	135200	1	1	3	26
68.031	-110.515	28/06/2007	135200	1		3	26
68.015	-110.366	28/06/2007	135416	1	1	3	27
68.014	-110.350	28/06/2007	135430	1	1	3	27
68.044	-110.233	28/06/2007	135710	1		3	28
68.159	-109.864	28/06/2007	122454	1	2	3	29
68.144	-109.893	28/06/2007	122540	1	2	3	29
68.115	-109.984	28/06/2007	122728	3	2	3	29

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68.119	-109.839	28/06/2007	140550	1	1	3	29
68.227	-109.665	28/06/2007	121844	4	4	3	30
68.194	-109.639	28/06/2007	141144	2	2	3	30
68.280	-109.416	28/06/2007	121154	2	2	3	31
68.304	-109.422	28/06/2007	121314	1	1	3	31
68.293	-109.437	28/06/2007	121348	1	1	3	31
68.287	-109.445	28/06/2007	121406	2	2	3	31
68.226	-109.516	28/06/2007	141658	2	2	3	31
68.233	-109.512	28/06/2007	141712	1		3	31
68.241	-109.506	28/06/2007	141728	1		3	31
68.246	-109.500	28/06/2007	141738	1		3	31
68.273	-109.432	28/06/2007	141856	2	2	3	31
67.882	-110.657	28/06/2007	131304	7	7	3	32
67.965	-110.228	28/06/2007	110138	6		3	33
67.937	-110.461	28/06/2007	131804	4	4	3	33
67.935	-110.407	28/06/2007	131918	1		3	33
67.939	-110.411	28/06/2007	131934	5	5	3	33
67.957	-110.343	28/06/2007	132136	2		3	33
67.944	-110.300	28/06/2007	132310	5	5	3	33
67.831	-111.116	28/06/2007	125422	2	1	3	35
67.782	-111.144	28/06/2007	125844	1	1	3	36
67.777	-111.140	28/06/2007	130128	2		3	36
67.788	-111.104	28/06/2007	130204	3	3	3	36
67.790	-110.897	28/06/2007	130712	1	1	3	37
67.851	-111.056	28/06/2007	134018	2	2	3	38
67.851	-111.056	28/06/2007	134018	1	1	3	38
67.927	-110.877	28/06/2007	124550	2	1	3	39
67.925	-110.884	28/06/2007	124558	1	1	3	39
67.918	-110.896	28/06/2007	124620	4	4	3	39

Appendix B3. Time and location of Pacific Common Eider observations during surveys in the Bathurst Inlet area of Nunavut in 2008. Locations are given in decimal degrees using datum NAD27.

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.183	-108.415	26/06/2008	102836	1	1	1	1
68.196	-108.420	26/06/2008	102910	3	3	1	1
68.281	-108.364	26/06/2008	103240	8	8	1	2
68.282	-108.426	26/06/2008	103458	3	3	1	2
68.308	-108.415	26/06/2008	103606	1	1	1	2
68.307	-108.429	26/06/2008	103614	5	5	1	2
68.304	-108.463	26/06/2008	103652	12	12	1	2
68.304	-108.463	26/06/2008	103652	2		1	2
68.297	-108.473	26/06/2008	103712	1		1	2
68.270	-108.535	26/06/2008	103844	3	3	1	2
68.253	-108.564	26/06/2008	110204	1		1	3
68.262	-108.604	26/06/2008	110300	1	1	1	3
68.250	-108.654	26/06/2008	110400	12	12	1	3
68.232	-108.699	26/06/2008	110506	1		1	3
68.276	-108.808	26/06/2008	110756	1	2	1	3
68.286	-108.809	26/06/2008	110820	3	3	1	3
68.293	-108.818	26/06/2008	110840	3	3	1	3
68.081	-108.935	26/06/2008	164712	1	1	1	4
68.079	-108.936	26/06/2008	164716	4	1	1	4
68.081	-108.952	26/06/2008	164734	2	1	1	4
68.094	-108.955	26/06/2008	164806	2	2	1	4
68.099	-108.951	26/06/2008	164818	31	31	1	4
68.104	-108.950	26/06/2008	164828	10	10	1	4
68.110	-108.949	26/06/2008	164842	4	4	1	4
68.127	-108.932	26/06/2008	164926	1	1	1	5
68.132	-108.917	26/06/2008	165050	8	8	1	5
68.147	-108.991	26/06/2008	165210	1	1	1	5
68.154	-108.974	26/06/2008	165234	6		1	5
68.194	-108.764	26/06/2008	170048	2	2	1	6
68.199	-108.755	26/06/2008	170102	2		1	6
68.202	-108.751	26/06/2008	170110	11	11	1	6
68.201	-108.652	26/06/2008	104430	4	4	1	7
68.219	-108.704	26/06/2008	104536	1		1	7
68.183	-108.680	26/06/2008	104752	7	7	1	7
68.145	-108.677	26/06/2008	105052	2		1	7
68.144	-108.635	26/06/2008	105442	1	1	1	7
68.151	-108.640	26/06/2008	105500	1	1	1	7
68.152	-108.638	26/06/2008	105504	1	1	1	7
68.140	-108.612	26/06/2008	105602	2		1	7
68.221	-108.564	26/06/2008	104142	1	1	1	8
68.202	-108.619	26/06/2008	105850	2	2	1	8
68.212	-108.637	26/06/2008	105920	4	4	1	8
68.219	-108.627	26/06/2008	110008	2	1	1	8
68.223	-108.617	26/06/2008	110020	6	6	1	8
68.238	-108.601	26/06/2008	110100	5	3	1	8
68.180	-109.337	26/06/2008	114408	1	1	1	9
68.175	-109.337	26/06/2008	114420	1	1	1	9
68.170	-109.326	26/06/2008	114438	7	5	1	9
68.160	-109.286	26/06/2008	114520	4	2	1	9
68.161	-109.238	26/06/2008	114626	5	5	1	9
68.156	-109.218	26/06/2008	114648	6	6	1	10

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.156	-109.214	26/06/2008	114652	3	5	1	10
68.155	-109.204	26/06/2008	114702	26	26	1	10
68.174	-109.166	26/06/2008	114812	1		1	10
68.137	-109.187	26/06/2008	115350	4	3	1	10
68.336	-109.012	26/06/2008	111722	4	4	1	12
68.333	-109.000	26/06/2008	111748	2		1	12
68.378	-108.907	26/06/2008	111244	1	1	1	13
68.375	-108.935	26/06/2008	111314	1		1	13
68.375	-108.939	26/06/2008	111318	1		1	13
68.036	-108.544	25/06/2008	145340	4	4	1	15
68.110	-108.442	25/06/2008	150038	2		1	15
68.117	-108.419	25/06/2008	150106	2	2	1	15
68.098	-108.369	25/06/2008	150822	1	1	1	15
68.101	-108.279	25/06/2008	151018	1		1	16
68.069	-108.316	25/06/2008	151144	3	1	1	16
68.068	-108.317	25/06/2008	151146	3	1	1	16
68.178	-108.304	26/06/2008	102000	1	1	1	17
68.224	-108.314	26/06/2008	102156	6	5	1	17
68.228	-108.318	26/06/2008	102208	4	4	1	17
68.140	-108.277	25/06/2008	151834	1		1	18
68.146	-108.245	25/06/2008	151918	1	1	1	18
68.157	-108.217	25/06/2008	152002	5	5	1	18
68.160	-108.213	25/06/2008	152010	1	1	1	18
68.163	-108.198	25/06/2008	152030	2	2	1	18
68.164	-108.193	25/06/2008	152036	3	3	1	18
68.168	-108.181	25/06/2008	152054	9	9	1	18
68.176	-108.132	25/06/2008	152156	1	1	1	18
68.179	-108.117	25/06/2008	152220	2	2	1	18
68.130	-108.386	26/06/2008	101200	4	3	1	18
68.170	-108.096	25/06/2008	152254	4	4	1	19
68.171	-108.089	25/06/2008	152302	1	1	1	19
68.172	-108.080	25/06/2008	152312	2		1	19
68.171	-107.987	25/06/2008	152452	9	9	1	19
68.163	-107.987	25/06/2008	152526	1	1	1	19
68.165	-108.013	25/06/2008	152550	2		1	19
68.117	-108.061	25/06/2008	152932	3	3	1	19
68.119	-108.033	25/06/2008	153004	1	1	1	19
68.122	-108.007	25/06/2008	153032	7	7	1	19
68.127	-107.984	25/06/2008	153100	1	1	1	19
68.153	-107.869	25/06/2008	112500	30	30	1	20
68.151	-107.873	25/06/2008	112506	54	54	1	20
68.149	-107.878	25/06/2008	112514	9	9	1	20
68.142	-107.923	25/06/2008	112608	65	65	1	20
68.137	-107.913	25/06/2008	112626	1	1	1	20
68.173	-107.829	25/06/2008	153516	7	7	1	20
68.179	-107.701	25/06/2008	153722	4	4	1	20
68.178	-107.687	25/06/2008	153734	1	1	1	20
68.178	-107.680	25/06/2008	153740	1		1	20
68.177	-107.676	25/06/2008	153744	1	1	1	20
68.176	-107.667	25/06/2008	153752	1	1	1	20
68.173	-107.652	25/06/2008	153806	1		1	20
68.166	-107.570	25/06/2008	153920	1	1	1	20
68.039	-107.679	25/06/2008	110016	1	1	1	21
68.137	-107.803	25/06/2008	111452	2	2	1	21

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.100	-107.768	25/06/2008	111902	55	55	1	21
68.108	-107.764	25/06/2008	111936	40	40	1	21
68.110	-107.766	25/06/2008	111944	1		1	21
68.112	-107.767	25/06/2008	111950	3	3	1	21
68.116	-107.765	25/06/2008	112006	5	5	1	21
68.119	-107.759	25/06/2008	112020	4	4	1	21
68.123	-107.759	25/06/2008	112034	2	2	1	21
68.126	-107.757	25/06/2008	112044	30	20	1	21
68.130	-107.750	25/06/2008	112100	11	11	1	21
68.133	-107.751	25/06/2008	112110	1	1	1	21
68.132	-107.762	25/06/2008	112118	1	1	1	21
68.130	-107.772	25/06/2008	112130	12	12	1	21
68.122	-107.793	25/06/2008	112204	20	20	1	21
68.120	-107.796	25/06/2008	112212	13	13	1	21
68.130	-107.801	25/06/2008	112248	4	1	1	21
68.137	-107.803	25/06/2008	112310	1	1	1	21
68.149	-107.817	25/06/2008	112350	2	2	1	21
68.156	-107.834	25/06/2008	112420	2	1	1	21
68.086	-107.785	25/06/2008	113012	1	1	1	21
68.076	-107.680	25/06/2008	113220	2	2	1	21
67.975	-107.741	25/06/2008	110512	40	40	1	22
67.969	-107.741	25/06/2008	110528	4	4	1	22
67.978	-107.751	25/06/2008	114156	10	10	1	22
67.884	-107.889	25/06/2008	115538	2	2	1	26
67.884	-107.889	25/06/2008	115538	1		1	26
67.962	-107.854	25/06/2008	120216	3	3	1	26
67.963	-107.979	25/06/2008	121228	4	4	1	26
67.879	-107.881	25/06/2008	140822	1	1	1	26
67.934	-107.995	25/06/2008	141212	1	1	1	26
67.656	-107.837	25/06/2008	134854	7	7	1	28
67.844	-108.078	25/06/2008	121020	1	1	1	30
67.822	-108.155	25/06/2008	121150	2	2	1	30
67.841	-108.038	25/06/2008	121540	9	9	1	30
67.878	-108.245	25/06/2008	122922	1	1	1	31
67.875	-108.226	25/06/2008	123136	1		1	31
67.891	-108.193	25/06/2008	123306	1		1	31
67.883	-108.176	25/06/2008	123440	1	1	1	31
67.879	-108.149	25/06/2008	123552	1		1	31
67.876	-108.128	25/06/2008	123616	2	1	1	31
67.876	-108.118	25/06/2008	123626	1	1	1	31
67.967	-108.032	25/06/2008	122310	2	1	1	32
67.938	-108.210	25/06/2008	122638	1	1	1	32
67.802	-108.735	27/06/2008	95938	3	3	1	33
67.888	-108.433	25/06/2008	142126	1	1	1	34
67.902	-108.506	25/06/2008	142252	2	2	1	34
67.904	-108.543	25/06/2008	142330	2	2	1	34
67.902	-108.557	25/06/2008	142346	4	4	1	34
67.897	-108.565	25/06/2008	142400	2	2	1	34
67.895	-108.566	25/06/2008	142404	2	2	1	34
67.864	-108.638	25/06/2008	142556	7	7	1	34
67.858	-108.671	25/06/2008	142638	10	10	1	34
67.917	-108.507	25/06/2008	143156	1	1	1	34
68.220	-107.261	24/06/2008	102928	1	1	2	1
68.213	-107.261	24/06/2008	102954	12	12	2	1

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.224	-107.243	24/06/2008	103030	2	2	2	1
68.228	-107.229	24/06/2008	103050	1	1	2	1
68.234	-107.215	24/06/2008	103112	1	1	2	1
68.169	-107.549	27/06/2008	180938	7	7	2	1
68.150	-107.500	27/06/2008	181044	6	6	2	1
68.162	-107.444	27/06/2008	181200	1	1	2	1
68.183	-107.421	27/06/2008	181324	14	14	2	1
68.183	-107.419	27/06/2008	181330	60	60	2	1
68.183	-107.418	27/06/2008	181332	4	4	2	1
68.187	-107.428	27/06/2008	181402	1	1	2	1
68.185	-107.440	27/06/2008	181420	27	27	2	1
68.183	-107.434	27/06/2008	181434	1	1	2	1
68.185	-107.412	27/06/2008	181500	3	3	2	1
68.187	-107.408	27/06/2008	181506	5	5	2	1
68.197	-107.359	27/06/2008	181814	1		2	1
68.212	-107.260	27/06/2008	182000	2		2	1
68.216	-107.258	27/06/2008	182016	80	40	2	1
68.216	-107.265	27/06/2008	182024	2	2	2	1
68.205	-107.505	27/06/2008	182610	2	2	2	1
68.205	-107.499	27/06/2008	182616	1	1	2	1
68.165	-107.564	25/06/2008	153926	2		2	2
68.171	-107.559	25/06/2008	153948	1	1	2	2
68.173	-107.561	25/06/2008	153954	3	3	2	2
68.201	-107.630	25/06/2008	154146	1		2	2
68.199	-107.644	25/06/2008	154202	2	2	2	2
68.205	-107.702	25/06/2008	154310	2	2	2	2
68.224	-107.697	25/06/2008	154440	1	1	2	2
68.203	-107.577	27/06/2008	180736	2		2	2
68.200	-107.576	27/06/2008	180744	2	2	2	2
68.244	-107.805	25/06/2008	154714	46	46	2	3
68.250	-107.800	25/06/2008	154736	1	1	2	3
68.256	-107.847	25/06/2008	154840	1	1	2	3
68.271	-107.861	25/06/2008	155002	1	1	2	3
68.276	-107.888	25/06/2008	155032	1	1	2	3
68.283	-107.844	25/06/2008	155140	1	1	2	3
68.296	-107.845	25/06/2008	155246	1		2	3
68.328	-107.831	25/06/2008	155432	1	1	2	3
68.335	-107.805	25/06/2008	155522	1	1	2	3
68.334	-107.798	25/06/2008	155530	1	1	2	3
68.337	-107.795	25/06/2008	155552	1	1	2	3
68.340	-107.805	25/06/2008	155604	2	2	2	3
68.311	-107.791	26/06/2008	172116	2	1	2	3
68.330	-107.413	24/06/2008	101532	4	4	2	4
68.326	-107.405	24/06/2008	101624	3	3	2	4
68.330	-107.379	24/06/2008	101706	1	1	2	4
68.324	-107.360	24/06/2008	101740	2	2	2	4
68.316	-107.360	24/06/2008	101804	20	20	2	4
68.328	-107.347	24/06/2008	101904	1	1	2	4
68.328	-107.347	24/06/2008	101944	1		2	4
68.310	-107.274	24/06/2008	102156	1		2	4
68.285	-107.270	24/06/2008	102428	1		2	4
68.284	-107.288	24/06/2008	102448	7	7	2	4
68.283	-107.297	24/06/2008	102458	1	1	2	4
68.281	-107.316	24/06/2008	102518	18	18	2	4

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
68.261	-107.226	24/06/2008	102744	1	1	2	4
68.257	-107.231	24/06/2008	102756	4	4	2	4
68.251	-107.240	24/06/2008	102812	1	1	2	4
68.248	-107.242	24/06/2008	102820	1	1	2	4
68.276	-107.142	24/06/2008	103446	1	1	2	4
68.269	-107.116	24/06/2008	103520	15	15	2	4
68.270	-107.107	24/06/2008	103636	3		2	4
68.322	-107.489	24/06/2008	101148	15	15	2	5
68.320	-107.490	24/06/2008	101154	8	8	2	5
68.296	-107.649	26/06/2008	172402	1	1	2	5
68.284	-107.579	26/06/2008	172512	1		2	5
68.279	-107.496	26/06/2008	172638	2	1	2	5
68.286	-107.492	26/06/2008	172654	1		2	5
68.305	-107.501	26/06/2008	172822	5	5	2	5
68.310	-107.496	26/06/2008	172834	4	4	2	5
68.303	-107.545	26/06/2008	173154	1		2	5
68.314	-107.546	26/06/2008	173338	1	1	2	5
68.312	-107.606	26/06/2008	173446	7	7	2	5
68.316	-107.594	26/06/2008	173510	1		2	5
68.322	-107.538	26/06/2008	173630	6	6	2	5
68.322	-107.538	26/06/2008	173630	1		2	5
68.352	-107.621	24/06/2008	100500	1	1	2	6
68.348	-107.520	24/06/2008	100946	26	26	2	6
68.337	-107.456	24/06/2008	101308	13	13	2	6
68.341	-107.455	24/06/2008	101320	4	4	2	6
68.327	-107.453	24/06/2008	101420	3	3	2	6
68.347	-107.789	25/06/2008	155638	4	2	2	6
68.347	-107.787	25/06/2008	155640	2	2	2	6
68.333	-107.709	25/06/2008	155806	3	3	2	6
68.335	-107.697	25/06/2008	155820	11	11	2	6
68.332	-107.672	25/06/2008	155900	3	3	2	6
68.330	-107.680	25/06/2008	155922	25	25	2	6
68.333	-107.674	25/06/2008	155940	9	9	2	6
68.333	-107.673	25/06/2008	155942	4	4	2	6
68.340	-107.674	25/06/2008	160006	20	20	2	6
68.342	-107.674	25/06/2008	160012	12	12	2	6
68.344	-107.676	25/06/2008	160024	8	8	2	6
68.345	-107.677	25/06/2008	160026	2	2	2	6
68.333	-107.636	26/06/2008	173820	2	2	2	6
68.323	-107.648	26/06/2008	173850	7	7	2	6
68.323	-107.648	26/06/2008	173850	2		2	6
68.347	-107.669	26/06/2008	174002	2	3	2	6
68.350	-107.722	27/06/2008	91802	3	1	2	7
68.370	-107.797	27/06/2008	91934	1	1	2	7
68.378	-107.800	27/06/2008	92104	4	4	2	7
68.388	-107.756	27/06/2008	92332	1	1	2	7
68.391	-107.777	27/06/2008	92356	6	6	2	7
68.396	-107.773	27/06/2008	92418	3	3	2	7
68.397	-107.769	27/06/2008	92424	4	4	2	7
68.387	-107.728	27/06/2008	92520	1	1	2	7
68.382	-107.698	27/06/2008	92614	7	7	2	7
68.394	-107.719	27/06/2008	92648	1	1	2	7
68.401	-107.738	27/06/2008	92718	35	35	2	7
68.406	-107.730	27/06/2008	92750	24	24	2	7

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68.410	-107.726	27/06/2008	92820	245	150	2	7
68.413	-107.726	27/06/2008	92832	20	20	2	7
68.414	-107.725	27/06/2008	92838	1	1	2	7
68.414	-107.701	27/06/2008	92914	3	1	2	7
68.408	-107.687	27/06/2008	92938	1		2	7
68.401	-107.668	27/06/2008	93006	1	1	2	7
68.392	-107.662	27/06/2008	93034	2	2	2	7
68.384	-107.666	27/06/2008	93054	2	1	2	7
68.376	-107.667	27/06/2008	93116	2	2	2	7
68.369	-107.654	27/06/2008	93136	1	1	2	7
68.361	-107.653	27/06/2008	93156	4		2	7
68.289	-107.117	24/06/2008	103624	3	3	2	8
68.279	-107.122	24/06/2008	103708	4	4	2	8
68.280	-107.122	24/06/2008	103710	4	4	2	8
68.283	-107.119	24/06/2008	103720	3	3	2	8
68.291	-107.113	24/06/2008	103744	1		2	8
68.281	-107.057	24/06/2008	103902	9	9	2	8
68.298	-107.089	24/06/2008	104018	1		2	8
68.299	-107.103	24/06/2008	104030	1	1	2	8
68.310	-107.111	24/06/2008	104104	12	12	2	8
68.369	-107.004	24/06/2008	104646	6	6	2	8
68.280	-106.932	24/06/2008	105224	1	1	2	9
68.269	-106.926	24/06/2008	105252	12	12	2	9
68.252	-106.976	24/06/2008	105354	2	2	2	9
68.252	-107.018	24/06/2008	105428	4	4	2	9
68.252	-107.025	24/06/2008	105434	2	2	2	9
68.253	-107.032	24/06/2008	105440	4	4	2	9
68.245	-107.005	24/06/2008	105746	1	1	2	9
68.240	-106.993	24/06/2008	105806	4	4	2	9
68.240	-106.986	24/06/2008	105922	1	1	2	9
68.241	-106.975	24/06/2008	105936	1	1	2	9
68.237	-106.939	24/06/2008	110016	6	6	2	9
68.233	-106.894	24/06/2008	110106	4	4	2	9
68.254	-106.965	24/06/2008	110240	1	1	2	9
68.294	-106.859	24/06/2008	110614	1		2	9
68.298	-106.855	24/06/2008	110626	1	1	2	9
68.309	-106.862	24/06/2008	110654	6	6	2	12
68.309	-106.867	24/06/2008	110748	200	200	2	12
68.342	-106.795	24/06/2008	111522	4	1	2	12
68.354	-106.806	24/06/2008	111602	6	6	2	12
68.358	-106.740	24/06/2008	111652	18	18	2	12
68.349	-106.786	24/06/2008	111752	1	1	2	12
68.374	-106.825	24/06/2008	111910	1		2	12
68.416	-106.781	24/06/2008	112218	3	2	2	13
68.408	-106.760	24/06/2008	112254	1	1	2	13
68.390	-106.757	24/06/2008	112342	1	1	2	13
68.384	-106.754	24/06/2008	112358	1	1	2	13
68.384	-106.649	24/06/2008	112520	1		2	13
68.352	-106.669	24/06/2008	120838	1		2	14
68.352	-106.664	24/06/2008	120844	3		2	14
68.352	-106.662	24/06/2008	120846	4	4	2	14
68.356	-106.649	24/06/2008	120936	19	19	2	14
68.356	-106.653	24/06/2008	120942	15	15	2	14
68.371	-106.624	24/06/2008	121056	5	5	2	14

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68.370	-106.622	24/06/2008	121100	2	2	2	14
68.367	-106.626	24/06/2008	121112	1	1	2	14
68.364	-106.629	24/06/2008	121122	1	1	2	14
68.348	-106.627	24/06/2008	121206	3	3	2	14
68.344	-106.619	24/06/2008	121218	1	1	2	14
68.342	-106.617	24/06/2008	121224	5	5	2	14
68.338	-106.616	24/06/2008	121234	1	1	2	14
68.334	-106.616	24/06/2008	121246	3	3	2	14
68.331	-106.612	24/06/2008	121344	1	1	2	14
68.331	-106.604	24/06/2008	121406	12	12	2	14
68.330	-106.600	24/06/2008	121414	1	1	2	14
68.329	-106.597	24/06/2008	121420	1	1	2	14
68.320	-106.600	24/06/2008	121446	2	2	2	14
68.318	-106.603	24/06/2008	121452	1	1	2	14
68.315	-106.610	24/06/2008	121502	2	2	2	14
68.311	-106.572	24/06/2008	121624	2	2	2	14
68.294	-106.562	24/06/2008	121704	2	2	2	14
68.289	-106.537	24/06/2008	121902	29	29	2	14
68.354	-106.488	24/06/2008	122540	45	45	2	15
68.437	-106.563	24/06/2008	123108	3	3	2	16
68.473	-106.529	24/06/2008	123440	80	80	2	16
68.451	-106.541	24/06/2008	123632	100	100	2	16
68.471	-106.449	24/06/2008	125018	1	1	2	17
68.530	-106.534	24/06/2008	125920	17	17	2	18
68.535	-106.469	24/06/2008	130028	10	10	2	18
68.537	-106.391	24/06/2008	130150	17	17	2	18
68.403	-106.381	24/06/2008	153856	55	55	2	19
68.402	-106.387	24/06/2008	153904	130	130	2	19
68.399	-106.388	24/06/2008	153916	24	24	2	19
68.397	-106.383	24/06/2008	153926	36	36	2	19
68.404	-106.384	24/06/2008	153958	16	16	2	19
68.395	-106.375	24/06/2008	154050	2	2	2	19
68.441	-106.361	24/06/2008	124050	65	65	2	20
68.441	-106.328	24/06/2008	124136	70	70	2	20
68.443	-106.316	24/06/2008	124156	7	7	2	20
68.444	-106.306	24/06/2008	124208	3	3	2	20
68.440	-106.253	24/06/2008	124314	3	3	2	20
68.440	-106.251	24/06/2008	124318	100	100	2	20
68.439	-106.227	24/06/2008	124346	2	2	2	20
68.451	-106.373	24/06/2008	124858	2	2	2	20
68.464	-106.438	24/06/2008	125000	2	2	2	20
68.446	-106.051	24/06/2008	132152	5	5	2	20
68.542	-105.956	24/06/2008	131630	8	6	2	22
68.542	-105.988	24/06/2008	131702	3	3	2	22
68.540	-105.993	24/06/2008	131708	1	1	2	22
68.546	-106.323	24/06/2008	130308	1	1	2	23
68.551	-106.304	24/06/2008	130332	3	3	2	23
68.549	-106.275	24/06/2008	130406	5	5	2	23
68.556	-106.290	24/06/2008	130426	1		2	23
68.575	-106.235	24/06/2008	130600	6	6	2	23
68.570	-106.117	24/06/2008	130810	5	5	2	24
68.567	-106.043	24/06/2008	131226	30	30	2	24
68.575	-106.054	24/06/2008	133158	1	1	2	24
68.576	-106.056	24/06/2008	133202	5	4	2	24

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68.619	-106.035	24/06/2008	133408	2	2	2	25
68.634	-105.927	24/06/2008	133608	1		2	25
68.639	-105.905	24/06/2008	133634	6	4	2	25
68.639	-105.903	24/06/2008	133636	3	3	2	25
68.640	-105.885	24/06/2008	133654	1		2	25
68.633	-105.853	24/06/2008	133732	2	2	2	25
68.630	-105.848	24/06/2008	133740	2	2	2	25
68.629	-105.847	24/06/2008	133742	2	2	2	25
68.623	-105.834	24/06/2008	133802	4	2	2	25
68.629	-105.823	24/06/2008	133824	6	6	2	26
68.630	-105.806	24/06/2008	133858	4	4	2	26
68.624	-105.810	24/06/2008	133918	1	1	2	26
68.613	-105.786	24/06/2008	133958	1	1	2	26
68.611	-105.785	24/06/2008	134004	1	1	2	26
68.608	-105.788	24/06/2008	134014	12	12	2	26
68.595	-105.814	24/06/2008	134110	24	24	2	26
68.598	-105.802	24/06/2008	134132	1	1	2	26
68.609	-105.787	24/06/2008	134208	6	6	2	26
68.610	-105.780	24/06/2008	134216	2	2	2	26
68.605	-105.745	24/06/2008	134256	12	12	2	26
68.610	-105.756	24/06/2008	134334	2	2	2	26
68.618	-105.750	24/06/2008	134414	1	1	2	26
68.614	-105.713	24/06/2008	134502	10	10	2	26
68.636	-105.682	24/06/2008	134650	3	3	2	26
68.631	-105.693	24/06/2008	134710	1	1	2	26
68.637	-105.649	24/06/2008	134812	2	2	2	26
68.617	-105.686	24/06/2008	135012	3	3	2	26
68.600	-105.702	24/06/2008	135356	25	25	2	26
68.593	-105.702	24/06/2008	135414	4	4	2	27
68.538	-105.761	24/06/2008	135736	1	1	2	28
68.541	-105.742	24/06/2008	135758	1	1	2	28
68.529	-105.742	24/06/2008	135844	10	10	2	28
68.523	-105.727	24/06/2008	135904	1	1	2	28
68.522	-105.723	24/06/2008	135910	1	1	2	28
68.518	-105.717	24/06/2008	135922	2		2	28
68.517	-105.687	24/06/2008	140030	15	15	2	28
68.506	-105.677	24/06/2008	140144	1	1	2	28
68.507	-105.774	24/06/2008	140404	29	29	2	28
68.505	-105.777	24/06/2008	140414	14	14	2	28
68.496	-105.747	24/06/2008	140456	1	1	2	28
68.486	-105.737	24/06/2008	140524	3	3	2	28
68.480	-105.726	24/06/2008	140542	13	13	2	28
68.478	-105.711	24/06/2008	140600	1	1	2	28
68.441	-105.708	24/06/2008	140918	4	4	2	29
68.434	-105.762	24/06/2008	141036	20	20	2	29
68.422	-105.757	24/06/2008	141126	4	4	2	29
68.417	-105.735	24/06/2008	141214	5	5	2	29
68.415	-105.741	24/06/2008	141222	11	11	2	29
68.410	-105.767	24/06/2008	141250	30	30	2	29
68.447	-105.893	24/06/2008	151316	1	1	2	30
68.442	-105.870	24/06/2008	151624	39	39	2	30
68.440	-106.050	24/06/2008	152316	374	374	2	31
68.421	-106.038	24/06/2008	152346	2	2	2	31
68.427	-106.040	24/06/2008	152404	1	1	2	31

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68.432	-106.052	24/06/2008	152438	1	1	2	31
68.381	-106.095	24/06/2008	152706	9	9	2	33
68.344	-106.174	24/06/2008	152852	1		2	33
68.392	-106.143	24/06/2008	153346	1	1	2	33
68.347	-106.439	24/06/2008	154724	24	24	2	35
68.323	-106.453	24/06/2008	154902	12	12	2	35
68.235	-106.488	24/06/2008	154908	26	26	2	35
68.308	-106.434	24/06/2008	154948	12	12	2	35
68.301	-106.458	24/06/2008	155328	1	1	2	35
68.189	-106.351	24/06/2008	160136	2	2	2	36
68.259	-106.590	24/06/2008	160830	1		2	37
68.219	-106.609	24/06/2008	161006	1	1	2	37
68.249	-106.767	24/06/2008	161840	12	12	2	38
68.233	-106.772	24/06/2008	161948	45	45	2	38
68.211	-106.816	24/06/2008	162148	2	2	2	38
68.206	-106.810	24/06/2008	162202	2		2	38
68.204	-106.805	24/06/2008	162210	6	6	2	38
68.203	-106.804	24/06/2008	162212	8	8	2	38
68.110	-106.743	24/06/2008	163526	16	16	2	39
68.104	-106.749	24/06/2008	163628	4	4	2	39
68.107	-106.753	24/06/2008	163636	6	6	2	39
68.109	-106.756	24/06/2008	163642	4	4	2	39
68.130	-107.088	24/06/2008	165246	3	3	2	41
68.131	-107.165	24/06/2008	165406	100	100	2	42
68.136	-107.178	24/06/2008	165442	1	1	2	42
68.134	-107.183	24/06/2008	165452	60	60	2	42
68.147	-107.211	24/06/2008	165602	1	1	2	42
68.145	-107.219	24/06/2008	165614	16	16	2	42
68.124	-107.219	24/06/2008	165708	3	3	2	42
68.070	-107.249	24/06/2008	170106	1	1	2	43
67.899	-109.548	26/06/2008	133604	2	2	3	1
67.870	-109.375	26/06/2008	135206	1	1	3	1
68.052	-109.492	26/06/2008	132610	1	1	3	2
68.003	-109.397	26/06/2008	132842	2	2	3	2
67.920	-109.488	26/06/2008	133446	12	12	3	2
67.917	-109.495	26/06/2008	133456	4	4	3	2
67.935	-109.463	26/06/2008	133810	1	1	3	2
67.938	-109.460	26/06/2008	133816	1	1	3	2
67.940	-109.459	26/06/2008	133822	1	1	3	2
67.952	-109.453	26/06/2008	133850	5	2	3	2
67.998	-109.434	26/06/2008	134132	1	1	3	2
68.013	-109.445	26/06/2008	134306	1	1	3	2
68.019	-109.448	26/06/2008	134324	10	10	3	2
68.102	-109.523	26/06/2008	131520	1	1	3	3
68.091	-109.478	26/06/2008	131732	1	1	3	3
68.047	-109.422	26/06/2008	131944	9	9	3	3
68.043	-109.409	26/06/2008	132000	16	15	3	3
68.034	-109.392	26/06/2008	132026	1		3	3
68.033	-109.389	26/06/2008	132030	2	1	3	3
68.076	-109.238	26/06/2008	115630	6	6	3	4
68.087	-109.413	26/06/2008	131104	2	2	3	4
68.103	-109.461	26/06/2008	131236	2	1	3	4
67.986	-109.288	26/06/2008	153554	5	5	3	5
67.989	-109.226	26/06/2008	154154	1	2	3	5

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67.977	-109.170	26/06/2008	154400	10	10	3	5
67.962	-109.161	26/06/2008	154442	9	9	3	5
67.954	-109.153	26/06/2008	154506	1	1	3	5
67.958	-109.040	26/06/2008	162010	5	5	3	5
67.959	-109.065	26/06/2008	162036	9	9	3	5
67.989	-109.176	26/06/2008	162234	4	4	3	5
67.995	-109.191	26/06/2008	162252	1		3	5
68.051	-109.125	26/06/2008	125800	1		3	6
68.051	-109.178	26/06/2008	130212	1	1	3	6
68.029	-109.170	26/06/2008	130532	1	1	3	6
68.032	-109.180	26/06/2008	130544	1	1	3	6
68.046	-109.216	26/06/2008	130628	1		3	6
68.028	-109.041	26/06/2008	163618	1	1	3	6
68.029	-109.042	26/06/2008	163620	4	4	3	6
68.033	-109.058	26/06/2008	163638	1	1	3	6
67.933	-108.882	26/06/2008	161126	2	2	3	7
67.970	-108.877	26/06/2008	161402	1	1	3	7
68.023	-108.788	26/06/2008	164314	5	5	3	8
67.865	-109.122	26/06/2008	140136	29	29	3	9
67.856	-109.096	26/06/2008	140210	1	1	3	9
67.852	-109.072	26/06/2008	140238	1	1	3	9
67.842	-109.088	26/06/2008	140312	1		3	9
67.832	-109.102	26/06/2008	140342	6	6	3	9
67.827	-109.105	26/06/2008	140354	12	12	3	9
67.824	-109.106	26/06/2008	140402	12	7	3	9
67.833	-109.098	26/06/2008	140924	4	1	3	9
67.831	-109.080	26/06/2008	140944	1	1	3	9
67.827	-109.044	26/06/2008	141024	1	1	3	9
67.823	-109.029	26/06/2008	141046	4	3	3	9
67.820	-109.037	26/06/2008	141100	12	12	3	9
67.822	-109.023	26/06/2008	141210	40	40	3	9
67.822	-109.023	26/06/2008	141210	6		3	9
67.825	-109.008	26/06/2008	141246	1		3	9
67.822	-109.001	26/06/2008	141258	1	1	3	9
67.811	-108.971	26/06/2008	141340	20	20	3	9
67.807	-108.957	26/06/2008	141400	2	1	3	9
67.818	-108.919	26/06/2008	141524	2	1	3	9
67.832	-108.983	26/06/2008	141642	1	1	3	9
67.832	-109.003	26/06/2008	141700	3	1	3	9
67.852	-109.045	26/06/2008	141852	8	8	3	9
67.855	-109.046	26/06/2008	141902	24	24	3	9
67.855	-109.046	26/06/2008	141902	4		3	9
67.843	-109.010	26/06/2008	142016	6	1	3	9
67.854	-108.996	26/06/2008	142112	14	14	3	9
67.858	-109.065	26/06/2008	142322	1		3	9
67.885	-109.117	26/06/2008	143030	1	1	3	9
67.883	-109.116	26/06/2008	143034	1	1	3	9
67.880	-109.111	26/06/2008	143044	10	10	3	9
67.892	-109.030	26/06/2008	155204	4	2	3	9
67.878	-108.997	26/06/2008	155256	4	4	3	9
67.895	-108.991	26/06/2008	160630	1	1	3	9
67.950	-109.396	26/06/2008	133206	8	8	3	10
67.951	-109.420	26/06/2008	133300	3	3	3	10
67.952	-109.424	26/06/2008	133304	1	1	3	10

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.944	-109.441	26/06/2008	133332	1	1	3	10
67.943	-109.442	26/06/2008	133334	1	1	3	10
67.937	-109.453	26/06/2008	133352	3	3	3	10
67.923	-109.295	26/06/2008	135610	1		3	10
67.922	-109.292	26/06/2008	135614	1		3	10
67.919	-109.286	26/06/2008	135624	3	3	3	10
67.915	-109.278	26/06/2008	135636	6	3	3	10
67.903	-109.261	26/06/2008	135736	1	1	3	10
67.890	-109.224	26/06/2008	135940	2	2	3	10
67.888	-109.216	26/06/2008	135948	4	4	3	10
67.924	-109.266	26/06/2008	142724	3	3	3	10
67.960	-109.326	26/06/2008	143918	4	4	3	10
67.969	-109.338	26/06/2008	143946	2		3	10
67.950	-109.240	26/06/2008	144456	4	4	3	10
67.965	-109.260	26/06/2008	144728	1	1	3	10
67.941	-109.119	26/06/2008	154854	2	1	3	10
67.940	-109.114	26/06/2008	154900	4	2	3	10
67.935	-109.099	26/06/2008	154920	4	4	3	10
67.926	-109.068	26/06/2008	154958	4	4	3	10
67.922	-109.046	26/06/2008	155024	1	1	3	10
67.916	-109.033	26/06/2008	155046	7	7	3	10
67.916	-109.033	26/06/2008	155046	2		3	10
67.733	-109.053	27/06/2008	102538	6	4	3	11
67.735	-109.055	27/06/2008	102542	23	23	3	11
67.744	-109.165	27/06/2008	110400	25	25	3	11
67.764	-109.304	27/06/2008	110814	2	2	3	13
67.778	-109.177	27/06/2008	105242	1	1	3	15
67.776	-109.156	27/06/2008	105306	1	1	3	15
67.766	-109.171	27/06/2008	105510	1		3	15
67.769	-109.200	27/06/2008	105544	1	1	3	15
67.732	-109.050	27/06/2008	110126	2	2	3	15
67.801	-109.108	27/06/2008	104258	1	1	3	16
67.806	-109.226	27/06/2008	105006	1		3	16
67.792	-109.152	27/06/2008	105138	1		3	16
67.780	-109.015	27/06/2008	102952	13	13	3	17
67.747	-108.967	27/06/2008	103332	2	2	3	17
67.804	-109.035	27/06/2008	103958	1	1	3	17
67.711	-109.568	27/06/2008	124232	4	3	3	20
67.694	-109.556	27/06/2008	124710	9	9	3	20
67.745	-109.371	27/06/2008	123006	16	13	3	21
67.752	-109.470	27/06/2008	123632	1	1	3	21
67.825	-109.658	27/06/2008	130000	1		3	25
67.843	-109.661	27/06/2008	130042	1		3	25
67.845	-109.663	27/06/2008	130048	2	2	3	25
67.844	-109.675	27/06/2008	130100	40	40	3	25
67.883	-109.655	27/06/2008	131104	3	3	3	25
67.898	-109.691	27/06/2008	131156	2	2	3	25
67.901	-109.680	27/06/2008	131210	1	1	3	25
67.874	-109.688	27/06/2008	131708	2		3	25
68.029	-110.536	27/06/2008	161948	1		3	26
68.222	-109.571	27/06/2008	164512	1	1	3	30
67.882	-110.667	27/06/2008	135440	1	1	3	32
67.838	-111.111	27/06/2008	154140	5	3	3	35
67.766	-111.042	27/06/2008	154928	20	20	3	36

<u>Latitude</u>	<u>Longitude</u>	<u>Date</u>	<u>Time</u>	<u>Males</u>	<u>Females</u>	<u>Area</u>	<u>Segment</u>
67.942	-110.805	27/06/2008	161338	1	1	3	38
67.955	-110.784	27/06/2008	161414	1	1	3	38
67.963	-110.781	27/06/2008	153326	1	1	3	39

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Additional information can be obtained from
the Environment Canada Inquiry Centre at:

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